

Web Services Guide

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For the latest technical documentation, see the [Developer Portal](#).

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About this Guide

This guide is intended as a reference guide, to provide information on the available GPS web services and fields in each web service.

Target audience

This guide is aimed at developers who need to integrate their applications to GPS, using our SOAP-based web services. You should know how to implement SOAP-based calls and handle the response.

What's changed?

If you want to find out what's changed since the previous release, see the [Document History](#) section.

How to use this Guide

Before you start:

- Make sure you have read the [Integration Steps](#) section and understand what information and system access you will need to be able to use the web service sandbox and test environments.
- Read the [Use Case Scenarios](#) section, which explains how to implement the most common user scenarios and provides recommendations as to which web services to use.
- Make sure you can connect to the GPS web service, by implementing a simple call, as explained in [Using the API](#).

If you are an experienced user and don't want to read through the Getting Started sections, you can go directly to the [Web Services API](#) section.

Implementing web service calls

- When implementing a web service request, you must at a minimum include the mandatory request fields and handle the fields that are mandatory in the response.
- Where a field requires you to submit a code value or returns a code value, the guide provides links to the relevant appendix for details. If in doubt as to which code to include in your request, you should use the default or recommended value.
- Do not change the default `xmlns` attributes (XML namespaces) in the SOAP request.
- Don't use spaces in xml tags.
- Please pay particular attention to XML tag name spelling and capitalisation. Different web services may sometimes adopt different case and naming conventions. If in doubt, always refer to the GPS-provided SOAP WSDL. See [Using the API](#).

Conventions used in this Guide

When reading the tables in this guide, note the following information is provided for each XML field:

| Element | Description |
|--------------------------|--|
| Tag | The XML tag name. Please pay particular attention to the capitalisation and spelling. Where a tag name is used within text, this is formatted as in the following example: <code><ActionCode></code> |
| Type | The type of field value supported. Options include: N = number AN = alpha-numeric YYYY-MM-DD = date format: Year-Month-Date HHMMSS = time format: Hour-Minute-Second D = decimal B = boolean |
| Minimum / Maximum Length | The allowed minimum and maximum field length. If in doubt, refer to the WSDL or examples provided in the guide. |
| Request / Response | The status of the field in the request and response. Options are: Mandatory = must be included in the request and will be in the response Conditional = this field is mandatory under specified conditions. Refer to the description for details. Optional = can be included. May be in the response. |

| Element | Description |
|---------|--|
| | Omit = you should omit this field. Will not be in the response |

Other Documentation

Refer to the table below for a list of other relevant documents that should be used together with this guide.

| Document | Description |
|---|--|
| EHI Guide | Provides details of the GPS External Host Interface (EHI). |
| Smart Client Guide | Describes how to use the GPS Smart Client to manage your account. |
| XML File Specifications | Describes the fields in the XML file sent to the card manufacturers when implementing a create card request. |
| GPS Card Generation Interface specification | Provides detailed specifications for card manufacturers on GPS card creation. |
| 3D Secure FAQ document | Describes the GPS 3D Secure service. |
| GPS Protect Guide | Describes the GPS fraud protection service. |

Tip: For the latest technical documentation, see the [Developer Portal](#).

Overview

The GPS web service is based on SOAP Version 1.1.

SOAP (Simple Object Access Protocol) is a messaging protocol for exchanging structured information in the implementation of web services. It uses Extensible Markup Language (XML) for its message format and relies on application layer protocols such as HTTP for message negotiation and transmission. SOAP allows developers to invoke processes running on disparate operating systems (such as Windows, macOS, and Linux) to authenticate, authorise and communicate using XML.

The figure below describes how the web services API is used to integrate external systems to GPS.

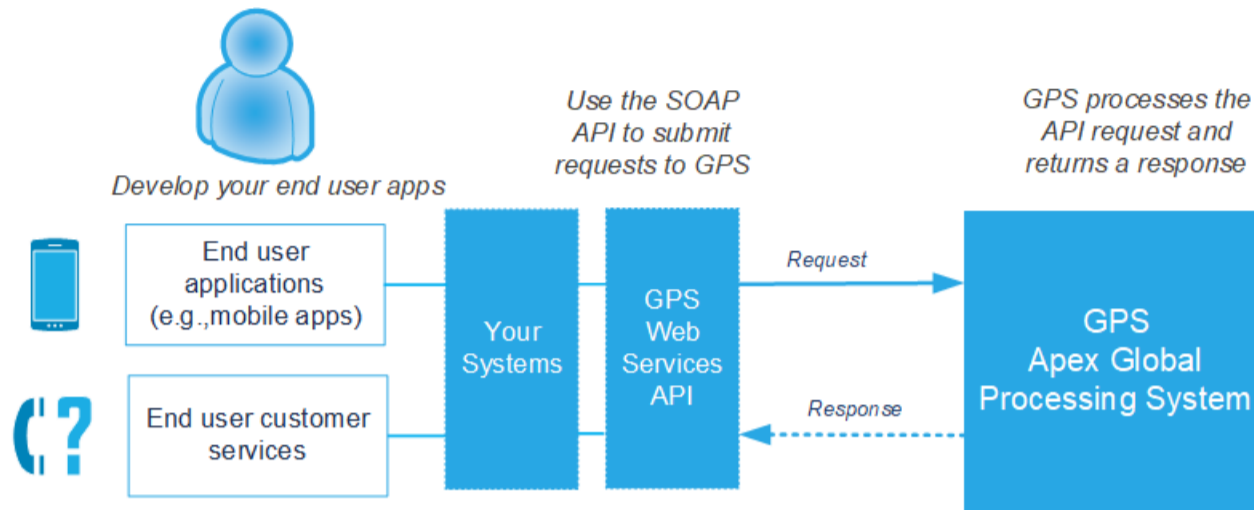
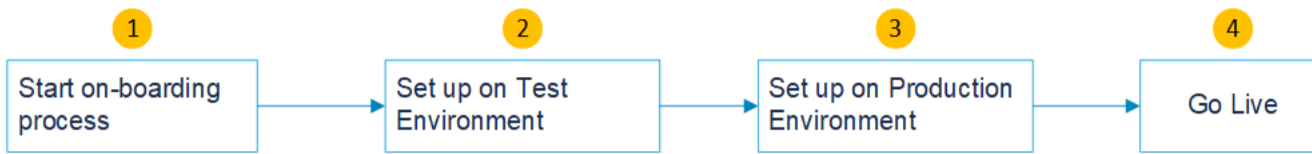


Figure: API Architecture Overview

Integration Steps

To integrate using the web services API, we suggest you complete the following steps in the order outlined below.



Step 1: Start the On-boarding Process

We recommend you start the on-boarding process as soon as possible, as this may take several weeks due to dependencies on external parties, such as the Card Schemes.

For project scoping and scheduling information, please refer to your GPS Implementation Manager and to the following GPS documentation: Project Initiation Document (PID), Project Scoping Document (PSD) and Project Requirements Document (PRD).

On-boarding steps:

1. Make sure you have completed your Product Setup Form (PSF), to enable us to configure your programme-specific GPS setup.
2. Enable us to exchange security keys between GPS and your card manufacturer, so that we can generate the PAN stock in our systems, which is required to create physical cards.
3. When ready to go live with your service, check that your GPS contracts are signed and payments are up to date.

Step 2: Set up on the Test Environment

Access to the GPS generic test product

GPS will provide you with access to a generic GPS test product setup (referred to as dummy UAT or dummy setup), shared by all of our clients, where you can start exploring the web services. The test product setup provides a restricted set of card functionality, which enables you to perform basic actions such as: create and load cards, manage PINs, change card status and change card velocity groups.

Access to your own dedicated setup

GPS configures your dedicated programme on the test environment (ITS-GPS), with unique credentials, based on the details agreed in your Product Setup Form (PSF). At this stage transactions are managed within the test environment and not via the card scheme network.

Test environment setup steps:

1. Ensure you have secure access to all the required GPS systems:
 - Provide GPS with a list of IP addresses allowed to use the web services.
 - Some clients may require VPN access to GPS in order to use the web services.
2. Ensure you have the required user credentials and codes needed to submit web service requests:
 - You need a *username* and *password*, which must be included in the authorisation header of your SOAP request. Your Implementation Manager will provide you with your credentials.
 - You will need an Issuer Code, supplied by GPS. This must be included in the body of your SOAP request.

Test your Integration:

1. Decide which web services you need. This depends on the GPS External Host Interface (EHI) mode you are using. For example:
 - If you are set up for EHI mode 1 and 4 you mainly use the web services related to card creation, card management and card usage groups.
 - If you are set up for EHI modes 2 and 3, you may need to use other web services for loading/unloading cards and updating the balance on the card.
2. Test your EHI integration. For more information, refer to the *EHI Specifications*.
3. Submit test web services transactions to the GPS test system. See [Using the API](#). View the results and fix any errors.

Note: We recommend you start with a simple check of the status of the web service to make sure you can connect, using [Ws_Check](#). See [Check Service Availability](#).

4. When you are satisfied you understand how the web service API works, build your front-end user application with the SOAP API functionality included.

CHIP Profile and White Test Plastics

Create test card tokens and generate white test plastics. These are generic, non-branded cards with test keys on the card. Your Implementation Manager will work with your card manufacturer to produce test cards:

- GPS generates a card file for any test cards that have been created and manually sends to the card manufacturer.
- The card manufacturer produces white test plastics in line with the agreed project plan. Test cards are sent to the relevant parties (e.g. the Program Manager and Visa or Mastercard).
- Testing is undertaken in line with the agreed scope.

Step 3: Set up on Production

Once all production readiness activities are complete, GPS provides you with production credentials and generates a limited number of PAN stock, as approved by your card issuer.

Production testing steps:

Additional end-to-end transaction testing is required at this stage. In particular:

- Create card tokens for automated card production.
- GPS will send a file to the card manufacturer via sFTP. The card manufacturer generates live physical cards and despatches to the relevant parties for testing (GPS, Programme Manager and Card Schemes).
- GPS can provide you with a test script to run tests that cover aspects you should test, such as:
 - Test traffic through the BIN tables.
 - Test the card chip profile is working in line with how it has been configured (for example, if the card is enabled to draw out money at ATMs and charges a fee for ATM withdrawals, check this works as expected).
 - Test to ensure usage groups and velocity limits set up for your products work as expected and return the expected results.
- Make sure you understand any messages returned from the card schemes and card issuers and know how to handle.
- Test the end-to-end customer experience and confirm that the card and account are operating as expected.

Step 4: Go Live

GPS pavement testing approval is required in addition to any Issuer sign-off before we can switch your account to *Active*.

Use Case Scenarios

This section provides examples of common scenarios using the GPS web services.

- [Creating a Card](#)
- [Using Tokens](#)
- [Loading a Card](#)
- [Running Card Enquiries](#)
- [Managing Cards](#)
- [Renewing Expiring Cards](#)
- [Replacing a Lost or Stolen Card](#)
- [Registering a Cardholder for 3D Secure](#)
- [Creating a Card with Agency Banking Features](#)
- [Using MFX Wallets](#)

Creating a Card

GPS provides web services to create a card, which can be either a physical or a virtual card. For a virtual card, GPS may hold the card image or you can manage the image on your side; for a physical card some extra steps are involved in generating an XML file, which is sent to the GPS Card Manufacturer for printing and sending to your customer. See the figure below.

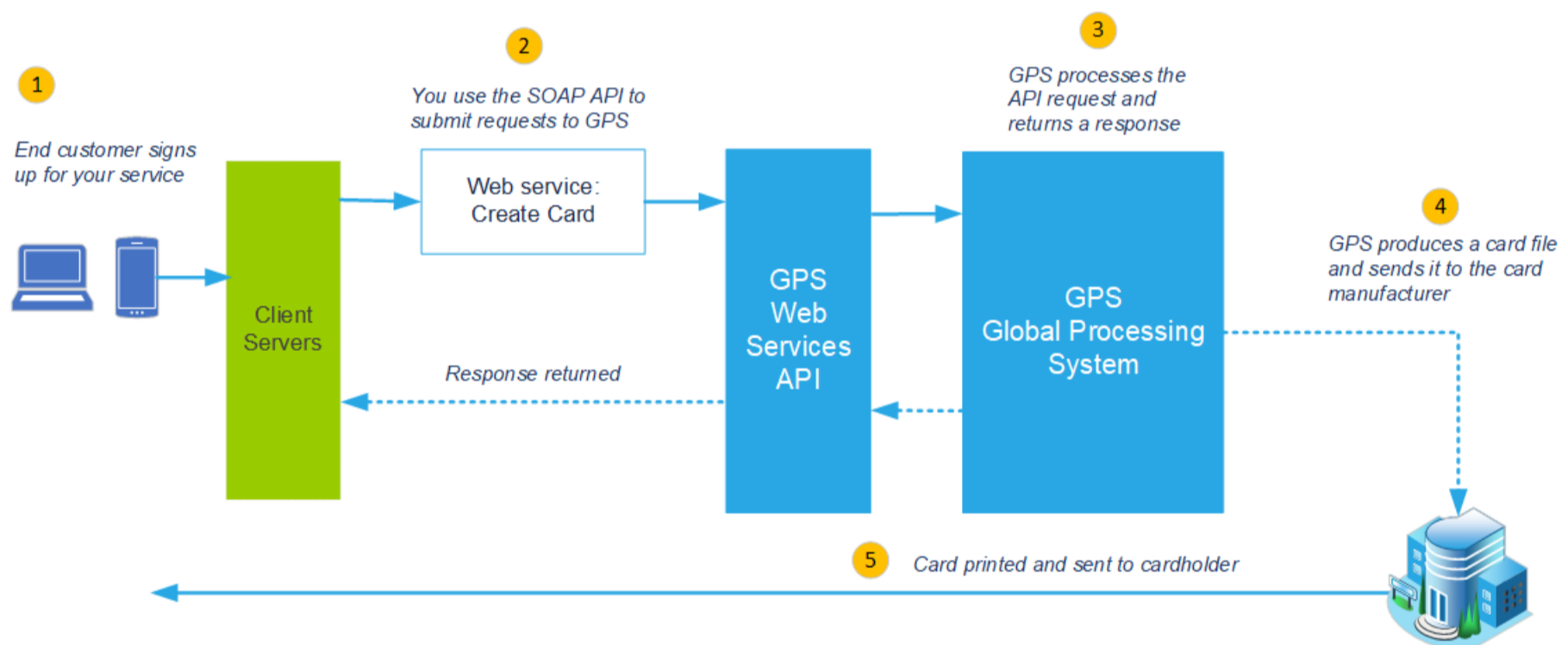


Figure: Using the Card Create web service

Recommended API

The API to use to create a card depends on the requirements of your application. We recommend the following:

- To create a card, use the [Card Create API: ws_CreateCard](#). The card can be issued in a state of active or inactive:
 - If issued as inactive, it must be activated using the [Card Activate API: ws_Activate](#). This scenario is typical for customers who sign up for a physical card via the Internet or their mobile App.
 - If issued as active, the card can be used immediately. This scenario is typical for customers who sign up for a card via a point of sale outlet or for certain types of prepaid cards which you want your customer to be able to immediately use.
- To activate a card and load an initial balance, use the [Card Activate and Load API: ws_Activate_Load](#).
- You can use [Ws_Banking_CreateCustomer](#) to [Register a Customer](#) prior to creating a card or bank account. This is required for some Agency Banking integrations.

What to look out for:

- Card status: check to confirm the card status.
- Change the status to active if required, so that a customer can start using it. You can use the [Card Activate API: Ws_Activate](#). Alternatively, if you provide your customers with a phone activation service, you can use the [Phone Activation API: Ws_Phone_Activation](#).
- If a card is reported as lost or stolen, or you need to temporarily block the card, you can change the status of the card using the [Card Change Status API: Ws_StatusChange](#). If the card is temporarily frozen, for example, it has been reported as lost and is later found, you can reactivate it using the [Card Change Status API: Ws_StatusChange](#).
- If you deactivate a card that has been reported as destroyed or stolen, for security reasons it is not possible to reactivate. You will need to issue a new card.
- Card manufacturer fields: please check with your card manufacturer for details of the fields they are expecting. For details of supported manufacturers, see [Card Manufacturers](#).
- Address fields: make sure you populate any address fields which may be used for AWS checks.

Using Tokens

Tokens enable you to use GPS web services without needing to store or supply the full 16-digit card primary account number (PAN). When creating a card, GPS always returns the `<publicToken>` linked to the physical or virtual card. When making a web service request, instead of supplying the PAN, you can include the card's `<publicToken>`, together with other mandatory information.

GPS generates two types of tokens:

- 9-digit unique random token, linked to the PAN.
- 16-digit, formed from the 3-digit identifier, plus the 9-digit token, plus the last 4 digits of the PAN.

Example:

```
PAN = 6752993874229367
9 digit token = 734602981
16-digit token = 712+734602981+9367 = 7127346029819367
```

GPS web services can receive the 9 digit public token in the request and return it in the response. Some web services may respond with the 16-digit public token. This guide will clarify when this is the case.

Using Tokens on Mobile Devices

You can use the Mastercard Digital Enablement Service (MDES) or Visa Token Service (VTS) to manage the tokens linked to a mobile device that has been bound to a card. This is a separate Mastercard or Visa `<PaymentTokenId>` linked to the digital PAN (DPAN), and should not be confused with the GPS `<PublicToken>` linked to the card.

You can use the following web services to manage your mobile device tokens:

- [Token Device Management: WS_Token_Device_Management](#)
- [Payment Token Get: Ws_Payment_Token_Get](#)
- [Payment Token Status Change: Ws_Payment_Token_StatusChange](#)

Loading a Card

The load card web services enable you to load funds onto a card. Your EHI mode determines whether GPS holds the card balance or you hold the balance on the card. See the example below for a client with EHI mode 2 or 3, where GPS holds the balance.

Card Load: EHI Mode 2 and 3

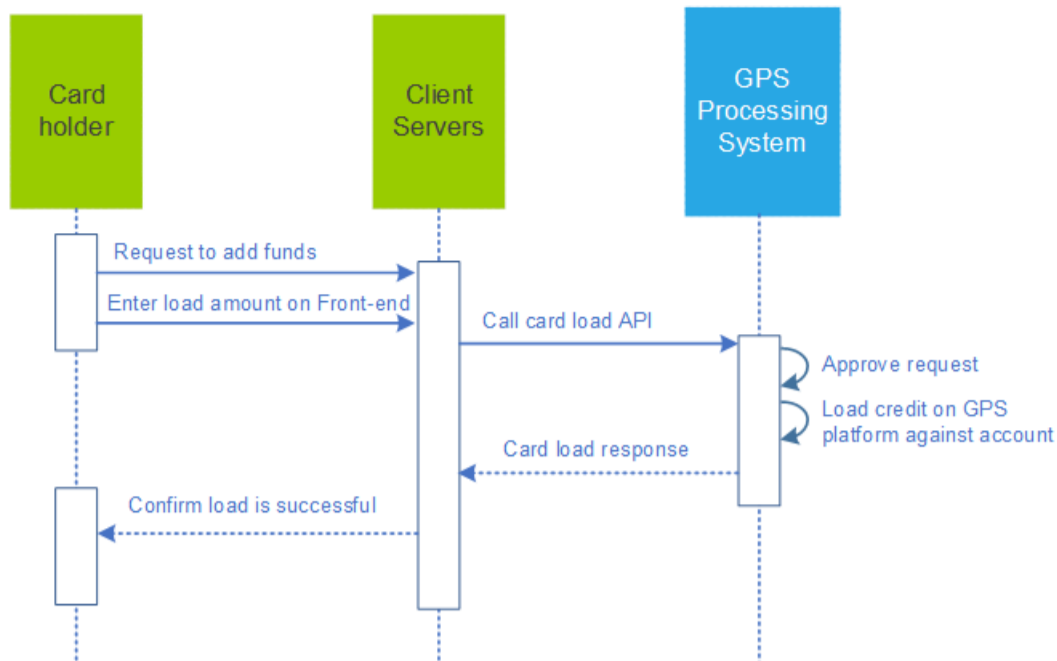


Figure: Using the Card Load web service

When using the API, you can specify the amount to load, the load source, and other load details.

Recommended API

The API to use to load a card depends on the requirements of your application. We recommend the following:

- To load a card without activation, use [Card Load: Ws_Load](#)
- To load and activate a card at the same time, use [Card Activate and Load: Ws_Activate_Load](#)
- To unload a card (debit a specified amount or the full balance), use [Card Unload: Ws_UnLoad](#)
- To unload a card and change the card status to inactive (e.g., customer closing an account), use [Card Unload and Change Status: Ws_UnLoad_StatusChange](#)

What to look out for:

- Check card status: The load will fail if the card is flagged as invalid, lost, stolen, destroyed, expired or restricted.
- The cardholder's load limits: the load will fail if the number of load attempts or load amount exceeds the daily or period limit configured for your product.
- Load source: the load will fail if you use a load source not configured for your product (if no load sources have been set up for your product, you are able to use any load source).

Running Card Enquiries

GPS provides web services to enable you to check the status of the card, the available balance and other card details.

Check card status

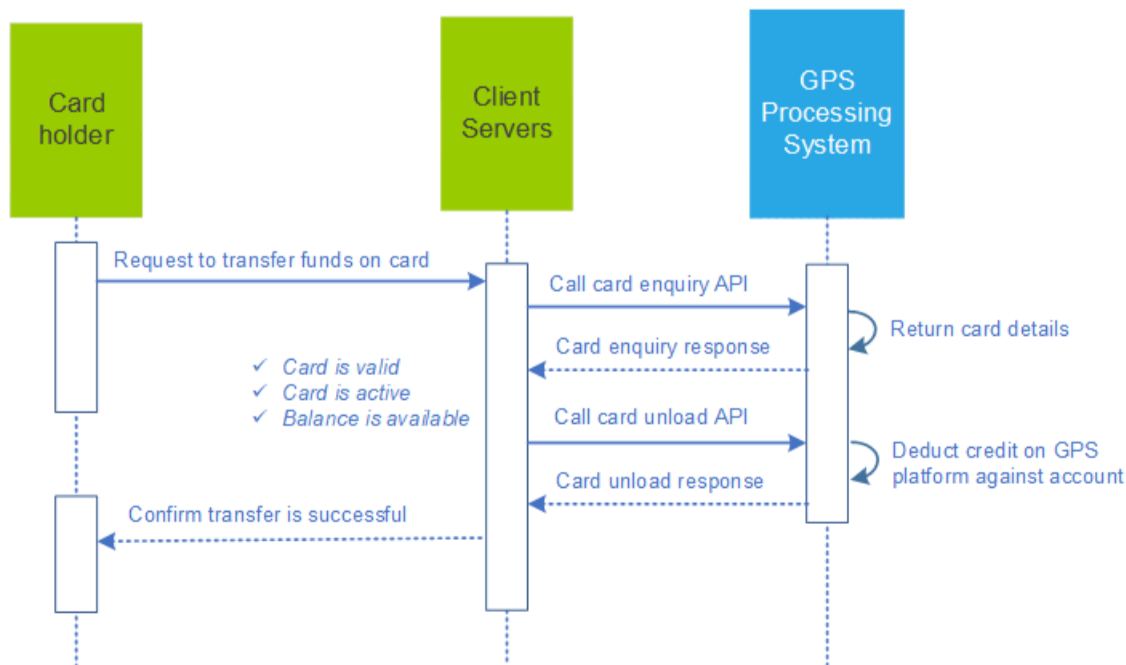


Figure: Using the Card Enquiry web service

Recommended API

The API to use to run a card enquiry depends on your requirements. We recommend the following:

- To confirm the status of a card and the available balance, use [Card Enquiry](#): [Ws_Enquiry](#). This returns both live and archived cards.
- To confirm the status of all live cards linked to a customer, use [Ws_Customer_Enquiry](#) or [Ws_Customer_Enquiry_V2](#). See [Customer Enquiry](#).

Managing Cards

Below are examples of other common web services you can use to manage your cards:

PIN Control

- To set, retrieve, unblock and change the PIN associated with a card, use [Card PIN Control](#): [WS_PinControl](#). You can also use this to unblock the CVC2 of a card or mobile device token.

Change Card Groups

You can link a card to the GPS card groups configured for your programme (e.g. Limit Groups, MCC Group, Fee Group and Usage Group). The group determines how the card can be used and/or the types of charges that can be applied to the card.

- To change the groups linked to a card, use [Card Change Groups \(single\)](#): [Ws_Card_Change_Groups](#)
- To bulk change the groups for multiple cards, use [Card Change Groups \(Bulk\)](#): [Ws_Change_Groups](#)

What to look out for:

- If you change the velocity group for a card, this may prevent the customer using their card (e.g. POS daily limit for the existing group XXX-VL-XX is 500.00, but the new group for this card, XXX-VL-YY, has a POS daily limit of 250.00).
- You must use a group that has already been configured for you in Smart Client (based on the information provided in your Product Setup Form). For any amendments or new groups, please contact your Account Manager.
- This change is at a card level and not a product level.

Manage Card Fees

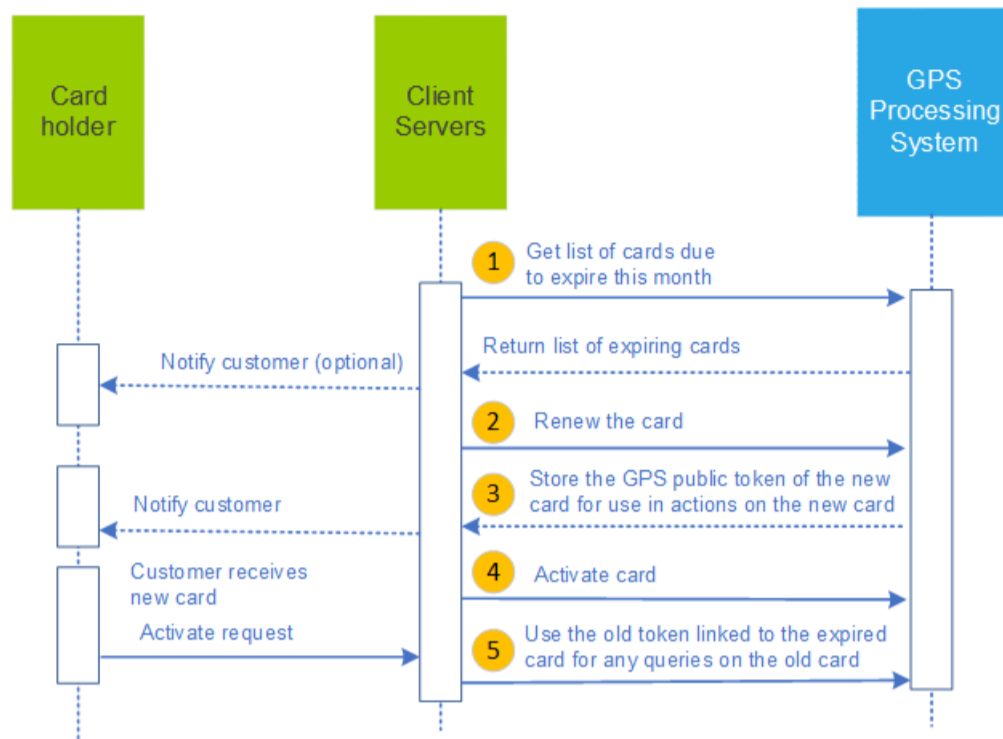
The default fees for a card are linked to the generic GPS product for the card, as set up for your programme. GPS offer web service to enable you to query and apply fees to a specific card.

- To apply fees to a specific card, use the [Card Apply Fees](#) API: [Ws_Generic_Fees](#)
- To list pending fees due on a card, use the [Card List Pending Fees](#) API: [Ws_List_Pending_Fees](#)

Renewing Expiring Cards

We recommend you renew expiring cards as follows:

Renew Expiring Cards



Renewing Expiring Cards

1. Use the [Cards Get Expiring Soon](#) API ([Ws_Get_Card_ExpireSoon](#)) to return a list of cards due to expire in the next month.
2. Renew any expiring soon cards using the [Card Renew](#) API: [Ws_Renew_Card](#).

Tip: You can transfer the card balance immediately to the new card and update any linked wallet/card payment tokens at the same time.

3. GPS returns a new GPS public token (`<PublicToken>`) to use for any further actions or queries on the renewed card.

Note: If renewal options 0, 1 or 8 are requested, then GPS returns the existing GPS public token and does not create a new card record.

4. If you are replacing the card with a physical card, then you need to activate the card. See [Card Activate](#).
5. The old expiring card record will still exist in the system; any queries using the old GPS public token will return details of the status or balance on this record.

Note: When replacing a card, do not use the Create Card web service, with `<Replacement>` set to 1. This is a legacy option.

Note: We recommend you renew any physical cards well in advance of their expiry date, so that the new cards can be sent to cardholders for them to activate and use. Once a card's expiry date has passed, the cardholder will no longer be able to use the old card for payment transactions.

Extending the Expiry Date

In some circumstances you may be able to extend the GPS expiry date of a card, using the [Card Extend Expiry Date API](#): [Ws_ExtendExpiry](#)

Replacing a Lost or Stolen Card

You can use the [Card Renew](#) API to replace a lost or stolen card.

Registering a Cardholder for 3D Secure

3D Secure (3-domain structure), also known as a payer authentication, is a security protocol that helps to prevent fraud in online credit and debit card transactions. This security feature is supported by Visa and Mastercard and is branded as 'Verified by Visa' and 'Mastercard SecureCode' respectively.

GPS use Cardinal Commerce to manage 3D enrolment and authentication. We provide web services to enable you to enrol your cardholders in the 3D Secure scheme, update and delete cardholder details.

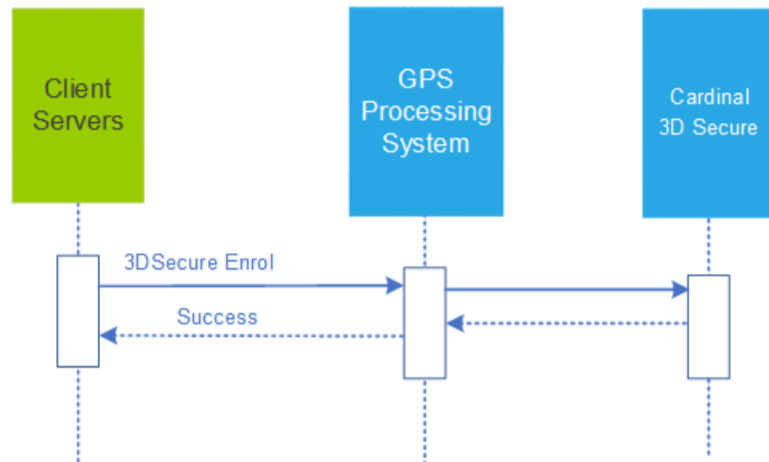


Figure: Using the 3D Secure cardholder enrolment web service

Recommended API

- To enrol a cardholder in 3D Secure, and add, edit or delete their credentials via the Cardinal real-time data exchange (RDX) interface, use [3D Secure RDX Credentials](#) API: `Ws_AddUpDelCredentials`
- For details of additional legacy 3D Secure web services, see [3D Secure Overview](#).

For additional information on 3D Secure support, see our [3D Secure FAQs](#).

Note: The use of 3D Secure can help prevent cardholder fraud. 3D secure authentication checks are only applicable to cardholders and merchants enrolled in this scheme. Payer authentication is managed via a separate Cardinal Commerce REST-based API service; for details refer to the *3DS RDX Biometric Interface Specifications*.

Creating a Card with Agency Banking Features

GPS offer an agency banking solution through Modulr, which enables you to create cards with banking features enabled.¹

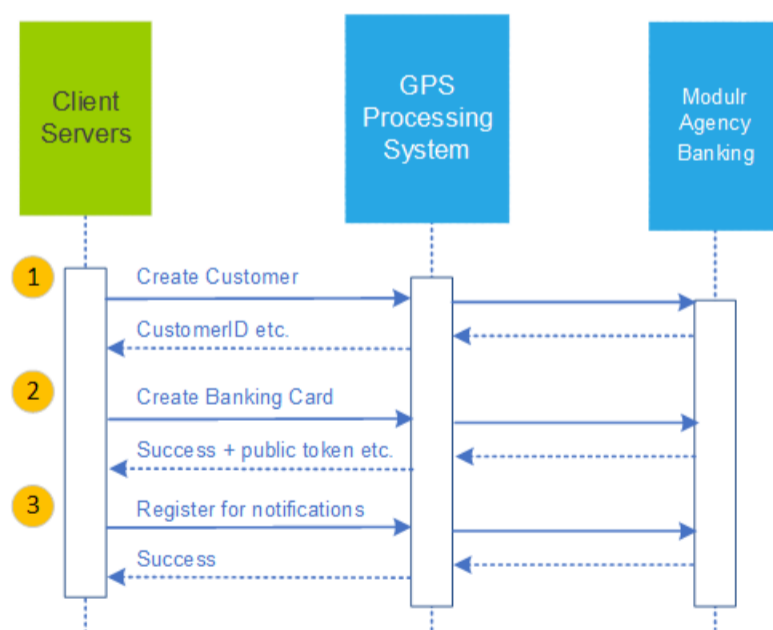


Figure: Using the Modulr Agency Banking Service

Recommended API

For customer registration and account creation, you should follow these steps:

¹Note that this service is region-specific. Please check with your account manager for support in your region.

1. Register a customer for agency banking, using [Ws_Banking_CreateCustomer](#). See [Register a Customer for Banking](#).
2. Create a card with agency banking features, using [Ws_CreateCard_V2](#). See [Create Card with Agency Banking](#).
3. Set up notification channels, to enable receipt of information of payments in and out of the account, using [Ws_Banking_Register-Notification](#). See [Register a Customer for Banking Actions](#).

You can make external payments out of the account using [Ws_Banking_TransferFunds](#). See [Make External Payment](#).

For details of additional legacy Agency Banking web services, see [Banking Services Overview](#).

Using MFX Wallets

GPS offers web services to enable you to create and manage eWallets. The eWallet can support multiple currencies¹ and can be linked to a physical card.

- To create a wallet, use the [Wallet Create](#) API: [Ws_CreateWallet](#)
- To check the balance available on the wallet, use the [Wallet Balance Enquiry](#) API: [Ws_Balance_Enquiry_Wallet](#)
- To regenerate the wallet (e.g. for a lost or stolen card), use the [Regenerate the Wallet](#) API: [ws_RegenerateWallet](#)

¹Currency support is region-specific. Please check with your account manager for support in your region.

Using the API

This section provides tips on how to integrate to GPS using the SOAP web services API.

Using the Web Services

View the WSDL

You can open the following URL in a browser to view the structure of the WSDL:

<https://ws-uat.globalprocessing.net:13682/service.asmx?WSDL>

Tip: We recommend you always refer to the WSDL for the correct XML tag name spelling and capitalisation, as different web services may sometimes adopt different case and naming conventions.

Install a SOAP Application

We recommend that you use an API tool that supports SOAP to test out the GPS web services.

[SOAPUI](#) is an open-source application, which you can download and install on any computer, which enables you to submit test transactions to GPS.

Load the SOAP WSDL

You can load the GPS SOAP test WSDL into your SOAP tool. If you are using SOAPUI, then:

1. Select **File > New SOAP Project**.
2. Enter a project name and then, in the **Initial WSDL** field, paste the following URL:
<https://ws-uat.globalprocessing.net:13682/service.asmx?WSDL>
3. Click **OK**.

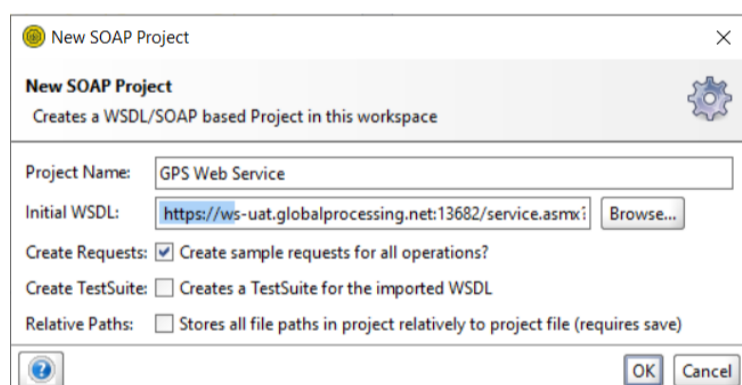


Figure: Starting a new SOAP project and importing the WSDL

Implementing a SOAP Request

Always follow the instructions provided for [Implementing web service calls](#), to ensure that your XML requests are correctly formatted.

You can implement a SOAP call as follows:

1. Select a SOAP service from the left-hand navigation pane. We recommend you start with a check of the status of the web service to make sure you can connect, using [Ws_Check](#). See [Check Service Availability](#).
2. In the centre pane, customise the SOAP details of your transaction. At a minimum, you will need to enter your username, password and Issuer Code ([IssCode](#)). If you don't have these details, check with your GPS Implementation Manager.

Tip: You can copy and paste examples in this guide into the SOAP window, and customise as required.

3. Click **Submit**.

The SOAP response should be displayed in the right-hand pane within SOAPUI. A successful request will return an [ActionCode](#) status of *000* (Normal, approved). See [Action Codes](#).

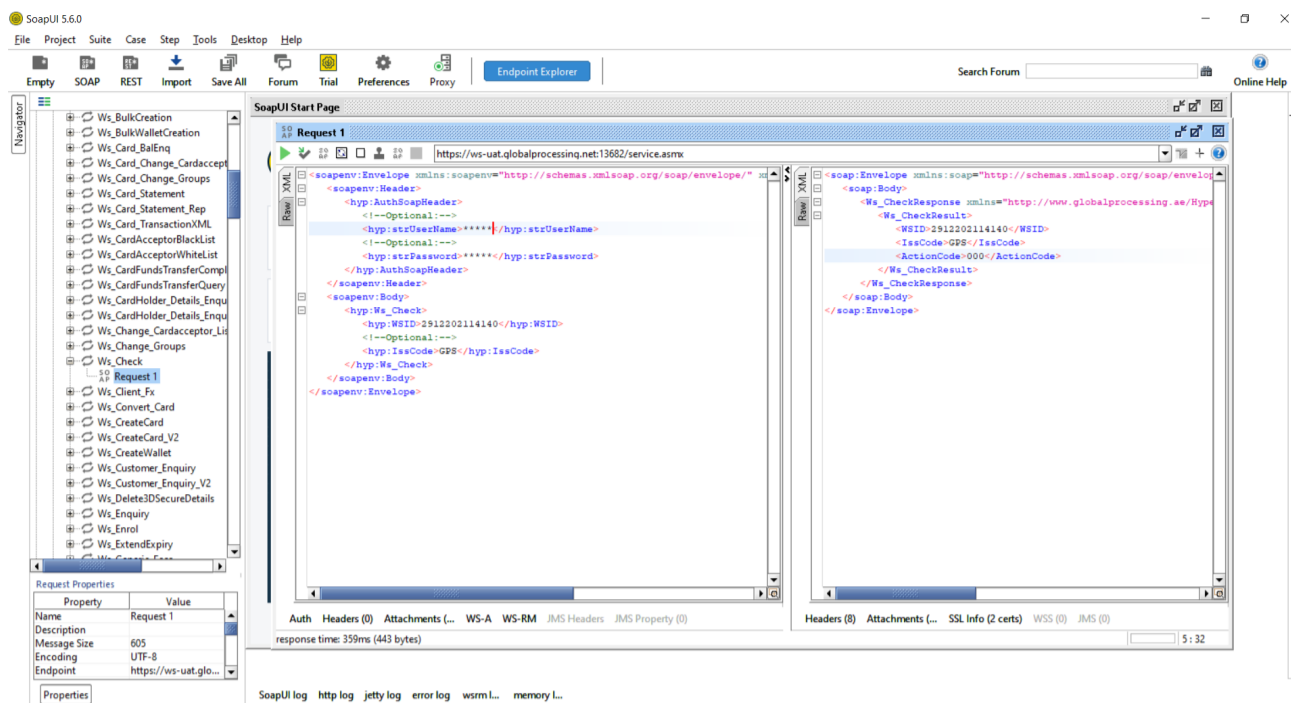


Figure: Example of a SOAP Request in SOAPUI

Fair Usage Policy

GPS has a Fair Usage Policy which restricts the maximum number of *concurrent* web service connections per client (IP address) to 20.

If you send more than 20 concurrent web service requests to GPS an HTTP error message 403, sub-status 501 is returned. This can be mitigated by controlling your outbound web server configuration. For further details, please contact your Implementation Manager or Account Manager.

Additional charges for using some Web Services

Note that in the Production environment additional charges may apply to web services that retrieve the balance on the card from GPS. Please contact your account manager to discuss. You can avoid this charge if you use the EHI data feed to maintain the balance in your own systems. The following web services listed in this guide retrieve the balance on the card: [Ws_Balance_Enquiry](#), [Ws_Card_Statement](#), [Ws_Enquiry](#), [Ws_Card_BalEnq](#), [Ws_Customer_Enquiry](#), [Ws_Customer_Enquiry_V2](#) and [Ws_Balance_Enquiry_V2](#)

Viewing Transactions on Smart Client

You can log in to Smart Client to view the card token and associated activity generated by your web services.

Note: Smart Client must first be installed as a desktop application on your machine. A VPN connection to GPS is required to access Smart Client in production.

For more information on using Smart Client, please refer to the *Smart Client User Guide*.

Introduction to the Web Services API

The table below lists the available web services (ordered alphabetically).

| API | Description |
|---|--|
| Ws_Activate | Sets the status of the card to 'active' to enable Mastercard/Visa network transactions. Used to activate cards issued in an inactive state. |
| Ws_Activate_Load | Enables simultaneous load and activation of a card. This is a common requirement for cards sold from kiosks or from retail stores. For cards ordered over the internet, delayed activation provides added security by ensuring that any card stolen or lost in the post cannot be used. |
| Ws_Activate_MVCLoad | Enables simultaneous load from Master Virtual Card (MVC) and activation of cards. Ws_Activate_MVCLoad effectively combines the functions of Ws_BalanceTransfer and Ws_Activate for clients that are using MVCs (Master Virtual Card). |
| Ws_AddUpDelCredentials | Enables you to collect the cardholders' 3D Secure credentials and insert, update or delete those credentials using the Cardinal Commerce Real-Time Data Exchange (RDX) interface. |
| Ws_Balance_Enquiry (V2) | Returns the current available balance on the card. |
| Ws_Balance_Enquiry Wallet | Returns the current available balance on each of the available currency wallets for a multi-FX card. |
| Ws_BalanceAdjustment | Enables you to apply a debit or credit to a card record. |
| Ws_BalanceTransfer | Used to transfer an amount from one card to another. |
| Ws_BalanceUpdate | Updates the Available and Current (STIP) balance for EHI (External Host Interface) Mode 4 and 5 Cards (Please see EHI specification). |
| Ws_Banking_AccountModulusCheck | Validates that a sort code and account number (UK Bank Accounts provided through programmes using GPS Bottomline Agency Banking) are valid via a modulus check. |
| Ws_Banking_CancelDirectDebitBankingEnabledCard | Marks a direct debit as cancelled where a card has an associated UK Bank Account (provided through programmes using Agency Banking). The GUID (Globally Unique ID) for the direct debit is required and can be obtained by calling |
| Ws_Banking_Card_Statement_V2 | This web service is an enhancement to Ws_Card_Statement and returns all statement details for this card and previous cards if the card has been replaced for various reasons |
| Ws_Banking_ChangeAccountBankingFeaturesStatus | Changes the features of the banking enabled card and allow the user to switch functionality on or off. |
| Ws_Banking_CreateCustomer | Enables you to register customer details without creating associated bank accounts or cards. |
| Ws_Banking_DD_CancelMandate | Cancel a specific mandate for a specific mandateld and token. |
| Ws_Banking_DD_GetMandate | Retrieves all mandates for a given token. |
| Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard | Returns a list of all direct debits for a given token (with or without sub accounts). Note: Only for programmes using Agency Banking. |
| Ws_Banking_GetPendingDirectDebits | Returns a list of all direct debits that are due for payment today for a given token (with or without sub accounts). Note: Only for programmes using Agency Banking. |
| Ws_Banking_RegisterNotification | For some banking integrations, once you have called Ws_CreateCard_V2 to create the bank account and card, you need to make additional calls to allow payments to be processed on and off the card. There are a number of options, but as a minimum, you should switch on PAYIN and PAYOUT to facilitate payments. Note: All notifications work at a customer level, so if a customer has more than one account, the notification will apply to all of the customers accounts |
| Ws_Banking_ReturnBankDetailsFromToken | Returns the sort code and account number (UK Bank Accounts provided through programmes using Agency Banking) from a token. |
| Ws_Banking_StatusQueryBankingEnabledCard | Returns the Agency Banking features (UK Bank Accounts provided through programmes using Agency Banking) that are enabled on a card and the status of the card. |
| Ws_Banking_TransferFunds | Makes an external payment via the Faster Payment banking network where a card has an associated UK Bank Account (provided through programmes using Agency Banking). Note that the money is queued and has not necessarily entered the banking network. |
| Ws_Banking_UpdateBankingEnabledCard | Updates the status of Banking services for a card depending on the current status. |
| Ws_BulkCreation | Creates a bulk number of virtual as well as physical cards in a single request. This web service takes an XML document as the input parameter with the information needed to create virtual or physical cards. It produces an XML document with the list of newly created virtual or physical cards as the response. Card images will be created in the web service directory when creating a virtual card. |

| API | Description |
|--|--|
| Ws_BulkWalletCreation | Creates multiple wallets in a single request. This web service takes an XML document as its input parameter with the information needed to create wallets and produces another XML document with the list of newly created wallets as a response. |
| Ws_Card_BalEnq | Returns the available balance of a card and the sum of any blocked amounts. |
| Ws_Card_Change_Cardacceptor_List | Updates the card acceptor lists such as Allow and Deny lists that a card makes use of. |
| Ws_Card_Change_Groups | Changes one or more of the usage groups for a specific card within any of those configured for your programme (e.g. Limit Groups, MCC Group, Fee Group and Usage Group). |
| Ws_Card_Statement | Returns a list of transactions performed by the cardholder since a specified date, together with the starting balance and current balance. Typically you should specify a date range of within the last 7 days. If the date is omitted, then all transactions are returned. Current actual and available balance is also returned. |
| Ws_CardAcceptorBlacklist | Used to maintain Card Acceptor (MerchantID) Deny lists, which can then be assigned to a card or group of cards. GPS will decline authorization transactions belonging to any merchant IDs on the Deny list. The response code will be '05 - Do not honour'. |
| Ws_CardAcceptorWhiteList | Used to maintain Card Acceptor (MerchantID) Allow lists which can then be assigned to a card or group of cards. Only merchant IDs on the Allow list will be approved by GPS at authorisation stage. |
| Ws_CardHolder_Details_Enquiry | Returns the details of a cardholder. |
| Ws_Change_Cardacceptor_List | Updates the card acceptor lists such as Allow and Deny lists that a group of cards belong to. |
| Ws_Change_Groups | Changes groups such as Group Limits, MCC Group and Usage Group of cards within a product or a customer account. |
| Ws_Check | Checks web service availability. It validates the SOAP credentials and Issuer Code by calling database procedures. |
| Ws_Client_FX | Enables you to send your own foreign exchange (FX) rates to GPS. You can stream in FX rates at your chosen frequency (e.g. hourly, daily). The rates can be used for multi-FX wallet functions or for provisioning of fixed rate FX cards. |
| Ws_Convert_Card | Upgrades a virtual card to a physical card. |
| Ws_CreateCard | Creates both a virtual card and a physical card. |
| Ws_CreateCard_V2 | Creates a card with Agency Banking features enabled. It will also upgrade an existing card to have banking features. Applies only to programmes using Agency Banking. |
| Ws_CreateWallet | Used to create virtual wallets as well as physical card wallets. |
| Ws_Customer_Enquiry | Returns the list of cards associated with a specified customer name. |
| Ws_Delete3DSecureDetails | Deletes 3D secure enrolment details for a card. (Cardinal Batch File Interface; Legacy use only). |
| Ws_Enquiry | Returns the details of a card, such as: Token, Expiry Date, Status, Cardholder name. |
| Ws_ExtendExpiry | Changes the GPS expiry date of cards by the specified value. |
| Ws_Generic_Fees | Applies fees with a comment to a particular card. |
| Ws_Get_Card_ExpireSoon | Returns the details of cards that are going to expire within the month. The response will return all cards due to expire, regardless of the volume. |
| Ws_Get_Passcode | Used to retrieve the Access Code (also known as pass code or activation code) of cards. |
| Ws_Insert3DSecureDetails | Enrols a specified cardholder onto 3D Secure using the Cardinal Batch File Interface 3D Secure service. (Legacy use only) |
| Ws_link_cards | Links cards in a Primary and Secondary relationship, and can be used when the primary card with existing secondary card linkage(s) needs to be replaced with a new token. The secondary cards can be linked to the new token via this web service call. |
| Ws_list_group | Lists the codes and descriptions of all groups of a certain type (e.g. Fee Groups, Limit Groups). |
| Ws_List_Pending_Fees | Lists service lists details of pending fees that relate to a particular card. |
| Ws_List_Products | Lists products your programme has on the GPS systems and their descriptions. |
| Ws_Load | Loads or re-loads a card with a specified amount. |
| Ws_MVCLoad | Loads funds from Master Virtual Cards (MVC) only. This is similar to balance transfer, the only difference is that the source is always an MVC token. |
| Ws_MVCUnload | Enables customers to unload back to Master Virtual Card (MVC) only. |
| Ws_PaymentToken_Create | Used to create a payment token for use with the GPS mobile wallet tokenisation service. You should only use this web service if you connect directly via API to Visa or Mastercard to manage the card tokenisation |

| API | Description |
|---|--|
| | process. |
| Ws_Payment_Token_Get | Gets the details for MDES (Mastercard Digital Enablement Service) Payment Token Cards. |
| Ws_Payment_Token_StatusChange | Changes the status of an MDES (Mastercard Digital Enablement Service) Payment Token Card. |
| Ws_Phone_Activation | Enables activation of a card by phone. It also returns the PIN and the PIN status of that card. |
| WS_PinControl | Enables you to set, retrieve, unblock and change the PIN associated with the card. |
| Ws_Query3DSecureDetails | Used to view the phone number of a particular user's token that has been enrolled for 3D secure and gets the details from GPS 3DS table. (Cardinal Batch File Interface; Legacy use only). |
| Ws_Regenerate | Retrieves the card image configured in the GPS platform for virtual and physical cards that have been converted which can then be displayed to the cardholder. If a customer wants to see the image some time after card creation you can regenerate the image. This web service can also be used to replace Lost or Stolen cards; the customer will be issued with a new PAN, CVV2 and Expiry Date. |
| Ws_RegenerateWallet | Regenerates MFX cards. |
| Ws_Remove_CardHolder_Data | Removes personally identifying cardholder data (cardholder name, address, email and phone number) from the specified card. You can remove data from multiple cards in a single request. |
| Ws_Renew_Card | Enables you to renew or replace cards. Combines the functionality of card replacement and card renewal. The replacement card will automatically have the same balance as the original card at the time when the replacement card is activated. Any linked cards will still point to the correct card. |
| Ws_ResetAccumulator | Allows you to reset transaction and amount counters (since the last authenticated transaction) on a card to re-enable contactless devices and wearables, where a Secure Cardholder Authentication cannot be performed by the terminal (i.e. those that do not offer PIN). |
| Ws_Send_CardFiles | Creates two CSV files and sends the files to the SFTP folder specified in the request. One file contains the 9 digit public token and CVV. The other file contains the 9 digit public token and the middle 6 digits of the PAN. |
| Ws_SendMessage | Used to send a predefined message to the cardholder via SMS or Email. GPS can configure the message using a selection of variables. |
| Ws_Simple Check | Checks web service availability. Can be called over HTTPS GET. |
| Ws_StatusChange | Enables the status of a card record to be changed. For example to: Do not honor, lost, stolen or Card Destroyed. |
| WS_Token_Device_Management | Allows you to retrieve a list of devices bound to a DPAN. Can be used to unbind a device by initiating an Unbind API call to Visa. |
| Ws_Transaction_Void | Enables cancellation of any transaction which has been implemented via a web service, and also allows you to remove uncleared authorizations. |
| Ws_UnLoad | Unloads a card. Note that any outstanding, unsettled authorisations on the card may result in the card going into a negative balance. |
| Ws_UnLoad_StatusChange | Simultaneously unloads the card and changes the card status (e.g. to expired). |
| Ws_Update_Cardholder_Details | Enables cardholder details to be updated. For example: name and address. |
| Ws_Update_Cardholder_Details_V2 | This web service is an enhancement to Ws_Update_Cardholder_Details. It allows further cardholder details to be updated such as EmbossLine4, ProductRef, ThermalLine1 etc. |
| Ws_UpdateLastModifiedType | Used to update the last modified type of 3D secure action for a card. (Cardinal Batch File Interface; Legacy use only). |
| Ws_Update3DSecureDetails | 3D Secure service to amends 3D secure details for a card; this web service can be used to update the phone number used for authentication SMS. (Cardinal Batch File Interface; Legacy use only). |
| Ws_3DS_AddUpDelDetails | Enables you to register details with RSA for online 3D secure payments. (Legacy use only) |
| Ws_WebServiceResult_V2 | Returns the 3 digit Action Code of a previous web service call. The WSID of the previously called web service is passed as the input parameter along with the issuer code and GPS will return the full response corresponding to the given WSID along with the Action Code. |

The next sections in this guide are organised based on common tasks performed using the API, in the order in which we expect most users will use them. Please use the left-hand menu options to find the section and API you are interested in.

Service Status Checks

You can use the following web services to check the status of the GPS service:

[Check Service Availability](#): [Ws_Check](#)

[Check Web Service Availability \(HTTPS\)](#): [Ws_Simple Check](#)

Check Service Availability

API: [Ws_Check](#)

This web service is used to check web service availability. It validates the SOAP credentials and Issuer Code.

Note: GPS has extensive automated monitoring of web services availability and response times. Our current annual service availability is over 99.96%.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . If the web service is available, returns "000". | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Check>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
    </hyp:Ws_Check>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CheckResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CheckResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
      </Ws_CheckResult >
    </ Ws_CheckResponse>
  </soap:Body>
</soap:Envelope>
```

Check Web Service Availability (HTTPS)

API: [Ws_Simple Check](#)

This web service can be called using HTTPS GET. It can be used to monitor web service availability.

If successful, returns "000".

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" GET /Service.asmx/Ws_Simple_Check? HTTP/1.1>
```

Response

```
<?xml version="1.0" encoding="utf-8"?>  
<string xmlns="http://www.globalprocessing.ae/HyperionWeb">string</string>
```

Card Services Overview

You can use the following web services to create and manage your cards:

| | |
|--|---|
| Create Card | Load and Unload Card |
| Card Create: Ws_CreateCard | Card Load: Ws_Load |
| Card Bulk Create: Ws_BulkCreation | Card Unload: Ws_UnLoad |
| | Card Unload and Change Status: Ws_UnLoad_StatusChange |
| Activate Card | Mastercard Virtual Cards |
| Card Activate: Ws_Activate | MVC Card Activation and Load: Ws_Activate_MVCLoad |
| Card Activate and Load: Ws_Activate_Load | MVC Load: Ws_MVCLoad |
| Card Phone Activation: Ws_Phone_Activation | MVC Unload: Ws_MVCUnload |
| Manage Card | Other Card Services |
| Card Change Status: Ws_StatusChange | Card Send Files: Ws_Send_CardFiles |
| Card PIN Control: WS_PinControl | Cardholder Send Message: Ws_SendMessage |
| Card Extend Expiry Date: Ws_ExtendExpiry | Cards Link: Ws_link_cards |
| Card Renew: Ws_Renew_Card | |
| Card Regenerate Image: Ws_Regenerate | |
| Card Get Passcode: Ws_Get_Passcode | |
| Card Convert to Physical: Ws_Convert_Card | |

Card Create

API: [Ws_CreateCard](#)

This web service is used to create both virtual and physical cards.

- *For a virtual card:* the web service generates a JPEG image of the newly created card, with a PAN, Public Token and expiry date embossed on it. This image is returned in the response and encrypted via a pre-shared PGP key. An SMS can optionally be sent to the cardholder's mobile phone number with the CVV of the card.¹
- *For a physical card:* the web service creates an XML file for this card, to be sent to the card manufacturer. For more information on the fields in the XML file, refer to the *GPS Card Generation Interface specification*.

To replace a card, we recommend you use the [Card Renew](#) API ([Ws_Renew_Card](#)), which provides greater functionality and control for renewal and replacement of cards.

Note: You need to be PCI DSS Compliant to receive virtual card images from GPS.

Note: When creating a card, we recommend that you populate the address fields (e.g., `<Addr1>`, `<Addr2>`, `<postcode>`) that are used for Address Verification Service (AVS) checks.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 10. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <Title> | AN | 1 | 4 | Cardholder's title. Also used as the card purchaser's title if no delivery address is supplied. | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Conditional | Omit |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. Also used as the card purchaser's first name if no delivery address is supplied. Mandatory if <code><lastName></code> is present. | Conditional | Omit |
| <Addr1> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional | Omit |
| <Addr2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <Addr3> | AN | 1 | 50 | Cardholder's address line 3. Also used as the card purchaser's address line 3 if no delivery address is supplied. | Optional | Omit |

¹If you are PCI compliant, you can retrieve the full virtual card details, which will include the PAN, Expiry and CVV. SMS is not sent by default.

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <PostCode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no postcode is supplied. Mandatory if <addrL1> is present, and <city> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional | Omit |
| <Mobile> | AN | 25 | 25 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Optional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. The public token of the newly-created card is always returned in the response. If a replacement card is required, specify the 9-digit public token of the original card. | Conditional | Mandatory |
| <CardDesign> | AN | 1 | 8 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. Mandatory if not a replacement card request. Note: this is not the same field as the CrdDesign or ProductRef . | Conditional | Omit |
| <ExternalRef> | AN | 1 | 30 | External reference code for the card. Note: Legacy field. Not used. | Optional | Conditional |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. | Optional | Omit |
| <AccCode> | AN | 1 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. | Optional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Mandatory | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-----------|
| | | | | when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . | | |
| <Reason> | AN | 1 | 60 | Reason for the card's status change. Overrides default of 'Card Activated' that is shown in the card processor. Text is shown in the Smart Client Tracker screen. | Optional | Omit |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional | Omit |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If no load fee is required, specify 0. The load fee does not affect the card balance. It is only reported in the XML. | Mandatory | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <CreateImage> | N | 1 | 1 | Specifies whether to create a card image. 1= yes, 0 = No. Images are returned in the Image response parameter, encrypted by a pre-shared PGP encryption key. | Mandatory | Omit |
| <CreateType> | N | 1 | 1 | This field is mandatory unless it is a replacement card request. There are four possible values: 1 = Create a virtual card. Can be converted to a physical card at a later stage using the Convert Card web service. 2 = Create physical card. Also triggers the creation of a card file which is sent to the manufacturer. 3 = Create a virtual card with intention to convert it into a physical card later. 4 = Create a Master Virtual Card which is a deposit account that can be used to load other cards from. 5 = Create a virtual card and convert to a physical card. Triggers the creation of a card file which is sent to the manufacturer. | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-----------|-----------|
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | Optional | Omit |
| <ActivateNow> | N | 1 | 1 | Whether to activate the card. 1= Yes, 0=No. When <Quantity> is greater than 1 then creation of <Quantity> numbers of identical cards will trigger a batch process that starts within minutes of the request. If <ActivateNow> is 1 in such requests then the issued tokens are sent to the customer already activated. This parameter only applies if the request is for a new card. | Mandatory | Omit |
| <Source_desc> | AN | 1 | 50 | Load source description recorded on the transaction, normally the address of the website or the Point of Sale (POS) terminal. | Optional | Omit |
| <StartDate> | AN | 5 | 5 | Start date printed on the card in the format <i>MM/YY</i> . | Omit | Mandatory |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in <i>MM/YY</i> format. | Optional | Mandatory |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Mandatory |
| <CardName> | AN | 1 | 27 | The embossed name on the card. If present in the request then the embossed name on the card should be the given value. If it is not available and <Firstname> and <Lastname> are available then <Title> + <Firstname> + <Lastname> will be the embossed name. If all the above parameters are unavailable in the request then the default embossed name remains as the embossed name. If a replacement card is requested, the original value of the embossed name will be used if no new names are supplied. If a blank embossed name is required, then pass a single space character. See Card Name Permitted Characters . | Optional | Omit |
| <MaskedPAN> | AN | 16 | 19 | Card number displayed as masked (e.g., 675926*****1234). Note. The full PAN can be returned if you are PCI DSS compliant. Contact your Implementation Manager. | Omit | Mandatory |
| <LimitsGroup> | AN | 1 | 10 | Group code of the Limits Group. If this parameter is not supplied and this is a new card request, then the default group for the card's product will be used. If the default group is not required, you can remove it by passing a space character ' '. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|---|----------|----------|
| | | | | ' . Note: The Limits Group is set up and configured via Smart Client. | | |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. The MCC group allows the card to be linked to a list of Merchant Category Codes (MCCs) that the card is allowed to or conversely is NOT allowed to transact at. Note: The MCC Group is set up and configured via Smart Client. | Optional | Omit |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. If this parameter is not supplied and this is a new card request then the default group for the card's product is used. If the default group is not required, you can remove it passing a space character ' '. Note: The Usage Group is set up and configured via Smart Client. | Optional | Omit |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not required, it can be removed by passing a space character ' '. Note: The Scheduled Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <WSFeeGroup> | AN | 1 | 10 | Code of the Web Service Fee Group (). If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. WSFeeGroup allows the card to be linked to a set of web service fees that are set up on the system. Note: The Web Service Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <FxGroup> | AN | 1 | 10 | Group code of the FX Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. Note: The FX Fee Group is set up and configured via Smart Client. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------|----------------|----------------|---|----------|----------|
| <ProductRef> | AN | 1 | 50 | The physical card design reference as used by the Card Manufacturer. Identifies the <i>PRODUCT_REF</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <CarrierType> | AN | 1 | 30 | The Carrier Product design reference as used by the Card Manufacturer. This is the letter onto which the card is attached when sent to the cardholder. Identifies the Carrier Product type of the Card Manufacturer. | Optional | Omit |
| <Fulfil1> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL1</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <Fulfil2> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL2</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <DelvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | Optional | Omit |
| <ThermalLine1> | AN | 1 | 120 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a customer service phone number. | Optional | Omit |
| <ThermalLine2> | AN | 1 | 70 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a link to your service terms and conditions. | Optional | Omit |
| <Lang> | AN | 1 | 2 | Two digit ISO 639-1 Language code to be used for card mailers (e.g., En = English; Fr = French). Note: The available languages depend on the card manufacturer support. Also used if bespoke SMS templates are set up. | Optional | Omit |
| <EmbossLine4> | AN | 1 | 27 | The card's embossed line 4 on the front of the card. Could be used for example, to add an account number or sort code. | Optional | Omit |
| <ImageId> | AN | 1 | 16 | Reference which identifies the card manufacturer's image file that will be printed on the face of the card. | Optional | Omit |
| <LogoFrontId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the face of the card. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|---|-----------|-----------|
| <LogoBackId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the back of the card, if supported. | Optional | Omit |
| <Replacement> | N | 1 | 1 | Whether the card is a new card or a replacement. The possible values are: 0 = new card; 1 = replacement card. Needs to be agreed with the card manufacturer. Note: Do not use a value '1', which is for legacy usage only; to replace a card, we recommend you use Card Renew: ws_renew_card . | Mandatory | Omit |
| <PrimaryToken> | AN | 9 | 19 | The primary card's public token. If it is blank then the newly created card is a primary card, otherwise it is the secondary card in a primary/secondary relationship. Cannot be the token of a card that is already linked as a secondary card. | Optional | Omit |
| <Delv_AddrL1> | AN | 1 | 50 | Card purchaser's /delivery address line 1. Mandatory if 'Delivery Address' fields are specified. | Optional | Omit |
| <Delv_AddrL2> | AN | 1 | 50 | Card purchaser's/delivery address line 2. | Optional | Omit |
| <Delv_AddrL3> | AN | 1 | 50 | Card purchaser's /delivery address line 3. | Optional | Omit |
| <Delv_City> | AN | 1 | 20 | Card purchaser's /delivery address delivery city. Mandatory if <Delv_AddrL1> is present, and <Delv_PostCode> is not present. | Optional | Omit |
| <Delv_PostCode> | AN | 1 | 10 | Card purchaser's /delivery address post-code. Mandatory if <Delv_AddrL1> is present, and <Delv_City> is not present. See Postcode Permitted Characters . | Optional | Omit |
| <Delv_County> | AN | 1 | 20 | Card purchaser's /delivery address county. | Optional | Omit |
| <Delv_Country> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). Mandatory if <Delv_AddrL1> is present. | Optional | Omit |
| <Delv_Code> | AN | 1 | 12 | The delivery code for the card. If specified, the card manufacturer sends all cards with the same delivery code to the specified delivery address. | Optional | Omit |
| <Sms_Required> | AN | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Optional | Omit |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <CardManufacturer> | AN | 1 | 10 | The manufacturer to send the card generation request to. For example: <i>TCT, AllPay, GNC, Gemalto, Nitecrest</i> and <i>Exceet</i> . For a full list, see Card Manufacturers . If omitted, the default for the | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|---------------|----------------|----------------|--|----------|-------------|
| | | | | Card Scheme will be used. | | |
| <CoBrand> | AN | 1 | 6 | The Co-Brand code for the card. If supplied it will replace the <i>PROGRAMID</i> field in the <i>Balance XML</i> file. | Optional | Omit |
| <ExternalAuth> | AN | 1 | 1 | External Authorisation flag. Possible values are: 0 = Do not set External Authorisation on; 1 = Set External Authorisation. Empty value defaults to 0. Note: For legacy use only. Not applicable if using EHI. | Optional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Image> | Base64 Binary | | | PGP-encrypted image of the card. Requires configuration within Smart Client. Check with your Implementation Manager. | Omit | Conditional |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Card Linkage Group is set up and configured via Smart Client. | Optional | Omit |
| <VanityName> | AN | 1 | 32 | Enables you to add an additional alternative form of title to the card, e.g. "Company Director". Can appear on <i>Embossed Line 4</i> , or <i>Thermal Line 1</i> and <i>Thermal Line 2</i> , if configured in Smart Client, and be recorded in the card purchaser details. | Optional | Omit |
| <PBlock> | AN | 4 | 12 | Initial value of the card PIN. | Optional | Omit |
| <PINMailer> | AN | 1 | 1 | Whether to send a PIN Mailer: 0 = No (default); 1 = Yes. If 1, GPS sends instructions in the file to the manufacturer for them to create a PIN Mailer letter. | Optional | Omit |
| <Email> | AN | 1 | 50 | Email address of the cardholder. | Optional | Omit |
| <MailOrSMS> | AN | 1 | 1 | The cardholder's preferred contact method. 0 = SMS; 1 = email. 2 = SMS and email. Default value is '0'. | Optional | Omit |
| <AuthCalendarGroup> | AN | 1 | 10 | Group code of the Card Auth Calendar Group (controls the time when a card can be used). If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' '. | Optional | Omit |
| <Quantity> | N | 1 | 5 | Enables you to generate the specified quantity of cards with the same cardholder details in a batch process. The issued tokens are sent in an XML file over SFTP. If the cards are physical, a manufacturer file is also sent to the | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|------|----------------|----------------|--|----------|-----------|
| | | | | printer. You can use the delivery address fields to specify the delivery address for the cards. | | |
| <LoadToken> | N | 1 | 9 | The 9-digit Public Token of the MVC card that the initial load amount is to be taken from. The load will show as an MVC balance transfer (Unload + Load) in Smart Client. | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional | Omit |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Optional | Omit |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Optional | Omit |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. Defines configuration options specific to the provisioning of a digital payment token. For details, see the <i>Tokenisation Guide</i> . This is a numeric value; only digits 0-9 are valid. Leave empty if no usage group is required. | Optional | Omit |
| <VirtualCardImage> | AN | 1 | 16 | The Image ID for the virtual image for the new card. Image IDs are set up in Smart Client in the Image Master and Virtual Card Images screens. Note: If you do not provide an image ID, the default virtual card image for the product is used. | Optional | Omit |
| <ImageSize> | N | 1 | 1 | The size of the virtual image: 1 = 100%; 2 = 200%; 3 = 300%; 4 = 400%; 5 = 500%. Default is 1. | Optional | Omit |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: https://www.gps-e-card.com/balance/2909680989632389 For details, see the Card Generation Interface Specifications . | Optional | Omit |
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current create card request returns an action code of 868 Duplicate WSID. See WebServiceResult . | Omit | Mandatory |

WebServiceResult

This parameter is returned in the response to a create card request when the request included the same WSID as a previously submitted request. It can be used to check if the previous create card request was successful.

| Tag | Type | Minimum Length | Maximum Length | Description |
|-------------|------|----------------|----------------|---|
| <WSID> | N | 1 | 19 | Web service ID from the original Create Card request. |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. |
| <PublicKey> | AN | 1 | 9 | The public token of the card from the original Create Card request. |

| Tag | Type | Minimum Length | Maximum Length | Description |
|---------------|------|----------------|----------------|---|
| <Response> | AN | 3 | 3 | Three digit action code indicating the status of the Create Card request. If successful, returns: 000. |
| <Description> | AN | 1 | 50 | Description of the status of the original Create Card request. If successful, returns: <i>Normal, approve</i> . |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_CreateCard>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>10</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp>Title>Mr</hyp>Title>
      <hyp:LastName>Bloggs</hyp:LastName>
      <hyp:FirstName>Joe</hyp:FirstName>
      <hyp:Addr1>Office 13, Telfords Yard</hyp:Addr1>
      <hyp:Addr2>6-8 The Highway, Wapping </hyp:Addr2>
      <hyp:City>London</hyp:City>
      <hyp:PostCode>E1W 2BS</hyp:PostCode>
      <hyp:Country>826</hyp:Country>
      <hyp:Mobile></hyp:Mobile>
      <hyp:CardDesign>123</hyp:CardDesign>
      <hyp:ExternalRef></hyp:ExternalRef>
      <hyp:DOB></hyp:DOB>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:LoadValue>10</hyp:LoadValue>
      <hyp:CurCode>GBP</hyp:CurCode>
      <hyp:Reason></hyp:Reason>
      <hyp:AccCode>123456</hyp:AccCode>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:LoadFundsType>4</hyp:LoadFundsType>
      <hyp:LoadSrc>10</hyp:LoadSrc>
      <hyp:LoadFee>0.0</hyp:LoadFee>
      <hyp:LoadedBy>Admin</hyp:LoadedBy>
      <hyp>CreateImage>1</hyp>CreateImage>
      <hyp>CreateType>1</hyp>CreateType>
      <hyp:CustAccount></hyp:CustAccount>
      <hyp:ActivateNow>0</hyp:ActivateNow>
      <hyp:Source_desc></hyp:Source_desc>
      <hyp:ExpDate></hyp:ExpDate>
      <hyp:CardName>GIFT CARD</hyp:CardName>
      <hyp:LimitsGroup>PMT-VL-002</hyp:LimitsGroup>
      <hyp:MCCGroup></hyp:MCCGroup>
      <hyp:PERMSGGroup>PMT-CU-002</hyp:PERMSGGroup>
      <hyp:ProductRef></hyp:ProductRef>
      <hyp:CarrierType></hyp:CarrierType>
      <hyp:Fulfil1></hyp:Fulfil1>
      <hyp:Fulfil2></hyp:Fulfil2>
      <hyp:DelvMethod>0</hyp:DelvMethod>
      <hyp:ThermalLine1></hyp:ThermalLine1>
      <hyp:ThermalLine2></hyp:ThermalLine2>
      <hyp:EmbossLine4></hyp:EmbossLine4>
      <hyp:ImageId></hyp:ImageId>
      <hyp:LogoFrontId></hyp:LogoFrontId>
      <hyp:LogoBackId></hyp:LogoBackId>
      <hyp:Replacement>0</hyp:Replacement>
      <hyp:FeeGroup></hyp:FeeGroup>
      <hyp:PrimaryToken></hyp:PrimaryToken>
      <hyp:Delv_AddrL1></hyp:Delv_AddrL1>
      <hyp:Delv_AddrL2></hyp:Delv_AddrL2>
      <hyp:Delv_AddrL3></hyp:Delv_AddrL3>
      <hyp:Delv_City></hyp:Delv_City>
      <hyp:Delv_Country></hyp:Delv_Country>
      <hyp:Delv_PostCode></hyp:Delv_PostCode>
      <hyp:Delv_Country></hyp:Delv_Country>
      <hyp:Sms_Required></hyp:Sms_Required>
      <hyp:SchedFeeGroup></hyp:SchedFeeGroup>
      <hyp:WSFeeGroup></hyp:WSFeeGroup>
      <hyp:CardManufacturer></hyp:CardManufacturer>
      <hyp:CoBrand>CB1</hyp:CoBrand>
      <hyp:PublicToken></hyp:PublicToken>
      <hyp:ExternalAuth></hyp:ExternalAuth>
      <hyp:LinkageGroup></hyp:LinkageGroup>
      <hyp:VanityName>Dr Bloggs</hyp:VanityName>
      <hyp:PBlock></hyp:PBlock>
      <hyp:PINMailer></hyp:PINMailer>
    </hyp:Ws_CreateCard>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    <hyp:FxGroup></hyp:FxGroup>
    <hyp:Email>joe.bloggs@google.com</hyp:Email>
    <hyp:MailOrSMS>1</hyp:MailOrSMS>
    <hyp:AuthCalendarGroup></hyp:AuthCalendarGroup>
    <hyp:Quantity>10</hyp:Quantity>
    <hyp:LoadToken>123456789</hyp:LoadToken>
    <hyp:FeeWaiver></hyp:FeeWaiver>
    <hyp:BlackList>Deny List</hyp:BlackList>
    <hyp:WhiteList></hyp:WhiteList>
    <hyp:PaymentTokenUsageGroup></hyp:PaymentTokenUsageGroup>
    <hyp:VirtualCardImage> </hyp:VirtualCardImage>
    <hyp:ImageSize></hyp:ImageSize>
    <hyp:Url>https://www.gps-e-card.com/balance/7109680989634104</hyp:Url>
  </hyp:Ws_CreateCard>
</soapenv:Body>
</soapenv:Envelope>

```

Response - Successful Card Create

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CreateCardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CreateCardResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>10</TxnCode>
        <PublicToken>123456789</PublicToken>
        <ExternalRef/>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <ItemID>1234</ItemID>
        <ClientCode>0</ClientCode>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <LoadValue>10</LoadValue>
        <IsLive>>false</IsLive>
        <ExpDate>03/25</ExpDate>
        <CVV>123</CVV>
        <MaskedPAN>987654*****0123</MaskedPAN>
      </Ws_CreateCardResult>
      <WebServiceResult/>
    </Ws_CreateCardResponse>
  </soap:Body>
</soap:Envelope>

```

Response - Duplicate Request Example

This is returned in response to a duplicate create card request (i.e., where the same WSID is used), which returns action code 868.

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CreateCardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CreateCardResult>
        <WSID>1234567889</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>10</TxnCode>
        <PublicToken>0</PublicToken>
        <ExternalRef/>
        <LocDate>2021:05:25</LocDate>
        <LocTime>14:41:45</LocTime>
        <ItemID>0</ItemID>
        <ClientCode/>
        <SysDate>2022-03-04</SysDate>
        <ActionCode>868</ActionCode>
        <LoadValue>0</LoadValue>
        <IsLive>>false</IsLive>
        <StartDate/>
        <ExpDate/>
        <CVV/>
        <MaskedPAN/>
      <WebServiceResult>
        <WSID>1234567889</WSID>
        <IssCode>PMT</IssCode>
        <PublicToken>620137544</PublicToken>
        <Response>000</Response>
        <Description>Normal, approve</Description>
        <ActionCode>000</ActionCode>
      </WebServiceResult>
    </Ws_CreateCardResult>
  </Ws_CreateCardResponse>
</soap:Body>
</soap:Envelope>

```

Card Bulk Create

API: [Ws_BulkCreation](#)

This web service creates a bulk number of virtual as well as physical cards in a single request. It takes an XML document as the input containing the information needed to create virtual or physical cards, and produces an XML document with the list of newly created virtual or physical cards as the response.

Card images are created in the web service directory when creating a virtual card.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|--|-----------|-------------|
| <doc> | XML | 1 | 1024 | XML document that contains details of the cards to be created, such as the customer details and the card design. See XML File Description below. | Mandatory | Omit |
| <CardsCreated> | N | 1 | 5 | Number of cards created. | Omit | Mandatory |
| <CardsNotCreated> | N | 1 | 5 | Number of cards failed to create. | Omit | Mandatory |
| <RequestWithError> | AN | 1 | 100 | Details of the fields in the request that caused the error in card creation. It is mandatory when an error occurs in card creation. | Omit | Conditional |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Cards> | - | - | - | An array of cards. See XML File Description below. Can occur multiple times within the message. | Omit | Optional |

Card Response

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|---------|-------------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Omit | Mandatory |
| <PublicKey> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <track2> are not present. Mandatory in the response. In virtual card creation <PublicKey> is not present in the request. | Omit | Mandatory |
| <ExternalRef> | AN | 1 | 30 | External reference code for the card. Note: Legacy field. Not used. | Omit | Conditional |
| <itemId> | AN | 1 | 20 | The unique item ID returned for this load. | Omit | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Omit | Conditional |
| <sysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <actionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|-------|----------------|----------------|---|---------|-----------|
| <StartDate> | AN | 5 | 5 | Physical start date printed on the card in the format <i>MM/YY</i> . | Omit | Mandatory |
| <EndDate> | AN | 5 | 5 | Physical end date printed on the card in the format <i>MM/YY</i> . | Omit | Mandatory |
| <ExpDate> | MM/YY | 5 | 5 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in <i>MM/YY</i> format. | Omit | Mandatory |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Mandatory |
| <MaskedPAN> | AN | 16 | 19 | Card number displayed as masked (e.g., 675926*****1234). Note. The full PAN can be returned if you are PCI DSS compliant. Contact your Implementation Manager. | Omit | Mandatory |

XML File Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|---|-------------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Omit |
| <Title> | AN | 1 | 4 | Cardholder's title. Also used as the card purchaser's title if no delivery address is supplied. | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Conditional | Omit |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. Also used as the card purchaser's first name if no delivery address is supplied. Mandatory if <lastName> is present. | Conditional | Omit |
| <AddrL1> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional | Omit |
| <AddrL2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <Postcode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no post-code is supplied. Mandatory if <addrL1> is present, and <city> is not present. See Post-code Permitted Characters . | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-----------|
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional | Omit |
| <Mobile> | AN | 12 | 12 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Optional | Omit |
| <CardDesign> | AN | 1 | 8 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. Mandatory if not a replacement card request. Note: this is not the same field as the CrdDesign or ProductRef . | Conditional | Omit |
| <ExternalRef> | AN | 1 | 30 | External reference code for the card. Note: Legacy field. Not used. | Optional | Omit |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. | Optional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. | Optional | Omit |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in MM/YY format. | Optional | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Mandatory | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . | Conditional | Omit |
| <Reason> | AN | 1 | 60 | Reason for the card's status change. Overrides default of 'Card Activated' that is shown in the card processor. Text is shown in the Smart Client Tracker screen. | Optional | Omit |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|-------------|----------|
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If no load fee is required, specify 0. The load fee does not affect the card balance. It is only reported in the XML. | Mandatory | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <CreateImage> | N | 1 | 1 | Specifies whether to create a card image. 1= yes, 0 = No. Images are returned in the <Image> response parameter, encrypted by a pre-shared PGP encryption key. | Mandatory | Omit |
| <CreateType> | N | 1 | 1 | This field is mandatory unless it is a replacement card request. There are four possible values: 1 = Create a virtual card. Can be converted to a physical card at a later stage using the Convert Card web service. 2 = Create physical card. Also triggers the creation of a card file which is sent to the manufacturer. 3 = Create a virtual card with intention to convert it into a physical card later. 4 = Create a Master Virtual Card which is a deposit account that can be used to load other cards from. 5 = Create a virtual card and convert to a physical card. Triggers the creation of a card file which is sent to the manufacturer. | Conditional | Omit |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | Optional | Omit |
| <ActivateNow> | N | 1 | 1 | Whether to activate the card. 1= Yes, 0=No. When <Quantity> is greater than 1 then creation of <Quantity> numbers of identical cards will trigger a batch process that starts within minutes of the request. If <ActivateNow> is 1 in such requests then the issued tokens are sent to the customer already activated. This parameter only applies if the request is for a new card. | Mandatory | Omit |
| <CardName> | AN | 1 | 27 | The embossed name on the card. If present in the request then the embossed name on the card should be the given value. If it is not available and <Firstname> and <Lastname> are available then <Title> + <Firstname> + <Lastname> will be the embossed name. If all the above parameters are unavailable in the request then the default embossed name remains as the embossed name. If a replacement card is | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|---|----------|----------|
| | | | | requested, the original value of the embossed name will be used if no new names are supplied. If a blank embossed name is required, then pass a single space character. See Card Name Permitted Characters . | | |
| <LimitsGroup> | AN | 1 | 10 | Group code of the Limits Group. If this parameter is not supplied and this is a new card request, then the default group for the card's product will be used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Limits Group is set up and configured via Smart Client. | Optional | Omit |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. The MCC group allows the card to be linked to a list of Merchant Category Codes (MCCs) that the card is allowed to or conversely is NOT allowed to transact at. Note: The MCC Group is set up and configured via Smart Client. | Optional | Omit |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. If this parameter is not supplied and this is a new card request then the default group for the card's product is used. If the default group is not required, you can remove it passing a space character ' '. Note: The Usage Group is set up and configured via Smart Client. | Optional | Omit |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not required, it can be removed by passing a space character ' '. Note: The Scheduled Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <WSFeeGroup> | AN | 1 | 10 | Code of the Web Service Fee Group (). If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. WSFeeGroup allows the card to be linked to a set of web service fees that are set up on the system. Note: The Web Service Fee Group is set up and configured via Smart | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------|----------------|----------------|--|----------|----------|
| | | | | Client. | | |
| <ProductRef> | AN | 1 | 50 | The physical card design reference as used by the Card Manufacturer. Identifies the <i>PRODUCT_REF</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <CarrierType> | AN | 1 | 30 | The Carrier Product design reference as used by the Card Manufacturer. This is the letter onto which the card is attached when sent to the cardholder. Identifies the Carrier Product type of the Card Manufacturer. | Optional | Omit |
| <Fulfil1> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL1</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <Fulfil2> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL2</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <DelvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | Optional | Omit |
| <ThermalLine1> | AN | 1 | 120 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a customer service phone number. | Optional | Omit |
| <ThermalLine2> | AN | 1 | 70 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a link to your service terms and conditions. | Optional | Omit |
| <Lang> | AN | 1 | 2 | Two digit ISO 639-1 Language code to be used for card mailers (e.g., En = English; Fr = French). Note: The available languages depend on the card manufacturer support. Also used if bespoke SMS templates are set up. | Optional | Omit |
| <EmbossLine4> | AN | 1 | 27 | The card's embossed line 4 on the front of the card. Could be used for example, to add an account number or sort code. | Optional | Omit |
| <Imageld> | AN | 1 | 16 | Reference which identifies the card manufacturer's image file that will be printed on the face of the card. | Optional | Omit |
| <LogoFrontId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo logo file that will be printed on the face of the card. | Optional | Omit |
| <LogoBackId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|--|-------------|-----------|
| | | | | the back of the card, if supported. | | |
| <Replacement> | N | 1 | 1 | Whether the card is a new card or a replacement. The possible values are: 0 = new card; 1 = replacement card. Needs to be agreed with the card manufacturer. Note: Do not use a value '1', which is for legacy usage only; to replace a card, we recommend you use Card Renew: ws_renew_card . | Mandatory | Omit |
| <PrimaryToken> | AN | 1 | 9 | The primary card's public token. If it is blank then the newly created card is a primary card, otherwise it is the secondary card in a primary/secondary relationship. Cannot be the token of a card that is already linked as a secondary card. | Optional | Omit |
| <Delv_AddrL1> | AN | 1 | 50 | Card purchaser's /delivery address line 1. Mandatory if 'Delivery Address' fields are specified. | Optional | Omit |
| <Delv_AddrL2> | AN | 1 | 50 | Card purchaser's/delivery address line 2. | Optional | Omit |
| <Delv_AddrL3> | AN | 1 | 50 | Card purchaser's /delivery address line 3. | Optional | Omit |
| <Delv_City> | AN | 1 | 20 | Card purchaser's /delivery address delivery city. Mandatory if <Delv_AddrL1> is present, and <Delv_PostCode> is not present. | Optional | Omit |
| <Delv_Postcode> | AN | 1 | 10 | The delivery code for the card. If specified, the card manufacturer sends all cards with the same delivery code to the specified delivery address. | Optional | Omit |
| <Delv_County> | AN | 1 | 20 | Card purchaser's /delivery address county. | Optional | Omit |
| <Delv_Country> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). Mandatory if <Delv_AddrL1> is present. | Optional | Omit |
| <Delv_Code> | AN | 1 | 12 | The delivery code for the card. If specified, the card manufacturer sends all cards with the same delivery code to the specified delivery address. | Optional | Omit |
| <Sms_Required> | AN | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Optional | Omit |
| <CardManufacturer> | AN | 1 | 10 | The manufacturer to send the card generation request to. For example: <i>TCT, AllPay, GNC, Gemalto, Nitecrest</i> and <i>Exceet</i> . For a full list, see Card Manufacturers . If omitted, the default for the Card Scheme will be used. | Optional | Omit |
| <CoBrand> | AN | 1 | 6 | The Co-Brand code for the card. If supplied it will replace the <i>PROGRAMID</i> field in the <i>Balance XML</i> file. | Optional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. The public token of the newly-created card is always returned in the response. If a replacement card is required, specify the 9-digit public token of the original card. | Conditional | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|------|----------------|----------------|---|----------|----------|
| <ExternalAuth> | AN | 1 | 1 | External Authorisation flag. Possible values are: 0 = Do not set External Authorisation on; 1 = Set External Authorisation. Empty value defaults to 0. Note: For legacy use only. Not applicable if using EHI. | Optional | Omit |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Card Linkage Group is set up and configured via Smart Client. | Optional | Omit |
| <VanityName> | AN | 1 | 32 | Enables you to add an additional alternative form of title to the card, e.g. "Company Director". Can appear on <i>Embossed Line 4</i> , or <i>Thermal Line 1</i> and <i>Thermal Line 2</i> , if configured in Smart Client, and be recorded in the card purchaser details. | Optional | Omit |
| <PBlock> | AN | 4 | 12 | Initial value of the card PIN. | Optional | Omit |
| <PINMailer> | AN | 1 | 1 | Whether to send a PIN Mailer: 0 = No (default); 1 = Yes. If 1, GPS sends instructions in the file to the manufacturer for them to create a PIN Mailer letter. | Optional | Omit |
| <FXGroup> | AN | 1 | 10 | Group code of the FX Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. Note: The FX Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <Email> | AN | 1 | 50 | Email address of the cardholder. | Optional | Omit |
| <MailOrSMS> | AN | 1 | 1 | The cardholder's preferred contact method. 0 = SMS; 1 = email. 2 = SMS and email. Default value is '0'. | Optional | Omit |
| <AuthCalendarGroup> | AN | 1 | 10 | Group code of the Card Auth Calendar Group (controls the time when a card can be used). If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' '. | Optional | Omit |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Optional | Omit |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Optional | Omit |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. Defines configuration options specific to the provisioning of a digital payment token. For details, see the <i>Tokenisation Guide</i> . This is a numeric value; only digits 0-9 are valid. Leave empty if no usage group is required. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------|------|----------------|----------------|--|----------|----------|
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: https://www.gps-e-card.com/balance/2909680989632389 For details, see the Card Generation Interface Specifications . | Optional | Omit |

Note: All tags marked as mandatory in the XML input document must be supplied. Tags marked as conditional can also be mandatory in some circumstances. You must always include the conditional tags in your request, even if the value is empty. For example: <FirstName></FirstName>. Tags marked as optional do not need to be included.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_BulkCreation>
      <hyp:doc>
        <CRDREQ>
          <CARD>
            <IssCode>PMT</IssCode>
            <ClientCode></ClientCode>
            <Title>Mr</Title>
            <LastName>Bloggs</LastName>
            <FirstName>Joe</FirstName>
            <Addr11>25</Addr11>
            <Addr12>Tester Street</Addr12>
            <City>London</City>
            <PostCode>E1W 2BS</PostCode>
            <Country>826</Country>
            <Mobile>07721123456</Mobile>
            <CardDesign>123</CardDesign>
            <ExternalRef></ExternalRef>
            <DOB></DOB>
            <TerminalID>1234</TerminalID>
            <LoadValue>10</LoadValue>
            <CurCode>GBP</CurCode>
            <Reason></Reason>
            <AccCode>123456</AccCode>
            <ItemSrc>2</ItemSrc>
            <LoadFundsType>4</LoadFundsType>
            <LoadSrc>10</LoadSrc>
            <LoadFee>0.0</LoadFee>
            <LoadedBy>Admin</LoadedBy>
            <CreateImage>1</CreateImage>
            <CreateType>1</CreateType>
            <CustAccount></CustAccount>
            <ActivateOrNot>0</ActivateOrNot>
            <ExpDate></ExpDate>
            <CardName>GIFT CARD</CardName>
            <LimitsGroup>PMT-VL-002</LimitsGroup>
            <MCCGroup></MCCGroup>
            <PERMSGGroup>PMT-CU-002</PERMSGGroup>
            <ProductRef></ProductRef>
            <CarrierType></CarrierType>
            <Fulfil1></Fulfil1>
            <Fulfil2></Fulfil2>
            <DelvMethod>0</DelvMethod>
            <ThermalLine1></ThermalLine1>
            <ThermalLine2></ThermalLine2>
            <EmbossLine4></EmbossLine4>
            <ImageId></ImageId>
            <LogoFrontId></LogoFrontId>
            <LogoBackId></LogoBackId>
            <Replacement>0</Replacement>
            <FeeGroup></FeeGroup>
            <PrimaryToken>123456789</PrimaryToken>
            <Delv_AddrL1></Delv_AddrL1>
            <Delv_AddrL2></Delv_AddrL2>
            <Delv_AddrL3></Delv_AddrL3>
            <Delv_City></Delv_City>
            <Delv_PostCode></Delv_PostCode>
            <Delv_County></Delv_County>
            <Delv_Country></Delv_Country>
            <Sms_Required>1</Sms_Required>
            <SchedFeeGroup></SchedFeeGroup>
            <WSFeeGroup></WSFeeGroup>
            <CardManufacturer></CardManufacturer>
            <CoBrand></CoBrand>
            <PublicToken></PublicToken>
            <ExternalAuth>0</ExternalAuth>
            <LinkageGroup></LinkageGroup>
          </CARD>
        </CRDREQ>
      </hyp:doc>
    </hyp:Ws_BulkCreation>
  </soapenv:Body>
</soapenv:Envelope>
```

```

<VanityName></VanityName>
<PBlock></PBlock>
<PINMailer>1</PINMailer>
<FxGroup></FxGroup>
<Email>joe.bloggs@gmail.com</Email>
<MailOrSMS>1</MailOrSMS>
<AuthCalendarGroup></AuthCalendarGroup>
<BlackList></BlackList>
<WhiteList>]</WhiteList>
<PaymentTokenUsageGroup></PaymentTokenUsageGroup>
<Url>https://www.gps-e-card.com/balance/8109680989834104</Url>
</CARD>
<CARD>
  <IssCode>PMT</IssCode>
  <ClientCode></ClientCode>
  <Title>Mrs</Title>
  <LastName>Doe</LastName>
  <FirstName>Jane</FirstName>
  <Addr1>25</Addr1>
  <Addr2>Deer Street</Addr2>
  <City>London</City>
  <PostCode>ABW 2BS</PostCode>
  <Country>826</Country>
  <Mobile>07731423446</Mobile>
  <CardDesign>123</CardDesign>
  <ExternalRef></ExternalRef>
  <DOB></DOB>
  <TerminalID>1234</TerminalID>
  <LoadValue>10</LoadValue>
  <CurCode>GBP</CurCode>
  <Reason></Reason>
  <AccCode>123456</AccCode>
  <ItemSrc>2</ItemSrc>
  <LoadFundsType>4</LoadFundsType>
  <LoadSrc>10</LoadSrc>
  <LoadFee>0.0</LoadFee>
  <LoadedBy>Admin</LoadedBy>
  <CreateImage>1</CreateImage>
  <CreateType>1</CreateType>
  <CustAccount></CustAccount>
  <ActivateOrNot>0</ActivateOrNot>
  <ExpDate></ExpDate>
  <CardName>GIFT CARD</CardName>
  <LimitsGroup>PMT-VL-002</LimitsGroup>
  <MCCGroup></MCCGroup>
  <PERMSGGroup>PMT-CU-002</PERMSGGroup>
  <ProductRef></ProductRef>
  <CarrierType></CarrierType>
  <Fulfil1></Fulfil1>
  <Fulfil2></Fulfil2>
  <DelvMethod>0</DelvMethod>
  <ThermalLine1></ThermalLine1>
  <ThermalLine2></ThermalLine2>
  <EmbossLine4></EmbossLine4>
  <ImageId></ImageId>
  <LogoFrontId></LogoFrontId>
  <LogoBackId></LogoBackId>
  <Replacement>0</Replacement>
  <FeeGroup></FeeGroup>
  <PrimaryToken>243456789</PrimaryToken>
  <Delv_AdrL1></Delv_AdrL1>
  <Delv_AdrL2></Delv_AdrL2>
  <Delv_AdrL3></Delv_AdrL3>
  <Delv_City></Delv_City>
  <Delv_PostCode> </Delv_PostCode>
  <Delv_County></Delv_County>
  <Delv_Country></Delv_Country>
  <Sms_Required>1</Sms_Required>
  <SchedFeeGroup></SchedFeeGroup>
  <WSFeeGroup></WSFeeGroup>
  <CardManufacturer></CardManufacturer>
  <CoBrand></CoBrand>
  <PublicToken></PublicToken>
  <ExternalAuth>0</ExternalAuth>
  <LinkageGroup></LinkageGroup>
  <VanityName></VanityName>
  <PBlock></PBlock>
  <PINMailer>1</PINMailer>
  <FxGroup></FxGroup>
  <Email>jane.doe@gmail.com</Email>
  <MailOrSMS>1</MailOrSMS>
  <AuthCalendarGroup></AuthCalendarGroup>
  <BlackList></BlackList>
  <WhiteList>]</WhiteList>
  <PaymentTokenUsageGroup></PaymentTokenUsageGroup>
  <Url>https://www.gps-e-card.com/balance/7109680989634104</Url>
</CARD>
</CRDREQ>
</hyp:doc>
</hyp:Ws_BulkCreation>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_BulkCreationResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_BulkCreationResult>
        <CardsCreated>2</CardsCreated>
        <CardsNotCreated>2</CardsNotCreated>
        <ActionCode>000</ActionCode>
        <RequestWithError> </RequestWithError>
        <CARDS xmlns="">
          <CARD>
            <IssCode>PMT</IssCode>
            <PublicToken>123456889</PublicToken>
            <ExternalRef></ExternalRef>
            <ItemID>1234</ItemID>
            <ClientCode>0</ClientCode>
            <SysDate>2021-01-01</SysDate>
            <ActionCode>000</ActionCode>
            <LoadValue>10</LoadValue>
            <IsLive>false</IsLive>
            <ExpDate>03/25</ExpDate>
            <CVV>123</CVV>
            <MaskedPAN>987654*****0123</MaskedPAN>
          </CARD>
          <CARD>
            <IssCode>PMT</IssCode>
            <PublicToken>234456889</PublicToken>
            <ExternalRef></ExternalRef>
            <ItemID>1234</ItemID>
            <ClientCode>0</ClientCode>
            <SysDate>2021-01-01</SysDate>
            <ActionCode>000</ActionCode>
            <LoadValue>10</LoadValue>
            <IsLive>false</IsLive>
            <ExpDate>03/25</ExpDate>
            <CVV>123</CVV>
            <MaskedPAN>987655*****0124</MaskedPAN>
          </CARD>
        </CARDS>
      </Ws_BulkCreationResult>
    </Ws_BulkCreationResponse>
  </soap:Body>
</soap:Envelope>

```

Card Activate

API: [Ws_Activate](#)

This web service sets the status of the card to *active* to enable Mastercard or Visa network transactions. It is used to activate cards issued in an *inactive* state.

Note: When converting from a virtual to a physical card, further activation is required on the physical card to ensure the converted details are updated on the GPS host.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 10. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <Title> | AN | 1 | 4 | Cardholder's title. Also used as the card purchaser's title if no delivery address is supplied. | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Optional | Omit |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. Also used as the card purchaser's first name if no delivery address is supplied. Mandatory if <lastName> is present. | Conditional | Omit |
| <Addr1> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional | Omit |
| <Addr2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <PostCode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no post-code is supplied. Mandatory if <addrL1> is present, and <city> is not present. See Post-code Permitted Characters . | Conditional | Omit |
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-----------|
| <ActMethod> | AN | 1 | 1 | Method used for card activation. See Activation Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present, when the value of <AuthType> is '7' or when the value of <actMethod> is '4'. In virtual card creation <track2> is not present in the request. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> and <Track2> are not present. In virtual card creation <PublicToken> is not required in the request. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <ActMethod> is '2'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. Mandatory if the value of <ActMethod> is '3'. If <ActMethod> is '3', the provided access code is used for activation only; the GPS stored value will not be updated. Leave empty if not required. | Conditional | Omit |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Expiry date. You can use this field to update the card expiry date. If not supplied, the expiry date from when the card was issued will be used. | Optional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <Reason> | AN | 1 | 60 | Reason for the card's status change. Overrides default of 'Card Activated' that is shown in the card processor. Text is shown in the Smart Client Tracker screen. | Optional | Omit |
| <ItemSrc> | N | 1 | 2 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <SMSBalance> | N | 1 | 1 | Whether to send an SMS regarding the details of transaction amount and available balance to the customer after each card use. 0 or False = Do not send; 1 or True = Send; 2 = Do not change current value. | Mandatory | Omit |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|--|---------|-----------|
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current request returns an action code of <i>868 Duplicate WSID</i> . See WebServiceResult . | Omit | Mandatory |

Security Details

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|-----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0. | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0. | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Activate>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>0</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp>Title>Mr</hyp>Title>
      <hyp:LastName>Lastname</hyp:LastName>
      <hyp:FirstName>Firstname</hyp:FirstName>
      <hyp:Addr11>Office 13, Telfords Yard </hyp:Addr11>
      <hyp:Addr12>6-8 The Highway, Wapping</hyp:Addr12>
      <hyp:City>London</hyp:City>
      <hyp:PostCode>E1W 2BS</hyp:PostCode>
      <hyp:Country>826</hyp:Country>
      <hyp:ActMethod>6</hyp:ActMethod>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:ExpDate></hyp:ExpDate>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:Reason></hyp:Reason>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
      <hyp:SMSBalance>0</hyp:SMSBalance>
    </hyp:Ws_Activate>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_ActivateResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_ActivateResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>0</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <ClientCode/>
        <SysDate>2013-01-01</SysDate>
      </Ws_ActivateResult>
    </Ws_ActivateResponse>
  </soap:Body>
</soap:Envelope>
```



```
<ActionCode>000</ActionCode>  
<IsLive>true</IsLive>  
</Ws_ActivateResult>  
<WebServiceResult/>  
</Ws_ActivateResponse>  
</soap:Body>
```

Card Phone Activation

API: [Ws_Phone_Activation](#)

This web service enables activation of a card by phone. It also returns the PIN and the PIN status of that card.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|--|-------------|-----------|
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> and <Track2> are not present. In virtual card creation <PublicToken> is not required in the request. Mandatory in the response. | Conditional | Mandatory |
| <SecurityCode> | N | 6 | 6 | (missing or bad snippet) | Mandatory | Omit |
| <ActivateIfNot> | N | 1 | 1 | If set to 1, then returns the PIN number of the card and activates the card if not already activated. | Mandatory | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <PinBlock> | AN | 4 | 12 | Current PIN number of the card, represented as a 4-12 digit PIN block. | Omit | Mandatory |
| <PINStatus> | N | 1 | 1 | Indicates whether the allowed number of card PIN tries has been exceeded. 0 = No; 1 = Yes. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Phone_Activation>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:SecurityCode>0</hyp:SecurityCode>
      <hyp:ActivateIfNot>0</hyp:ActivateIfNot>
      <hyp:AuthType>1</hyp:AuthType>
    </hyp:Ws_Phone_Activation>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Phone_ActivationResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Phone_ActivationResult>
        <PublicToken>123456789</PublicToken>
        <ActionCode>000</ActionCode>
        <IsLive>true</IsLive>
        <PinBlock>1234</PinBlock>
        <PINStatus>0</PINStatus>
      </Ws_Phone_ActivationResult>
    </Ws_Phone_ActivationResponse>
  </soap:Body>
</soap:Envelope>
```

Card Activate and Load

API: [Ws_Activate_Load](#)

This web service allows simultaneous load and activation of cards. This is a common requirement for cards sold from kiosks or from retail stores. For cards ordered over the internet, delayed activation provides added security by ensuring that any card stolen or lost in the post cannot be used.

Note: If the card already has a balance, then you cannot load again as part of activate load. In this case, use [Ws_Activate](#) and [Ws_Load](#) separately.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 10. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <Title> | AN | 1 | 4 | The cardholder's title. | Optional | Omit |
| <LastName> | AN | 1 | 20 | The cardholder's last name. Mandatory if the value of <AuthType> is '6'. | Conditional | Omit |
| <FirstName> | AN | 1 | 20 | The cardholder's first name. Mandatory if <lastName> is present and the value of <AuthType> is not '6'. | Conditional | Omit |
| <Addr1> | AN | 1 | 50 | Address line 1. Mandatory if 'Address' fields are being specified. | Conditional | Omit |
| <Addr2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <PostCode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no postcode is supplied. Mandatory if <addrL1> is present, and <city> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional | Omit |
| <ActMethod> | AN | 1 | 1 | Method used for card activation. See Activation Methods . | Mandatory | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. In virtual card creation PAN is not present in the request. Mandatory in the response if <PANorToken> is 1. | Conditional | Conditional |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present, when the value of <AuthType> is '7' or when the value of <actMethod> is '4'. In virtual card creation <track2> is not present in the request. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> and <Track2> are not present. In virtual card creation <PublicToken> is not required in the request. Mandatory in the response. | Conditional | Mandatory |
| <CardDesign> | AN | 1 | 8 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. Mandatory if not a replacement card request. Note: this is not the same field as the CrdDesign or ProductRef . | Conditional | Omit |
| <ExternalRef> | AN | 1 | 30 | External reference code for the card. Note: Legacy field. Not used. | Optional | Conditional |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. Mandatory if the value of <actMethod> is '1' or <AuthType> is '2' or '6'. Otherwise, may be supplied for informational purposes or as part of cardholder registration. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <actMethod> is '2' or <AuthType> is '3'. | Conditional | Mandatory |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. Mandatory if the value of <actMethod> is '3' or <AuthType> is '4'. If <actMethod> is '3', the access code is used for activation only and the stored value will not be updated. When used for authentication, the provided access code cannot be used to update the stored value. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency expo- | Mandatory | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|---|-------------|-----------|
| | | | | ment of 2). See Currency Codes . | | |
| <CurCode> | AN | 3 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Mandatory | Omit |
| <Reason> | AN | 1 | 60 | Reason for the card's status change. Overrides default of 'Card Activated' that is shown in the card processor. Text is shown in the Smart Client Tracker screen. | Optional | Omit |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Expiry date. You can use this field to update the card expiry date. If not supplied, the expiry date from when the card was issued will be used. | Conditional | Mandatory |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional | Omit |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If no load fee is required, specify 0. The load fee does not affect the card balance. It is only reported in the XML. | Mandatory | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <ActivateOrNot> | N | 1 | 1 | Whether to activate the card while loading. 1 = activate and load; 0 = load only. | Mandatory | Omit |
| <PANorToken> | N | 1 | 1 | Whether to return the PAN with the public token. 1 = return PAN and token. 0 = public token only. | Mandatory | Omit |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | Optional | Omit |
| <SMSBalance> | N | 1 | 1 | Whether to send an SMS regarding the details of transaction amount and available balance to the customer after each card use. 0 or False = Do not send; 1 or True = Send; 2 = Do not change current value. | Mandatory | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemID> | AN | 1 | 20 | The unique item ID returned for this load. | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|---|----------|-----------|
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Description> | AN** | 1 | 150 | Description of the load. If supplied, will appear in the <description> tag of a response to a card or account query. See Card Statement (V1) . | Optional | Omit |
| <BrnCode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. If supplied, it will be exported in the XML in CardLoadUnload > Card > branchcode . | Optional | Omit |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Security fields

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|-----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0. | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0. | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Activate_Load>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>10</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp>Title></hyp>Title>
      <hyp:LastName>Lastname</hyp:LastName>
      <hyp:FirstName>Firstname</hyp:FirstName>
      <hyp:Addr11>Office 13, Telfords Yard</hyp:Addr11>
      <hyp:Addr12>6-8 The Highway, Wapping</hyp:Addr12>
      <hyp:City>London</hyp:City>
      <hyp:PostCode>E1W 2BS</hyp:PostCode>
      <hyp:Country>826</hyp:Country>
      <hyp:ActMethod>6</hyp:ActMethod>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:CardDesign></hyp:CardDesign>
      <hyp:ExternalRef></hyp:ExternalRef>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:LoadValue>10</hyp:LoadValue>
      <hyp:CurCode>GBP</hyp:CurCode>
      <hyp:Reason></hyp:Reason>
      <hyp:ExpDate></hyp:ExpDate>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:LoadFundsType>4</hyp:LoadFundsType>
      <hyp:LoadSrc>10</hyp:LoadSrc>
      <hyp:LoadFee>0.0</hyp:LoadFee>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
      <hyp:LoadedBy></hyp:LoadedBy>
      <hyp:ActivateOrNot>1</hyp:ActivateOrNot>
      <hyp:PANorToken>1</hyp:PANorToken>
      <hyp:CustAccount></hyp:CustAccount>
      <hyp:SMSBalance>0</hyp:SMSBalance>
      <hyp:BrnCode>Branch 12</hyp:BrnCode >
    </hyp:Ws_Activate_Load>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Activate_LoadResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Activate_LoadResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>10</TxnCode>
        <PAN>1234567891234567</PAN>
        <PublicToken>123456789</PublicToken>
        <CVV>194</CVV>
        <ExternalRef/>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <ItemID>0</ItemID>
        <ClientCode/>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <ExpDate>2015-03-31</ExpDate>
        <LoadValue>10</LoadValue>
        <IsLive>true</IsLive>
      </Ws_Activate_LoadResult>
    </Ws_Activate_LoadResponse>
  </soap:Body>
</soap:Envelope>
```

Card Load

API: [Ws_Load](#)

This web service is used to load or re-load a card with a specified amount.

Note: The following card statuses will prevent the ability to load a card with funds: 04 (Capture Card), 14 (Invalid), 33 (Expired Card), 36 (Restricted Card), 37 (Card acceptor call acquirer security), 41 (Lost), 43 (Stolen), 54 (Expired), 62 (Restricted), 67 (Card to be picked up at ATM), 83 (Destroyed) and G9 (IVR Lost/Stolen Block (like 41 Lost)).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 1 for the initial load and 20 for any subsequent load. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present, when the value of <AuthType> is '7' or when the value of <actMethod> is '4'. In virtual card creation <track2> is not present in the request. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> and <Track2> are not present. In virtual card creation <PublicToken> is not required in the request. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. Mandatory if the value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. Mandatory if the value of <AuthType> is '6'. | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|---|-----------|-----------|
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Mandatory | Omit |
| <CurrCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . | Mandatory | Omit |
| <LoadFundsType> | AN | 1 | 3 | Payment method of funds for the load. See Load Fund Types . | Optional | Omit |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If no load fee is required, specify 0. The load fee does not affect the card balance. It is only reported in the XML. | Optional | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <Description> | AN** | 1 | 150 | Description of the load. If supplied, will appear in the <description> tag of a response to a card or account query. See Card Statement (V1) . | Optional | Omit |
| <BrnCode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. If supplied, it will be exported in the XML in CardLoadUnload > Card > branchcode . | Optional | Omit |
| <Sms_Required> | AN | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Optional | Omit |
| <Note> | AN | 1 | 256 | Add a note. The text will be displayed in the Smart Client notes field for the transaction. | Optional | Optional |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemId> | AN | 1 | 20 | The unique item ID returned for this load. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|--|---------|-----------|
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current request returns an action code of <i>868 Duplicate WSID</i> . See WebServiceResult . | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Load>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>1</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:LoadValue>10</hyp:LoadValue>
      <hyp:CurrCode>GBP</hyp:CurrCode>
      <hyp:LoadFundsType>4</hyp:LoadFundsType>
      <hyp:LoadSrc>10</hyp:LoadSrc>
      <hyp:LoadFee>0.0</hyp:LoadFee>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
      <hyp:LoadedBy>Admin</hyp:LoadedBy>
      <hyp:Description>Test Load</hyp:Description>
      <hyp:Sms_Required>0</hyp:Sms_Required>
      <hyp:BrnCode>Branch 12</hyp:BrnCode>
      <hyp>Note>Test load</hyp:Sms_Required>
    </hyp:Ws_Load>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_LoadResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_LoadResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>1</TxnCode>
        <PublicKey>123456789</PublicKey>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <ItemID>123</ItemID>
        <ClientCode/>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
      </Ws_LoadResult>
      <WebServiceResult/>
    </Ws_LoadResponse>
  </soap:Body>
```

```
</soap:Envelope>
```

Card Unload

API: [Ws_UnLoad](#)

This web service unloads a card. Note that any outstanding, unsettled authorisations on the card could result in the card going into a negative balance.

Note: This service is only applicable for EHI Modes 2 or 3.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. The default value is '8'. See Transaction Codes . | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. Mandatory if the value of <AuthType> is '5'. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|--|-----------|-----------|
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <AmtUnLoad> | D | 1 | 20 | The requested amount to unload. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If 0 will unload the whole amount remaining on the card. If the amount is specified, this amount is returned in the response. Otherwise, the actual amount unloaded (net of fees) is returned. | Mandatory | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). If supplied, it will be validated against the cards billing currency. | Optional | Mandatory |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <Description> | AN** | 1 | 150 | Description of the load. If supplied, will appear in the <description> tag of a response to a card or account query. See Card Statement (V1) . | Optional | Omit |
| <Note> | AN | 1 | 256 | Add a note. The text will be displayed in the Smart Client notes field for the transaction. | Optional | Optional |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <ItemId> | AN | 1 | 20 | The unique item ID returned for this load. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current request returns an action code of <i>868 Duplicate WSID</i> . See WebServiceResult . | Omit | Mandatory |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|-----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0. | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
```

```

    <hyp:strUserName>*****</hyp:strUserName>
    <hyp:strPassword>*****</hyp:strPassword>
  </hyp:AuthSoapHeader>
</soapenv:Header>
<soapenv:Body>
  <hyp:Ws_UnLoad>
    <hyp:WSID>2021123456789</hyp:WSID>
    <hyp:IssCode>PMT</hyp:IssCode>
    <hyp:TxnCode>8</hyp:TxnCode>
    <hyp:ClientCode></hyp:ClientCode>
    <hyp:AuthType>1</hyp:AuthType>
    <hyp:PAN></hyp:PAN>
    <hyp:Track2></hyp:Track2>
    <hyp:PublicToken>123456789</hyp:PublicToken>
    <hyp:DOB></hyp:DOB>
    <hyp:CVV></hyp:CVV>
    <hyp:AccCode></hyp:AccCode>
    <hyp:LastName></hyp:LastName>
    <hyp:LocDate>2021-01-01</hyp:LocDate>
    <hyp:LocTime>120000</hyp:LocTime>
    <hyp:TerminalID></hyp:TerminalID>
    <hyp:LoadFundsType>4</hyp:LoadFundsType>
    <hyp:LoadSrc>10</hyp:LoadSrc>
    <hyp:AmtUnLoad>10</hyp:AmtUnLoad>
    <hyp:SecID>0</hyp:SecID>
    <hyp:SecVal></hyp:SecVal>
    <hyp:SecValPos>0</hyp:SecValPos>
    <hyp:LoadedBy> </hyp:LoadedBy>
    <hyp>Note>Test unload</hyp:Sms_Required>
  </hyp:Ws_UnLoad>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_UnLoadResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_UnLoadResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>8</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <AmtUnLoad>10</AmtUnLoad>
        <ClientCode/>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>3</AvlBal>
        <BlkAmt>1</BlkAmt>
        <ItemID>1234</ItemID>
        <CurCode>GBP</CurCode>
      </Ws_UnLoadResult>
      <WebServiceResult/>
    </Ws_UnLoadResponse>
  </soap:Body>
</soap:Envelope>

```

MVC Card Activation and Load

API: [Ws_Activate_MVCLoad](#)

This web service allows simultaneous load and activation of a Master Virtual Cards (MVC). It combines the functions of [Ws_BalanceTransfer](#) and [Ws_Activate](#) for clients that are using MVCs.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 10. | Mandatory | Mandatory |
| <Title> | AN | 1 | 4 | Cardholder's title. Also used as the card purchaser's title if no delivery address is supplied. | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Optional | Omit |
| <FirstName> | AN | 1 | 20 | Member's first name Mandatory if <LastName> is present and the value of <ActMethod> is not '6'. | Conditional | Omit |
| <Addr1> | AN | 1 | 50 | Address Line 1 Mandatory if 'Address' fields are being specified | Conditional | Omit |
| <Addr2> | AN | 1 | 50 | Address line 2 | Optional | Omit |
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <Postcode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no postcode is supplied. Mandatory if <addrL1> is present, and <city> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional | Omit |
| <ActMethod> | AN | 1 | 1 | Method used for card activation. See Activation Methods . | Mandatory | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. Mandatory if the value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-----------|
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <MVCPAN> | AN | 16 | 19 | MVC card unique identifier. Mandatory if <MVCToken> is not present in the request. | Conditional | Omit |
| <MVCToken> | AN | 16 | 19 | The MVC card's public token. | Conditional | Mandatory |
| <AmtTxn> | D | 1 | 20 | The requested amount to transfer. If not specified, the full card balance is transferred. The actual amount transferred is returned in the response. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Mandatory | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . | Conditional | Mandatory |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. For transfers between Primary and Secondary cards, the value must be 68. If omitted, defaults to 14 - <i>Unknown</i> for normal transfers, but 68 for Primary-Secondary card transfers. See Load Sources . | Optional | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <Description> | AN** | 1 | 150 | Description of the load. If supplied, will appear in the <description> tag of a response to a card or account query. See Card Statement (V1) . | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1 = Yes, 2 = Waive the fee on the "from" card only, 3= Waive the fee on the "to" card only. Default is 0. | Optional | Omit |
| <BrnCode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. If supplied, it will be exported in the XML in CardLoadUnload > Card > branchcode . | Optional | Omit |
| <ActivateOrNot> | N | 1 | 1 | Whether to activate the card while loading. 1 = activate and load; 0 = load only. | Mandatory | Omit |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in <i>MM/YY</i> format. | Optional | Omit |
| <ItemSrc> | N | 1 | 2 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <SmsBalance> | N | 1 | 1 | Whether to send an SMS regarding the details of transaction amount and available balance to the customer | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|---|---------|-----------|
| | | | | after each card use. 0 or False = Do not send; 1 or True = Send; 2 = Do not change current value. | | |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <ItemId> | AN | 1 | 20 | The unique item ID for this Card Transfer. The ID returned is the ID relating to the 'unload' leg of the transfer, that is, the unload from the MVC. | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See MVC Action Codes . | Omit | Mandatory |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Activate_MVCLoad>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>10</hyp:TxnCode>
      <hyp>Title</hyp>Title>
      <hyp:LastName</hyp:LastName>
      <hyp:FirstName</hyp:FirstName>
      <hyp:Addr1</hyp:Addr1>
      <hyp:Addr2</hyp:Addr2>
      <hyp:City</hyp:City>
      <hyp:PostCode</hyp:PostCode>
      <hyp:Country</hyp:Country>
      <hyp:ActMethod>6</hyp:ActMethod>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN</hyp:PAN>
      <hyp:PublicToken>670240217</hyp:PublicToken>
      <hyp:DOB</hyp:DOB>
      <hyp:CVV</hyp:CVV>
      <hyp:AccCode</hyp:AccCode>
      <hyp:LocDate>2021-08-12</hyp:LocDate>
      <hyp:LocTime>181818</hyp:LocTime>
      <hyp:MVCPAN</hyp:MVCPAN>
      <hyp:MVCToken>669773806</hyp:MVCToken>
      <hyp:AmtTxn>10</hyp:AmtTxn>
      <hyp:CurCode>USD</hyp:CurCode>
      <hyp:LoadSrc>7</hyp:LoadSrc>
      <hyp:LoadedBy>Mathews</hyp:LoadedBy>
      <hyp>Description>Activation and MVC Load</hyp>Description>
      <hyp:FeeWaiver</hyp:FeeWaiver>
      <hyp:BrnCode</hyp:BrnCode>
      <hyp:ActivateOrNot>1</hyp:ActivateOrNot>
      <hyp:ExpDate</hyp:ExpDate>
      <hyp:ItemSrc>0</hyp:ItemSrc>
      <hyp:SMSBalance</hyp:SMSBalance>
    </hyp:Ws_Activate_MVCLoad>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Activate_MVCLoadResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Activate_MVCLoadResult>
        <WSID>7290533590339256320</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>10</TxnCode>
        <PublicKey>670240217</PublicKey>
        <MVCToken>669773806</MVCToken>
        <LocDate>2021-08-12</LocDate>
        <LocTime>120000</LocTime>
        <AmtTxn>10</AmtTxn>
        <CurCode>USD</CurCode>
        <IsLive>true</IsLive>
        <AvlBal>10</AvlBal>
        <BlkAmt>0</BlkAmt>
        <ItemID>123456</ItemID>
        <SysDate>2021-08-12</SysDate>
        <ActionCode>124</ActionCode>
      </Ws_Activate_MVCLoadResult>
    </Ws_Activate_MVCLoadResponse>
  </soap:Body>
</soap:Envelope>
```

MVC Load

API: [Ws_MVCLoad](#)

This web service is used to load funds from Master Virtual Cards (MVC) only. This is similar to balance transfer; the only difference is that the source is always an MVC token.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <MVCToken> | N | 1 | 9 | The MVC card's public token. | Mandatory | Mandatory |
| <NewToken> | N | 1 | 9 | The public token to where funds should be transferred. | Mandatory | Mandatory |
| <AmtTxn> | D | 1 | 20 | The requested amount to transfer. If not specified, the full card balance is transferred. The actual amount transferred is returned in the response. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Conditional | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . Must be supplied in the request if an <AmtTxn> is specified. | Conditional | Mandatory |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <ItemID> | AN | 1 | 20 | The unique item ID for this Card Transfer. The ID returned is the ID relating to the 'unload' leg of the transfer, that is, the unload from the MVC.. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See MVC Action Codes . | Omit | Mandatory |
| <Description> | AN** | 1 | 150 | Description of the load. If supplied, will appear in the <description> tag of a response to a card or account query. See Card Statement (V1) . | Optional | Omit |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_MVCLoad>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:MVCToken>102530687</hyp:MVCToken>
      <hyp:NewToken>102531699</hyp:NewToken>
    </hyp:Ws_MVCLoad>
  </soapenv:Body>
</soapenv:Envelope>
```

```
<hyp: AmtTxn>10</hyp: AmtTxn>
<hyp: CurCode>GBP</hyp: CurCode>
<hyp: LoadedBy>GPS USER</hyp: LoadedBy>
</hyp: Ws_MVCLoad>
</soapenv: Body>
</soapenv: Envelope>
```

Response

```
<soap: Envelope xmlns: soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns: xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns: xsd="http://www.w3.org/2001/XMLSchema">
  <soap: Body>
    <Ws_MVCLoadResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_MVCLoadResult>
        <IssCode>PMT</IssCode>
        <MVCToken>102530687</MVCToken>
        <NewToken>102531699</NewToken>
        <SysDate>2021-02-27</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>58</AvlBal>
        <BlkAmt>0</BlkAmt>
        <AmtTxn>10</AmtTxn>
        <CurCode>GBP</CurCode>
        <ItemID>2291733350</ItemID>
      </Ws_MVCLoadResult>
    </Ws_MVCLoadResponse>
  </soap: Body>
</soap: Envelope>
```

MVC Unload

API: [Ws_MVCUnload](#)

This web service allows customers to unload back to a Master Virtual Cards (MVC) only.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <MVCToken> | N | 1 | 9 | The MVC card's public token. | Mandatory | Mandatory |
| <NewToken> | N | 1 | 9 | The public token to where funds should be transferred. | Mandatory | Mandatory |
| <AmtTxn> | D | 1 | 20 | The requested amount to transfer. If not specified, the full card balance is transferred. The actual amount transferred is returned in the response. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Com | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . Must be supplied in the request if an <AmtTxn> is specified. | Conditional | Mandatory |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . The source of the transfer request. If omitted, defaults to 14 "Unknown". | Optional | Omit |
| <Description> | AN** | 1 | 150 | Description of the load. If supplied, will appear in the <description> tag of a response to a card or account query. See Card Statement (V1) . | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <ItemID> | AN | 1 | 20 | The unique item ID for this Card Transfer. The ID returned is the ID relating to the 'unload' leg of the transfer, that is, the unload from the MVC.. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See MVC Action Codes . | Omit | Mandatory |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
```

```

    <hyp:strUserName>*****</hyp:strUserName>
    <hyp:strPassword>*****</hyp:strPassword>
  </hyp:AuthSoapHeader>
</soapenv:Header>
<soapenv:Body>
  <hyp:Ws_MVCUnload>
    <hyp:IssCode>PMT</hyp:IssCode>
    <hyp:MVCToken>102530687</hyp:MVCToken>
    <hyp:NewToken>102531699</hyp:NewToken>
    <hyp:AmtTxn>10</hyp:AmtTxn>
    <hyp:CurCode>GBP</hyp:CurCode>
    <hyp:LoadedBy>GPS USER</hyp:LoadedBy>
    <hyp:LoadSrc></hyp:LoadSrc>
  </hyp:Ws_MVCUnload>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_MVCUnloadResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_MVCUnloadResult>
        <IssCode>PMT</IssCode>
        <MVCToken>102530687</MVCToken>
        <NewToken>102531699</NewToken>
        <SysDate>2021-02-27</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>68</AvlBal>
        <BlkAmt>0</BlkAmt>
        <AmtTxn>10</AmtTxn>
        <CurCode>GBP</CurCode>
        <ItemID>2291733913</ItemID>
      </Ws_MVCUnloadResult>
    </Ws_MVCUnloadResponse>
  </soap:Body>
</soap:Envelope>

```

Card Change Status

API: [Ws_StatusChange](#)

This web service enables you to change the status of a card, for example to: *Do not honor*, *lost*, *stolen* and *Card destroyed*. For details see [Status Codes](#).

Note: Changes made to the card's status will also update the status of any linked digital payment tokens if the option *dpan_over_fpan* = "N" is set for your cards. For details, see the [Tokenisation Service Guide](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 2. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <NewStatCode> | AN | 2 | 2 | New status code to change the card to. See Status Codes . Note: You cannot set an MFX card's status to 98 or 99. | Mandatory | Omit |
| <Reason> | AN** | 1 | 60 | Reason for the status change. | Optional | Omit |
| <ItemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|--|----------|-----------|
| <TerminalID> | AN** | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Sms_Required> | AN | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Optional | Omit |
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current request returns an action code of <i>868 Duplicate WSID</i> . See WebServiceResult . | Omit | Mandatory |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_StatusChange>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>2</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:NewStatCode>00</hyp:NewStatCode>
      <hyp:Reason></hyp:Reason>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
    </hyp:Ws_StatusChange>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_StatusChangeResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_StatusChangeResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>2</TxnCode>
        <PublicKey>123456789</PublicKey>
        <WebServiceResult/>
      </Ws_StatusChangeResult>
    </Ws_StatusChangeResponse>
  </soap:Body>
</soap:Envelope>
```


Card Unload and Change Status

API: [Ws_UnLoad_StatusChange](#)

This web service simultaneously unloads the card and changes the card status (e.g., to *expired*).

Note: Changes made to the card's status will also update the status of any linked digital payment tokens if the option *dpan_over_fpan* = "N" is set for your cards. For details, see the [Tokenisation Service Guide](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 11. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. Mandatory if the value of <AuthType> is '5'. | Conditional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|--|-------------|-----------|
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <AmtUnLoad> | D | 1 | 20 | The requested amount to unload. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If 0 will unload the whole amount remaining on the card. If the amount is specified, this amount is returned in the response. Otherwise, the actual amount unloaded (net of fees) is returned. | Mandatory | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). If supplied, it will be validated against the cards billing currency. | Conditional | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <StatCode> | AN | 2 | 2 | The card status to set the card to (e.g. Lost, Stolen and Destroyed). See Status Code . Note: You can't set an MFX card's status to 98 or 99. | Mandatory | Omit |
| <Reason> | AN | 1 | 60 | Reason for the status change. | Optional | Omit |
| <Note> | AN | 1 | 256 | Add a note. The text will be displayed in the Smart Client notes field for the transaction. | Optional | Optional |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemID> | AN | 1 | 20 | The unique item ID returned for this load. | Omit | Mandatory |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. It is used in conjunction with existing fee server Item. See Item Source Types . | Mandatory | Omit |
| <LoadedBy> | AN | 1 | 30 | User who unload amount from the card. | Optional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current request returns an action code of 868 Duplicate WSID. See WebServiceResult . | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------|------|----------------|----------------|-----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0. | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|-----------------------|-----------|----------|
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0. | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_UnLoad_StatusChange>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>11</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:LoadFundsType>4</hyp:LoadFundsType>
      <hyp:LoadSrc>10</hyp:LoadSrc>
      <hyp:AmtUnLoad>5</hyp:AmtUnLoad>
      <hyp:CurCode>GBP</hyp:CurCode>
      <hyp:StatCode>56</hyp:StatCode>
      <hyp:Reason>Unload and Status Change</hyp:Reason>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:SecID>2</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
      <hyp:LoadedBy>Admin</hyp:LoadedBy>
      <hyp>Note>Test unload and status change</hyp:Sms_Required>
    </hyp:Ws_UnLoad_StatusChange>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_UnLoad_StatusChangeResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_UnLoad_StatusChangeResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>11</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <AmtUnLoad>5</AmtUnLoad>
        <ClientCode/>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>17</AvlBal>
        <BlkAmt>1</BlkAmt>
        <ItemID>1234</ItemID>
        <CurCode>GBP</CurCode>
      </Ws_UnLoad_StatusChangeResult>
      <WebServiceResult/>
    </Ws_UnLoad_StatusChangeResponse>
  </soap:Body>
</soap:Envelope>
```

Card PIN Control

API: [WS_PinControl](#)

This web service enables you to set, retrieve, unblock and change the PIN associated with the card.

It also allows you to unblock the CVC2 of a card or mobile device token.

PIN field usage

The table below displays the conditions under which each of the PIN fields must be present in the request and response for each [function](#).

Y = the field must be present. Blank = the field must be left empty.

| Function | currentPIN | | newPIN | | confirmPIN | |
|--|------------|----------|---------|----------|------------|----------|
| | Request | Response | Request | Response | Request | Response |
| 00 - Set PIN | | | Y | | Y | |
| 01 - Get PIN | | Y | | | | |
| 02 - Change PIN | Y | | Y | | Y | |
| 03 - Generate and Get PIN | | Y | | | | |
| 04 - Unblock PIN | | | | | | |
| 05 - Send PIN Mailer | | | | | | |
| 06 - Forward PIN request to external API | | | | | | |
| 07 - Unblock CVC2 | | | | | | |
| 08 - Unblock PIN and CVC2 | | | | | | |

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of AuthType is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of AuthType is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of AuthType is '4'. | Conditional | Omit |
| <lastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of AuthType is '6'. | Optional | Omit |
| <locDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <locTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Required in request if AuthType is '1', '2', '3', '4' or '6' and PublicToken not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if PAN is not present. Mandatory in the response. | Conditional | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------------|----------------|----------------|--|-------------|-------------|
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Conditional | Conditional |
| <Func> | AN | 1 | 2 | PIN function requested: 00 = Set PIN 01 = Get PIN 02 = Change PIN 03 = Generate and Get PIN 04 = Unblock PIN 05 = Send PIN mailer 06 = Forward PIN request to external API. See Forwarding a PIN request to an External API . 07 = Unblock CVC2 08 = Unblock PIN and CVC2 | Mandatory | Omit |
| <CurrentPin> | AN | 4 | 12 | Current PIN. Represented as a 4-12 digit PIN block. Usage depends on the value of <func>. This field is mandatory in the request for function 02. For all other functions, this field is ignored. In the response, this field is mandatory for function 01 and 03. For all other functions, this field is omitted. | Conditional | Conditional |
| <NewPin> | AN | 4 | 12 | New PIN. Represented as a 4-12 digit PIN block. Usage depends on the value of <func>. This field is mandatory in the request for functions 00 and 02. For all other functions, this field is ignored. In the response, this field is omitted. | Conditional | Conditional |
| <ConfirmPin> | AN | 4 | 12 | Confirmation of new PIN. Represented as a 4-12 digit PIN block. Usage depends on the value of <func>. This field is mandatory in the request for functions 00 and 02. For all other functions, this field is ignored. In the response, this field is omitted. | Conditional | Omit |
| <PINStatus> | N | 1 | 1 | Indicates whether the allowed number of card PIN tries has been exceeded. 0 = No; 1 = Yes. | Omit | Mandatory |
| <Sms_Required> | AN | 1 | 1 | Whether to send an SMS to the cardholder with the PIN. 0 = No; 1 = Yes. Default is '0'. | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional | Omit |
| <ExtAPICardID> | AN | 1 | 50 | External API card ID if applicable. Follows the UUID canonical format: 'xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx' (with x a hexadecimal char 0->f). If not used, leave blank. Note: Legacy field. Not used. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Forwarding a PIN request to an External API

If the value of <Func> is "06" then GPS will:

1. Check there is an External API associated with the Program Manager of the card. If not, return action code 130.
2. Decrypt the GPS PIN Block and re-encrypt the PIN using the ISO-2 algorithm and KEK key associated with the Program Manager.
3. Call the "PIN by E-channel server" endpoint to deliver the encrypted PIN.
4. Return either success "000" or appropriate action code in the response (see [Action Codes](#)).

Note: The CurrentPIN and NewPIN parameters will be left empty in the response if <Func> is "06".

Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:WS_PinControl>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:AuthType>string</hyp:AuthType>
      <hyp:locDate>2021-01-01</hyp:locDate>
      <hyp:locTime>120000</hyp:locTime>
      <hyp:PIN></hyp:PIN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:Func>01</hyp:Func>
      <hyp:CurrentPin></hyp:CurrentPin>
      <hyp:NewPin></hyp:NewPin>
      <hyp:ConfirmPin></hyp:ConfirmPin>
      <hyp:Sms_Required>1</hyp:Sms_Required>
      <hyp:ExtAPICardID></hyp:ExtAPICardID>
    </hyp:WS_PinControl>
  </soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <WS_PinControlResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <WS_PinControlResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <PublicToken>123456789</PublicToken>
        <ClientCode/>
        <CurrentPin>1234</CurrentPin>
        <NewPin/>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <PINStatus>0</PINStatus>
      </WS_PinControlResult>
    </WS_PinControlResponse>
  </soap:Body>
</soap:Envelope>

```

Card Extend Expiry Date

API: [Ws_ExtendExpiry](#)

This web service enables you to change the GPS expiry date of a card.

Note: The GPS expiry refers to the expiry date held by GPS, calculated based on the GPS validity period from the ProductMaster. This web service does not allow you to change the physical expiry date embossed on the card, calculated based on the card validity period from the SchemeMaster.

The use of this web service is primarily when a scheme operates a shorter validity period within GPS than the embossed expiry validity period. In this case you can extend the cardholder's GPS-held expiry period and potentially charge a fee.

Note: You cannot extend the expiry date of a card which has been set to an irreversible status (such as *Stolen* or *Destroyed*); see [Status Codes](#). If the card is in an irreversible status, this web service will return the [Action Code](#) 654.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 17. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <LastName> | AN | 1 | 20 | Cardholder's last name. | Optional | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request and response if <PAN> and <PublicToken> are not present or when <AuthType> is '4'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. Mandatory if value of <AuthType> is '2'. Otherwise, may be supplied for informational purposes or as part of cardholder registration. If age-verification is configured and conditions are met, the <crdProduct> associated with the card will be changed. Refer to the <crdProduct> field description in the Cardholder Update message for the impact of this change. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. If <AuthType> is '4', the provided access code is used for activation only; the GPS stored value will not be updated. | Conditional | Omit |
| <ExpDate> | YYYY-MM- | 10 | 10 | New GPS-held expiry date. | Mandatory | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|---|-----------|-----------|
| | DD | | | | | |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <Reason> | AN | 1 | 60 | Reason for the status change. | Optional | Omit |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_ExtendExpiry>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>17</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:LastName></hyp:LastName>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:ExpDate>2025-03-31</hyp:ExpDate>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:Reason></hyp:Reason>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
    </hyp:Ws_ExtendExpiry>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

```
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_ExtendExpiryResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_ExtendExpiryResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>17</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <ExpDate>2025-03-31</ExpDate>
        <ClientCode/>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>17</AvlBal>
        <BlkAmt>1</BlkAmt>
        <CurCode>GBP</CurCode>
      </Ws_ExtendExpiryResult>
    </Ws_ExtendExpiryResponse>
  </soap:Body>
</soap:Envelope>
```

Card Renew

API: [Ws_Renew_Card](#)

This web service enables you to renew or replace a card. It combines the functionality of card replacement and card renewal. The replacement card will have the same balance that the original card had at the time when the replacement card is activated. Any linked cards will still point to the correct card.

If you want transfer the card balance immediately to the new card and to update any linked wallet/card payment tokens at the same time, then select one of the following [Renew Options](#) (<RenewOptions>): 18,19,20,21,26 & 28.

Note: If you are replacing the card with a physical card, then you need to activate the card. See [Card Activate](#).

Note: When a card is renewed, if you have enrolled the old card with 3D Secure credentials, then the new card is automatically enrolled with the same 3D Secure credentials. For details, see the [3D Secure Guide](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <PublicToken> is not provided. Mandatory in response. Card number is displayed as masked (e.g., 675926*****1234). If you are PCI compliant, the full PAN can be returned. Check with your Implementation Manager. | Conditional | Mandatory |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <RenewOptions> | N | 1 | 8 | See Renew Options below. | Mandatory | Omit |
| <ExpDate> | AN | 10 | 10 | Expiry Date in YYYY-MM-DD format; this will be forced to the last day of the given month. Mandatory if <RenewOptions> is 8, 10 or 12. | Conditional | Mandatory |
| <NewProductID> | N | 1 | 8 | GPS Product ID for the new card. Mandatory if <RenewOptions> is 4,5 or 12. | Conditional | Omit |
| <SendSMS> | N | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 = No. The default is '0'. The SMS is configurable. | Mandatory | Omit |
| <MailOrSMS> | AN | 1 | 1 | The cardholder's preferred contact method. 0 = SMS; 1 = email. 2 = SMS and email. Default value is '0'. | Optional | Omit |
| <CreateImage> | N | 1 | 1 | Specifies whether to create a card image. 1 = yes, 0 = No. Images are returned in the <Image> response parameter, encrypted by a pre-shared PGP encryption key. | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional | Omit |
| <ProductRef> | AN | 1 | 50 | The physical card design reference as used by the Card Manufacturer. Identifies the <i>PRODUCT_REF</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <DelvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|---------|----------------|----------------|--|----------|-------------|
| | | | | 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | | |
| <VirtualCardImage> | AN | 1 | 16 | The Image ID for the virtual image for the new card. Image IDs are set up in Smart Client in the Image Master and Virtual Card Images screens. Note: If you do not provide an image ID, the default virtual card image for the product is used. | Optional | Omit |
| <ImageSize> | N | 1 | 1 | The size of the virtual image: 1 = 100%; 2 = 200%; 3 = 300%; 4 = 400%; 5 = 500%. Default is 1. | Optional | Omit |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: <i>https://www.gps-e-card.com/balance/2909680989632389</i> For details, see the Card Generation Interface Specifications . | Optional | Omit |
| <CVV> | AN | 3 | 3 | New card CVV. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Image> | Base 64 | | | PGP-encrypted image of the card. Requires configuration within Smart Client. Check with your Implementation Manager. | Omit | Conditional |
| EWALLETS | | | | If you are renewing an eWallet, the response returns an EWALLET structure. | Omit | Conditional |

Renew Options

| Description |
|---|
| <p>0 = No options turned on, produce a card identical to the cardholder's current card (used for damaged card replacement)</p> <p>1 = Calculate a new expiry date.</p> <p>2 = Use a new card number with same expiry as the replaced card.</p> <p>3 = Use a new card number with new expiry.</p> <p>4 = Use a new product with same expiry as replaced card.</p> <p>5 = Use a new product with new expiry.</p> <p>8 = Override normal expiry date calculation.</p> <p>10 = Use new card number and override normal expiry date calculation.</p> <p>12 = Use new product and override normal expiry date calculation.</p> <p>18 = Immediate balance transfer and use a new card number with same expiry as the replaced card.</p> <p>19 = Immediate balance transfer and use a new card number with new expiry.</p> <p>20 = Immediate balance transfer and use a new product with same expiry as replaced card.</p> <p>21 = Immediate balance transfer and use a new product with new expiry.</p> <p>26 = Immediate balance transfer and use new card number and override normal expiry date calculation.</p> <p>28 = Immediate balance transfer and use new product and override normal expiry date calculation.</p> <p>Note: Do not choose Renew Options 0, 1 and 8 if the card status is 41, 43, 83, 98 or 99.</p> |

EWALLET Response Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|---|---------|-----------|
| <IDENTITY> | AN | 1 | 9 | The GPS 16-digit public token. Mandatory in the response. | Omit | Mandatory |
| <CARDS> | | | | See CARDS Description below. | Omit | Mandatory |
| <ACCOUNTS> | | | | See ACCOUNTS Description below; may occur multiple times. | Omit | Mandatory |

CARDS Response Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|---------|-------------|
| <PAN> | AN | 1 | 9 | Card's physical PAN. | Omit | Mandatory |
| <CRDCURRCODE> | AN | 3 | 3 | 3-digit Alpha currency code. | Omit | Mandatory |
| <CRDPRODUCT> | AN | 1 | 50 | GPS product type. | Omit | Mandatory |
| <CUSTCODE> | AN | 1 | 25 | Customer account number. Mandatory in the response if present. | Omit | Conditional |
| <PRIMARY> | AN | 1 | 1 | Indicates if the card is the Primary card. Default value is 'Y'. | Omit | Mandatory |
| <PROGRAMID> | AN | 1 | 50 | Card's program ID. | Omit | Mandatory |
| <STATCODE> | AN | 2 | 2 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <EXPDATE> | AN | 10 | 10 | Expiry date of the card in YYYY-MM-DD format. | Omit | Mandatory |

ACCOUNTS Response Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <ACCNO> | AN | 1 | 9 | Account number of the card. | Omit | Mandatory |
| <ACCTYPE> | AN | 2 | 2 | Type of card account. See Account Types . | Omit | Mandatory |
| <CURRCODE> | AN | 3 | 3 | 3-letter ISO currency code for the cardholder's account (billing) currency. | Omit | Mandatory |
| <FINAMT> | D | 1 | 20 | Balance of the account, excluding blocked amount. | Omit | Mandatory |
| <BLKAMT> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <AMTAVL> | D | 1 | 20 | Balance of the card account. This includes all financials and outstanding authorisations. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Renew_Card>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:RenewOptions>3</hyp:RenewOptions>
      <hyp:ExpDate>2025-06-30</hyp:ExpDate>
      <hyp:NewProductID></hyp:NewProductID>
      <hyp:SendSMS>0</hyp:SendSMS>
      <hyp:MailOrSMS></hyp:MailOrSMS>
      <hyp>CreateImage>0</hyp>CreateImage>
      <hyp:FeeWaiver></hyp:FeeWaiver>
      <hyp:ProductRef></hyp:ProductRef>
      <hyp:DelvMethod></hyp:DelvMethod>
      <hyp:VirtualCardImage></hyp:VirtualCardImage>
      <hyp:ImageSize></hyp:ImageSize>
      <hyp:Url></hyp:Url>
    </hyp:Ws_Renew_Card>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Renew_CardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Renew_CardResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <PAN>999999*****1234</PAN>
        <PublicToken>123456789</PublicToken>
        <ExpDate>2025-06-30</ExpDate>
        <ActionCode>000</ActionCode>
        <CVV>404</CVV>
      </Ws_Renew_CardResult>
    </Ws_Renew_CardResponse>
  </soap:Body>
</soap:Envelope>
```

Card Regenerate Image

API: [Ws_Regenerate](#)

This web service enables you to retrieve the card image configured on the GPS platform, which can then be displayed to the cardholder. Card images are stored for both virtual cards and physical cards that have been converted from virtual cards. If a customer wants to see the image some time after card creation you can regenerate the image by using this web service.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|---------------|----------------|----------------|--|-----------|-------------|
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request and response. | Mandatory | Mandatory |
| <RegenType> | N | 1 | 1 | Whether to regenerate the card. 0 = only return the CVV and do not regenerate; 1 = Regenerate the card only if it has a status of lost or stolen, else recreate the card image (note: legacy only, use Ws_Renew_Card . See Card Renew); 2 = Only create the card image, do not regenerate card. | Mandatory | Omit |
| <Sms_Required> | N | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Mandatory | Omit |
| <Sms_Content > | N | 1 | 1 | Reserved for future use; set to 0. | Mandatory | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Image> | Base64 Binary | | | PGP-encrypted image of the card. Is only returned if a PGP key has been shared and configured. | Omit | Conditional |
| <ExternalRef> | AN | 1 | 30 | External reference code for the card. Note: Legacy field. Not used. | Optional | Omit |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| < MailOrSMS> | AN | 1 | 1 | The cardholder's preferred contact method. 0 = SMS; 1 = email. 2 = SMS and email. Default value is '0'. | Optional | Omit |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | Optional | Optional |
| <PAN> | N | 16 | 19 | Card Number displayed as masked. Note: For customers who are PCI DSS Compliant, the full PAN can be returned if required. This must be enabled at Program Manager level and will apply to all web services which return the PAN. Only returned for successful calls. | Omit | Conditional |
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Optional | Omit |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Regenerate>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:RegenType>1</hyp:RegenType>
      <hyp:Sms_Required>0</hyp:Sms_Required>
      <hyp:Sms_Content>0</hyp:Sms_Content>
      <hyp:ExternalRef>ABCD001</hyp:ExternalRef>
      <hyp:TerminalID>POS-TEST</hyp:TerminalID>
      <hyp:MailOrSMS>0</hyp:MailOrSMS>
      <hyp:WSID>2021123456789678</hyp:WSID>
      <hyp:IssCode>CLIENT</hyp:IssCode>
    </hyp:Ws_Regenerate>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_RegenerateResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_RegenerateResult>
        <PublicToken>123456789</PublicToken>
        <ActionCode>000</ActionCode>
        <CVV>123</CVV>
        <PAN>123456*****4321</PAN>
      </Ws_RegenerateResult>
    </Ws_RegenerateResponse>
  </soap:Body>
</soap:Envelope>
```


Card Get Passcode

API: [Ws_Get_Passcode](#)

This web service enables you to retrieve the Access Code (also known as passcode or activation code) of a card.

Note: The access code must first be provided to GPS when creating a card. See [Card Create](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <PublicToken> is not provided. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code. Can be used to set a code which is validated during activation, e.g. via an IVR system. If provided, it must be 6 digits, leading zeroes are acceptable. Leave empty if not required. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soap:Body>
    <hyp:Ws_Get_Passcode>
      <hyp:WSID>202107150820</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
    </hyp:Ws_Get_Passcode>
  </soap:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Get_PasscodeResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Get_PasscodeResult>
        <WSID>202107150820</WSID>
        <AccCode>935647</AccCode>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
      </Ws_Get_PasscodeResult>
    </Ws_Get_PasscodeResponse>
  </soap:Body>
</soap:Envelope>
```

Card Convert to Physical

API: [Ws_Convert_Card](#)

This web service enables you to upgrade a virtual card to a physical card. It triggers the inclusion of the card in the next XML card manufacturer or personalisation bureau file for your programme. As part of the upgrade to a physical card, a new expiry date and CVV2 will be generated if the conversion and production of the XML card file falls in a different calendar month to the virtual card creation.

Following successful conversion, replacement or renewal, cards are generated as physical card records.

Note: Where a virtual card has been activated, the physical card will also be active in transit. We recommend you enforce virtual only usage until the cardholder has received the card. You also need to use [Ws_Activate](#) (see [Card Activate](#)) to ensure GPS has the updated card record data (where CVV2 and expiry date differ to the virtual card).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-----------|-----------|
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request and response. | Mandatory | Mandatory |
| <ConvertDate> | YYYY-MM-DD | 10 | 10 | The date on which the virtual card is upgraded to a physical card. | Optional | Mandatory |
| <Apply_Fee> | N | 1 | 1 | Whether to apply a card upgrade fee. 0 or blank = No, 1 = Yes. | Mandatory | Omit |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in MM/YY format. | Optional | Omit |
| <ImageId> | AN | 1 | 16 | Reference which identifies the card manufacturer's image file that will be printed on the face of the card. If not supplied, then the <i>ImageId</i> supplied with Ws_CreateCard will be used if available. | Optional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Convert_Card>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:ConvertDate>2021-01-01</hyp:ConvertDate>
      <hyp:Apply_Fee>0</hyp:Apply_Fee>
      <hyp:ExpDate>2025-03-31</hyp:ExpDate>
      <hyp:ImageId></hyp:ImageId>
    </hyp:Ws_Convert_Card>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Convert_CardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Convert_CardResult>
        <ActionCode>000</ActionCode>
        <PublicToken>123456789</PublicToken>
        <ConvertDate>2021-01-01</ConvertDate>
      </Ws_Convert_CardResult>
    </Ws_Convert_CardResponse>
  </soap:Body>
</soap:Envelope>
```

Card Send Files

API: [Ws_Send_CardFiles](#)

This web service enables you to create two .csv files and send the files to the SFTP folder specified in the request. One file contains the 9 digit public token and CVV. The other file contains the 9 digit public token and the middle 6 digits of the PAN.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. | Mandatory | Mandatory |
| <Password> | AN | 1 | 50 | Password to encrypt the files. | Mandatory | Mandatory |
| <SFTP> | AN | 1 | 50 | SFTP folder name. | Mandatory | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Send_CardFiles>
      <hyp:WSID>20211234567896</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:CustAccount>ABCD123</hyp:CustAccount>
      <hyp>Password>@bc123$</hyp>Password>
      <hyp:SFTP>Test</hyp:SFTP>
    </hyp:Ws_Send_CardFiles>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Send_CardFilesResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Send_CardFilesResult>
        <IssCode>PMT</IssCode>
        <CustAccount> ABCD123</CustAccount>
        <Password>>@bc123$</Password>
        <SFTP>Test</SFTP>
        <WSID>20211234567896</WSID>
        <ActionCode>000</ActionCode>
      </Ws_Send_CardFilesResult>
    </Ws_Send_CardFilesResponse>
  </soap:Body>
</soap:Envelope>
```

Cardholder Send Message

API: [Ws_SendMessage](#)

This web service enables you to send a pre-defined message to the cardholder via SMS or Email. GPS can configure the message using a selection of variables.

Note: If the SMS or Email option is selected and a bespoke message has not been configured, the default GPS message will be sent. Character limitation is in line with standard SMS message capacity.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|-------------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Required in request if <AuthType> is '1', '2', '3', '4' or '6' and <PublicToken> is not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. | Optional | Omit |
| <EventId> | N | 1 | 4 | ID of the event. See Event ID below. GPS generates and sends the appropriate SMS or Email message. | Mandatory | Omit |
| <MailOrSMS> | N | 1 | 1 | The cardholder's preferred contact method. 0 = SMS; 1 = email. 2 = SMS and email. Default value is '0'. | Mandatory | Omit |
| <SysDate> | YYYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. Relevant codes are: 604 = Invalid event ID 787 = Email address is missing 788 = Invalid mail or SMS | Omit | Mandatory |

Event ID

| ID | Description | ID | Description |
|----|-----------------|----|--------------------|
| 1 | Activation | 12 | Balance Adjustment |
| 2 | Balance Enquiry | 13 | Balance Transfer |
| 3 | Card Creation | 14 | Change Groups |
| 4 | Card Renewal | 15 | Extent Expiry |

| ID | Description | ID | Description |
|----|-------------------------|----|---|
| 5 | Card Replacement | 16 | Unload |
| 6 | Load | 17 | Unload and Status Change |
| 7 | PIN Retrieval | 18 | Update Cardholder |
| 8 | Status Change | 19 | Send Mobile Activation code to Cardholder |
| 9 | Card Image Regeneration | 20 | Notification of Tokenisation |
| 10 | Card Conversion | 21 | CVC2 Unblock |
| 11 | Activation and Load | | |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_SendMessage>
      <hyp:WSID>5122404400194940928</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:LocDate>2015-07-20</hyp:LocDate>
      <hyp:LocTime>101010</hyp:LocTime>
      <hyp:DOB>1982-01-01</hyp:DOB>
      <hyp:CVV>223</hyp:CVV>
      <hyp:AccCode/>
      <hyp:LastName>Abraham</hyp:LastName>
      <hyp:EventId>1</hyp:EventId>
      <hyp:MailOrSMS>1</hyp:MailOrSMS>
    </hyp:Ws_SendMessage>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_SendMessageResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_SendMessageResult>
        <WSID>5122404400194940928</WSID>
        <IssCode>PMT</IssCode>
        <PublicToken>101967192</PublicToken>
        <LocDate>2015-07-20</LocDate>
        <LocTime>101010</LocTime>
        <SysDate>2015-07-22</SysDate>
        <ActionCode>000</ActionCode>
      </Ws_SendMessageResult>
    </Ws_SendMessageResponse>
  </soap:Body>
</soap:Envelope>
```

Cards Link

API: [Ws_link_cards](#)

This web service enables you to link cards in a Primary and Secondary relationship, which is useful when the primary card with existing secondary card linkage(s) needs to be replaced with a new token. The secondary cards can be linked to the new token via this web service. More than one secondary card can be linked to a primary card.

Notes

- The billing currency of the cards you want to link must be the same.
- If the supplied PAN or PublicToken belongs to a primary card with no secondary cards then it is linked as a new secondary card of the card specified by NewPAN or NewToken.
- If the supplied PAN or PublicToken belongs to a secondary card, then the primary card of that secondary card is changed to the card identified by NewPAN/NewToken.
- If the supplied PAN or PublicToken belongs to a card with one or more secondary cards, then the primary card of each of those secondary cards is changed to NewPAN/NewToken.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | The account number of the card you want to link to another card. Mandatory in request if <PublicToken> is not provided. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The public token of the card you want to link to another card. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <NewPAN> | AN | 16 | 19 | The account number of the card you want to link to. Mandatory in the request if <newToken> is not present. | Conditional | Omit |
| <NewToken> | AN | 16 | 19 | The public token of the card you want to link to. Mandatory in the request if <NewPAN> is not present. | Conditional | Mandatory |
| <LinkageGroup> | AN | 1 | 10 | Linkage Group to use for linking the two tokens. If not specified, uses the default Linkage Group. | Conditional | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <NewPublicToken> | AN | 1 | 9 | New public token assigned to the linked cards. | Omit | Mandatory |
| <SecondaryCards> | - | - | - | An array of secondary cards. See Secondary Card below. Can occur multiple times within the message. | Omit | Mandatory |

Secondary Card

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|-------------------------------------|---------|-----------|
| <PublicToken> | AN | 1 | 9 | Public token of the secondary card. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Link_Cards>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:NewPAN></hyp:NewPAN>
      <hyp:NewToken>987654321</hyp:NewToken>
    </hyp:Ws_Link_Cards>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    </hyp:Ws_Link_Cards>
  </soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Link_CardsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Link_CardsResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <PublicKey>123456789</PublicKey>
        <NewPublicKey>987654321</NewPublicKey>
        <ActionCode>000</ActionCode>
        <SecondaryCards>
          <SecondaryCard>
            <PublicKey>792710863</PublicKey>
          </SecondaryCard>
          <SecondaryCard>
            <PublicKey>506904572</PublicKey>
          </SecondaryCard>
          <SecondaryCard>
            <PublicKey>422232038</PublicKey>
          </SecondaryCard>
          <SecondaryCard>
            <PublicKey>546808888</PublicKey>
          </SecondaryCard>
          <SecondaryCard>
            <PublicKey>838454145</PublicKey>
          </SecondaryCard>
          <SecondaryCard>
            <PublicKey>590228767</PublicKey>
          </SecondaryCard>
        </SecondaryCards>
      </Ws_Link_CardsResult>
    </Ws_Link_CardsResponse>
  </soap:Body>
</soap:Envelope>

```

Remove Cardholder Data

API: [Ws_Remove_CardHolder_Data](#)

This web service removes personally identifying cardholder data (cardholder name, address, email and phone number) from the specified card. You can remove data from multiple cards in a single request.

Before removing data from a card record, the web service checks that the card's issue date is more than 6 years old. The card must not have any balance or blocked amount. The status of the card must be either *Destroyed* or *Expired*.

No transaction details will be removed. This web service does not affect transactional data, such as authorisations and financial records.

Note: Once deleted, this operation cannot be undone. Please take extra care before using this web service.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------|------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TokenData> | AN | 1 | 9 | The public token of the card. You can specify an array of TokenData elements, to remove cardholder data from multiple cards in a single request. | Mandatory | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <TokensCount> | AN | 1 | 4 | The number of public token updates requested. | Omit | Mandatory |
| <TokenDetailsResponse> | | | | Provides an array of token results, one for each public token update request. See TokenResult . | Omit | Mandatory |

TokenResult

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------|----------------|----------------|---|---------|-----------|
| <PublicKey> | AN | 1 | 9 | The public token of the card. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the public token: 000 indicates that the public token has been successfully updated. See Action Codes . | Omit | Mandatory |
| <ActionDescription> | AN | 1 | 4 | Description of the result of the request: <i>Normal</i> , <i>approve</i> indicates that the public token has been successfully updated. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Remove_CardHolder_Data>
```



```

<hyp:WSID>2022202208301234556</hyp:WSID>
<hyp:IssCode>PMT</hyp:IssCode>
<hyp:TokenData>
  <!--Zero or more repetitions:-->
  <hyp:TokenData>
    <hyp:PubToken>523686956</hyp:PubToken>
  </hyp:TokenData>
  <hyp:TokenData>
    <hyp:PubToken>136331110</hyp:PubToken>
  </hyp:TokenData>
  <hyp:TokenData>
    <hyp:PubToken>112060766</hyp:PubToken>
  </hyp:TokenData>
  <hyp:TokenData>
    <hyp:PubToken>112060766</hyp:PubToken>
  </hyp:TokenData>
  <hyp:TokenData>
    <hyp:PubToken>112730529</hyp:PubToken>
  </hyp:TokenData>
</hyp:TokenData>
  <hyp:LocDate>2022-20-05</hyp:LocDate>
  <hyp:LocTime>1200800</hyp:LocTime>
</hyp:Ws_Remove_CardHolder_Data>
</soapenv:Body>

```

Response

```

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Remove_CardHolder_DataResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Remove_CardHolder_DataResult>
        <WSID>2022202208301234556</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <SysDate>2022-04-01</SysDate>
        <TokensCount>5</TokensCount>
        <TokenDetailsResponse>
          <TokenResult>
            <PubToken>136331110</PubToken>
            <ActionCode>000</ActionCode>
            <ActionDescription>Normal, approve</ActionDescription>
          </TokenResult>
          <TokenResult>
            <PubToken>112060766</PubToken>
            <ActionCode>000</ActionCode>
            <ActionDescription>Normal, approve</ActionDescription>
          </TokenResult>
          <TokenResult>
            <PubToken>523686956</PubToken>
            <ActionCode>000</ActionCode>
            <ActionDescription>Normal, approve</ActionDescription>
          </TokenResult>
          <TokenResult>
            <PubToken>112060766</PubToken>
            <ActionCode>000</ActionCode>
            <ActionDescription>Normal, approve</ActionDescription>
          </TokenResult>
          <TokenResult>
            <PubToken>112730529</PubToken>
            <ActionCode>000</ActionCode>
            <ActionDescription>Normal, approve</ActionDescription>
          </TokenResult>
        </TokenDetailsResponse>
        <LocDate>2022-20-05</LocDate>
        <LocTime>1200800</LocTime>
      </Ws_Remove_CardHolder_DataResult>
    </Ws_Remove_CardHolder_DataResponse>
  </soap:Body>
</soap:Envelope>

```

Cardholder Enquiries

You can use the following web services to manage cardholder enquiries:

| |
|---|
| Card Enquiry (Live and Archived) : Ws_Enquiry |
| Card Enquiry (Live) : Ws_Customer_Enquiry and Ws_Customer_Enquiry_V2 |
| Cardholder Details Enquiry : Ws_CardHolder_Details_Enquiry and Ws_CardHolder_Details_Enquiry_V2 |
| Update Cardholder Details (V1) : Ws_Update_Cardholder_Details |
| Update Cardholder Details (V2) : Ws_Update_Cardholder_Details_V2 |
| Cards Get Expiring Soon : Ws_Get_Card_ExpireSoon |
| Card Statement (V1) : Ws_Card_Statement |
| Card Statement (V2) : Ws_Banking_Card_Statement_V2 |

Card Enquiry

API: [Ws_Enquiry](#)

This web service provides the details of a card, such as: *Token*, *Expiry Date*, *Status* and *Cardholder name*. It can be used to quickly determine the validity of a card. It returns useful information such as the status, balance and group membership details of a card.

This web service returns details of both live and archived cards. If you only want to return live cards or all cards associated with a customer, we recommend you use [Ws_Customer_Enquiry](#). See [Customer Enquiry](#).

Note: The full 16 Digit PAN can be supplied for customers who are PCI DSS compliant.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 9. | Mandatory | Mandatory |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Conditional | Conditional |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Optional | Omit |
| <AccNo> | AN | 1 | 28 | Account number of the card. Mandatory if neither <ClientCode> nor <PAN> are provided. Returned in the response if present in the request. | Conditional | Mandatory |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <accno> are not present. Mandatory in the response. | Conditional | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Optional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|---|-------------|-----------|
| | | | | authenticate the cardholder if the value of AuthType is '6'. | | |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of AuthType is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of AuthType is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of AuthType is '4'. | Conditional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <StartDate> | AN | 5 | 5 | Start date printed on the card in the format <i>MM/YY</i> . | Omit | |
| <EndDate> | AN | 5 | 5 | Physical end date printed on the card in the format <i>MM/YY</i> . | Omit | |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Expiry date of the card in <i>YYYY-MM-DD</i> format. | Omit | Mandatory |
| <StatCode> | AN | 2 | 2 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <EmbossName> | AN | 1 | 51 | Name embossed on the card. | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <Scheme> | AN | 1 | 50 | The card's GPS scheme. | Omit | Mandatory |
| <Product> | AN | 1 | 50 | The name you gave to your GPS card product. This is stored in Smart Client. | Omit | Mandatory |
| <MaskedPAN> | AN | 16 | 19 | Card number displayed as masked (e.g., 675926*****1234). Note. The | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|------|----------------|----------------|---|---------|-----------|
| | | | | full PAN can be returned if you are PCI DSS compliant. Contact your Implementation Manager. | | |
| <LimitGroup> | AN | 1 | 10 | Group code of the Limit Group. | Omit | Mandatory |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. | Omit | Mandatory |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. | Omit | Mandatory |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. | Omit | Mandatory |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. | Omit | Mandatory |
| <WSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fee Group. | Omit | Mandatory |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. | Omit | Mandatory |
| <AuthCalendarGroup> | AN | 1 | 10 | Group code of the Auth Calendar Group. | Omit | Mandatory |
| <FXGroup> | AN | 1 | 10 | Group code of the FX Group. | Omit | Mandatory |
| <PrimaryToken> | AN | 1 | 9 | The primary card's public token. | Omit | Mandatory |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Omit | Mandatory |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Omit | Mandatory |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. For details, check with your Implementation Manager. | Omit | Mandatory |
| <CVV2_RemainingTries> | AN | 1 | 2 | The number of online CVV2 tries remaining. | Omit | Mandatory |
| <PIN_RemainingTries> | AN | 1 | 2 | The number of online PIN tries remaining. | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Enquiry>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>9</hyp:TxnCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:PAN></hyp:PAN>
      <hyp:AccNo></hyp:AccNo>
    </hyp:Ws_Enquiry>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    <hyp:PublicKey>123456789</hyp:PublicKey>
    <hyp:CurCode></hyp:CurCode>
    <hyp:LocDate>2013-01-01</hyp:LocDate>
    <hyp:LocTime>120000</hyp:LocTime>
    <hyp:ItemSrc>2</hyp:ItemSrc>
    <hyp:DOB></hyp:DOB>
    <hyp:CVV></hyp:CVV>
    <hyp:AccCode></hyp:AccCode>
    <hyp:LastName></hyp:LastName>
    <hyp:SecId>0</hyp:SecId>
    <hyp:SecVal></hyp:SecVal>
    <hyp:SecValPos>0</hyp:SecValPos>
  </hyp:Ws_Enquiry>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_EnquiryResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_EnquiryResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>9</TxnCode>
        <PublicKey>123456789</PublicKey>
        <LocDate>2013-01-01</LocDate>
        <LocTime>120000</LocTime>
        <StartDate>10/12</StartDate>
        <EndDate>03/15</EndDate>
        <ExpDate>2015-03-31</ExpDate>
        <StatCode>00</StatCode>
        <EmbossName>GIFT CARD</EmbossName>
        <AvlBal>17</AvlBal>
        <BlkAmt>1</BlkAmt>
        <CurCode>GBP</CurCode>
        <ClientCode></ClientCode>
        <SysDate>2013-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <IsLive>true</IsLive>
        <Scheme>Giftcard</Scheme>
        <Product>Gift card brand A</Product>
        <MaskedPAN>987654*****0123</MaskedPAN>
        <LimitGroup>PMT-VL-002</LimitGroup>
        <MCCGroup></MCCGroup>
        <PERMSGGroup>PMT-CU-002</PERMSGGroup>
        <FeeGroup></FeeGroup>
        <AuthCalendarGroup></AuthCalendarGroup>
        <FXGroup></FXGroup>
        <PrimaryToken>9876543212345678</PrimaryToken>
        <BlackList>BL-01</BlackList>
        <WhitelList></WhitelList>
        <PaymentTokenUsageGroup></PaymentTokenUsageGroup>
        <CVV2_RemainingTries>5</CVV2_RemainingTries>
        <PIN_RemainingTries>3</PIN_RemainingTries>
      </Ws_EnquiryResult>
    </Ws_EnquiryResponse>
  </soap:Body>
</soap:Envelope>

```

Customer Enquiry

API: [Ws_Customer_Enquiry](#) and [Ws_Customer_Enquiry_V2](#)

This web service returns the list of cards associated with a customer name. It does not return the details of archived cards.

Note: We recommend you use V2 of this service, which provides additional request and response parameters. V2 returns all cards linked to a specified `<PublicToken>` or `<CustAccount>` including secondary cards. See below.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 4. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. Removed in V2 of service | Conditional | Conditional |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <code><ClientCode></code> or <code><accno></code> are not provided. | Optional | Omit |
| <AccNo> | AN | 1 | 28 | Account number of the card. Mandatory if neither <code><ClientCode></code> nor <code><PAN></code> are provided. Returned in the response if present in the request. Removed in V2 of service | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <code><PAN></code> and <code><accno></code> are not present. Mandatory in the response. | Conditional | Mandatory |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . Only available in V2 of the service | Omit | Optional |
| <CurrCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Conditional | Conditional |
| <CardList> | - | - | - | See Card List below. | Omit | Optional |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Card List

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--|------------|----------------|----------------|---|---------|-----------|
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Omit | Mandatory |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Expiry date of the card in YYYY-MM-DD format. | Omit | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Omit | Mandatory |
| <StatCode> | AN | 2 | 2 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <CrpProduct> | AN | 4 | 5 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. | Omit | Mandatory |
| <Program> | AN | 1 | 6 | The ID of the Program this card belongs to. | Omit | Optional |
| <DesignRef> | AN | 1 | 50 | Predefined design reference code associated with the card, also known as PRODUCT_REF. | Omit | Optional |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <LastName> | AN | 1 | 100 | Cardholder's last name. | Omit | Mandatory |
| <FirstName> | AN | 1 | 100 | Cardholder's first name. | Omit | Mandatory |
| <EmbossName> | AN | 1 | 51 | Name embossed on the card. | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <CustType> | D | 1 | 1 | Identifies the owner of the card: 0 = primary customer; 1 = additional customer (authorised user). Legacy field, no longer used." | Omit | Mandatory |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. For details, check with your Implementation Manager. | Omit | Mandatory |
| Note: Fields listed below are only available in V2 of the web service | | | | | | |
| <PublicToken> | AN | 1 | 9 | GPS 9-digit public token of the card. | Omit | Mandatory |
| <Primary> | AN | 1 | 1 | Indicates if the card is the Primary card. | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------|----------------|----------------|---|---------|-----------|
| <scheme> | AN | 1 | 50 | The card's GPS scheme. | Omit | Mandatory |
| <product> | AN | 1 | 50 | The name you gave to your GPS card product. This is stored in Smart Client. | Omit | Mandatory |
| <MaskedPAN> | AN | 16 | 19 | Card Number displayed as masked. i.e. 675926*****1234. | Omit | Mandatory |
| <StartDate> | AN | 5 | 5 | Start date printed on the card in the format MM/YY. | Omit | Mandatory |
| <EndDate> | AN | 5 | 5 | Physical end date printed on the card in the format MM/YY. | Omit | Mandatory |
| <LimitsGroup> | AN | 1 | 10 | Group code of the Limit Group. | Omit | Mandatory |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. | Omit | Mandatory |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. | Omit | Mandatory |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. | Omit | Mandatory |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. | Omit | Mandatory |
| <WSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fee Group. | Omit | Mandatory |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. | Omit | Mandatory |
| <AuthCalendarGroup> | AN | 1 | 10 | Group code of the Auth Calendar Group. | Omit | Mandatory |
| <FXGroup> | AN | 1 | 10 | Group code of the FX Group. | Omit | Mandatory |
| <ProductID> | N | 1 | 5 | GPS Product ID. | Omit | Mandatory |
| <ProductRef> | AN | 1 | 50 | The physical card design reference as used by the Card Manufacturer. Identifies the <i>PRODUCT_REF</i> field in the XML file sent to the card manufacturer. | Omit | Mandatory |

Request (v1)

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Customer_Enquiry>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>4</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:PAN></hyp:PAN>
      <hyp:AccNo></hyp:AccNo>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:CurrCode>GBP</hyp:CurrCode>
      <hyp:LocDate>2013-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:ItemSrc>2</hyp:ItemSrc>
    </hyp:Ws_Customer_Enquiry>
  </soapenv:Body>
</soapenv:Envelope>
```

Response (v1)

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
```

```

<Ws_Customer_EnquiryResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
  <Ws_Customer_EnquiryResult>
    <WSID>2021123456789</WSID>
    <IssCode>PMT</IssCode>
    <TxnCode>4</TxnCode>
    <ClientCode/>
    <PublicKey>123456789</PublicKey>
    <AccNo>1234567891234567</AccNo>
    <CurCode>GBP</CurCode>
    <LocDate>2013-01-01</LocDate>
    <LocTime>120000</LocTime>
    <SysDate>2013-01-01</SysDate>
    <ActionCode>000</ActionCode>
    <Cards>
      <CardList>
        <PAN>530823*****1234</PAN>
        <ExpDate>2015-03-31</ExpDate>
        <CurCode>GBP</CurCode>
        <StatCode>00</StatCode>
        <CrdProduct>MCRD</CrdProduct>
        <Program>GPSCRU2C</Program>
        <DesignRef/>
        <EmbossName>GIFT CARD</EmbossName>
        <AvlBal>10</AvlBal>
        <BlkAmt>1</BlkAmt>
        <FirstName>Firstname</FirstName>
        <LastName>Lastname</LastName>
        <CustType/>
      </CardList>
    </Cards>
  </Ws_Customer_EnquiryResult>
</Ws_Customer_EnquiryResponse>
</soap:Body>
</soap:Envelope>

```

Request (V2)

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Customer_Enquiry_V2>
      <hyp:WSID>1233</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>4</hyp:TxnCode>
      <hyp:PAN></hyp:PAN>
      <hyp:CustAccount>ABCDE123</hyp:CustAccount>
      <hyp:PublicKey></hyp:PublicKey>
      <hyp:CurrCode>GBP</hyp:CurrCode>
      <hyp:LocDate>2015-09-02</hyp:LocDate>
      <hyp:LocTime>1610</hyp:LocTime>
      <hyp:ItemSrc>1</hyp:ItemSrc>
    </hyp:Ws_Customer_Enquiry_V2>
  </soapenv:Body>
</soapenv:Envelope>

```

Response (v2)

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Customer_Enquiry_V2Response xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Customer_Enquiry_V2Result>
        <WSID>123</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>4</TxnCode>
        <PublicKey>123456789</PublicKey>
        <CustAccount>ABCDE123</CustAccount>
        <CurCode>GBP</CurCode>
        <LocDate>2021-09-02</LocDate>
        <LocTime>1610</LocTime>
        <SysDate>2021-09-02</SysDate>
        <ActionCode>000</ActionCode>
        <Cards>
          <CardList2>
            <PAN>675926*****6791</PAN>
            <ExpDate>2025-04-30</ExpDate>
            <CurCode>GBP</CurCode>
            <StatCode>00</StatCode>
            <CrdProduct>MCRD</CrdProduct>
            <Program>9876</Program>
            <DesignRef>Your product name here</DesignRef>
            <EmbossName>JOHN SMITH</EmbossName>
            <AvlBal>33.11</AvlBal>
          </CardList2>
        </Cards>
      </Ws_Customer_Enquiry_V2Result>
    </Ws_Customer_Enquiry_V2Response>
  </soap:Body>
</soap:Envelope>

```

```
<BlkAmt>0</BlkAmt>
<FirstName>John</FirstName>
<LastName>Smith</LastName>
<CustType/>
<PublicToken>123456789</PublicToken>
<Primary>Y</Primary>
<IsLive>1</IsLive>
<Scheme>Your Scheme Name here</Scheme>
<Product> Your product name here </Product>
<MCCGroup>PMT-MCC-01</MCCGroup>
<LimitGroup>PMT-VL-002</LimitGroup>
<PERMSGGroup>PMT-CU-002</PERMSGGroup>
<FeeGroup>PMT-FEE-01</FeeGroup>
<SchedFeeGroup>PMT-SFG-02</SchedFeeGroup>
<WsFeeGroup>PMT-WSG-09</WsFeeGroup>
<LinkageGroup/>
<PrimaryToken>123456789</PrimaryToken>
<MaskedPAN>675926*****6791</MaskedPAN>
<ProductID>9876</ProductID>
<ProductRef>PROGRAM11</ProductRef>
<PaymentTokenUsageGroup></PaymentTokenUsageGroup>
  </CardList2>
</Cards>
</Ws_Customer_Enquiry_V2Result>
</Ws_Customer_Enquiry_V2Response>
</soap:Body>
</soap:Envelope>
```

Cardholder Details Enquiry

API: [Ws_CardHolder_Details_Enquiry](#) and [Ws_CardHolder_Details_Enquiry_V2](#)

This web service returns the details of a cardholder.

Note: V2 of this web service has some additional parameters and does not return the details of archived cards. See below.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 13. | Mandatory | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Mandatory |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <CrdProduct> | AN | 4 | 4 | Card product associated with the card. Legacy field. | Omit | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. Not available in V2. | Conditional | Conditional |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . Only available in V2 | Omit | Optional |
| <ItemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|--|-------------|-----------|
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Mandatory |
| <StatCode> | AN | 2 | 3 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <Title> | AN | 1 | 4 | Cardholder's title. | Omit | Optional |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. | Omit | Optional |
| <Addr1> | AN | 1 | 50 | Address line 1. | Omit | Optional |
| <Addr2> | AN | 1 | 50 | Address line 2. | Omit | Optional |
| <Addr3> | AN | 1 | 50 | Address line 3. Only available in V2 | Omit | Optional |
| <City> | AN | 1 | 20 | City. | Omit | Optional |
| <PostCode> | AN | 1 | 10 | Postcode. | Omit | Optional |
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). | Omit | Optional |
| <Tel> | AN | 1 | 20 | Telephone number. See Processing of Phone Numbers . | Omit | Optional |
| <WorkAddr1> | AN | 1 | 35 | Work address line 1. | Omit | Optional |
| <WorkAddr2> | AN | 1 | 35 | Work address line 2. | Omit | Optional |
| <WorkAddr3> | AN | 1 | 35 | Work address line 3. | Omit | Optional |
| <WorkCity> | AN | 1 | 20 | Work city. | Omit | Optional |
| <WorkPostCode> | AN | 1 | 10 | Work postcode. | Omit | Optional |
| <WorkCounty> | AN | 1 | 20 | Work county. | Omit | Optional |
| <WorkCountry> | AN | 1 | 3 | Work country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). | Omit | Optional |
| <WorkTel> | AN | 1 | 20 | Work telephone number. See Processing of Phone Numbers . | Omit | Optional |
| <EMail> | AN | 1 | 64 | Email address of the cardholder. | Omit | Optional |
| <Fax> | AN | 1 | 20 | Fax number. | Omit | Optional |
| <PObox> | AN | 1 | 8 | Post office box number. | Omit | Optional |
| <MobTel> | AN | 1 | 20 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Omit | Optional |
| <MaritalStatus> | AN | 1 | 1 | Marital status: S= single; M= married; D = divorced; W = widowed; space = not specified. | Omit | Optional |
| <Sex> | AN | 1 | 1 | Gender: M = male; F= female; space= Not specified. | Omit | Optional |
| <AccNo> | AN | 1 | 28 | Account number of the card. Not available in V2. | Omit | Optional |
| <EmbossName> | AN | 1 | 27 | Name embossed on the card. | Omit | Optional |
| <RefuseCheck> | AN | 1 | 1 | Whether cheques should be refused. 0 = No; 1= Yes. For customer use only. GPS ignore this field. | Omit | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|---------|----------|
| <MailShots> | AN | 1 | 1 | Whether the cardholder accepts mailshots or member contact. 0 = No; 1 = Yes For customer use only. GPS ignore this field. | Omit | Optional |
| <Discret> | AN | 1 | 25 | Discretionary data, for customer use only. GPS ignores this field. | Omit | Optional |
| <UsrData> | AN | 1 | 30 | Cardholder information stored at card level, free text field. For customer use only. GPS ignores this field. | Omit | Optional |
| <UsrData1> | AN | 1 | 12 | Cardholder information stored at member level, free text field. For customer use only. GPS ignores this field. | Omit | Optional |
| <UsrData2> | AN | 1 | 12 | Cardholder information stored at member level, free text field. For customer use only. GPS ignores this field. | Omit | Optional |
| <UsrData3> | AN | 1 | 12 | Cardholder information stored at member level, free text field. For customer use only. GPS ignores this field. | Omit | Optional |
| <UsrData4> | AN | 1 | 32 | Cardholder information stored at member level, free text field. GPS ignores this field. | Omit | Optional |
| <CurrCode> | AN | 1 | 3 | 3-letter ISO currency code for the account billing currency. | Omit | Optional |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Expiry date of the card in YYYY-MM-DD format. This will be the GPS expiry date. If the GPS expiry date is not set, this will be the expiry date printed on the card. | Omit | Optional |
| <EffDate> | YYYY-MM-DD | 10 | 10 | The issue date of the card. If the issue date is not set, then is the <DateCreated>. | Omit | Optional |
| <SvcCode> | AN | 1 | 3 | Card Service Code. The three-digit number which indicates where the card is valid for use. | Omit | Optional |
| <AdditionalNo> | N | 1 | 1 | Number of additional cards. Zero indicates the card is a primary card. Currently always set to 0. Reserved for future use. | Omit | Optional |
| <DateCreated> | YYYY-MM-DD | 10 | 10 | The date created, or the issue date of the card if this is set. | Omit | Optional |
| <DateActivated> | YYYY-MM-DD | 10 | 10 | Date the card was activated in the system. | Omit | Optional |
| <CrdDesign> | AN | 1 | 50 | The card manufacturer's card design reference. Also known as PRODUCT_REF in the XML file sent to the card manufacturer. | Omit | Optional |
| <PIN> | AN | 1 | 1 | Indicates whether the card should have a PIN: 0=No; 1=Yes Reserved for future use | Omit | Optional |
| <DlvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | Omit | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------------|----------------|----------------|--|---------|-------------|
| <ImageID> | AN | 1 | 16 | Reference which identifies the card manufacturer's image file that will be printed on the face of the card. | Omit | Optional |
| <BrnCode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. | Omit | Optional |
| <ReNew> | AN | 1 | 1 | Indicates whether the card should be renewed on expiry: 0= No; 1= Yes. | Omit | Optional |
| <DenyMCC> | AN | 1 | 192 | List of MCC's (merchant category codes) that should be denied for the card. MCC's can be comma-separated, specified as a range, or combinations of both(e.g., 4546,5462,5667-5673,5957). These restrictions are in addition to MCC restrictions defined at the card product level. Legacy field. Do not use. | Omit | Optional |
| <DenySVC> | AN | 1 | 64 | Comma separated list of services (authorised on Transaction Codes) that should be denied for the card: 0 = Sale (Goods & services); 1 = Cash; 9 = Sale with cashback These restrictions are in addition to service code restrictions defined at the Card Product level. Note: For backwards compatibility only. Not used. | Omit | Optional |
| <AccType> | AN | 2 | 2 | Type code for the account associated with the card. Legacy field. Not used. | Omit | Optional |
| <CVC2> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Conditional |
| <DlvTitle> | AN | 4 | 16 | Delivery address title. | Omit | Optional |
| <DlvFirstName> | AN | 1 | 20 | Delivery first name. | Omit | Optional |
| <DlvLastName> | AN | 1 | 20 | Delivery last name. | Omit | Optional |
| <DlvAddrL1> | AN | 1 | 50 | Delivery address line 1. | Omit | Optional |
| <DlvAddrL2> | AN | 1 | 50 | Delivery address line 2. | Omit | Optional |
| <DlvAddrL3> | AN | 1 | 50 | Delivery address line 3. | Omit | Optional |
| <DlvCity> | AN | 1 | 20 | Delivery city. | Omit | Optional |
| <DlvPostcode> | AN | 1 | 10 | Delivery Post code Only available in V2. | Omit | Optional |
| <DlvCounty> | AN | 1 | 20 | Card purchaser's /delivery address county. | Omit | Optional |
| <DlvCountry> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). | Omit | Optional |
| <DlvTel> | AN | 1 | 20 | Delivery telephone number. | Omit | Optional |
| <DlvEffDate> | YYYY-MM-DD | 10 | 10 | Date at which the delivery name and/or address became effective. If not present, the current date is the effective date. Legacy field. Not used. | Omit | Optional |
| <DlvExpDate> | YYYY-MM-DD | 10 | 10 | Date after which the delivery name and/or address expires. Mandatory if name and/or address delivery fields are present. Legacy field. Not used. | Omit | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|--|---------|-----------|
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <IsoLang> | AN | 2 | 2 | The language code in ISO 639-1 format. The language is used for card mailers, and also used if bespoke SMS templates are set up. | Omit | Optional |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_CardHolder_Details_Enquiry>
      <hyp:WSID>12345678</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>13</hyp:TxnCode>
      <hyp:LocDate>2021-02-17</hyp:LocDate>
      <hyp:LocTime>094300</hyp:LocTime>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN />
      <hyp:Track2 />
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB />
      <hyp:CVV />
      <hyp:AccCode />
      <hyp:ClientCode />
      <hyp:ItemSrc>0</hyp:ItemSrc>
      <hyp:LastName />
      <hyp:secID>0</hyp:secID>
      <hyp:secVal />
      <hyp:SecValPos>0</hyp:SecValPos>
    </hyp:Ws_CardHolder_Details_Enquiry>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CardHolder_Details_EnquiryResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CardHolder_Details_EnquiryResult>
        <WSID>2021123456789678</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>13</TxnCode>
        <LocDate>2021-02-17</LocDate>
        <LocTime>094300</LocTime>
        <ClientCode/>
        <PublicToken>123456789</PublicToken>
        <DOB>1990-01-01</DOB>
        <StatCode>00</StatCode>
        <CrdProduct/>
        <Title>Mr</Title>
        <FirstName>Bloggs</FirstName>
        <LastName>Joe</LastName>
        <Addr11>Office 13, The High Street</Addr11>
        <Addr12>6-8 Aldgate</Addr12>
        <City>London</City>
        <PostCode>EC3A 7BB</PostCode>
        <Country>826</Country>
        <Tel/>
        <WorkAddr11/>
        <WorkAddr12/>
      </Ws_CardHolder_Details_EnquiryResult>
    </Ws_CardHolder_Details_EnquiryResponse>
  </soap:Body>
</soap:Envelope>
```



```
<WorkAddr13/>
<WorkCity/>
<WorkPostCode/>
<WorkCounty/>
<WorkCountry/>
<WorkTel/>
<EMail>joe.bloggs@google.com</EMail>
<Fax/>
<POBox>EC3A 7BB</POBox>
<MobTel/>
<MaritalStatus/>
<Sex/>
<AccNo/>
<EmbossName>GIFT CARD</EmbossName>
<RefuseCheck>0</RefuseCheck>
<MailShots>1</MailShots>
<Discret/>
<UsrData/>
<UsrData1/>
<UsrData2/>
<UsrData3/>
<UsrData4/>
<CurrCode>GBP</CurrCode>
<ExpDate>2021-12-31</ExpDate>
<EffDate>2021-01-19</EffDate>
<SvcCode>221</SvcCode>
<AdditionalNo>0</AdditionalNo>
<DateCreated>2021-01-19</DateCreated>
<DateActivated>2021-01-20</DateActivated>
<CrdDesign>PMTPPU</CrdDesign>
<PIN>0</PIN>
<DlvMethod>0</DlvMethod>
<ImageID/>
<BrnCode/>
<ReNew>0</ReNew>
<DenyMCC/>
<DenySVC/>
<AccType/>
<CVC2>554</CVC2>
<DlvTitle>Mr</DlvTitle>
<DlvFirstName>Bloggs</DlvFirstName>
<DlvLastName>Joe</DlvLastName>
<DlvAddrL1>Office 13, The High Street</DlvAddrL1>
<DlvAddrL2>6-8 Aldgate</DlvAddrL2>
<DlvAddrL3/>
<DlvCity>London</DlvCity>
<DlvCounty/>
<DlvCountry>826</DlvCountry>
<DlvTel/>
<DlvEffDate/>
<DlvExpDate/>
<IsoLang/>
<SysDate>2021-02-17</SysDate>
<ActionCode>000</ActionCode>
</Ws_CardHolder_Details_EnquiryResult>
</Ws_CardHolder_Details_EnquiryResponse>
</soap:Body>
</soap:Envelope>
```

Update Cardholder Details (V1)

API: [Ws_Update_Cardholder_Details](#)

This web service allows you to update cardholder details, such as: [name](#) and [address](#).

Note: You can also use [Ws_Update_Cardholder_Details_V2](#), which provides additional fields. See [Update Cardholder Details \(V2\)](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 13. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <accCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <newAccCode> | AN | 0 | 6 | The new access code for the card. This can be updated by the primary card and by additional cards that share the same customer record. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. | Optional | Omit |
| <crdProduct> | AN | 4 | 4 | Card product associated with the card. Legacy field. Will always be blank. | Optional | Conditional |
| <lastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | C | Omit |
| <Title> | AN | 1 | 4 | Cardholder's title. This can be updated by the primary card and by additional cards that share the same customer record. | Optional | Omit |
| <firstName> | AN | 1 | 20 | Cardholder's first name. Also used as the card purchaser's first name if no delivery address is supplied. Mandatory if <lastName> is present | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------------------|------|----------------|----------------|---|-------------|----------|
| | | | | and the value of <code><AuthType></code> is not '6'. | | |
| <code><addr1></code> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional | Omit |
| <code><addr2></code> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <code><addr3></code> | AN | 1 | 50 | Cardholder's address line 3. Also used as the card purchaser's address line 3 if no delivery address is supplied. | Optional | Omit |
| <code><city></code> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <code><addrL1></code> is present, and <code><post-code></code> is not present. | Conditional | Omit |
| <code><postcode></code> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no postcode is supplied. Mandatory if <code><addrL1></code> is present, and <code><city></code> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <code><country></code> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <code><addrL1></code> is present. | Conditional | Omit |
| <code><tel></code> | AN | 1 | 20 | Telephone number. See Processing of Phone Numbers . | Optional | Omit |
| <code><Workaddr1></code> | AN | 1 | 35 | Work address line 1. Mandatory if work address fields are being specified. If set to <code><space></code> , then clears <i>all</i> work address fields. | Conditional | Omit |
| <code><Workaddr2></code> | AN | 1 | 35 | Work address line 2. | Optional | Omit |
| <code><Workaddr3></code> | AN | 1 | 35 | Work address line 3. | Optional | Omit |
| <code><Workcity></code> | AN | 1 | 20 | Work city. Mandatory if <code><workAddrL1></code> is present, and <code><workPostcode></code> is not present. | Conditional | Omit |
| <code><Workpostcode></code> | AN | 1 | 10 | Work postcode. Mandatory if <code><addrL1></code> is present, and <code><workCity></code> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <code><Workcountry></code> | AN | 1 | 20 | Work county. | Optional | Omit |
| <code><Workcountry></code> | AN | 1 | 3 | Work country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <code><workAddrL1></code> is present. | Conditional | Omit |
| <code><Worktel></code> | AN | 1 | 20 | Work telephone number. See Processing of Phone Numbers . | Optional | Omit |
| <code><pobox></code> | AN | 1 | 8 | Post office box number. | Optional | Omit |
| <code><email></code> | AN | 1 | 64 | Email address of the cardholder. | Optional | Omit |
| <code><fax></code> | AN | 1 | 20 | Fax number. | Optional | Omit |
| <code><mobTel></code> | AN | 1 | 25 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Optional | Omit |
| <code><maritalStatus></code> | AN | 1 | 1 | Marital status: S= single; M= married; D = divorced; W = widowed; space = not specified. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|---|----------|----------|
| <sex> | AN | 1 | 1 | Gender: M = male; F= female; space= Not specified. | Optional | Omit |
| <embossName> | AN | 1 | 27 | Name embossed on the card. Note that actual embossed name will not change until the card is re-issued. This can be updated by the primary card and by additional cards that share the same customer record. | Optional | Omit |
| <refuseCheck> | AN | 1 | 1 | Whether cheques should be refused. 0 = No; 1= Yes. For customer use only. GPS ignore this field. | Optional | Omit |
| <mailShots> | AN | 1 | 1 | Whether the cardholder accepts mailshots or member contact. 0 = No; 1 = Yes For customer use only. GPS ignore this field. | Optional | Omit |
| <discret> | AN | 1 | 25 | Discretionary data, for information only. | Optional | Omit |
| <userdata> | AN | 1 | 30 | Cardholder information stored at card level, free text field. | Optional | Omit |
| <userdata1> | AN | 1 | 12 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <userdata2> | AN | 1 | 12 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <userdata3> | AN | 1 | 12 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <userdata4> | AN | 1 | 32 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <pin> | AN | 1 | 1 | Indicates whether the card should have a PIN: 0 = No; 1 = Yes. This can be updated by the primary card and by additional cards that share the same member record. Note: updating this value to reflect that the card has a PIN will not induce a PIN-generation request. This must be initiated by another means. An update from 0 to 1 means that a PIN may be requested. | Optional | Omit |
| <imageID> | AN | 1 | 16 | ID of the card manufacturer image to be printed on the card. This can be updated by the primary card and by additional cards that share the same member record. | Optional | Omit |
| <brncode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. This can be updated by the primary card and by additional cards that share the same member record. | Optional | Omit |
| <renew> | AN | 1 | 1 | Indicates whether the card should be renewed on expiry: 0 = No, 1= Yes. Note: The value is stored, but currently not used. Future feature. | Optional | Omit |
| <dlvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6= Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|-------|----------------|----------------|---|-------------|----------|
| <denyMCC> | AN | 1 | 192 | List of MCC's (merchant category codes) that should be denied for the card. MCC's can be comma-separated, specified as a range, or combinations of both (e.g. 4546,5462,5667-5673,5957). These restrictions are in addition to MCC restrictions defined at the card product level. Note: For legacy use only. | Optional | Omit |
| <denySvc> | AN | 1 | 64 | Comma separated list of services (authorised on Transaction Codes) that should be denied for the card: 0 = Sale (Goods & services); 1 = Cash; 9 = Sale with cashback These restrictions are in addition to service code restrictions defined at the Card Product level. Note: For backwards compatibility only. Not used. | Optional | Omit |
| <accType> | AN | 2 | 2 | Type of card account. See Account Types . | Optional | Omit |
| <memo> | AN | 1 | 4096 | Add a memo to the customer details that will be visible to CSR's on the GUI application. | Optional | Omit |
| <memoScope> | N | 1 | 3 | Scope of visibility for the memo. 0 - full visibility (any user logged in to the GUI application will be able to view this memo). To set more restrictive scopes, the Member and GPS must agree the value for each level. This value may then be used here. Default value as 0. | Mandatory | Omit |
| <memoUser> | AN | 1 | 15 | The user that created the memo. | Optional | Omit |
| <itemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <dlvTitle> | AN | 4 | 16 | Delivery address title. | Optional | Omit |
| <dlvfirstName> | AN | 1 | 20 | Delivery first name. Mandatory if <dlvLastName> is present. | Conditional | Omit |
| <dlvlastName> | AN | 1 | 20 | Delivery last name. Mandatory if delivery name fields are being specified. | Conditional | Omit |
| <dlvaddr1> | AN | 1 | 50 | Delivery address line 1. Mandatory if delivery address fields are being specified. | Conditional | Omit |
| <dlvaddr2> | AN | 1 | 50 | Delivery address line 2. | Optional | Omit |
| <dlvaddr3> | AN | 1 | 50 | Delivery address line 3. | Optional | Omit |
| <dlvcity> | AN | 1 | 20 | Delivery city. Mandatory if <dlvAddrL1> is present, and <dlvPostcode> is not present. | Conditional | Omit |
| <dlvpostcode> | AN | 1 | 10 | Delivery postcode. Mandatory if <dlvAddrL1> is present, and <dlvCity> is not present. See Post-code Permitted Characters . | Conditional | Omit |
| <dlvcounty> | AN | 1 | 20 | Delivery county. | Optional | Omit |
| <dlvcountry> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). Mandatory if <dlvAddrL1> is present. | Conditional | Omit |
| <dlvtel> | AN | 1 | 20 | Delivery telephone number. | Optional | Omit |
| <dlvEffDate> | YYYY- | 10 | 10 | Date at which delivery name and/or address | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------------|----------------|----------------|--|-----------|-----------|
| | MM-DD | | | becomes effective. If not specified, the current date is used as the effective date. | | |
| <dlvDaysValid> | N | 1 | 3 | No longer used. Set to 0. | Mandatory | Omit |
| <crdprogram> | AN | 1 | 6 | Pre-defined program reference code associated with the card. This can be updated by the primary card and by additional cards that share the same customer record. | Optional | Omit |
| <crddesign> | AN | 1 | 50 | The card manufacturer's card design reference. Also known as PRODUCT_REF in the XML file sent to the card manufacturer. | Optional | Omit |
| <sysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <actionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <feeTier> | AN | 1 | 3 | The fee tier based on which fees are charged for the card. | Optional | Omit |
| <isoLang> | AN | 2 | 2 | The language code in ISO 639-1 format. The language is used for card mailers, and also used if bespoke SMS templates are set up. | Optional | Omit |
| <fundcrdPAN> | AN | 13 | 19 | PAN of source-of-funds card. Reserved for future use. DO NOT USE | Optional | Omit |
| <fundCrdEffDate> | YYYY-MM-DD | 10 | 10 | Start Date of source-of-funds card. Reserved for future use. DO NOT USE | Optional | Omit |
| <fundCrdExpDate> | YYYY-MM-DD | 10 | 10 | Expiry Date of source-of-funds card. Reserved for future use. DO NOT USE | Optional | Omit |
| <fundCrdType> | AN | 1 | 15 | Type of card used as source of funds: MC = MasterCard VISA = Visa DELTA = Visa Debit/Delta SWITCH = UK Maestro MASTRO = International Maestro SOLO = Solo AMEX = American Express Reserved for future use. DO NOT USE | Optional | Omit |
| <fundCrdIssNum> | N | 1 | 2 | Issuer number of source of card funds. Reserved for future use. Set to 0. | Mandatory | Omit |
| <fundCrdCVC> | N | 3 | 4 | Card verification code of source of card funds. Reserved for future use. Set to 0. | Mandatory | Omit |
| <SmsBalance> | N | 1 | 1 | Whether to send an SMS regarding the details of transaction amount and available balance to the customer after each card use. 0 or False = Do not send; 1 or True = Send; 2 = Do not change current value. | Mandatory | Omit |
| <CustAccount> | AN | 1 | 25 | Client reference for the card. | Optional | Omit |
| <VanityName> | AN | 1 | 32 | Enables you to add an additional alternative form of title to the card, e.g. "Company Director". Can appear on <i>Embossed Line 4</i> , or <i>Thermal Line 1</i> and <i>Thermal Line 2</i> , if configured in Smart Client, and be recorded in the card purchaser details. | Optional | Omit |
| <CarrierType> | AN | 1 | 30 | Defines carrier product. Note: This is the Carrier Product Design reference as used by the card printer. | Optional | Omit |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Gen- | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----|------|----------------|----------------|--|---------|----------|
| | | | | eration file, in the <code><QRCode></code> field. For example: <code>https://www.gps-e-card.-com/balance/2909680989632389</code> For details, see the Card Generation Interface Specifications . | | |

Service Details

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------------|------|----------------|----------------|---|-----------|----------|
| <code><svcSrc></code> | N | 1 | 2 | RESERVED FOR FUTURE USE Source of the service. Please use the value 4 (has no effect) | Mandatory | Omit |
| <code><svcType></code> | N | 1 | 3 | RESERVED FOR FUTURE USE The service type. Please use the value 1 (has no effect) | Mandatory | Omit |
| <code><svcStatus></code> | N | 1 | 1 | RESERVED FOR FUTURE USE The service status associated with <code><SMSSVCTYPE></code> . Please use the value 1 (has no effect) | Mandatory | Omit |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------------|------|----------------|----------------|----------------------|-----------|----------|
| <code><SecId></code> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <code><SecVal></code> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <code><SecValPos></code> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Clearing Field Values

The following fields can have their values cleared by sending a `<space>`:

```

title
lastName
firstName
addrL1
addrL2
addrL3
city
county
postcode
country
tel
userdata
workAddrL1
workAddrL2
workAddrL3
workCity
workCounty
workPostcode
workCountry
workTel
pobox
maritalStatus
sex
userdata1
userdata2
userdata3
userdata4
mailshots
email
fax
mobTel
newAccCode
embossName
imageID
VanityName
HouseNo
dlvPostCode
dlvaddr1
dlvaddr2
dlvaddr3
dlvcity
dlvcountry

```

Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Update_Cardholder_Details>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>13</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:accCode></hyp:accCode>
      <hyp:newAccCode></hyp:newAccCode>
      <hyp:crdProduct></hyp:crdProduct>
      <hyp:lastName></hyp:lastName>
      <hyp:Title></hyp:Title>
      <hyp:firstName></hyp:firstName>
      <hyp:addr1></hyp:addr1>
      <hyp:addr2></hyp:addr2>
      <hyp:city></hyp:city>
      <hyp:postcode></hyp:postcode>
      <hyp:country></hyp:country>
      <hyp:tel></hyp:tel>
      <hyp:Workaddr1>Office 13, Telfords Yard</hyp:Workaddr1>
      <hyp:Workaddr2>6-8 The Highway, Wapping </hyp:Workaddr2>
      <hyp:Workaddr3></hyp:Workaddr3>
      <hyp:Workcity>London</hyp:Workcity>
      <hyp:Workpostcode>E1W 2BS</hyp:Workpostcode>
      <hyp:Workcountry></hyp:Workcountry>
      <hyp:Workcountry>826</hyp:Workcountry>
      <hyp:Worktel></hyp:Worktel>
      <hyp:pobox></hyp:pobox>
      <hyp:email></hyp:email>
      <hyp:fax></hyp:fax>
      <hyp:mobTel></hyp:mobTel>
      <hyp:maritalStatus>M</hyp:maritalStatus>
      <hyp:sex>M</hyp:sex>
      <hyp:embossName></hyp:embossName>
      <hyp:refuseCheck></hyp:refuseCheck>
      <hyp:mailShots></hyp:mailShots>
      <hyp:discret></hyp:discret>
      <hyp:userdata></hyp:userdata>
      <hyp:userdata1></hyp:userdata1>
      <hyp:userdata2></hyp:userdata2>
      <hyp:userdata3></hyp:userdata3>
      <hyp:userdata4></hyp:userdata4>
      <hyp:pin></hyp:pin>
      <hyp:imageID></hyp:imageID>
      <hyp:brncode></hyp:brncode>
      <hyp:renew></hyp:renew>
      <hyp:dlvMethod></hyp:dlvMethod>
      <hyp:denyMCC></hyp:denyMCC>
      <hyp:denySvc></hyp:denySvc>
      <hyp:accType></hyp:accType>
      <hyp:memo></hyp:memo>
      <hyp:memoScope>0</hyp:memoScope>
      <hyp:memoUser></hyp:memoUser>
      <hyp:itemSrc>2</hyp:itemSrc>
      <hyp:dlvTitle></hyp:dlvTitle>
      <hyp:dlvfirstName></hyp:dlvfirstName>
      <hyp:dlvlastName></hyp:dlvlastName>
      <hyp:dlvaddr1></hyp:dlvaddr1>
      <hyp:dlvaddr2></hyp:dlvaddr2>
      <hyp:dlvaddr3></hyp:dlvaddr3>
      <hyp:dlvcity></hyp:dlvcity>
      <hyp:dlvpostcode></hyp:dlvpostcode>
      <hyp:dlvcountry></hyp:dlvcountry>
      <hyp:dlvcountry></hyp:dlvcountry>
      <hyp:dlvtel></hyp:dlvtel>
      <hyp:dlvEffDate></hyp:dlvEffDate>
      <hyp:dlvDaysValid>0</hyp:dlvDaysValid>
      <hyp:crdprogram></hyp:crdprogram>
      <hyp:crddesign></hyp:crddesign>
      <hyp:feeTier></hyp:feeTier>
      <hyp:isoLang></hyp:isoLang>
      <hyp:fundcrdPAN></hyp:fundcrdPAN>
      <hyp:fundCrdEffDate></hyp:fundCrdEffDate>
      <hyp:fundCrdExpDate></hyp:fundCrdExpDate>
      <hyp:fundCrdType>1</hyp:fundCrdType>
      <hyp:fundCrdIssNum>1</hyp:fundCrdIssNum>
      <hyp:fundCrdCVC>1</hyp:fundCrdCVC>
      <hyp:svcSrc>1</hyp:svcSrc>
      <hyp:svcType>1</hyp:svcType>
      <hyp:svcStatus>1</hyp:svcStatus>
      <hyp:secID>0</hyp:secID>
    </hyp:Ws_Update_Cardholder_Details>
  </soapenv:Body>
</soapenv:Envelope>

```



```
<hyp:SecVal></hyp:SecVal>
<hyp:SecValPos>0</hyp:SecValPos>
<hyp:PublicToken>123456789</hyp:PublicToken>
<hyp:SmsBalance>0</hyp:SmsBalance>
<hyp:Url></hyp:Url>
</hyp:Ws_Update_Cardholder_Details>
</soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Update_Cardholder_DetailsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Update_Cardholder_DetailsResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>13</TxnCode>
        <ClientCode/>
        <PublicToken>123456789</PublicToken>
        <CrdProduct/>
        <SysDate>2013-01-01</SysDate>
        <ActionCode>000</ActionCode>
      </Ws_Update_Cardholder_DetailsResult>
    </Ws_Update_Cardholder_DetailsResponse>
  </soap:Body>
</soap:Envelope>
```

Update Cardholder Details (V2)

API: [Ws_Update_Cardholder_Details_V2](#)

This web service updates the details of a cardholder.

Note: This web service is an enhancement to [Ws_Update_Cardholder_Details](#) (see [Update Cardholder Details \(V1\)](#)). It allows you to update additional cardholder details, such as [EmbossLine4](#), [ProductRef](#) and [ThermalLine1](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 13. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <accCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <newAccCode> | AN | 0 | 6 | The new access code for the card. This can be updated by the primary card and by additional cards that share the same customer record. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. | Optional | Omit |
| <lastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | C | Omit |
| <Title> | AN | 1 | 4 | Cardholder's title. This can be updated by the primary card and by additional cards that share the same customer record. | Optional | Omit |
| <firstName> | AN | 1 | 20 | Cardholder's first name. Also used as the card purchaser's first name if no delivery address is supplied. Mandatory if <lastName> is present and the value of <AuthType> is not '6'. | Conditional | Omit |
| <addr1> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional | Omit |
| <addr2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <addr3> | AN | 1 | 50 | Cardholder's address line 3. Also used as the card purchaser's address line 3 if no delivery address is supplied. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|---|-------------|----------|
| <city> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <postcode> | AN | 1 | 10 | | Conditional | Omit |
| <country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional | Omit |
| <tel> | AN | 1 | 20 | Telephone number. See Processing of Phone Numbers . | Optional | Omit |
| <Workaddr1> | AN | 1 | 35 | Work address line 1. Mandatory if work address fields are being specified. If set to <space>, then clears <i>all</i> work address fields. | Conditional | Omit |
| <Workaddr2> | AN | 1 | 35 | Work address line 2. | Optional | Omit |
| <Workaddr3> | AN | 1 | 35 | Work address line 3. | Optional | Omit |
| <Workcity> | AN | 1 | 20 | Work city. Mandatory if <workAddrL1> is present, and <workPostcode> is not present. | Conditional | Omit |
| <Workpostcode> | AN | 1 | 10 | Work postcode. Mandatory if <addrL1> is present, and <workCity> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <Workcountry> | AN | 1 | 20 | Work country. | Optional | Omit |
| <Workcountry> | AN | 1 | 3 | Work country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <workAddrL1> is present. | Conditional | Omit |
| <Worktel> | AN | 1 | 20 | Work telephone number. See Processing of Phone Numbers . | Optional | Omit |
| <email> | AN | 1 | 64 | Email address of the cardholder. | Optional | Omit |
| <fax> | AN | 1 | 20 | Fax number. | Optional | Omit |
| <mobTel> | AN | 1 | 25 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Optional | Omit |
| <maritalStatus> | AN | 1 | 1 | Marital status: S= single; M= married; D = divorced; W = widowed; space = not specified. | Optional | Omit |
| <sex> | AN | 1 | 1 | Gender: M = male; F= female; space= Not specified. | Optional | Omit |
| <embossName> | AN | 1 | 27 | Name embossed on the card. Note that actual embossed name will not change until the card is re-issued. This can be updated by the primary card and by additional cards that share the same customer record. | Optional | Omit |
| <discret> | AN | 1 | 25 | Discretionary data, for information only. | Optional | Omit |
| <userdata> | AN | 1 | 30 | Cardholder information stored at card level, free text field. | Optional | Omit |
| <userdata1> | AN | 1 | 12 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <userdata2> | AN | 1 | 12 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <userdata3> | AN | 1 | 12 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <userdata4> | AN | 1 | 32 | Cardholder information stored at member level, free text field. | Optional | Omit |
| <imageID> | AN | 1 | 16 | ID of the card manufacturer image to be printed on the | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------------|----------------|----------------|--|-------------|-----------|
| | | | | card. This can be updated by the primary card and by additional cards that share the same member record. | | |
| <brncode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. This can be updated by the primary card and by additional cards that share the same member record. | Optional | Omit |
| <dlvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | Optional | Omit |
| <itemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |
| <dlvTitle> | AN | 4 | 16 | Delivery address title. | Optional | Omit |
| <dlvfirstName> | AN | 1 | 20 | Delivery first name. Mandatory if <dlvLastName> is present. | Conditional | Omit |
| <dlvlastName> | AN | 1 | 20 | Delivery last name. Mandatory if delivery name fields are being specified. | Conditional | Omit |
| <dlvaddr1> | AN | 1 | 50 | Delivery address line 1. Mandatory if delivery address fields are being specified. | Conditional | Omit |
| <dlvaddr2> | AN | 1 | 50 | Delivery address line 2. | Optional | Omit |
| <dlvaddr3> | AN | 1 | 50 | Delivery address line 3. | Optional | Omit |
| <dlvcity> | AN | 1 | 20 | Delivery city. Mandatory if <dlvAddrL1> is present, and <dlvPostcode> is not present. | Conditional | Omit |
| <dlvpostcode> | AN | 1 | 10 | Delivery postcode. Mandatory if <dlvAddrL1> is present, and <dlvCity> is not present. See Postcode Permitted Characters . | Conditional | Omit |
| <dlvcounty> | AN | 1 | 20 | Delivery county. | Optional | Omit |
| <dlvcountry> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). Mandatory if <dlvAddrL1> is present. | Conditional | Omit |
| <crdprogram> | AN | 1 | 6 | Pre-defined program reference code associated with the card. This can be updated by the primary card and by additional cards that share the same customer record. | Optional | Omit |
| <ProductRef> | AN | 1 | 50 | The card manufacturer's card design reference. Also known as PRODUCT_REF in the XML file sent to the card manufacturer. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <isoLang> | AN | 2 | 2 | The language code in ISO 639-1 format. The language is used for card mailers, and also used if bespoke SMS templates are set up. | Optional | Omit |
| <SmsBalance> | N | 1 | 1 | Whether to send an SMS regarding the details of transaction amount and available balance to the customer after each card use. 0 or False = Do not send; 1 or True = Send; 2 = Do not change current value. | Mandatory | Omit |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------|----------------|----------------|---|----------|----------|
| | | | | can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | | |
| <VanityName> | AN | 1 | 32 | Enables you to add an additional alternative form of title to the card, e.g. "Company Director". Can appear on <i>Embossed Line 4</i> , or <i>Thermal Line 1</i> and <i>Thermal Line 2</i> , if configured in Smart Client, and be recorded in the card purchaser details. | Optional | Omit |
| <CarrierType> | AN | 1 | 30 | The Carrier Product design reference as used by the Card Manufacturer. This is the letter onto which the card is attached when sent to the cardholder. Identifies the Carrier Product type of the Card Manufacturer. | Optional | Omit |
| <Fulfil1> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL1</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <Fulfil2> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL2</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <ThermalLine1> | AN | 1 | 120 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a customer service phone number. | Optional | Omit |
| <ThermalLine2> | AN | 1 | 70 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a link to your service terms and conditions. | Optional | Omit |
| <EmbossLine4> | AN | 1 | 27 | The card's embossed line 4 on the front of the card. Could be used for example, to add an account number or sort code. | Optional | Omit |
| <LogoFrontID> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the face of the card. | Optional | Omit |
| <LogoBackID> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the back of the card, if supported. | Optional | Omit |
| <Delv_Code> | AN | 1 | 12 | The delivery code for the card. If specified, the card manufacturer sends all cards with the same delivery code to the specified delivery address. | Optional | Omit |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: https://www.gps-e-card.com/balance/2909680989632389 For details, see the Card Generation Interface Specifications . | Optional | Omit |

Clearing field values

The following fields may have their values cleared by sending a <space>:

| | | | | |
|-----------|--------------|---------------|-------------|--------------|
| Title | tel | maritalStatus | embossName | Fulfil1 |
| lastName | userdata | sex | imageID | Fulfil2 |
| firstName | workAddr1 | userdata1 | VanityName | ProductRef |
| addr1 | workAddr2 | userdata2 | dlvpostcode | ThermalLine1 |
| addr2 | workAddr3 | userdata3 | dlvaddr1 | ThermalLine2 |
| addr3 | workcity | userdata4 | dlvaddr2 | |
| city | workcounty | email | dlvaddr3 | |
| county | workpostcode | fax | dlvcity | |
| postcode | workcountry | mobTel | dlvcountry | |
| country | worktel | newAccCode | EmbossLine4 | |

Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Update_Cardholder_Details_V2>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>13</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:accCode></hyp:accCode>
      <hyp:newAccCode></hyp:newAccCode>
      <hyp:lastName></hyp:lastName>
      <hyp:Title></hyp:Title>
      <hyp:firstName></hyp:firstName>
      <hyp:addr1></hyp:addr1>
      <hyp:addr2></hyp:addr2>
      <hyp:addr3></hyp:addr3>
      <hyp:city></hyp:city>
      <hyp:postcode></hyp:postcode>
      <hyp:country></hyp:country>
      <hyp:tel></hyp:tel>
      <hyp:Workaddr1>Office 13, Telfords Yard</hyp:Workaddr1>
      <hyp:Workaddr2>6-8 The Highway, Wapping </hyp:Workaddr2>
      <hyp:Workaddr3></hyp:Workaddr3>
      <hyp:Workcity>London</hyp:Workcity>
      <hyp:Workpostcode>E1W 2BS</hyp:Workpostcode>
      <hyp:Workcountry></hyp:Workcountry>
      <hyp:Workcountry>826</hyp:Workcountry>
      <hyp:Worktel></hyp:Worktel>
      <hyp:email></hyp:email>
      <hyp:fax></hyp:fax>
      <hyp:mobTel></hyp:mobTel>
      <hyp:maritalStatus>M</hyp:maritalStatus>
      <hyp:sex>M</hyp:sex>
      <hyp:embossName></hyp:embossName>
      <hyp:discret></hyp:discret>
      <hyp:userdata></hyp:userdata>
      <hyp:userdata1></hyp:userdata1>
      <hyp:userdata2></hyp:userdata2>
      <hyp:userdata3></hyp:userdata3>
      <hyp:userdata4></hyp:userdata4>
      <hyp:imageID></hyp:imageID>
      <hyp:brncode></hyp:brncode>
      <hyp:dlvMethod></hyp:dlvMethod>
      <hyp:itemSrc>2</hyp:itemSrc>
      <hyp:dlvTitle></hyp:dlvTitle>
      <hyp:dlvfirstName></hyp:dlvfirstName>
      <hyp:dlvlastName></hyp:dlvlastName>
      <hyp:dlvaddr1></hyp:dlvaddr1>
      <hyp:dlvaddr2></hyp:dlvaddr2>
      <hyp:dlvaddr3></hyp:dlvaddr3>
      <hyp:dlvcity></hyp:dlvcity>
      <hyp:dlvpostcode></hyp:dlvpostcode>
      <hyp:dlvcountry></hyp:dlvcountry>
      <hyp:dlvcountry></hyp:dlvcountry>
      <hyp:crdprogram></hyp:crdprogram>
      <hyp:ProductRef></hyp:ProductRef>
      <hyp:isoLang></hyp:isoLang>
      <hyp:SmsBalance>0</hyp:SmsBalance>
      <hyp:CustAccount></hyp:CustAccount>
      <hyp:VanityName></hyp:VanityName>
      <hyp:CarrierType></hyp:CarrierType>
      <hyp:Fulfil1></hyp:Fulfil1>
      <hyp:Fulfil2></hyp:Fulfil2>
      <hyp:ThermalLine1></hyp:ThermalLine1>
      <hyp:ThermalLine2></hyp:ThermalLine2>
      <hyp:EmbossLine4></hyp:EmbossLine4>
      <hyp:LogoFrontId></hyp:LogoFrontId>
      <hyp:LogoBackId></hyp:LogoBackId>
      <hyp:Delv_Code></hyp:Delv_Code>
      <hyp:Url></hyp:Url>
    </hyp:Ws_Update_Cardholder_Details_V2>
  </soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>

```

```
<Ws_Update_Cardholder_Details_V2Response xmlns="http://www.globalprocessing.ae/HyperionWeb">
  <Ws_Update_Cardholder_Details_V2Result>
    <WSID>2021123456789</WSID>
    <IssCode>PMT</IssCode>
    <TxnCode>13</TxnCode>
    <ClientCode/>
    <PublicKey>123456789</PublicKey>
    <SysDate>2020-08-01</SysDate>
    <ActionCode>000</ActionCode>
  </Ws_Update_Cardholder_Details_V2Result>
</Ws_Update_Cardholder_Details_V2Response>
</soap:Body>
</soap:Envelope>
```

Cards Get Expiring Soon

API: [Ws_Get_Card_ExpireSoon](#)

This web service returns the details of cards that are going to expire before the end of the current month. The response returns all cards due to expire, regardless of the volume.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <cardList> | - | - | - | An array of Card_Details . See Card_Details below. Can occur multiple times within the message. | | |

Card_Details

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------------|----------------|----------------|---|---------|-----------|
| <Scheme> | AN | 1 | 50 | Scheme name. | Omit | Mandatory |
| <Product> | AN | 1 | 50 | Name of the product. | Omit | Mandatory |
| <PublicKey> | N | 16 | 19 | Card's public token. | Omit | Mandatory |
| <Emboss_Name> | AN | 1 | 51 | Name embossed on the card. | Omit | Mandatory |
| <ExpiryDate> | YYYY-MM-DD | 10 | 10 | Expiry date of the card in YYYY-MM-DD format. | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Indicates whether the card is active: 1 = Active; 0 = Not Active | Omit | Mandatory |
| <ActivationDate> | YYYY-MM-DD | 10 | 10 | Activation date of the card. | Omit | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the account billing currency. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Get_Card_ExpireSoon>
```



```

    <hyp:WSID>20211234567896</hyp:WSID>
    <hyp:IssCode>PMT</hyp:IssCode>
  </hyp:Ws_Get_Card_ExpireSoon>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Get_Card_ExpireSoonResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Get_Card_ExpireSoonResult>
        <WSID>20211234567896</WSID>
        <IssCode>PMT</IssCode>
        <SysDate>2021-10-22</SysDate>
        <ActionCode>000</ActionCode>
        <cardList>
          <Card_Details>
            <Scheme>ABCD</Scheme>
            <Product>XYZ</Product>
            <PublicToken>123456789</PublicToken>
            <Emboss_Name>FIRSTNAME LASTNAME</Emboss_Name>
            <ExpiryDate>2021-11-12</ExpiryDate>
            <IsLive>true</IsLive>
            <ActivationDate>2020-11-12</ActivationDate>
            <AvlBal>2206</AvlBal>
            <BlkAmt>0.00</BlkAmt>
            <CurCode>GBP</CurCode>
          </Card_Details>
          <Card_Details>
            <Scheme>ABCD</Scheme>
            <Product>ASDF</Product>
            <PublicToken>789456123</PublicToken>
            <Emboss_Name>FIRSTNAME LASTNAME</Emboss_Name>
            <ExpiryDate>2021-11-15</ExpiryDate>
            <IsLive>true</IsLive>
            <ActivationDate>2020-01-08</ActivationDate>
            <AvlBal>0</AvlBal>
            <BlkAmt>0.00</BlkAmt>
            <CurCode>GBP</CurCode>
          </Card_Details>
        </cardList>
      </Ws_Get_Card_ExpireSoonResult>
    </Ws_Get_Card_ExpireSoonResponse>
  </soap:Body>
</soap:Envelope>

```

Card Statement (V1)

API: [Ws_Card_Statement](#)

This web service returns transactions performed by the cardholder which took place on the card since a specified date. If the date is omitted then one month's transactions are returned. Starting balance and current (actual and available) balances are also returned. See also [Card Statement \(V2\)](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 5. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <ItemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <StartBal> | D | 1 | 20 | The opening balance of the card account for the period required, ignoring any pending authorisations. The amount can include up to four decimal places, depending on the currency expo- | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------------|----------------|----------------|---|----------|-------------|
| | | | | ment (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | | |
| <EndBal> | D | 1 | 20 | The closing balance of the card for the period required, ignoring pending authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <TxnFilter> | AN | 1 | 1 | Filter method to control the type of account entries returned: 0 = All account entries. Includes redemption transactions (including refunds), loads, and unloads, transfers, balance adjustments, account status changes and web service and card load fees. Also includes pending authorisations, expired authorisations, and auths matched with a financial i.e. cleared, and manually cleared authorisations. This is the default option if a value is not provided. 1 = Account entries affecting the account balance or available funds. Same as '0', but excludes cleared authorisations and account status changes. 2 = Financial entries only. Same as '1', but excludes all authorisations and also Expiry breakages. 3 = Shows only Loads, unloads, expiry breakages, balance adjustments and fees. 4 = Settled transactions only. Includes loads, unloads, presentments, balance adjustments, expiries and all other settled transactions, but excludes outstanding authorisations. 5 = All financial transactions, i.e., includes redemption transactions (including refunds), loads and unloads, transfers, balance adjustments, pending authorisations, expired authorisations, and authorised matched with a financial (i.e. cleared, and manually cleared authorisations). 6 = Accepted, pending authorisations only 7 = Same as 0 but also shows ATM/POS fees as separate fee entries. The field must be present in the response if present in the request. | Optional | Conditional |
| <StartDate> | YYYY-MM-DD | 10 | 10 | Start date for the Enquiry. Valid dates are in the range 1900-01-01 to 2079-06-06. Only account entries on this day and beyond are returned. If not specified and if <NumTxn> is 0, the search returns results of one calendar month by default. These results are sorted in ascending order of <ItemId>. The field is returned in the response if it is in the request. Note: If the field is present and date range is more than 3 months then this field value will be overridden with a new start date value, calculated by GPS to provide the most recent 3 months. | Optional | Conditional |
| <EndDate> | YYYY-MM-DD | 10 | 10 | End date for the Enquiry. Valid dates are in the range 1900-01-01 to 2079-06-06. Only account entries on this day and before is returned. | Optional | Conditional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------|------------|----------------|----------------|--|-----------|-----------|
| | | | | If not specified and if <NumTxn> is 0, the search returns results up to the last account entry. These results are sorted in ascending order of <ItemId>. The field is returned in the response if it is in the request. Note: If the field is present and date range is more than 3 months then response contains only the most recent 3 months of data. | | |
| <NumTxn> | N | 1 | 4 | Number of transactions to return. Used for requesting a specific number of the most recent transactions. The transactions are sorted in descending order of <ItemId>. If present, <StartDate> and <EndDate> are ignored. In the response, this field indicates the actual number of transactions returned. | Optional | Mandatory |
| <DataSrc> | N | 1 | 1 | The data source to be used to make the account enquiry. It has two predefined values: 0 or 1 = Live database ; 2 = Archive database. | Mandatory | Omit |
| <ItemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Mandatory |
| <DescriptionDelimiter> | AN | 1 | 1 | If provided, is used as an alternative delimiter to separate the Card Acceptor Name Location (DE 043) field of the presentment returned from MasterCard or Visa into: <i>Street, City and Country</i> . | Optional | Omit |
| <CurBill> | AN | 3 | 3 | 3-letter ISO currency code for the cardholder's account (billing) currency. | Omit | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Transactions> | | | | List of 0 or more Transaction2 elements (see Transaction2 Description below). | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Transaction2 Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------|------------|----------------|----------------|---|----------|-------------|
| <TxnDate> | YYYY-MM-DD | 10 | 10 | Calendar date on which the transaction is processed. Also the settlement date for certain types of transactions, such as presentments. | Optional | Mandatory |
| <PostDate> | YYYY-MM-DD | 10 | 10 | The businesses date on which GPS process the transaction. For most transactions this is the same as the system date when the transaction was created. For fee collections, this is the reconciliation date. | Optional | Mandatory |
| <AmtBill> | D | 1 | 20 | The amount of the transaction billed (for financials) or blocked (for authorisations) to the cardholder account, expressed in the account currency <CurBill>. | Omit | Mandatory |
| <AmtTxn> | D | 1 | 20 | The transaction amount, expressed in the transaction currency <CurTxn>. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Optional |
| <BillConvRate> | D | 1 | 8 | The conversion rate used to calculate the billing amount <AmtBill> from the transaction amount <AmtTxn>. $BillConvRate = AmtTxn / AmtBill$ | Omit | Conditional |
| <DebOrCred> | AN | 1 | 1 | Whether a debit or credit transaction. '-1' = Debit; '1' = Credit. | Omit | Mandatory |
| <TerminalId> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Omit | Conditional |
| <Description> | AN | 1 | 150 | Transaction description | Omit | Mandatory |
| <RRN> | AN | 1 | 12 | Retrieval reference number (DE037) from MasterCard or Visa. | Omit | Optional |
| <CurTxn> | AN | 1 | 3 | Transaction currency, represented by the 3-letter ISO currency code. | Omit | Optional |
| <ItemId> | AN | 1 | 20 | The item ID. Present in all returned items that impact the funds on the account. | Omit | Conditional |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <TransactionType> | AN | 1 | 2 | The type of the transaction. See Transaction Types . For certain changes relating only to account details, this field may be omitted. | Omit | Conditional |
| <StatusCode> | AN | 1 | 2 | The transaction status code. See Transaction Status . For certain changes relating only to account details, this field may be omitted. | Omit | Conditional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------------|----------------|----------------|---|---------|-------------|
| <StatusDesc> | AN | 1 | 50 | Transaction status description. See Transaction Status . | Omit | Conditional |
| <TxnTime> | N | 6 | 6 | Time at which GPS processed the transaction in <i>HHMMSS</i> format. | Omit | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | Calendar date the transaction was generated by the terminal (POS/ATM) or acquirer. Applicable to MasterCard or Visa received transactions only. For presentment transactions it is the local date of the terminal that generated the transaction. | Omit | Conditional |
| <Feeld> | N | 1 | 19 | Specifies the unique identifier of the fee, created by GPS. | Omit | Optional |
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Omit | Optional |
| <FixedFee> | D | 1 | 20 | Fixed fee applied to this transaction. | Omit | Optional |
| <RateFee> | D | 1 | 20 | Rate fee applied to this particular transaction. | Omit | Optional |
| <FxPdg> | D | 1 | 20 | Padding amount applied for a foreign currency transaction. | Omit | Optional |
| <MCCPdg> | D | 1 | 20 | Padding amount applied against a particular merchant category. | Omit | Optional |
| <LinkId> | AN | 1 | 20 | Identifier of the linked financial transaction. | Omit | Conditional |
| <MCC> | AN | 1 | 4 | Merchant category code (presentments only). | Omit | Conditional |
| <OrigStan> | AN | 1 | 50 | System Trace Audit Number (STAN) returned from MasterCard or Visa. | Omit | Optional |
| <ProcCode> | AN | 1 | 6 | Processing code (DE003) of the transaction if processed by Mastercard or Visa. GPS also use this field to supply a processing code for GPS-generated transactions; See Processing Codes . | Omit | Conditional |
| <MCCDescription> | AN | 1 | 250 | Merchant Category Code (MCC) description. | Omit | Conditional |
| <Dom_Fee_Fixed> | D | 1 | 20 | Fixed domestic fee amount. | Omit | Conditional |
| <Dom_Fee_Rate> | D | 1 | 20 | Rate domestic fee amount. | Omit | Conditional |
| <Non_Dom_Fee_Fixed> | D | 1 | 20 | Fixed non-domestic fee amount. | Omit | Conditional |
| <Non_Dom_Fee_Rate> | D | 1 | 20 | Rate non-domestic fee amount. | Omit | Conditional |
| <Fx_Fee_Fixed> | D | 1 | 20 | Fixed foreign exchange (FX) fee amount. | Omit | Conditional |
| <Fx_Fee_Rate> | D | 1 | 20 | Rate foreign exchange (FX) fee amount. | Omit | Conditional |
| <Other_Fee_Desc> | D | 1 | 20 | Description of any other fees applied to this transaction (e.g., monthly fee). | Omit | Conditional |
| <Other_Fee_Amt> | D | 1 | 20 | Other fee amount. | Omit | Conditional |
| <TxnCodeType> | AN | 1 | 20 | Transaction type code (for an authorisation, presentment or reversal only): pos = point of sale transaction. atm = automated teller machine transaction (e.g., cash withdrawal) pos_cb = point of sale transaction with cash-back. pos_re = purchase refund | Omit | Conditional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----|------|----------------|----------------|----------------------------------|---------|----------|
| | | | | tfr = cardholder funds transfer. | | |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Card_Statement>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>5</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
      <hyp:TxnFilter>5</hyp:TxnFilter>
      <hyp:StartDate></hyp:StartDate>
      <hyp:EndDate></hyp:EndDate>
      <hyp:NumTxn>0</hyp:NumTxn>
      <hyp>DataSrc>0</hyp>DataSrc>
    </hyp:Ws_Card_Statement>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Card_StatementResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Card_StatementResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>5</TxnCode>
        <ClientCode/>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <StartBal>10</StartBal>
        <EndBal>0</EndBal>
        <TxnFilter>5</TxnFilter>
        <StartDate/>
        <EndDate/>
        <NumTxn>2</NumTxn>
        <ItemSrc>2</ItemSrc>
        <CurBill>GBP</CurBill>
        <AvlBal>0</AvlBal>
        <BlkAmt>0</BlkAmt>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <Transactions>
          <Transaction2>
            <TxnDate>2021-01-01</TxnDate>
            <PostDate>2021-01-01</PostDate>
            <AmtBill>10</AmtBill>
            <AmtTxn>10</AmtTxn>
            <BillConvRate>1</BillConvRate>
            <DebOrCred>-1</DebOrCred>
            <TerminalId/>
            <Description> Unload: UnLoad</Description>
            <RRN/>
            <CurTxn>GBP</CurTxn>
            <ItemId>4321</ItemId>
            <AvlBal>0</AvlBal>
            <BlkAmt>0</BlkAmt>
            <TransactionType>U</TransactionType>
            <StatusCode>S</StatusCode>
            <StatusDesc>Settled : -</StatusDesc>
            <TxnTime>105025</TxnTime>
            <LocDate>2021-01-01</LocDate>
            <FeeId>0</FeeId>
          </Transaction2>
        </Transactions>
      </Ws_Card_StatementResult>
    </Ws_Card_StatementResponse>
  </soap:Body>
</soap:Envelope>
```

```
<WSID>2021123456789</WSID>
<FixedFee>0</FixedFee>
<RateFee>0</RateFee>
<FxPdg>0</FxPdg>
<MCCPdg>0</MCCPdg>
<LinkId>0</LinkId>
<ProcCode>230000</ProcCode>
</Transaction2>
<Transaction2>
  <TxnDate>2021-01-01</TxnDate>
  <PostDate>2021-01-01</PostDate>
  <AmtBill>10</AmtBill>
  <AmtTxn>10</AmtTxn>
  <BillConvRate>1</BillConvRate>
  <DebOrCred>1</DebOrCred>
  <TerminalId/>
  <Description> Load: Web services load </Description>
  <RRN/>
  <CurTxn>GBP</CurTxn>
  <ItemId>1233</ItemId>
  <AvlBal>10</AvlBal>
  <BlkAmt>0</BlkAmt>
  <TransactionType>L</TransactionType>
  <StatusCode>S</StatusCode>
  <StatusDesc>Settled : -</StatusDesc>
  <TxnTime>100854</TxnTime>
  <LocDate>2021-01-01</LocDate>
  <FeeId>0</FeeId>
  <WSID>2021123456789</WSID>
  <FixedFee>0</FixedFee>
  <RateFee>0</RateFee>
  <FxPdg>0</FxPdg>
  <MCCPdg>0</MCCPdg>
  <LinkId>0</LinkId>
  <ProcCode>220000</ProcCode>
</Transaction2>
</Transactions>
</Ws_Card_StatementResult>
</Ws_Card_StatementResponse>
</soap:Body>
</soap:Envelope>
```


Card Statement (V2)

API: [Ws_Banking_Card_Statement_V2](#)

This web service is an enhancement to [Ws_Card_Statement](#) (see [Card Statement \(V1\)](#)) and returns all statement details for this card, as well as for previous cards if the card has been replaced.

Request Description

The details for the request are identical to those in [Card Statement \(V1\)](#): [Ws_Card_Statement](#).

Response Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|---|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode>. | | Optional |
| <Statements > | List (CardStatement2) | | | A list of card statements. Each statement gives details of the card's associated statements. For details, see Card Statement (V1) . | | |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_Card_Statement_V2>
      <hyp:request>
        <hyp:WSID>1234465</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:TxnCode>5</hyp:TxnCode>
        <hyp:ClientCode></hyp:ClientCode>
        <hyp:ItemSrc>2</hyp:ItemSrc>
        <hyp:AuthType>1</hyp:AuthType>
        <hyp:PAN></hyp:PAN>
        <hyp:Track2></hyp:Track2>
        <hyp:PublicToken>123456789</hyp:PublicToken>
        <hyp:DOB></hyp:DOB>
        <hyp:CVV></hyp:CVV>
        <hyp:AccCode></hyp:AccCode>
        <hyp:LastName></hyp:LastName>
        <hyp:LocDate>2021-01-01</hyp:LocDate>
        <hyp:LocTime>120000</hyp:LocTime>
        <hyp:TerminalID></hyp:TerminalID>
        <hyp:SecID>0</hyp:SecID>
        <hyp:SecVal></hyp:SecVal>
        <hyp:SecValPos>0</hyp:SecValPos>
        <hyp:TxnFilter>5</hyp:TxnFilter>
        <hyp:StartDate></hyp:StartDate>
        <hyp:EndDate></hyp:EndDate>
        <hyp:NumTxn>0</hyp:NumTxn>
        <hyp:DataSrc>0</hyp:DataSrc>
        <hyp:DescriptionDelimiter>,</hyp:DescriptionDelimiter>
      </hyp:request>
    </hyp:Ws_Banking_Card_Statement_V2>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <Ws_Banking_Card_Statement_V2Response xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_Card_Statement_V2Result>
        <WSID>1234</WSID>
        <ActionCode>string</ActionCode>
        <ErrorText>string</ErrorText>
        <Statements>
          <CardStatement2>
            <WSID>2021123456789</WSID>
            <IssCode>PMT</IssCode>
            <TxnCode>5</TxnCode>
          </CardStatement2>
        </Statements>
      </Ws_Banking_Card_Statement_V2Result>
    </Ws_Banking_Card_Statement_V2Response>
  </soap:Body>
</soap:Envelope>
```

```
<ClientCode></ClientCode>
<PublicKey>123456789</PublicKey>
<LocDate>2021-01-01</LocDate>
<LocTime>120000</LocTime>
<StartBal>10</StartBal>
<EndBal>0</EndBal>
<TxnFilter>5</TxnFilter>
<StartDate></StartDate>
<EndDate></EndDate>
<NumTxn>2</NumTxn>
<ItemSrc>2</ItemSrc>
<CurBill>GBP</CurBill>
<AvlBal>0</AvlBal>
<BlkAmt>0</BlkAmt>
<SysDate>2021-01-01</SysDate>
<ActionCode>000</ActionCode>
<Transactions xsi:nil="true" />
</CardStatement2>
<CardStatement2>
  <WSID>20211234567896</WSID>
  <IssCode>PMT</IssCode>
  <TxnCode>5</TxnCode>
  <ClientCode></ClientCode>
  <PublicKey>234456789</PublicKey>
  <LocDate>2021-01-01</LocDate>
  <LocTime>120000</LocTime>
  <StartBal>10</StartBal>
  <EndBal>0</EndBal>
  <TxnFilter>5</TxnFilter>
  <StartDate></StartDate>
  <EndDate></EndDate>
  <NumTxn>2</NumTxn>
  <ItemSrc>2</ItemSrc>
  <CurBill>GBP</CurBill>
  <AvlBal>0</AvlBal>
  <BlkAmt>0</BlkAmt>
  <SysDate>2021-01-01</SysDate>
  <ActionCode>000</ActionCode>
  <Transactions xsi:nil="true" />
</CardStatement2>
</Statements>
</Ws_Banking_Card_Statement_V2Result>
</Ws_Banking_Card_Statement_V2Response>
</soap:Body>
</soap:Envelope>
```

Card Balance Overview

You can use the following web services to check, update or transfer the balance on an account:

[Card Balance Enquiry](#): [Ws_Balance_Enquiry](#) and [Ws_Balance_Enquiry\(_V2\)](#)

[Card Balance Enquiry \(lightweight\)](#): [Ws_Card_BalEnq](#)

[Card Balance Adjustment](#): [Ws_BalanceAdjustment](#)

[Card Balance Update](#): [Ws_BalanceUpdate](#)

[Card Balance Transfer](#): [Ws_BalanceTransfer](#)

Card Balance Enquiry

API: [Ws_Balance_Enquiry](#) and [Ws_Balance_Enquiry_V2](#)

This web service returns the current available balance on the card.

Note: There are two versions of this web service. [Ws_Balance_Enquiry_V2](#) omits a few request parameters and includes a new [LimitInfo](#) response structure, as described below.

Note: GPS recommends that clients implement EHI (External Host Interface) to receive up-to-date customer balances after every transaction to comply with a Mastercard mandate which states that issuers must offer a mobile-based transaction alerts service to cardholders. For details, contact your Implementation Manager.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value '3'. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Conditional | Conditional |
| <itemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <track2> and <PublicToken> are not present. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request and response if <PAN> and <PublicToken> are not present or when <AuthType> is '4'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|---|----------|-----------|
| <GetLimits> | AN | 1 | 1 | Optional request parameter to return limit information. Possible values are: 0 = Do not return limits information; 1 = Return limits information. If GetLimits is empty or not supplied, the default is 0. If GetLimits is 1, an extra XML element is returned in the reponse. See LimitInfo Details below. | Optional | Omit |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <PINStatus> | N | 1 | 1 | Indicates whether the allowed number of card PIN tries has been exceeded. 0 = No; 1 = Yes. | Omit | Mandatory |
| <LimitInfo> | | | | See LimitInfo Details below. Occurs 0 or 1 times in the response. | Omit | Optional |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

LimitInfo Details (V1)

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------|------|----------------|----------------|--|---------|-----------|
| <MaxAllowableBalance> | D | 1 | 20 | Maximum allowed balance of the card. | Omit | Mandatory |
| <DailyLoadLimit> | D | 1 | 20 | Daily load limit. | Omit | Mandatory |
| <DailyLoadFrequencyLimit> | D | 1 | 20 | Daily load frequency. | Omit | Mandatory |
| <AmountLoaded> | D | 1 | 20 | Amount loaded today. | Omit | Mandatory |
| <NoOfLoads> | D | 1 | 20 | Number of loads today. | Omit | Mandatory |
| <AmountLeftToLoad> | D | 1 | 20 | Available amount left to load today. | Omit | Mandatory |
| <NoOfLoadLeft> | D | 1 | 20 | Available number of loads left today. | Omit | Mandatory |
| <DailyPosLimit> | D | 1 | 20 | Daily POS terminal spend limit. | Omit | Mandatory |
| <DailyPosFrequencyLimit> | D | 1 | 20 | Daily POS spend frequency limit (how many times the cardholder is allowed to spend at a POS terminal.) | Omit | Mandatory |
| <POSUsage> | D | 1 | 20 | POS terminal spend value so far today. | Omit | Mandatory |
| <NoOfPOSUsage> | D | 1 | 20 | POS terminal spend frequency today. | Omit | Mandatory |
| <ValueOfPOSLeft> | D | 1 | 20 | POS terminal spend value left today. | Omit | Mandatory |
| <NoOfPOSTransactionsLeft> | D | 1 | 20 | POS terminal spend frequency left today. | Omit | Mandatory |
| <DailyCashLimit> | D | 1 | 20 | Cash withdrawal daily value limit. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------------------|------|----------------|----------------|--|---------|-----------|
| <DailyCashFrequencyLimit> | D | 1 | 20 | Cash withdrawal daily frequency limit. | Omit | Mandatory |
| <CashWithdrawal> | D | 1 | 20 | Cash withdrawals so far today. | Omit | Mandatory |
| <NoOfCashWithdrawal> | D | 1 | 20 | Cash withdrawal frequency today. | Omit | Mandatory |
| <ValueOfCashLeft> | D | 1 | 20 | Cash withdrawal value left today. | Omit | Mandatory |
| <NoOfCashTransactionLeft> | D | 1 | 20 | Cash withdrawal frequency left today. | Omit | Mandatory |
| <DailyUnLoadLimit> | D | 1 | 20 | Unload daily limit. | Omit | Mandatory |
| <DailyUnLoadFrequencyLimit> | D | 1 | 20 | Unload daily frequency limit. | Omit | Mandatory |
| <AmountUnLoaded> | D | 1 | 20 | Amount unloaded so far today. | Omit | Mandatory |
| <NoOfUnLoads> | D | 1 | 20 | Frequency of unloads today. | Omit | Mandatory |
| <AmountLeftToUnLoad> | D | 1 | 20 | Amount available to unload today. | Omit | Mandatory |
| <NoOfUnLoadLeft> | D | 1 | 20 | Frequency of unloads available today. | Omit | Mandatory |

LimitInfo Details (V2)

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------------|------|----------------|----------------|--|---------|-------------|
| <MaxAllowableBalance> | D | 1 | 20 | Maximum allowed balance of the card. | Omit | Mandatory |
| <SubLimit> | | | | Containing element (repeats). | Omit | Mandatory |
| <Process> | AN | 1 | 10 | Name of the process that the sub-limit affects. Valid values are: POS, CASH and LOAD. | Omit | Mandatory |
| Source (attribute) | N | 1 | 3 | The numeric Load Source (LoadSrc). Only applies to LOAD sub limits and is optional. | Omit | Conditional |
| <MaxPerTransaction> | D | 1 | 20 | Maximum amount of a single transaction. | Omit | Mandatory |
| <MinPerTransaction> | D | 1 | 20 | Minimum amount of a single transaction. | Omit | Mandatory |
| <SubLimitPeriod> | | | | Containing element (repeats) | Omit | Mandatory |
| <Period> | N | 1 | 10 | Number of units of the period. | Omit | Mandatory |
| <Unit> | AN | 1 | 10 | Type of period unit. Valid values are: Hour, Day, Month and Year. | Omit | Mandatory |
| <Limit> | D | 1 | 20 | Total financial amount of limit per period. | Omit | Mandatory |
| <Frequency> | N | 1 | 10 | Number of transactions allowed within the period. | Omit | Mandatory |
| <Usage> | D | 1 | 20 | Current usage of total financial amount of limit. | Omit | Mandatory |
| <No> | N | 1 | 10 | Current usage of number of transactions within the period. | Omit | Mandatory |
| <SubLimitPeriod> | | | | Containing element (repeats). | Omit | Mandatory |
| <SubLimit> | | | | Containing element (repeats). | Omit | Mandatory |

Security details (v1)

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Balance_Enquiry>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>3</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:GetLimits>1</hyp:GetLimits>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
    </hyp:Ws_Balance_Enquiry>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Balance_EnquiryResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Balance_EnquiryResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>3</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <AvlBal>10</AvlBal>
        <BlkAmt>0</BlkAmt>
        <CurCode>GBP</CurCode>
        <ClientCode/>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <PINStatus>0</PINStatus>
        <LimitInfo>
          <LimitInformation>
            <MaxAllowableBalance>375000</MaxAllowableBalance>
            <DailyLoadLimit>375000</DailyLoadLimit>
            <DailyLoadFrequencyLimit>50</DailyLoadFrequencyLimit>
            <AmountLoaded>0</AmountLoaded>
            <NoOfLoads>0</NoOfLoads>
            <AmountLeftToLoad>374305.93</AmountLeftToLoad>
            <NoOfLoadLeft>50</NoOfLoadLeft>
            <DailyPosLimit>375000</DailyPosLimit>
            <DailyPosFrequencyLimit>9999</DailyPosFrequencyLimit>
            <POSUsage>0</POSUsage>
            <NoOfPOSUsage>0</NoOfPOSUsage>
            <ValueOfPOSLeft>694.07</ValueOfPOSLeft>
            <NoOfPOSTransactionsLeft>9999</NoOfPOSTransactionsLeft>
            <DailyCashLimit>0</DailyCashLimit>
            <DailyCashFrequencyLimit>0</DailyCashFrequencyLimit>
            <CashWithdrawal>0</CashWithdrawal>
            <NoOfCashWithdrawal>0</NoOfCashWithdrawal>
            <ValueOfCashLeft>694.07</ValueOfCashLeft>
            <NoOfCashTransactionLeft>0</NoOfCashTransactionLeft>
            <DailyUnLoadLimit>40000</DailyUnLoadLimit>
            <DailyUnLoadFrequencyLimit>50</DailyUnLoadFrequencyLimit>
            <AmountUnLoaded>0</AmountUnLoaded>
            <NoOfUnLoads>0</NoOfUnLoads>
            <AmountLeftToUnLoad>694.07</AmountLeftToUnLoad>
            <NoOfUnLoadLeft>50</NoOfUnLoadLeft>
          </LimitInformation>
        </LimitInfo>
      </Ws_Balance_EnquiryResult>
    </Ws_Balance_EnquiryResponse>
  </soap:Body>
</soap:Envelope>
```

Card Balance Enquiry (Legacy)

API: [Ws_Card_BalEnq](#)

This web service retrieves the available balance of a card and the sum of any blocked amounts.

Note: Alternative web services you can use include: [ws_balance_enquiry](#) and [ws_balance_enquiry_V2](#). See [Card Balance Enquiry](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 9. | Mandatory | Mandatory |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Conditional | Conditional |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <ClientCode> or <accno> are not provided. Returned in the response if present in the request. | Optional | Omit |
| <AccNo> | AN | 1 | 28 | Account number of the card. Mandatory if neither <ClientCode> nor <PAN> are provided. Returned in the response if present in the request. | Conditional | Omit |
| <PublicKey> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> and <accno> are not provided. Mandatory in the response. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <ItemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. | Optional | Omit |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Logical_Expiry> | YYYY-MM-DD | 10 | 10 | Logical expiry date of the card. | Omit | Mandatory |
| <Physical_Expiry> | YYYY-MM-DD | 10 | 10 | Physical expiry date of the card. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|---|----------|-----------|
| <StatCode> | AN | 2 | 2 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Optional | Mandatory |
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <EmbossName> | AN | 1 | 51 | Name embossed on the card. | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <Scheme> | AN | 1 | 50 | The card's GPS scheme. | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Card_BalEnq>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>3</hyp:TxnCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:PAN></hyp:PAN>
      <hyp:AccNo></hyp:AccNo>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:CurCode>GBP</hyp:CurCode>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:SecId>0</hyp:SecId>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
    </hyp:Ws_Card_BalEnq>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Card_BalEnqResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Card_BalEnqResult>
        <WSID>2021123456789</WSID>
      </Ws_Card_BalEnqResult>
    </Ws_Card_BalEnqResponse>
  </soap:Body>
</soap:Envelope>
```

```
<IssCode>PMT</IssCode>
<TxnCode>3</TxnCode>
<PublicToken>123456789</PublicToken>
<LocDate>2021-01-01</LocDate>
<LocTime>120000</LocTime>
<Logical_Expiry>2025-03-31</Logical_Expiry>
<Physical_Expiry>17/10</Physical_Expiry>
<StatCode>00</StatCode>
<EmbossName>GIFT CARD</EmbossName>
<AvlBal>10</AvlBal>
<BlkAmt>0</BlkAmt>
<CurCode>GBP</CurCode>
<ClientCode/>
<SysDate>2021-01-01</SysDate>
<ActionCode>000</ActionCode>
<IsLive>true</IsLive>
<Scheme>Giftcard</Scheme>
</Ws_Card_BalEnqResult>
</Ws_Card_BalEnqResponse>
</soap:Body>
</soap:Envelope>
```

Card Balance Update

API: [Ws_BalanceUpdate](#)

This web service updates the available and current (STIP) balance for EHI (External Host Interface) Mode 4 and 5 Cards. See the EHI specifications.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------------------|------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 16. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Required in request if <PublicToken> is not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <CurrCode> | AN | 3 | 3 | In Request: the currency code of the adjustment. Must match the currency of the card account. In Response: the currency code of the balance returned. Will be the currency of the card account. | Mandatory | Mandatory |
| <AvlBalance_GPS_STIP> | D | 1 | 20 | The new available to spend balance on the card: <i>Available Balance = Current Balance - Blocked Amount</i> | Mandatory | Omit |
| <CurBalance_GPS_STIP> | D | 1 | 20 | The new current balance on the card. Must not be less than the available balance. | Mandatory | Omit |
| <Balance_Sequence_Exthost> | N | 1 | 18 | External Host balance sequence number. In request: sets the new balances only if this sequence number is higher than the existing balance sequence number currently held in GPS. This is to ensure that an out-of-date balance is not set due to race conditions. In response: the external host balance sequence number in GPS after this update. (This will be <Balance_Sequence_Exthost> in the request message if set, or the current value on GPS if not set.) | Mandatory | Mandatory |
| <LoadedBy> | AN | 1 | 30 | Name of person or cashier making the adjustment. | Optional | Omit |
| <Balance_Sequence> | N | 1 | 18 | The GPS balance sequence returned in the response. This is updated each time GPS updates the actual balance or blocked amount. | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemID> | AN | 1 | 20 | The unique item ID returned for the adjustment. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soap:Body>
  <hyp:Ws_BalanceUpdate>
    <hyp:WSID>202112345678967890</hyp:WSID>
    <hyp:IssCode>PMT</hyp:IssCode>
    <hyp:TxnCode>16</hyp:TxnCode>
    <hyp:PAN></hyp:PAN>
    <hyp:PublicToken>123456789</hyp:PublicToken>
```

```
<hyp:LocDate>2021-01-01</hyp:LocDate>
<hyp:LocTime>120000</hyp:LocTime>
<hyp:CurrCode>GBP</hyp:CurrCode>
<hyp:AvlBalance_GPS_STIP>100</hyp:AvlBalance_GPS_STIP>
<hyp:CurBalance_GPS_STIP>110</hyp:CurBalance_GPS_STIP>
<hyp:Balance_Sequence_ExtHost>1</hyp:Balance_Sequence_ExtHost>
<hyp:LoadedBy>Test Update</hyp:LoadedBy>
</hyp:Ws_BalanceUpdate>
</soap:Body>
```

Response

```
<soap:Body>
  <Ws_BalanceUpdateResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
    <Ws_BalanceUpdateResult>
      <WSID>202112345678967890</WSID>
      <IssCode>PMT</IssCode>
      <TxnCode>16</TxnCode>
      <PublicToken>123456789</PublicToken>
      <LocDate>2021-01-01</LocDate>
      <LocTime>120000</LocTime>
      <CurCode>GBP</CurCode>
      <Balance_Sequence_ExtHost>2</Balance_Sequence_ExtHost>
      <Balance_Sequence>2</Balance_Sequence>
      <SysDate>2021-01-01</SysDate>
      <ItemID>23290</ItemID>
      <ActionCode>000</ActionCode>
    </Ws_BalanceUpdateResult>
  </Ws_BalanceUpdateResponse>
</soap:Body>
```

Card Balance Adjustment

API: [Ws_BalanceAdjustment](#)

This web service enables you to apply debits and credits to a card record.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 16. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. Mandatory if the value of <AuthType> is '5'. | Conditional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <AmtAdjustment> | N | 1 | 7 | The amount to debit or credit the card. | Mandatory | Omit |
| <CurCode> | AN | 3 | 3 | In Request: the currency alpha code of <amtAdjustment>. Must match the currency of the card account. In Response: the currency alpha code of the <avIBal> (balance) returned. Will be the currency of the card account. | Mandatory | Mandatory |
| <DebOrCred> | AN | 1 | 2 | Whether a debit or credit transaction. '-1' = Debit; '1' = Credit. | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|---|-----------|-----------|
| <Description> | AN** | 1 | 150 | Description of balance adjustment. Will appear in Card Statement (account enquiry). | Mandatory | Omit |
| <AvlBal> | D | 1 | 7 | The balance on the card following the adjustment. This includes all the financials received, but excludes pending authorisations. | Omit | Mandatory |
| <ForcePost> | N | 1 | 1 | Whether to force post the adjustment to the account: <i>False</i> = do not force posting; <i>true</i> = force posting. If <forcePost> value is 1, the adjustment will be posted to the account regardless of restrictions such as limits, insufficient funds or negative balance. Force posting overrides any maximum balance limit set for the card or account. | Optional | Omit |
| <ExtCode> | AN | 1 | 16 | External code associated with the posting. Only supported for legacy reasons, do not use. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemID> | AN | 1 | 20 | The unique item ID returned for the adjustment. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <LoadedBy> | AN | 1 | 30 | Name of person or cashier making the adjustment. | Optional | Omit |
| <WebServiceResult> | AN | | | Parameter group describing the result of the Web Service call. Only has values if the current request returns an action code of 868 Duplicate WSID. See WebServiceResult . | Omit | Mandatory |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_BalanceAdjustment>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>16</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:AmtAdjustment>10</hyp:AmtAdjustment>
      <hyp:CurCode>GBP</hyp:CurCode>
      <hyp:DebOrCred>1</hyp:DebOrCred>
      <hyp:Description>Balance Adjustment</hyp:Description>
      <hyp:ForcePost>0</hyp:ForcePost>
      <hyp:ExtCode></hyp:ExtCode>
    </hyp:Ws_BalanceAdjustment>
  </soapenv:Body>
</soapenv:Envelope>
```

```
<hyp:SecID>0</hyp:SecID>
<hyp:SecVal></hyp:SecVal>
<hyp:SecValPos>0</hyp:SecValPos>
</hyp:Ws_BalanceAdjustment>
</soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_BalanceAdjustmentResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_BalanceAdjustmentResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>16</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <ClientCode>0</ClientCode>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>20</AvlBal>
        <CurCode>826</CurCode>
        <ItemID>123</ItemID>
      </Ws_BalanceAdjustmentResult>
    </WebServiceResult/>
  </Ws_BalanceAdjustmentResponse>
</soap:Body>
</soap:Envelope>
```

Card Balance Transfer

API: [Ws_BalanceTransfer](#)

This web service is used to transfer an amount from one card to another.

It is only possible to transfer funds from a primary card to its secondary card if:

- The secondary card belongs to a Limit Group.
- That limit group has settings for the [Load Source](#) of the primary card (value of 68).
- The transfer amount is within the limits defined by the limit group.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 7. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if PAN and PublicToken are not present or when AuthType is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if PAN and Track2 are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. Mandatory if the value of actMethod is '1' or AuthType is '2' or '6'. Otherwise, may be supplied for informational purposes or as part of cardholder registration. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of AuthType is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of AuthType is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of AuthType is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Conditional | Omit |
| <NewPAN> | AN | 16 | 19 | The new card number to where funds should be transferred. Mandatory in the request if newToken is not present. | Conditional | Mandatory |
| <NewToken> | AN | 16 | 19 | The public token to where funds should be transferred. Mandatory in the request if newPAN is not present. | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <AvlBal> | D | 1 | 20 | The current balance on the card account. This includes all financial transactions and outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <BlkAmt> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <AmtTxn> | D | 1 | 20 | The requested amount to transfer. If <code>AmtTxn = 0</code> , it is assumed the full card balance is requested to be transferred. If the amount is specified, this amount is returned in the response. Otherwise, the actual amount transferred (net of fees) is returned. | Mandatory | Mandatory |
| <CurrCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). Must be supplied in the request if an <code><AmtTxn></code> is specified. | Conditional | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <LoadSrc> | AN | 1 | 3 | The source of the transfer request. For transfers between Primary and Secondary cards, the value must be "68". See Load Sources . If omitted, defaults to "14" = "Unknown" for normal transfers, but "68" for Primary-Secondary card transfers. | Optional | Omit |
| <ItemID> | AN | 1 | 20 | The unique item ID for this card transfer. The ID returned is the ID relating to the 'unload' leg of the transfer, that is, the unload from the source card. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <LoadedBy> | AN | 1 | 30 | Name of person/cashier making the transfer. | Optional | Omit |
| <Description> | AN** | 1 | 150 | Description of balance transfer. Will appear in <code><Account Enquiry></code> if supplied. | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on GPS. Options are: 0 = No; 1 = Yes, waive all fees, on "from" and "to" card 2 = Waive the fee on the "from" card only. 3 = Waive the fee on the "to" card only. Default is 0. | Optional | Omit |
| <BrnCode> | AN | 8 | 8 | Branch code (or Agent code) with which the card is associated. If supplied, it will be exported in the XML in <code>CardLoadUnload > Card > branchcode</code> . | Optional | Omit |
| <Fee> | D | 1 | 9 | Allows you to override the configured fee for specific transfers. | Optional | Omit |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|-----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0. | Mandatory | Omit |
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0. | Mandatory | Omit |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_BalanceTransfer>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>7</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:NewPAN></hyp:NewPAN>
      <hyp:NewToken>987654321</hyp:NewToken>
      <hyp:AmtTxn>10</hyp:AmtTxn>
      <hyp:CurrCode>GBP</hyp:CurrCode>
      <hyp:LoadSrc>10</hyp:LoadSrc>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
      <hyp:Description>Test Balance Transfer</hyp:Description >
      <hyp:LoadedBy>Agent Grey</hyp:LoadedBy >
      <hyp:FeeWaiver>2</hyp:FeeWaiver >
      <hyp:FeeWaiver>0</hyp:FeeWaiver >
    </hyp:Ws_BalanceTransfer>
  </soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_BalanceTransferResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_BalanceTransferResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>7</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <NewPAN>9876543219876543</NewPAN>
        <ClientCode>0</ClientCode>
        <SysDate>2021-01-01</SysDate>
        <ActionCode>000</ActionCode>
        <AvlBal>10</AvlBal>
        <BlkAmt>0</BlkAmt>
        <AmtTxn>10</AmtTxn>
        <CurCode>GBP</CurCode>
        <ItemID>1234</ItemID>
      </Ws_BalanceTransferResult>
    </Ws_BalanceTransferResponse>
  </soap:Body>
</soap:Envelope>

```

Card Fees Overview

You can use the following web services to view and manage your card fees:

| |
|---|
| Card List Pending Fees : Ws_List_Pending_Fees |
| Card Apply Fees : Ws_Generic_Fees |
| Apply FX Rate : Ws_Client_FX |

Card List Pending Fees

API: [Ws_List_Pending_Fees](#)

This web service lists details of pending fees that relate to a specific card.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. Mandatory in the request. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Mandatory |
| <PAN> | N | 16 | 19 | Original PAN number embossed on the card. If present in the request then this method returns the pending fee details of the given card only. | Optional | Omit |
| <PublicKey> | N | 9 | 9 | Card's public token. If present in the request then this method returns the pending fee details of the given card only. | Optional | Omit |
| <FeeProcessingCode> | AN | 2 | 2 | The transaction fee processing code. See Processing Codes (fees) . | Optional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Fees> | - | - | - | An array of Fee records. See Fee Record below. Can occur multiple times within the message. | | |

Fee Record

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------------|------------|----------------|----------------|--|---------|-----------|
| <PublicKey> | N | 9 | 9 | Card's public token. | Omit | Mandatory |
| <PostDate> | YYYY-MM-DD | 10 | 10 | Actual date when GPS received the fee request. | Omit | Mandatory |
| <TransDate> | YYYY-MM-DD | 10 | 10 | Date in which GPS processed the fee request. | Omit | Mandatory |
| <ProcCode> | AN | 1 | 3 | The transaction fee processing code. See Processing Codes (fees) . | Omit | Mandatory |
| <ActualAmt> | D | 1 | 20 | Actual fee amount. | Omit | Mandatory |
| <AmtTaken> | D | 1 | 20 | Amount already taken. | Omit | Mandatory |
| <RemainingAmt> | D | 1 | 20 | Remaining amount need to take as fee, i.e., <ActualAmt> - <AmtTaken>. | Omit | Mandatory |
| <Description> | AN | 1 | 150 | Fee description. | Omit | Mandatory |
| <PartialAllowed> | N | 1 | 1 | Whether a partial amount is allowed. 1 = Allowed; 0 = Not allowed | Omit | Mandatory |
| <Collected> | N | 1 | 1 | Whether the fee has been taken. 1 = Taken; 0 = Not taken | Omit | Mandatory |
| <PendingFeesEnabled> | N | 1 | 1 | Whether pending fees is enabled. 1 = Enabled; 0 = Disabled | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
</soapenv:Envelope>
```

```

    <hyp:strPassword>*****</hyp:strPassword>
  </hyp:AuthSoapHeader>
</soapenv:Header>
<soapenv:Body>
  <hyp:Ws_List_Pending_Fees>
    <hyp:WSID>20211234567896789</hyp:WSID>
    <hyp:IssCode>PMT</hyp:IssCode>
    <hyp:PAN></hyp:PAN>
    <hyp:PublicToken>123456789</hyp:PublicToken>
    <hyp:FeeProcessingCode></hyp:FeeProcessingCode>
  </hyp:Ws_List_Pending_Fees>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_List_Pending_FeesResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_List_Pending_FeesResult>
        <WSID>20211234567896789</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <Fees>
          <Fee>
            <PublicToken>123456789</PublicToken>
            <PostDate>2021-09-14</PostDate>
            <TransDate>2021-09-14</TransDate>
            <ProcCode>10</ProcCode>
            <ActualAmt>1</ActualAmt>
            <AmtTaken>1</AmtTaken>
            <RemainingAmt>0.1</RemainingAmt>
            <Description>Load fee</Description>
            <PartialAllowed>true</PartialAllowed>
            <Collected>true</Collected>
            <PendingFeesEnabled>true</PendingFeesEnabled>
          </Fee>
          <Fee>
            <PublicToken>123456789</PublicToken>
            <PostDate>2021-09-14</PostDate>
            <TransDate>2021-09-14</TransDate>
            <ProcCode>82</ProcCode>
            <ActualAmt>2</ActualAmt>
            <AmtTaken>0</AmtTaken>
            <RemainingAmt>2</RemainingAmt>
            <Description>Card Issue Fee</Description>
            <PartialAllowed>false</PartialAllowed>
            <Collected>true</Collected>
            <PendingFeesEnabled>true</PendingFeesEnabled>
          </Fee>
        </Fees>
      </Ws_List_Pending_FeesResult>
    </Ws_List_Pending_FeesResponse>
  </soap:Body>
</soap:Envelope>

```

Card Apply Fees

API: [Ws_Generic_Fees](#)

This web service enables you to apply fees with a comment to a particular card.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------|------------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> and <track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <ProcCode> | AN | 1 | 3 | The transaction fee processing code. See Processing Codes (fees) . | Mandatory | Omit |
| <Comment> | AN** | 1 | 50 | If it is blank then the comment will be the default comment associated with the given processing code. | Optional | Omit |
| <Fee> | D | 1 | 20 | Fee applied to this card. If it is 0 then will apply the default fee associated with the given processing code otherwise the input value will apply. | Optional | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemId> | AN | 1 | 20 | The unique item ID returned for this fee. | Omit | Mandatory |
| <IsPartial> | N | 1 | 1 | Whether a partial fee was taken. 1=true and 0=false. | Omit | Mandatory |
| <WaivedoffAmount> | D | 1 | 20 | Amount of fee that could not be taken. | Omit | Mandatory |
| <TotalAmount> | D | 1 | 20 | Total amount of fee taken. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

** Some formatting may be done on this string, see [String Cleaning and Approved Characters](#).

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Generic_Fees>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:ProcCode>47</hyp:ProcCode>
      <hyp:Comment></hyp:Comment>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:Fee>0.0</hyp:Fee>
    </hyp:Ws_Generic_Fees>
  </soapenv:Body>
</soapenv:Envelope>
```

```
</soapenv:Body>  
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xmlns:xsd="http://www.w3.org/2001/XMLSchema">  
  <soap:Body>  
    <Ws_Generic_FeesResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">  
      <Ws_Generic_FeesResult>  
        <WSID>2021123456789</WSID>  
        <IssCode>PMT</IssCode>  
        <ActionCode>000</ActionCode>  
        <LocDate>2021-01-01</LocDate>  
        <LocTime>120000</LocTime>  
        <SysDate>2021-01-01</SysDate>  
        <PublicToken>123456789</PublicToken>  
        <Fee>1</Fee>  
        <ItemId>1234</ItemId>  
        <IsPartial>false</IsPartial>  
        <WaivedoffAmount>1</WaivedoffAmount>  
        <TotalAmount>1</TotalAmount>  
      </Ws_Generic_FeesResult>  
    </Ws_Generic_FeesResponse>  
  </soap:Body>  
</soap:Envelope>
```

Apply FX Rate

API: [Ws_Client_FX](#)

This web service enables you to send your own FX (foreign exchange) rates to GPS. You can stream in FX rates at your chosen frequency, such as: hourly or daily. The rates could be used for Multi-FX wallet functions or for services such as provisioning of fixed rate FX cards.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <GroupFxID> | N | 1 | 4 | Currency conversion Group ID. | Mandatory | Mandatory |
| <Rates> | | | | An array of rates. See Rate Details below. Can occur multiple times within the request. | Mandatory | Omit |

Rate Details (in request)

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|-----------|----------|
| <SrcCurCode> | AN | 3 | 3 | Alpha currency code of source currency(e.g. GBP). | Mandatory | Omit |
| <DesCurCode> | AN | 3 | 3 | Alpha currency code of destination currency (e.g. EUR). | Mandatory | Omit |
| <BuyRate> | D | 1 | (6,8)* | Currency buying rate. | Mandatory | Omit |
| <SellRate> | D | 1 | (6,8) | Currency selling rate. | Optional | Omit |
| <MidRate> | D | 1 | (6,8) | Middle currency rate (median average of buy and sell rates). | Optional | Omit |

Notes

- (6,8) is 6 numeric with 8 decimal values. This represents a maximum value of 999999.99999999.

Rate Details (in response)

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|--|---------|-------------|
| <ActionCode> | AN | 3 | 3 | The action code for the response. Possible action codes in the response are: 000 = Normal, approve. 801 = IssCode is missing. 909 = System malfunction, deny. 868 = Duplicate WSID in the request, deny. 707 = Invalid FX Group ID. | Omit | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <NoOfInvalidRates> | N | 1 | 4 | Number of invalid rates in the request. | Omit | Mandatory |
| <InvalidRates> | | | | See Invalid Rate Details below. Can occur multiple times within the response. It is the rejected list of rates in the request. If all rates in the request are valid then it will not present in the response. | Omit | Conditional |

Invalid Rate Details (in response)

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|---------|-----------|
| <RateNo> | N | 1 | 4 | Position of invalid rate in the request. | Omit | Mandatory |
| <SrcCurCode> | AN | 3 | 3 | Alpha currency code of source currency(e.g. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|--|---------|-----------|
| | | | | GBP). | | |
| <DesCurCode> | AN | 3 | 3 | Alpha currency code of destination currency (e.g. EUR). | Omit | Mandatory |
| <BuyRate> | D | 1 | (6,8)* | Currency buying rate. | Omit | Mandatory |
| <SellRate> | D | 1 | (6,8) | Currency selling rate. | Omit | Optional |
| <MidRate> | D | 6,8 | (6,8) | Middle currency rate (median average of buy and sell rates). | Omit | Optional |
| <ErrorCode> | AN | 3 | 3 | Reason code for the rejection. Possible error codes are: 702 = Invalid Currency Buy Rate. It should be greater than 0.0. 703 = Invalid Currency Sell Rate. It should be non-negative. 704 = Invalid Currency Sell Rate. It should be non-negative. 705 = Invalid source currency code 706 = Invalid destination currency code | Omit | Mandatory |
| <ErrorDescription> | AN | 1 | 150 | Reason for the rate rejection. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Client_Fx>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:GroupFxID>123</hyp:GroupFxID>
      <hyp:Rates>
        <hyp:Rates>
          <hyp:SrcCurCode>GBP</hyp:SrcCurCode>
          <hyp:DesCurCode>USD</hyp:DesCurCode>
          <hyp:BuyRate>1.4</hyp:BuyRate>
          <hyp:SellRate>1.4</hyp:SellRate>
          <hyp:MidRate>1.4</hyp:MidRate>
        </hyp:Rates>
        <hyp:Rates>
          <hyp:SrcCurCode>GBP</hyp:SrcCurCode>
          <hyp:DesCurCode>EUR</hyp:DesCurCode>
          <hyp:BuyRate>1.1</hyp:BuyRate>
          <hyp:SellRate>1.1</hyp:SellRate>
          <hyp:MidRate>1.1</hyp:MidRate>
        </hyp:Rates>
        <hyp:Rates>
          <hyp:SrcCurCode>GBP</hyp:SrcCurCode>
          <hyp:DesCurCode>ABC</hyp:DesCurCode>
          <hyp:BuyRate>1.1</hyp:BuyRate>
          <hyp:SellRate>1.1</hyp:SellRate>
          <hyp:MidRate>1.1</hyp:MidRate>
        </hyp:Rates>
      </hyp:Rates>
    </hyp:Ws_Client_Fx>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Client_FxResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Client_FxResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <SysDate>2014-08-29</SysDate>
        <GroupFxID>1</GroupFxID>
        <NoOfInvalidRates>1</NoOfInvalidRates>
        <InvalidRates>
          <InvalidRate>
```

```
    <RateNo>3</RateNo>
    <SrcCurCode>GBP</SrcCurCode>
    <DesCurCode>ABC</DesCurCode>
    <BuyRate>1.1</BuyRate>
    <SellRate>1.1</SellRate>
    <MidRate>1.1</MidRate>
    <ErrorCode>706</ErrorCode>
    <ErrorDescription>Invalid destination currency code</ErrorDescription>
  </InvalidRate>
</InvalidRates>
</Ws_Client_FxResult>
</Ws_Client_FxResponse>
</soap:Body>
</soap:Envelope>
```

Acceptor Lists Overview

Acceptor lists enable you to control which merchants or merchant code are blocked or allowed to use your service. You can set up multiple acceptor lists and link cards to a list.

You can use the following web services to view and manage your card *Disallow* lists and *Allow* lists:

| |
|--|
| Card Acceptor Disallow list : Ws_CardAcceptorBlacklist |
| Card Acceptor Allow list : Ws_CardAcceptorWhiteList |
| Card Change Acceptor List : Ws_Card_Change_Cardacceptor_List |
| Card Change Acceptor List (Bulk) : Ws_Change_Cardacceptor_List |

Card Acceptor Deny List

API: [Ws_CardAcceptorBlacklist](#)

This web service enables you to manage Card Acceptor (MerchantID) *Deny* lists, which can then be assigned to a card or group of cards. Any merchant IDs in the disallow will see transactions declined by GPS at the authorisation stage. The response code will be '05 - Do not honour'.

Note: If the card does not have the disallow group assigned, this will need to be added via [Ws_Card_Change_Cardacceptor_List](#) or [Ws_Change_Cardacceptor_List](#). See [Card Change Acceptor List](#) and [Card Change Acceptor List \(Bulk\)](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------------------|------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <BlackList> | AN | 1 | 255 | Identifier for a Card Acceptor Deny list in GPS. | Mandatory | Mandatory |
| <CardAcceptors> | - | - | - | Provides a list of CardAcceptorModifier elements; see CardAcceptorModifier Description below. If the list is empty, the web service will return a list of all the CardAcceptorModifier elements in the Deny list. | Mandatory | Omit |
| <SysDate> | AN | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <NoOfInvalidCardAcceptors> | N | 1 | 9 | Number of invalid CardAcceptorModifier elements detected. Check the ActionCode of each one to see the reason for the rejection. | Omit | Mandatory |
| <InvalidCardAcceptors> | - | - | - | See Invalid Card Acceptor Description below. Provides a list of InvalidCardAcceptor elements. | Omit | Mandatory |

CardAcceptorModifier Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|--|-----------|----------|
| <CardAcceptorID> | AN | 1 | 50 | Card Acceptor ID. Also known as Merchant ID (DE 42). | Mandatory | N/A |
| <Action> | N | 1 | 9 | Action Code: 0 = Delete Card Acceptor ID 1 = Insert Card Acceptor ID | Mandatory | N/A |

Invalid CardAcceptorModifier Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|---|---------|-----------|
| <AcceptorNo> | N | 1 | 9 | Unique, sequential identifier for the entry in the list. | N/A | Mandatory |
| <CardAcceptorID> | AN | 1 | 50 | Card Acceptor ID. Also known as Merchant ID (DE 42). | N/A | Mandatory |
| <ErrorCode> | AN | 3 | 4 | Action Code for this Card Acceptor ID: 781 = CardAcceptorId is empty 782 = Invalid Action (parameter value was invalid) 783 = CardAcceptorID not found (valid when | N/A | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|--|---------|-----------|
| | | | | Action = 0) 799 = CardAcceptorID already exists | | |
| ErrorDescription | AN | 1 | 255 | Description of the error. | N/A | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soap:Body>
    <hyp:Ws_CardAcceptorBlackList>
      <hyp:WSID>202107150820</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:BlackList>BL1</hyp:BlackList>
      <hyp:CardAcceptors>
        <!--Zero or more repetitions-->
        <hyp:CardAcceptorModifier>
          <hyp:CardAcceptorID>123456789</hyp:CardAcceptorID>
          <hyp>Action>1</hyp>Action>
        </hyp:CardAcceptorModifier>
      </hyp:CardAcceptors>
    </hyp:Ws_CardAcceptorBlackList>
  </soap:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CardAcceptorBlackListResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CardAcceptorBlackListResult>
        <WSID>201507150820</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <SysDate>2021-07-15</SysDate>
        <BlackList>BL1</BlackList>
        <NoOfInvalidCardAcceptors>1</NoOfInvalidCardAcceptors>
        <InvalidCardAcceptors>
          <InvalidCardAcceptor>
            <AcceptorNo>1</AcceptorNo>
            <CardAcceptorID>123456789</CardAcceptorID>
            <ErrorCode>799</ErrorCode>
            <ErrorDescription>This card acceptor is already added to the Deny list of the given scheme</ErrorDescription>
          </InvalidCardAcceptor>
        </InvalidCardAcceptors>
      </Ws_CardAcceptorBlackListResult>
    </Ws_CardAcceptorBlackListResponse>
  </soap:Body>
</soap:Envelope>
```

Card Acceptor Allow List

API: [Ws_CardAcceptorWhiteList](#)

This web service enables you to manage Card Acceptor (MerchantID) Allow lists, which can then be assigned to a card or group of cards. Only merchant ID's added to the Allow list will be approved by GPS at authorisation stage.

Note: If the card does not have an Allow list group assigned, this will need to be added via [Ws_Card_Change_Cardacceptor_List](#) or [Ws_Change_Cardacceptor_List](#). See [Card Change Acceptor List](#) and [Card Change Acceptor List \(Bulk\)](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------------------|------|----------------|----------------|--|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <WhiteList> | AN | 1 | 255 | Identifier for a Card Acceptor Allow list in GPS. | Mandatory | Mandatory |
| <SysDate> | AN | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <NoOfInvalidCardAcceptors> | N | 1 | 9 | Number of invalid <i>CardAcceptorModifier</i> elements detected. Check the <ActionCode> of each one to see the reason for the rejection. | Omit | Mandatory |
| <CardAcceptors> | - | - | - | Provides a list of <i>CardAcceptorModifier</i> elements; see Card CardAcceptorModifier Description below. If the list is empty, the web service will return a list of all the <i>CardAcceptorModifier</i> elements in the Whitelist. | Mandatory | Omit |
| <InvalidCardAcceptors> | - | - | - | See Invalid CardAcceptorModifier Description below. InvalidCardAcceptors is a list of <i>CardAcceptorModifier</i> elements. | Omit | Mandatory |

CardAcceptorModifier Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|--|-----------|----------|
| <CardAcceptorID> | AN | 1 | 50 | Card Acceptor ID. Also known as Merchant ID (DE 42). | Mandatory | N/A |
| <Action> | N | 1 | 9 | Action Code: 0 = Delete Card Acceptor ID 1 = Insert Card Acceptor ID | Mandatory | N/A |

Invalid CardAcceptorModifier Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|---|---------|-----------|
| <AcceptorNo> | N | 1 | 9 | Unique, sequential identifier for the entry in the list. | N/A | Mandatory |
| <CardAcceptorID> | AN | 1 | 50 | Card Acceptor ID. Also known as Merchant ID (DE 42). | N/A | Mandatory |
| <ErrorCode> | AN | 3 | 4 | Action Code for this Card Acceptor ID: 781 = CardAcceptorId is empty 782 = Invalid Action (parameter value was invalid) 783 = CardAcceptorID not found (valid when | N/A | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|--|---------|-----------|
| | | | | Action = 0) 799 = CardAcceptorID already exists | | |
| ErrorDescription | AN | 1 | 255 | Description of the error. | N/A | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soap:Body>
    <hyp:Ws_CardAcceptorWhiteList>
      <hyp:WSID>202107150820</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:WhiteList>WL1</hyp:WhiteList>
      <hyp:CardAcceptors>
        <!--Zero or more repetitions-->
        <hyp:CardAcceptorModifier>
          <hyp:CardAcceptorID>123456789</hyp:CardAcceptorID>
          <hyp>Action>1</hyp>Action>
        </hyp:CardAcceptorModifier>
      </hyp:CardAcceptors>
    </hyp:Ws_CardAcceptorWhiteList>
  </soap:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CardAcceptorWhiteListResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CardAcceptorWhiteListResult>
        <WSID>202107150820</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <SysDate>2021-07-15</SysDate>
        <WhiteList>WL1</WhiteList>
        <NoOfInvalidCardAcceptors>1</NoOfInvalidCardAcceptors>
        <InvalidCardAcceptors>
          <InvalidCardAcceptor>
            <AcceptorNo>1</AcceptorNo>
            <CardAcceptorID>123456789</CardAcceptorID>
            <ErrorCode>799</ErrorCode>
            <ErrorDescription>This card acceptor is already added to the Allow list of the given scheme</ErrorDescription>
          </InvalidCardAcceptor>
        </InvalidCardAcceptors>
      </Ws_CardAcceptorWhiteListResult>
    </Ws_CardAcceptorWhiteListResponse>
  </soap:Body>
</soap:Envelope>
```

Card Change Acceptor List

API: [Ws_Card_Change_Cardacceptor_List](#)

This web service is used to modify the card acceptor (MerchantID) lists (such as Allow lists and Deny lists) that a card makes use of. It is used to modify a single card. This determines the list of merchants at which the card can be used.

Note: The acceptance of a card can be subject to an Allow list or a Deny list, not both.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <PublicToken> is not provided. | Optional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Optional | Omit |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Card_Change_Cardacceptor_List>
      <hyp:WSID>1234</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:BlackList>ABCD</hyp:BlackList>
      <hyp:WhiteList>XYZ</hyp:WhiteList>
    </hyp:Ws_Card_Change_Cardacceptor_List>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Card_Change_Cardacceptor_ListResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Card_Change_Cardacceptor_ListResult>
        <WSID>20211234567896</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <LocDate>2021-01-01</LocDate>
        <LocTime>10000</LocTime>
        <SysDate>2021-01-01</SysDate>
        <PublicToken/>
      </Ws_Card_Change_Cardacceptor_ListResult>
    </Ws_Card_Change_Cardacceptor_ListResponse>
  </soap:Body>
```



```
</soap:Envelope>
```

Card Change Acceptor List (Bulk)

API: [Ws_Change_Cardacceptor_List](#)

This web service is used to modify acceptor lists, such as the Allow lists and Deny lists that a group of cards belong to. This determines the list of merchants at which the cards can be used.

Note: The acceptance of a card can be subject to either a Allow list or a Deny list, not both.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CardDesc> | - | - | - | See CARD Description below. | Omit | Mandatory |
| <CardSelector> | N | 1 | 2 | Card Selector type: 1 = Product ID; 2 = Customer account number; 3 = To be confirmed | Mandatory | Mandatory |
| <CardSelectorValue> | AN | 1 | 30 | Card Selector value. If <Card Selector> is 1 then this is a product ID (e.g. 12345). If <Card Selector> is 2 then this is a customer account number (e.g. 008480510001), and wildcards are supported in the Card Selector value (e.g. '0084505*'). | Mandatory | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Optional | Omit |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Optional | Omit |
| <CurrentBlackList> | AN | 1 | 10 | Group code of the Deny list that should be used to further select cards. If specified, then only the cards within the Card Selector value that belong to this group will be migrated to the new group. If not specified, all cards within the Card Selector value will be moved. | Optional | Omit |
| <CurrentWhiteList> | AN | 1 | 10 | Group code of the Allow list that should be used to further select cards. If specified, then only the cards within the Card Selector value that belong to this group will be migrated to the new group. If not specified, all cards within the Card Selector value will be moved. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

CARD Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|---|---------|-----------|
| <PublicKey> | AN | 1 | 9 | The card's public token. Mandatory in the response. | Omit | Mandatory |
| <CurrentBlackList> | AN | 1 | 10 | Group code of the Deny list that should be | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|---|---------|-----------|
| | | | | used to further select cards. If specified, then only the cards within the Card Selector value that belong to this group will be migrated to the new group. If not specified, all cards within the Card Selector value will be moved. | | |
| <CurrentWhiteList> | AN | 1 | 10 | Group code of the Allow list that should be used to further select cards. If specified, then only the cards within the Card Selector value that belong to this group will be migrated to the new group. If not specified, all cards within the Card Selector value will be moved. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Change_Cardacceptor_List>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:CardSelector>1</hyp:CardSelector>
      <hyp:CardSelectorValue>123</hyp:CardSelectorValue>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:BlackList>XYZ</hyp:BlackList>

      <hyp:WhiteList></hyp:WhiteList>

      <hyp:CurrentBlackList>ABCD</hyp:CurrentBlackList>

      <hyp:CurrentWhiteList></hyp:CurrentWhiteList>
    </hyp:Ws_Change_Cardacceptor_List>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Change_Cardacceptor_ListResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Change_Cardacceptor_ListResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <CardSelector>1</CardSelector>
        <CardSelectorValue>123</CardSelectorValue>
        <ActionCode>000</ActionCode>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <SysDate>2021-01-01</SysDate>
        <CardsAcceptor>
          <CardAcceptorList>
            <PublicToken>123456789</PublicToken>
            <CurrentBlackList>XYZ</CurrentBlackList>
            <CurrentWhiteList/>
          </CardAcceptorList>
          <CardAcceptorList>
            <PublicToken>223456789</PublicToken>
            <CurrentBlackList>XYZ</CurrentBlackList>
            <CurrentWhiteList/>
          </CardAcceptorList>
        </CardsAcceptor>
      </Ws_Change_Cardacceptor_ListResult>
    </Ws_Change_Cardacceptor_ListResponse>
  </soap:Body>
</soap:Envelope>
```

GPS Groups and Products

GPS enables you to set up limit groups, which control your customer card usage. These groups can be set up by GPS or you may be able to set up and configure them via Smart Client. You can use the following web services to view and manage your card groups and products:

[List Groups](#): [Ws_list_group](#)

[Card Change Groups \(single\)](#): [Ws_Card_Change_Groups](#)

[Card Change Groups \(Bulk\)](#): [Ws_Change_Groups](#)

[List Products](#): [Ws_List_Products](#)

List Groups

API: [Ws_list_group](#)

This web service can be used to list the codes and descriptions of all groups of a certain type (e.g. Fee Groups, Limit Groups).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <GroupType> | N | 1 | 2 | Group Type identifier. Possible values are: 1 = Limit Groups 2 = Authorisation Fee Groups 3 = Recurring/Scheduled Fee Groups 4 = Web Service Fee Groups 5 = MCC Groups 6 = Usage Groups 7 = Linkage Groups 8 = FX Groups 9 = Auth Calendar Groups 10 = Payment Token Usage Groups | Mandatory | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <GroupInfo> | - | - | - | Returns a list of <GroupListInfo> . See Group List Info below. Can occur multiple times within the message. | | |

Group List Info

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|--------------------|---------|-----------|
| <GroupCode> | AN | 1 | 10 | Group code. | Omit | Mandatory |
| <GroupDesc> | AN | 1 | 30 | Group description. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_List_Group>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:GroupType>1</hyp:GroupType>
    </hyp:Ws_List_Group>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_List_GroupResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_List_GroupResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <GroupType>1</GroupType>
        <SysDate>2014-10-28</SysDate>
        <ActionCode>000</ActionCode>
        <GroupInfo>
          <GroupListInfo>
            <GroupCode>GRP_EURO</GroupCode>
            <GroupDesc>GROUP EURO</GroupDesc>
          </GroupListInfo>
          <GroupListInfo>
            <GroupCode>GRP_GBP</GroupCode>
            <GroupDesc>GROUP GBP</GroupDesc>
          </GroupListInfo>
        </GroupInfo>
      </Ws_List_GroupResult>
    </Ws_List_GroupResponse>
  </soap:Body>
</soap:Envelope>
```

```
        </GroupListInfo>
        <GroupListInfo>
          <GroupCode>GRP_USD</GroupCode>
          <GroupDesc>GROUP USD</GroupDesc>
        </GroupListInfo>
      </GroupInfo>
    </Ws_List_GroupResult>
  </Ws_List_GroupResponse>
</soap:Body>
</soap:Envelope>
```

Card Change Groups (single)

API: [Ws_Card_Change_Groups](#)

This web service enables you to change one or more of the groups for a specific card within any of those configured for your programme (e.g. Limit Groups, MCC Group, Fee Group and Usage Group).

For example you may have groups set up to limit Merchant Category Codes (MCCs) based on the cardholder controls in your app (e.g. blocking gambling or adult services) or spend/ATM limits which are determined by the end cardholder or by a parent cardholder (e.g. corporate card administrator).

Tip: To find out what group codes are currently configured for each group type, use the [List Groups](#) API: [Ws_list_group](#). Group codes are also shown in Smart Client.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <PublicToken> is not provided. | Optional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <LimitsGroup> | AN | 1 | 10 | Group code of the Limit Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <WSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fee Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|------------|----------------|----------------|--|----------|-----------|
| | | | | To remove the group assigned to the card send a single space character (ASCII code 32). | | |
| <AuthCalendarGroup> | AN | 1 | 10 | Group code of the Auth Calendar Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <FXGroup> | AN | 1 | 10 | Group code of the FX Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. Defines configuration options specific to the provisioning of a digital payment token. For details, see the <i>Tokenisation Guide</i> . This is a numeric value; only digits 0-9 are valid. Leave empty if no usage group is required. | Optional | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Card_Change_Groups>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:LocDate>2021-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:LimitsGroup>PMT-VL-002</hyp:LimitsGroup>
      <hyp:MCCGroup></hyp:MCCGroup>
      <hyp:PERMSGGroup></hyp:PERMSGGroup>
      <hyp:FeeGroup></hyp:FeeGroup>
      <hyp:SchedFeeGroup></hyp:SchedFeeGroup>
      <hyp:LinkageGroup></hyp:LinkageGroup>
      <hyp:AuthCalendarGroup></hyp:AuthCalendarGroup>
      <hyp:FXGroup></hyp:FXGroup>
      <hyp:PaymentTokenUsageGroup></hyp:PaymentTokenUsageGroup>
    </hyp:Ws_Card_Change_Groups>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Card_Change_GroupsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Card_Change_GroupsResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <LocDate>2021-01-01</LocDate>
        <LocTime>120000</LocTime>
        <SysDate>2021-01-01</SysDate>
        <PublicToken>123456789</PublicToken>
      </Ws_Card_Change_GroupsResult>
    </Ws_Card_Change_GroupsResponse>
  </soap:Body>
</soap:Envelope>
```


Card Change Groups (Bulk)

API: [Ws_Change_Groups](#)

This web service enables you to bulk change groups configured for your programme (e.g. Limit Groups, MCC Group, Fee Group and Usage Group) to apply to multiple cards. It affects all cards found by the `<CardSelectorValue>` and does not update the default group linked to the card's product.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CardSelector> | N | 1 | 2 | Card selector type: 1 = product ID; 2 = customer account number. | Mandatory | Mandatory |
| <CardSelectorValue> | AN | 1 | 30 | Card selector value. For example, 123456 for a product ID or '008480510001 for a customer account number. If <code><CardSelector></code> is 2 then Wildcards can be used (e.g. '0084505*'). | Mandatory | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <LimitsGroup> | AN | 1 | 10 | Group code of the Limit Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <WSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fee Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------|------|----------------|----------------|---|----------|----------|
| <FXGroup> | AN | 1 | 10 | Group code of the FX Group. To remove the group assigned to the card send a single space character (ASCII code 32). | Optional | Omit |
| <CurrentLimitsGroup> | AN | 1 | 10 | Group code of the group limit that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | Optional | Omit |
| <CurrentMCCGroup> | AN | 1 | 10 | Group code of the MCC group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | Optional | Omit |
| <CurrentPERMSGGroup> | AN | 1 | 10 | Group code of the Usage group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the CardSelector value will be moved. | Optional | Omit |
| <CurrentFeeGroup> | AN | 1 | 10 | Group code of the Fee Group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | Optional | Omit |
| <CurrentSchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fees Group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | Optional | Omit |
| <CurrentWSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fees Group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | Optional | Omit |
| <CurrentLinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------------|------------|----------------|----------------|---|----------|-----------|
| | | | | Group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | | |
| <CurrentFXGroup> | AN | 1 | 10 | Group code of the FX Rates Group that should be used to further select cards. If specified, then only the cards within the <CardSelector> value that belong to this group will be migrated to the new group. If not specified, all cards within the <CardSelector> value will be moved. | Optional | Omit |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | New payment token usage group code. This is a numeric value, only digits 0-9 are valid. Leave empty if no group required. | | |
| <CurrentPaymentTokenUsageGroup> | AN | 1 | 10 | Current Payment token usage group code. This is a numeric value, only digits 0-9 are valid. Leave empty if no group is required. | | |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Cards> | - | - | - | An array of <CardDesc> . See Cards Description below. | Omit | Mandatory |

Card Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------|------|----------------|----------------|--|---------|-----------|
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in the response. | Omit | Mandatory |
| <CurrentLimitsGroup> | AN | 1 | 10 | Group code of the Limit Group after any change has been applied. | Omit | Mandatory |
| <CurrentMCCGroup> | AN | 1 | 10 | Group code of the MCC Group after any change has been applied. | Omit | Mandatory |
| <CurrentPERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group after any change has been applied. | Omit | Mandatory |
| <CurrentFeeGroup> | AN | 1 | 10 | Group code of the Fee Group after any change has been applied. | Omit | Mandatory |
| <CurrentSchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group after any change has been applied. | Omit | Mandatory |
| <CurrentWSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fee Group after any | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------------|------|----------------|----------------|--|---------|-----------|
| | | | | change has been applied. | | |
| <CurrentLinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group after any change has been applied. | Omit | Mandatory |
| <CurrentFXGroup> | AN | 1 | 10 | Group code of the FX Group after any change has been applied. | Omit | Mandatory |
| <CurrentPaymentTokenUsageGroup> | AN | 1 | 10 | Group code of the Payment Token Usage Group after any change has been applied. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Change_Groups>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:CardSelector>1</hyp:CardSelector>
      <hyp:CardSelectorValue>123</hyp:CardSelectorValue>
      <hyp:LocDate>2013-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:LimitsGroup>DF - 02</hyp:LimitsGroup>
      <hyp:MCCGroup></hyp:MCCGroup>
      <hyp:PERMSGGroup></hyp:PERMSGGroup>
      <hyp:FeeGroup></hyp:FeeGroup>
      <hyp:SchedFeeGroup></hyp:SchedFeeGroup>
      <hyp:WSFeeGroup></hyp:WSFeeGroup>
      <hyp:LinkageGroup></hyp:LinkageGroup>
      <hyp:FXGroup></hyp:FXGroup>
      <hyp:CurrentLimitsGroup>DF - 01</hyp:CurrentLimitsGroup>
      <hyp:CurrentMCCGroup></hyp:CurrentMCCGroup>
      <hyp:CurrentPERMSGGroup></hyp:CurrentPERMSGGroup>
      <hyp:CurrentFeeGroup></hyp:CurrentFeeGroup>
      <hyp:CurrentSchedFeeGroup></hyp:CurrentSchedFeeGroup>
      <hyp:CurrentWSFeeGroup></hyp:CurrentWSFeeGroup>
      <hyp:CurrentLinkageGroup></hyp:CurrentLinkageGroup>
      <hyp:CurrentFXGroup></hyp:CurrentFXGroup>
      <hyp:PaymentTokenUsageGroup></hyp:PaymentTokenUsageGroup>
      <hyp:CurrentPaymentTokenUsageGroup></hyp:CurrentPaymentTokenUsageGroup>
    </hyp:Ws_Change_Groups>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Change_GroupsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Change_GroupsResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <CardSelector>1</CardSelector>
        <CardSelectorValue>123</CardSelectorValue>
        <ActionCode>000</ActionCode>
        <LocDate>2013-01-01</LocDate>
        <LocTime>120000</LocTime>
        <SysDate>2013-01-01</SysDate>
        <Cards>
          <CardDesc>
            <PublicToken>123456789</PublicToken>
            <CurrentLimitsGroup>PMT-VL-002</CurrentLimitsGroup>
            <CurrentMCCGroup/>
            <CurrentPERMSGGroup/>
            <CurrentFeeGroup/>
            <CurrentSchedFeeGroup/>
            <CurrentWSFeeGroup/>
            <CurrentLinkageGroup/>
            <CurrentFXGroup/>
          </CardDesc>
          <CurrentPaymentTokenUsageGroup/>
          <CardDesc>
            <PublicToken>987654321</PublicToken>
            <CurrentLimitsGroup>PMT-VL-002</CurrentLimitsGroup>
          </CardDesc>
        </Cards>
      </Ws_Change_GroupsResult>
    </Ws_Change_GroupsResponse>
  </soap:Body>
</soap:Envelope>
```

```
        <CurrentMCCGroup/>
        <CurrentPERMSGGroup/>
        <CurrentFeeGroup/>
        <CurrentSchedFeeGroup/>
        <CurrentWSFeeGroup/>
        <CurrentLinkageGroup/>
        <CurrentFXGroup/>
    <CurrentPaymentTokenUsageGroup/>
    </CardDesc>
</Cards>
</Ws_Change_GroupsResult>
</Ws_Change_GroupsResponse>
</soap:Body>
</soap:Envelope>
```

List Products

API: [Ws_List_Products](#)

This web service enables you to list products your program has on GPS systems and view the details of each product.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <ProductInfo> | - | - | - | A list of ProductListInfo data, See ProductListInfo below. Can occur multiple times within the message. | | |

ProductListInfo

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------------|------|----------------|----------------|--|---------|-----------|
| <ProductID> | N | 1 | 10 | Product ID. | Omit | Mandatory |
| <ProductName> | AN | 1 | 50 | Name of the product. | Omit | Mandatory |
| <ProductDesc> | AN | 1 | 100 | Product pescription. | Omit | Mandatory |
| <ProgramID> | AN | 1 | 50 | Program ID. | Omit | Mandatory |
| <Currency> | AN | 3 | 3 | Billing currency. | Omit | Mandatory |
| <CrdProduct> | AN | 1 | 50 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. | Omit | Mandatory |
| <GroupLimitCode> | AN | 1 | 10 | Group code of the Limit Group. | Omit | Mandatory |
| <GroupFeeTranCode> | AN | 1 | 10 | Group code of the Fee Group. | Omit | Mandatory |
| <GroupFeeMasterCode> | AN | 1 | 10 | Group code of the Scheduled Fee Group. | Omit | Mandatory |
| <GroupFeeWebCode> | AN | 1 | 10 | Group code of the Web Service Fee Group. | Omit | Mandatory |
| <GroupMCCCode> | AN | 1 | 10 | Group code of the MCC Group. | Omit | Mandatory |
| <GroupUsageCode> | AN | 1 | 10 | Group code of the Usage Group. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_List_Products>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
    </hyp:Ws_List_Products>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
```

```
<Ws_List_ProductsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
  <Ws_List_ProductsResult>
    <WSID>2021123456789</WSID>
    <IssCode>PMT</IssCode>
    <SysDate>2014-11-26</SysDate>
    <ActionCode>000</ActionCode>
    <ProductInfo>
      <ProductListInfo>
        <ProductID>100</ProductID>
        <ProductName>PRD1</ProductName>
        <ProductDesc>Product 1</ ProductDesc >
        <ProgramID>PRD1</ProgramID>
        <Currency>GBP</Currency>
        <CrdProduct>MCRD</CrdProduct>
        <GroupLimitCode>GRPLIMIT1</GroupLimitCode>
        <GroupFeeTranCode>GRPAUTH1</GroupFeeTranCode>
        <GroupFeeMasterCode>GRPPEC1</GroupFeeMasterCode>
        <GroupFeeWebCode>GRPWEB1</GroupFeeWebCode>
        <GroupMCCCode>MCC1</GroupMCCCode>
        <GroupUsageCode>USAGE1</GroupUsageCode>
      </ProductListInfo>
      <ProductListInfo>
        <ProductID>101</ProductID>
        <ProductName>PRD2</ProductName>
        <ProductDesc>Product 2</ ProductDesc >
        <ProgramID>PRD2</ProgramID>
        <Currency>USD</Currency>
        <CrdProduct>MCRD</CrdProduct>
        <GroupLimitCode>GRPLIMIT2</GroupLimitCode>
        <GroupFeeTranCode>GRPAUTH2</GroupFeeTranCode>
        <GroupFeeMasterCode>GRPPEC2</GroupFeeMasterCode>
        <GroupFeeWebCode>GRPWEB2</GroupFeeWebCode>
        <GroupMCCCode>MCC2</GroupMCCCode>
        <GroupUsageCode>USAGE2</GroupUsageCode>
      </ProductListInfo>
      <ProductListInfo>
        <ProductID>102</ProductID>
        <ProductName>PRD3</ProductName>
        <ProductDesc>Product 3</ ProductDesc >
        <ProgramID>PRD3</ProgramID>
        <Currency>EUR</Currency>
        <CrdProduct>MCRD</CrdProduct>
        <GroupLimitCode>GRPLIMIT3</GroupLimitCode>
        <GroupFeeTranCode>GRPAUTH3</GroupFeeTranCode>
        <GroupFeeMasterCode>GRPPEC3</GroupFeeMasterCode>
        <GroupFeeWebCode>GRPWEB3</GroupFeeWebCode>
        <GroupMCCCode>MCC3</GroupMCCCode>
        <GroupUsageCode>USAGE3</GroupUsageCode>
      </ProductListInfo>
    </ProductInfo>
  </Ws_List_ProductsResult>
</Ws_List_ProductsResponse>
</soap:Body>
</soap:Envelope>
```

Manage Mobile Devices

You can use the following web services to view and manage tokens on mobile devices:

[Payment Token Get](#): [Ws_Payment_Token_Get](#)

[Payment Token Status Change](#): [Ws_Payment_Token_StatusChange](#)

[Token Device Management](#): [WS_Token_Device_Management](#)

[Payment Token Create](#): [Ws_PaymentToken_Create](#)

Note: only for use where you have a direct API connection to the MDES or VDEP service.

Token Device Management

API: [Ws_Token_Device_Management](#)

This web service enables you to retrieve a list of devices bound to a DPAN. You can also use it to unbind a device by initiating an Unbind API call to Visa.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <Func> | AN | 1 | 2 | Token device function requested: 00 = Retrieve list, 01 = Unbind device. | Mandatory | Omit |
| <DPAN> | AN | 16 | 19 | Tokenised PAN. | Conditional | Omit |
| <PaymentTokenID> | AN | 1 | 20 | Payment token ID. | Conditional | Omit |
| <DeviceIndex> | AN | 1 | 3 | Visa device index (Func 01 only). | Conditional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <DeviceList> | - | - | - | An array of device lists. See Device List below. Can occur multiple times within the message. | Omit | Conditional |

Device List

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|----------------------|----------------|----------------|--|---------|-----------|
| <BoundDeviceIndex> | AN | 1 | 3 | Index of the device in the Visa database. | Omit | Mandatory |
| <TokenUserId> | AN | 1 | 11 | Identifier of the token user, the entity that initiates the payment request. | Omit | Mandatory |
| <TokenUserType> | AN | 1 | 2 | Token user type: 00 = Unknown, 01 = Web, 02 = Mobile web, 03 = Mobile application, 04 = Marketplace app, 05 = Voice app, 06 = Biometric app. | Omit | Mandatory |
| <GPSDeviceStatus> | A | 1 | 1 | Device status on the GPS system. Options include: A = Active D = Deleted (once in this status, it is normally never changed) I = Inactive N = Not Tokenised P = Pending S = Suspended U = Unknown X = Deactivated | Omit | Mandatory |
| <NetDeviceStatus> | A | 1 | 1 | Device status on the Payment Network. Options include: A = Active D = Deleted (once in this status, it is normally never changed) I = Inactive N = Not Tokenised P = Pending S = Suspended U = Unknown X = Deactivated | Omit | Mandatory |
| <DeviceBindDate> | YYYY-MM-DD HHMMSS | 19 | 19 | Date/Time (in GMT) initial binding message is received. | Omit | Mandatory |
| <DeviceStatusDate> | YYYY-MM-DD HHMMSS | 19 | 19 | Date/Time binding last changed. | Omit | Mandatory |
| <DeviceType> | A | 1 | 10 | The device type. See Device Types . | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------|------|----------------|----------------|--|---------|----------|
| <DeviceLang> | A | 1 | 2 | Device language code as ISO 639-1 (2 letter lower-case) code. | Omit | Optional |
| <DeviceID> | A | 1 | 48 | Unique ID of the secure element in the device. | Omit | Optional |
| <DeviceTelNum> | A | 1 | 15 | Device telephone number (if applicable). | Omit | Optional |
| <DeviceName> | A | 1 | 20 | Name assigned to the device. | Omit | Optional |
| <DeviceLongitude> | D | 1 | 20 | Device longitude in degrees at time of digitisation request: -180 to +180; +ve = East, -ve = West (of Greenwich). Example: 176.2 = East 176.2 degrees, -98.5 = West 98.5 degrees. Note: the spelling is not a typo. It reflects how the field name is coded. | Omit | Optional |
| <DeviceLatitude> | D | 1 | 20 | Device latitude in degrees at time of digitisation request: -90 (south pole) to +90 (north pole). +ve=e=North, -ve=South (from equator). Example: +63.2 = North 63.2 degrees, -82.6 = South 82.6 degrees. | Omit | Optional |
| <DeviceIP> | A | 1 | 15 | IP address (full or last part only) of the device at time of binding / digitisation. | Omit | Optional |

Request

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soap:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soap:Header>
  <soap:Body>
    <hyp:Ws_Token_Device_Management>
      <hyp:WSID>11012021817</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:Func>00</hyp:Func>
      <hyp:DPAN>?</hyp:DPAN>
      <hyp:PaymentTokenId>?</hyp:PaymentTokenId>
      <hyp:DeviceIndex>?</hyp:DeviceIndex>
    </hyp:Ws_Token_Device_Management>
  </soap:Body>
</soap:Envelope>
```

Response

```
soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Token_Device_ManagementResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Token_Device_ManagementResult>
        <WSID>11012021817</WSID>
        <IssCode>GPS</IssCode>
        <ActionCode>218</ActionCode>
      </Ws_Token_Device_ManagementResult>
    </Ws_Token_Device_ManagementResponse>
  </soap:Body>
</soap:Envelope>
```

Payment Token Get

API: [Ws_Payment-Token_Get](#)

This web service gets the details for both Mastercard Digital Enablement Service (MDES) payment token cards and Visa Token Service (VTS) cards.

Your request must provide one of the following card details: [PAN](#), [PublicToken](#), [DPAN](#) or [Payment-Token_ID](#). If the MDES or VTS card is not specified, the call returns all linked MDES or VTS cards.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. If only <IssCode> is present in the request then this method returns the pending fee details of all cards belong to the given program manager. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 9. | Mandatory | Mandatory |
| <PAN> | N | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <PublicToken> | N | 9 | 9 | GPS 9-digit public token of the card. | Conditional | Omit |
| <DPAN> | AN | 16 | 19 | Digital PAN value for the card. | Conditional | Omit |
| <Payment-Token_ID> | N | 1 | 20 | Payment token identifier for the MDES Card. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Payment Token Get Res Info

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|------|----------------|----------------|---|---------|-----------|
| <Creator> | AN | 1 | 10 | Name of the system or process that created the token (e.g., MC-MDES and VISA-T). | Omit | Mandatory |
| <Creator_PAN_Ref> | AN | 1 | 48 | The token creator's unique reference to the linked card. | Omit | Mandatory |
| <Creator-Token_Ref> | AN | 1 | 48 | The token creator's unique reference for this payment token. (Mastercard Token Unique Reference (TUR) and Visa Token reference ID.) | Omit | Mandatory |
| <PANT> | N | 16 | 19 | PAN for the card linked to the MDES or VTS card. | Omit | Mandatory |
| <Payment-Token > | N | 16 | 19 | Payment token Device PAN for the MDES or VTS card. | Omit | Mandatory |
| <Payment-Token_ExpDate > | Date | 10 | 10 | Expiry date of the payment token. | Omit | Mandatory |
| <Payment-Token_ID> | N | 1 | 20 | Payment token identifier for the MDES or VTS card. | Omit | Mandatory |
| <Payment-Token_Type > | AN | 1 | 2 | Payment token type. See Payment Token Types . | Omit | Mandatory |
| <Wallet_ID> | AN | 1 | 10 | Name of the wallet provider this payment token uses (e.g., APPLE, ANDROID, SAMSON). | Omit | Mandatory |
| <GPS_Status> | N | 2 | 2 | The GPS status of the payment token for trans- | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------------|----------|----------------|----------------|---|---------|-----------|
| | | | | acting. See Status Codes . | | |
| <Tokenised_Datetime> | DateTime | 19 | 19 | Date and time when tokenised, in the format: <i>yyyy-mm-ddhhmmss</i> . | Omit | Mandatory |
| <Tokenised_Status> | AN | 1 | 1 | Tokenised status of this payment token: U = unknown; 0 = not tokenised; 1=tokenised. | Omit | Mandatory |
| <Txn_Status> | AN | 1 | 1 | Status of the payment token as received from the payment token creator (normally Visa or Mastercard). After tokenisation, this is not changed by GPS. A = Active D = Deleted (once in this status, it is normally never changed) I = Inactive N = Not Tokenised P = Pending S = Suspended U = Unknown X = Deactivated | Omit | Mandatory |
| <Txn_Status_Actor> | AN | 1 | 10 | Indicates which system last changed the transaction status. | Omit | Mandatory |
| <Txn_Status_Change_Datetime> | DateTime | 16 | 16 | Date and time that the transaction status was last changed. In the format: <i>yyyy-mm-ddhhmmss</i> . | Omit | Mandatory |
| <Accepted_Terms_Date_GMT> | DateTime | 16 | 16 | Date (in GMT) that terms and conditions were accepted by the cardholder (as received from the network). | Omit | Mandatory |
| <Accepted_Terms_Version> | AN | 1 | 32 | Version of the terms and conditions which were accepted by the cardholder (as received from the network). | Omit | Mandatory |
| <Auth_Datetime> | DateTime | 16 | 16 | Date and time when the tokenisation request was last responded to. | Omit | Mandatory |
| <Auth_Decision> | AN | 1 | 1 | Final tokenisation decision: U = unknown 0 = approve digitisation request A = approve digitisation request (with additional authentication). | Omit | Mandatory |
| <Auth_RSPSRC> | AN | 10 | 10 | Name of the system or process that approved the tokenisation (e.g., MC-MDES and ISSUER). | Omit | Mandatory |
| <Auth_Status> | AN | 1 | 1 | Status of the authorisation to digitise this payment token: U = unknown 0 = approve digitisation request A = approve digitisation request (with additional authentication) 1 = decline digitisation request Note: this is not the same as a transaction authorisation. | Omit | Mandatory |
| <Digitisation_Ref> | AN | 1 | 64 | Unique reference (per payment_token_issuer_id) which all digitisation messages use, to link them together. | Omit | Mandatory |
| <Wallet_Account_Score> | N | 1 | 1 | Risk score for the account, received from the wallet provider during digitisation: 1 = highest risk; 2 = higher risk 3 = neutral; 4 = lower risk; 5 = least risk | Omit | Mandatory |
| <Wallet_Device_Score> | N | 1 | 1 | Risk score for the device received from the wallet provider during digitisation: 1 = highest risk; 2 = higher risk 3 = neutral; 4 = lower risk; 5 = least risk | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------|----------|----------------|----------------|--|---------|-----------|
| <Wallet_Reasons> | AN | 1 | 24 | Wallet service provider tokenization recommendation reason codes. See Wallet Tokenisation Reason Codes . | Omit | Mandatory |
| <Activation_Code> | AN | 1 | 40 | Activation code to be sent directly to the cardholder to activate this payment token. | Omit | Mandatory |
| <Activation_Code_Expdate> | DateTime | 16 | 16 | Date and time when the activation code expires, in GMT (UTC). In the format: yyyy-mm-ddhhmmss. | Omit | Mandatory |
| <Activation_Method> | N | 1 | 1 | Which activation method was used: 0 = none; 1 = SMS to mobile phone; 2 = email; 3 = cardholder called an automated call centre; 4 = cardholder called a human call centre; 5 = website; 6 = mobile application; 7 = voice phone call | Omit | Mandatory |
| <Device_ID> | AN | 1 | 48 | Unique ID of the secure element in the device. | Omit | Mandatory |
| <Device_IP> | AN | 1 | 15 | IP address (full or last part only) of the device at time of binding / digitisation. | Omit | Mandatory |
| <Device_Lang2> | AN | 1 | 2 | Device language code as ISO 639-1 (2 letter lowercase) code. | Omit | Mandatory |
| <Device_Latitude> | N | 1 | 3 | Device latitude in degrees at time of digitisation request: -90 (south pole) to +90 (north pole). +ve=North, -ve=South (from equator). Example: +63.2 = North 63.2 degrees, -82.6 = South 82.6 degrees. | Omit | Mandatory |
| <Device_Longitude> | N | 1 | 3 | Device longitude in degrees at time of digitisation request: -180 to +180; +ve = East, -ve = West (of Greenwich). Example: 176.2 = East 176.2 degrees, -98.5 = West 98.5 degrees. | Omit | Mandatory |
| <Device_Name> | AN | 1 | 20 | Name the cardholder assigned to the device in the wallet. | Omit | Mandatory |
| <Device_Tel_Num> | AN | 1 | 15 | Device telephone number (full or last part only). | Omit | Mandatory |
| <Device_Type> | AN | 1 | 1 | The type of device used at the terminal. See Device Types . | Omit | Mandatory |
| <FirstName> | AN | 1 | 40 | Cardholder's first name as provided by the wallet provider during digitisation. May not be provided, or just the initial letter. | Omit | Mandatory |
| <LastName> | AN | 1 | 40 | Cardholder's last name as provided by wallet provider during digitisation. May not be provided, or just the initial letter. | Omit | Mandatory |
| <Wallet_Account_Hash> | AN | 1 | 64 | Wallet provider hash of account details (optional) or PBKDF2 hash of the cardholder's account ID with the wallet provider. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Payment-Token_Get>
      <hyp:WSID>202112345678967890</hyp:WSID>
    </hyp:Ws_Payment-Token_Get>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    <hyp:IssCode>PMT</hyp:IssCode>
    <hyp:TxnCode>2</hyp:TxnCode>
    <hyp:PAN></hyp:PAN>
    <hyp:PublicToken>123456789</hyp:PublicToken>
    <hyp:DPAN>0987654321012</hyp:DPAN>
    <hyp:Payment_Token_ID></hyp:Payment_Token_ID>
    <hyp:LocDate>2017-01-01</hyp:LocDate>
    <hyp:LocTime>123456</hyp:LocTime>
  </hyp:Ws_Payment_Token_Get>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Payment_Token_GetResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Payment_Token_GetResult>
        <WSID>202112345678967890</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>2</TxnCode>
        <PublicToken>123456789</PublicToken>
        <PaymentTokenGetResInfo>
          <PaymentTokenGetResInfo>
            <Creator>GPS</Creator>
            <Creator_PAN_Ref/>
            <Creator_Token_Ref/>
            <PANT>1234567890123456</PANT>
            <Payment_Token>****1234</Payment_Token>
            <Payment_Token_ExpDate/>
            <Payment_Token_ID>2</Payment_Token_ID>
            <Payment_Token_Type>C</Payment_Token_Type>
            <Wallet_ID>APPLE</Wallet_ID>
            <GPS_Status>00</GPS_Status>
            <Tokenised_Datetime/>
            <Tokenised_Status>1</Tokenised_Status>
            <Txn_Status>X</Txn_Status>
            <Txn_Status_Actor></Txn_Status_Actor>
            <Txn_Status_Change_Datetime/>
            <Accepted_Terms_Date_GMT/>
            <Accepted_Terms_Version/>
            <Auth_Datetime/>
            <Auth_Decision/>
            <Auth_RSPSRC/>
            <Auth_Status>1</Auth_Status>
            <Digitisation_Ref>1111111111111111</Digitisation_Ref>
            <Wallet_Account_Score/>
            <Wallet_Device_Score/>
            <Wallet_Reasons/>
            <Activation_Code/>
            <Activation_Code_Expdate/>
            <Activation_Method/>
            <Device_ID/>
            <Device_IP/>
            <Device_Lang2/>
            <Device_Latitude/>
            <Device_Longitude/>
            <Device_Name/>
            <Device_Tel_Num/>
            <Device_Type>M</Device_Type>
            <FirstName/>
            <LastName/>
            <Wallet_Account_Hash/>
          </PaymentTokenGetResInfo>
        </PaymentTokenGetResInfo>
        <LocDate>2017-01-01</LocDate>
        <LocTime>123456</LocTime>
        <SysDate>2017-11-17</SysDate>
        <ActionCode>000</ActionCode>
      </Ws_Payment_Token_GetResult>
    </Ws_Payment_Token_GetResponse>
  </soap:Body>
</soap:Envelope>

```

Payment Token Status Change

API: [Ws_Payment-Token_StatusChange](#)

This web service is used to change the status of an MDES (Mastercard Digital Enablement Service) or Visa Token Service (VTS) payment token card. It can also be used to change the Usage Group of the card.

Record Description

| Tag | Type | Minimum Len | Maximum Len | Description | Request | Response |
|------------------|------------|-------------|-------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 2. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. The PAN is Mandatory if <PublicToken> is not supplied. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | GPS 9-digit public token of the card. Mandatory if the PAN is not supplied. | Conditional | Mandatory |
| <DPAN> | AN | 16 | 19 | Digital PAN value for the card. Mandatory if <PaymentTokenId> is not supplied. | Conditional | Mandatory |
| <PaymentTokenId> | AN | 1 | 20 | Payment token identifier for the MDES Card. Mandatory if the DPAN is not supplied. | Conditional | Mandatory |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <NewStatCode> | AN | 2 | 2 | New status code you want to change to. The Card Scheme is notified of the status change. See Status Codes . Note: You must specify a value for either <NewStatCode> or <UsageGroup>. If both fields are left blank or not specified in the request, then the error message <i>712-invalid filter</i> is returned. | Conditional | Omit |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <NetworkError> | AN | 1 | 6 | Error code give if there is a problem sending the MDES 0302 message. | Omit | Conditional |
| <UsageGroup> | AN | 1 | 15 | Updates the usage group of the card linked to the payment token. The usage group determines where the payment token can be used (e.g., Point of Sale terminal, ATM, ecommerce). This corresponds to the <PERMSGGroup> field in the Card Create web service. Note: You must specify a value for either <NewStatCode> or <UsageGroup>. If both fields are left blank or not specified in the request, then the error message <i>712-invalid filter</i> is returned. Note: If an invalid usage group is specified, then the error message <i>866 - Invalid Usage group code</i> is returned. | Conditional | Omit |

| Tag | Type | Minimum Len | Maximum Len | Description | Request | Response |
|------------|---------|-------------|-------------|---|-------------|----------|
| <Activate> | Boolean | 1 | 1 | Whether to activate the payment token on the MDES system (Mastercard tokens only). 1= activate the token; 0 = do not activate the token. Note: If no value is specified, this will default to 0. Note: If you receive a 951 action code in the response you can retry the web service call or else use the Mastercard Portal to update the token status. | Conditional | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Payment_Token_StatusChange>
      <hyp:WSID>202112345678967890</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>2</hyp:TxnCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DPAN>0987654321012</hyp:DPAN>
      <hyp:PaymentTokenId></hyp:PaymentTokenId>
      <hyp:LocDate>2017-01-01</hyp:LocDate>
      <hyp:LocTime>123456</hyp:LocTime>
      <hyp:NewStatCode>00</hyp:NewStatCode>
      <hyp:TerminalID></hyp:TerminalID>
      <hp:UsageGroup>GROUP1</hyp:UsageGroup>
      <hp:Activate>1</hyp:Activate>
    </hyp:Ws_Payment_Token_StatusChange>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Payment_Token_StatusChangeResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Payment_Token_StatusChangeResult>
        <WSID>202112345678967890</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>2</TxnCode>
        <PublicToken>123456789</PublicToken>
        <PaymentTokenId>2</PaymentTokenId>
        <LocDate>2017-01-01</LocDate>
        <LocTime>123456</LocTime>
        <SysDate>2017-11-17</SysDate>
        <ActionCode>000</ActionCode>
      </Ws_Payment_Token_StatusChangeResult>
    </Ws_Payment_Token_StatusChangeResponse>
  </soap:Body>
</soap:Envelope>
```


Payment Token Create

API: [Ws_PaymentToken_Create](#)

This web service is used to create a payment token for use with the GPS mobile wallet tokenisation service, where you have direct integration to VDEP or MDES. After each successful tokenisation setup, you will need to provide GPS with details of the token that has been set up with Visa or Mastercard. When GPS receives your request successfully, a record is created in the system and GPS returns the [payment_token_id](#) of the new record in the response. Until GPS has created the [payment_token_id](#), cardholders will not be able make payments using their device.

Note: This web service should only be used where you have a direct integration to the Visa Digital Enabled Program (VDEP) or Mastercard Digital Enablement Service (MDES). For details, contact your Implementation Manager.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------------|----------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent. Tip: You could use a number based on the current date and time, as long as it is unique (e.g., 20201217145006). | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 0 | 19 | Card Number. Unique card identifier. Mandatory in request if Payment_Token_ID or PublicToken are not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if PAN or Payment_Token_ID not present. Mandatory in the response. | Conditional | Mandatory |
| <PaymentToken> | AN | 1 | 32 | The payment token. | Mandatory | Omit |
| <Payment_Token_ID> | AN | 1 | 20 | Unique GPS token reference returned in the response. | Omit | Mandatory |
| <PaymentTokenExpDate> | Date | 10 | 10 | Expiry date of the payment token. | Mandatory | Omit |
| <PaymentTokenType> | AN | 1 | 2 | The payment token type. Defines the technology the token is being held on. See Payment Token Types . | Mandatory | Omit |
| <Payment_Token_Storage> | NA | NA | NA | Does not need to be included. | Omit | Omit |
| <DigitisationRef> | AN | 1 | 64 | Reference which all tokenisation messages use, to link them together. Unique per payment_token_issuer_id . | Optional | Omit |
| <EligibilityStatus> | AN | 1 | 1 | Eligibility status. Default is U (Unknown). | Optional | Omit |
| <EligibilityDatetime> | DateTime | 16 | 16 | Eligibility date and time. Default is blank. | Optional | Omit |
| <Auth_Status> | AN | 1 | 1 | Status of the authorisation to create this payment token: U = unknown 0 = approve tokenisation request A = approve tokenisation request (with additional authentication) 1 = decline tokenisation request Note: this is not the same as a transaction authorisation. | Optional | Omit |
| <Auth_Datetime> | DateTime | 16 | 16 | Date and time when the tokenisation request was last responded to. Format: <i>yyyy-mm-dd hh:mm:ss</i> . | Optional | Omit |
| Tokenised_Status> | AN | 1 | 1 | Whether this payment token has been | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------|----------|----------------|----------------|--|-------------|----------|
| | | | | digitised/personalised: U=unknown 0=not-tokenised 1=tokenised | | |
| <TokenisedDatetime> | DateTim | 16 | 16 | Date and time when tokenised, in the format: <i>yyyy-mm-dd hh:mm:ss</i> . | Optional | Omit |
| <GPSStatus> | N | 2 | 2 | The status of the token for transacting, as set by GPS. | Mandatory | Omit |
| <TxnStatus> | AN | 1 | 1 | The status of token for transacting. After tokenisation, this is not changed by GPS, but is received from token creator who maintains this. | Mandatory | Omit |
| <DeviceType> | A | 1 | 10 | The device type. See Device Types . | Mandatory | Omit |
| <Activation_Code> | AN | 1 | 40 | Activation code to be sent directly to the cardholder to activate this payment token. | Optional | Omit |
| <Activation_Code_ExpDate> | DateTime | 16 | 16 | Date and time when the activation code expires, in GMT (UTC). Format: <i>yyyy-mm-dd hh:mm:ss</i> | Optional | Omit |
| <Activation_Method> | AN | 1 | 1 | Which activation method was used: 0 = None 1 = SMS to mobile phone 2 = Email 3 = Cardholder to call automated call centre 4 = Cardholder to call human call centre 5 = Website 6 = Mobile application 7 = Voice phone call | Optional | Omit |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. Also used as the card purchaser's first name if no delivery address is supplied. Mandatory if <lastName> is present. | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Optional | Omit |
| <WalletID> | AN | 1 | 10 | Name of the wallet provider this payment token uses (e.g., APPLE, ANDROID, SAMSON). | Conditional | Omit |
| <WalletID_Mastercard> | AN | 3 | 3 | Mastercard's 3-character code for the Wallet Provider, as per Banknet DE48.26.1. | Conditional | Omit |
| <WalletAccountScore> | N | 1 | 1 | Risk score for the account, received from the wallet provider during digitisation: 1 = highest risk 2 = higher risk 3 = neutral 4 = lower risk 5 = least risk | Optional | Omit |
| <WalletAccountHash> | AN | 1 | 64 | Wallet provider hash of account details (optional) or PBKDF2 hash of the cardholder's account ID with the wallet provider. | Optional | Omit |
| <WalletDeviceScore> | N | 1 | 1 | Risk score for the device linked to the token, as received from the wallet provider during digitisation: 1 = highest risk 2 = higher risk | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------|----------|----------------|----------------|---|-----------|----------|
| | | | | 3 = neutral 4 = lower risk 5 = least risk | | |
| <WalletReasons> | AN | 1 | 24 | Wallet Service Provider Tokenisation Recommendation Reason Codes . | Optional | Omit |
| <DeviceName> | A | 1 | 20 | Name assigned to the device linked to the token. | Optional | Omit |
| <DeviceLongitude> | D | 1 | 20 | Device longitude in degrees at time of digitisation request: -180 to +180; +ve = East, -ve = West (of Greenwich). Example: 176.2 = East 176.2 degrees, -98.5 = West 98.5 degrees. | Optional | Omit |
| <DeviceLatitude> | D | 1 | 20 | Device latitude in degrees at time of digitisation request: -90 (south pole) to +90 (north pole). +ve=North, -ve=South (from equator). Example: +63.2 = North 63.2 degrees, -82.6 = South 82.6 degrees. | Optional | Omit |
| <DeviceTelNum> | A | 1 | 15 | Telephone number of the device linked to the token(if applicable). | Optional | Omit |
| <DeviceID> | A | 1 | 48 | Unique ID of the secure element in the device linked to the token. | Optional | Omit |
| <DeviceIP> | A | 1 | 15 | IP address (full or last part only) of the device at time of binding / digitisation. | Optional | Omit |
| <DeviceLang> | A | 1 | 2 | Device language code as ISO 639-1 (2 letter lowercase) code. | Optional | Omit |
| <Auth_Decision> | AN | 1 | 1 | Status of the authorisation to create this payment token: U=unknown 0=Approve tokenisation request A=Approve tokenisation request (with additional authentication) | Optional | Omit |
| <Creator> | AN | 1 | 8 | Who created the paymenttoken. If omitted, will be set to Visa/Mastercard based on the Card Product of the <PAN> or <PublicToken>. Else, the provided value is used. | Optional | Omit |
| <Creator_Token_Ref> | AN | 1 | 48 | The token creator's unique reference for this payment token. (Mastercard Token Unique Reference (TUR) and Visa Token reference ID.) | Mandatory | Omit |
| <Creator_Pan_Ref> | AN | 1 | 48 | The token creator's unique reference for the linked card. | Mandatory | Omit |
| <Accepted_Terms_Version> | AN | 1 | 32 | Version of the terms and conditions which were accepted by the cardholder (as received from the network). | Optional | Omit |
| <Accepted_Terms_Date_GMT> | DateTime | 16 | 16 | Date (in GMT) that terms and conditions were accepted by the cardholder (as received from the network). | Optional | Omit |
| <ActivationStatus> | AN | 1 | 1 | The payment token's activation status: Status is 'R' when Reason code = 00 Status is 'T' when Reason code = 01 Status is 'F' when Reason code = 02 | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------|----------------|----------------|--|-----------|-----------|
| <TokenRequestorID> | N | 1 | 16 | The Token Requestor ID. | Mandatory | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <ActionDescription> | AN | 0 | 200 | Description of the action code in the response, if applicable. | Omit | Optional |

Request

```

xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_PaymentToken_Create>
      <hyp:WSID>130820216738383</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>996908917</hyp:PublicToken>
      <hyp:PaymentToken>996908917</hyp:PaymentToken>
      <hyp:PaymentTokenExpDate>2021-05-17</hyp:PaymentTokenExpDate>
      <hyp:PaymentTokenType>C</hyp:PaymentTokenType>
      <hyp:DigitizationRef>@#%</hyp:DigitizationRef>
      <hyp:EligibilityStatus></hyp:EligibilityStatus>
      <hyp:EligibilityDate></hyp:EligibilityDate>
      <hyp:AuthStatus></hyp:AuthStatus>
      <hyp:AuthDate></hyp:AuthDate>
      <hyp:TokenisedStatus>U</hyp:TokenisedStatus>
      <hyp:TokenisedDate></hyp:TokenisedDate>
      <hyp:GPSStatus>00</hyp:GPSStatus>
      <hyp:TxnStatus>A</hyp:TxnStatus>
      <hyp:DeviceType>A</hyp:DeviceType>
      <hyp:ActivationCode>!%$</hyp:ActivationCode>
      <hyp:ActivationCodeExpDate></hyp:ActivationCodeExpDate>
      <hyp:ActivationMethod></hyp:ActivationMethod>
      <hyp:FirstName></hyp:FirstName>
      <hyp:LastName></hyp:LastName>
      <hyp:WalletID>ANDROID</hyp:WalletID>
      <hyp:WalletIDMasterCard></hyp:WalletIDMasterCard>
      <hyp:WalletAccountScore></hyp:WalletAccountScore>
      <hyp:WalletAccountHash></hyp:WalletAccountHash>
      <hyp:WalletDeviceScore></hyp:WalletDeviceScore>
      <hyp:WalletReasons></hyp:WalletReasons>
      <hyp:DeviceName></hyp:DeviceName>
      <hyp:DeviceLongitude></hyp:DeviceLongitude>
      <hyp:DeviceLatitude></hyp:DeviceLatitude>
      <hyp:DeviceTelNum></hyp:DeviceTelNum>
      <hyp:DeviceID></hyp:DeviceID>
      <hyp:DeviceIP></hyp:DeviceIP>
      <hyp:DeviceLang></hyp:DeviceLang>
      <hyp:AuthDecision></hyp:AuthDecision>
      <hyp:Creator>CARD</hyp:Creator>
      <hyp:CreatorTokenRef>123</hyp:CreatorTokenRef>
      <hyp:CreatorPanRef>1233</hyp:CreatorPanRef>
      <hyp:AcceptedTermsVersion></hyp:AcceptedTermsVersion>
      <hyp:AcceptedTermsDateGMT></hyp:AcceptedTermsDateGMT>
      <hyp:ActivationStatus></hyp:ActivationStatus>
      <hyp:TokenRequestorID>987</hyp:TokenRequestorID>
    </hyp:Ws_PaymentToken_Create>
  </soapenv:Body>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_PaymentToken_CreateResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_PaymentToken_CreateResult>
        <WSID>202112345678967890</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>2</TxnCode>
        <PublicToken>123456789</PublicToken>
        <Payment_Token_ID>123</Payment_Token_ID>
        <ActionCode>000</ActionCode>
      </Ws_PaymentToken_CreateResult>
    </Ws_PaymentToken_CreateResponse>
  </soap:Body>
</soap:Envelope>

```

Managing Transactions Overview

You can use the following web services to view and manage your card transactions:

[Transaction Void](#): [Ws_Transaction_Void](#)

[Clear Accumulator](#): [Ws_ResetAccumulator](#)

Clear Accumulator

API: [Ws_ResetAccumulator](#)

This web service allows you to reset transaction and amount counters (since the last [strongly-cardholder-authenticated](#) transaction) on a card or payment-token, to re-enable transactions which are blocked as a result of the transaction and amount counters exceeding the defined maximum limits for not-secure-enough transactions.

A successful call sets the transaction count ([<TxnCount>](#)) and accumulator value ([<AccumValue>](#)) for contactless transactions to zero. If the [<accumulator type>](#) tag is invalid, the web service is declined and an action code of 425 (*Invalid Accumulator Type*) is returned.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------|------------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. Mandatory in request if <PublicToken> is not present. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <AccumulatorType> | N | 1 | 1 | The type of accumulator to be cleared. See Accumulator Type . | Mandatory | Omit |
| <DPAN> | AN | 0 | 19 | Optional DPAN value for the MDES card. If provided, clears the accumulator for the supplied DPAN. | Optional | Omit |
| <PaymentTokenId> | AN | 0 | 16 | Optional payment token ID for the MDES card. If provided, clears the accumulator for the supplied payment token ID. | Optional | Omit |
| <ClearAllDPANs> | AN | 0 | 1 | Whether to clear all accumulators: 0 or empty string = No; 1 = Yes. | Optional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Accumulator Type

The [<AccumulatorType>](#) defines which transaction counter or accumulator is being reset, as follows:

| Type | Used for | Standard upper limits ** | Automatically reset when |
|------|--|---|---|
| 1 | Contactless non strongly-authenticated transactions. | 5 transactions Or EUR 150.00 accumulated amount (whichever reached first). (Note the single item limit is EUR 50.00, but that does not affect counters/accumulators.) | A card-present Strongly Authenticated Transactions occurs |
| 2 | e-commerce non strongly-authenticated transactions | 5 transactions Or EUR 100.00 accumulated amount (whichever reached first)(Note the single item limit is EUR 30.00, but that does not affect counters/accumulators.) | A 3D-secure e-commerce transaction occurs |

*This is defined by the European Banking Authority in under PSD2 rules for countries in its jurisdiction. You may have chosen alternative limits, especially if your card product is not euro currency.

Strongly Authenticated Transaction

A strongly-cardholder-authenticated transaction has at least two of the following characteristics:

- A physical property of the cardholder (such as fingerprint, Iris scan, vein scan) is verified
- Cardholder uses something only they should possess to verify the transaction (e.g. chip card, payment-token device or number generating key-fob)
- Cardholder provides data only they should know to verify the transaction (e.g. PIN, passcode or pattern to unlock a payment-token such as smartphone, or secret 3D-secure data)

In practice, a “strongly-cardholder-authenticated” transaction normally means that...

- For card present transactions:
 - Chip has been used (contact or contactless)
 - Cardholder verified by online PIN or offline PIN
- For payment-token transactions (e.g. Apple Pay on a smartphone):
 - Cardholder used Contactless
 - Cardholder verified by either:
 - online PIN
 - secret information or biometric to unlock the smartphone (e.g. passcode/pattern/fingerprint)
- For e-commerce transactions : 3D-secure cardholder authentication occurred.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_ResetAccumulator>
      <hyp:WSID>7243844685484652544</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN>9999999999999999</hyp:PAN>
      <hyp:PublicToken></hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:AccumulatorType>1</hyp:AccumulatorType>
      <hyp:DPAN></hyp:DPAN>
      <hyp:PaymentTokenId></hyp:PaymentTokenId>
      <hyp:ClearAllDPANs>1</hyp:ClearAllDPANs>
    </hyp:Ws_ResetAccumulator>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_ResetAccumulatorResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_ResetAccumulatorResponse>
        <Ws_ResetAccumulatorResult>
          <WSID>7243844685484652544</WSID>
          <IssCode>PMT</IssCode>
          <PublicToken>888888888</PublicToken>
          <ActionCode>000</ActionCode>
        </Ws_ResetAccumulatorResult>
      </Ws_ResetAccumulatorResponse>
    </Ws_ResetAccumulatorResponse>
  </soap:Body>
</soap:Envelope>
```

Transaction Void

API: [Ws_Transaction_Void](#)

This web service can be used to void (cancel) any transaction which has been created via a web service, and also allows you to remove uncleared authorisations.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value 12 | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Unique card identifier. | Conditional | Omit |
| <Track2> | AN | 1 | 40 | The card's Track 2. Mandatory in request if <PAN> and <PublicToken> are not present or when <AuthType> is '7'. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token, Mandatory in request if <PAN> and <Track2> are not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Mandatory if the value of <AuthType> is '4'. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <OrgItemId> | AN | 1 | 20 | The unique item ID of the transaction to void. | Mandatory | Mandatory |
| <Note> | AN | 1 | 1000 | Optional description of the void. | Optional | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ItemId> | AN | 1 | 20 | The unique item ID returned for this void. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Security

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------|------|----------------|----------------|----------------------|-----------|----------|
| <SecId> | N | 1 | 8 | Do not use. Set to 0 | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|------|----------------|----------------|----------------------|-----------|----------|
| <SecVal> | AN | 1 | 64 | Do not use. | Optional | Omit |
| <SecValPos> | N | 1 | 2 | Do not use. Set to 0 | Mandatory | Omit |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Transaction_Void>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>12</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:AuthType>1</hyp:AuthType>
      <hyp:PAN></hyp:PAN>
      <hyp:Track2></hyp:Track2>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:DOB></hyp:DOB>
      <hyp:CVV></hyp:CVV>
      <hyp:AccCode></hyp:AccCode>
      <hyp:LastName></hyp:LastName>
      <hyp:LocDate>2013-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:OrgItemId>1234</hyp:OrgItemId>
      <hyp:Note>Transaction Void - 1234</hyp:Note>
      <hyp:SecID>0</hyp:SecID>
      <hyp:SecVal></hyp:SecVal>
      <hyp:SecValPos>0</hyp:SecValPos>
    </hyp:Ws_Transaction_Void>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Transaction_VoidResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Transaction_VoidResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>12</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2013-01-01</LocDate>
        <LocTime>173400</LocTime>
        <ClientCode/>
        <OrgItemId>1234</OrgItemId>
        <SysDate>2013-01-01</SysDate>
        <ItemId>4321</ItemId>
        <ActionCode>000</ActionCode>
      </Ws_Transaction_VoidResult>
    </Ws_Transaction_VoidResponse>
  </soap:Body>
</soap:Envelope>
```

3D Secure Overview

You can use the following web services to enrol your cardholders in 3D Secure schemes and manage your 3D Secure enrolment:

Cardinal Real-time Data Exchange (RDX)

[3D Secure RDX Credentials \(Cardinal\)](#): [Ws_AddUpDelCredentials](#)

For additional information on 3D Secure support, see our [3D Secure FAQs](#).

The web services listed below are for legacy use only, and are not available to new clients.

Cardinal Batch File Interface (legacy option)

[3D Secure Enrol \(Cardinal\)](#): [Ws_Insert3DSecureDetails](#)

[3D Secure Update Details \(Cardinal\)](#): [ws_Update3DSecureDetails](#)

[3D Secure Query Details \(Cardinal\)](#): [Ws_Query3DSecureDetails](#)

[3D Secure Delete Details \(Cardinal\)](#): [Ws_Delete3DSecureDetails](#)

[3D Secure Update Last Modified Type \(Cardinal\)](#): [Ws_UpdateLastModifiedType](#)

RSA 3D Secure Service (legacy option)

[3D Secure Enroll \(RSA\)](#): [Ws_3DS_AddUpDelDetails](#)

3D Secure RDX Credentials (Cardinal)

API: [Ws_AddUpDelCredentials](#)

This web service enables you to enrol a cardholder in the Cardinal 3D Secure service and get, add, update and delete the user's credentials.

Note: This web service uses the Cardinal Real-time Data eXchange (RDX) interface. For more information on implementation of 3D Secure, refer to the [3D Secure Guide](#).

Request Fields

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|---------------------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PublicKey> | AN | 1 | 9 | The card's public token. Mandatory in the request and response. | Mandatory | Mandatory |
| <Action> | Enum | | | The type of action: <i>Get, Add, Update, Delete</i> . Note: Each Action is represented as a numerical value in the SmartClient log: <ul style="list-style-type: none"> • Add - 1 • Update - 2 • Delete - 3 • Get - 4 | Mandatory | Mandatory |
| <Credentials> | ListOf Credential objects | | | Contains one or more <i>credential</i> . There can be more than one credential in the same call when <Action> is <i>Get, Add or Update</i> . When <Action> is <i>Delete</i> and <Credentials> is empty then all credentials of <PublicKey> will be deleted. | Conditional | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| Credentials | | | | | | |
| <Credential> | | | | If the action is <i>Add</i> , you should include the credential <ID> of 0 and <Type>. If the action is <i>Get</i> , you should include an empty <hyp:Credentials/> tag. If the action is <Delete> and you specify the <ID> then only that credential will be deleted. | | |
| <ID> | N | 1 | 8 | Credential ID. If <Action> is <i>Add</i> the ID is not mandatory, but input 0 since the data type is numeric. GPS generates a unique ID and returns it in the response. ID is mandatory when <Action> is <i>Update</i> . ID is not mandatory when <Action> is <i>Delete</i> , unless a specific credential needs to be deleted. | Conditional | Mandatory |
| <Type> | Enum | | | Credential type: <ul style="list-style-type: none"> • RBA (done via Cardinal) • OTPSMS • OTPEMAIL • BIOMETRIC • OUTFBAND • KBA For details, see the 3D Secure FAQs . Note: OTPEMAIL and OUTFBAND are currently not available. | Conditional | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------------|------|----------------|----------------|--|-------------|-------------|
| | | | | <p>There is no need to enrol cards into RBA; this is automatic once the cards are enrolled at the scheme and can be configured in the Cardinal portal.</p> <p>Note: For a <i>Get</i> request - returns the specified type if present, or else returns all types. If no credentials are found for that token then the action code 437 is returned.</p> <p>Note: For an <i>Add</i> request - adds the specified type. If the credential type already exists, then returns the action code 438.</p> <p>Note: For an <i>Update</i> request - does not change the type. You cannot edit the credential <i>type</i>, only the <i>value</i>.</p> | | |
| <Value> | AN | 1 | 256 | <p>Credential value (e.g. a phone number, email address or KBA question ID). For OTPSMS enter a phone number, to be used for sending the OTP SMS. (For valid phone number formats, see Processing of Phone Numbers). For OTPEMAIL enter a valid email address, to be used for sending the OTP email. For KBA enter the ID to be used as the customer's question choice (e.g., 5). See KBA Question ID. For BIOMETRIC and OUTOFBAND this field is optional and you can include a reference. The value will not be used.</p> | Conditional | Mandatory |
| <KBA_Answer> | AN | 1 | 45 | <p>The cardholder's answer to the KBA question (e.g., for <i>Value</i>= 5, <i>KBA Answer</i> = London.)</p> <p>Note: Mandatory for an <i>Add</i> or <i>Update</i> if <i>Type</i> is <i>KBA</i>. If not provided, returns action code 594.</p> | Conditional | Conditional |
| <KBA_Answer-OldValue> | AN | 1 | 45 | <p>You can use this optional field when changing the saved KBA answer (i.e., <i>Action</i> is <i>Update</i> and <i>Type</i> is <i>KBA</i>) if you want to supply the old answer to check that it matches what is currently held in the GPS system. If it does not match then no update will happen and GPS returns the action code 599. If no value is supplied then the update will be done without any comparison.</p> | Optional | Optional |

KBA Question ID

If using Knowledge Based Authentication (KBA) , please enter one of the IDs below in the *value* field. This identifies which predefined KBA question to use.

| KBA ID | KBA Question |
|--------|---|
| 1 | What was your first pet's name? |
| 2 | What is your maternal grandmother's maiden name? |
| 3 | What is the name of your favourite childhood friend? |
| 4 | What was the make of your first car? |
| 5 | In what city or town did your mother and father meet? |

Example Add Request - Biometric

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_AddUpDelCredentials>
      <hyp:WSID>14012021141223</hyp:WSID>
      <hyp:IssCode>GPS</hyp:IssCode>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:Action>Add</hyp:Action>
      <hyp:Credentials>
        <hyp:Credential>
          <hyp:ID>0</hyp:ID>
          <hyp:Type>BIOMETRIC</hyp:Type>
          <hyp:Value>+5858585858588</hyp:Value>
          <KBA_Answer></hyp:KBA_Answer>
          <KBA_AnswerOldValue></hyp:KBA_AnswerOldValue>
        </hyp:Credential>
      </hyp:Credentials>
    </hyp:Ws_AddUpDelCredentials>
  </soapenv:Body></soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_AddUpDelCredentialsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_AddUpDelCredentialsResult>
        <WSID>14012021141223</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <PublicKey>123456789</PublicKey>
        <Action>Add</Action>
        <Credentials>
          <Credential>
            <ID>123456</ID>
            <Type>BIOMETRIC</Type>
            <Value>Customer Biometric app</Value>
            <KBA_Answer></hyp:KBA_Answer>
            <KBA_AnswerOldValue></hyp:KBA_AnswerOldValue>
          </Credential>
        </Credentials>
      </Ws_AddUpDelCredentialsResult>
    </Ws_AddUpDelCredentialsResponse>
  </soap:Body>
</soap:Envelope>
```

Example Get Request

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_AddUpDelCredentials>
      <hyp:WSID>15012021151223</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:Action>Get</hyp:Action>
      <hyp:Credentials/>
    </hyp:Ws_AddUpDelCredentials>
  </soapenv:Body></soapenv:Envelope>
```

Response

Customer Biometric app

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_AddUpDelCredentialsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_AddUpDelCredentialsResult>
        <WSID>15012021151223</WSID>
        <IssCode>GPS</IssCode>
        <ActionCode>000</ActionCode>
        <PublicKey>123456789</PublicKey>
        <Action>Add</Action>
        <Credentials>
          <Credential>
            <ID>123456</ID>
            <Type>BIOMETRIC</Type>
            <Value>Customer Biometric app</Value>
            <KBA_Answer></hyp:KBA_Answer>
            <KBA_AnswerOldValue></hyp:KBA_AnswerOldValue>
          </Credential>
        </Credentials>
      </Ws_AddUpDelCredentialsResult>
    </Ws_AddUpDelCredentialsResponse>
  </soap:Body>
</soap:Envelope>

```

Example Add Request - KBA

Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_AddUpDelCredentials>
      <hyp:WSID>04012022121223</hyp:WSID>
      <hyp:IssCode>GPS</hyp:IssCode>
      <hyp:PublicKey>123456789</hyp:PublicKey>
      <hyp:Action>Add</hyp:Action>
      <hyp:Credentials>
        <hyp:Credential>
          <hyp:ID>0</hyp:ID>
          <hyp:Type>KBA</hyp:Type>
          <hyp:Value>5</hyp:Value>
          <KBA_Answer>London</hyp:KBA_Answer>
          <KBA_AnswerOldValue></hyp:KBA_AnswerOldValue>
        </hyp:Credential>
      </hyp:Credentials>
    </hyp:Ws_AddUpDelCredentials>
  </soapenv:Body></soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_AddUpDelCredentialsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_AddUpDelCredentialsResult>
        <WSID>04012022121223</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <PublicKey>123456789</PublicKey>
        <Action>Add</Action>
        <Credentials>
          <Credential>
            <ID>123456</ID>
            <Type>KBA</Type>
            <Value>5</Value>
            <KBA_Answer>London</hyp:KBA_Answer>
            <KBA_AnswerOldValue></hyp:KBA_AnswerOldValue>
          </Credential>
        </Credentials>
      </Ws_AddUpDelCredentialsResult>
    </Ws_AddUpDelCredentialsResponse>
  </soap:Body>
</soap:Envelope>

```

3D Secure Enrol (Cardinal Batch)

API: [Ws_Insert3DSecureDetails](#)

This web service enables you to enrol a specified cardholder onto 3D Secure using the Cardinal 3D Secure service.

Note: This web service uses the Cardinal batch file interface. (Legacy Option)

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------------|----------------|----------------|--|-------------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <Token> | AN | 1 | 9 | The card's public token. Mandatory in the request and response. | Mandatory | Mandatory |
| <MemorableName> | AN | 1 | 20 | The cardholder's specified <i>Memorable Name</i> to be used as VDE for 3D Secure. No longer used - please populate with "notavailable" (no spaces) | Mandatory | Omit |
| <MemorablePlace> | AN | 1 | 20 | Cardholder's specified Memorable Place to be used as VDE for 3D Secure. No longer used. Please populate with "notavailable" (no spaces). | Mandatory | Omit |
| <MemorableDate> | YYYY-MM-DD | 10 | 10 | Memorable date to be used as VDE for 3D Secure. No longer used. Please populate with "1900-01-01". | Mandatory | Omit |
| <ActivationCode> | AN | 6 | 6 | Programme Manager specified activation code to be used as VDE for 3D Secure. No longer used. Please populate with "notavailable" (no spaces). | Mandatory | Omit |
| <Phone> | AN | 1 | 20 | Telephone number. See Processing of Phone Numbers . | Conditional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Insert3DSecureDetails>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:Token>123456789</hyp:Token>
      <hyp:MemorableName>notavailable</hyp:MemorableName>
      <hyp:MemorablePlace>notavailable</hyp:MemorablePlace>
      <hyp:MemorableDate>1900-01-01</hyp:MemorableDate>
      <hyp:ActivationCode>notavailable</hyp:ActivationCode>
      <hyp:Phone>07123456789</hyp:Phone>
    </hyp:Ws_Insert3DSecureDetails>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Insert3DSecureDetailsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Insert3DSecureDetailsResult>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
      </Ws_Insert3DSecureDetailsResult>
    </Ws_Insert3DSecureDetailsResponse>
  </soap:Body>
</soap:Envelope>
```

```
</Ws_Insert3DSecureDetailsResponse>  
</soap:Body>  
</soap:Envelope>
```


3D Secure Delete Details (Cardinal Batch)

API: [Ws_Delete3DSecureDetails](#)

This web service enables you to delete 3D secure details for a card (where you are using the Cardinal 3D Secure service).

Note: This web service uses the Cardinal batch file interface. (Legacy Option)

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|-----------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <Token> | AN | 1 | 9 | The card's public token. Mandatory in the request and response. | Mandatory | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Delete3DSecureDetails>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:Token>123456789</hyp:Token>
    </hyp:Ws_Delete3DSecureDetails>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Delete3DSecureDetailsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Delete3DSecureDetailsResult>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
      </Ws_Delete3DSecureDetailsResult>
    </Ws_Delete3DSecureDetailsResponse>
  </soap:Body>
</soap:Envelope>
```

3D Secure Query Details (Cardinal Batch)

API: [Ws_Query3DSecureDetails](#)

This web service enables you to view the phone number of a particular user's token that has been enrolled for 3D secure and returns the stored GPS 3D Secure details for the token.

Note: This web service uses the Cardinal batch file interface. (Legacy Option)

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|---|-----------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <QueryType> | AN | 1 | 1 | Query Type. Valid values are: 0 = Return the responses of all tokens 1 = Return the response of this token only. Default is 0. | Mandatory | Omit |
| <Token> | N | 9 | 9 | The card's public token. Mandatory in the request and response. | Optional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Tokens> | | | | An array of token results. See Token Results below. | Optional | Omit |

Token Results

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------------|------|----------------|----------------|--|---------|-----------|
| <Token> | N | 9 | 9 | The card's public token. | Omit | Mandatory |
| <Phone> | AN | 1 | 15 | The phone number linked to the token. | Omit | Mandatory |
| <ResponseCode> | AN | 1 | 1 | Response code. | Omit | Mandatory |
| <LastModifiedType> | AN | 1 | 1 | Specify the last modified type: 1 = Create; 2 = Amend; 3 = Delete | Omit | Mandatory |
| <ResponseDescription> | AN | 1 | 50 | Response description. | Omit | Mandatory |
| <LastApprovedPhone> | AN | 1 | 15 | Legacy field. Not used. | Omit | Optional |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Query3DSecureDetails>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:QueryType>0</hyp:QueryType>
      <hyp:Token>123456789</hyp:Token>
    </hyp:Ws_Query3DSecureDetails>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Query3DSecureDetailsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Query3DSecureDetailsResult>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
        <Tokens>

```

```
<Token>
  <Token>123456789</Token>
  <Phone>+440123456789</Phone>
  <ResponseCode>-1</ResponseCode>
  <LastModifiedType>2</LastModifiedType>
  <ResponseDescription>PENDING_RESPONSE_CODE</ResponseDescription>
  <LastApprovedPhone/>
</Token>
</Tokens>
</Ws_Query3DSecureDetailsResult>
</Ws_Query3DSecureDetailsResponse>
</soap:Body>
</soap:Envelope>
```

3D Secure Update Details (Cardinal Batch)

API: [Ws_Update3DSecureDetails](#)

This web service enables you to amend the 3D secure phone number used to send the 3D Secure verification code for a given card.

Note: This web service uses the Cardinal batch file interface. (Legacy Option)

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------------|----------------|----------------|--|-------------|-----------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <Token> | AN | 1 | 9 | The card's public token. Mandatory in the request and response. | Mandatory | Mandatory |
| <MemorableName> | AN | 1 | 20 | The cardholder's specified <i>Memorable Name</i> to be used as VDE for 3D Secure. No longer used - please populate with "notavailable" (no spaces) | Conditional | Omit |
| <MemorablePlace> | AN | 1 | 20 | Cardholder's specified Memorable Place to be used as VDE for 3D Secure. No longer used. Please populate with "notavailable" (no spaces). | Conditional | Omit |
| <MemorableDate> | YYYY-MM-DD | 10 | 10 | Memorable date to be used as VDE for 3D Secure. No longer used. Please populate with "1900-01-01" | Conditional | Omit |
| <ActivationCode> | AN | 6 | 6 | Programme Manager specified activation code to be used as VDE for 3D Secure. No longer used. Please populate with "notavailable" (no spaces) | Conditional | Omit |
| <Phone> | AN | 1 | 20 | Telephone number. See Processing of Phone Numbers . | Conditional | Omit |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Update3DSecureDetails>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:Token>123456789</hyp:Token>
      <hyp:MemorableName>notavailable</hyp:MemorableName>
      <hyp:MemorablePlace>notavailable</hyp:MemorablePlace>
      <hyp:MemorableDate>1900-01-01</hyp:MemorableDate>
      <hyp:ActivationCode>notavailable</hyp:ActivationCode>
      <hyp:Phone></hyp:Phone>
    </hyp:Ws_Update3DSecureDetails>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Update3DSecureDetailsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Update3DSecureDetailsResult>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
      </Ws_Update3DSecureDetailsResult>
    </Ws_Update3DSecureDetailsResponse>
  </soap:Body>
</soap:Envelope>
```

```
</Ws_Update3DSecureDetailsResult>  
</Ws_Update3DSecureDetailsResponse>  
</soap:Body>  
</soap:Envelope>
```

3D Secure Update Last Modified Type (Cardinal Batch)

API: [Ws_UpdateLastModifiedType](#)

This web service provides a way of clearing the `<LastModifiedType>` flag so that you can resend another enrolment for the same card to Cardinal. For example, you can use it to re-enrol a deleted card or to update the status of a card which has an incorrectly sent status. To do this, set the `LastModifiedType` for the token to 1.

Note: This web service uses the Cardinal batch file interface. (Legacy Option)

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------------------|------|----------------|----------------|--|-----------|-----------|
| <code><IssCode></code> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <code><LastModifiedType></code> | AN | 1 | 1 | Specify the last modified type: 1 = Create; 2 = Amend; 3 = Delete | Mandatory | Mandatory |
| <code><Token></code> | AN | 1 | 9 | The card's public token. Mandatory in the request and response. | Mandatory | Mandatory |
| <code><ActionCode></code> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_UpdateLastModifiedType>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:LastModifiedType>3</hyp:LastModifiedType>
      <hyp:Token>123456789</hyp:Token>
    </hyp:Ws_UpdateLastModifiedType>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_UpdateLastModifiedTypeResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_UpdateLastModifiedTypeResult>
        <IssCode>PMT</IssCode>
        <ActionCode>000</ActionCode>
      </Ws_UpdateLastModifiedTypeResult>
    </Ws_UpdateLastModifiedTypeResponse>
  </soap:Body>
</soap:Envelope>
```

3D Secure Enrol (RSA)

API: [Ws_3DS_AddUpDelDetails](#)

This web service enables you to register details with RSA for online 3D secure payments.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------------|-----------------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Omit |
| <PublicKey> | N | 9 | 9 | The 9 digit public token associated with the account that you want to store details against. | Mandatory | Omit |
| <RegisterDetails> | Boolean | | | Whether to register the card for 3D Secure. 0 = false; 1 = true. If true, adds an <i>Add</i> , <i>Update</i> , or <i>Delete</i> record for the given PublicKey based on the Verification Data Element (VDE), and according to the DetailsStatus below. | Mandatory | Omit |
| <DetailsStatus> | Enum (see desc) | | | Takes values <i>Add</i> , <i>Update</i> , or <i>Delete</i> , and is used if RegisterDetails is true. | Conditional | Omit |
| <Details> | List of details | | | If RegisterDetails is true, this list of details will be stored. These are in addition to the details that GPS store. Any details you flag as GPSOverride (e.g. those used when calling <i>CreateCard</i>), will take precedence over GPS stored details when passed to RSA. For a list of available fields, see 3D Secure Details . Note: fields that contain telephone numbers should include the country code. | Mandatory | Omit |
| <RegisterSMS> | Boolean | | | Whether the card should be registered for Out of Band (OOB) authentication with RSA. This allows one-time values to be sent when needed. This can be done at the same time as RegisterDetails if required. | Mandatory | Omit |
| <SMSStatus> | Enum | | | Takes values <i>Add</i> , <i>Update</i> , or <i>Delete</i> for the OOB authentication, and is used if RegisterSMS is true. | Conditional | Omit |
| <MobileNumber> | AN | 11 | 25 | Customer mobile number (including country dialing code), used if RegisterSMS is true, for the OOB file. | Conditional | Omit |
| <Deregister> | Boolean | | | Whether to delete the card from RSA records. Can be used for reconciliation purposes. This overrides the other parameters in the call. | Mandatory | Omit |
| <OverrideGPS> | Boolean | | | Indicates that the values to be stored should override any values that GPS stores when calling <i>CreateCard</i> . When adding a telephone number (AltPhone1 for example), this should be 0. When changing a telephone number, this should be 1. | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|---------|----------------|----------------|---|-----------|-------------|
| <RelssueBoolean> | Boolean | | | Set to true if we want to register a new token that has been reissued from an old one. This will need <NewToken>, <WSID>, <IssCode>, and <PublicToken>. | Mandatory | Omit |
| <NewToken> | N | 9 | 9 | If RelssueBoolean is true, set this as the new Token. Otherwise set to 0. | Mandatory | Omit |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode>. | Omit | Conditional |
| <PublicToken> | N | | | The 9 digit public token associated with the account that you want to store details against. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_3DS_AddUpDelDetails>
      <hyp:WSID>20211234567896789</hyp:WSID>
      <hyp:IssCode>ABC</hyp:IssCode>
      <hyp:PublicToken>789123456</hyp:PublicToken>
      <hyp:RegisterDetails>1</hyp:RegisterDetails>
      <hyp:DetailsStatus>Add</hyp:DetailsStatus>
      <hyp:Details>
        <hyp:Detail>
          <hyp:Identity> AltPhone1 </hyp:Identity>
          <hyp:Value>00447735612345</hyp:Value>
        </hyp:Detail>
      </hyp:Details>
      <hyp:RegisterSMS>0</hyp:RegisterSMS>
      <hyp:SMSStatus>Add</hyp:SMSStatus>
      <hyp:MobileNumber>004407653546545</hyp:MobileNumber>
      <hyp:Deregister>0</hyp:Deregister>
      <hyp:OverrideGPS>0</hyp:OverrideGPS>
      <hyp:ReIssueBoolean>0</hyp:ReIssueBoolean>
      <hyp:NewToken>0</hyp:NewToken>
    </hyp:Ws_3DS_AddUpDelDetails>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_3DS_AddUpDelDetailsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_3DS_AddUpDelDetailsResult>
        <WSID>20211234567896789</WSID>
        <ActionCode>000</ActionCode>
        <PublicToken>789123456</PublicToken>
      </Ws_3DS_AddUpDelDetailsResult>
    </Ws_3DS_AddUpDelDetailsResponse>
  </soap:Body>
</soap:Envelope>
```


Wallets Overview

You can use the following web services to view and manage your wallets:

[Wallet Create](#): [Ws_CreateWallet](#)

[Wallet Bulk Create](#): [Ws_BulkWalletCreation](#)

[Regenerate the Wallet](#): [ws_RegenerateWallet](#)

[Wallet Balance Enquiry](#): [Ws_Balance_Enquiry_Wallet](#)

Wallet Create

API: [Ws_CreateWallet](#)

This web service is used to create virtual wallets as well as wallets with links to physical cards.

It creates a jpeg image for the wallet with PAN, Public Token and expiry date embossed on it.

- For a virtual wallet: sends an SMS to the client mobile number with the CVV of the card.
- For a physical card wallet: creates an XML file for this card, to be sent to the card manufacturer.

If a replacement wallet is required, the cardholder's name and address details can be left blank, in which case the existing details held in GPS will be used. Replacement wallet will be issued with the same PAN as the original card, but a different CVV.

A replacement wallet is not a valid request if the current card status is *Lost* or *Stolen*. In such cases, use the [Regenerate card](#) request, and a different PAN will be issued. The replacement wallet will automatically have the same balance as the original at the time when the replacement wallet is activated.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is 10. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional | Conditional |
| <Title> | AN | 1 | 4 | Cardholder's title. Also used as the card purchaser's title if no delivery address is supplied. | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Conditional | Omit |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. If no delivery address is supplied it is also assumed to be the card purchaser's first name Mandatory if <lastName> is present. | Conditional | Omit |
| <Addr1> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional | Omit |
| <Addr2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional | Omit |
| <Addr3> | AN | 1 | 50 | Cardholder's address line 3. Also used as the card purchaser's address line 3 if no delivery address is supplied. | Optional | Omit |
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <Postcode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------------|------------|----------------|----------------|--|-------------|-----------|
| | | | | postcode is supplied. Mandatory if <code><addrL1></code> is present, and <code><city></code> is not present. See Postcode Permitted Characters . | | |
| <code><Country></code> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <code><addrL1></code> is present. | Conditional | Omit |
| <code><Mobile></code> | AN | 25 | 25 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Optional | Omit |
| <code><PublicKey></code> | AN | 1 | 9 | The card's public token. The public token of the newly-created card is always returned in the response. If a replacement card is required, specify the 9-digit public token of the original card. | Conditional | Mandatory |
| <code><CardDesign></code> | AN | 1 | 8 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. Mandatory if not a replacement card request. Note: this is not the same field as the CrdDesign or ProductRef . | Conditional | Omit |
| <code><DOB></code> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. | Optional | Omit |
| <code><LocDate></code> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <code><LocTime></code> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <code><LoadValue></code> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Mandatory | Mandatory |
| <code><CurCode></code> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . | Conditional | Omit |
| <code><Reason></code> | AN | 1 | 60 | Reason for the card's status change. Overrides default of 'Card Activated' that is shown in the card processor. Text is shown in the Smart Client Tracker screen. | Optional | Omit |
| <code><AccCode></code> | AN | 0 | 6 | Access code. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. | Optional | Omit |
| <code><ItemSrc></code> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------------|----------------|----------------|--|-------------|-----------|
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional | Omit |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional | Omit |
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If no load fee is required, specify 0. The load fee does not affect the card balance. It is only reported in the XML. | Mandatory | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional | Omit |
| <CreateImage> | N | 1 | 1 | Specifies whether to create a card image. 1= yes, 0 = No. Images are returned in the <Image> response parameter, encrypted by a pre-shared PGP encryption key. | Mandatory | Omit |
| <CreateType> | N | 1 | 1 | This field is mandatory unless it is a replacement card request. There are four possible values: 1 = Create a virtual card. Can be converted to a physical card at a later stage using the Convert Card web service. 2 = Create physical card. Also triggers the creation of a card file which is sent to the manufacturer. 3 = Create a virtual card with intention to convert it into a physical card later. 4 = Create a Master Virtual Card which is a deposit account that can be used to load other cards from. 5 = Create a virtual card and convert to a physical card. Triggers the creation of a card file which is sent to the manufacturer. | Conditional | Omit |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | Optional | Omit |
| <ActivateNow> | N | 1 | 1 | Whether to activate the card. 1= Yes, 0=No. When <Quantity> is greater than 1 then creation of <Quantity> numbers of identical cards will trigger a batch process that starts within minutes of the request. If <ActivateNow> is 1 in such requests then the issued tokens are sent to the customer already activated. This parameter only applies if the request is for a new card. | Mandatory | Omit |
| <StartDate> | AN | 5 | 5 | Start date printed on the card in the | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|----------|-----------|
| | | | | format <i>MM/YY</i> . | | |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in <i>MM/YY</i> format. | Optional | Mandatory |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Mandatory |
| <CardName> | AN | 1 | 27 | The embossed name on the card. If present in the request then the embossed name on the card should be the given value. If it is not available and <Firstname> and <Lastname> are available then <Title> + <Firstname> + <Lastname> will be the embossed name. If all the above parameters are unavailable in the request then the default embossed name remains as the embossed name. If a replacement card is requested, the original value of the embossed name will be used if no new names are supplied. If a blank embossed name is required, then pass a single space character. See Card Name Permitted Characters . | Optional | Omit |
| <MaskedPAN> | AN | 16 | 19 | Card number displayed as masked (e.g., 675926*****1234). Note. The full PAN can be returned if you are PCI DSS compliant. Contact your Implementation Manager. | Omit | Mandatory |
| <LimitsGroup> | AN | 1 | 10 | Group code of the Limits Group. If this parameter is not supplied and this is a new card request, then the default group for the card's product will be used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Limits Group is set up and configured via Smart Client. | Optional | Omit |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. The MCC group allows the card to be linked to a list of Merchant Category Codes (MCCs) that the card is allowed to or conversely is NOT allowed to transact at. Note: The MCC Group is set up and configured via Smart Client. | Optional | Omit |
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage Group. If this parameter is not supplied and this is a new card request then the default group for the card's product is used. If the default group is not required, you can remove it passing a space character ' '. Note: The Usage Group is set up and | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|--|----------|----------|
| | | | | configured via Smart Client. | | |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <SchedFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not required, it can be removed by passing a space character ' '. Note: The Scheduled Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <WSFeeGroup> | AN | 1 | 10 | Code of the Web Service Fee Group (). If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. WSFeeGroup allows the card to be linked to a set of web service fees that are set up on the system. Note: The Web Service Fee Group is set up and configured via Smart Client. | Optional | Omit |
| <ProductRef> | AN | 1 | 50 | The physical card design reference as used by the Card Manufacturer. Identifies the <i>PRODUCT_REF</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <CarrierType> | AN | 1 | 30 | The Carrier Product design reference as used by the Card Manufacturer. This is the letter onto which the card is attached when sent to the cardholder. Identifies the Carrier Product type of the Card Manufacturer. | Optional | Omit |
| <Fulfil1> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL1</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <Fulfil2> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL2</i> field in the XML file sent to the card manufacturer. | Optional | Omit |
| <DelvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------|----------------|----------------|--|-----------|----------|
| | | | | 7 = Customized DelvMethod 5; Default value is 0 | | |
| <ThermalLine1> | AN | 1 | 120 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a customer service phone number. | Optional | Omit |
| <ThermalLine2> | AN | 1 | 70 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a link to your service terms and conditions. | Optional | Omit |
| <Lang> | AN | 1 | 2 | Two digit ISO 639-1 Language code to be used for card mailers (e.g., En = English; Fr = French). Note: The available languages depend on the card manufacturer support. Also used if bespoke SMS templates are set up. | Optional | Omit |
| <EmbossLine4> | AN | 1 | 27 | The card's embossed line 4 on the front of the card. Could be used for example, to add an account number or sort code. | Optional | Omit |
| <Imageld> | AN | 1 | 16 | Reference which identifies the card manufacturer's image file that will be printed on the face of the card. | Optional | Omit |
| <LogoFrontId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the face of the card. | Optional | Omit |
| <LogoBackId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the back of the card, if supported. | Optional | Omit |
| <Replacement> | N | 1 | 1 | Whether the card is a new card or a replacement. The possible values are: 0 = new card; 1 = replacement card. Needs to be agreed with the card manufacturer. Note: Do not use a value '1', which is for legacy usage only; to replace a card, we recommend you use Card Renew : <code>ws_renew_card</code> . | Mandatory | Omit |
| <PrimaryToken> | AN | 16 | 19 | The primary card's public token. If it is blank then the newly created card is a primary card, otherwise it is the secondary card in a primary/secondary relationship. Cannot be the token of a card that is already linked as a secondary card. | Optional | Omit |
| <Delv_AddrL1> | AN | 1 | 50 | Card purchaser's /delivery address line 1. Mandatory if 'Delivery Address' fields are specified. | Optional | Omit |
| <Delv_AddrL2> | AN | 1 | 50 | Card purchaser's/delivery address line 2. | Optional | Omit |
| <Delv_AddrL3> | AN | 1 | 50 | Card purchaser's /delivery address line 3. | Optional | Omit |
| <Delv_City> | AN | 1 | 20 | Card purchaser's /delivery address delivery city. Mandatory if <Delv_AddrL1> is present, and <Delv_PostCode> is not present. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|---------------|----------------|----------------|---|----------|-------------|
| <Delv_Postcode> | AN | 1 | 10 | Card purchaser's /delivery address post-code. Mandatory if <Delv_AddrL1> is present, and <Delv_City> is not present. See Postcode Permitted Characters . | Optional | Omit |
| <Delv_County> | AN | 1 | 20 | Card purchaser's /delivery address county. | Optional | Omit |
| <Delv_Country> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). Mandatory if <Delv_AddrL1> is present. | Optional | Omit |
| <Delv_Code> | AN | 1 | 12 | The delivery code for the card. If specified, the card manufacturer sends all cards with the same delivery code to the specified delivery address. | Optional | Omit |
| <Sms_Required> | AN | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Optional | Omit |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <CardManufacturer> | AN | 1 | 10 | The manufacturer to send the card generation request to. For example: <i>TCT</i> , <i>AllPay</i> , <i>GNC</i> , <i>Gemalto</i> , <i>Nitecrest</i> and <i>Exceet</i> . For a full list, see Card Manufacturers . If omitted, the default for the Card Scheme will be used. | Optional | Omit |
| <CoBrand> | AN | 1 | 6 | The Co-Brand code for the card. If supplied it will replace the <i>PROGRAMID</i> field in the <i>Balance XML</i> file. | Optional | Omit |
| <ExternalAuth> | AN | 1 | 1 | External Authorisation flag. Possible values are: 0 = Do not set External Authorisation on; 1 = Set External Authorisation. Empty value defaults to 0. Note: For legacy use only. Not applicable if using EHI. | | |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Image> | Base64 Binary | | | PGP-encrypted image of the card. Requires configuration within Smart Client. Check with your Implementation Manager. | Omit | Conditional |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional | Omit |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Optional | Omit |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Optional | Omit |
| <EWALLET> | - | - | - | See eWallet Description . | Omit | Mandatory |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. Defines configuration options specific to the provisioning of a digital payment | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|--|----------|----------|
| | | | | token. For details, see the <i>Tokenisation Guide</i> . This is a numeric value; only digits 0-9 are valid. Leave empty if no usage group is required. | | |
| <VirtualCardImage> | AN | 1 | 16 | The Image ID for the virtual image for the new card. Image IDs are set up in Smart Client in the Image Master and Virtual Card Images screens. Note: If you do not provide an image ID, the default virtual card image for the product is used. | Optional | Omit |
| <ImageSize> | N | 1 | 1 | The size of the virtual image: 1 = 100%; 2 = 200%; 3 = 300%; 4 = 400%; 5 = 500%. Default is 1. | Optional | Omit |
| <PBlock> | AN | 4 | 12 | The initial card PIN value. | Optional | Omit |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: https://www.gps-e-card.com/balance/2909680989632389 For details, see the Card Generation Interface Specifications . | Optional | Omit |

eWallet Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <IDENTITY> | AN | 1 | 9 | The GPS 16-digit public token. Mandatory in the response. | Omit | Mandatory |
| <CARDS> | | | | An array of cards. See CARD Description below. | Omit | Mandatory |
| <ACCOUNTS> | | | | An array of accounts. See ACCOUNT Description below; may occur multiple times. | Omit | Mandatory |

CARD Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|---------|-------------|
| <PAN> | AN | 1 | 9 | Card Number. Unique card identifier. | Omit | Mandatory |
| <CRDCURRCODE> | AN | 3 | 3 | 3-letter ISO currency code for the account billing currency. | Omit | Mandatory |
| <CRDPRODUCT> | AN | 1 | 50 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. | Omit | Mandatory |
| <CUSTCODE> | AN | 1 | 50 | Customer account number. Mandatory in the response if present. Also displayed in Smart Client as <i>Customer Reference</i> . | Omit | Conditional |
| <PRIMARY> | AN | 1 | 1 | Indicates if the card is the Primary card. Default value 'Y'. | Omit | Mandatory |
| <PROGRAMID> | AN | 1 | 50 | The ID of the Program this card belongs to. | Omit | Mandatory |
| <STATCODE> | AN | 2 | 2 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <EXPDATE> | AN | 10 | 10 | Expiry date of the card in <i>YYYY-MM-DD</i> format. | Omit | Mandatory |

ACCOUNT Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <ACCNO> | AN | 1 | 9 | Account number. | Omit | Mandatory |
| <ACCTYPE> | AN | 2 | 2 | Type of card account. See Account Types . | Omit | Mandatory |
| <CURRCODE> | AN | 3 | 3 | 3-letter ISO currency code for the account billing currency. | Omit | Mandatory |
| <FINAMT> | D | 1 | 20 | Balance of the account, excluding blocked amount. | Omit | Mandatory |
| <BLKAMT> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <AMTAVL> | D | 1 | 20 | Balance of the card account. This includes all financials and outstanding authorisations. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_CreateWallet>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>10</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp>Title>Mr</hyp>Title>
      <hyp:LastName>Lastname</hyp:LastName>
      <hyp:FirstName>Firstname</hyp:FirstName>
      <hyp:Addr1>Office 13, Telfords Yard</hyp:Addr1>
      <hyp:Addr2>6-8 The Highway, Wapping </hyp:Addr2>
      <hyp:City>London</hyp:City>
      <hyp:PostCode>E1W 2BS</hyp:PostCode>
      <hyp:Country>826</hyp:Country>
      <hyp:Mobile></hyp:Mobile>
      <hyp:CardDesign>123</hyp:CardDesign>
      <hyp:DOB></hyp:DOB>
      <hyp:LocDate>2013-01-01</hyp:LocDate>
      <hyp:LocTime>120000</hyp:LocTime>
      <hyp:TerminalID></hyp:TerminalID>
      <hyp:LoadValue>10</hyp:LoadValue>
      <hyp:CurCode>GBP</hyp:CurCode>
      <hyp:Reason></hyp:Reason>
      <hyp:AccCode>123456</hyp:AccCode>
      <hyp:ItemSrc>2</hyp:ItemSrc>
      <hyp:LoadFundsType>4</hyp:LoadFundsType>
      <hyp:LoadSrc>10</hyp:LoadSrc>
      <hyp:LoadFee>0.0</hyp:LoadFee>
      <hyp:LoadedBy>Admin</hyp:LoadedBy>
      <hyp>CreateImage>1</hyp>CreateImage>
      <hyp>CreateType>1</hyp>CreateType>
      <hyp:CustAccount></hyp:CustAccount>
      <hyp:ActivateNow>0</hyp:ActivateNow>
      <hyp:ExpDate></hyp:ExpDate>
      <hyp:CardName>GIFT CARD</hyp:CardName>
      <hyp:LimitsGroup>PMT-VL-002</hyp:LimitsGroup>
      <hyp:MCCGroup></hyp:MCCGroup>
      <hyp:PERMSGroup>PMT-CU-002</hyp:PERMSGroup>
      <hyp:ProductRef></hyp:ProductRef>
      <hyp:CarrierType></hyp:CarrierType>
      <hyp:Fulfil1></hyp:Fulfil1>
      <hyp:Fulfil2></hyp:Fulfil2>
      <hyp:DelvMethod>0</hyp:DelvMethod>
      <hyp:ThermalLine1></hyp:ThermalLine1>
      <hyp:ThermalLine2></hyp:ThermalLine2>
      <hyp:EmbossLine4></hyp:EmbossLine4>
      <hyp:ImageId></hyp:ImageId>
      <hyp:LogoFrontId></hyp:LogoFrontId>
      <hyp:LogoBackId></hyp:LogoBackId>
      <hyp:Replacement>0</hyp:Replacement>
      <hyp:FeeGroup></hyp:FeeGroup>
    </hyp:Ws_CreateWallet>
  </soapenv:Body>
</soapenv:Envelope>
```

```

<hyp:PrimaryToken></hyp:PrimaryToken>
<hyp:Delv_AddrL1></hyp:Delv_AddrL1>
<hyp:Delv_AddrL2></hyp:Delv_AddrL2>
<hyp:Delv_AddrL3></hyp:Delv_AddrL3>
<hyp:Delv_City></hyp:Delv_City>
<hyp:Delv_County></hyp:Delv_County>
<hyp:Delv_PostCode></hyp:Delv_PostCode>
<hyp:Delv_Country></hyp:Delv_Country>
<hyp:Sms_Required>    </hyp:Sms_Required>
<hyp:SchedFeeGroup></hyp:SchedFeeGroup>
<hyp:WSFeeGroup></hyp:WSFeeGroup>
<hyp:CardManufacturer></hyp:CardManufacturer>
<hyp:CoBrand></hyp:CoBrand>
<hyp:PublicToken></hyp:PublicToken>
<hyp:ExternalAuth></hyp:ExternalAuth>
<hyp:FeeWaiver></hyp:FeeWaiver>
<hyp:BlackList>Deny list</hyp:BlackList>
<hyp:WhiteList></hyp:WhiteList>    <hyp:PaymentTokenUsageGroup></hyp:PaymentTokenUsageGroup>
<hyp:VirtualCardImage></hyp:VirtualCardImage>
<hyp:ImageSize></hyp:ImageSize>
<hyp:PBlock>12345</hyp:PBlock>
<hyp:Url></hyp:Url>
</hyp:Ws_CreateWallet>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CreateWalletResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CreateWalletResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMTD</IssCode>
        <TxnCode>10</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2014-02-04</LocDate>
        <LocTime>130700</LocTime>
        <ItemID>0</ItemID>
        <ClientCode>0</ClientCode>
        <SysDate>2014-08-29</SysDate>
        <ActionCode>000</ActionCode>
        <LoadValue>0</LoadValue>
        <IsLive>false</IsLive>
        <StartDate>08/14</StartDate>
        <ExpDate>08/17</ExpDate>
        <CVV>076</CVV>
        <MaskedPAN>123456*****7890</MaskedPAN>
        <EWALLET>
          <EWALLET xmlns="">
            <IDENTITY>9876543212345678</IDENTITY>
            <CARDS>
              <CARD>
                <PAN>9876543212345678</PAN>
                <CRDCURRCODE>GBP</CRDCURRCODE>
                <CRDPRODUCT>MCRD</CRDPRODUCT>
                <CUSTCODE/>
                <PRIMARY>Y</PRIMARY>
                <PROGRAMID>PRG123</PROGRAMID>
                <STATCODE>00</STATCODE>
                <EXPDATE>2017-08-31</EXPDATE>
              </CARD>
            </CARDS>
            <ACCOUNTS>
              <ACCOUNT>
                <ACCNO>9876543212345676</ACCNO>
                <ACCTYPE>01</ACCTYPE>
                <CURRCODE>EUR</CURRCODE>
                <FINAMT>0.00</FINAMT>
                <BLKAMT>0.00</BLKAMT>
                <AMTAVL>0.00</AMTAVL>
              </ACCOUNT>
              <ACCOUNT>
                <ACCNO>9876543212345677</ACCNO>
                <ACCTYPE>01</ACCTYPE>
                <CURRCODE>USD</CURRCODE>
                <FINAMT>0.00</FINAMT>
                <BLKAMT>0.00</BLKAMT>
                <AMTAVL>0.00</AMTAVL>
              </ACCOUNT>
              <ACCOUNT>
                <ACCNO>9876543212345678</ACCNO>
                <ACCTYPE>01</ACCTYPE>
                <CURRCODE>GBP</CURRCODE>
                <FINAMT>0.00</FINAMT>
                <BLKAMT>0.00</BLKAMT>
                <AMTAVL>0.00</AMTAVL>
              </ACCOUNT>
            </ACCOUNTS>
          </EWALLET>
        </EWALLET>
      </Ws_CreateWalletResult>
    </Ws_CreateWalletResponse>
  </soap:Body>
</soap:Envelope>

```

```
    </Ws_CreateWalletResult>  
  </Ws_CreateWalletResponse>  
</soap:Body>  
</soap:Envelope>
```

Regenerate the Wallet

API: [ws_RegenerateWallet](#)

This web service can be used to regenerate an MFX card. You can select whether to create a new physical linked card, regenerate the image for the virtual card or return the CVV.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|---------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <PublicToken> is not provided. Mandatory in response. Card number is displayed as masked (e.g., 675926*****1234). If you are PCI compliant, the full PAN can be returned. Check with your Implementation Manager. | Conditional | Mandatory |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <RegenType> | N | 1 | 1 | The type of card regeneration: 0 = only return the CVV. 1 = regenerate the physical card if its status is <i>Lost</i> or <i>Stolen</i> (for other card status, this regenerates the card image). 2 = only regenerate the card image. | Mandatory | Omit |
| <Sms_Required> | N | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 = No. The default is '0'. The SMS is configurable. | Mandatory | Omit |
| <Sms_Content> | N | 1 | 1 | Reserved for future use; set to 0. | Mandatory | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Image> | Base64 Binary | | | PGP-encrypted image of the card. Is only returned if a PGP key has been shared and configured. | Omit | Conditional |
| <ExternalRef> | AN | 1 | 30 | Enables you to add your own external customer reference. | Optional | Omit |
| <TerminalID> | AN | 1 | 15 | Point of Sale (POS) or other terminal identifier, such as a hostname. | Optional | Omit |
| <MailOrSMS> | AN | 1 | 1 | The cardholder's preferred contact method. 0 = SMS; 1 = email. 2 = SMS and email. Default value is '0'. | Optional | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional | Omit |
| <ImageSize> | N | 1 | 1 | The size of the virtual image: 1 = 100%; 2 = 200%; 3 = 300%; 4 = 400%; 5 = 500%. Default is 1. | Optional | Omit |

EWALLET Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <IDENTITY> | AN | 1 | 9 | The GPS 16-digit public token. Mandatory in the response. | Omit | Mandatory |
| <CARDS> | | | | An array of cards. See CARD Description below. | Omit | Mandatory |
| <ACCOUNTS> | | | | An array of accounts. See ACCOUNT Description below; may occur multiple times. | Omit | Mandatory |

CARD Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|---------|-------------|
| <PAN> | AN | 1 | 9 | Card Number. Unique card identifier. | Omit | Mandatory |
| <CRDCURRCODE> | AN | 3 | 3 | 3-letter ISO currency code for the account billing currency. | Omit | Mandatory |
| <CRDPRODUCT> | AN | 1 | 50 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. | Omit | Mandatory |
| <CUSTCODE> | AN | 1 | 50 | Customer account number. Mandatory in the response if present. Also displayed in Smart Client as <i>Customer Reference</i> . | Omit | Conditional |
| <PRIMARY> | AN | 1 | 1 | Indicates if the card is the Primary card. Default value 'Y'. | Omit | Mandatory |
| <PROGRAMID> | AN | 1 | 50 | The ID of the Program this card belongs to. | Omit | Mandatory |
| <STATCODE> | AN | 2 | 2 | The status code of the card. See Status Codes . | Omit | Mandatory |
| <EXPDATE> | AN | 10 | 10 | Expiry date of the card in <i>YYYY-MM-DD</i> format. | Omit | Mandatory |

ACCOUNT Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <ACCNO> | AN | 1 | 9 | Account number of the card. | Omit | Mandatory |
| <ACCTYPE> | AN | 2 | 2 | Type of card account. See Account Types . | Omit | Mandatory |
| <CURRCODE> | AN | 3 | 3 | 3-letter ISO currency code for the currency (e.g. EUR). | Omit | Mandatory |
| <FINAMT> | D | 1 | 20 | Balance of the account, excluding blocked amount. | Omit | Mandatory |
| <BLKAMT> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <AMTAVL> | D | 1 | 20 | Balance of the card account. This includes all financials and outstanding authorisations. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_RegenerateWallet>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PAN></hyp:PAN>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:RegenType>1</hyp:RegenType>
      <hyp:Sms_Required>0</hyp:Sms_Required>
      <hyp:Sms_Content>0</hyp:Sms_Content>
      <hyp:ExternalRef>ABCD001</hyp:ExternalRef>
      <hyp:TerminalID>POS-TEST</hyp:TerminalID>
      <hyp:MailOrSMS>0</hyp:MailOrSMS>
      <hyp:FeeWaiver>0</hyp:FeeWaiver>
      <hyp:ImageSize>1</hyp:ImageSize>
    </hyp:Ws_RegenerateWallet>
  </soapenv:Body>
</soapenv:Envelope>
```

```
</soapenv:Body>  
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
xmlns:xsd="http://www.w3.org/2001/XMLSchema">  
  <soap:Body>  
    <Ws_RegenerateWalletResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">  
      <Ws_RegenerateWalletResult>  
        <WSID>2021123456789</WSID>  
        <IssCode>PMT</IssCode>  
        <PAN/>  
        <PublicKey>123456789</PublicKey>  
        <ActionCode>000</ActionCode>  
        <CVV>123</CVV>  
      </Ws_RegenerateWalletResult>  
    </Ws_RegenerateWalletResponse>  
  </soap:Body>  
</soap:Envelope>
```

Wallet Bulk Create

API: [Ws_BulkWalletCreation](#)

This web service creates a bulk number of wallets in a single request. It takes an XML document as its input parameter with the information needed to create wallets. It produces another XML document with the list of newly created wallets as a response.

Note: Tags marked as optional do not need to be supplied.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|---|-----------|-------------|
| <Isscode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Omit |
| <Req> | XML | 1 | 1024 | XML document that contains the details of the cards to be created. Such as the customer details and the card design. See XML File Record Description below. | Mandatory | Omit |
| <WalletCreated> | N | 1 | 5 | Number of wallets created. | Omit | Mandatory |
| <WalletNotCreated> | N | 1 | 5 | Number of wallets failed to create. | Omit | Mandatory |
| <RequestWithError> | AN | 1 | 100 | Details of the request which caused the error in card creation. It is mandatory when an error occur in card creation. | Omit | Conditional |
| <ActionCode> | AN | 3 | 3 | The action code for the response | Omit | Mandatory |
| <Wallets> | - | - | - | Returns an array of Wallets. See Wallets Description below. Can occur multiple times within the message. | Omit | Optional |

Wallets Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|---------|-------------|
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Omit | Mandatory |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in the response. | Omit | Mandatory |
| <ExternalRef> | AN | 1 | 30 | Enables you to add your own external customer reference. | Omit | Conditional |
| <ItemId> | AN | 1 | 20 | The unique item ID returned for this request. | Omit | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Omit | Conditional |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <IsLive> | N | 1 | 1 | Specifies whether the card is active or not. 1 or True = Active; 0 or False = Not Active. | Omit | Mandatory |
| <StartDate> | AN | 5 | 5 | Start date printed on the card in the format MM/YY. | Omit | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-------------|-------|----------------|----------------|---|---------|-----------|
| <EndDate> | AN | 5 | 5 | Physical end date printed on the card in the format <i>MM/YY</i> . | Omit | Mandatory |
| <ExpDate> | MM/YY | 5 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in <i>MM/YY</i> format. | Omit | Mandatory |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Omit | Mandatory |
| <MaskedPAN> | AN | 16 | 19 | Card number displayed as masked (e.g., 675926*****1234). Note. The full PAN can be returned if you are PCI DSS compliant. Contact your Implementation Manager. | Omit | Mandatory |
| <EWALLET> | - | - | - | An array of eWallets. | | |

eWallet Response

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <IDENTITY> | AN | 1 | 9 | The GPS 16-digit public token. Mandatory in the response. | Omit | Mandatory |
| <CARD> | | | | See CARD Description below | Omit | Mandatory |
| <ACCOUNT> | | | | See ACCOUNT Description below. May occur multiple times. | Omit | Mandatory |

ACCOUNT Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------|------|----------------|----------------|--|---------|-----------|
| <ACCNO> | AN | 1 | 9 | Account number. | Omit | Mandatory |
| <ACCTYPE> | AN | 2 | 2 | Type of card account. See Account Types . | Omit | Mandatory |
| <CURCODE> | AN | 3 | 3 | 3-letter ISO currency code for the account billing currency. | Omit | Mandatory |
| <FINAMT> | D | 1 | 20 | Balance of the account, excluding blocked amount. | Omit | Mandatory |
| <BLKAMT> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <AMTAVL> | D | 1 | 20 | Balance of the card account. This includes all financials and outstanding authorisations. | Omit | Mandatory |

CARD Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|---|---------|-------------|
| <PAN> | AN | 1 | 9 | Plastic card's PAN | Omit | Mandatory |
| <PRIMARY> | AN | 1 | 1 | Primary indicator - Default value "Y" | Omit | Mandatory |
| <CRDPRODUCT> | AN | 1 | 50 | Product type | Omit | Mandatory |
| <PROGRAMID> | AN | 1 | 50 | Card's program id | Omit | Mandatory |
| <CUSTACCOUNT> | AN | 1 | 50 | Customer account number. Mandatory in the | Omit | Conditional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|----------------------|---------|-----------|
| | | | | response if present. | | |
| <STATCODE> | AN | 2 | 2 | Card's status | Omit | Mandatory |

XML File Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request |
|---------------|------------|----------------|----------------|---|-------------|
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Optional |
| <Title> | AN | 1 | 4 | Cardholder's title. Also used as the card purchaser's title if no delivery address is supplied. | Optional |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name. | Conditional |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. If no delivery address is supplied it is also assumed to be the card purchaser's first name Mandatory if <lastName> is present. | Conditional |
| <Addr1> | AN | 1 | 50 | Cardholder's address line 1. Also used as the card purchaser's address line 1 if no delivery address is supplied. Mandatory if 'Address' fields are specified. | Conditional |
| <Addr2> | AN | 1 | 50 | Cardholder's address line 2. Also used as the card purchaser's address line 2 if no delivery address is supplied. | Optional |
| <Addr3> | AN | 1 | 50 | Cardholder's address line 3. Also used as the card purchaser's address line 3 if no delivery address is supplied. | Optional |
| <City> | AN | 1 | 20 | Cardholder's home city. Also used as the card purchaser's city if no delivery address is supplied. Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional |
| <Postcode> | AN | 1 | 10 | Cardholder's home postcode. Also used as the card purchaser's postcode if no postcode is supplied. Mandatory if <addrL1> is present, and <city> is not present. See Postcode Permitted Characters . | Conditional |
| <Country> | AN | 1 | 3 | Cardholder's country of residence. This is represented as a 3 digit ISO country code (e.g. 826 for UK). Mandatory if <addrL1> is present. | Conditional |
| <Mobile> | AN | 25 | 25 | Cardholder's mobile phone number (including dialing code if applicable). See Processing of Telephone Numbers . | Optional |
| <PublicToken> | AN | 1 | 9 | The card's public token. The public token of the newly-created card is always returned in the response. If a replacement card is required, specify the 9-digit public token of the original card. | Conditional |
| <CardDesign> | AN | 1 | 8 | The identifier of the card product, or Product ID , within GPS. For details, check with your Implementation Manager. Mandatory if not a replacement card request. Note: this is not the same field as the CrdDesign or ProductRef . | Conditional |
| <DOB> | YYYY-MM-DD | 10 | 10 | The cardholder's date of birth. | Optional |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request |
|-----------------|--------|----------------|----------------|--|-------------|
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory |
| <LoadValue> | D | 1 | 20 | Load value to put on the card. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Mandatory |
| <CurCode> | AN | 3 | 3 | 3-letter ISO currency code for the currency to load (e.g. EUR). Mandatory only when specifying a LoadValue that is not zero. This must match the card's currency or the action will fail (Note: For a Multi-FX card, the card can be loaded in any of the card's currencies). See Currency Codes . | Conditional |
| <Reason> | AN | 1 | 60 | Reason for the card's status change. Overrides default of 'Card Activated' that is shown in the card processor. Text is shown in the Smart Client Tracker screen. | Optional |
| <AccCode> | AN | 0 | 6 | Access code. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. | Optional |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. Legacy field for information purposes only; see Item Source Types . Suggest using 0. | Mandatory |
| <LoadFundsType> | AN | 1 | 3 | Payment method used to load funds onto the card. See Load Fund Types . | Optional |
| <LoadSrc> | AN | 1 | 3 | The source of the load request is used to determine the fee for the load, if applicable. If omitted, defaults to 14 "Unknown". See Load Sources . | Optional |
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. The amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . If no load fee is required, specify 0. The load fee does not affect the card balance. It is only reported in the XML. | Mandatory |
| <LoadedBy> | AN | 1 | 30 | User who loaded the card. | Optional |
| <CreateImage> | N | 1 | 1 | Specifies whether to create a card image. 1= yes, 0 = No. Images are returned in the Image response parameter, encrypted by a pre-shared PGP encryption key. | Mandatory |
| <CreateType> | N | 1 | 1 | This field is mandatory unless it is a replacement card request. There are four possible values: 1 = Create a virtual card. Can be converted to a physical card at a later stage using the Convert Card web service. 2 = Create physical card. Also triggers the creation of a card file which is sent to the manufacturer. 3 = Create a virtual card with intention to convert it into a physical card later. 4 = Create a Master Virtual Card which is a deposit account that can be used to load other cards from. 5 = Create a virtual card and convert to a physical card. Triggers the creation of a card file which is sent to the manufacturer. | Conditional |
| <CustAccount> | AN | 1 | 25 | Cardholder account number or reference number. You can use this reference to find the cards linked to a cardholder. Also displayed in Smart Client as <i>Customer Reference</i> . | Optional |
| <ActivateNow> | N | 1 | 1 | Whether to activate the card. 1= Yes, 0=No. When Quantity is greater than 1 then creation of Quantity numbers of identical cards will trigger a batch process | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request |
|------------------------------------|------------|----------------|----------------|--|----------|
| | | | | that starts within minutes of the request. If <code><ActivateNow></code> is 1 in such requests then the issued tokens are sent to the customer already activated. This parameter only applies if the request is for a new card. | |
| <code><ExpDate></code> | YYYY-MM-DD | 10 | 10 | Card expiry date. If left blank, updates with the default expiry date, based on the Card Scheme's validity period in months, otherwise updates with the input value. This also applies to replacement cards. The actual physical expiry is returned in <i>MM/YY</i> format. | Optional |
| <code><CardName></code> | AN | 1 | 27 | The embossed name on the card. If present in the request then the embossed name on the card should be the given value. If it is not available and <code><Firstname></code> and <code><Lastname></code> are available then <code><Title></code> + <code><Firstname></code> + <code><Lastname></code> will be the embossed name. If all the above parameters are unavailable in the request then the default embossed name remains as the embossed name. If a replacement card is requested, the original value of the embossed name will be used if no new names are supplied. If a blank embossed name is required, then pass a single space character. See Card Name Permitted Characters . | Optional |
| <code><LimitsGroup></code> | AN | 1 | 10 | Group code of the Limits Group. If this parameter is not supplied and this is a new card request, then the default group for the card's product will be used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Limits Group is set up and configured via Smart Client. | Optional |
| <code><MCCGroup></code> | AN | 1 | 10 | Group code of the MCC Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. The MCC group allows the card to be linked to a list of Merchant Category Codes (MCCs) that the card is allowed to or conversely is NOT allowed to transact at. Note: The MCC Group is set up and configured via Smart Client. | Optional |
| <code><PERMSGGroup></code> | AN | 1 | 10 | Group code of the Usage Group. If this parameter is not supplied and this is a new card request then the default group for the card's product is used. If the default group is not required, you can remove it passing a space character ' '. Note: The Usage Group is set up and configured via Smart Client. | Optional |
| <code><FeeGroup></code> | AN | 1 | 10 | Group code of the Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default group is not required, you can remove it by passing a space character ' '. Note: The Fee Group is set up and configured via Smart Client. | Optional |
| <code><SchedFeeGroup></code> | AN | 1 | 10 | Group code of the Scheduled Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not required, it can be removed by passing a space character ' '. Note: The Scheduled Fee Group is set up and configured via Smart Client. | Optional |
| <code><WSFeeGroup></code> | AN | 1 | 10 | Code of the Web Service Fee Group (). If this parameter is not supplied and this is a new card request then the default group for the cards product is used. If the default | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request |
|----------------|------|----------------|----------------|---|-----------|
| | | | | group is not required, you can remove it by passing a space character ' '. WSFeeGroup allows the card to be linked to a set of web service fees that are set up on the system. Note: The Web Service Fee Group is set up and configured via Smart Client. | |
| <ProductRef> | AN | 1 | 50 | The physical card design reference as used by the Card Manufacturer. Identifies the <i>PRODUCT_REF</i> field in the XML file sent to the card manufacturer. | Optional |
| <CarrierType> | AN | 1 | 30 | The Carrier Product design reference as used by the Card Manufacturer. This is the letter onto which the card is attached when sent to the cardholder. Identifies the Carrier Product type of the Card Manufacturer. | Optional |
| <Fulfil1> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL1</i> field in the XML file sent to the card manufacturer. | Optional |
| <Fulfil2> | AN | 1 | 50 | Free text field which can be used for transferring extra information to the card manufacturer, for example, to be printed on the Carrier. Identifies the <i>FULFIL2</i> field in the XML file sent to the card manufacturer. | Optional |
| <DelvMethod> | AN | 1 | 1 | The delivery method for the card. Options include: 0 = Standard delivery; 1 = Registered mail; 2 = Direct delivery; 3 = Customized DelvMethod 1; 4 = Customized DelvMethod 2; 5 = Customized DelvMethod 3; 6 = Customized DelvMethod 4; 7 = Customized DelvMethod 5; Default value is 0 | Optional |
| <ThermalLine1> | AN | 1 | 120 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a customer service phone number. | Optional |
| <ThermalLine2> | AN | 1 | 70 | Free text field which can be used for transferring extra information to be printed on the card. For example, to add a link to your service terms and conditions. | Optional |
| <Lang> | AN | 1 | 2 | Two digit ISO 639-1 Language code to be used for card mailers (e.g., En = English; Fr = French). Note: The available languages depend on the card manufacturer support. Also used if bespoke SMS templates are set up. | Optional |
| <EmbossLine4> | AN | 1 | 27 | The card's embossed line 4 on the front of the card. Could be used for example, to add an account number or sort code. | Optional |
| <ImageId> | AN | 1 | 16 | Reference which identifies the card manufacturer's image file that will be printed on the face of the card. | Optional |
| <LogoFrontId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo logo file that will be printed on the face of the card. | Optional |
| <LogoBackId> | AN | 1 | 30 | Reference which identifies the card manufacturer's logo file that will be printed on the back of the card, if supported. | Optional |
| <Replacement> | N | 1 | 1 | Whether the card is a new card or a replacement. The possible values are: 0 = new card; 1 = replacement card. Needs to be agreed with the card manufacturer. Note: Do not use a value '1', which is for legacy usage only; to replace a card, we recommend you use Card Renew : ws_renew_card . | Mandatory |

| Tag | Type | Minimum Length | Maximum Length | Description | Request |
|--------------------------|------|----------------|----------------|---|----------|
| <PrimaryToken> | AN | 16 | 19 | The primary card's public token. If it is blank then the newly created card is a primary card, otherwise it is the secondary card in a primary/secondary relationship. Cannot be the token of a card that is already linked as a secondary card. | Optional |
| <Delv_AddrL1> | AN | 1 | 50 | Card purchaser's /delivery address line 1. Mandatory if 'Delivery Address' fields are specified. | Optional |
| <Delv_AddrL2> | AN | 1 | 50 | Card purchaser's/delivery address line 2. | Optional |
| <Delv_AddrL3> | AN | 1 | 50 | Card purchaser's /delivery address line 3. | Optional |
| <Delv_City> | AN | 1 | 20 | Card purchaser's /delivery address delivery city. Mandatory if <Delv_AddrL1> is present, and <Delv_PostCode> is not present. | Optional |
| <Delv_Postcode> | AN | 1 | 10 | Card purchaser's /delivery address postcode. Mandatory if <Delv_AddrL1> is present, and <Delv_City> is not present. See Postcode Permitted Characters . | Optional |
| <Delv_County> | AN | 1 | 20 | Card purchaser's /delivery address county. | Optional |
| <Delv_Country> | AN | 1 | 3 | Card purchaser's /delivery address country 3-digit ISO country code (e.g., 826 for UK). Mandatory if <Delv_AddrL1> is present. | Optional |
| <Delv_Code> | AN | 1 | 12 | The delivery code for the card. If specified, the card manufacturer sends all cards with the same delivery code to the specified delivery address. | Optional |
| <Sms_Required> | AN | 1 | 1 | Whether an SMS is sent to the cardholder with the card's CVV. 1 = yes; 0 =No. The default is '0'. The SMS is configurable. | Optional |
| <CardManufacturer> | AN | 1 | 10 | The manufacturer to send the card generation request to. For example: <i>TCT, AllPay, GNC, Gemalto, Nitecrest</i> and <i>Exceet</i> . For a full list, see Card Manufacturers . If omitted, the default for the Card Scheme will be used. | Optional |
| <CoBrand> | AN | 1 | 6 | The Co-Brand code for the card. If supplied it will replace the <i>PROGRAMID</i> field in the <i>Balance XML</i> file. | Optional |
| <ExternalAuth> | AN | 1 | 1 | External Authorisation flag. Possible values are: 0 = Do not set External Authorisation on; 1 = Set External Authorisation. Empty value defaults to 0. Note: For legacy use only. Not applicable if using EHI. | Omit |
| <FeeWaiver> | N | 1 | 1 | Indicates whether to waive any web service fee set up on the system: 0 = No, 1=Yes. Default is 0. | Optional |
| <BlackList> | AN | 1 | 10 | Group code of the card acceptor Deny list. See Card Acceptor Deny list . | Optional |
| <WhiteList> | AN | 1 | 10 | Group code of the card acceptor Allow list. See Card Acceptor Allow list . | Optional |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. Defines configuration options specific to the provisioning of a digital payment token. For details, see the <i>Tokenisation Guide</i> . This is a numeric value; only digits 0-9 are valid. Leave empty if no usage group is required. | Optional |
| <VirtualCardImage> | AN | 1 | 16 | The Image ID for the virtual image for the new card. Image IDs are set up in Smart Client in the Image Master and Virtual Card Images screens. Note: If you do not provide an image ID, the default virtual card image for the product is used. | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request |
|-------------|------|----------------|----------------|---|----------|
| <ImageSize> | N | 1 | 1 | The size of the virtual image: 1 = 100%; 2 = 200%; 3 = 300%; 4 = 400%; 5 = 500%. Default is 1. | Optional |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: https://www.gps-e-card.com/balance/2909680989632389 For details, see the Card Generation Interface Specifications . | Optional |

Request

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_BulkWalletCreation>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:Req>
        <WALLETREQ>
          <WALLET>
            <ClientCode>[User Id]</ClientCode>
            <Title>[Card holder's Title]</Title>
            <LastName>[Last name]</LastName>
            <FirstName>[First name]</FirstName>
            <Addr11>[Address Line 1]</Addr11>
            <Addr12>[Address Line 2]</Addr12>
            <City>[City]</City>
            <PostCode>[Postcode]</PostCode>
            <Country>[Numeric Country code]</Country>
            <Mobile>[Card holder's Mobile number]</Mobile>
            <CardDesign>[Numeric Card Dedign Code]</CardDesign>
            <ExternalRef>[External Reference Number of the card]</ExternalRef>
            <DOB>[Card Holder's date of birth]</DOB>
            <TerminalID>[Identification number of the card terminal]</TerminalID>
            <LoadValue>[Amount load to the card]</LoadValue>
            <CurCode>[Alphabetic currency code]</CurCode>
            <Reason>[Notes]</Reason>
            <AccCode>[6 digit passcode]</AccCode>
            <ItemSrc>[Item source]</ItemSrc>
            <LoadFundsType>[Load fund type]</LoadFundsType>
            <LoadSrc>[Load source]</LoadSrc>
            <LoadFee>[Load fee]</LoadFee>
            <LoadedBy>[User who load the card]</LoadedBy>
            <CreateImage>[Numeric code for image creation]</CreateImage>
            <CreateType>[Type of the card Virtual/Physical]</CreateType>
            <CustAccount>[Customer account number]</CustAccount>
            <ActivateOrNot>[Parameter to specify the card is activate or not 1/0]</ActivateOrNot>
            <ExpDate>[Cards expiry date]</ExpDate>
            <CardName>[Card's Emboss name]</CardName>
            <LimitsGroup>[Group code of the group limit]</LimitsGroup>
            <MCCGroup>[Group code of the MCC group]</MCCGroup>
            <PERMSGGroup>[Group code of the Usage group]</PERMSGGroup>
            <ProductRef>[Product reference code]</ProductRef>
            <CarrierType>[Carrier Type]</CarrierType>
            <Fulfil1>[FULFIL1]</Fulfil1>
            <Fulfil2>[FULFIL2]</Fulfil2>
            <DelvMethod>[Delivery method]</DelvMethod>
            <ThermalLine1>[Thermal line 1]</ThermalLine1>
            <ThermalLine2>[Thermal line 2]</ThermalLine2>
            <EmbossLine4>[Emboss line 4]</EmbossLine4>
            <ImageId>[Image file id]</ImageId>
            <LogoFrontId>[Front logo id]</LogoFrontId>
            <LogoBackId>[Back logo id]</LogoBackId>
            <Replacement>[Replacement flag]</Replacement>
            <FeeGroup>[Group code of fee group]</FeeGroup>
            <PrimaryToken>[Public token of primary card]</PrimaryToken>
            <Delv_AddrL1>[Delivery Address Line 1]</Delv_AddrL1>
            <Delv_AddrL2>[Delivery Address Line 2]</Delv_AddrL2>
            <Delv_AddrL3>[Delivery Address Line 3]</Delv_AddrL3>
            <Delv_City>[Delivery City]</Delv_City>
            <Delv_PostCode> [Delivery Postcode]</Delv_PostCode>
            <Delv_County>[Delivery County]</Delv_County>
            <Delv_Country>[Delivery Country]</Delv_Country>
            <Sms_Required>[SMS Required(1/0)]</Sms_Required>
            <SchedFeeGroup>[Group code of schedule or recurring fee]</SchedFeeGroup>
            <WSFeeGroup>[Group code of web service fee]</WSFeeGroup>
            <CardManufacturer>[Card manufacturer code]</CardManufacturer>
            <CoBrand>[Cobrand]</CoBrand>
            <BlackList>[Card acceptor Deny list]</BlackList>
            <WhiteList>[Card acceptor Allow list]</WhiteList>
            <PaymentTokenUsageGroup>[Payment Token Usage Id - Numeric]</PaymentTokenUsageGroup>
            <Url>[link to add to QRC code field in card generation file]</Url>
          </WALLET>
        </WALLETREQ>
      </hyp:Req>
    </hyp:Ws_BulkWalletCreation>
  </soapenv:Body>
</soapenv:Envelope>

```

```

<ClientCode>[User Id]</ClientCode>
<Title>[Card holder's Title]</Title>
<LastName>[Last name]</LastName>
<FirstName>[First name]</FirstName>
<Addr1>[Address Line 1]</Addr1>
<Addr2>[Address Line 2]</Addr2>
<City>[City]</City>
<PostCode>[Postcode]</PostCode>
<Country>[Numeric Country code]</Country>
<Mobile>[Card holder's Mobile number]</Mobile>
<CardDesign>[Numeric Card Design Code]</CardDesign>
<ExternalRef>[External Reference Number of the card]</ExternalRef>
<DOB>[Card Holder's date of birth]</DOB>
  <TerminalID>[Identification number of the card terminal]</TerminalID>
<LoadValue>[Amount load to the card]</LoadValue>
<CurCode>[Alphabetic currency code]</CurCode>
<Reason>[Notes]</Reason>
  <AccCode>[6 digit passcode]</AccCode>
<ItemSrc>[Item source]</ItemSrc>
<LoadFundsType>[Load fund type]</LoadFundsType>
<LoadSrc>[Load source]</LoadSrc>
<LoadFee>[Load fee]</LoadFee>
<LoadedBy>[User who load the card]</LoadedBy>
<CreateImage>[Numeric code for image creation]</CreateImage>
<CreateType>[Type of the card Virtual/Physical]</CreateType>
<CustAccount>[Customer account number]</CustAccount>
<ActivateOrNot>[Parameter to specify the card is activate or not 1/0]</ActivateOrNot>
<ExpDate>[Cards expiry date]</ExpDate>
<CardName>[Card's Emboss name]</CardName>
<LimitsGroup>[Group code of the group limit]</LimitsGroup>
<MCCGroup>[Group code of the MCC group]</MCCGroup>
<PERMSGGroup>[Group code of the Usage group]</PERMSGGroup>
  <ProductRef>[Product reference code]</ProductRef>
  <CarrierType>[Carrier Type]</CarrierType>
  <Fulfil1>[FULFIL1]</Fulfil1>
  <Fulfil2>[FULFIL2]</Fulfil2>
  <DelvMethod>[Delivery method]</DelvMethod>
  <ThermalLine1>[Thermal line 1]</ThermalLine1>
  <ThermalLine2>[Thermal line 2]</ThermalLine2>
  <EmbossLine4>[Emboss line 4]</EmbossLine4>
  <ImageId>[Image file id]</ImageId>
  <LogoFrontId>[Front logo id]</LogoFrontId>
  <LogoBackId>[Back logo id]</LogoBackId>
  <Replacement>[Replacement flag]</Replacement>
<FeeGroup>[Group code of fee group]</FeeGroup>
<PrimaryToken>[Public token of primary card]</PrimaryToken>
<Delv_AddrL1>[Delivery Address Line 1]</Delv_AddrL1>
<Delv_AddrL2>[Delivery Address Line 2]</Delv_AddrL2>
<Delv_AddrL3>[Delivery Address Line 3]</Delv_AddrL3>
<Delv_City>[Delivery City]</Delv_City>
<Delv_PostCode> [Delivery Postcode]</Delv_PostCode>
<Delv_Country>[Delivery Country]</Delv_Country>
<Delv_Country>[Delivery Country]</Delv_Country>
  <Sms_Required>[SMS Required(1/0)]</Sms_Required>
<SchedFeeGroup>[Group code of schedule or recurring fee]</SchedFeeGroup>
<WSFeeGroup>[Group code of web service fee]</WSFeeGroup>
<CardManufacturer>[Card manufacturer code]</CardManufacturer>
<CoBrand>[Cobrand]</CoBrand>
<BlackList>[Card acceptor Deny list]</BlackList>
<WhiteList>[Card acceptor Allow list]</WhiteList>
<PaymentTokenUsageGroup>[Payment Token Usage Id - Numeric]</PaymentTokenUsageGroup>
<Url>[link to add to QRC code field in card generation file]</Url>
  </WALLET>
</WALLETREQ>
</hyp:Req>
</hyp:Ws_BulkWalletCreation>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_BulkWalletCreationResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_BulkWalletCreationResult>
        <WalletCreated>2</WalletCreated>
        <WalletNotCreated>0</WalletNotCreated>
        <ActionCode>000</ActionCode>
        <RequestWithError/>
        <Wallets>
          <Wallets xmlns="">
            <Wallet>
              <IssCode>PMT</IssCode>
              <PublicToken>123456789</PublicToken>
              <ItemID>123456</ItemID>
              <ClientCode>0</ClientCode>
              <SysDate>2014-09-01</SysDate>
              <ActionCode>000</ActionCode>
              <LoadValue>10</LoadValue>
              <IsLive>false</IsLive>
              <StartDate>09/14</StartDate>
              <ExpDate>09/17</ExpDate>
            </Wallet>
          </Wallets>
        </Wallets>
      </Ws_BulkWalletCreationResult>
    </Ws_BulkWalletCreationResponse>
  </soap:Body>
</soap:Envelope>

```



```

<CVV>130</CVV>
<MaskedPAN>987654*****3210</MaskedPAN>
<EWALLET>
  <EWALLET>
    <IDENTITY>9876543210123456</IDENTITY>
    <CARDS>
      <CARD>
        <PAN>9876543210123456</PAN>
        <CRDCURRCODE>GBP</CRDCURRCODE>
        <CRDPRODUCT>MCRD</CRDPRODUCT>
        <CUSTCODE/>
        <PRIMARY>Y</PRIMARY>
        <PROGRAMID>ABCD123</PROGRAMID>
        <STATCODE>00</STATCODE>
        <EXPDATE>2017-09-30</EXPDATE>
      </CARD>
    </CARDS>
    <ACCOUNTS>
      <ACCOUNT>
        <ACCNO>9876543210123457</ACCNO>
        <ACCTYPE>01</ACCTYPE>
        <CURRCODE>EUR</CURRCODE>
        <FINAMT>0.00</FINAMT>
        <BLKAMT>0.00</BLKAMT>
        <AMTAVL>0.00</AMTAVL>
      </ACCOUNT>
      <ACCOUNT>
        <ACCNO>9876543210123458</ACCNO>
        <ACCTYPE>01</ACCTYPE>
        <CURRCODE>USD</CURRCODE>
        <FINAMT>10.00</FINAMT>
        <BLKAMT>0.00</BLKAMT>
        <AMTAVL>10.00</AMTAVL>
      </ACCOUNT>
      <ACCOUNT>
        <ACCNO>9876543210123456</ACCNO>
        <ACCTYPE>01</ACCTYPE>
        <CURRCODE>GBP</CURRCODE>
        <FINAMT>0.00</FINAMT>
        <BLKAMT>0.00</BLKAMT>
        <AMTAVL>0.00</AMTAVL>
      </ACCOUNT>
    </ACCOUNTS>
  </EWALLET>
</EWALLET>
</Wallet>
<Wallet>
  <IssCode>ORWL</IssCode>
  <PublicKey>123456788</PublicKey>
  <ItemID>89031</ItemID>
  <ClientCode>0</ClientCode>
  <SysDate>2014-09-01</SysDate>
  <ActionCode>000</ActionCode>
  <LoadValue>10</LoadValue>
  <IsLive>false</IsLive>
  <StartDate>09/14</StartDate>
  <ExpDate>09/17</ExpDate>
  <CVV>589</CVV>
  <MaskedPAN>987654*****1230</MaskedPAN>
  <EWALLET>
    <EWALLET>
      <IDENTITY>9876543210123459</IDENTITY>
      <CARDS>
        <CARD>
          <PAN>9876543210123459</PAN>
          <CRDCURRCODE>GBP</CRDCURRCODE>
          <CRDPRODUCT>MCRD</CRDPRODUCT>
          <CUSTCODE/>
          <PRIMARY>Y</PRIMARY>
          <PROGRAMID>ABCD123</PROGRAMID>
          <STATCODE>00</STATCODE>
          <EXPDATE>2017-09-30</EXPDATE>
        </CARD>
      </CARDS>
      <ACCOUNTS>
        <ACCOUNT>
          <ACCNO>9876543210123461</ACCNO>
          <ACCTYPE>01</ACCTYPE>
          <CURRCODE>EUR</CURRCODE>
          <FINAMT>10.00</FINAMT>
          <BLKAMT>0.00</BLKAMT>
          <AMTAVL>10.00</AMTAVL>
        </ACCOUNT>
        <ACCOUNT>
          <ACCNO>9876543210123460</ACCNO>
          <ACCTYPE>01</ACCTYPE>
          <CURRCODE>USD</CURRCODE>
          <FINAMT>0.00</FINAMT>
          <BLKAMT>0.00</BLKAMT>
          <AMTAVL>0.00</AMTAVL>
        </ACCOUNT>
        <ACCOUNT>
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          <ACCTYPE>01</ACCTYPE>
          <CURRCODE>GBP</CURRCODE>
        </ACCOUNT>
      </ACCOUNTS>
    </EWALLET>
  </EWALLET>

```

```
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        <BLKAMT>0.00</BLKAMT>
        <AMTAVL>0.00</AMTAVL>
    </ACCOUNT>
</ACCOUNTS>
</EWALLET>
</WALLET>
</Wallets>
</Wallets>
</Ws_BulkWalletCreationResult>
</Ws_BulkWalletCreationResponse>
</soap:Body>
</soap:Envelope>
```

Wallet Balance Enquiry

API: [Ws_Balance_Enquiry_Wallet](#)

This web service returns the current available balance on each of the currency wallets for a multi-FX card.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. See Transaction Codes . Default value is '3'. | Mandatory | Mandatory |
| <ClientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request. Note: Legacy field. Not used. | Conditional | Conditional |
| <ItemSrc> | N | 1 | 5 | Source field which defines the item source type. See Item Source Types . If used, overrides any existing fees for using this web service. | Mandatory | Omit |
| <AuthType> | AN | 1 | 1 | Parameter to specify how the card should be authenticated. See Authentication Methods . | Mandatory | Omit |
| <PAN> | AN | 16 | 19 | Card Number. Mandatory if <PublicToken> is not provided. | Conditional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. Mandatory in request if <PAN> is not present. Mandatory in the response. | Conditional | Mandatory |
| <DOB> | YYYY-MM-DD | 10 | 10 | Date of Birth. Mandatory if value of <AuthType> is '2' or '6'. | Conditional | Omit |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. Mandatory if the value of <AuthType> is '3'. | Conditional | Omit |
| <AccCode> | AN | 0 | 6 | Access code or passcode, which can be used to set a code which is validated during activation (e.g. via the GPS IVR system). If provided, must be 6 digits; leading zeroes are acceptable. Mandatory if the value of <AuthType> is '4'. Leave empty if not required. | Conditional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name, used to authenticate the cardholder if the value of <AuthType> is '6'. | Conditional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The local current date in <i>year-month-date</i> format. | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The local current time, in <i>hour-minute-second</i> format. | Mandatory | Mandatory |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The system processing date. | Omit | Mandatory |
| <ActionCode> | AN | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <PINStatus> | N | 1 | 1 | Indicates whether the allowed number of card PIN tries has been exceeded. 0 = No; 1 = Yes. | Omit | Mandatory |
| <EWALLET> | | | | See EWALLET Details below. | Omit | Mandatory |

EWALLET Details

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <IDENTITY> | AN | 1 | 16 | The GPS 16-digit public token. Mandatory in the response. | Omit | Mandatory |
| <CARD> | | | | See CARD Details below. | Omit | Mandatory |
| <ACCOUNT> | | | | See ACCOUNT Details below; may occur multiple times. | Omit | Mandatory |

ACCOUNT Details

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------|------|----------------|----------------|--|---------|-----------|
| <ACCNO> | AN | 1 | 9 | Account number. | Omit | Mandatory |
| <ACCTYPE> | AN | 2 | 2 | Type of card account. See Account Types . | Omit | Mandatory |
| <CURRCODE> | AN | 3 | 3 | Alpha currency code of the account. | Omit | Mandatory |
| <FINAMT> | D | 1 | 20 | Balance of the account excluding blocked amount. | Omit | Mandatory |
| <BLKAMT> | D | 1 | 20 | Amount of funds blocked on the card account as a result of all outstanding authorisations. The balance amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). See Currency Codes . | Omit | Mandatory |
| <AMTAVL> | D | 1 | 20 | Balance of the card account. This includes all financials and outstanding authorisations. | Omit | Mandatory |

CARD Details

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|---------|-------------|
| <PAN> | AN | 1 | 9 | The GPS 16-digit public token. Mandatory in the response. | Omit | Mandatory |
| <CRDCURRCODE> | AN | 3 | 3 | Physical card alpha-currency code. | Omit | Mandatory |
| <CRDPRODUCT> | AN | 1 | 50 | Card product type: MCRD (Mastercard), VISA, MAES (Maestro). | Omit | Mandatory |
| <PROGRAMID> | AN | 1 | 50 | Card's program ID. | Omit | Mandatory |
| <CUSTCODE> | AN | 1 | 50 | Customer account number. Mandatory in the response if present. | Omit | Conditional |
| <PRIMARY> | AN | 1 | 1 | Indicates if the card is the Primary card. Y = Yes. N= No. | Omit | Mandatory |
| <STATCODE> | AN | 2 | 2 | Card's status. | Omit | Mandatory |
| <EXPDATE> | AN | 10 | 10 | Expiry date. | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Balance_Enquiry_Wallet>
      <hyp:WSID>2021123456789</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:TxnCode>3</hyp:TxnCode>
      <hyp:ClientCode></hyp:ClientCode>
      <hyp:ItemSrc>0</hyp:ItemSrc>
    </hyp:Ws_Balance_Enquiry_Wallet>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    <hyp:AuthType>1</hyp:AuthType>
    <hyp:PAN></hyp:PAN>
    <hyp:PublicToken>100432911</hyp:PublicToken>
    <hyp:DOB></hyp:DOB>
    <hyp:CVV></hyp:CVV>
    <hyp:AccCode></hyp:AccCode>
    <hyp:LastName></hyp:LastName>
    <hyp:LocDate>2014-09-01</hyp:LocDate>
    <hyp:LocTime>105000</hyp:LocTime>
  </hyp:Ws_Balance_Enquiry_Wallet>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Balance_Enquiry_WalletResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Balance_Enquiry_WalletResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>3</TxnCode>
        <PublicToken>123456789</PublicToken>
        <LocDate>2014-09-01</LocDate>
        <LocTime>105000</LocTime>
        <ClientCode/>
        <SysDate>2014-09-01</SysDate>
        <ActionCode>000</ActionCode>
        <PINStatus>0</PINStatus>
        <EWALLET>
          <EWALLET xmlns="">
            <IDENTITY>9876543210123456</IDENTITY>
            <CARDS>
              <CARD>
                <PAN>9876543210123456</PAN>
                <CRDCURRCODE>GBP</CRDCURRCODE>
                <CRDPRODUCT>MCRD</CRDPRODUCT>
                <CUSTCODE/>
                <PRIMARY>Y</PRIMARY>
                <PROGRAMID>ABC123</PROGRAMID>
                <STATCODE>00</STATCODE>
                <EXPDATE>2017-09-30</EXPDATE>
              </CARD>
            </CARDS>
            <ACCOUNTS>
              <ACCOUNT>
                <ACCNO>9876543210123458</ACCNO>
                <ACCTYPE>01</ACCTYPE>
                <CURRCODE>EUR</CURRCODE>
                <FINAMT>0.00</FINAMT>
                <BLKAMT>0.00</BLKAMT>
                <AMTAVL>0.00</AMTAVL>
              </ACCOUNT>
              <ACCOUNT>
                <ACCNO>9876543210123457</ACCNO>
                <ACCTYPE>01</ACCTYPE>
                <CURRCODE>USD</CURRCODE>
                <FINAMT>10.00</FINAMT>
                <BLKAMT>0.00</BLKAMT>
                <AMTAVL>10.00</AMTAVL>
              </ACCOUNT>
              <ACCOUNT>
                <ACCNO>9876543210123456</ACCNO>
                <ACCTYPE>01</ACCTYPE>
                <CURRCODE>GBP</CURRCODE>
                <FINAMT>0.00</FINAMT>
                <BLKAMT>0.00</BLKAMT>
                <AMTAVL>0.00</AMTAVL>
              </ACCOUNT>
            </ACCOUNTS>
          </EWALLET>
        </EWALLET>
      </Ws_Balance_Enquiry_WalletResult>
    </Ws_Balance_Enquiry_WalletResponse>
  </soap:Body>
</soap:Envelope>

```

Banking Services Overview

You can use the following web services to manage your Modulr Agency Banking services:

| |
|---|
| Register a Customer for Banking : Ws_Banking_CreateCustomer |
| Create Card with Agency Banking : Ws_CreateCard_V2 |
| Register a Customer for Banking Actions : Ws_Banking_RegisterNotification |
| Make External Payment : Ws_Banking_TransferFunds |
| Retrieve Direct Debit Mandates : Ws_Banking_DD_GetMandate |
| Cancel a Direct Debit Mandate : Ws_Banking_DD_CancelMandate |

Legacy Bottomline Agency Banking Services

The web services listed below are for legacy use only with Bottomline Agency Banking, and are not available to new clients.

| |
|---|
| Bank Account Change : Ws_Banking_ChangeAccountBankingFeaturesStatus |
| Bank Account Check Number : Ws_Banking_AccountModulusCheck |
| Return Sort Code and Account Number : Ws_Banking_ReturnBankDetailsFromToken |
| Get Direct Debits : Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard |
| Get Pending Direct Debits : Ws_Banking_GetPendingDirectDebits |
| Cancel a Direct Debit : Ws_Banking_CancelDirectDebitBankingEnabledCard |

Register a Customer for Banking

API: [Ws_Banking_CreateCustomer](#)

For Modulr Agency Banking integrations, you must register the customer prior to calling [Ws_CreateCard_V2](#) to create the bank account. This web service enables you to register customer details without creating associated bank accounts.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------------|------------------------|----------------|----------------|---|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CardDesign> | AN | 1 | 8 | The GPS Product ID . For details, check with your Implementation Manager. | Mandatory | |
| <Associates> | A list of Associate | | | A list of associates (for business customer accounts). Must contain at least one associate. For example, this could contain the details of the company directors for a limited company, or the partners for a partnership. For details, see Associate . | Mandatory | |
| <DocumentInfo> | A list of DocumentInfo | | | A list of document information (for business customer accounts). Examples of documents could be proof of a company director's identity or address, articles of association or a partnership agreement. For details, see DocumentInfo . | Optional | |
| <ExpectedMonthlySpend> | N | | | An expected monthly spend must be included. If this is unknown, select an approximate amount. | Mandatory | |
| <ExternalReference> | AN | 1 | 30 | Enables you to add your own external customer reference. | Optional | |
| <IndustryCode> | AN | | | Industry code if this is a business customer. Mandatory for all <Type> except for 'INDIVIDUAL'. | Conditional | |
| <RegisteredAddress> | A Banking Address | | | The address of the company's registered office (for a business customer). For details, see RegisteredAddress . | Optional | |
| <TCSVersion> | N | | | The version of the Modulr terms and conditions that you have agreed to. | Mandatory | |
| <TradingAddress> | A Banking Address | | | Business customer trading address. Mandatory for all <Type> except for INDIVIDUAL. For details, see TradingAddress . | Conditional | |
| <Type> | Enum (see desc) | | | Type of the account to be opened. Takes values of: INDIVIDUAL, CHARITY, LLP, LPARTNRSHP, OPARTNRSHP, SOLETRADER, PLC and LLC. | Mandatory | |
| <Name> | AN | | | Customer's company name (for a business customer). You can provide alphanumeric characters plus: [_ ' @ , & £ \$ € ¥ = # % ' ' ; \ / < > « » ! ' " . ? - * { } + % ()]. Mandatory for all <Type> except 'INDIVIDUAL'. | Conditional | |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------------------|----------------|----------------|---|----------|-----------|
| <CompanyRegNumber> | AN | | | The company registration or incorporation number for a business customer. Only applicable for companies registered with Companies House. | Optional | |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . If the action code is 576, full details can be found in <Messages>. | Omit | Mandatory |
| <Messages> | A list of BankingError | | | If the action code returned is 576, then full details of any Modulr errors are returned. See BankingError . | Omit | Optional |
| <CustomerID> | AN | 10 | 10 | Unique identifier for the newly registered customer, returned in the response. Begins with 'C'. This must be used in all subsequent web service requests relating to this customer. | Omit | Mandatory |

Request

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthSoapHeader xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <strUserName>*****</strUserName>
      <strPassword>*****</strPassword>
    </AuthSoapHeader>
  </soap:Header>
  <soap:Body>
    <Ws_Banking_CreateCustomer xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <request>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <CardDesign>string</CardDesign>
        <Associates>
          <Associate>
            <applicant>boolean</applicant>
            <dateOfBirth>dateTime</dateOfBirth>
            <documentInfo xsi:nil="true" />
            <email>string</email>
            <firstName>string</firstName>
            <middleName>string</middleName>
            <lastName>string</lastName>
            <ownership>int</ownership>
            <phone>string</phone>
            <type>string</type>
          </Associate>
        </Associates>
        <homeAddress>
          <addressLine1>string</addressLine1>
          <addressLine2>string</addressLine2>
          <posttown>string</posttown>
          <postCode>string</postCode>
          <country>string</country>
        </homeAddress>
        </Associate>
      </Associates>
      <DocumentInfo>
        <DocumentInfo>
          <filename>string</filename>
          <filepath>string</filepath>
          <uploadDate>dateTime</uploadDate>
        </DocumentInfo>
      </DocumentInfo>
      <ExpectedMonthlySpend>decimal</ExpectedMonthlySpend>
      <ExternalReference>string</ExternalReference>
      <IndustryCode>string</IndustryCode>
      <RegisteredAddress>
        <addressLine1>string</addressLine1>
        <addressLine2>string</addressLine2>
        <posttown>string</posttown>
        <postCode>string</postCode>
        <country>string</country>
      </RegisteredAddress>
      <TCSVersion>int</TCSVersion>
      <TradingAddress>
        <addressLine1>string</addressLine1>
        <addressLine2>string</addressLine2>
        <posttown>string</posttown>
        <postCode>string</postCode>
        <country>string</country>
      </TradingAddress>
      <Type>INDIVIDUAL or CHARITY or LLP or LPARTNRSHP or OPARTNRSHP or SOLETRADER or PLC or LLC</Type>
      <Name>string</Name>
    </Ws_Banking_CreateCustomer>
  </soap:Body>
</soap:Envelope>
```



```
<CompanyRegNumber>string</CompanyRegNumber>
</request>
</Ws_Banking_CreateCustomer>
</soap:Body>
</soap:Envelope>
```

Response

```
<Ws_Banking_CreateCustomerResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
  <Ws_Banking_CreateCustomerResult>
    <WSID>2021123456789</WSID>
    <IssCode>PMT </IssCode>
    <ActionCode>string</ActionCode>
    <CustomerID>string</CustomerID>
    <Messages>
      <BankingError>
        <field>string</field>
        <code>string</code>
        <message>string</message>
        <error>string</error>
      </BankingError>
    </Messages>
  </Ws_Banking_CreateCustomerResult>
</Ws_Banking_CreateCustomerResponse>
```

Create Card with Agency Banking

API: [Ws_CreateCard_V2](#)

This web service creates a card which has a bank account linked to it, with Agency Banking features enabled. It will also upgrade an existing card to have banking features. This service applies only to programmes using Agency Banking.

Note: Before using this web service, use [Ws_Banking_CreateCustomer](#) to register the customer and obtain the unique [CustomerID](#). See [Register a Customer for Banking](#).

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|-------------|-------------|
| <WSID> | N | 1 | 19 | Web service ID. Should be unique for every web service request sent | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <TxnCode> | AN | 1 | 2 | The Transaction Code. Default value 10. | Mandatory | Mandatory |
| <clientCode> | AN | 1 | 64 | User ID of the customer using the service. Only applicable to systems using member logins. Returned in the response if present in the request | Optional | Conditional |
| <Title> | AN | 1 | 4 | Cardholder's title. If no delivery address is supplied it is also assumed to be the card purchaser's title | Optional | Omit |
| <LastName> | AN | 1 | 20 | Cardholder's last name. If no delivery address is supplied it is also assumed to be the card purchaser's last name | Conditional | Omit |
| <FirstName> | AN | 1 | 20 | Cardholder's first name. If no delivery address is supplied it is also assumed to be the card purchaser's first name Mandatory if <lastName> is present. | Conditional | Omit |
| <Address1> | AN | 1 | 50 | Cardholder's address line 1. If no delivery address is supplied it is also assumed to be the card purchaser's address line 1 Mandatory if 'Address' fields are being specified | Conditional | Omit |
| <Address2> | AN | 1 | 50 | Cardholder's Address line 2. If no delivery address is supplied it is also assumed to be the card purchaser's Address line 2. | Optional | Omit |
| <Address3> | AN | 1 | 35 | Cardholder's Address line 3. If no delivery address is supplied it is also assumed to be the card purchaser's Address line 3. | Optional | Omit |
| <City> | AN | 1 | 20 | Cardholder's home city. If no delivery address is supplied it is also assumed to be the card purchaser's home city Mandatory if <addrL1> is present, and <postcode> is not present. | Conditional | Omit |
| <Postcode> | AN | 1 | 10 | Cardholder's home postcode. If no delivery address is supplied it is also assumed to be the card purchaser's home postcode Mandatory if <addrL1> is present, and | Conditional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|------------------|------------|----------------|----------------|--|-------------|-------------|
| | | | | <city> is not present. Post code supports following characters only. The Arabic numerals "0" to "9" Letters of the ISO basic Latin alphabet (A-Z, a-z) Spaces, hyphens(-). | | |
| <ISOCountryCode> | AN | 1 | 3 | Cardholder's Country of Residence. This is represented as ISO numeric country code e.g. 826 for UK Mandatory if <addrL1> is present. | Conditional | Omit |
| <Mobile> | AN | 25 | 25 | Card holder's mobile phone number (Please include dialing code if applicable) | Optional | Omit |
| <PublicToken> | AN | 1 | 9 | The card's public token. The public token of the newly-created card will always be returned in the response. If a replacement card is required, specify the 9-digit public token of the original card. | Conditional | Mandatory |
| <CardDesign> | AN | 1 | 8 | The GPS Product ID . For details, check with your Implementation Manager. | Conditional | Omit |
| <ExternalRef> | AN | 1 | 30 | Enables you to add your own external customer reference. | Optional | Conditional |
| <DateOfBirth> | YYYY-MM-DD | 10 | 10 | Date of Birth. | Optional | Omit |
| <AccCode> | AN | 1 | 6 | Access code. If provided, must be 6 digits, leading zeroes are acceptable. Leave empty if not required. Can be used to set a code which is validated during activation e.g. via the IVR | Optional | Omit |
| <LocDate> | YYYY-MM-DD | 10 | 10 | The current date | Mandatory | Mandatory |
| <LocTime> | HHMMSS | 6 | 6 | The current time | Mandatory | Mandatory |
| <TerminalID> | AN | 1 | 15 | POS or other Terminal Identifier | Optional | Omit |
| <LoadValue> | D | 1 | 20 | Load value to put on card. If no load value is required, specify 0. | Mandatory | Mandatory |
| <CurCode> | AN | 3 | 3 | Currency of the amount to load as ISO Alpha code e.g. EUR This must match the card's currency or the action will fail. Mandatory only when LoadValue is specified and not zero. | Conditional | Omit |
| <Reason> | AN | 1 | 60 | Reason for card status change. Overrides default of 'Card Activated' that will be shown in card Processor | Optional | Omit |
| <ItemSrc> | N | 1 | 5 | Source field to define alternate fees. It is used in conjunction with existing fee server Item. See Item Source Types | Mandatory | Omit |
| <SysDate> | YYYY-MM-DD | 10 | 10 | The processing system date | Optional | Mandatory |
| <LoadFundsType> | AN | 1 | 3 | Payment method of funds for the load. See Load Fund Types | Optional | Omit |
| <LoadSrc> | AN | 1 | 3 | The source of the load request Load Sources .. If omitted, defaults to 14 "Unknown" | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------|----------------|----------------|---|-------------|-----------|
| <LoadFee> | D | 1 | 20 | Fixed fee amount charged to the card purchaser for handling the card purchase and load. If no Load Fee is required, specify 0. The LoadFee does not affect the card balance. It is only reported in the XML reports. | Mandatory | Omit |
| <LoadedBy> | AN | 1 | 30 | User who loads amount to the card | Optional | Omit |
| <CreateImage> | N | 1 | 1 | If this is 1 then generate an image for the card. If it is 0 then do not create the image. Images are returned in the "Image" response parameter, encrypted by a pre-shared PGP encryption key. | Mandatory | Omit |
| <CreateType> | N | 1 | 1 | There are 4 possible values for the CreateType. Type Description 1 Create a virtual card for the customer with the given amount. 2 Create physical card with the given amount. The web service also creates a card file and send the card file to the manufactures for activate the card later. 3 Create a virtual card with intention to convert it into physical card later. 4 Create a Master Virtual Card which is a deposit account that can be used to load other cards from. Mandatory unless it is a replacement card request. Note: CreateType 1 also allows a virtual card to be converted to a physical card. | Conditional | Omit |
| <CustAccount> | AN | 1 | 25 | Client reference for the Card. | Optional | Omit |
| <ActivateNow> | N | 1 | 1 | If it is 1 then card will activate otherwise not. When <Quantity> is greater than 1 then creation of <Quantity> numbers of identical cards will trigger in a batch process that starts within minutes of the request. If <ActivateNow> is 1 in such requests then the issued tokens are sent to the customer with active flag ON otherwise not. This parameter will only take effect if the request is for a new card. | Mandatory | Omit |
| <SourceDesc> | AN | 1 | 50 | Load source description, normally the address of the web site or the POS machine. | Optional | Omit |
| <StartDate> | AN | 5 | 5 | Physical start date printed on the card in format MM/YY. | Optional | Mandatory |
| <ExpDate> | YYYY-MM-DD | 10 | 10 | Card Physical Expiry date. If it is blank then update with the default expiry date otherwise update with the input value | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------|----------------|----------------|--|----------|----------|
| | | | | In the case of a replacement card, if ExpDate is blank then the replacement card will update with the same expiry date as the original card otherwise it will update with the input value. N.B. The actual physical expiry is returned in MM/YY format.. | | |
| <CVV> | AN | 3 | 3 | Card Verification Value, the 3-digit code printed on the back of the card. | Optional | Omit |
| <CardName> | AN | 1 | 27 | Card's Emboss name. This is an optional parameter. If present in the request then emboss name of card should be the given value. If it's not available and <Firstname> and <Last-name> are available then <Title> + <Firstname> + <Lastname> will be the emboss name. If all the above parameters are unavailable in the request then default emboss name remains as the emboss name. If a replacement card is requested, the original value of embossed name will be used if no new names are supplied. If a blank emboss name is required, then pass a single space character. The list of allowed characters is: abcdefghijklmnopqrstuvwxy ABCDEFGHIJKLMNPOQRSTUVWXYZ- Z 0123456789 Some non-english characters i.e. "äüÄÖÜ" "\" (backslash) "-" (hyphen) "^" (caret) "." (full stop) " " (space character) "'" (apostrophe) | Optional | Omit |
| <MaskedPAN> | AN | 16 | 19 | Card Number displayed as masked. i.e. 675926*****1234. N.B. The full PAN can be returned if required, ask for details. | Optional | Omit |
| <LimitsGroup> | AN | 1 | 10 | Group code of the group limit. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' '. | Optional | Omit |
| <MCCGroup> | AN | 1 | 10 | Group code of the MCC group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' '. The MCC group allows the card to be linked to a list of Merchant Category Codes that the card is allowed to or conversely is NOT allowed to transact at. The MCCGroup is setup and configured via smart client. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------|------|----------------|----------------|---|----------|----------|
| <PERMSGGroup> | AN | 1 | 10 | Group code of the Usage group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' ' | Optional | Omit |
| <FeeGroup> | AN | 1 | 10 | Group code of the Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' ' | Optional | Omit |
| <ScheduledFeeGroup> | AN | 1 | 10 | Group code of the Scheduled Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' ' | Optional | Omit |
| <WSFeeGroup> | AN | 1 | 10 | Group code of the Web Service Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' '. WSFeeGroup allows the card to be linked to a set of Web Service fees that are already set up on the system. These fees can be configured and altered by using the smart client. | Optional | Omit |
| <FXGroup> | AN | 1 | 10 | Group code of the FX Fee Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' ' | Optional | Omit |
| <ProductRef> | AN | 1 | 50 | Identifies Product. N.B. This is the Physical Card Design Reference as used by the card printer. | Optional | Omit |
| <CarrierType> | AN | 1 | 30 | Defines carrier product. N.B. This is the Carrier Product Design reference as used by the card printer. | Optional | Omit |
| <Fulfil1> | AN | 1 | 50 | Card's FULFIL1. Can be used for transferring extra information to be printed on the Carrier | Optional | Omit |
| <Fulfil2> | AN | 1 | 50 | Card's FULFIL2 Can be used for transferring extra information to be printed on the Carrier | Optional | Omit |
| <DelvMeth> | AN | 1 | 1 | The delivery method for the card: 0- Standard delivery | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------|----------------|----------------|--|-----------|----------|
| | | | | 1- Registered mail 2- Direct delivery (Courier) Default value is 0 - Standard delivery. | | |
| <ThermalLine1> | AN | 1 | 120 | Can be used for transferring extra information to be printed on the card. | Optional | Omit |
| <ThermalLine2> | AN | 1 | 70 | Can be used for transferring extra information to be printed on the card. | Optional | Omit |
| <Lang> | AN | 1 | 2 | Language to be used for Card Mailers. Uses ISO 639-1 standard for two-character language codes e.g.: En - English Fr - French Not all languages are available with all manufacturers, it depends on card manufacturer support. Also used if bespoke SMS templates are set up | Optional | Omit |
| <EmbossLine4> | AN | 1 | 27 | Card's emboss_line_4. | Optional | Omit |
| <ImageID> | AN | 1 | 16 | Identifies the image file that will be printed on the face of the card. | Optional | Omit |
| <LogoFrontID> | AN | 1 | 30 | Identifies the logo file that will be printed on the face of the card. | Optional | Omit |
| <LogoBackID> | AN | 1 | 30 | Identifies the image file that will be printed on the back of the card, if supported. | Optional | Omit |
| <Replacement> | N | 1 | 1 | Replacement flag. The possible values are: 0 - Reset replacement flag 1 - Set replacement flag Needs to be agreed with card manufacturer. N.B. See also ws_regenerate. | Mandatory | Omit |
| <PrimaryToken> | AN | 16 | 19 | The primary card's public token. If it is blank then the newly created card is a primary card otherwise it is the secondary card in a primary/secondary relationship. Cannot be the token of a card that is already linked as a secondary card. | Optional | Omit |
| <DelvAddrL1> | AN | 1 | 50 | Delivery address line 1. Mandatory if 'Delivery Address' fields are being specified. | Optional | Omit |
| <DelvAddrL2> | AN | 1 | 50 | Delivery Address line 2 | Optional | Omit |
| <DelvAddrL3> | AN | 1 | 50 | Delivery Address line 3 | Optional | Omit |
| <DelvCity> | AN | 1 | 20 | Delivery City. Mandatory if <Delv_AddrL1> is present, and <Delv_PostCode> is not present. | Optional | Omit |
| <DelvPostcode> | AN | 1 | 10 | Delivery Post code. Mandatory if <Delv_AddrL1> is present, and <Delv_City> is not present. Delivery postcode supports following characters only. The Arabic numerals "0" to "9" Letters of the ISO basic Latin alphabet (A-Z, a-z) Spaces, hyphens(-). | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------|----------------|----------------|---|----------|-----------|
| <DelvCounty> | AN | 1 | 20 | Delivery County | Optional | Omit |
| <DelvCountry> | AN | 1 | 3 | Delivery Country code. ISO numeric code E.g. 826 for UK Mandatory if <Delv_AddrL1> is present. | Optional | Omit |
| <DelvCode> | AN | 1 | 12 | The delivery code for the card: If specified, all cards with the same delivery code are to be sent together to the specified delivery address. | Optional | Omit |
| <SMSRequired> | AN | 1 | 1 | If it is 1 then sends an SMS to the customer with the cards CVV otherwise not. By default it is '1'. If set to 0, no message - SMS or Email - is sent to the cardholder. | Optional | Omit |
| <IsLive> | N | 1 | 1 | Indicates the card in active or not. 1/True - Active 0/False - Not Active | Optional | Mandatory |
| <CardManufacturer> | AN | 1 | 10 | The manufacturer to send the card generation request to. If omitted, the default for the Scheme will be used. Examples of valid choices are: TCT AllPay GNC Gemalto Nitecrest Exceet Idemia | Optional | Omit |
| <CoBrand> | AN | 1 | 6 | The CoBrand code for the card. If supplied it will replace PROGRAMID in the Balance XML. | Optional | Omit |
| <ExternalAuth> | AN | 1 | 1 | External Authorisation flag. Possible values are: 0 - Do not set External Authorisation on 1 - Set External Authorisation Empty value defaults to 0. Not applicable if using EHI | Optional | Omit |
| <LinkageGroup> | AN | 1 | 10 | Group code of the Card Linkage Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' '. | Optional | Omit |
| <VanityName> | AN | 1 | 32 | Vanity Name. Alternative form of title e.g. "Company Director" | Optional | Omit |
| <PBlock> | AN | 4 | 12 | Initial value of PIN | Optional | Omit |
| <PINMailer> | AN | 1 | 1 | PIN Mailer: 0 -> Do not send PIN Mailer (default) 1 -> Do send PIN Mailer If 1, GPS sends instructions in the file to the manufacturer for them to create a PIN Mailer letter. | Optional | Omit |
| <Email> | AN | 1 | 50 | E-mail address of the cardholder | Optional | Omit |
| <MailOrSMS> | AN | 1 | 1 | Flag to choose the alert type. 0 = send alert SMS to the cardholder mobile. 1 = send e-mail alert to the cardholder mail address 2 = send SMS and e-mail. Default value is '0'. | Optional | Omit |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------|-----------------|----------------|----------------|--|-----------|----------|
| <AuthCalendarGroup> | AN | 1 | 10 | Group code of the Card Auth Calendar Group. If this parameter is not supplied and this is a new card request then the default group for the cards product will be used. If the default group is not desired, it can be removed by passing a space character ' ' | Optional | Omit |
| <Quantity> | N | 1 | 5 | If specified, will trigger the creation of <Quantity> numbers of identical cards in a batch process that starts within minutes of the request. The issued tokens are sent to the customer in an xml file over SFTP. If the cards are physical, a manufacturer file is also sent to the printer. | Optional | Omit |
| <LoadToken> | N | 1 | 9 | If specified, LoadToken is the 9-digit Public Token of the (usually an MVC) card that the initial Load Amount is to be taken from. The load will show as an MVC Balance Transfer (Unload + Load) in smart client. | Optional | Omit |
| <RequiredBankingFeatures> | BankingFeatures | | | The required banking features that are required. You must pass in, <i>BankInEnabled, BankingOutEnabled, DirectDebitInEnabled, DirectDebitOutEnabled, SEPAInEnabled, SEPAOutEnabled</i> and <i>CardEnabled</i> . Other features are optional. See BankingFeatures . | Mandatory | Omit |
| <IsActive> | B | | | Setting this flag to true will create a physical card from the virtual card and the card will be instantly active allowing payments out via the banking functionality. | Mandatory | Omit |
| <CustomerID> | AN | | | The ID of the customer that this account is to be associated with. This can be obtained by calling Ws_Banking_CreateCustomer . | Optional | Omit |
| <PaymentTokenUsageGroup> | AN | 1 | 10 | Payment token usage group code. Note: This is a numeric value, only digits 0-9 are valid. Leave empty if no group required. | Optional | Omit |
| <Url> | AN | 1 | 100 | This value will be included in the GPS Card Generation file, in the <QRCode> field. For example: https://www.gps-e-card.com/balance/2909680989632389 For details, see the Card Generation Interface Specifications . | Optional | Omit |
| <SortCode> | N | 6 | 6 | The sort code from the associated product that was supplied in the request. | Omit | Optional |
| <AccountNumber> | N | 8 | 8 | A unique account number is returned in the response. | Omit | Optional |
| <AccountName> | AN | 0 | 50 | Account name. | Omit | Optional |
| <ErrorText> | AN | | | Readable text of the error. Should be read in conjunction with the | Omit | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|----------------------|----------------|----------------|---|---------|-----------|
| | | | | ActionCode | | |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Messages> | List of BankingError | | | If the ActionCode returned is 576, then full details of any errors can be found here. See Banking Error . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_CreateCard_V2>
      <hyp:request>
        <hyp:WSID>2021123456789</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:TxnCode>?</hyp:TxnCode>
        <hyp:clientCode>?</hyp:clientCode>
        <hyp>Title>?</hyp>Title>
        <hyp:LastName>?</hyp:LastName>
        <hyp:FirstName>?</hyp:FirstName>
        <hyp:Address1>?</hyp:Address1>
        <hyp:Address2>?</hyp:Address2>
        <hyp:Address3>?</hyp:Address3>
        <hyp:City>?</hyp:City>
        <hyp:Postcode>?</hyp:Postcode>
        <hyp:ISOCountryCode>?</hyp:ISOCountryCode>
        <hyp:Mobile>?</hyp:Mobile>
        <hyp:PublicToken>?</hyp:PublicToken>
        <hyp:CardDesign>?</hyp:CardDesign>
        <hyp:ExternalRef>?</hyp:ExternalRef>
        <hyp:DateOfBirth>?</hyp:DateOfBirth>
        <hyp:AccCode>?</hyp:AccCode>
        <hyp:LocDate>?</hyp:LocDate>
        <hyp:LocTime>?</hyp:LocTime>
        <hyp:TerminalID>?</hyp:TerminalID>
        <hyp:LoadValue>?</hyp:LoadValue>
        <hyp:CurCode>?</hyp:CurCode>
        <hyp:Reason>?</hyp:Reason>
        <hyp:ItemSrc>?</hyp:ItemSrc>
        <hyp:SysDate>?</hyp:SysDate>
        <hyp:LoadFundsType>?</hyp:LoadFundsType>
        <hyp:LoadSrc>?</hyp:LoadSrc>
        <hyp:LoadFee>?</hyp:LoadFee>
        <hyp:LoadedBy>?</hyp:LoadedBy>
        <hyp>CreateImage>?</hyp>CreateImage>
        <hyp>CreateType>?</hyp>CreateType>
        <hyp:CustAccount>?</hyp:CustAccount>
        <hyp:ActivateNow>?</hyp:ActivateNow>
        <hyp:SourceDesc>?</hyp:SourceDesc>
        <hyp:StartDate>?</hyp:StartDate>
        <hyp:ExpDate>?</hyp:ExpDate>
        <hyp:CVV>?</hyp:CVV>
        <hyp:CardName>?</hyp:CardName>
        <hyp:MaskedPAN>?</hyp:MaskedPAN>
        <hyp:LimitsGroup>PMT-VL-002</hyp:LimitsGroup>
        <hyp:MCCGroup></hyp:MCCGroup>
        <hyp:PERMSGGroup>PMT-CU-002</hyp:PERMSGGroup>
        <hyp:FeeGroup></hyp:FeeGroup>
        <hyp:ScheduledFeeGroup></hyp:ScheduledFeeGroup>
        <hyp:WSFeeGroup>?</hyp:WSFeeGroup>
        <hyp:ProductRef>?</hyp:ProductRef>
        <hyp:CarrierType>?</hyp:CarrierType>
        <hyp:Fulfil1>?</hyp:Fulfil1>
        <hyp:Fulfil2>?</hyp:Fulfil2>
        <hyp:DelvMeth>?</hyp:DelvMeth>
        <hyp:ThermalLine1>?</hyp:ThermalLine1>
        <hyp:ThermalLine2>?</hyp:ThermalLine2>
        <hyp:Lang>?</hyp:Lang>
        <hyp:EmbossLine4>?</hyp:EmbossLine4>
        <hyp:ImageID>?</hyp:ImageID>
        <hyp:LogoFrontID>?</hyp:LogoFrontID>
        <hyp:LogoBackID>?</hyp:LogoBackID>
        <hyp:Replacement>?</hyp:Replacement>
        <hyp:PrimaryToken>?</hyp:PrimaryToken>
        <hyp:DelvAddrL1>?</hyp:DelvAddrL1>
        <hyp:DelvAddrL2>?</hyp:DelvAddrL2>
        <hyp:DelvAddrL3>?</hyp:DelvAddrL3>
        <hyp:DelvCity>?</hyp:DelvCity>
        <hyp:DelvPostcode>?</hyp:DelvPostcode>
        <hyp:DelvCounty>?</hyp:DelvCounty>
      </hyp:request>
    </hyp:Ws_CreateCard_V2>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    <hyp:DelvCountry>?</hyp:DelvCountry>
    <hyp:DelvCode>?</hyp:DelvCode>
    <hyp:SMSRequired>?</hyp:SMSRequired>
    <hyp:IsLive>?</hyp:IsLive>
    <hyp:CardManufacturer>?</hyp:CardManufacturer>
    <hyp:CoBrand>?</hyp:CoBrand>
    <hyp:ExternalAuth>?</hyp:ExternalAuth>
    <hyp:LinkageGroup>?</hyp:LinkageGroup>
    <hyp:VanityName>?</hyp:VanityName>
    <hyp:PBlock>?</hyp:PBlock>
    <hyp:PINMailer>?</hyp:PINMailer>
    <hyp:FXGroup>?</hyp:FXGroup>
    <hyp:Email>?</hyp:Email>
    <hyp:MailOrSMS>?</hyp:MailOrSMS>
    <hyp:Quantity>?</hyp:Quantity>
    <hyp:AuthCalendarGroup>?</hyp:AuthCalendarGroup>
    <hyp:LoadToken>?</hyp:LoadToken>
    <hyp:RequiredBankingFeatures>
      <hyp:ExistingToken>?</hyp:ExistingToken>
      <hyp:BankingInEnabled>?</hyp:BankingInEnabled>
      <hyp:BankingOutEnabled>?</hyp:BankingOutEnabled>
      <hyp:DirectDebitInEnabled>?</hyp:DirectDebitInEnabled>
      <hyp:DirectDebitOutEnabled>?</hyp:DirectDebitOutEnabled>
      <hyp:CardEnabled>?</hyp:CardEnabled>
      <hyp:Status>?</hyp:Status>
      <hyp:CompanyName>?</hyp:CompanyName>
      <hyp:AccountName>?</hyp:AccountName>
    </hyp:RequiredBankingFeatures>
    <hyp:IsActive>?</hyp:IsActive>
    <hyp:CustomerID>?</hyp:CustomerID>
    <hyp:PaymentTokenUsageGroup>?</hyp:PaymentTokenUsageGroup>
    <hyp:Url>https://www.gps-e-card.com/balance/7109680989634104</hyp:Url>
  </hyp:request>
</hyp:Ws_CreateCard_V2>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_CreateCard_V2Response xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_CreateCard_V2Result>
        <WSID>87576567675</WSID>
        <IssCode>PMT</IssCode>
        <TxnCode>10</TxnCode>
        <PublicToken>123456789</PublicToken>
        <ExternalRef/>
        <LocDate></LocDate>
        <LocTime></LocTime>
        <ItemID></ItemID>
        <ClientCode></ClientCode>
        <SysDate></SysDate>
        <ActionCode></ActionCode>
        <LoadValue></LoadValue>
        <IsLive></IsLive>
        <SortCode></SortCode>
        <AccountNumber></AccountNumber>
        <AccountName></AccountName>
        <ErrorText></ErrorText>
      </Ws_CreateCard_V2Result>
    </Ws_CreateCard_V2Response>
  </soap:Body>
</soap:Envelope>

```

Register a Customer for Banking Actions

API: [Ws_Banking_RegisterNotification](#)

For Modulr banking integrations, once you have called [Ws_CreateCard_V2](#) to create the bank card, you need to make additional calls to enable payment notifications for payments processed on and off the card. There are a number of options, but as a minimum, you should enable both *PAYIN* and *PAYOUT* notifications (using two separate calls).

Note: ALL notifications work at a CUSTOMER level, so if a customer has more than one account, the notification will apply to all of the customer's accounts.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CardDesign> | AN | 1 | 8 | The GPS Product ID . For details, check with your Implementation Manager. | Mandatory | Omit |
| <CustomerID> | AN | 10 | 10 | Unique Modulr identifier for the customer (returned when you used the Ws_Banking_CreateCustomer API to Register a Customer for Banking). | Mandatory | Omit |
| <channel> | Enum (see desc) | | | Specify how you want to receive notifications. Options are: <i>WEBHOOK</i> or <i>EMAIL</i> . Should be set in conjunction with <Type> . | Mandatory | Omit |
| <daysToRun> | A | | | Days on which to send the notification: <i>MONDAY</i> , <i>TUESDAY</i> , <i>WEDNESDAY</i> , <i>THURSDAY</i> , <i>FRIDAY</i> , <i>SATURDAY</i> or <i>SUNDAY</i> . You can specify multiple days. Note: applies only to the <i>EMAIL</i> notifications channel of type <i>BALANCE</i> . | Optional | Omit |
| <threshold> | N | | | Amount threshold which triggers the notification. This attribute only applies to <i>EMAIL</i> notifications channel, of type <i>PAYIN</i> or <i>PAYOUT</i> . We recommend you leave bank. | Optional | Omit |
| <timesToRun> | A | | | Times of the day when to trigger the notification. Takes values <i>AM</i> and <i>PM</i> . This attribute applies only to the <i>EMAIL</i> notifications channel, of type <i>BALANCE</i> . | Optional | Omit |
| <destinations> | AN | | | A list of email addresses where notifications are sent. This is not required for the <i>WEBHOOK</i> channel. | Optional | Omit |
| <type> | Enum (see desc) | | | Takes values: <i>ACCOUNT_STATEMENT</i> , <i>DDMANDATE</i> , <i>DD_INCOMING_DEBIT</i> , <i>BALANCE</i> , <i>BALANCE_HIGH</i> , <i>BALANCE_LOW</i> , <i>PAYOUT</i> and <i>PAYIN</i> . For <i>PAYOUT</i> and <i>PAYIN</i> types, <Channel> should be set to <i>WEBHOOK</i> . For all others types, set the channel to <i>EMAIL</i> and enter the required email in <Destinations> . | Mandatory | Omit |
| <status> | Enum (see desc) | | | Notification is set to <i>ACTIVE</i> by default. Options are: <i>ACTIVE</i> = set notification status to active <i>INACTIVE</i> = set notification status to inactive | Mandatory | Omit |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Messages> | A list of BankingError | | | If the action code is 576, displays details of the error message. See BankingError . | Omit | Optional |

Request

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthSoapHeader xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <strUserName>*****</strUserName>
      <strPassword>*****</strPassword>
    </AuthSoapHeader>
  </soap:Header>
  <soap:Body>
    <Ws_Banking_RegisterNotification xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <request>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <CardDesign>int</CardDesign>
        <CustomerID>string</CustomerID>
        <channel>WEBHOOK or EMAIL</channel>
        <daysToRun>
          <string>MONDAY</string>
          <string>WEDNESDAY</string>
        </daysToRun>
        <threshold>double</threshold>
        <timesToRun>
          <string>AM</string>
          <string>PM</string>
        </timesToRun>
        <destinations>
          <string>string</string>
          <string>string</string>
        </destinations>
        <type>ACCOUNT_STATEMENT or DDMANDATE or DD_INCOMING_DEBIT or BALANCE or BALANCE_HIGH or BALANCE_LOW or PAYOUT or PAYIN</type>
        <status>CREATE or INACTIVE or ACTIVE</status>
      </request>
    </Ws_Banking_RegisterNotification>
  </soap:Body>
</soap:Envelope>
```

Response

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <Ws_Banking_RegisterNotificationResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_RegisterNotificationResult>
        <WSID>2021123456789</WSID>
        <IssCode>PMT</IssCode>
        <ActionCode>string</ActionCode>
        <Messages>
          <BankingError>
            <field>string</field>
            <code>string</code>
            <message>string</message>
            <error>string</error>
          </BankingError>
        </Messages>
      </Ws_Banking_RegisterNotificationResult>
    </Ws_Banking_RegisterNotificationResponse>
  </soap:Body>
</soap:Envelope>
```

Make External Payment

API: [Ws_Banking_TransferFunds](#)

This web service makes an external payment via the faster payment banking system where a card has an associated UK Bank Account (provided through programmes using Agency Banking). Note that the money is queued and has not necessarily entered the banking world.

Note:

- The account is first checked to ensure that banking out is enabled.
- The account is then checked against an issuer defined Deny list. This makes two checks: the source account is not Deny-listed; the destination account is not Deny-listed.
- The final checks are the standard velocity/balance checks.

Record Request Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. Mandatory in the request. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Mandatory |
| <PublicToken> | N | 9 | 9 | The 9 digit public token associated with the account. | Mandatory | Mandatory |
| <Beneficiary> | Beneficiary | | | Details of the account where the money is going to. See Beneficiary . | Mandatory | Mandatory |
| <SEPABeneficiaryAddress> | SEPABeneficiaryAddress | | | Details of the address of the beneficiary. See SEPABeneficiaryAddress . | Optional | Optional |
| <Reference> | AN | | | A reference for the payment. Cannot contain the following characters: (;),(->),(CR- Carriage Return),(LF - Line Feed). | Optional | Optional |
| <AmountOfPayment> | N | | | The amount of the payment. | Mandatory | Mandatory |
| <AuthorisedBy> | N | | | Who initiated the payment (used for display in Smart Client). | Optional | Optional |
| <Currency> | N | 3 | 3 | The 3 digit ISO currency code. Currently defaults to GBP. | Optional | Optional |
| <PaymentMethod> | ENUM_PaymentMethod | | | How the payment is being made. Set this to <i>Faster-PaymentOut</i> or <i>Peer-ToPeerOut</i> . See ENUM_PaymentMethod . | Mandatory | Mandatory |
| <Direction> | ENUM_PaymentDirection | | | The direction of the payment. This must be set to <i>Outbound</i> . | Mandatory | Mandatory |

Response

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------------|--------------------------|----------------|----------------|--|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <Response> | ENUM_TransferFundsResult | | | The response from the call. See ENUM_TransferFundsResult . | Mandatory | |
| <TransactionID> | N | | | The unique transaction ID for the transaction, generated by GPS. | | Optional |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode>. | | Optional |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | | Mandatory |
| <RecipientActionCode> | N | 3 | 3 | The action code of attempting to apply the transfer to the Beneficiary account (See Beneficiary). If the action code is 552 a manual balance adjustment may be required. Please contact your Account Manager for details. | | |
| <RecipientTransactionID> | N | | | The unique GPS transaction ID from applying the transaction to the recipient account. | | |
| <BankTransactionId> | N | | | The bank transaction ID from applying the transaction to the bank transaction table. (For GPS internal use only) | | |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_TransferFunds>
      <hyp:request>
        <hyp:WSID>76565675</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:PublicToken>123456789</hyp:PublicToken>
        <hyp:Beneficiary>
          <hyp:AccountNumber>98765432</hyp:AccountNumber>
          <hyp:SortCode>333333</hyp:SortCode>
          <hyp:AccountName>S Wilson</hyp:AccountName>
        </hyp:Beneficiary>
        <SEPABeneficiaryAddress>
          <AddressLine1>string</AddressLine1>
          <AddressLine2>string</AddressLine2>
          <PostTown>string</PostTown>
          <PostCode>string</PostCode>
          <Country>string</Country>
        </SEPABeneficiaryAddress>
        <hyp:Reference>test load</hyp:Reference>
        <hyp:AmountOfPayment>7.00</hyp:AmountOfPayment>
        <hyp:AuthorisedBy>S Wilson</hyp:AuthorisedBy>
      </hyp:request>
    </hyp:Ws_Banking_TransferFunds>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

```
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_TransferFundsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_TransferFundsResult>
        <WSID>76565675</WSID>
        <Response>Success</Response>
        <TransactionID>60199453</TransactionID>
        <ErrorText></ErrorText>
        <ActionCode>000</ActionCode>
        <RecipientActionCode>000</ RecipientActionCode >
        <RecipientTranactionID>6446546565654</RecipientTranactionID>
        <BankTranactionID>5478934</BankTranactionID>
      </Ws_Banking_TransferFundsResult>
    </Ws_Banking_TransferFundsResponse>
  </soap:Body>
</soap:Envelope>
```


Retrieve Direct Debit Mandates

API: [Ws_Banking_DD_GetMandate](#)

This Web service retrieves all mandates for a given token.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------|------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Optional | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Optional | Omit |
| <CardDesign> | AN | 1 | 8 | The GPS Product ID . For details, check with your Implementation Manager. | Mandatory | Omit |
| <Token> | N | 1 | 9 | The 9 digit public token associated with the account. | Mandatory | Omit |
| <DD_Mandates> | A list of DD_Mandates | | | A list of mandates. See DD_Mandates . | Omit | Mandatory |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . If the action code is 576, full details can be found in <Messages> . | Omit | Mandatory |
| <Messages> | A list of BankingError | | | Displays details of the error message. See BankingError . | Omit | Optional |
| <ErrorText> | AN | | | Human readable text of the error that occurred. | Omit | Optional |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <!--Optional:-->
      <hyp:strUserName>OnePayTest1</hyp:strUserName>
      <!--Optional:-->
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:WS_Banking_DD_GetMandates>
      <hyp:request>
        <!--Optional:-->
        <hyp:WSID>${(long)(Math.random()*Long.MAX_VALUE)}</hyp:WSID>
        <!--Optional:-->
        <hyp:IssCode>ONE</hyp:IssCode>
        <hyp:CardDesign>2018</hyp:CardDesign>
        <hyp:Token>106239304</hyp:Token>
      </hyp:request>
    </hyp:WS_Banking_DD_GetMandates>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <WS_Banking_DD_GetMandatesResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <WS_Banking_DD_GetMandatesResult>
        <WSID>3371287256120270848</WSID>
        <ActionCode>000</ActionCode>
        <DD_Mandates>
          <DD_Mandate>
            <MandateId>M101BZWED</MandateId>
            <MerchantName>M101BZWED</MerchantName>
            <LastScheduledAmount>5.5550</LastScheduledAmount>
            <MandateStatus>EXPIRE</MandateStatus>
            <MandateCreatedDate>17/03/2022 10:11:28</MandateCreatedDate>
          </DD_Mandate>
          <DD_Mandate>
            <MandateId>M101BZWEF</MandateId>
            <MerchantName>M101BZWED</MerchantName>
            <LastScheduledAmount>0.0000</LastScheduledAmount>
          </DD_Mandate>
        </DD_Mandates>
      </WS_Banking_DD_GetMandatesResult>
    </WS_Banking_DD_GetMandatesResponse>
  </soap:Body>
</soap:Envelope>
```

```
        <MandateStatus>CANCEL</MandateStatus>
        <MandateCreatedDate>17/03/2022 10:17:08</MandateCreatedDate>
    </DD_Mandate>
</DD_Mandates>
<Messages/>
</WS_Banking_DD_GetMandatesResult>
</WS_Banking_DD_GetMandatesResponse>
</soap:Body>
</soap:Envelope>
```

Cancel Direct Bank Mandate

API: [Ws_Banking_DD_CancelMandate](#)

This Web service cancels a specific mandate for a specific mandateld and token.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------------|------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CardDesign> | AN | 1 | 8 | The GPS Product ID . For details, check with your Implementation Manager. | Mandatory | Omit |
| <Token> | N | 1 | 9 | The 9 digit public token associated with the account. | Mandatory | Omit |
| <Mandateld> | AN | | | The mandateld related to the direct debit mandate. | Mandatory | Omit |
| <MerchantNumber> | AN | | | The merchant number. | Optional | Omit |
| <CancellationCode> | AN | ENUM | | The cancellation code for the direct debit mandate. | Mandatory | Omit |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <Messages> | A list of BankingError | | | Displays details of the error message. See BankingError . | Omit | Optional |

Request

```
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <AuthSoapHeader xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <strUserName>string</strUserName>
      <strPassword>string</strPassword>
    </AuthSoapHeader>
  </soap:Header>
  <soap:Body>
    <Ws_Banking_DD_CancelMandate xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <request>
        <WSID>string</WSID>
        <IssCode>string</IssCode>
        <CardDesign>string</CardDesign>
        <Token>PUBTOKEN/PANPUBT</Token>
        <Mandateld>string</Mandateld>
        <MerchantNumber>string</MerchantNumber>
        <CancellationCode>string</CancellationCode>
      </request>
    </Ws_Banking_DD_CancelMandate>
  </soap:Body>
</soap:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_DD_CancelMandateResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_DD_CancelMandateResult>
        <WSID>string</WSID>
        <ActionCode>string</ActionCode>
        <Messages>
          <BankingError>
            <field>string</field>
            <code>string</code>
            <message>string</message>
            <error>string</error>
          </BankingError>
          <Messages>
        </Ws_Banking_DD_CancelMandateResult>
      </Ws_Banking_DD_CancelMandateResponse>
    </soap:Body>
```

```
</soap:Envelope>
```

Bank Account Change

API: [Ws_Banking_ChangeAccountBankingFeaturesStatus](#)

Note: This web service is for legacy use only. For the latest Agency Banking web services via Modulr, see [Banking Services Overview](#).

This web service changes the features of the banking enabled card and allows you to switch functionality on or off.

Request Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|---------------------------|---------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. Mandatory in the request. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Mandatory |
| <PublicToken> | N | 9 | 9 | The 9 digit public token associated with the account. | Mandatory | Mandatory |
| <UpdateSubAccountsToSame> | B | | | Setting this flag to true will update all associated accounts (sub-accounts) to the same values. If missed out, the default value is true. | Optional | Optional |
| <BankingFeatures> | BankingFeaturesType | | | See BankingFeaturesType . | Mandatory | Mandatory |

Response Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|--------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <ActionCode> | A | 3 | 3 | The action code for the response. See Action Codes . | Mandatory | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode>. | | Optional |
| <Response> | ENUM_ChangeAccountStatus | | | This indicates if the call was successful or not and the reason why. See ENUM_ChangeAccountStatus . | | Mandatory |
| <Accounts> | ChangedBankingFeatures | | | A list of changed accounts, detailing their current status. See ChangedBankingFeatures . | | Optional |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_ChangeAccountBankingFeaturesStatus>
```

```

    <hyp:request>
      <hyp:WSID>765776764</hyp:WSID>
      <hyp:IssCode>PMT</hyp:IssCode>
      <hyp:PublicToken>123456789</hyp:PublicToken>
      <hyp:UpdateSubAccountsToSame>false</hyp:UpdateSubAccountsToSame>
      <hyp:BankingFeatures>
        <hyp:BankingIn>DisableBankingIn</hyp:BankingIn>
        <hyp:BankingOut>DisableBankingOut</hyp:BankingOut>
        <hyp:DirectDebitIn>DisableDirectDebitIn</hyp:DirectDebitIn>
        <hyp:DirectDebitOut>DisableDirectDebitOut</hyp:DirectDebitOut>
      </hyp:BankingFeatures>
    </hyp:request>
  </hyp:Ws_Banking_ChangeAccountBankingFeaturesStatus>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_ChangeAccountBankingFeaturesStatusResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_ChangeAccountBankingFeaturesStatusResult>
        <WSID>765776764</WSID>
        <ErrorText></ErrorText>
        <ActionCode>000</ActionCode>
        <Response>Success</Response>
        <Accounts>
          <ChangedBankingFeatures>
            <PublicToken>123456789</PublicToken>
            <BankingFeatures>
              <BankingIn>Disabled</BankingIn>
              <BankingOut>Disabled</BankingOut>
              <DirectDebitIn>Disabled</DirectDebitIn>
              <DirectDebitOut>Disabled</DirectDebitOut>
              <CardEnabled>Enabled</CardEnabled>
            </BankingFeatures>
            <UpdateSuccess>DirectDebitNotAllowed</UpdateSuccess>
          </ChangedBankingFeatures>
        </Accounts>
      </Ws_Banking_ChangeAccountBankingFeaturesStatusResult>
    </Ws_Banking_ChangeAccountBankingFeaturesStatusResponse>
  </soap:Body>
</soap:Envelope>

```

Bank Account Check Number

API: [Ws_Banking_AccountModulusCheck](#)

Note: This web service is for legacy use only. For the latest Agency Banking web services via Modulr, see [Banking Services Overview](#).

This web service validates that a sort code and account number (UK Bank Accounts provided through programmes using GPS Bottomline Agency Banking) are valid.

Note: This uses a modulus check to confirm that the account number *could* be a valid account number.

To use this web service call there needs to be a financial agreement in place with Bottomline . For more information, check with your Account Manager.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. Mandatory in the request. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Mandatory |
| <SortCode> | N | 6 | 6 | The sort code of the account that needs checking. Note: for accurate results, the sort code should have been registered with the Vocalink Account Modulus, otherwise all values will return true. | Mandatory | Mandatory |
| <AccountNumber> | N | 8 | 8 | The account number. | Mandatory | Mandatory |

Response Description

There is no description for the response. This is a pass through from another service. You should check the <ActionCode> tag in the response to ensure the request was a successful and the <Valid> flag to determine the action.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_AccountModulusCheck>
      <hyp:request>
        <hyp:WSID>8976875765765</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:SortCode>123456</hyp:SortCode>
        <hyp:AccountNumber>98765432</hyp:AccountNumber>
      </hyp:request>
    </hyp:Ws_Banking_AccountModulusCheck>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_AccountModulusCheckResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_AccountModulusCheckResult>
        <WSID>8976875765765</WSID>
        <ActionCode>000</ActionCode>
        <VSeriesResponse>
          <AccountDetailsInput>
            <SortCode></SortCode>
            <AccountNumber></AccountNumber>
            <BuildingSocietyRollNumber/>
          </AccountDetailsInput>
          <AccountDetailsOutput>
```

```
<SortCode></SortCode>
  <AccountNumber></AccountNumber>
  <BuildingSocietyRollNumber/>
</AccountDetailsOutput>
<AccountIBAN></AccountIBAN>
<AccountTranscribed></AccountTranscribed>
<UkBankBranch>
  <TransactionInfo>
    <BacsCredits></BacsCredits>
    <BacsDebits></BacsDebits>
    <FasterPaymentsService></FasterPaymentsService>
    <ChapsSterling></ChapsSterling>
    <DirectDebitInstructions></DirectDebitInstructions>
    <UnpaidChequeClaims></UnpaidChequeClaims>
    <DividendInterest></DividendInterest>
    <BuildingSocietyInterest></BuildingSocietyInterest>
  </TransactionInfo>
</UkBankBranch>
<RequiresBuildingSocietyRollNumber></RequiresBuildingSocietyRollNumber>
<BuildingSocietyRollNumberTranscribed></BuildingSocietyRollNumberTranscribed>
<PublicInvalidIssue>0</PublicInvalidIssue>
<Valid></Valid>
<InvalidReason/>
<InvalidParameter/>
</VSeriesResponse>
</Ws_Banking_AccountModulusCheckResult>
</Ws_Banking_AccountModulusCheckResponse>
</soap:Body>
</soap:Envelope>
```


Return Sort Code and Account

API: [Ws_Banking_ReturnBankDetailsFromToken](#)

Note: This web service is for legacy use only. For the latest Agency Banking web services via Modulr, see [Banking Services Overview](#).

This web service returns the sort code and account number (for UK bank accounts provided through programmes using Agency Banking) from a token.

Record Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------|------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. Mandatory in the request. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Mandatory |
| <PublicToken> | N | 9 | 9 | The 9 digit public token associated with the account. | Mandatory | Mandatory |
| <SortCode> | N | 6 | 6 | The sort code associated with the token. | Omit | Mandatory |
| <AccountNumber> | N | 8 | 8 | The account number associated with the token. | Omit | Mandatory |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode>. | Omit | Optional |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_ReturnBankDetailsFromToken>
      <hyp:request>
        <hyp:WSID>20160415093831</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:PublicToken>123456789</hyp:PublicToken>
      </hyp:request>
    </hyp:Ws_Banking_ReturnBankDetailsFromToken>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_ReturnBankDetailsFromTokenResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_ReturnBankDetailsFromTokenResult>
        <WSID>20160415093831</WSID>
        <PublicToken>891614123</PublicToken>
        <SortCode>666666</SortCode>
        <AccountNumber>00000186</AccountNumber>
        <ErrorText></ErrorText>
        <ActionCode>000</ActionCode>
      </Ws_Banking_ReturnBankDetailsFromTokenResult>
    </Ws_Banking_ReturnBankDetailsFromTokenResponse>
  </soap:Body>
</soap:Envelope>
```

Get Direct Debits

API: [Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard](#)

Note: This web service is for legacy use only. For the latest Agency Banking web services via Modulr, see [Banking Services Overview](#).

This web service returns a list of all direct debits for a given token (with or without sub-accounts).

Record Request Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------------|------------------------|----------------|----------------|--|-------------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Conditional | Mandatory |
| <CardDesign> | AN | 1 | 8 | The identifier of the card product, or Product ID , within GPS, for which you want to retrieve a list of direct debits. | Conditional | Omit |
| <PublicToken> | N | 9 | 9 | The 9 digit public token associated with the account from which to retrieve a list of direct debits. | Mandatory | Mandatory |
| <IncludeSubAccounts> | N | 1 | 1 | Whether all sub-accounts are included. 0 = No; 1 = Yes. Default is 1. | Optional | Optional |
| <CreatedFrom> | DateTime | | | The date from which the direct debits are included. In YYYY-MM-DD format. | Optional | Optional |
| DirectDebitStatus | ENUM_DirectDebitStatus | | | The status of the direct debits to be included. See ENUM DirectDebitStatus . | Optional | Optional |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode> . | Omit | Optional |
| <DirectDebit> | List (BLDirectDebit) | | | A list of direct debits. See BLDirectDebit . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard>
      <hyp:request>
        <hyp:WSID>2021123456789</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:CardDesign>?</hyp:CardDesign>
        <hyp:PublicToken>123456789</hyp:PublicToken>
        <hyp:IncludeSubAccounts>?</hyp:IncludeSubAccounts>
        <hyp:CreatedFrom>?</hyp:CreatedFrom>
        <hyp:DirectDebitStatus>?</hyp:DirectDebitStatus>
      </hyp:request>
    </hyp:Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

```

xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_GetDirectDebitInstructionsBankingEnabledCardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_GetDirectDebitInstructionsBankingEnabledCardResult>
        <WSID>2021123456789</WSID>
        <ActionCode></ActionCode>
        <DirectDebits>
          <BLDirectDebit>
            <Created></Created>
            <CreationMethod></CreationMethod>
            <CreditorAccountName></CreditorAccountName>
            <CreditorBIC/>
            <CreditorIBAN/>
            <CreditorReference/>
            <DebtorAccountID></DebtorAccountID>
            <DerivedReference></DerivedReference>
            <IBAN></IBAN>
            <ID></ID>
            <IgnoreTransactionCode></IgnoreTransactionCode>
            <IsInstructionHeldAtBank></IsInstructionHeldAtBank>
            <IsPaperless></IsPaperless>
            <IsThroughNotificationService></IsThroughNotificationService>
            <LastChanged></LastChanged>
            <Reference></Reference>
            <ServiceUserNumber></ServiceUserNumber>
            <Status></Status>
            <SuppressFirstDirectDebit></SuppressFirstDirectDebit>
          </BLDirectDebit>
          <BLDirectDebit>
            <Created></Created>
            <CreationMethod></CreationMethod>
            <CreditorAccountName></CreditorAccountName>
            <CreditorBIC/>
            <CreditorIBAN/>
            <CreditorReference/>
            <DebtorAccountID></DebtorAccountID>
            <DerivedReference></DerivedReference>
            <IBAN></IBAN>
            <ID></ID>
            <IgnoreTransactionCode></IgnoreTransactionCode>
            <IsInstructionHeldAtBank></IsInstructionHeldAtBank>
            <IsPaperless></IsPaperless>
            <IsThroughNotificationService></IsThroughNotificationService>
            <LastChanged></LastChanged>
            <Reference></Reference>
            <ServiceUserNumber></ServiceUserNumber>
            <Status></Status>
            <SuppressFirstDirectDebit></SuppressFirstDirectDebit>
          </BLDirectDebit>
        </DirectDebits>
      </Ws_Banking_GetDirectDebitInstructionsBankingEnabledCardResult>
    </Ws_Banking_GetDirectDebitInstructionsBankingEnabledCardResponse>
  </soap:Body>
</soap:Envelope>

```

Get Pending Direct Debits

API: [Ws_Banking_GetPendingDirectDebits](#)

Note: This web service is for legacy use only. For the latest Agency Banking web services via Modulr, see [Banking Services Overview](#).

This web service returns a list of all direct debits that are due for payment today for a given token (with or without sub-accounts). You can also specify whether to return a list of pending direct debits that will not be paid (i.e., due to insufficient funds in the account); the response is indicative only and is based on the situation at 3 am processing time, and does not guarantee which Direct Debits will not be paid.

Note: The data in this call is only valid between the first processing call (approximately 3am UK time) and the final call (approximately 3pm UK time). After this time, the Direct Debit will be processed.

Record Request Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|-----------------------------------|---------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. | Mandatory | Mandatory |
| <CardDesign> | N | 1 | 8 | The identifier of the card product, or Product ID , within GPS, for which you want to retrieve a list of direct debits. | | |
| <PublicToken> | N | 9 | 9 | The 9 digit public token associated with the account from which to retrieve a list of direct debits. | Mandatory | Mandatory |
| <IncludeSubAccounts> | N | | | Whether all sub-accounts are included. 0 = No; 1 = Yes. Default is 1. | | |
| <IncludeAll> | N | | | A flag to indicate whether all pending direct debits should be returned or just those that won't be paid. 0 = Only those not paid; 1 = All. | Optional | |
| <PendingDirectDebits> | List (PendingDirectDebit) | | | A list of direct debits. See PendingDirectDebit . | Omit | Optional |
| <TotalValueOfTransactions> | D | 1 | 19 | Total value of transactions. | Omit | Mandatory |
| <TotalValueOfFees> | D | 1 | 19 | Total value of fees. | Omit | Mandatory |
| <TotalValueOfTransactionsAndFees> | D | 1 | 19 | Total value of transactions and fees. | Omit | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode> . | Omit | Optional |

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------|----------------|----------------|--|---------|-----------|
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_GetPendingDirectDebits>
      <hyp:request>
        <hyp:WSID></hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:CardDesign></hyp:CardDesign>
        <hyp:PublicToken>123456789</hyp:PublicToken>
        <hyp:IncludeSubAccounts> </hyp:IncludeSubAccounts>
        <hyp:IncludeAll> </hyp:IncludeAll>
      </hyp:request>
    </hyp:Ws_Banking_GetPendingDirectDebits>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_GetPendingDirectDebitsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_GetPendingDirectDebitsResult>
        <WSID>2021123456789</WSID>
        <PendingDirectDebits>
          <PendingDirectDebit>
            <PublicToken>123456789</PublicToken>
            <BLGUID> </BLGUID>
            <IBAN> </IBAN>
            <Amount></Amount>
            <CreateDate></CreateDate>
            <CreditorReference> </CreditorReference>
            <Reference> </Reference>
            <AvailableAmount></AvailableAmount>
            <PendingSuccess> </PendingSuccess>
          </PendingDirectDebit>
        </PendingDirectDebits>
        <ActionCode></ActionCode>
      </Ws_Banking_GetPendingDirectDebitsResult>
    </Ws_Banking_GetPendingDirectDebitsResponse>
  </soap:Body>
</soap:Envelope>
```

Cancel a Direct Debit

API: [Ws_Banking_CancelDirectDebitBankingEnabledCard](#)

Note: This web service is for legacy use only. For the latest Agency Banking web services via Modulr, see [Banking Services Overview](#).

This web service marks a direct debit as cancelled where a card has an associated UK Bank Account (provided through programmes using Agency Banking). The GUID (Globally Unique ID) for the direct debit is required and can be obtained by calling this web service and selecting the correct direct debit.

Request Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|----------------|------------------------------------|----------------|----------------|---|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <IssCode> | AN | 1 | 4 | GPS Issuer (Program Manager) Code. Assigned by GPS. Mandatory in the request. If only <IssCode> is present in the request then this method returns the pending fee details of all cards that belong to the given program manager. | Mandatory | Mandatory |
| <PublicToken> | N | 9 | 9 | The 9 digit public token associated with the account. | Mandatory | Mandatory |
| <DDIdentifier> | AN | | | The unique identifier of the direct debit. | Mandatory | |
| <Reason> | ENUM_DirectDebitCancellationReason | | | The reason for cancelling the direct debit. See ENUM_DirectDebitCancellationReason | Mandatory | |

Response Description

| Tag | Type | Minimum Length | Maximum Length | Description | Request | Response |
|--------------|------------------------------|----------------|----------------|--|-----------|-----------|
| <WSID> | N | 1 | 19 | Web service ID. Unique for every request. | Mandatory | Mandatory |
| <Response> | ENUM_DirectDebitCancelStatus | | | The result of the request. See ENUM_DirectDebitCancelStatus . | Omit | Mandatory |
| <ErrorText> | AN | | | Human readable text of the error that occurred. Should be read in conjunction with the <ActionCode>. | Omit | Optional |
| <ActionCode> | N | 3 | 3 | The action code for the response. See Action Codes . | Omit | Mandatory |

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:hyp="http://www.globalprocessing.ae/HyperionWeb">
  <soapenv:Header>
    <hyp:AuthSoapHeader>
      <hyp:strUserName>*****</hyp:strUserName>
      <hyp:strPassword>*****</hyp:strPassword>
    </hyp:AuthSoapHeader>
  </soapenv:Header>
  <soapenv:Body>
    <hyp:Ws_Banking_CancelDirectDebitBankingEnabledCard>
      <hyp:request>
        <hyp:WSID>67567675</hyp:WSID>
        <hyp:IssCode>PMT</hyp:IssCode>
        <hyp:PublicToken>?</hyp:PublicToken>
        <hyp:DDIdentifier>?</hyp:DDIdentifier>
        <hyp:Reason>?</hyp:Reason>
      </hyp:request>
    </hyp:Ws_Banking_CancelDirectDebitBankingEnabledCard>
  </soapenv:Body>
</soapenv:Envelope>
```

```
</soapenv:Envelope>
```

Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <Ws_Banking_CancelDirectDebitBankingEnabledCardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
      <Ws_Banking_CancelDirectDebitBankingEnabledCardResult>
        <WSID>67567675</WSID>
        <Response>Success</Response>
        <ActionCode>000</ActionCode>
      </Ws_Banking_CancelDirectDebitBankingEnabledCardResult>
    </Ws_Banking_CancelDirectDebitBankingEnabledCardResponse>
  </soap:Body>
</soap:Envelope>
```

Appendices Overview

This section contains a list of appendices with further reference information. See the table below.

| Appendix | Description |
|--|---|
| Action Codes | Action codes returned by GPS in response to a request. |
| Transaction Codes | Transaction codes used in a web service response. |
| Activation Methods | GPS card activation types. |
| Processing Code (fees) | Codes that represent the type of fee charge applied to a transaction. |
| SMS Configuration Options | Options for configuring the SMS messages sent to your customers. |
| Authentication Methods | Codes that represent the cardholder authentication method. |
| Status Codes | Codes that represent the status of a card. |
| Transaction Types | Codes that represent the transaction type. |
| Transaction Status | Codes that represent the transaction status. |
| Load Sources | Codes that represent the source of funds loaded. |
| Item Source | Codes that represent the item source type. |
| LoadFund Types | Codes that represent the type or method used to load funds. |
| Enums and Data Structures | Provides details of parameters with Enumerated (Enum) values and data structures. This includes: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> BankingFeaturesType ChangedBankingFeatures BankingEnabled Enums Enum_CardEnabled AccountStatus ENUM_AccountStatus BLAccount ENUM_CloseAccountStatus BankingFeatures Beneficiary ENUM_PaymentMethod ENUM_PaymentDirection ENUM_TransferFundsResult ENUM_DirectDebitCancellationReason </div> <div style="width: 45%;"> ENUM_DirectDebitCancelStatus ENUM_DirectDebitStatus BLDirectDebit PendingDirectDebit ENUM_ChangeAccountStatus ENUM_CreationMethod ENUM_PendingDirectDebit 3D Secure Data Structures ENUM_DS_Details ENUM_DS_Action Ws_DS_ReIssue ItemSrc types BankingError </div> </div> |
| Payment Token Types | Payment token types. |
| String Cleaning and Approved Characters. | Details of special characters that are removed from input fields and approved characters for use on cards. |
| Processing Codes (DE003) | Description of processing codes returned in the <ProcCode> field for a Card Statement request. |
| Device Types | Description of device type code used in the get payment token service. |
| Fraud Type Codes | List of Mastercard fraud type codes. |
| Wallet Tokenisation Reason Codes | List of reason codes for the Wallet_Reasons field. |
| Currency Codes | List of currency codes and their exponents. |
| Card Manufacturers | List of card manufacturers supported by GPS. |

Action Codes

The following action codes may be returned in the `<ActionCode>` tag of a web service response.

| Code | Description | How is it used? |
|------|--|--|
| 000 | Normal, approve | Indicates success of the web service transaction. |
| 100 | Do not Honour, deny | As required by Issuer. Also used for example in Card Load when the currency in the request does not match the card currency. |
| 101 | Card expired, deny | Used to check expiry status of card before allowing certain operations e.g. Load. |
| 104 | Restricted card, deny | Used to indicate that the card is in restricted status (41,43,62 or 14). |
| 105 | Call acquirer security, deny | As required by Issuer |
| 106 | PIN tries exceeded, deny | As required by Issuer |
| 107 | Refer to issuer, deny | As required by Issuer |
| 116 | Insufficient funds, deny | Used to indicate lack of funds to the account, e.g., to cover the fee associated with the request. |
| 118 | No card record, deny | Used to indicate the PAN/Pub-token/CustAccount/AccountID in the request has no associated card record in the database. |
| 119 | Transaction not allowed to cardholder, deny | Used to indicate that the cardholder is not allowed to perform that particular transaction type. |
| 120 | Action will exceed allowed system limit | Used when any of the card or account amount system limits are exceeded. |
| 121 | Amount limits exceeded or outside valid load range, deny | Used when any of the card or account amount limits are exceeded or a load amount falls outside the valid range. |
| 122 | Transaction amount is less than minimum amount per transaction | Used when the transaction amount is lower than the valid range set by limits. |
| 123 | Frequency limits exceeded, deny | Used when any of the card or account frequency limits are exceeded. |
| 124 | Card already active, deny. | Used when an active card is tried to be activated again. |
| 125 | Card not effective, deny | Used when the card has not yet been activated. |
| 126 | Invalid PIN, deny | Used to indicate that the supplied PIN does not match our records. |
| 127 | No CVC2 tries remaining limit found for the card | Used to indicate that the allowed number of CVC2 tries has been reached. |
| 130 | External API unreachable | Used when an external API is called e.g. ws_PINControl when Func=06. |
| 131 | External API returned an error | Used when an external API is called e.g. ws_PINControl when Func=06, and an error is returned. For the actual error, contact GPS or the external API provider. |
| 140 | Invalid Currency. Currency doesn't match with product configuration. | Indicates a product and currency mismatch for a SEPA payment (when using the Modulr Agency Banking service). |
| 141 | Mandateld is missing. | Modulr (Agency Banking Service) |

| Code | Description | How is it used? |
|------|--|--|
| 142 | Cancellation Code is missing or invalid. | Modulr (Agency Banking Service) |
| 144 | No entry in the database for the input MandateId. | Modulr (Agency Banking Service) |
| 145 | No mandate details found. | Modulr (Agency Banking Service) |
| 167 | No PIN assigned, deny | Used when trying to retrieve a PIN from a card that has no PIN assigned. |
| 168 | PIN already present, deny | Used when trying to set a PIN on a card that already has a PIN assigned. |
| 169 | No-PIN card, deny | Used when requesting a PIN on a card that is marked as a 'no-PIN' card. |
| 184 | PIN confirmation failed, deny | Used when the PIN confirmation does not match the new PIN when attempting to change the PIN. |
| 200 | Card closed, deny & pickup | As required by Issuer |
| 202 | Fraudulent use, deny & pickup | As required by Issuer |
| 204 | Restricted card, deny & pickup | As required by Issuer |
| 205 | Call acquirer security, deny & pickup | As required by Issuer |
| 206 | PIN tries exceeded, deny & pickup | As required by Issuer |
| 207 | Special conditions, deny & pickup | As required by Issuer |
| 208 | Card lost, deny & pickup | Used to indicate that the card is in Lost status (41). |
| 209 | Card stolen, deny & pickup | Used to indicate that the card is in Stolen status (43). |
| 210 | Invalid DPAN | Used to indicate that the supplied tokenised PAN is invalid. |
| 211 | Invalid Payment Token Id | Used to indicate that the supplied Payment Token id is invalid. |
| 212 | Card and Payment Token details do not match | Used to indicate that the supplied Card details and Payment Token do not relate. |
| 213 | No Payment Token for the card details supplied | There is no Payment Token for the card details supplied. |
| 214 | No associated Payment Token for the card details supplied | There is no associated Payment Token for the card details supplied. |
| 216 | Either DPAN or PaymentTokenId must be provided | Provide a valid DPAN or PaymentTokenId |
| 217 | Invalid Func value | Provide a valid value, such as: 00 and 01. |
| 218 | Payment token has no device in the list | No associated device in the system. |
| 219 | Specified device index is not in the list | No Visa device index exists that matches the supplied value of DeviceIndex . |
| 220 | The device is already in unbound status | You made can attempt to unbind a device that is not bound to any DPAN, |
| 221 | DeviceIndex is mandatory when value of Func is '01'. | For Token Device Management (Ws-Token-Device-Management), when the token device function requested is to unbind the device, then the Visa device index should be provided. |
| 250 | Banking balance transfer not allowed on account status | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 400 | Addr1 is missing, Addr1 is mandatory if 'Address' fields are being specified. | Reserved for future use |
| 401 | Invalid PostCode | Postcode is not formed from alphanumeric or hyphens |

| Code | Description | How is it used? |
|------|---|--|
| 402 | dlvaddr1 is missing, dlvaddr1 is mandatory if 'Delivery Address' fields are being specified. | Reserved for future use |
| 403 | Invalid dlvpstcode | Postcode is not formed from alphanumerics or hyphens. |
| 404 | Workaddr1 is missing, Workaddr1 is mandatory if 'Work Address' fields are being specified. | Reserved for future use |
| 405 | Invalid Workpostcode | Postcode is not formed from alphanumerics or hyphens. |
| 406 | Invalid IssCode | IssCode does not match the credentials supplied. |
| 409 | Invalid PAN, PAN must be composed of digits | Used when PAN is not a valid number composed of digits. |
| 410 | Invalid PublicToken, PublicToken must be composed of digits | Used when PublicToken is not a valid number composed of digits. |
| 411 | Invalid NewPAN, NewPAN must be composed of digits | Used when NewPAN is not a valid number composed of digits. |
| 412 | Invalid NewToken, NewToken must be composed of digits | Used when NewToken is not a valid number composed of digits. |
| 413 | Invalid PrimaryToken, PrimaryToken must be composed of digits | Used when PrimaryToken is not a valid number composed of digits. |
| 414 | Invalid MVCToken, MVCToken must be composed of digits | Used when MVCToken is not a valid number composed of digits. |
| 415 | Invalid CardDesign, CardDesign must be composed of digits | Used when CardDesign is not a valid number composed of digits. |
| 416 | Could not complete request, partial results returned | Used when not all requests within a bulk operation could be completed. |
| 418 | Both allow list and deny list are present in the request. Customer can only assign either allow list or deny list to a card | Used when both request parameters are supplied, only one is allowed. |
| 419 | Invalid RenewOptions | Indicates an invalid RenewOption was supplied. |
| 420 | NewProductID not present in the request | Indicates the request parameter was missing. |
| 421 | Invalid ExpiryDate format, it should be YYYY-MM-DD | Indicates the request parameter was in an invalid format. |
| 422 | Card request has been taken into account by the system. The production files are not yet generated. | Indicates a card renewal is already in progress. |
| 423 | This card request has been already processed and the production files are successfully generated. | Indicates a card renewal is already in progress. |
| 424 | This card has an expiry less than one month, which is less than minimum validity. Please select a RenewOptions other than 0,2 and 4. | Indicates an attempt to renew card that is about to expire, without supplying a new expiry date. |
| 425 | Invalid AccumulatorType | Indicates the supplied parameter was an invalid value. |
| 426 | New available to spend balance on card is greater than new current balance on the card. The new available to spend balance should be less than new current balance. | Indicates the supplied parameter was an invalid value. |
| 427 | Balance stand-in not enabled in External Host Settings | Indicates the card is not valid for the operation. |
| 431 | Invalid PaymentTokenUsageGroup has been supplied, should be numeric. | Indicates the supplied parameter was an invalid value. |
| 432 | Incorrect PaymentTokenUsageGroup. (Returns when the group code is not present in GPS database) | Indicates the supplied parameter was an invalid value |

| Code | Description | How is it used? |
|------|--|--|
| 433 | Invalid Delivery Method has been supplied, should be numeric. | Indicates the supplied parameter was an invalid value |
| 434 | Credential Value is missing, should be supplied when Action is add or update. | Returned in a 3D Secure request to add a credential to a card. See 3D Secure RDX Credentials (Cardinal) . |
| 435 | Incorrect Virtual Card Image. | Returned when the Virtual Card Image ID is not present in GPS database. |
| 436 | Incorrect Image Size. | Returned when the Size is not present in GPS database. |
| 437 | No credentials found for the token. | Returned in response to a GET request for the 3D Secure credentials linked to a card if no credentials are found. See 3D Secure RDX Credentials (Cardinal) . |
| 438 | Credential type already exists for this token. | Returned in response to an Add request if the credential type already exists for this card. |
| 439 | Value supplied is not valid | Returned in response to a create token request (Ws_PaymentToken_Create) where an invalid value is provided. |
| 440 | Archived card, deny | If the request relates to an archived card record, the request is denied. (Applies to the following web services: Create_Card , Create_Wallet , Regenerate , Regenerate_Wallet and ws_Renew .) |
| 441 | Value not supplied for mandatory field | Returned in response to a service request where a mandatory field is empty. |
| 442 | Data supplied is in invalid format | Returned in response to a create token request (Ws_PaymentToken_Create) where a value is provided in an incorrect format. |
| 443 | Default value is not set | Returned in response to a create token request (Ws_PaymentToken_Create) where a default value is not set. |
| 444 | Conversion to a physical card failed | Indicates that the create card request was successful, but the conversion to a physical card failed. The created card will be a virtual card. |
| 445 | Payment token count exceeds limit | Returned when a create token request (Ws_PaymentToken_Create) tries to create more tokens than allowed in the GPS database. |
| 450 | Token limit exceeded | Request is over the maximum number of card records (currently 1000 records) that can be cleared of cardholder data in a single web service call when using the Remove Cardholder Data (Ws_Remove_CardHolder_Data) web service. |
| 500 | Function not allowed by Institution | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 501 | Invalid Status Code | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 502 | Token Not Found | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 503 | Account Closed | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 504 | Account status was not updated successfully | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 505 | Apply to Account was not updated successfully | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 506 | Bank Transaction does not exists. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 507 | Payment failed sanctions check. | BOTTOM LINE (AGENCY BANKING SOLUTION) |

| Code | Description | How is it used? |
|------|---|--|
| 508 | Payment to an Institution defined as a deny-listed account. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 509 | BankingIn not allowed at Institution level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 510 | BankingOut not allowed at Institution level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 511 | DirectDebitIn not allowed at Institution level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 512 | DirectDebitOut not allowed at Institution level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 513 | BankingIn not switched on. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 514 | Account in "not open" status but account status is a priority. BankingIn switched off. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 515 | BankingOut not switched on. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 516 | Account in "not open" status but account status is a priority. BankingOut switched off. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 517 | DirectDebitIn not switched on. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 518 | Account in "not open" status but account status is a priority. DirectDebitIn switched off. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 519 | DirectDebitOut not switched on. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 520 | Account in "not open" status but account status is a priority. DirectDebitOut switched off. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 521 | Attempt to change account to disallowed status | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 522 | Amount to transfer must be a positive amount | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 523 | Sortcode cannot be empty | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 524 | Account number cannot be empty | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 525 | No available bank account numbers. Contact GPS | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 526 | Error creating bank account with required features | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 527 | Banking not allowed for this product | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 528 | No account associated with this token | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 529 | Payment from an Institution defined deny-listed account. | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 530 | Inbound processing payment code not allowed by Institution | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 531 | Inbound payment has error code. Processing not allowed by Institution | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 532 | Reversal not present | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 533 | Generic DDA Agency error | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 534 | Unknown DDA account number | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 535 | Direct debit was not cancelled | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 536 | BankingIn not allowed at Issuer level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 537 | BankingOut not allowed at Issuer level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 538 | DirectDebitIn not allowed at Issuer level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 539 | DirectDebitOut not allowed at Issuer level | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 540 | Bottomline C series API not configured | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 541 | Combination of banking features not allowed | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 542 | DDA vales not configured | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 543 | Balance Sequence External Host is missing | Indicates the supplied parameter was an invalid value. |

| Code | Description | How is it used? |
|------|--|---|
| 544 | Invalid EHI Mode | Indicates the EHI mode of the Product is not valid for the operation. |
| 545 | Balance Sequence number is higher than the one inputted | Indicates the supplied parameter was an invalid value. |
| 546 | No direct debit found | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 547 | Issue connecting to Bottomline V Series | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 548 | Cannot close account with balance | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 549 | BACS payment cancelled by User | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 550 | BACS Error Code Q in file | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 551 | Peer to Peer transfer failed | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 552 | Peer to Peer reversal failed | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 553 | Peer to Peer not allowed between different PM | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 554 | Invalid character in reference field | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 555 | 'Banking transaction already processed | BOTTOM LINE (AGENCY BANKING SOLUTION) |
| 556 | Expected spend cannot be 0 | Modulr (Agency Banking Service) |
| 557 | Must have at least 1 associate for the account | Modulr (Agency Banking Service) |
| 558 | Document must include a filename | Modulr (Agency Banking Service) |
| 559 | Document must have a filepath | Modulr (Agency Banking Service) |
| 560 | Document must have an uploaded date | Modulr (Agency Banking Service) |
| 561 | Associate must have an email | Modulr (Agency Banking Service) |
| 562 | Associate must have a first name | Modulr (Agency Banking Service) |
| 563 | Associate must have a last name | Modulr (Agency Banking Service) |
| 564 | Associate must have a phone number | Modulr (Agency Banking Service) |
| 565 | Associate phone number is not a recognised number | Modulr (Agency Banking Service) |
| 566 | Address line 1 is empty | Modulr (Agency Banking Service) |
| 567 | Address town is empty | Modulr (Agency Banking Service) |
| 568 | Address postcode is empty | Modulr (Agency Banking Service) |
| 569 | Address has invalid country code | Modulr (Agency Banking Service) |
| 570 | Product is not a Modulr product. Cannot create a customer | Modulr (Agency Banking Service) |
| 571 | Customer ID is not associated with this product | Modulr (Agency Banking Service) |
| 572 | Failed to save Modulr bank details | Modulr (Agency Banking Service) |
| 573 | Destination information provided with WEBHOOK call. Not needed | Modulr (Agency Banking Service) |
| 574 | No emails supplied when specifying EMAIL | Modulr (Agency Banking Service) |
| 576 | Passback Modulr Error | Modulr (Agency Banking Service) |
| 577 | Notification already exists | Modulr (Agency Banking Service) |
| 581 | Modulr Payment unsuccessful | Modulr (Agency Banking Service) |
| 583 | IBAN is not valid | When the beneficiary IBAN is not provided in the request for a SEPA outbound payment (Modulr Agency Banking Service). |
| 584 | SEPAOut not allowed at Issuer level | When SEPAOut settings are not enabled at Issuer level (Modulr Agency Banking Service). |

| Code | Description | How is it used? |
|------|--|---|
| 585 | SEPAOut not allowed at Institution level | When SEPAOut settings not enabled at Institution level (Modulr Agency Banking Service). |
| 588 | Currency not supported | When any currency other than EUR is used for making SEPA Outbound payment. Only EUR currency is supported in SEPA (Modulr Agency Banking Service). |
| 589 | SEPAIn not allowed at Issuer level | When SEPAIn settings are not enabled at Issuer level (Modulr Agency Banking Service). |
| 590 | SEPAIn not allowed at Institution level | When SEPAIn settings are not enabled at Institution level (Modulr Agency Banking Service). |
| 593 | Modulr not enabled for this product. Please contact GPS support | When making a SEPA Outbound payment using a product which is not enabled for the Modulr Agency Banking Service). |
| 594 | KBA answer not provided | The 3D Secure <i>Add</i> or <i>Update</i> failed because the Type chosen is <i>KBA</i> , but KBA_Answer is not provided. |
| 595 | KBA question ID does not exist | The 3D Secure <i>Add</i> or <i>Update</i> failed because the Type chosen is <i>KBA</i> , but the KBA_Value provided (question ID) does not exist. |
| 596 | Some conditions have not been met to remove cardholder data | The following conditions must be met before cardholder data can be deleted: <ul style="list-style-type: none"> • The number of years since the card was created must be greater than 6 years. • The actual or blocked amount on the card must be zero. • The card must be in the status of <i>Destroyed</i> or <i>Expired</i> card <u>and</u> the card must not be linked to an eWallet account. |
| 599 | Credential and token do not match | The 3D Secure <i>Add/Update/Delete</i> failed because the provided credentials do not belong to the provided public token. For an <i>Update</i> request for a KBA credential, this error is returned if the <KBA_AnswerOldValue> provided does not match the existing KBA credential value. |
| 600 | Invalid AuthCalendarGroup | Indicates the supplied value could not be found. |
| 601 | Invalid Product Code | Indicates supplied product code is invalid. |
| 602 | Invalid Scheduler Type | Indicates supplied scheduler type is invalid. |
| 603 | Quantity exceed the max limit | Quantity exceed the max limit. |
| 604 | Invalid Event ID | Indicates supplied event ID is invalid. |
| 605 | MVC token is missing or invalid | Indicates MVC token is missing or invalid. |
| 606 | Product of MVC token and destination token are not from same | Indicates MVC token and destination token do not belong to same product. |
| 607 | Source token is not MVC | Indicates source token is not MVC. |
| 608 | ClientID value is not present in the request | Indicates clientID is not present in the request. |
| 609 | Invalid FeeWaiver | Indicates FeeWaiver is invalid. |
| 610 | Partial fee is taken, remaining amount is stored for later | Partial fee is taken, remaining amount is stored for later. |
| 611 | No fee is taken, whole amount is stored for later | No fee is taken, whole amount is stored for later. |
| 612 | The sum of available balance and loaded value exceeds the maximum limit of balance amount. | The sum of available balance and loaded value exceeds the maximum limit of balance amount. |

| Code | Description | How is it used? |
|------|--|---|
| 613 | Invalid WSID specified in the request | Indicates supplied WSID is invalid. |
| 614 | Invalid Deny List | Indicates the supplied value could not be found. |
| 615 | Invalid Allow List | Indicates the supplied parameter value was not correct. |
| 621 | SFTP Is missing | SendCardFiles:SFTP Missing. |
| 622 | Invalid SMSBalance | Indicates the supplied parameter value was not correct. |
| 623 | Invalid load token, deny | Indicates the supplied parameter value was not correct. |
| 624 | Invalid Auth Type | Indicates the supplied parameter value was not correct. |
| 625 | Invalid ActMethod | Indicates the supplied parameter value was not correct. |
| 626 | SMS/Email subject cannot be blank. | Indicates the configured value was empty. |
| 627 | SMS/Email body cannot be blank. | Indicates the configured value was empty. |
| 628 | Token already exist in the table | 3D Secure |
| 629 | Token is not configured to use the 3D secure web service | 3D Secure |
| 630 | Token details set for delete. | 3D Secure |
| 631 | LastModifiedType is missing | 3D Secure |
| 632 | Invalid ListType | Sanction PEP |
| 633 | Invalid CheckLevel | Sanction PEP |
| 634 | Invalid Flag | Sanction PEP |
| 635 | Invalid Id | Sanction PEP |
| 646 | IssCode not configured for 3d secure | 3D Secure |
| 647 | Invalid MatchItems | Sanction PEP |
| 648 | Missing DOB or Nationality | Sanction PEP |
| 649 | Update is Applicable only after processing of Insert (File is not yet processed) | Used when an attempt is made to update 3D Secure details before the initial details have been sent to the 3D Secure processing bureau. |
| 650 | Public token and new token have different billing currencies. | Primary and secondary cards should have same billing currency. |
| 651 | Invalid Sms_Required | Indicates the parameter value was invalid. |
| 652 | Invalid Sms_Content | Indicates the parameter value was invalid. |
| 653 | CSN is empty or badly formatted | Gemalto : CSN - given in custom1 field - is null, empty or badly formatted. |
| 654 | Card status cannot be changed, current status of the card is not reversible | Used when card is in an irreversible status: 43 or 83. |
| 655 | CSN is already associated with a card request in progress (i.e. a card request that has not yet reached a definitive status) | Gemalto : CSN - given in custom1 field - is already associated with a card request in progress (i.e. a card request that has not yet reached a definitive status) |
| 656 | Invalid DataSrc | Invalid data source |
| 657 | Authentication code is null, empty or badly formatted | Gemalto : Authentication code - given in custom2 field - is null, empty or badly formatted. |
| 658 | ExtAPICardID is missed in the request | Indicates the parameter value was missing. |

| Code | Description | How is it used? |
|------|--|---|
| 659 | Invalid load source is used in the request. | Please use load source Primary card (68) to transfer fund from primary to secondary and vice versa. |
| 660 | Invalid passcode (AccCode), it should be 6 digit number. | Leading zero is acceptable. |
| 662 | LockMode is invalid or missing | Indicates the parameter value was missing or an invalid value. |
| 663 | Invalid DOB | Indicates the parameter value was missing or an invalid value. |
| 664 | Invalid Fee, it should be decimal/integer | Indicates the parameter value was an invalid value. |
| 665 | Invalid ProductID | Indicates the parameter value was missing or an invalid value. |
| 666 | ProductID not belongs to the client | Indicates the parameter value was an invalid value for the PAN/Token supplied. |
| 667 | Forbidden load source(LoadSrc), this program manager has no right to use the selected load source. | Indicates the parameter value was an invalid value. |
| 668 | RSA - Invalid NamePrefix | Up to 120 characters allowed |
| 669 | RSA - Invalid NameSuffix | Up to 120 characters allowed |
| 670 | RSA - Invalid MothersMaidenName | Up to 120 characters allowed |
| 671 | RSA - Invalid CustomerID | Up to 120 characters allowed |
| 672 | RSA - Invalid AddressLine1 | Up to 120 characters allowed |
| 673 | RSA - Invalid AddressLine2 | Up to 120 characters allowed |
| 674 | RSA - Invalid City | Up to 120 characters allowed |
| 675 | RSA - Invalid StateCode | Two digits |
| 676 | RSA - Invalid CountryCode | Two characters according to ISO 3166-1 alpha-2 standards. |
| 677 | RSA - Invalid CompanyName | Up to 120 characters allowed |
| 678 | RSA - Invalid Misc1 | Up to 120 characters allowed |
| 679 | RSA - Invalid Misc2 | Up to 120 characters allowed |
| 680 | RSA - Invalid Misc3 | Up to 120 characters allowed |
| 681 | RSA - Invalid Misc4 | Up to 120 characters allowed |
| 682 | RSA - Invalid Misc5 | Up to 120 characters allowed |
| 683 | RSA - Invalid Misc6 | Up to 120 characters allowed |
| 684 | RSA - Invalid Misc7 | Up to 120 characters allowed |
| 685 | RSA - Invalid Misc8 | Up to 120 characters allowed |
| 686 | RSA - Invalid Last4SSN | Four digit integer |
| 687 | RSA - Invalid PANExp | Four digit integer |
| 688 | RSA - Invalid FullSSN | Nine digits |
| 689 | RSA - Invalid Last6SSN | Six digits |
| 690 | RSA - Invalid HomePhone | Up to 50 digit integer |
| 691 | RSA - Invalid BusinessPhone | Up to 50 digit integer |
| 692 | RSA - Invalid AltPhone1 | Up to 50 digit integer. Also known as Mobile phone number. |
| 693 | RSA - Invalid AltPhone2 | Up to 50 digit integer |

| Code | Description | How is it used? |
|------|--|--|
| 694 | RSA - Invalid ZipCode | Five digits |
| 695 | RSA - Invalid DayOfBirth | Two digits |
| 697 | RSA - Invalid MonthOfBirth | Two digits |
| 698 | RSA - Invalid YearOfBirth | Two digits |
| 699 | RSA - Invalid CreditLimit | Nine digits |
| 700 | Invalid ISO language code | Indicates the parameter value was missing or an invalid value. |
| 701 | Invalid CreateType | Indicates the parameter value was missing or an invalid value. |
| 702 | Invalid Currency Buy Rate. | Must be non-negative |
| 703 | Invalid Currency Sell Rate. | Must be non-negative |
| 704 | Invalid Currency Mid Rate. | Must be non-negative |
| 705 | Invalid source currency code | Indicates the parameter value was missing or an invalid value. |
| 706 | Invalid destination currency code | Indicates the parameter value was missing or an invalid value. |
| 707 | Invalid FX Group ID | Indicates the parameter value was missing or an invalid value. |
| 708 | Invalid Card Design, its a MutliFX product | Indicates the parameter value was missing or an invalid value. |
| 709 | Invalid currency code in MutliFXCurrencies | Indicates the parameter value was missing or an invalid value. |
| 710 | This Card Design does not support MultiFX | Indicates the parameter value was an invalid value. |
| 711 | This Card Design does not support External Authorisation | Indicates the parameter value was an invalid value for the operation. |
| 712 | Invalid Filter | Indicates the parameter value was missing or an invalid value. |
| 713 | Invalid Group Type | Indicates the parameter value was an invalid value. |
| 714 | Invalid load source | Indicates the parameter value was an invalid value. |
| 715 | invalid load fund type | Indicates the parameter value was an invalid value. |
| 716 | Invalid Linkage Group | Indicates the parameter value was an invalid value. |
| 717 | The specified PrimaryToken is not a primary card. | Secondary cards cannot be chosen as the Primary Card of another card. |
| 718 | Invalid PIN | PIN should be numeric and contain 4-12 digits. |
| 719 | Duplicate ExternalRef | Gemalto : requestUID value already exists for a card that is currently in production, or already produced. |
| 720 | Invalid TerminalID | Gemalto : satelliteUID value doesn't exists in Dexxis I2 (Central Base can't retrieve any Satellite with this ID). |
| 721 | Invalid ProductRef | Gemalto : cardTypeUID value doesn't exists in Dexxis I2 (Central Base can't retrieve any card type with this ID). |
| 722 | ExternalRef is empty | Gemalto : Null or empty string, or default value for parameter requestUID. |
| 723 | TerminalID is empty | Gemalto : Null or empty string for parameter satelliteUID. |

| Code | Description | How is it used? |
|------|---|---|
| 724 | ProductRef is empty | Gemalto : Null or empty string for parameter cardTypeUID. |
| 725 | CardName is empty | Gemalto : Null or empty string for parameter cardHolderName. |
| 726 | Some graphical data are empty | Gemalto : Null or empty array, or wrong size for parameter cardGraphicalData. |
| 727 | Some magnetic data are empty | Gemalto : Null or empty array, or wrong size for parameter cardMagneticalData. |
| 728 | Some carrier data are empty | Gemalto : Null or empty array or wrong size for parameter cardCarrierData. |
| 729 | Electric data is empty | Gemalto : Null or empty string for parameter cardElectricalData. |
| 730 | Illegal character in ExternalRef | Gemalto : requestUID contains characters that are not compatible with allowed charset/requestUID contains characters that are not alphanumerical. |
| 731 | Illegal character in TerminalID | Gemalto : satelliteUID contains characters that are not compatible with allowed charset/satelliteUID contains characters that are not alphanumerical. |
| 732 | Illegal character in ProductRef | Gemalto : cardTypeUID contains characters that are not compatible with allowed charset/cardTypeUID contains characters that are not alphanumerical. |
| 733 | Illegal character in graphical data | Gemalto : cardGraphicalData contains characters that are not compatible with allowed charset. |
| 734 | Illegal character in magnetic data | Gemalto : cardMagneticalData contains characters that are not compatible with allowed charset. |
| 735 | Illegal character in carrier data | Gemalto : cardCarrierData contains characters that are not compatible with allowed charset. |
| 736 | Graphical data type is empty or size is incorrect | Gemalto : Null or empty array, or wrong size for parameter cardGraphicalDataType. |
| 737 | Unknown graphical data type | Gemalto : cardGraphicalDataType contains at least one unknown graphical data type. |
| 738 | Size of graphical data and graphical data type aren't identical | Gemalto : cardGraphicalDataType doesn't contain the same number of values than cardGraphicalData. |
| 739 | Graphical data type doesn't specified | Gemalto : At least one cardGraphicalData doesn't have a cardGraphicalDataType specified. |
| 740 | Illegal character in electric data | Gemalto : cardElectricalData contains characters that are not compatible with allowed charset. |
| 741 | Custom data 1 is empty | Gemalto : Null or empty string, or default value for parameter cardRequestCustomData1. |
| 742 | Illegal character in custom data 1 | Gemalto : cardRequestCustomData1 contains characters that are not compatible with allowed charset. |
| 743 | Custom data 2 is empty | Gemalto : Null or empty string, or default value for parameter cardRequestCustomData1. |
| 744 | Illegal character in custom data 2 | Gemalto : cardRequestCustomData1 contains characters that are not compatible with allowed charset. |
| 745 | Custom data 3 is empty | Gemalto : Null or empty string, or default value for parameter cardRequestCustomData1. |
| 746 | Illegal character in custom data 3 | Gemalto : cardRequestCustomData1 contains characters that are not compatible with allowed charset. |

| Code | Description | How is it used? |
|------|--|---|
| 747 | Custom data 4 is empty | Gemalto : Null or empty string, or default value for parameter cardRequestCustomData1. |
| 748 | Illegal character in custom data 4 | Gemalto : cardRequestCustomData1 contains characters that are not compatible with allowed charset. |
| 749 | Custom data 5 is empty | Gemalto : Null or empty string, or default value for parameter cardRequestCustomData1. |
| 750 | Illegal character in custom data 5 | Gemalto : cardRequestCustomData1 contains characters that are not compatible with allowed charset. |
| 751 | Illegal character in custom map file | Gemalto : cardRequestCustomMapFile contains characters that are not compatible with allowed encoding. |
| 752 | Incorrect custom map file XML format | Gemalto : XML file(s) contained into cardRequestCustomMapFile archive doesn't have the required XML format. |
| 753 | Empty custom map file MD5 hash | Gemalto : Null or empty string for parameter cardProductionCustomMapFileMd5Hash. |
| 754 | Illegal character in custom map file MD5 hash | Gemalto : cardRequestCustomMapFileMd5Hash contains characters that are not compatible with allowed encoding. Hash result must be base64 encoded. |
| 755 | Comparison failed | Gemalto : cardRequestCustomMapFile archive transmission failure: MD5 hash comparison failed. |
| 756 | Unpack failed | Gemalto : cardRequestCustomMapFile archive can't be unpacked or files can't be retrieved from it. Probably an archive format error. |
| 757 | Map file data is not compactable with encoding | Gemalto : XML file(s) contained into cardRequestCustomMapFile archive contains at least one value that is not compatible with allowed encoding. |
| 758 | Invalid PIN Block | Gemalto : cipheredPin must contain 16 characters/cipheredPin parameter contains characters that are not compatible with allowed charset/cipheredPin parameter contains characters that are not allowed. cipheredPin must only be composed of digits or letters from A to F. |
| 759 | Invalid PIN Block format | Gemalto : cipheredPinFormat parameter is null or default values whereas it is mandatory since cipheredPin is set/cipheredPinFormat has not an attempted value (only 'ISO0' and 'ISO2' values are correct). |
| 760 | PIN block doesnot match PIN Block format | Gemalto : cipheredPin does not match given cipheredPinFormat. |
| 761 | PAN is empty | Gemalto : pan parameter is null or empty or default values whereas it is mandatory (given Ciphered PIN format is ISO0). |
| 762 | Invalid character in PAN | Gemalto : pan parameter contains characters that are not compatible with allowed charset/pan parameter contains characters that are not allowed. Pan must only be composed of digits. |
| 763 | Illegal character in PIN mailer data | Gemalto : At least one pinMailerData element contains characters that are not compatible with allowed charset. |

| Code | Description | How is it used? |
|------|--|--|
| 764 | Card request creation is forbidden | Gemalto : Card request creation is forbidden since standard Instant Issuance mode is deactivated on Central Base. |
| 765 | PIN can not verified | Gemalto : cipheredPin cannot been verified since KMS server is unreachable. |
| 766 | PIN delivery mode is empty | Gemalto : Null, empty or default string for parameter PinDeliveryMode whereas Pin or pinMailerData are provided. |
| 767 | Unkonwn PIN delivery mode | Gemalto : Unknown value for parameter PinDeliveryMode. Only NONE, PIN_MAILER and PIN_SELECTION are allowed. |
| 768 | Illegal character in Pin delivery mode | Gemalto : PinDeliveryMode parameter contains characters that are not compatible with allowed char-set. |
| 769 | PIN Block is empty, choosen PIN delivery mode required PIN Block | Gemalto : cipheredPin parameter is null, empty or default value whereas it MUST contain a value because the chosen pinDeliveryMode requires it. |
| 770 | Data preparation failed | Gemalto : Data preparation failed (synchronous DP call) or data preparation launch failed (asynchronous DP call). |
| 771 | System is busy | Gemalto : The system is busy and can't accept any new request for the moment. Either too many concurrent requests have been sent, or too many requests are currently waiting for data preparation. The system refuses new requests to remain stable and to keep acceptable performances. Please try again later and check the system health. |
| 772 | Request not found | Gemalto : Card Request not fount in Gemalto system. |
| 773 | Invalid ExpiryDatePart | Indicates the parameter value was invalid. |
| 774 | Limit Group not assigned to the input secondary card | Indicates the parameter value is not correctly configured. |
| 775 | Load source limit setting not found in the secondary card | Indicates the parameter value is not correctly configured. |
| 776 | The given card is already replaced | Indicates the parameter value is in an invalid state for the requested operation. |
| 777 | Invalid func | Indicates the parameter value was invalid. |
| 778 | Invalid PIN Mailer | Indicates the parameter value was invalid. |
| 779 | Invalid Allow List | Indicates the parameter value was invalid. |
| 780 | Allow List is empty | Indicates the parameter value was empty and is required. |
| 781 | CardAcceptorId is empty | Indicates the parameter value was empty and is required. |
| 782 | Invalid Action | Indicates the parameter value was invalid. |
| 783 | CardAcceptorID not found | Indicates the parameter value was not found. |
| 784 | The requested product is virtual but the request is for physical card generation | Indicates the CreateType parameter value was invalid for the specified Product. |
| 785 | The requested product is physical but the request is for virtual card generation | Indicates the CreateType parameter value was invalid for the specified Product. |

| Code | Description | How is it used? |
|------|---|--|
| 786 | Invalid e-mail address | Indicates the parameter value was in an invalid format. |
| 787 | e-mail address is missing | Indicates the parameter value was empty and is required. |
| 788 | Invalid MailOrSMS | Indicates the parameter value was invalid. |
| 789 | Cannot convert card, card is already physical | Indicates the card has already been converted. |
| 790 | The card is physical, only virtual can convert | Indicates the card is already physical. |
| 791 | Load is disabled, card is EA Type1 | Indicates the Product is configured as External Auth Type 1 where the client holds the balance and therefore Load is an invalid operation. |
| 792 | Wrong or expired login/password, or disabled user | The credentials supplied were invalid. |
| 793 | Wrong or insufficient credentials | The credentials were not properly supplied. |
| 794 | Login parameter is null, empty string, or default value | The credentials were not properly supplied. |
| 795 | Login parameter contains characters that are not compatible with allowed charset | The credentials were not properly supplied. |
| 796 | Password parameter is null, empty string, or default value | The credentials were not properly supplied. |
| 797 | Password parameter contains characters that are not compatible with allowed charset | The credentials were not properly supplied. |
| 798 | Quantity entered is invalid, it should be numeric and greater than one | Indicates the parameter value was invalid format. |
| 799 | This card acceptor is already added to the deny list/allow list of the given scheme | Indicates the card acceptor is already added to the deny list/allow list of the given scheme. |
| 800 | WSID is missing in the request. | Parameter was not supplied but is required. |
| 801 | IssCode is missing. | Parameter was not supplied but is required. |
| 802 | TxnCode is missing | Parameter was not supplied but is required. |
| 803 | AuthType is missing | Parameter was not supplied but is required. |
| 804 | LocDate is missing | Parameter was not supplied but is required. |
| 805 | LocTime is missing | Parameter was not supplied but is required. |
| 806 | CurCode is missing in the request. | Parameter was not supplied but is required. |
| 807 | DebOrCred is missing in the request. | Parameter was not supplied but is required. |
| 808 | Description is missing in the request. | Parameter was not supplied but is required. |
| 809 | Transaction amount such as AmtAdjustment, LoadValue, UnloadValue is missing in the request. | Parameter was not supplied but is required. |
| 810 | PAN, PublicToken or CardDesign is missing in the request. | Parameter was not supplied but is required. |
| 811 | DOB is missing in the request. | Parameter was not supplied but is required. |
| 812 | CVV is missing. | Parameter was not supplied but is required. |
| 813 | AccCode is missing or invalid. | Parameter was not supplied but is required. |
| 814 | ClientCode is missing when AuthType is 5 | Parameter was not supplied but is required. |
| 815 | LastName is missing when AuthType is 6 | Parameter was not supplied but is required. |
| 816 | Track2 is missing when AuthType is 7 | Parameter was not supplied but is required. |
| 817 | SecId is missing when AuthType is 8. | Parameter was not supplied but is required. |
| 818 | SecVal is missing when SecValPos is non-zero. | Parameter was not supplied but is required. |
| 819 | ActMethod is missing in the request. | Parameter was not supplied but is required. |

| Code | Description | How is it used? |
|------|---|---|
| 820 | City or Postcode is missing in the request. | Parameter was not supplied but is required. |
| 821 | Country is missing | Parameter was not supplied but is required. |
| 822 | FirstName is missing in the request. | Parameter was not supplied but is required. |
| 823 | AccNo is missing in the request. | Parameter was not supplied but is required. |
| 824 | ExpDate is missing in the request. | Parameter was not supplied but is required. |
| 825 | StatCode or NewStatCode is missing or invalid in the request. | Parameter was not supplied but is required. |
| 826 | OrgItemid is missing in the request. | Parameter was not supplied but is required. |
| 827 | LoadFee is in incorrect format. | Parameter was supplied but is in an invalid format. |
| 828 | SecValPos in incorrect format. | Parameter was supplied but is in an invalid format. |
| 829 | SvcSrc is missing in the request. | Parameter was not supplied but is required. |
| 830 | SvcTye is missing in the request. | Parameter was not supplied but is required. |
| 831 | Work city or Work Postcode is missing in the request. | Parameter was not supplied but is required. |
| 832 | Work country is missing | Parameter was not supplied but is required. |
| 833 | Dlvcity or DlvPostcode is missing in the request. | Parameter was not supplied but is required. |
| 834 | DlvCountry is missing. | Parameter was not supplied but is required. |
| 835 | DlvFirstName is missing in the request. | Parameter was not supplied but is required. |
| 836 | SysDate is missing. | Parameter was not supplied but is required. |
| 837 | TxnType is missing. | Parameter was not supplied but is required. |
| 838 | TermCode is missing | Parameter was not supplied but is required. |
| 839 | TerminalID is missing. | Parameter was not supplied but is required. |
| 840 | CrdaCptLoc is missing. | Parameter was not supplied but is required |
| 841 | MCC is missing. | Parameter was not supplied but is required |
| 842 | Poschp is missing. | Parameter was not supplied but is required |
| 843 | Poscdim is missing. | Parameter was not supplied but is required |
| 844 | Poscham is missing. | Parameter was not supplied but is required |
| 845 | Poscsp is missing. | Parameter was not supplied but is required |
| 846 | Itemid is missing. | Parameter was not supplied but is required |
| 847 | Tlogid is missing. | Parameter was not supplied but is required |
| 848 | BillConvRate is missing. | Parameter was not supplied but is required |
| 849 | MsgType is missing. | Parameter was not supplied but is required |
| 850 | Func is missing. | Parameter was not supplied but is required |
| 851 | Current Pin is missing | Parameter was not supplied but is required |
| 852 | New Pin is missing | Parameter was not supplied but is required |
| 853 | Confirm Pin is missing | Parameter was not supplied but is required |
| 854 | Key ref is missing. | Parameter was not supplied but is required |
| 855 | ItemSrc is missing. | Parameter was not supplied but is required |
| 856 | LoadFundType is missing. | Parameter was not supplied but is required |
| 857 | LoadSrc is missing. | Parameter was not supplied but is required |
| 858 | LoadFee is missing. | Parameter was not supplied but is required |

| Code | Description | How is it used? |
|------|---|--|
| 859 | LoadedBy is missing. | Parameter was not supplied but is required |
| 860 | Title is missing. | Parameter was not supplied but is required |
| 861 | Addr11 is missing. | Parameter was not supplied but is required |
| 862 | Addr12 is missing. | Parameter was not supplied but is required |
| 863 | Reason is missing. | Parameter was not supplied but is required |
| 864 | Invalid Limit group code. | Parameter was supplied but is invalid |
| 865 | Invalid MCC group code. | Parameter was supplied but is invalid |
| 866 | Invalid Usage group code. | Parameter was supplied but is invalid |
| 867 | ProcCode is missing in the request or invalid. | Parameter was either supplied but is invalid, or is missing and required |
| 868 | Duplicate WSID in the request, deny. | The WSID has already been used on a previous request. WSIDs should be unique. |
| 869 | Invalid Fee Group Code | Parameter was supplied but is invalid |
| 870 | Invalid Primary Token, deny | Parameter was supplied but is invalid |
| 871 | Balance transfer from primary card to secondary or vice versa, deny | Not in use |
| 872 | Source and destination card has same PAN, deny | Attempt to balance transfer to and from same card is invalid |
| 873 | CardSelector is missing or invalid. | Parameter was not supplied but is required, or is an invalid value |
| 874 | CardSelectorValue is missing or invalid. | Parameter was not supplied but is required, or is an invalid value |
| 875 | Fee structure is not set for the given process code. | No fee structure is configured for the process code supplied during an attempt to take generic fees |
| 876 | RegenType/Replace is empty or invalid. | Parameter was not supplied but is required, or is an invalid value |
| 877 | Invalid expiry date. | An attempt was made to update the logical expiry date to either a past date, or a date that is beyond the physical expiry date |
| 878 | Invalid character in Card Name. | Non - european characters are not allowed in Card Name |
| 879 | Invalid character in First Name. | If Card Name is empty then non - european characters are not allowed in First Name. |
| 880 | Invalid character in Last Name. | If Card Name is empty then non - european characters are not allowed in Last Name. |
| 881 | Invalid recurring/scheduled fee group code. | Parameter was supplied but is invalid |
| 882 | Invalid web service fee group code. | Parameter was supplied but is invalid |
| 883 | Invalid Card Manufacturer Code | Parameter was supplied but is invalid |
| 884 | Customer mobile phone number is not set for this card. | An attempt was made to send an SMS, but no mobile number is registered for this card |
| 885 | Address verification failed. | The supplied address did not match the stored address |
| 886 | License verification failed. | The supplied License details did not match the stored details |
| 887 | Passport verification failed. | The supplied Passport details did not match the stored details |

| Code | Description | How is it used? |
|------|--|--|
| 888 | License number is missing. | A required parameter was not supplied |
| 889 | Gender (sex) is missing. | A required parameter was not supplied |
| 890 | Passport number is missing. | A required parameter was not supplied |
| 891 | Surname is missing. | A required parameter was not supplied |
| 892 | Passport number check digit is missing. | A required parameter was not supplied |
| 893 | Invalid DebOrCred, | It should be 1(Credit) or -1(Debit). |
| 894 | Invalid DOB format | Format should be YYYY-MM-DD |
| 895 | Invalid Start Date | Format should be YYYY-MM-DD |
| 896 | Invalid EndDate | Format should be YYYY-MM-DD |
| 897 | Invalid amount | Amount should be non-negative and no more decimal places than the currency will allow. |
| 898 | Invalid BIN/Manufacturer combination | The selected card manufacturer is not associated with the programme scheme |
| 899 | Invalid Country/Delv_Country, it should be ISO numeric code. | Parameter was supplied in incorrect format |
| 900 | Restricted web method, this client is not allowed to use this method | Client is not configured to call this web service |
| 902 | Invalid Transaction | The selected transaction is not valid for this operation |
| 903 | Re-Enter Transaction | The selected transaction must be re-entered |
| 904 | Format error, deny | Generic format error condition eg used by Account Enquiry to indicate invalid format in 'txnfilter' value received in request or when the security details do not match with the selected authMethod |
| 905 | Aquirer not supported by switch | As required by Issuer |
| 906 | Cutover in process | As required by Issuer |
| 907 | Card issuer signed off | As required by Issuer |
| 908 | Transaction destination cannot be found for routing | As required by Issuer |
| 909 | System malfunction, deny | Generic 'catch-all' error condition |
| 910 | Card issuer signed off | As required by Issuer |
| 911 | Card issuer timed out | As required by Issuer |
| 912 | Card issuer unavailable | As required by Issuer |
| 913 | Duplicate transaction, deny | To indicate the received request is a duplicate of a previous request. In some calls the ID of the original request (that this request duplicates) may also be returned in the response. |
| 914 | Unable to trace original transaction, deny | Used to indicate that the item a Void transaction seeks to cancel cannot be found |
| 915 | Reconciliation cutover or checkpoint error | As required by Issuer |
| 916 | MAC incorrect | As required by Issuer |
| 917 | MAC key sync error | As required by Issuer |
| 918 | No communication keys available for use | As required by Issuer |
| 919 | Encryption key sync error | As required by Issuer |
| 920 | Security error - authentication failed, deny | Failed to authenticate the cardholder |

| Code | Description | How is it used? |
|------|--|--|
| 921 | Security error - security answer not defined | Failed to authenticate cardholder because one or more of the security details have not been setup for the cardholder |
| 922 | Message number out of sequence | As required by Issuer |
| 923 | Request in progress | As required by Issuer |
| 924 | Invalid security code | As required by Issuer |
| 925 | Database error | As required by Issuer |
| 928 | Customer vendor format | As required by Issuer |
| 932 | Recurring data error | As required by Issuer |
| 933 | Update not allowed | As required by Issuer |
| 934 | RegisterDetails was of the incorrect format | RegisterDetails was either empty or not of the correct type |
| 935 | RegisterSMS was of the incorrect format | RegisterSMS was either empty or not of the correct type |
| 936 | DeRegister was of the incorrect format | DeRegister was either empty or not of the correct type |
| 937 | OverrideGPS was of the incorrect format | OverrideGPS was either empty or not of the correct type |
| 938 | RelssueBoolean was of the incorrect format | RelssueBoolean was either empty or not of the correct type |
| 939 | NewToken was incorrect format | NewToken must be either 0 (if not re-issuing) or a valid public token |
| 940 | Value in a Detail was empty | Must have a value withing the Detail class and not empty string |
| 941 | ENUM_3DS_Details Identity was not a valid type | ENUM_3DS_Details Identity was not a valid type. Please see appendix for valid values |
| 942 | DetailsStatus was not a valid type | DetailsStatus was not a valid type. Please see appendix for valid values |
| 943 | MobileNumber was an invalid type | MobileNumber must be a valid number. Length must be between 11 and 25 characters long |
| 944 | SMSStatus was not a valid type | SMSStatus was not a valid type. Please see appendix for valid values |
| 945 | RelssueBoolean is True and NewToken = 0 | A request to reissue the details to a new token was received but the NewToken value is 0. Set NewToken to a valid public token |
| 946 | NewToken is an invalid token | A NewToken value has been requested but the supplied token is not valid |
| 947 | Relssue and register are set | A request has been received to both register and reregister a token. Only one or the other can be done |
| 948 | | Reserved for RSA |
| 949 | | Reserved for RSA |
| 950 | | Reserved for RSA |
| 951 | Webservice call successful, but failed to send Network Message due to internal error (i.e. 0302 service call did not return) | As required by Issuer |
| 952 | Webservice call successful, but failed to send Network Message due to message error (i.e. 0302 response was error) | As required by Issuer |

| Code | Description | How is it used? |
|------|--|---|
| 954 | RSA - Invalid BranchNumber | Ten digits |
| 955 | RSA - Invalid DateOfBirth | Must be format YYYYMMDD. Failed to convert to a date |
| 956 | RSA - Invalid LastStatementDate | Must be format YYYYMMDD. Failed to convert to a date |
| 957 | RSA - Invalid RelationshipType | Must be one of the following primary, co-applicant, authorized) |
| 958 | RSA - Invalid CompanyTel | Fifty digits |
| 959 | RSA - Invalid EmbossedName | Up to 120 characters allowed |
| 960 | RSA - Invalid FirstName | Up to 120 characters allowed |
| 961 | RSA - Invalid MiddleName | Up to 120 characters allowed |
| 962 | RSA - Invalid LastName | Up to 120 characters allowed |
| 953 | Activation of Card successful, but updating MDES Card Mapping failed | As required by Issuer |
| 996 | Retired Web Service | Retired |
| 997 | Soap username is null or empty | SOAP authentication |
| 998 | Soap password is null or empty | SOAP authentication |
| 999 | Security error - SOAP authentication failed. Deny | Indicates the SOAP authentication user name or password is incorrect. |

MVC Action Codes

The following action codes are relevant to a Master Virtual Card (MVC) .

| Code | Description |
|------|---|
| 000 | Normal, approve. |
| 100 | Do not Honour, deny. |
| 116 | Insufficient funds, deny. |
| 118 | No card record, deny. |
| 121 | Amount limits exceeded or outside valid load range, deny. |
| 123 | Frequency limits exceeded, deny. |
| 605 | MVC token is missing or invalid. |
| 606 | Source (MVC) and destination (new) tokens aren't belonging to same scheme. |
| 607 | Source token is not MVC. |
| 661 | MVC token and new token have different billing currencies. MVC load doesn't support inter currency fund transfer. |
| 801 | IssCode is missing. |
| 806 | CurCode is missing in the request. |
| 810 | PublicKey is missing in the request. |
| 897 | Invalid amount, amount should be non-negative. |
| 909 | System malfunction, deny. |
| 997 | Soap username is null or empty. |
| 998 | Soap password is null or empty. |
| 999 | Security error. SOAP authentication failed. Deny. |

Transaction Codes

The following transaction codes are used in the `<TxnCode>` tag of a web service response.

| Code | Description |
|------|-----------------------------|
| 0 | Card Activation |
| 1 | Card Load |
| 2 | Status Change |
| 3 | Balance Enquiry |
| 4 | Customer Enquiry |
| 5 | Card Statement |
| 6 | Load Verification |
| 7 | Balance Transfer |
| 8 | Card Unload |
| 9 | Card Enquiry |
| 10 | Activate / Load |
| 11 | Card Unload / Status Change |
| 12 | Transaction Void |
| 13 | Cardholder Update |
| 14 | Cardholder Details Enquiry |
| 15 | Load Demand |
| 16 | Balance Adjustment |
| 17 | Extend Expiry |
| 18 | Manage PIN |
| 19 | External Approve |
| 20 | Card Reload |

Activation Methods

You can use the following methods in the `<ActMethod>` tag to activate a card:

| Method | Description |
|--------|---|
| 1 | Card number (PAN)/public token + cardholder's date of birth |
| 2 | Card number/public token + CVC2 |
| 3 | Card number/public token + access code |
| 4 | Full Track 2 |
| 5 | Card number/public token + security data - DO NOT USE |
| 6 | Card number/public token |

See: [Card Activate](#), [Card Activate and Load](#) and [MVC Card Activate and Load](#).

Processing Codes (Fees)

The following fee processing codes are used in the `<ProcCode>` tag of the [Pending Fees](#) and [Apply Fees](#) requests.

| Code | Description |
|------|-----------------------------|
| 001 | Fees : POS Standard |
| 002 | Fees : GPS Kiosk |
| 003 | Fees : GPS Web Site |
| 004 | Fees : Card Processor |
| 005 | Fees : Standard Web Service |
| 006 | Fees : Agent |
| 007 | Fees : Head Office |
| 008 | Fees : Call Centre |
| 009 | Fees : Customer Web site |
| 010 | Fees : Wirecard |
| 011 | Fees : Customer kiosk |
| 012 | Fees : Customer mobile app |
| 013 | Fees : GPS IVR |
| 014 | Fees : Unknown |
| 017 | Fees : Corporate |
| 018 | Fees : epay |
| 019 | Fees : HOCA Verifiable |
| 020 | Fees : Post Office |
| 021 | Fees : HOCA Non Verifiable |
| 022 | Fees : Paypoint |
| 023 | Fees : POS Reload |
| 024 | Fees : TCC Web Report |
| 025 | Fees : TCC Online |
| 026 | Fees : VIRGIN POS Reload |
| 027 | Fees : TCC POS Reload |
| 028 | Fees : TCC Promotion |
| 029 | Fees : DXB Zero Load |
| 030 | Fees : AlFardan Reload |
| 031 | Fees : UAEx Reload |
| 032 | Fees : AlAnsari Reload |
| 033 | Fees : 14 day Cool Off |
| 034 | Fees : Unload to Repatriate |
| 035 | Fees : Loan Repayment |
| 038 | Fees : VIRGIN Zero Load |
| 039 | Fees : VIRGIN POS standard |
| 040 | Fees : JADE Web Report |

| Code | Description |
|------|--|
| 041 | Fees : JADE POS standard |
| 042 | Fees : JADE POS Reload |
| 043 | Fees : JADE Zero Load |
| 044 | Fees : Wirecard-Cadooz |
| 045 | Fees : Crunch POS Standard |
| 046 | Fees : CRUNCH POS Reload |
| 047 | Fees : Unload Fee Test |
| 048 | Fees : Balance Transfer Fee Test |
| 049 | Fees : Sofort Banking |
| 050 | Fees : Wirecard e-commerce |
| 051 | Fees : UAExAirport POS Standard |
| 052 | Fees : UAExAirport Reload |
| 053 | Fees : Cadooz Load |
| 054 | Fees : Cadooz Reload |
| 055 | Fees : Cadooz web unload |
| 056 | Fees : Sofort Bank Transfer Load |
| 057 | Debit Card Load fee |
| 058 | PIN Control |
| 060 | Fees : Post Office and Paypoint |
| 061 | Fees : Credit Limit |
| 062 | Fees : Credit Card Payment |
| 063 | Fees : Ukash Payment |
| 064 | Fees : Bank Transfer |
| 065 | Fees : Giropay |
| 066 | Fees : Sofortüberweisung |
| 067 | Fees : Debit Card |
| 068 | Fees : Primary Card |
| 069 | Monthly Service Fee |
| 070 | Balance Enquiry Fee 0 - Call Centre |
| 071 | Balance Enquiry Fee 1 - Website |
| 072 | Balance Enquiry Fee 2 - IVR |
| 073 | Balance Enquiry Fee 3 - SMS |
| 074 | Fees : Master Virtual Card |
| 075 | Fees : Micropayment |
| 076 | Fees : MVC Load |
| 077 | Fees : iMVC Load |
| 078 | Fees : P2P Transfer |
| 079 | Fees : Auto-transfer from Primary Card |
| 080 | Card Upgrade Fee |

| Code | Description |
|------|--|
| 081 | Card Closure/Redemption Fee |
| 082 | Card Issue Fee (Physical) |
| 083 | Administration Fee |
| 084 | Card Replacement Fee |
| 085 | Card Issue Fee (Virtual) |
| 086 | Secondary Card Issue Fee |
| 087 | Primary Card Activation Fee |
| 088 | Secondary Card Activation Fee |
| 089 | Lost & Stolen Card Fee |
| 090 | Monthly Service Fee Virtual |
| 091 | Fees : Incoming SEPA Transfers |
| 092 | Fees : Incoming Direct Debit |
| 093 | Fees : Outgoing Sepa Transfers |
| 094 | Fees : Outgoing Direct Debit |
| 095 | Fees : Voucher |
| 096 | Fees : Cash Incentive Rewards |
| 097 | Fees : Entercash |
| 098 | Fees : Payvision |
| 100 | Fees : La banque Postale |
| 101 | Fees : La Banque Postale |
| 102 | Fees : Loyalty Programme |
| 103 | Fees : KYC Upgrade_Grp Chng |
| 106 | Fees : First Load from MVC |
| 107 | Fees : Cash Deposit |
| 108 | Fees : International Bank Transfer |
| 109 | Fees : Balance Transfer - Mtel |
| 110 | Fees : Balance Transfer - Phyre |
| 111 | Fees : Balance Transfer - CashTerminal |
| 112 | Fees : Balance Transfer - Payoo |
| 599 | Blocked Amount Posting |
| 999 | Recurring Fee |

SMS Configuration Options

Below are options for configuring the SMS messages sent to your customers. Please contact your Implementation Manager to ask for these SMS options to be configured.

| Description | Examples |
|---|---|
| Web Services that allow configurable SMS text to be sent | PIN Control, Load, Unload, Balance Enquiry, Status Change, Activation, Card Create, Regenerate, Card Create (Replacement option), Balance Adjustment, Updated Cardholder. |
| Example variables that are allowed in configurable messages | Cardholder Title Cardholder First Name Cardholder Surname Card Currency (.e.g GBP) Amount (Load/Adjustment/Unload etc..) Current Available Balance CVV Masked PAN Masked replacement PAN PIN Sender (scheme sender) |
| Languages allowed | Language is determined by checking the current value of the cardholder <i>Lang</i> setting. For details, see Create Card. |

Authentication Methods

See the table below for a list of cardholder authentication methods, which are used within the `<AuthType>` tag. In most cases an Authorisation type of 1 is sufficient, since there is separate SOAP header authentication to validate the user of the web service.

| Auth Type | Description |
|-----------|---|
| 1 | Card number (PAN) or public token |
| 2 | Card number/public token & cardholder's date of birth |
| 3 | Card number/public token & CVC2 |
| 4 | Card number/public token & access code |
| 5 | Login ID - DO NOT USE |
| 6 | Card number and cardholder's date of birth and cardholder's last name |
| 7 | Full Track2 |
| 8 | Card number & security data - DO NOT USE |

Note: If you suspect your SOAP login details may have been compromised, contact GPS immediately

Status Codes

The following status codes can be used within the `<NewStatCode>` tag to set the status of a card. They are also returned in a response to a card status request.

| Status Code | Description |
|-------------|---|
| 00 | All Good. Indicates that the card is good for use, but does not indicate whether it is active. Tip: A card must have its <code><IsLive></code> flag changed to 1 to be considered active. You cannot activate a card by changing its status to 00. To activate a card, use <code>Ws_Activate</code> . |
| 01 | Refer to card issuer DO NOT USE |
| 02 | Card not yet activated |
| 04 | Capture Card |
| 05 | Do not honour |
| 14 | Invalid card (if you receive this status, it indicates that this card does not exist on the GPS system and was used for a fraudulent transaction) NEVER SET A CARD TO THIS STATUS |
| 41 | Lost card Do not use if temporarily blocking a tokenised digital PAN (DPAN). We recommend you use status code G1 instead. |
| 43 | Stolen card This status is irreversible. |
| 46 | Closed Account |
| 54 | Expired card DO NOT USE |
| 57 | Transaction not permitted to cardholder |
| 59 | Suspected Fraud |
| 62 | Restricted card |
| 63 | Security violation |
| 70 | Cardholder to contact issuer |
| 75 | Allowable number of PIN tries exceeded |
| 83 | Card destroyed This status is irreversible. |
| 98 | Refund given to customer |
| 99 | Card voided |
| G1 | A short-term block which temporarily blocks card usage for all card transactions (excluding Credits and Refunds) for a short period. |
| G2 | Short-term full block (all transactions are blocked). |
| G3 | Long-term block (excluding Credits and Refunds). |
| G4 | Long-term full block (all transactions are blocked). |

Notes

- Most of the statuses are reversible. All of them apart from 00 will prevent the card from being used over the Mastercard or VISA network.
- Do not use status 01 (refer to Card Issuer or 54 (expired card) as these are for GPS use only.
- Changing the status to 99 (card voided) or 98 (refund to customer) automatically generates a card balance adjustment down to 0.00.
- You should use the following status codes for blocks:
 - Temporary Block: G1 or G2.

Use when you want merchants to try again. Visa guidelines instruct merchants to attempt up to 15 retries over 30 days. A card block will block all non-credit, Balance enquiry and tokenisation transactions. Refunds and Credits will be permitted.

- Permanent Block: G3 or G4. Use when you don't want merchants to try again. Visa expect that the card should not return to the '00 Approve' state at all, or at least not within 30 days.

Transaction Types

Refer to the table below for a list of transaction types, which can be used in the `<TransactionType>` tag.

| Type | Description |
|------|--------------------------|
| A | Authorisation |
| B | Balance Adjustment |
| C | Chargeback |
| D | Auth Reversal |
| E | Financial Reversal |
| F | Fee |
| G | Payment |
| H | Chargeback - Non Credit |
| J | Authorisation Advice |
| L | Load |
| N | Second Presentment |
| P | Presentment |
| R | Retrieval Request |
| S | Status Change |
| U | Unload |
| W | Repeat Reversal NOT USED |
| Y | Expiry |

Transaction Status

Refer to the table below for a list of transaction status values for the `<StatusCode>` field.

| Type | Description |
|------|-------------|
| A | Accepted |
| C | Cleared |
| I | Declined |
| R | Removed |
| S | Settled |
| V | Reversed |

See usage in: [Card Statement](#), [Card Statement \(V2\)](#)

Load Sources

Refer to the table below for a list of load sources available for the `<LoadSrc>` field.

| Source | Description |
|--------|-----------------------------|
| 1 | POS standard |
| 2 | GPS Kiosk |
| 3 | GPS Web Site |
| 4 | Card Processor |
| 5 | Standard Web Service |
| 6 | Agent |
| 7 | Head Office |
| 8 | Call Centre |
| 9 | Customer Web site |
| 10 | Wirecard NO LONGER USED |
| 11 | Customer kiosk |
| 12 | Customer mobile app |
| 13 | GPS IVR |
| 14 | Unknown |
| 16 | Load From Card Request File |
| 17 | Corporate |
| 18 | epay |
| 19 | HOCA Verifiable |
| 20 | Post Office |
| 21 | HOCA Non Verifiable |
| 22 | Paypoint |
| 23 | DXB POS Reload |
| 24 | TCC Web Report |
| 25 | TCC Online |
| 26 | VIRGIN POS Reload |
| 27 | TCC POS Reload |
| 28 | TCC Promotion |
| 29 | DXB Zero Load |
| 30 | AlFardan Reload |
| 31 | UAEx Reload |
| 32 | AlAnsari Reload |
| 33 | 14 day Cool Off |
| 34 | Unload to Repatriate |
| 35 | Loan Repayment |
| 36 | DXB Online |
| 37 | Payzone |

| Source | Description |
|--------|---------------------------------|
| 38 | VIRGIN Zero Load |
| 39 | VIRGIN POS standard |
| 40 | JADE Web Report |
| 41 | JADE POS standard |
| 42 | JADE POS Reload |
| 43 | JADE Zero Load |
| 44 | Wirecard-Cadooz |
| 45 | Crunch POS Standard |
| 46 | CRUNCH POS Reload |
| 47 | Unload Fee Test |
| 48 | Balance Transfer Fee Test |
| 49 | Sofort Banking |
| 50 | Wirecard e-commerce |
| 51 | UAExAirport POS Standard |
| 52 | UAExAirport Reload |
| 53 | Cadooz Load |
| 54 | Cadooz Reload |
| 55 | Cadooz web unload |
| 56 | Sofort Bank Transfer Load |
| 57 | Billpay Payment |
| 60 | Post Office and Paypoint |
| 61 | Credit Limit |
| 62 | Credit Card Payment |
| 63 | Ukash Payment |
| 64 | Bank Transfer |
| 65 | Giropay |
| 66 | Sofortüberweisung |
| 67 | Debit Card |
| 68 | Primary Card |
| 74 | Master Virtual Card |
| 75 | Micropayment |
| 76 | MVC Load |
| 77 | iMVC Load |
| 78 | P2P Transfer |
| 79 | Auto-transfer from Primary Card |
| 91 | Incoming SEPA Transfers |
| 92 | Incoming Direct Debit |
| 93 | Outgoing Sepa Transfers |
| 94 | Outgoing Direct Debit |

| Source | Description |
|--------|---------------------------------|
| 95 | Voucher |
| 96 | Cash Incentive Rewards |
| 97 | Entercash |
| 98 | Payvision |
| 101 | La Banque Postale |
| 102 | Loyalty Programme |
| 103 | KYC Upgrade_Grp Chng |
| 106 | First Load from MVC |
| 107 | Cash Deposit |
| 108 | International Bank Transfer |
| 109 | Balance Transfer - Mtel |
| 110 | Balance Transfer - Phyre |
| 111 | Balance Transfer - CashTerminal |
| 112 | Balance Transfer - Payoo |

Item Source Types

Refer to the table below for a list of item source types.

| Type | Description |
|------|--|
| 0 | Undefined |
| 1 | Call Centre |
| 2 | Website |
| 3 | Interactive Voice Response (IVR) system. |
| 4 | SMS |
| 5 | mbanking |

Load Fund Types

Refer to the table below for a list of load fund types, which are used within the `<loadfundtype>` tag.

| Type | Description |
|------|-------------------------|
| 0 | Unknown |
| 1 | Cash |
| 2 | Debit card |
| 3 | Credit card |
| 4 | e-Wallet |
| 5 | Bank account |
| 6 | Import |
| 7 | Savings Stamps |
| 8 | Cheque |
| 9 | Export |
| 10 | Transfer |
| 11 | From/To Offline Balance |

Enums and Data Structures

This section provides details of parameters with Enumerated (Enum) values and data structures.

BankingFeaturesType

| Property | Type | Value | Description |
|----------------|---------|-----------------|--|
| BankingIn | Enum | ENUM_BankingIn | See ENUM_BankingInEnabled |
| BankingOut | Enum | ENUM_BankingOut | See ENUM_BankingOutEnabled |
| DirectDebitIn | Enum | DirectDebitIn | See ENUM_DirectDebitInEnabled |
| DirectDebitOut | Enum | DirectDebitOut | See ENUM_DirectDebitOutEnabled |
| SEPAIn | Boolean | SEPAInEnabled | Allow payments in. Set to <i>TRUE</i> or <i>FALSE</i> . |
| SEPAOut | Boolean | SEPAOutEnabled | Allow payments out. Set to <i>TRUE</i> or <i>FALSE</i> . |
| AccountName | String | AccountName | Account name. |

Changed Banking Features

| Property | Type | Value | Description |
|---------------------------|----------------|---------------------------|---|
| PublicToken | Integer | PublicToken | Public token |
| BankingFeatures | Data structure | BankingFeaturesReturnType | See BankingFeaturesReturnType |
| | Enum | UpdateSuccess | See ENUM_ChangedBankingFeaturesUpdate |
| BankingFeaturesReturnType | Enum | BankingIn | See ENUM_BankingInEnabled |
| | Enum | BankingOut | See ENUM_BankingOutEnabled |
| | Enum | DirectDebitIn | See ENUM_DirectDebitInEnabled |
| | Enum | DirectDebitOut | See ENUM_DirectDebitOutEnabled |
| | Enum | CardEnabled | See ENUM_CardEnabled . |

BankingEnabled Enums

| Property | Type | Value | Description |
|-----------------------------------|------|--|--|
| ENUM_BankingInEnabled | Enum | Enabled Disabled | Enabled Disabled |
| ENUM_BankingOutEnabled | Enum | Enabled Disabled | Enabled Disabled |
| ENUM_DirectDebitInEnabled | Enum | Enabled Disabled | Enabled Disabled |
| ENUM_DirectDebitOutEnabled | Enum | Enabled Disabled | Enabled Disabled |
| ENUM_ChangedBankingFeaturesUpdate | Enum | Success Fail DirectDebitNotAllowed | Successful Failed Direct Debit not allowed |

Enum_CardEnabled

| Property | Type | Value | Description |
|------------------|------|---------------------|---------------------|
| ENUM_CardEnabled | Enum | Enabled Disabled | Enabled Disabled |

AccountStatus

| Property | Type | Value | Description |
|---------------|------|-----------------------|--|
| AccountStatus | Enum | AccountStatus | See ENUM_AccountStatus . |
| | Enum | BankingInEnabled | See ENUM_BankingInEnabled . |
| | Enum | BankingOutEnabled | See ENUM_BankingOutEnabled . |
| | Enum | DirectDebitInEnabled | See ENUM_DirectDebitInEnabled . |
| | Enum | DirectDebitOutEnabled | See ENUM_DirectDebitOutEnabled . |
| | Enum | CardEnabled | See ENUM_CardEnabled . |

ENUM_AccountStatus

| Property | Type | Value | Description |
|--------------------|------|---|--|
| ENUM_AccountStatus | Enum | Open Closed SuspendedPaymentsInAllowed FullySuspended Deceased Probate | The account is open. The account is closed. The account is suspended, but payments in are allowed. The account is fully suspended. The account holder is deceased The account is in probate (for a deceased account holder) |

BLAccount

| Property | Type | Value | Description |
|-----------|----------------|--------------------|--|
| BLAccount | Integer (long) | PublicKey | Encrypted public token |
| | String | SortCode | String of the 6-digit sort code |
| | String | AccountNumber | String of account number |
| | Enum | Status | Account status. See ENUM_AccountStatus . |
| | Number | Balance | Account balance (decimal) |
| | String | UpdateStatusResult | String of status result |

BankingFeatures

| Property | Type | Value | Description |
|----------------|---------|-----------------------|--|
| ExistingToken | String | ExistingToken | Public token. |
| BankingIn | Boolean | BankingInEnabled | Allow payments in. Set to "TRUE" or "FALSE". |
| BankingOut | Boolean | BankingOutEnabled | Allow payments out. Set to "TRUE" or "FALSE". |
| DirectDebitIn | Boolean | DirectDebitInEnabled | Allow direct debit payments in. Set to "TRUE" or "FALSE". |
| DirectDebitOut | Boolean | DirectDebitOutEnabled | Allow direct debit payments out. Set to "TRUE" or "FALSE". |
| CardEnabled | Boolean | CardEnabled | Indicates whether the card is enabled. Set to "TRUE" or "FALSE". |
| Status | String | Status | Account status code. |
| CompanyName | String | CompanyName | Company name. |
| AccountName | String | AccountName | Account name. |

Notes

- Populating the **ExistingToken** field will add banking features onto an existing card.
- Boolean options, if not populated, will default to true.

- The status codes and their associated options are shown below (0 = false, 1 = true).

| Status Code | Description | AllowPaymentsIn | AllowPaymentsOut | AllowDirectDebitIn | AllowDirectDebitOut | Priority | BlockCard | CardStatus |
|-------------|-------------------------------|-----------------|------------------|--------------------|---------------------|----------|-----------|------------|
| C | Closed | 0 | 0 | 0 | 0 | 1 | 1 | 5 |
| D | Customer deceased | 1 | 0 | 0 | 0 | 1 | 1 | 5 |
| F | Full suspended | 0 | 0 | 0 | 0 | 1 | 1 | 5 |
| O | Open | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| P | Probate | 1 | 1 | 0 | 0 | 1 | 1 | 5 |
| S | Suspended payments in allowed | 1 | 0 | 0 | 0 | 1 | 1 | 5 |

* Priority - takes precedent over any other account settings.
 ** When creating a card, the status is automatically set to status "O" (open).
 *** For CardStatus, see [Card Status](#).

BankingError

| Property | Type | Value | Description |
|--------------|--------|---------|----------------------|
| BankingError | String | field | Error message field. |
| | String | code | Error message code. |
| | String | message | Error message. |
| | String | error | Error. |

Beneficiary

| Property | Type | Value | Description |
|-------------|--------|---------------|----------------|
| Beneficiary | String | AccountNumber | Account number |
| | String | SortCode | Sort code |
| | String | AccountName | Account name |
| | String | IBAN | IBAN |

SEPABeneficiaryAddress

| Property | Type | Value | Description |
|------------------------|--------|--------------|----------------------------|
| SEPABeneficiaryAddress | String | AddressLine1 | First line of the address |
| | String | AddressLine2 | Second line of the address |
| | String | PostTown | Address town or city |
| | String | PostCode | Address postcode |
| | String | Country | Address country |

ENUM_PaymentMethod

| Property | Type | Value | Description |
|--------------------|------|--|--|
| ENUM_PaymentMethod | Enum | FasterPaymentIn FasterPaymentOut BACSIIn BACSOOut DirectDebitIn FasterPaymentReturn PeerToPeerIn PeerToPeerOut SEPAOut | Faster Payment into the account Faster Payment out of the account BACS payment into the account BACS payment out of the account Direct Debit payment into the account Faster Payment returned Peer-To-Peer payment into the account Peer-To- Peer payment out of the account SEPA payment out of the account |

ENUM_PaymentDirection

| Property | Type | Value | Description |
|----------------------------|------|---------------------|--|
| ENUM_Pay- mentDirection | Enum | Outbound Inbound | Payment out of the account. Payment into the account. |

ENUM_TransferFundsResult

| Property | Type | Value | Description |
|-------------------------------|------|--------------------|--|
| ENUM_Trans- ferFundsResult | Enum | Success Failure | Transfer of funds was successful. Transfer of funds failed. |

ENUM_DirectDebitCancellationReason

| Property | Type | Value | Description |
|---|------|--|--|
| ENUM_Dir- ectDebitCancellationReason | Enum | AccountClosed CancelledByDebtor DebtorDeceased ReferToDebtor | Account closed. Cancelled by debtor. The debtor is deceased. |

ENUM_DirectDebitCancelStatus

| Property | Type | Value | Description |
|-----------------------------------|------|--------------------|--|
| ENUM_Dir- ectDebitCancelStatus | Enum | Success Failure | Cancel of direct debit was successful. Cancel of direct debit failed. |

ENUM_DirectDebitStatus

| Property | Type | Value | Description |
|-----------------------------|------|----------------------------|---|
| ENUM_Dir- ectDebitStatus | Enum | 0 1 2 3 4 5 | Active Suspended Cancelled Pending Dormant Expired |

BLDirectDebit

| Type | Value | Description |
|----------|---------------------|--|
| DateTime | Created | Date and time created. |
| Enum | CreationMethod | Creation method. See Enum_CreationMethod . |
| String | CreditorAccountName | Creditor account name |
| String | CreditorBIC | Creditor BIC |
| String | CreditorIBAN | Creditor IBAN |
| String | CreditorReference | Creditor reference |
| String | DebtorAccountID | Debtor account ID |
| String | DerivedReference | Derived reference |
| String | IBAN | IBAN |
| Guid | ID | ID |

| Type | Value | Description |
|----------|------------------------------|---|
| Boolean | IgnoreTransactionCode | Whether to ignore the transaction code. |
| Boolean | IsInstructionHeldAtBank | Whether the instruction is held at a bank. |
| Boolean | IsPaperless | Whether the instruction is paperless . |
| Boolean | IsThroughNotificationService | Whether the instruction is through a notification service |
| DateTime | LatChanged | Date last changed. |
| String | Reference | Reference. |
| String | ServiceUserNumber | ServiceUserNumber. |
| Enum | Status | Direct debit status. See ENUM_DirectDebitStatus . |
| Boolean | SuppressFirstDirectDebit | Whether to suppress the first direct debit. |

ENUM_ChangeAccountStatus

| Property | Type | Value | Description |
|--------------------------|------|---|--|
| ENUM_ChangeAccountStatus | Enum | Success Failure AccountDoesNotExist AccountInvalidStatus | Account status change successful Account status change failed Account does not exist Invalid account status |

ENUM_CreationMethod

| Property | Type | Value | Description |
|---------------------|------|-------------------------------|---|
| ENUM_CreationMethod | Enum | Unknown Manual Imported | Unknown creation method Manually entered into system Imported into system |

ENUM_PendingDirectDebit

| Property | Type | Value | Description |
|-------------------------|------|--------------------------------|---|
| ENUM_PendingDirectDebit | Enum | LikelySuccess LikelyFailure | Pending Direct Debit likely to succeed. Pending Direct Debit likely to fail. |

3D Secure Data Structures

Detail

| Property | Type | Value | Description |
|----------|--------|------------------|--|
| Detail | String | ENUM_3DS_Details | See ENUM_3DS_Details . |

ENUM_3DS_Details

| Value | Description |
|--------------|---------------------------------|
| EmbossedName | Up to 120 characters allowed |
| Last4SSN | Four digit integer. |
| DateOfBirth | Must be in the format YYYYMMDD. |
| PANExp | Four digit integer. |
| FirstName | Up to 120 characters allowed. |

| Value | Description |
|-------------------|---|
| MiddleName | Up to 120 characters allowed. |
| LastName | Up to 120 characters allowed. |
| NamePrefix | Up to 120 characters allowed. |
| NameSuffix | Up to 120 characters allowed. |
| FullSSN | Nine digit integer. |
| Last6SSN | Six digit integer. |
| MothersMaidenName | Up to 120 characters allowed. |
| HomePhone | Up to 50 digit integer. |
| BusinessPhone | Up to 50 digit integer. |
| AltPhone1 | Up to 50 digit integer. |
| AltPhone2 | Up to 50 digit integer. |
| RelationshipType | Must be one of the following primary, co-applicant, authorized) |
| CustomerID | Up to 120 characters allowed. |
| AddressLine1 | Up to 120 characters allowed. |
| AddressLine2 | Up to 120 characters allowed. |
| City | Up to 120 characters allowed. |
| StateCode | Two digits |
| ZipCode | Five digits |
| CountryCode | Two characters according to ISO 3166-1 alpha-2 standards. |
| DayOfBirth | Two digits |
| MonthOfBirth | Two digits |
| YearOfBirth | Two digits |
| CreditLimit | Nine digits |
| LastStatementDate | Must be format YYYYMMDD. |
| CompanyName | Up to 120 characters allowed |
| CompanyTel | Up to 50 digit integer |
| BranchNumber | Ten digits |
| AccountNumber | Ten digits |
| Misc1 | Up to 120 characters allowed. |
| Misc2 | Up to 120 characters allowed. |
| Misc3 | Up to 120 characters allowed. |
| Misc4 | Up to 120 characters allowed. |
| Misc5 | Up to 120 characters allowed. |
| Misc6 | Up to 120 characters allowed. |
| Misc7 | Up to 120 characters allowed. |
| Misc8 | Up to 120 characters allowed. |

ENUM_3DS_Action

| Property | Type | Value | Description |
|-----------------|--------|-------------------------|---|
| ENUM_3DS_Action | String | Add Update Delete | Add 3DS record. Update 3DS record. Delete 3DS record. |

Ws_3DS_Relssue

| Property | Type | Value | Description |
|----------------|---------|----------|---------------------|
| Ws_3DS_Relssue | Boolean | Relssue | Re-issue 3DS token. |
| | Integer | NewToken | New token value. |

Agency Banking Data Structures

Associate

| Property | Type | Description |
|--------------|----------|--|
| applicant | Boolean | Whether the associate is an applicant. |
| dateOfBirth | DateTime | Date of birth. |
| documentInfo | String | Document information |
| firstName | String | First name |
| lastName | String | Last name |
| middleName | String | Middle name |
| ownership | Int | Ownership |
| phone | String | Phone |
| homeAddress | Object | See homeAddress |

DocumentInfo

| Property | Type | Description |
|------------|----------|--|
| filename | String | Filename of the file sent to the SFTP server. |
| filepath | String | Filepath to where the file is stored on the SFTP server. |
| uploadDate | DateTime | Date uploaded to the SFTP server. |

homeAddress

| Property | Type | Description |
|--------------|--------|----------------|
| addressLine1 | String | Address line 1 |
| addressLine2 | String | Address line 2 |
| posttown | String | Town |
| postCode | String | Postcode |
| country | String | Country |

RegisteredAddress

| Property | Type | Description |
|--------------|--------|----------------|
| addressLine1 | String | Address line 1 |
| addressLine2 | String | Address line 2 |
| posttown | String | Town |
| postCode | String | Postcode |
| country | String | Country |

TradingAddress

| Property | Type | Description |
|--------------|--------|----------------|
| addressLine1 | String | Address line 1 |
| addressLine2 | String | Address line 2 |
| posttown | String | Town |
| postCode | String | Postcode |
| country | String | Country |

BankingFeaturesReturn Type

| Property | Type | Description |
|----------------|--------|--|
| BankingIn | Enum | See ENUM_BankingInEnabled |
| BankingOut | Enum | See ENUM_BankingOutEnabled |
| DirectDebitIn | Enum | See ENUM_DirectDebitInEnabled |
| DirectDebitOut | Enum | See ENUM_DirectDebitOutEnabled |
| CardEnabled | Enum | See ENUM_CardEnabled |
| AccountName | String | The account name. |

DD_MANDATES

| Type | Value | Description |
|---------------------|-------|---|
| MandateId | AN | The mandateId related to the direct debit mandate. |
| MerchantName | AN | MerchantName from the latest DD_INCOMING_DEBIT with the same MandateID. |
| LastScheduledAmount | N | Amount of last PAYOUT with same Mandate ID. |
| MandateStatus | AN | The NewStatus of the mandate. |
| MandateCreatedDate | Date | Date that the mandate ID was originally added to the database. |

Payment Token Types

Refer to the table below for a list of transaction types.

| Type | Description |
|------|---|
| C | Contactless Device PAN |
| CF | Card on File PAN |
| CL | Cloud-base payments PAN |
| P | Real PAN (i.e. a normal ISO form factor card) |
| SE | Secure Element PAN |
| U | Unknown |
| V | Virtual PAN (i.e. virtual card) |
| BW | Browser-accessible wallet |

String Cleaning and Approved Characters

GPS cleans any strings before adding to the database, limiting characters to the ASCII range of 33 to 122. This is aimed at stopping any unexpected characters in the core data for Authorisation, Presentments and Transactions, and to ensure data can be reliably used by EHI, Reporting, Smart Client and other systems.

Note: These lists are subject to change over time as printing capabilities and customer requirements change. For details, check with your Implementation Manager.

Characters Removed from Input Fields

The following special characters are removed from input fields:

| Field | Special Characters that will be removed |
|---------------|---|
| CardName | ;!?\<>~#%@\ '[]" |
| FirstName | ;!?\<>~#%@\ '[]" |
| LastName | ;!?\<>~#%@\ '[]" |
| EmbossLine4 | ;\:!\<>~#%^@(){} '[]" |
| Addr1 | ;!?\<>~#%^@(){} '[]" |
| Addr2 | ;!?\<>~#%^@(){} '[]" |
| Addr3 | ;!?\<>~#%^@(){} '[]" |
| City | ;!?\<>~#%^@(){} &[]" |
| PostCode | ;!?\<>~#%^@(){} &[]" |
| Country | ;!?\<>~#%^@(){} &[]" |
| Delv_AddrL1 | ;!?\<>~#%^@(){} '[]" |
| Delv_AddrL2 | ;!?\<>~#%^@(){} '[]" |
| Delv_AddrL3 | ;!?\<>~#%^@(){} '[]" |
| Delv_City | ;!?\<>~#%^@(){} &[]" |
| Delv_County | ;!?\<>~#%^@(){} &[]" |
| Delv_PostCode | ;!?\<>~#%^@(){} &[]" |
| Delv_Country | ;!?\<>~#%^@(){} &[]" |
| Delv_Code | ;!?\<>~#%^@(){} &[]" |
| Fulfil1 | ;\:!\<>~#%^@(){} &'[]" |
| Fulfil2 | ;\:!\<>~#%^@(){} &'[]" |
| ThermalLine1 | ;!?\<>~#%^@(){} &[]" |
| ThermalLine2 | ;!?\<>~#%^@(){} &[]" |
| Title | ;!?\<>~#%^@(){} &[]" |
| ImageId | ;!?\<>~#%^@(){} &[]" |
| LogoFrontId | ;!?\<>~#%^@(){} &[]" |
| LogoBackId | ;!?\<>~#%^@(){} &[]" |
| Mobile | ;\:!\<>~#%^@-=_\$??(){} &'[]" |
| ExternalRef | ;\:!\<>~#%^@(){} &'[]" |
| CustAccount | ;\:!\<>~#%^@(){} &'[]" |

| Field | Special Characters that will be removed |
|---------------------|---|
| Reason | ;,.\!/?<>~`#%^@(){} &'[]" |
| Other string fields | ;!?\<>~`#%^@(){} &[]" |

Card Manufacturer Approved Characters

When submitting the *CardName* and *EmbossName* parameters (or *FirstName* and *LastName* if *CardName* is empty), please note that the card manufacturer only accepts the following approved characters:

| Manufacturer | Allowed Characters |
|------------------------|---|
| TCT | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^',&V?' |
| AllPay | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^/','()+ |
| GNC | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^+@&-/,' |
| GEMALTO | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| Nitecrest | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789.- ^`ßÀÁÂÃÄÅÆÇÈÉÊËÌÍÎÏÑÓÔÕÖØŠÚÛÜÝŽÀÇĎĚĽŁłŃŇŮŘŠŤŮŽž |
| Exceet | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^&' |
| Futurecard | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| DZ | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| ABNote | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| TrueB | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| MTL | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| CPI | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^'' |
| Rosan Finance | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| GyD | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^/','()+ |
| Morpho | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| ArrowEye | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^/','()+ |
| Nagra ID | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^/','()+ |
| Gemalto - DCT | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| Intaremit | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| Gemalto Poland | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^aAcCeEILnNÓóSsZzZz |
| Austria Card | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| TAG | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^'''''' |
| DigiSEq | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^ |
| GPS | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^',&V?' |
| Borica | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^',&V?' |
| Gemalto Czech Republic | abcde- fghijklmnopqr- stuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789ääácdééeíllnóoôrštúúuuýžĂĂCDÉÉEĪLLNÓŌŌRŠTŮÚUUÝŽ!\$%&'-.+ (./ |
| Oberthur | abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789äöüÄÖÜ.-^/','()+ |

| Diacritic Letter | Classic Latin Alphabet Letter |
|------------------|-------------------------------|
| ç | c |
| É | E |
| é | e |
| È | E |
| è | e |
| Ê | E |
| ê | e |
| Ë | E |
| ë | e |
| Í | I |
| í | i |
| Î | I |
| î | i |
| Ï | I |
| ï | i |
| Ì | I |
| ì | i |
| Ñ | N |
| ñ | n |
| Ó | O |
| ó | o |
| Ô | O |
| ô | o |
| Ò | O |
| ò | o |
| Ö | O |
| ö | o |
| Õ | O |
| õ | o |
| Ú | U |
| ú | u |
| Û | U |
| û | u |
| Ü | U |
| ü | u |
| Ù | U |
| ù | u |
| ÿ | Y |
| ÿ | y |

| Diacritic Letter | Classic Latin Alphabet Letter |
|------------------|-------------------------------|
| Ý | Y |
| ý | y |
| ß | S |
| Æ | AE |
| æ | ae |
| Œ | OE |
| œ | oe |
| Č | C |
| č | c |
| Ď | D |
| ď | d |
| Ě | E |
| ě | e |
| Ĺ | L |
| ĺ | l |
| Ł | L |
| ł | l |
| Ń | N |
| ń | n |
| Ö | O |
| ö | o |
| Ř | R |
| ř | r |
| Š | S |
| š | s |
| Ť | T |
| ť | t |
| Ú | U |
| ú | u |
| Û | U |
| û | u |
| Ž | Z |
| ž | z |
| Ø | O |
| Ą | A |
| ą | a |
| Ć | C |
| ć | c |
| Ę | E |

| Diacritic Letter | Classic Latin Alphabet Letter |
|------------------|-------------------------------|
| ę | e |
| Ł | L |
| ł | l |
| Ń | N |
| ń | n |
| Ø | O |
| ø | o |
| Ř | R |
| ř | r |
| Ś | S |
| ś | s |
| Ş | S |
| ş | s |
| Ť | T |
| ť | t |
| Ż | Z |
| ż | z |
| Ž | Z |
| ž | z |

Character Support in Web Services Calls

Postcode Permitted Characters

You can use the following characters in the **Postcode** field:

- Arabic numerals "0" to "9"
- letters of the ISO basic Latin alphabet (A-Z, a-z)
- spaces
- hyphens(-).

Card Name Permitted Characters

You can use the following characters in the **CardName** field:

- abcdefghijklmnopqrstuvwxyz
- ABCDEFGHIJKLMNOPQRSTUVWXYZ
- 0123456789
- Some non-english characters i.e. "äöüÄÖÜ"
- "\" (backslash)
- "-" (hyphen)
- "^" (caret)

- “.” (full stop)
- “ ” (space character)
- “'” (apostrophe)

Processing of Phone Numbers

GPS processes telephone numbers in web services as follows:

- Deletes all special characters, including spaces, left and right parenthesis (i.e. brackets), and hyphens “-”.
- Deletes all leading non-numeric characters except “+”. Non-leading non-numeric characters (e.g. “-”) are not removed.
- Depending on the country, the national (domestic/inter-regional within a country) dialling prefix (e.g. single zero for many countries such as the UK, France, Spain, Australia) is dropped and “+” and the IDD (International Direct Dialing) number is prefixed. For example:
 - London, UK: 020 7292 2400 is changed to **+442072922400**
 - Lyon, France: 04 72 12 34 56 78 is changed to **+3347212345678**
 - Kuala Lumpur, Malaysia: 03 2123 4567 is changed to **+60321234567**
 - Mobile number, Spain: 0612 345 678 is changed to **+34612345678**
 - Sydney, Australia: 02 7010 1111 is changed to **+61270101111**
- If there is a “+” prefix, GPS checks if the digits which follow match the IDD number of the specified country. If they don't match, nothing is done. If they do match, GPS checks if the digits which follow match the national dialling prefix (e.g. single zero for many countries such as UK, France, Spain, Australia). If they do match, the national dialling prefix is dropped. For example:
 - London, UK: +44 020 7292 2400 is changed to **+442072922400**
 - Lyon, France: +33 04 72 12 34 56 78 is changed to **+3347212345678**
 - Kuala Lumpur, Malaysia: +60 03 2123 4567 is changed to **+60321234567**
 - Mobile number, Spain: +34 0612 345 678 is changed to **+34612345678**
 - Sydney, Australia: +61 02 7010 1111 is changed to **+61270101111**
- If there is no leading “+” or national dialling prefix, the phone number is stored as it is.

Processing Codes (DE003)

Refer to the table below for a list of processing codes returned in the <ProcCode> field for a [Card Statement](#) request. These codes use the DE003 messages for Mastercard or Visa transactions. GPS use this field to supply a processing code for GPS-generated transactions; The codes are listed in the **Processing Code** screen on Smart Client.

| Code | Description |
|--------|---|
| 000000 | Debits (goods and services) |
| 001000 | Purchase with Savings account |
| 001999 | Fees : POS Standard |
| 002000 | Purchase with Checking account |
| 002999 | Fees : GPS Kiosk |
| 003000 | Purchase with Credit Card account |
| 003900 | Purchase - Corporate account |
| 003999 | Fees : GPS Web Site |
| 004000 | Purchase with Universal Account |
| 004999 | Fees : Card Processor |
| 005999 | Fees : Standard Web Service |
| 006000 | Purchase - Stored value account |
| 006999 | Fees : Agent |
| 007999 | Fees : Head Office |
| 008999 | Fees : Call Centre |
| 009999 | Fees : Customer Web site |
| 010000 | Debits (for ATM withdrawals, or for cash disbursements using Maestro cards) |
| 010999 | Fees : Wirecard |
| 011000 | Withdrawal with Savings account |
| 011999 | Fees : Customer kiosk |
| 012000 | Withdrawal with Checking account |
| 012999 | Fees : Customer mobile app |
| 013000 | Withdrawal with Credit Card account |
| 013900 | Withdrawal - Corporate account |
| 013999 | Fees : GPS IVR |
| 014000 | Withdrawal with Universal Account |
| 014999 | Fees : Unknown |
| 016000 | Withdrawal - Stored value account |
| 016999 | Fees : Card Request File |
| 017999 | Fees : Corporate |
| 018999 | Fees : epay |
| 019999 | Fees : HOCA Verifiable |
| 020000 | Adjustment Credits |
| 021000 | Adjustment Credits |
| 022999 | PayPoint Load Fee |

| Code | Description |
|--------|-----------------------------|
| 023999 | Fees : POS Reload |
| 024999 | Fees : TCC Web Report |
| 026999 | Fees : VIRGIN POS Reload |
| 029999 | Fees : DXB Zero Load |
| 030999 | Fees : AlFardan Reload |
| 031999 | Fees : UAEx Reload |
| 032999 | Fees : AlAnsari Reload |
| 033999 | Fees : 14 day Cool Off |
| 034999 | Fees : Unload to Repatriate |
| 038999 | Fees : VIRGIN Zero Load |
| 041999 | Fees : JADE POS standard |
| 042999 | Fees : JADE POS Reload |
| 043999 | Fees : JADE Zero Load |
| 044999 | Fees : Wirecard-Cadooz |
| 045999 | Fees : Crunch POS Standard |
| 047999 | Fees : Unload |
| 048999 | Fees : Balance Transfer |
| 049999 | Fees : Sofort Banking |
| 050999 | Fees : Wirecard e-commerce |
| 052999 | Fee: Load1 |

Device Types

The following device type codes can be used in the `<Device_Type>` tag, when requesting a payment token.

| Code | Description |
|------|--|
| A | Clothing or apparel |
| B | Media or Gaming device, e.g., Xbox, TV, set-top box |
| C | Card (no further detail) |
| D | Domestic application, e.g., fridge, washing machine |
| F | Fob or key-fob |
| G | Mobile tag, case or sleeve |
| H | Fashion accessory, e.g., handbag, glasses |
| J | Jewellery, e.g., necklace, rings, bracelets |
| M | Mobile phone (no further detail) |
| P | Personal computer or laptop |
| R | Wristband (no further detail.). Possibly includes rings too. |
| S | Sticker |
| T | Tablet (no further detail) |
| U | Unknown |
| V | Vehicle |
| W | Watch (no further detail) |
| X | Mobile phone or tablet (sender unclear) |

Fraud Type Codes

The information on this page is relevant to the Mastercard SAFE Reporting programme and is provided for information only. For further details of fraud type codes, refer to the *Mastercard SAFE Products User Guide*.

Note: File-based SAFE reporting via web services is currently not available. You should raise your SAFE reports using Smart Client. See GPSPRN-39.

Fraud Type Codes

The table below contains acceptable values for reporting a fraud type.

| Code | Description |
|------|---|
| 00 | Lost Fraud. A fraudulent transaction that occurs with the use of a lost credit or debit card. |
| 01 | Stolen Fraud. A fraudulent transaction that occurs with the use of a stolen credit or debit card. |
| 02 | Never Received Issue. The interception and use of a credit or debit card before receipt by the of the cardholder. |
| 03 | Fraudulent Application. A fraudulent transaction that occurs with the use. |
| 04 | Counterfeit Card Fraud. The use of altered or illegally reproduced credit or debit card including the replication or alteration of the magnetic stripe or embossing. |
| 05 | Account Takeover Fraud. An existing credit or debit account is used without the actual, implied, or apparent authority of the cardholder. |
| 06 | Card Not Present Fraud. A fraudulent transaction that occurs with the use of credit or debit account information in a card not present transaction. |
| 07 | Multiple Imprint Fraud. A fraudulent transaction that occurs with a credit or debit card where the merchant, having completed a legitimate face-to-face transaction, deposits one or more additional transactions without the actual, implied, or apparent authority of the cardholder. |
| 51 | Bust-out Collusive Merchant. A collusive cardholder engaging in transactions with a collusive merchant as defined in the Cardholder-Merchant Collusion Program. |

Sub-fraud Type Codes

The table below contains acceptable values for reporting a sub-fraud type.

| Code | Description |
|------|---|
| K | Convenience or Balance Transfer check transaction |
| N | PIN not used in transaction |
| P | PIN used in transaction |
| U | Unknown |

Wallet Tokenisation Reason Codes

The wallet service provider tokenisation reason codes are a string of 24 ASCII characters which are '0' or '1':

- 0 = this reason is not set
- 1 = reason set

The first reason is in the last character, the second reason in the second last character, and so on. For example, if reasons 1, 5 and 16 were set, then `wallet_reasons` would be the string `"000000001000000000010001"`.

Wallet_Reasons

Refer to the table below for a list of reason codes.

| Reason | Offset in wallet_reasons | Meaning (common for all wallets) | Apple Pay Description |
|--------|--------------------------|--|--|
| 1 | 24 | Account too new since launch | Apple ID was created 40 days or less prior to launch. |
| 2 | 23 | Account too new | Apple ID was created 40 days or less prior to provisioning request. |
| 3 | 22 | Account Card too new | Apple ID / card pair is less than 20 days old. |
| 4 | 21 | Account Data recently changed | Changes have been made to the account settings for the Apple ID in the last 20 days. |
| 5 | 20 | Suspicious activity | Suspicious transactions linked to this account. |
| 6 | 19 | Inactive account | The account has not had activity in the last year. |
| 7 | 18 | Device has suspended tokens | Suspended cards in the secure element |
| 8 | 17 | Device recently lost | The phone was put in lost mode in the last 7 days for longer than the duration threshold (1 hour). |
| 9 | 16 | Too many recent attempts to digitise a payment token | The number of provisioning attempts for this card on this device in 72 hours exceeds the threshold (3 attempts). |
| 10 | 15 | Digitisations too frequent | There have been more than the threshold number of different cards attempted at provisioning to this phone in 24 hours (5 different cards). |
| 11 | 14 | Too many different cardholders | The card provisioning request contains a distinct name in excess of the permitted threshold (2 distinct names). |
| 12 | 13 | Low device score | Device score is less than 3. |
| 13 | 12 | Low account score | Account score is less than 4. |
| 14 | 11 | Digitisation attempted outside home territory or country | Device provisioning location outside of device region. |
| 15 | 10 | Recommendation system inoperative | Model rules not available at this time (in cases where back end systems time out). |
| 16 | 9 | High risk detected | Apple algorithm identified high fraud risk, enhanced verification recommended. |
| 17 | 8 | ? | Phone number score is less than 3. |
| 18 | 7 | RFU | Reserved for Future Use |
| 19 | 6 | RFU | Reserved for Future Use |
| 20 | 5 | RFU | Reserved for Future Use |
| 21 | 4 | RFU | Reserved for Future Use |
| 22 | 3 | RFU | Reserved for Future Use |
| 23 | 2 | RFU | Reserved for Future Use |
| 24 | 1 | RFU | Reserved for Future Use |

Currency Codes

Currency codes are based on the [ISO 4217](#) specification.

The currency exponent is used in all fields containing an amount. See [Amounts and Currency Exponents](#).

| Code | Number | Exponent | Currency |
|------|--------|----------|---|
| AED | 784 | 2 | United Arab Emirates dirham |
| AFN | 971 | 2 | Afghan afghani |
| ALL | 008 | 2 | Albanian lek |
| AMD | 051 | 2 | Armenian dram |
| ANG | 532 | 2 | Netherlands Antillean guilder |
| AOA | 973 | 2 | Angolan kwanza |
| ARS | 032 | 2 | Argentine peso |
| AUD | 036 | 2 | Australian dollar |
| AWG | 533 | 2 | Aruban florin |
| AZN | 944 | 2 | Azerbaijani manat |
| BAM | 977 | 2 | Bosnia and Herzegovina convertible mark |
| BBD | 052 | 2 | Barbados dollar |
| BDT | 050 | 2 | Bangladeshi taka |
| BGN | 975 | 2 | Bulgarian lev |
| BHD | 048 | 3 | Bahraini dinar |
| BIF | 108 | 0 | Burundian franc |
| BMD | 060 | 2 | Bermudian dollar |
| BND | 096 | 2 | Brunei dollar |
| BOB | 068 | 2 | Boliviano |
| BOV | 984 | 2 | Bolivian Mvdol |
| BRL | 986 | 2 | Brazilian real |
| BSD | 044 | 2 | Bahamian dollar |
| BTN | 064 | 2 | Bhutanese ngultrum |
| BWP | 072 | 2 | Botswana pula |
| BYN | 933 | 2 | Belarusian ruble (new) |
| BYR | 974 | 2 | Belarusian Ruble (old) |
| BZD | 084 | 2 | Belize dollar |
| CAD | 124 | 2 | Canadian dollar |
| CDF | 976 | 2 | Congolese franc |
| CHE | 947 | 2 | Swiss WIR Euro |
| CHF | 756 | 2 | Swiss franc |
| CHW | 948 | 2 | Swiss WIR Franc |
| CLF | 990 | 4 | Chile Unidad de Fomento |
| CLP | 152 | 0 | Chilean peso |
| CNY | 156 | 2 | Chinese Renminbi/Yuan |

| Code | Number | Exponent | Currency |
|------|--------|----------|-----------------------------------|
| COP | 170 | 2 | Colombian peso |
| COU | 970 | 2 | Unidad de Valor Real (UVR) |
| CRC | 188 | 2 | Costa Rican colon |
| CUC | 931 | 2 | Cuban convertible peso |
| CUP | 192 | 2 | Cuban peso |
| CVE | 132 | 0 | Cape Verde escudo |
| CZK | 203 | 2 | Czech koruna |
| DJF | 262 | 0 | Djiboutian franc |
| DKK | 208 | 2 | Danish krone |
| DOP | 214 | 2 | Dominican peso |
| DZD | 012 | 2 | Algerian dinar |
| EGP | 818 | 2 | Egyptian pound |
| ERN | 232 | 2 | Eritrean nakfa |
| ETB | 230 | 2 | Ethiopian birr |
| EUR | 978 | 2 | Euro |
| FJD | 242 | 2 | Fiji dollar |
| FKP | 238 | 2 | Falkland Islands pound |
| GBP | 826 | 2 | Great Britain (UK) Pound Sterling |
| GEL | 981 | 2 | Georgian lari |
| GHS | 936 | 2 | Ghanaian cedi |
| GIP | 292 | 2 | Gibraltar pound |
| GMD | 270 | 2 | Gambian dalasi |
| GNF | 324 | 0 | Guinean franc |
| GTQ | 320 | 2 | Guatemalan quetzal |
| GYD | 328 | 2 | Guyanese dollar |
| HKD | 344 | 2 | Hong Kong dollar |
| HNL | 340 | 2 | Honduran lempira |
| HRK | 191 | 2 | Croatian kuna |
| HTG | 332 | 2 | Haitian gourde |
| HUF | 348 | 2 | Hungarian forint |
| IDR | 360 | 2 | Indonesian rupiah |
| ILS | 376 | 2 | Israeli new shekel |
| INR | 356 | 2 | Indian rupee |
| IQD | 368 | 3 | Iraqi dinar |
| IRR | 364 | 2 | Iranian rial |
| ISK | 352 | 0 | Icelandic króna |
| JMD | 388 | 2 | Jamaican dollar |
| JOD | 400 | 3 | Jordanian dinar |
| JPY | 392 | 0 | Japanese yen |

| Code | Number | Exponent | Currency |
|------|--------|----------|-----------------------------------|
| KES | 404 | 2 | Kenyan shilling |
| KGS | 417 | 2 | Kyrgyzstani som |
| KHR | 116 | 2 | Cambodian riel |
| KMF | 174 | 0 | Comoro franc |
| KPW | 408 | 2 | North Korean won |
| KRW | 410 | 0 | South Korean won |
| KWD | 414 | 3 | Kuwaiti dinar |
| KYD | 136 | 2 | Cayman Islands dollar |
| KZT | 398 | 2 | Kazakhstani tenge |
| LAK | 418 | 2 | Lao kip |
| LBP | 422 | 2 | Lebanese pound |
| LKR | 144 | 2 | Sri Lankan rupee |
| LRD | 430 | 2 | Liberian dollar |
| LSL | 426 | 2 | Lesotho loti |
| LYD | 434 | 3 | Libyan dinar |
| MAD | 504 | 2 | Moroccan dirham |
| MDL | 498 | 2 | Moldovan leu |
| MGA | 969 | 2 | Malagasy ariary |
| MKD | 807 | 2 | Macedonian denar |
| MMK | 104 | 2 | Myanmar kyat |
| MNT | 496 | 2 | Mongolian tögrög |
| MOP | 446 | 2 | Macanese pataca |
| MRO | 478 | 2 | Mauritanian ouguiya (old) |
| MRU | 929 | 2 | Mauritanian ouguiya (new) |
| MUR | 480 | 2 | Mauritian rupee |
| MVR | 462 | 2 | Maldivian rufiyaa |
| MWK | 454 | 2 | Malawian kwacha |
| MXN | 484 | 2 | Mexican peso |
| MXV | 979 | 2 | Mexican Unidad de Inversion (UDI) |
| MYR | 458 | 2 | Malaysian ringgit |
| MZN | 943 | 2 | Mozambican metical |
| NAD | 516 | 2 | Namibian dollar |
| NGN | 566 | 2 | Nigerian naira |
| NIO | 558 | 2 | Nicaraguan córdoba |
| NOK | 578 | 2 | Norwegian krone |
| NPR | 524 | 2 | Nepalese rupee |
| NZD | 554 | 2 | New Zealand dollar |
| OMR | 512 | 3 | Omani rial |
| PAB | 590 | 2 | Panamanian balboa |

| Code | Number | Exponent | Currency |
|------|--------|----------|-----------------------------------|
| PEN | 604 | 2 | Peruvian sol |
| PGK | 598 | 2 | Papua New Guinean kina |
| PHP | 608 | 2 | Philippine peso |
| PKR | 586 | 2 | Pakistani rupee |
| PLN | 985 | 2 | Polish zloty (new) |
| PYG | 600 | 0 | Paraguayan guaraní |
| QAR | 634 | 2 | Qatari riyal |
| RON | 946 | 2 | Romanian leu |
| RSD | 941 | 2 | Serbian dinar |
| RUB | 643 | 2 | Russian ruble (old) |
| RUR | 810 | 2 | Russian ruble |
| RWF | 646 | 0 | Rwandan franc |
| SAR | 682 | 2 | Saudi riyal |
| SBD | 090 | 2 | Solomon Islands dollar |
| SCR | 690 | 2 | Seychelles rupee |
| SDG | 938 | 2 | Sudanese pound |
| SEK | 752 | 2 | Swedish krona/kronor |
| SGD | 702 | 2 | Singapore dollar |
| SHP | 654 | 2 | Saint Helena pound |
| SLE | 925 | 2 | Sierra Leonean leone (new) |
| SLL | 694 | 2 | Sierra Leonean leone (old) |
| SOS | 706 | 2 | Somali shilling |
| SRD | 968 | 2 | Surinamese dollar |
| SSP | 728 | 2 | South Sudanese pound |
| STD | 678 | 2 | São Tomé and Príncipe dobra (old) |
| STN | 930 | 2 | São Tomé and Príncipe dobra (new) |
| SVC | 222 | 2 | Salvadoran colón |
| SYP | 760 | 2 | Syrian pound |
| SZL | 748 | 2 | Swazi lilangeni |
| THB | 764 | 2 | Thai baht |
| TJS | 972 | 2 | Tajikistani somoni |
| TMM | 795 | 0 | Turkmenistan manat (old) |
| TMT | 934 | 2 | Turkmenistan manat (new) |
| TND | 788 | 3 | Tunisian dinar |
| TOP | 776 | 2 | Tongan pa-anga |
| TRL | 792 | 2 | Turkish lira |
| TRY | 949 | 2 | Turkish lira |
| TTD | 780 | 2 | Trinidad and Tobago dollar |
| TWD | 901 | 2 | New Taiwan dollar |

| Code | Number | Exponent | Currency |
|------|--------|----------|--|
| TZS | 834 | 2 | Tanzanian shilling |
| UAH | 980 | 2 | Ukrainian hryvnia |
| UGX | 800 | 0 | Ugandan shilling |
| USD | 840 | 2 | United States dollar |
| USN | 997 | 2 | US Dollar (next day) |
| USS | 998 | 2 | US Dollar (same day) |
| UYI | 940 | 0 | Uruguay Peso en Unidades Indexadas |
| UYU | 858 | 2 | Uruguayan peso |
| UYW | 927 | 4 | Unidad previsional |
| UZS | 860 | 2 | Uzbekistan som |
| VEF | 937 | 2 | Venezuelan Bolivar Fuerte (old) |
| VES | 928 | 2 | Venezuelan bolívar soberano (new) |
| VND | 704 | 0 | Vietnamese dong |
| VUV | 548 | 0 | Vanuatu vatu |
| WST | 882 | 2 | Samoan tala |
| XAF | 950 | 0 | CFA franc BEAC |
| XAG | 961 | 2 | Silver (one troy ounce) |
| XAU | 959 | 2 | Gold (one troy ounce) |
| XBA | 955 | 2 | European Composite Unit (EURCO) (bond market unit) |
| XBB | 956 | 2 | European Monetary Unit (E.M.U.-6) (bond market unit) |
| XBC | 957 | 2 | European Unit of Account 9 (E.U.A.-9) (bond market unit) |
| XBD | 958 | 2 | European Unit of Account 17 (E.U.A.-17) (bond market unit) |
| XCD | 951 | 2 | East Caribbean dollar |
| XDR | 960 | 2 | Special drawing rights |
| XOF | 952 | 0 | CFA franc BCEAO |
| XPD | 964 | 2 | Palladium (one troy ounce) |
| XPF | 953 | 0 | CFP franc (franc Pacifique) |
| XPT | 962 | 2 | Platinum (one troy ounce) |
| XSU | 994 | 2 | SUCRE |
| XTS | 963 | 2 | Code reserved for testing purposes |
| XUA | 965 | 2 | ADB Unit of Account |
| XXX | 999 | 2 | No currency |
| YER | 886 | 2 | Yemeni rial |
| ZAR | 710 | 2 | South African rand |
| ZMK | 894 | 2 | Zambian kwacha (old) |
| ZMW | 967 | 2 | Zambian kwacha (new) |
| ZWD | 716 | 2 | Zimbabwean dollar |
| ZWL | 932 | 2 | Zimbabwean dollar A/10 |

Amounts and Currency Exponents

Web service fields containing an amount can include up to four decimal places, depending on the currency exponent (e.g., 10.99 for EUR which has a currency exponent of 2). Below are examples of fields containing amounts:

```
AmtTxn, AvlBal, BlkAmt, AmtUnLoad, StartBal, EndBal, AmtBill, AmtTxn, FixedFee, RateFee, FxPdg, MCCPdg,
Dom_Fee_Fixed, Dom_Fee_Rate, Non_Dom_Fee_Fixed, Non_Dom_Fee_Rate, Fx_Fee_Fixed, Fx_Fee_Rate, Other_Fee_Desc,
Other_Fee_Amt, FxPdg, MCCPdg, AvlBalance_GPS_STIP, CurBalance_GPS_STIP, FINAMT, BLKAMT, AMTAVL, Fee, WaivedoffAmount,
TotalAmount, WaivedoffAmount
LimitInfo fields (V1):
MaxAllowableBalance, DailyLoadLimit, AmountLoaded, AmountLeftToLoad, DailyPosLimit, POSUsage, ValueOfPOSLeft,
DailyCashLimit, CashWithdrawal, ValueOfCashLeft, DailyUnLoadLimit, AmountUnLoaded, AmountLeftToUnLoad
LimitInfo fields (V2):
MaxPerTransaction, MinPerTransaction, Limit, Usage
```

Card Manufacturers

GPS provides an XML file-based interface which allows card manufacturers to accept card generation files from GPS. For details, see the [GPS Card generation Interface Specification](#).

Before submitting a generate card request to GPS using the [Card Create](#) web services API, make sure you have discussed your card requirements with your selected card manufacturer and understand what manufacturer information you need to include in your request.

Supported Card Manufacturers

Below are examples of some of our supported card manufacturers.

Note: This list is provided for guidance only. As the list of supported manufacturers is constantly being updated, please check with your Implementation Manager to confirm support for a specific manufacturer.

| Manufacturer | Region | Functionality | Further information |
|-------------------------------|---------------------------------|---------------------|---|
| AB Corp Australia | Australia | Cards | http://www.abcorp.com |
| AB Corp USA | US | Cards | http://www.abcorp.com |
| AB Note | Australia | Cards | http://www.abnote.com.au |
| AllPay | UK | Cards | https://allpay.cards/ |
| ArrowEye | US | Cards | http://www.arroweye.com |
| Austria Card | Austria | Cards | https://www.austriacard.com/ |
| BORICA-BANKSERVICE AD | Bulgaria | Cards | http://www.bobs.bg |
| CPI Card Group | Canada | Cards | http://www.cpicardgroup.com |
| DigiSEq | UK | Cards and wearables | http://www.digiseq.co.uk |
| DZ Card | Thailand/ Asia-Pacific | Cards | http://www.dzcard.com/ |
| EVRY | Latvia/ Baltics | Cards | https://www.tietoevry.com/ |
| Exceet | Germany | Cards and Maestro | http://www.exceet-card-group.com/en/ |
| FutureCard | Middle East, North Africa, APAC | Cards | http://www.futurecard.com |
| Gemalto (Now known as Thales) | Europe | Card and chip | http://www.gemalto.com |
| GNC/TCS | Germany | Cards | https://www.gnc-cardservices.de/ |
| GoldPac | APAC | Cards | http://www.goldpac.com |
| GyD | Germany & UK | Cards | http://www.gi-de.com |
| Idemia | Czech Republic | Cards | https://www.idemia.com/ |
| Intaremit | Spain | Cards and wearables | https://www.intaremit.es/ |
| Morpho | Now part of Idemia | Cards | Now part of Idemia |
| MTL Card Products | UK | Cards | http://www.mtlcard.com |
| NiD (Previously Nagra ID) | Switzerland | Cards | http://www.nagraid.com |
| Nitecrest | UK | Cards | http://nitecrest.co.uk |
| Oberthur | Now part of Idemia | Cards | http://www.oberthur.com/ |
| Placard | Australia | Cards | https://placard.com.au/ |
| Tag Systems | UK, Spain, Norway, Poland, US | Cards | https://www.tag systems.net/ |
| Thames Group (TCT) | UK | Cards | http://www.thamescardtechnology.com |
| TrueB (Thales) | Europe | Cards | http://www.trueb.ch/en/home |

General FAQs

This section provides answers to frequently asked questions.

Card Manufacturers

Which card manufacturers does GPS support?

For a list of supported manufacturers, see [Card Manufacturers](#).

Transactions

What is the primary key or identifier for a transaction?

`ItemId` is the primary key or identifier for a transaction.

Tokenisation Services

Where can I find out more about the GPS tokenisation service?

For detailed information on setting up and integrating the GPS tokenisation service, see the [Tokenisation Service Guide](#).

How can I send an activation code to the cardholder's phone number?

If you want to use the SMS activation code service to send an Activation Code Notification (ACN) to the cardholder, you must include the mobile phone number of the cardholder when creating the card: first use the [Card Create](#) web service to create the card and then use the [Card Activate](#) web service to activate the card via SMS.

How do I send a confirmation SMS to the cardholder upon successful token activation in Apple Pay?

GPS can configure your product so that your end customers receive an SMS notification after successfully activating their Apple Pay token. You must ensure that you provide the cardholder's mobile number when creating the card.

Note: GPS will receive a Tokenization Complete Notification (TCN) from Apple Pay if the activation is successful. We do not receive notifications for unsuccessful activations.

How can I retrieve the DPAN?

You can use the `ws_Payment-Token_Get` web service to get the DPAN for a card. See [Payment Token Get](#).

The DPAN is returned in the `<Payment-Token >` field as a masked value.

Do I need to be PCI compliant to support MDES/VDEP?

To support MDES/VDEP integration on Android Pay or Apple Pay, you must either be PCI DSS Compliant or be using a third party wallet provider for your virtual card. Both Apple and Google mandate Push Provisioning, which requires handling the full PAN.

You do not need to be PCI compliant for wallets that do not mandate Push Provisioning.

3D Secure

Where can I find out more about the GPS 3D Secure service?

For detailed information on setting up and integrating the GPS 3D Secure service, see the [3D Secure Guide](#).

How do we enrol cardholders in 3DS?

You can use `Ws_AddUpDelCredentials` to enrol cardholders. See [3D Secure RDX Credentials](#).

The same web service is used to add, update and delete credentials for SMS One Time Password (OTP) and Biometric authentication methods.

Note: The mobile number must be correct (in the format +44 7566789123) to allow the One Time Password to be sent to your cardholder.

Which service do you use to provide 3D Secure?

GPS use Cardinal Commerce to manage 3D secure enrolment and authentication. Cardinal provider two types of interfaces:

- Real-time Data Exchange (RDX): enables updates in real-time. GPS use this interface.
- Batch file interface: legacy interface which is updated hourly (at 20 minutes past the hour). Available as a legacy service only.

What type of credentials are used to authenticate a 3D Secure transaction?

Cardinal offer the following methods of cardholder authentication:

| GPS Option | Name | Description |
|------------|-----------|---|
| 1 | RBA | Risk Based Authentication. Cardinal apply a risk score to determine whether to automatically accept or reject the transaction. You can configure the risk scores elements for your programme using Cardinal's Risk Portal (Check with your Account Manager for details of how to access this portal). |
| 2 | OTPSMS | One-time password via SMS. GPS sends the OTP request to the cardholder's registered phone number when we receive a message from Cardinal. The cardholder then enters the OTP to authenticate on the merchant's website. |
| 3 | OTPEMAIL | One-time password via email. Note: OTPEMAIL is currently not available. |
| 4 | BIOMETRIC | Uses some form of user biometric to authenticate, such as a fingerprint or facial recognition on the device. GPS sends the authentication request to your systems, using the endpoint set up for your Programme. Your systems must handle the authentication. For details, refer to the <i>3DS RDX Biometric Interface Specifications</i> . |
| 5 | OUTOFBAND | Managed outside of the GPS authentication flow, where the cardholder has to authenticate via a key FOB or other token device. Note: OUTOFBAND is currently not available. |
| 6 | CHOICE | This option allows the cardholder to choose their preferred authentication method. Note that this option must be set up in the GPS system and is not set via web services. |
| 7 | KBA | Knowledge-based Authentication. Authentication is based on something only the cardholder knows (e.g., the answer to the question 'What was your first pet's name?') |

How are 3D Secure transactions authenticated?

When a cardholder uses their card at the website of a merchant who is enrolled on the 3D Secure scheme, the merchant initiates a 3D authentication call. Cardinal Commerce receive the request. Authentication is handled based on the authentication credential type set up for the card:

- **RBA** – Cardinal authorise or decline the transaction based on the risk score settings configured in their portal. The cardholder does not need to enter credentials to authenticate.
- **OTPSMS** – GPS sends a One-Time Password (OTP) request to the cardholder's registered phone number when we receive a message from Cardinal. The cardholder then enters the OTP to authenticate on the merchant's website.
- **BIOMETRIC** – GPS sends the authentication request to your systems, using the endpoint set up for your Programme. Your systems must handle the authentication. For details, refer to the [3D Secure Guide](#).
- **OUTOFBAND** – GPS sends the authentication request to your systems, using the endpoint set up for your Programme. Your systems must handle the authentication. For details, refer to the [3D Secure Guide](#).

Note: OUTOFBAND is currently not available.

- **KBA** – GPS sends the authentication request to your systems, using the endpoint set up for your Programme. Your systems must handle the authentication. For details, refer to the [3D Secure Guide](#).

You can use [Ws_AddUpDelCredentials](#) to configure the cardholder's authentication credential type used. See [3D Secure RDX Credentials](#).

We have tried an e-commerce transaction and it was approved without using 3DS, why?

Not all merchants are set up to use 3DS and not all merchants choose to use it for every e-commerce transaction.

What happens when a user enters an incorrect OTP? Do they get a set number of retries?

The user is allowed three attempts to enter an OTP, after which the card will be blocked for any online transaction through a merchant enrolled in 3DS.

Do OTPs have an expiry time after they are generated? If so, how long are they valid for?

Yes, they are valid until the merchant's site times out for the purchase.

Can users request a new OTP to be sent? If so, are there limits, or can we apply limits, per transaction?

Yes, there is an ability to request a new OTP during the online transaction.

Troubleshooting FAQs

This section provides answers to common integration issues.

Connection Issues

Why am I unable to connect to GPS?

To confirm if you can connect to GPS, you should use a web service such as [Check Service Availability: Ws_Check](#). This should return a response with an [Action Code](#) of 000.

If you still cannot connect, check to confirm the following:

- You are using the correct API endpoint and environment (test or production)
- The credentials (username and password) you are using are correct for the environment
- GPS has enabled your IP address to use this service
- Depending on your setup and the environment you are connecting to, you may need a VPN connection to GPS
- The ports on your firewall have been configured to allow traffic from GPS
- You have enabled the GPS IP address to use this service in the test environment

For further details, please contact your Implementation Manager.

Web Service Issues

Why has my web service request failed?

When submitting a web service request to an API endpoint, GPS responds with an [Action Code](#) to indicate the status of the request.

Below are common reasons for API request failures:

- Incorrect username and password (Action Code 999) or issuer code (Action Code 801).
- The value provided in the `<WSID>` tag is not unique. A unique `<WSID>` must be provided for most web services.
- Mandatory fields required in the request have not been supplied. Check the relevant web service description in this guide for details of mandatory fields.
- The requested object you want to query or update (e.g., existing card) does not exist. Make sure you have provided the correct reference to the object you want to update.
- The format or type of value provided in an XML tag is incorrect. Check the relevant web service description in this guide for details of the allowed formats and expected values.
- If you change the default `xmlns` attributes (XML namespaces) in the SOAP request this will cause an error.
- Check that there are no spaces in xml tags, as this will cause an error.
- XML tag spelling or case is incorrect. Each web service implements its own naming convention standard and tag names, so these cannot be copied across different web services. If in doubt, always check the WSDL for the correct XML tag name. See [Using the API](#).

3D Secure Issues

Why am I unable to enrol or edit a cardholder in 3D Secure?

If you are using the Cardinal Batch Interface (legacy service), your changes may take up to two hours to implement, since GPS send updates in an hourly batch file at 20 past the hour. You should wait two hours between batch file web services to ensure they are all processed by both GPS and Cardinal, before sending any follow-up requests.

For an improved service, we recommend you upgrade to using the real-time data exchange (RDX) 3D Secure Interface. See [3D Secure RDX Credentials \(Cardinal\): Ws_AddUpDelCredentials](#)

For further details of GPS support for 3D Secure, see our [3D Secure FAQs](#).

Known Issues

For a list of known issues, please contact your Implementation Manager.

Document History

Refer to the table for details of changes to this guide.

Note: Prior to version 3.0, this guide was provided only in PDF format. If you want to access historical versions of the guide, please contact your Implementation Manager.

| Version | Date | Description | Author |
|---------|--|--|--------|
| 3.0.13 | 16/09/2022 | Added a new action code of 221, which is returned in a Token Device Management request when the Visa device index is missing from a request to unbind the device. | WS |
| | 08/09/2022 | Added a new Currency Code , SLE, for the new Sierra Leonean leone. | WS |
| | 18/08/2022 | Added a new section to Use Case Scenarios for Renewing Expiring Cards and Replacing a Lost or Stolen Card . In Card Renew (<i>Ws_Renew_Card</i>), option 16 has been removed from the list of <i><RenewOptions></i> . | WS |
| | 10/08/2022 | Added WebServiceResult field to wsBalanceAdjustment , wsLoad , wsUnLoad , wsUnloadStatusChange , wsStatusChange and wsActivate web services. Added a new action code of 445, which is returned in a Payment Token Create request when the payment token count exceeds the allowed limit. Added a new <i><Url></i> parameter which enables you to include URL details in the <i><QRCode></i> field of the card generation file sent to the card manufacturer. This affects the following web services: Card Create (<i>Ws_CreateCard</i>), Create Card with Agency Banking (<i>Ws_CreateCard_V2</i>), Card Renew (<i>Ws_Renew_Card</i>), Update Cardholders Details (<i>Ws_Update_Cardholder_Details</i> and <i>Ws_Update_Cardholder_Details_V2</i>), Card Bulk Create (<i>Ws_BulkCreation</i>), Wallet Create (<i>Ws_CreateWallet</i>) and Wallet Bulk Create (<i>Ws_BulkWalletCreation</i>). See GPSRPN-123. | WS |
| | 19/07/2022 | Added two new web services: Ws_Banking_DD_CancelMandate and Ws_Banking_DD_GetMandate . | JB |
| 3.0.12 | 19/05/2022 06/06/2022 27/06/2022 14/07/2022 | In the Card Renew web service (<i>Ws_Renew_Card</i>) added a note to explain that the new card will be auto-enrolled with the same 3D Secure credentials as the old card. New Remove Cardholder Data (<i>Ws_Remove_CardHolder_Data</i>) web service added. This web service enables you to remove cardholder personal information from a card, such as name, address, email and phone number. See GPSRPN 115. New <i><Activate></i> parameter added to the Payment Token Status Change (<i>Ws_Payment_Token_StatusChange</i>) web service, which can be used to indicate whether to activate the payment token on the MDES system (Mastercard only). See GPSRPN-116. Updated description of action codes 118 and 441. Added log values for the Action field in the 3D Secure RDX Credentials (Cardinal) web service (<i>Ws_AddUpDelCredentials</i>). | WS |
| 3.0.11 | 08/03/2022 15/03/2022 14/04/2022 | Added a new 3D Secure credential for OUTFBAND. See 3D Secure RDX Credentials (Cardinal) . Note: OUTFBAND is not yet available to use. Please check with your 3D Secure Implementation Manager for details. The Create Card web service (<i>Ws_CreateCard</i>) now includes a new tag called <i>Ws_WebServiceResult</i> , which is returned in the response; if this is a duplicate create card request then this tag is populated with data about the original Create Card request. See GPSRPN-80. In the Register a Customer for Banking Actions web service (<i>Ws_Banking_RegisterNotification</i>), the <i><type></i> field now includes <i>DD_INCOMING_DEBIT</i> . Updated the description of the maximum length for <i>BuyRate</i> , <i>SellRate</i> and <i>MidRate</i> in the Apply FX Rate (<i>Ws_Client_FX</i>) web service. In the Card Acceptor Allow List (<i>Ws_CardAcceptorWhiteList</i>) and Card Acceptor Deny List (<i>Ws_CardAcceptorBlacklist</i>) web services, the field <i>CardAcceptor</i> has been corrected to <i>CardAcceptorModifier</i> . You can use the Card Change Acceptor List (<i>Ws_Card_Change_Cardacceptor_List</i>) or Card Change Acceptor List (Bulk) (<i>Ws_Change_Cardacceptor_List</i>) web services to update the Card Acceptor Allow and Deny lists. Correction: the character limit for the field <i>KBA_Answer</i> and <i>KBA_AnswerOldValue</i> should be 45 characters. See 3D Secure RDX Credentials (Cardinal) . Correction: the response example in the Check Service Availability (<i>Ws_Check</i>) web service has been updated to show the correct response fields. | WS |
| 3.0.10 | 04/01/2022 02/02/2022 14/02/2022 23/02/2022 | Added a new 3D Secure credential for Knowledge Based Authentication (KBA). See 3D Secure RDX Credentials (Cardinal) . See GPSRPN-87 and GPSRPN-88. When updating the 3D Secure credential using <i>Ws_AddUpDelCredential</i> , you can only change the credential value and not the type. See 3D Secure RDX Credentials (Cardinal) . Added and updated action codes 594-599 and 601-613. See Action Codes . Added a note to not use Status Code 41 if temporarily blocking a tokenised digital PAN (DPAN). Updates to the description of the Payment Token Create web service. New <i>Note</i> field added to the Card Load (<i>Ws_Load</i>), Card Unload (<i>Ws_Unload</i>) and Card Unload and Change Status (<i>Ws_UnLoad_StatusChange</i>) web services. This note will appear in the transaction's | WS |

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| 3.0.2 | 23/03/2021 | Revised Ws_CardHolder_Details_Enquiry to remove <CrpProduct> from the response. | WS |
| 3.0.1 | 17/03/2021 | Revised examples in Cardholder Details Enquiry (Ws_CardHolder_Details_Enquiry). | WS |
| 3.0 | 05/03/2021 | Major guide revision. Complete revamp of the guide: reorganisation of the guide, major content rewrite, creation of new Getting Started topics, generation of new online help format. New appendices. Ws_UpdateLastModifiedType service added back to guide. | WS |
| 2.09 | 20 Nov 2020 | Update to Ws_AddUpDelCredentials to support new Get method. Update to Ws_ResetAccumulator. | WS MD |
| 2.08 | 30 Sept 2020 | End to end review - numerous textual updates Removal of retired web services: Ws_AddressMatchChecking, Ws_LicenseVerification, Ws_PassportVerification Ws_List_Sanctions_PEP, Ws_List_Sanctions_PEP_Matches, Ws_Update_Sanctions_PEP_Matches Ws_UpdateLastModifiedType Removal of superfluous Section 1. Corrected description of ExpDate parameter of Ws_CreateCard Added Function 08 of Ws_PINControl Added section on Timeout settings to top of Spec. Updated documentation of the <Phone> parameter of Ws_Insert3DSecureDetails and Ws_Update3DSe- cureDetails services | GH/MC IF |
| 2.07 | 28 Jul 2020 | Updated description of <StartDate> and <EndDate> in Ws_Card_Statement service. Updated description for Ws_Card_Change_Groups Documented web service Ws_Update_Cardholder_Details_V2 Added new request parameters VirtualCardImage and ImageSize to Ws_CreateWallet Service Added new request parameter ImageSize to Ws_RegenerateWallet Service. | VS MJ |
| | 25 Aug 2020 | Corrected description of Ws_Query3DSecureDetails service. Corrected some typos in Action codes 878 - 880 Appendix A. | VS |
| | 27 Aug 2020 | Clarified valid date range for Ws_Card_Statement Corrected description for MemorableDate in Ws_Insert3DSecureDetails and Ws_Update3DSe- cureDetails | IF |
| 2.06 | 21 Jul 2020 | Documented Action Codes 611 and 613 | IF |
| 2.05 | 29 Jun 2020 | Added new request parameter DelvMethod to Ws_Renew_Card. Added request and response details for Ws_Query3DSecureDetails | VS |
| | 13 Jul 2020 | Added Specification for Ws_AddUpDelCredentials Changes in Ws_WebServiceResult_V2 response Action codes 600 ,614 and 615 added | MJ VS |
| | 16 Jul 2020 | Added new renew options values to Ws_Renew_Card. | |
| 2.04 | 9 Jun 2020 | Improved description of following services: Ws_Check, Ws_Simple_Check Added new request parameters VirtualCardImage and ImageSize to following services: Ws_Createcard, Ws_Renew_Card | IF |
| | 22 Jun 2020 | Added new request parameter Imageld to Ws_Convert_Card Service. | VS |
| 2.03 | 10 Mar 2020 | Added new request parameter PaymentTokenUsageGroup to following services: Ws_Createcard, Ws_CreateWallet, Ws_CreateCard_V2, Ws_Change_Groups Ws_Enquiry, Ws_Card_Change_Groups, Ws_List_Group, Ws_Customer_Enquiry_V2, Ws_Regen- erate, Ws_RegenerateWallet, Ws_Renew_Card, Ws_BulkCreation, Ws_BulkWalletCreation Added action codes - 431 and 432. | VS |
| 2.02 | 21 Feb 2020 | Ensure PDF version of the document has bookmarks, by ensuring sections and subsections in part 2 are all the correct heading style. Corrected Ws_Sanctions_PEP_Check_V2 <Status> field (section 2.43.1) | MD |
| 2.01 | 29 Jan 2020 | Updated Ws_Insert3DSecureDetails memorable name and memorable place no longer used and response Action code to 000 Updated Ws_Update3DSecureDetails memorable name and memorable place no longer used and response Action code to 000 Updated Ws_Delete3DSecureDetails response Action code to 000 | IF |
| 2.00 | 12 Dec 2019 | Modified Maximum Length of <Fulfil1> and <Fulfil2> from 30 to 50. | VS |
| 1.99 | 19 Nov 2019 | Added new request Parameters DPAN, PaymentTokenID, ClearAllDPANs to Ws_ResetAccumulator call. | MJ |
| 1.98 | | Added new request parameter ProductRef to Ws_Renew_Card call. Added action codes - 426 and 427. | MJ |
| 1.97 | | Documented Ws_ResetAccumulator Update Ws_CreateCard_V2 documentation. Document the default behavior of SMS_Required and SMSBalance input parameters Added Action Codes 664,665,666, 667 and 425. | MJ |
| 1.96 | | Updated Ws_Bulk_Creation documentation Documented card status types 02 & 75 | MJ |

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| | | Documented Ws_Check Remove section about linked files from Ws_CreateCard_V2 Additional parameter in Ws_CreateCard_V2 for customer ID New web service call of Ws_Banking_CreateCustomer New we service call Ws_Banking_RegisterNotification Added a new item <BankTransactionId> to Ws_Banking_TransferFunds response New action codes for Modulr | |
| 1.95 | | Added new request parameters BlackList and WhiteList to Create Card and Create Wallet web services. Added new response parameters BlackList and WhiteList to Enquiry web service Updated <StartDate> in Ws_Card_Statement Added action code - 418 | MJ |
| 1.94 | | In Ws_3DS_AddUpDelDetails marked Details as mandatory Provided example web service cal to include AltPhone1 Updated Details to show which calls were phone numbers and that country codes must be provided Example of how to use OverrideGPS field | SW |
| 1.93 | 15 Jan 2019 | Update Ws_Banking_TransferFunds reference field to no longer allow certain characters Additional parameters in Ws_Banking_Transfer funds to handle peer to peer transactions Additional payment types in Appendix V to handle peer to peer payment types Documented Appendix MM Documented new web service Ws_Renew_Cards Clarified <Func> 6 in PIN Control web service Updated description of Ws_Enquiry. Updated description of WS_Passport_Verification Updated Response of Ws_Bulk_Creation Upadted <TxnCode> in WS_Activate_MVCLoad Updated Response of Ws_Load Added new action codes and updated some existing ones. Added new load sources Added note to Ws_CreateCard, under <ActivateNow> parameter. Added note to Ws_Payment-Token_Get, under <Device_Type> | MJ |
| 1.92 | 9 Oct 2018 | Documented web service Ws_Activate_MVCLoad Updated the max length of input parameters CurrentPIN, NewPIN and ConfirmPIN in Ws_PINControl and max length of Pblock in Ws_CreateCard Added new request parameter FeeWaiver to web services Ws_CreateCard, Ws_CreateWallet, Ws_Regenerate and Ws_RegenerateWallet. Clarified the description of the input parameter <NewStatCode> in the status change and unload & status change requests. Clarified the description of the input parameters <PostCode>, <Delv_PostCode> and <WorkPostCode> Clarified the decription of Sms_Content in Ws_Regenerate and Ws_RegenerateWallet. Documented FxGroup request parameter to ws_Card_Change_Groups and FXGroup, CurrentFXGroup request parameters to ws_change_groups. Updated description of CardDesign request parameter of ws_activate_load | MJ IF |
| 1.91 | 11 Sep 2018 | Updated version number Updated description of W2DetailsPassThroughDataRequest parameter of ws_VerificationRequest service. | IF |
| 1.90 | 6 Sep 2018 | Added note to Ws_CreateCard, under <ActivateNow> parameter. Added note to Ws_CreateCard description regarding replacement physical cards. | HC |
| 1.9 | 25-04-2012 | Full revise of web service. | n/a |
| 1.89 | 5 Sep 2018 | Mainly a review of language to simplify terms and introduce clarifications. Added note to Ws_Activate_Load for case when card is already loaded beforehand Ws_PINControl - documented the functions 05 and 06 Update Appendix C & F Clarified Renew, SvcSrc, SvcType and SvcStatus parameters of Update Cardholder Details service. | MC SB IF |
| 1.88 | | Adding Appendix MM - A Note of cleaning of some strings Updating Ws_Customer_Enquiry FirstName and LastName to be 100 characters, and Name in Ws_List_Sanctions_PEP_Matches Fixing Last Name description in Ws_VerificationRequest Added new request parameter Description to MVCLoad and MVCUnload web services. | SB |
| 1.87 | 30 May 2018 | Small Spelling corrections Ws_BalanceUpdate enhanced to include Stand In & Available balance Update Appendix H to be up to date Adding RegenType = 2 to Ws_Regenerate and Ws_RegenerateWallet Fixing Ws_Regenerate to include PAN Added Action Codes 409-416 | SB |
| 1.86 | 18 May 2018 | Updated Ws_Payment-Token_Get no longer require PAN or Pubtoken if MDES card details are provided | SB |
| 1.85 | 10 Apr 2018 | Updated Ws_CreateCard & Ws_CreateWallet description. Spelling correction to Ws_CardAcceptorWhiteList Fixed <Description> to be 150 Chars and <DescriptionDelimiter> to be AN in Ws_Card_Statement Clarified TransactionType and StatusCode in Ws_Card_Statement | SB |

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| | | Added Action Codes 400-405 | |
| 1.84 | 27 Feb 2018 | Documented web service Ws_MVCLoad Documented web service Ws_MVCUnload | MJ |
| 1.83 | 15 Feb 2018 | Ws_Sanctions_PEP_Check_v2: New optional parameter ProductID in request. Corrected spelling of checkLevel request parameter Ws_List_Sanctions_PEP_Matches - New optional parameter ProductID in request and response, existing MatchItems response parameter documented, response example updated. Added to description of Action Code 897 for decimal place errors. | IF |
| 1.82 | 16 Jan 2018 | Ws_PINControl - Function 7, "CVC2 Unblocking", added. Action Codes 127, 406 added. Optional parameters WSID, IssCode added to Ws_Regenerate Decreased the amount fields precision for Ws_BalanceAdjustment | SB |
| 1.81 | 27 Dec 2017 | Action codes 934 - 950 updated for 3DS error handling Appendix T updated to reflect correct handling of direct debits as per Wirecard directions | SW |
| 1.80 | 10 Nov 2017 | Updating Ws_3DS_AddUpDelDetails so it is up to date. Adding Action Codes from Ws_3DS_AddUpDelDetails development. Added descriptions to all the Appendix HH fields Removing references to Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard as a tiered call. It is currently only functional at a Token level. (Sections 1.69 and 2.69) Removing references to Ws_Banking_GetPendingDirectDebits as a tiered call. It is currently only functional at a Token level. (Sections 1.68 and 2.68) Change to include Creator_Token_Ref in the response for WS_Payment_Token_Get Change to WSDL examples in WS_Payment_Token_Get And Ws_Payment_Token_StatusChange to make them clearer | SB |
| 1.8 | 11-04-2012 | Add a new input field in the Convert Card web service to pass expiry of the card. | n/a |
| 1.79 | 7 Nov 2017 | Fixed CrdDesign to be 50 Chars in Ws_CardHolder_Details_Enquiry | SB |
| 1.78 | 28 Sep 2017 | Clarified the description of the output parameters (<TxnDate>, <PostDate>, <Locdate> and <TxnTime>) in the card statement response. | |
| 1.77 | 26 Sep 2017 | Added action codes 548 (Cannot close account with balance) and 953 (updating MDES Card Mapping failed) Updated IsoLang and Lang fields to include a reference to the SMS templates that can be set up Added a section about the new Fair Usage Policy for web services. Clarified the description of the four web services ws_Insert3DsecureDetails, ws_Update3DsecureDetails, ws_Delete3DsecureDetails and ws_Query3DsecureDetails to make it clear that they are for customers using the Cardinal interface only. | SB IF |
| 1.76 | 27 Jun 2017 | Updated description of Passcode (Acccode) to 6 digits in many web services. Updated description of LoadSrc in Balance Transfer web service. Updated <CreatedFrom> description to add "YYYY-MM-DD Format" for Ws_Banking_GetDirectDebitInstructionsBankingEnabledCard Added action code 546 - No direct debit found from ME_ActionCodeDetails Updated descriptions for <ExternalAuth> and <Mobile> fields in Ws_CreateCard Added action code 547 - Issue connecting to Bottomline V Series from ME_ActionCodeDetails Added action codes 662 (LockMode invalid or missing) and 663 (Invalid DOB) | IF |
| 1.75 | 23 May 2017 | Documented Sms_required parameter of Status Change. Updated descriptions and Response/Request for Ws_SafeReports Updated description of AmtUnload and AmtTxn in Unload/Unload Status Change and Balance Transfer respectively. Also LoadedBy changed to Opt in Unload Status Change. Changes done to match WSDL behavior. Added new Action Code: 660 | IF |
| 1.74 | 21 Apr 2017 | Added Ws_BalanceUpdate Added Ws_Payment_Token_Get and Ws_Payment_Token_StatusChange Added Appendix LL Payment Token Table Added Action codes for the above calls Added Ws_Query3DsecureDetails Response and Request - Amal Added Action codes so that 901-949 can match up better with ISO 8583:2003 Removed Ws_Card_Phone_Activation as it is not in the WSDL and is a duplicate of Ws_Phone_Activation Made <memoScope>, <dvIDaysValid>, <fundCrdIssNum>, and <FundCrdCVC> mandatory in Ws_Update_Cardholder_Details Changed Ws_Card_Statement_V2 to Ws_Banking_Card_Statement_V2 to match up with the WSDL | SB |
| 1.73 | 7 Feb 2017 | Increased CustAccount length from 16 to 25 throughout. Clarified the use of quantity parameter of Create Card. Various minor descriptive enhancements. Claried use of ItemSrc parameter | IF |
| 1.72 | 6-Dec-2016 | Added in Ws_Card_Statement_V2 | SW |

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| | | Added in Ws_3DS_AddUpDelDetails Added in details for ws_RegenerateWallet as provided in CS_TUXEDO-177 at request of S Kelly | |
| 1.71 | 15-Sep-2016 | Clarified crdProduct parameter of Update Cardholder Details service. Changed length of designRef parameter to 50 on Update Cardholder Details service. | |
| 1.70 | 9-Sep-2016 | Various minor corrections | |
| 1.7 | 26-03-2012 | Full revise of web service. | n/a |
| 1.69 | 9-Aug-2016 | Corrected Definition of MatchItems parameter in ws_sanctions_pep_check_V2 | |
| 1.68 | 11-May-2016 | Added in the banking web service calls as follows Ws_Banking_AccountModulusCheck Ws_Banking_ChangeAccountBankingFeaturesStatus Ws_Banking_ReturnBankDetailsFromToken Ws_Banking_StatusQueryBankingEnabledCard Ws_Banking_TransferFunds Ws_Banking_UpdateBankingEnabledCard Ws_CreateCard_V2 | SW |
| 1.67 | 28-Apr-2016 | Added new service ws_VerificationRequest Added new service ws_SafeReports Added new service ws_Query3DsecureDetails Added Appendix K for Load Funds Type Added new parameter MatchItems to Ws_Sanctions_PEP_check_V2 Corrected documentation for CompleteMatch response parameter of Ws_Sanctions_PEP_check_V2 Updated documentation of the CreateImage parameter of the Create Card service due to change in recommended practice. Added documentation to the description of the Link Cards service. Removed documentation for Card Transaction XML. This web service is being retired and will be removed from the API. Correct definition of PrimaryToken request parameter on Create Card web service. Corrected description of Transaction Void service Updated list of Load Sources Documented SMS_Required parameter of Load service. | |
| 1.66 | 15-Dec-2015 | Corrected documentation for FeeWaiver request parameter. | IF |
| 1.65 | 4-Dec-2015 | Retired ws_Sanctions_PEP_Check web service, replaced by ws_Sanctions_PEP_Check_V2. | IF |
| 1.64 | 30-Nov-2015 | Added new request parameter BrnCode to Balance Transfer web service Added new web services to support 3D Secure Added new web services to list and update PEP and Sanctions matches. Updated descriptions of existing PEP/Sanctions web services to make them easier to understand. Added new Balance Enquiry V2, same as Balance Enquiry with different LimitInfo response. Added new web service to list pending fees | IF |
| 1.63 | | Added new request parameter BrnCode to Load and Activate and Load web services. Added new request parameter Quantity to the Create Card web service. Added new request parameter LoadToken to the Create Card web service. Added option 2 to SmsBalance request parameter of Activate and Activate/Load services. Added new web services: Ws_get_ExpireSoon, Ws_list_Sanctions_PEP, Ws_card_change_acceptor_list, Ws_change_CardAcceptor_List Allowed overriding of Product Default groups on Create Card web service by passing space character. Updated the list of groups in the List Groups service | IF |
| 1.62 | 03-09-2015 | Added new service: Web Service Result V2 Added new parameters to Balance Transfer: FeeWaiver Added new response parameters to Enquiry and Customer Enquiry V2 services: AuthCalendarGroup FXGroup Added seconds support to TxnTime response parameter in Card Statement Updated documentation to correct definition of request of Card Change Groups Updated documentation to correct definition of response of Card Statement Updated documentation to correct case of LocDate and LocTime in a few services. | IF |
| 1.61 | 27-08-2015 | Updated documentation for PIN Control Func 03 | IF |
| 1.60 | 20-08-2015 | Added new web service: Card Acceptor Whitelist Added new web service: Send Message | IF |
| 1.6 | 09-03-2012 | Added new web service to retrieve CVV of an existing card. | n/a |
| 1.59 | 30-07-2015 | Updated documentation of Create Card SMS_Required parameter. Added new parameter to Create Card: AuthCalendarGroup Added new parameter to Card Change Groups: AuthCalendarGroup Added new web service: Card Acceptor Disallow list Added new parameter to Regenerate: MailorSMS Added new parameter to PIN Control: FeeWaiver | IF |

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| 1.58 | 26-06-2015 | Revised action code table | IF |
| 1.57 | 11-06-2015 | Added new value of func to PIN control service Added new parameter Pblock to Create Card service Added new parameter PINMailer to Create Card service Added new parameter FXGroup to Create Card and Update Cardholder Details services Updated the documentation for the LoadSrc parameter Updated the documentation for the Balance Transfer web service. Added new parameters AuthType, DOB, CVV, AccCode and LastName to PIN Control service. Added new Action Codes to Appendix A Added new parameters Email and MailOrSMS to the Create Card service Added new parameters ExternalRef and TerminalId to the Regenerate service | IF |
| 1.56 | 30-03-2015 | Create Card and Link Card changed to prevent a secondary card being linked to anything other than a Primary card Length of ProductRef changed to 50 throughout. Added new parameters to the Transactions list returned from Card Statement. These return more granular information about fees. Added new response parameters ProductID and ProductRef to Customer Enquiry Service Version 2 Added new value of CreateType to Create Card web service to allow creation of Master Virtual Cards Length of ProductRef increased to allow for up to 50 alpha characters | IF |
| 1.55 | 21-01-2015 | Change to Enquiry web service: Added PrimaryToken to the response Changed behavior of Customer Enquiry V2 web service: It now returns all secondary cards for the primary token or CustAccount by default Changes to Customer Enquiry V2 web service: Added all group info and IsLive response parameters Change to Create Card web service: Added VanityName as a new parameter Change to Update Cardholder Details service: Added VanityName as a new parameter Change to Cardholder Details Enquiry V2: Added VanityName as a new response parameter Change to Update Cardholder Details service: Added addr3 as a new parameter Change to Card Statement service: Added MCCDescription as a new response parameter. Added option to allow "Fin:" to be removed from the Presentment description Improved accuracy of spelling and case of some parameters Renamed 1.24 from Card Statement to Card Transaction XML to avoid confusion with 1.7 Card Statement service | IF |
| 1.54 | 15-01-2015 | Change to Create Card web service: Added new request parameter: Card Linkage Group Change to Card Change Groups service: Added new request parameter: Card Linkage Group Change to Change Groups service: Added new request parameter: Card Linkage Group. Added new request and response parameter: Current Card Linkage Group Change to Enquiry service: Added Scheduled Fee Group, Web Service Fee Group and Card Linkage Group to the response. | IF |
| 1.53 | 03-12-2014 | Change to Statement service: Added Processing Code to the Transaction response Change to the Customer Enquiry V2 service. Added PublicToken to the CardList response | IF |
| 1.52 | 27-11-2014 | Changes to Balance Adjustment service: Added LoadedBy parameter Changes to Create Card service: Added new response parameter: Image. Allows card image to be returned in response as PGP-encrypted jpeg. Implemented LoadSrc and LoadFundsType validation. Implemented Limits check against LoadSrc Changes to Balance Transfer service: Added LoadedBy parameter. Added Description parameter. Implemented LoadSrc and LoadFundsType validation. Implemented Limits check against LoadSrc Changes to Activate/Load service: Added Description parameter. Implemented LoadSrc and LoadFundsType validation. Implemented Limits check against LoadSrc Changes to Load service: Implemented LoadSrc and LoadFundsType validation. Implemented Limits check against LoadSrc Change to Regenerate service (ws_regenerate): Added new response parameter: Image. Allows card image to be returned in response as PGP-encrypted jpeg. Change to Create Wallet service: Added new response parameter: Image. Allows card image to be returned in response as PGP-encrypted jpeg. Implemented LoadSrc and LoadFundsType validation. Implemented Limits check against LoadSrc Change to Status Change service: Corrected Status code validation (status 01 retired). Change to Unload Status Change service: Corrected Status code validation (status 01 retired). Added List Products service (ws_list_products). | IF |
| 1.51 | 27-10-2014 | Change to internal logic of Balance Adjustment: It will now check card maximum balance and return an error if it will be exceeded by the current operation. This behavior can be overridden by using the "ForcePost" parameter. Changes to Create Card service: Additional Parameter: ExternalAuth, can be configured to return full PAN for a client or product. Fixed Delivery Address Line 3 issue Changes to Balance Enquiry service: Additional request parameter: GetLimits; Additional response parameter: LimitInfo Change to Balance Transfer service to link Load and Unload transactions via LinkId Change to Void Transaction web service to link the transactions via LinkId Change to Load service so that if the card is Multi-FX then the given Load amount will load onto the account associated with the input currency Change to the Activate, Activate/Load and Phone Activation web services so that if the card is Multi-FX | IF |

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| | | then the web method will activate all accounts associated with that card Added new response parameter Product to the Enquiry web service. Added new service Link Cards. Added new service List Groups. | |
| 1.50 | 21-10-2014 | Added new Load Sources 56-67 to Appendix J Various minor corrections including removal of references to SecDet request parameter. | IF |
| 1.5 | 24-11-2011 | Added some new process codes for taking fees. | n/a |
| 1.49 | 01-09-2014 | Documented Create Wallet, Bulk Creation Wallet and Wallet Balance Enquiry web services. Added "0 - Undefined" as an option for Itemsrc | IF |
| 1.48 | 03-07-2014 | Documented new Client FX web service | IF |
| 1.47 | 06-05-2014 | Corrected the definition of the PrimaryToken parameter on Create Card. Documented new Address Line 3 parameter addrL3 on Create Card web service Corrected definitions of txnFilter on Card Statement | IF |
| 1.46 | 10-03-2014 | Clarifications on Create Card and Regenerate parameters. Updated the Bulk Creation web service to clarify parameters and functionality. Added OrigStan as a new response parameter to Card Statement. | IF |
| 1.45 | 17-02-2014 | Increased max length of all Address Lines 1 and 2 to 50 chars Clarified Mobile Telephone parameter on Update Cardholder Details Added pubtoken request parameter to, and updated description of Create Card web service to cater for Replacement card requests Updated Regenerate web service description to clarify current Lost/Stolen functionality Added new action codes 700 and 701 Added new SMS_Required request parameters to Load and Status Change services. Added Appendix E to explain how SMS messages can now be configured in a flexible way and in chosen cardholder language | IF |
| 1.44 | 07-01-2014 | Added new Action Code 899. Added new value of filter to Card Statement (txnFilter=6) | IF |
| 1.43 | 05-12-2013 | Added cobrand to the Create Card web service. If supplied it will replace PROGRAMID in the Balance XML. Updated definition of Transaction Filter "3" in Card Statement Removed Disputed and Rejected from Appendix I - Transaction Status as no longer used. Added new request parameter DescriptionDelimiter to Card Statement Added new response parameter MCC to Card Statement Clarified the list of allowed characters in Create Card CardName parameter. Clarified dimensions of Public Token parameter. Clarified dimensions of WSID parameter. | IF |
| 1.42 | 21-11-2013 | Added new Action Codes 893-898 inclusive | IF |
| 1.41 | 28-10-2013 | Minor clarifications. Documented Description parameter of ws_load and ws_unload. | IF |
| 1.40 | 17-09-2013 | Updated Appendix G - Status Codes Added three new web services for ID verification (UK only as of this release): Ws_AddressMatchChecking, Ws_LicenseVerification, Ws_PassportVerification | IF |
| 1.4 | 17-11-2011 | Added one new field (<Apply_Fee>) in the create card web service request to take the card issue fees. Modified the available balance (<avlbal>) field in the response of web services; balance enquiry, card statement, balance adjustment, balance transfer and card enquiry. Previously the available balance includes all financials but ignores outstanding authorisations and now it includes all financials and outstanding authorisations. | n/a |
| 1.39 | 16-07-2013 | Added new Request Parameter CardManufacturer to the ws_createcard web service. Added new Request Parameters SchedFeeGroup and WSFeeGroup to the ws_createcard web service, to allow setting of Scheduled Fee Groups and Web Service Fee Groups Updated definition of <Lang> parameter in ws_createcard web service. Further clarifications throughout. | IF |
| 1.38 | 09-04-2013 | Added new response parameters in the Ws_Enquiry web service: <StartDate>, <EndDate>, <LimitsGroup>, <MCCGroup>, <PERMSGGroup> and <FeeGroup>. Added new input parameters to the Create Card and Bulk Card Creation web services to specify language <lang> and bulk delivery code <Delv_Code>. Added new response parameter to the Create Card and Bulk Card Creation web services: <StartDate>. Clarified format of existing parameter: <ExpDate>. Added missing SysDate documentation to Unload web service record description. Clarified the txnFilter parameter in the ws_card_statement web service. Added new parameter <sms_required> to the ws_pincontrol web service. Added new web service Simple Check | IF |
| 1.37 | 04-04-2013 | Added LinkId to ws_card_statement response. Added new Appendix (J) for load sources. | n/a |

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| 1.36 | 25-03-2013 | Added new input parameters in the Create Card and Bulk Card Creation web services to handle SMS sending during virtual card creation. | n/a |
| 1.35 | 20-03-2013 | Added new input parameters in the Create Card and Bulk Card Creation web services to take FULFIL1 and FULFIL2 | n/a |
| 1.34 | 25-02-2013 | Added new input parameters in Create Card and Bulk Card Creation web services to take delivery address. | n/a |
| 1.33 | 29-01-2013 | Full review of web service document. | n/a |
| 1.32 | 28-01-2013 | Added new web service to convert cards form virtual to physical. | n/a |
| 1.31 | 17-12-2012 | Added new web service to change the groups of card. | n/a |
| 1.30 | 16-11-2012 | Corrected the Transaction Void web service documentation | n/a |
| 1.3 | 13-10-2011 | Modified the Switch Advanced Permission web service to take a list process code to enable fees. | n/a |
| 1.29 | 15-11-2012 | Added new parameter (<SmsBalance>) in the Ws_GiftCard_Activate and Ws_GiftCard_Activate_Load web services. | n/a |
| 1.28 | 27-09-2012 | Added new web service to apply fees and web service to check the Politically Exposed Person(PEP) | n/a |
| 1.27 | 17-09-2012 | Full revise of web service document | n/a |
| 1.26 | 07-09-2012 | Added new input parameter (<FeeGroup>) in the create card change group web services. Added other new input parameter (<PrimaryToken>) in the the create card web service. | n/a |
| 1.25 | 14-08-2012 | Added new web service to change the groups. | n/a |
| 1.24 | 13-08-2012 | Full revise of web service. Added new web service to get the transaction details. | n/a |
| 1.23 | 19-07-2012 | Added new out parameter (<MaskedPAN>) in the Ws_CreateCard and Ws_GiftCard_Enquiry web services. | n/a |
| 1.22 | 27-06-2012 | Added new field (<PERMSGGroup>) in the Create Card web service. | n/a |
| 1.21 | 25-06-2012 | Added new fields in the Create card web service and the XML request in the bulk creation web service. Added new action code to return when tried to activate an active card. | n/a |
| 1.20 | 21-06-2012 | Added two new input parameters (<LimitsGroup> and <MCCGroup>) in the Create Card web service. | n/a |
| 1.2 | 07-10-2011 | Added one field (<Scheme>) in the response of Card Enquiry web service. Added one new field (<AuthType>) in the request of Phone Activation web service. | n/a |
| 1.19 | 20-06-2012 | Updation in card statement web service. Added the description of transaction type and transaction status. | n/a |
| 1.18 | 15-06-2012 | Added a new input field (<newToken>) in the request of Balance Transfer web service to pass the destination token. | n/a |
| 1.17 | 14-06-2012 | Added a new input parameter (<CardName>) in the Create Card web service to pass the card' emboss name. | n/a |
| 1.16 | 12-06-2012 | Added Fees fields (Fixed Fee, Rate Fee, FX Padding and MCC Padding) in the transaction of the card statement web service. | n/a |
| 1.15 | 11-06-2012 | Added the description of XML tags in the bulk virtual card creation web service. | n/a |
| 1.14 | 07-06-2012 | Modified the card status codes. | n/a |
| 1.13 | 06-06-2012 | Full revise of web service. | n/a |
| 1.12 | 21-05-2012 | Added a new field in the Ws_GiftCard_Activate_Load_ProductType_CP web service. | n/a |
| 1.11 | 17-05-2012 | Added a new field in the Ws_GiftCard_Activate_Load_ProductType_CP web service. | n/a |
| 1.10 | 11-05-2012 | Added new web service for instant card creation. | n/a |
| 1.1 | 28-09-2011 | Load source description field is added in the Create Card web service. Added load source description field in the Card Load web service. Created a new web service to change advanced permission bit of a card. Modified the <loadSrc> values. | n/a |
| 1.0 | 15-09-2011 | First draft. | n/a |

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Technical Publications

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Glossary

3

3D Secure

3D Secure (3-domain structure), also known as a payer authentication, is a security protocol that helps to prevent fraud in online credit and debit card transactions. This security feature is supported by Visa and Mastercard and is branded as 'Verified by Visa' and 'Mastercard SecureCode' respectively.

A

Access Code

Pass code or activation code which you supply to GPS. You can use the access code to authenticate user access to card services or to request a user to activate the card by entering their access code.

Address Verification Service (AVS)

An AVS check compares the billing address used in the transaction with the issuing bank's address information on file for that cardholder. Depending on whether they match fully, partially, or not at all, the merchant can use that information in their decision on whether or not to accept or cancel the order. AVS is one of the most widely used fraud prevention tools in card-not-present transactions.

Auth Calendar Group

Controls the dates and times when authorisations on a card are allowed. You can use this option to control when the card can be used, for example, prevent usage on weekends or out of hours.

B

BIN

A Bank Identification Number, or BIN, refers to the initial sequence of 4 to 6 numbers on a credit card and used to identify the card's issuing bank or other financial institution. The BIN is the lynch pin that ties an issuer to its cards and transactions.

C

Card Linkage Group

The Linkage Group set up in Smart Client controls various parameters related to linked cards; for details, check with your Implementation Manager.

Card Manufacturer

GPS has relationships with existing card manufacturers, who we can instruct to print your cards. We use Secure FTP (sFTP) to send the card manufacturer a generated bulk XML file containing card details. This is sent on a daily basis, or at a frequency that can be customised for your service. The card manufacturer prints the cards and sends to the cardholder. Any white label test cards are typically sent to GPS, the Program Manager and the Card Schemes.

Card Service Code

3 digit code on the magnetic strip of a card which indicates where it is valid for use.

Card Verification Value

The Card Verification Value (CVV) on a credit card or debit card is a 3 digit number on VISA, MasterCard and Discover branded credit and debit cards. Cardholder's are typically required to enter the CVV during any online or cardholder not present transactions. CVV numbers are also known as CSC numbers (Card Security Code), as well as CVV2 numbers, which are the same as CVV numbers, except that they have been generated by a 2nd generation process that makes them harder to guess.

Cardinal 3D Secure

Cardinal Commerce provide an Access Control Server (ACS) that enables support for the 3D Secure cardholder authentication scheme. See: <https://www.cardinalcommerce.com>

Chargeback

Where a cardholder disputes a transaction on their account and is unable to resolve directly with the merchant, they can raise a chargeback with their card issuer. The chargeback must be for a legitimate reason, such as goods and services not received, faulty goods, or a fraudulent transaction.

Concurrent session

The number of sessions (concurrent requests) that can be processed by the GPS server at the same time. This figure may vary, depending on server load and performance, which affects the response time. For example, an average server response time of 0.05ms.

CVC2

The Card Verification Value (CVV) on a credit card or debit card is a 3 digit number on VISA, MasterCard and Discover branded credit and debit cards. Cardholder's are typically required to enter the CVV during any online or cardholder not present transactions. CVV numbers are also known as CSC numbers (Card Security Code), as well as CVV2 numbers, which are the same as CVV numbers, except that they have been generated by a 2nd generation process that makes them harder to guess.

E

EEA

European Economic Area

EHI

External Host Interface (EHI) is a GPS facility that enables exchange of data between the GPS processing centre and external systems using online web services. All transaction data processed by GPS is transferred to the External Host side via EHI in real time. For certain types of transactions such as Authorisations, the External Host can participate in payment transaction authorisation.

EHI Operation Mode

For authorisation type of transactions, the External Host Interface (EHI) can operate in one of five modes: Mode 1 the External Host maintains card balances and participates in transaction authorisation by approving or declining the transaction. Mode 2 - GPS maintains balances and performs all types of the authorization, but the External Host can overrule in some circumstances. Mode 3 - read-only data feed from the GPS system to the Client's system. Mode 4 - External Host maintains Balance (with GPS stand-in). Mode 5 - Same as EHI Mode 4, but clearing transactions do not update the GPS stand-in balance.

Expiry breakages

When a card with a fixed validity period, such as a gift card, expires, the available funds on the card are charged as an expiry breakage fee. The actual money is shared between GPS and the Program Manager.

External Host Interface (EHI)

The External Host Interface provides a facility to enable exchange of data between GPS and external systems via our web services. All transaction data processed by GPS is transferred to the External Host side via EHI in real time. For certain types of transactions, such as Authorisations, the External Host can participate in payment transaction authorisation.

F

Fee Group

Group which controls the card transaction authorisation fees.

FX Fee Group

Controls the rates for FX currency conversions if the purchase currency is different from the card's currency.

G

GPS Scheme

The name of the high-level product type set up in GPS, usually at a BIN level.

I

Issuer Code

GPS Issuer (Program Manager) code, assigned by GPS. Each Program Manager is assigned their own unique issuer code on the system.

IVR system

Interactive Voice Response System Typically a telephony-based system, where the user calls in and selects options via an automated voice prompt.

L

Limit Group

Velocity limit group which restricts the frequency and/or amount at which the card can be loaded or unloaded. You can view your current Limit Groups in Smart Client.

M

Master Virtual Cards (MVC)

A GPS virtual card that is restricted to loading and unloading to a physical card and cannot be used for e-commerce or in-store transactions. An MVC is used to reflect the value of the 'actual' money in the Issuer's bank account. An MVC guarantees that the load is limited to the amount prefunded (i.e. loaded onto MVC) and gives the Programme Manager the ability to distribute funds immediately rather than having to wait for notification of each individual load into the Issuer Bank account.

Mastercard Digital Enablement Service

The MasterCard Digital Enablement Service (MDES) is a data interchange platform for generating and managing secure digital payment tokens.

MCC Group

Merchant Category Code (MCC) Group. The MCC is a four-digit number used by the Card Schemes to define the trading category of the merchant.

MDES

The MasterCard Digital Enablement Service (MDES) helps transform any connected device into a commerce device to make and receive payments. The MDES platform is used in iPhone 6, iPhone 6 Plus and Apple Watch to enable secure payments to take place for contactless and in-app payments.

Merchant Category Codes (MCCs)

Merchant category codes (MCCs) are four-digit numbers that describe a merchant's primary business activities. MCCs are used by credit card issuers to identify the type of business in which a merchant is engaged.

MFX Card

Payment card which supports payment and settlement transactions in multiple currencies. The MFX card typically has a single PAN with multiple currency wallets linked.

O**Out of Band (OOB) Authentication**

OOB authentication is a type of two-factor authentication that requires a secondary verification method through a separate communication channel along with the typical ID and password. For example, the user may be asked to respond to an automatically-generated phone call, enter a code sent to their smartphone or provide biometric verification via voice or fingerprint.

P**Padding amount**

An additional amount or fee charged on a transaction, typically used to hedge against FX currency fluctuations or mitigate risks of higher declines or chargebacks for certain merchant categories.

PAN

A payment card number (PAN), primary account number, or simply a card number, is the card identifier found on payment cards, such as credit cards and debit cards, as well as stored-value cards, gift cards and other similar cards.

PCI DSS Compliant

The Payment Card Industry Data Security Standard (PCI DSS) is an information security standard for organisations that handle credit cards from the major card schemes. All Program Managers who handle customer card data must be compliant with this standard. See: https://www.pcisecuritystandards.org/pci_security/

PGP

Pretty Good Privacy (PGP) is an encryption program that provides cryptographic privacy and authentication for data communication. PGP is used for signing, encrypting, and decrypting texts, e-mails, files, directories, and whole disk partitions and to increase the security of e-mail communications.

Product Setup Form

The Product Setup Form is a spreadsheet that provides details of your GPS account setup. The details are used to configure your GPS account.

PRODUCT_REF

The predefined reference code associated with the card, which is included in the XML file sent to the card manufacturer. This field is called the <ProductRef> on ws_create_card and the <DesignRef> on ws_customer_enquiry and ws_customer_enquiry_v2

ProductMaster

Card product-level master record

Program

Logical grouping of your products set up in Smart Client. This is setup with whatever the customer (issuer or program manager) wants. Can be viewed in reports or via the web services API and may also be sent to the card manufacturer.

Program Manager

A Program Manager is a GPS client who manages their own card service program.

Project Initiation Document (PID)

The Project Initiation Document (PID) is put together at a start of a project. This document outlines the initial project requirements and parties involved.

Project Requirements Document (PRD)

The Project Requirements Document (PRD) provides full details of the requirements of your project. Project schedules and implementation are based on the details provided in this document.

Project Scoping Document (PSD)

The Project Scoping Document (PSD) defines the scope of the project, and is typically produced before the start of the project.

PSD2

PSD2 is an EU Directive which sets requirements for firms that provide payment services. It introduces a number of requirements around how firms treat their customers and handle their complaints, and the data they must report to the FCA.

R**Race condition**

When two separate processes are reading and updating a value at the same time, then the latest process can overwrite the previous saved result.

RSA

Provider of identity and access management solutions. See: <https://www.rsa.com/>

S**SAFE**

SAFE (System to Avoid Fraud Effectively) is a Mastercard initiative requiring card issuers to report all cardholder fraud claims. The data sent to Mastercard is used to help identify and track fraudulent activity. See: https://globalrisk.mastercard.com/online_resource/system-to-avoid-fraud-effectively-safe-compliance-program/

Scheduled Fee Group

Controls whether a card is charged a recurring fee, such as a monthly platform fee.

SchemeMaster

Card scheme-level master record

SFTP

Secure File Transfer Protocol. File Transfer Protocol (FTP) is a popular unencrypted method of transferring files between two remote systems. SFTP (SSH File Transfer Protocol, or Secure File Transfer Protocol) is a separate protocol packaged with SSH that works in a similar way but over a secure connection.

Smart Client

Smart Client is GPS's user interface for managing your account on the GPS Apex system. It is also called Smart Processor GPS. Smart Client is installed as a desktop application and requires a VPN connection to GPS systems in order to be able to access your account.

SOAP

SOAP (Simple Object Access Protocol) is a messaging protocol for exchanging structured information in the implementation of web services. It uses Extensible Markup Language (XML) for its message format and relies on application layer protocols such as HTTP for message negotiation and transmission. SOAP allows developers to invoke processes running on disparate operating systems (such as Windows, macOS, and Linux) to authenticate, authorise, and communicate using XML.

STIP

Stand-In Processing. Where GPS holds the card balance on behalf of a Program Manager, in some instances where the Program Manager is not available, we are able to provide an authorisation decision for a transaction on their behalf.

U

Usage Group

Group that controls where a card can be used. For example: POS or ATM.

V

VDE

Virtual Data Element, used for 3D Secure identification. Examples are memorable name, memorable place and memorable date.

VPN

Virtual Private Network. A secure, encrypted remote connection over the public internet to the private GPS network, designed to safeguard the security and integrity of the network. Users are set up to access defined GPS services via their VPN connection.

W

Web Service Fee Group

Controls the fees charges for web service usage. Different web services can have different fees associated with them.

WSDL

Web Service Definition Language (WSDL) is an XML format for describing network services as a set of endpoints operating on messages containing either document-oriented or procedure-oriented information. WSDL files are central to testing SOAP-based services. SoapUI uses WSDL files to generate test requests, assertions and mock services.