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For the latest technical documentation, see the <u>Developer Portal</u>.

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1 About This Document

This guide describes how to set up and manage card fees for your card products on the GPS system. It includes details of the card usage and administration fees that you can create for your card products, and how to view fees and apply fees to cards.

Target Audience

This guide is intended for GPS clients (Program Manager) who are interested in setting up fees for their card products.

What's Changed?

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

1.1 How to use this Guide

If you are new to GPS and want to understand how card usage fees work and some of the available fee options, see the Introduction section.

To find out how to configure fees for your card product, see How to Set Up Card Fees.

For information about options for viewing and managing fees, see Fee Maintenance.

1.2 Related Documents

Refer to the table below for other documents which should be used in conjunction with this guide.

| Document | Description |
|-----------------------------------|---|
| Web Services Guide | Provides details of the GPS Web Services API. |
| 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. |
| Transaction XML Reporting Guide | Provides details of the GPS transaction XML reports GPS sends to customers. |
| Payment Disputes Management Guide | Describes the payments dispute management process and how GPS supports chargeback management. |

2 Introduction

The GPS system provides flexible options for setting up and applying card usage and administration fees to the cards in your program, giving you full control over the type of fees to include. The card fees you charge cardholders must be set up as part of your program agreement with your issuer, who approves in line with the card scheme regulations.

GPS fees are configured for your program using Fee Groups. These groups are currency agnostic and you can define the fee currencies that apply to the group. See Fee Groups.

You can specify multiple fee groups for your card program (e.g., to reflect different cardholder product offerings, such as premium, business and standard or different country options) and link each card to a set of fee groups. Each fee group defines the types of fees that are applicable to a card. See Figure 1 below:

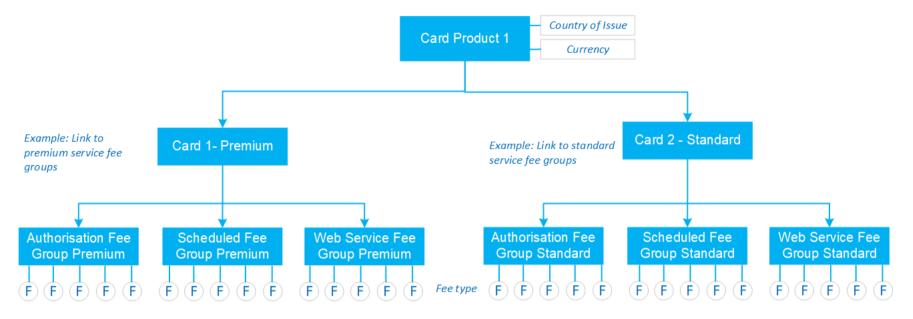


Figure 1: Card Products and Fee Groups

When creating a card on the GPS system, you can specify which fee groups to link to the card. Certain fees can be waived at the time the card is created. It is also possible to configure a one-off fee to apply to a specific card; see Applying Fees to a Card.

Card Product and Default Fees

Cards are set up on the GPS system at a Product level. A card product is defined as a combination of country of issue and currency. This means that a different card product is required for each country of issue and currency pair (e.g., France-Euro, or UK-GBP).

While cards are set up at a product level, Fee groups are set up at a Program Manager level (i.e., per Program Manager) and can be applied to cards belonging to different products or programs (Scheme Masters).

When creating a card using the GPS web services, if you do not specify any fee groups, the card will be linked to the default fees configured for your card product (if defaults have been set up for your card products). In practise, for large programs operating in multiple countries and currencies, it is not practical to set up unique fee groups per product, so in this case, when creating a card you will need to specify the fee groups to link to the card.

Changing Card Fees

You cannot directly change your fee group configuration settings (including the fee amounts) on the GPS system; you will need to raise a change request with your account manager or via JIRA. If you increase any fees that you charge to your cardholder, you must also give them sufficient notice¹.

Note: For your current fee setup information, always refer to the latest signed-off copy of the Product Setup Form (PSF).

Fees and EHI Mode

The option to configure fees using the GPS system is available to customers on all External Host Interface (EHI) modes². However, in EHI modes where you maintain the card balance (Modes 1,4,5), GPS strongly recommends you also manage the fees applied to the card using your own systems.

¹For UK/EEA customers, you must provide 60 days' notice. Check with your issuer for notice periods in other regions.

²Please check with your account manager for restrictions, as some fee options may not work some EHI modes. Currently, web service fees are not supported for EHI Modes 1, 4 and 5.

2.1 Fee Groups

GPS provides three main fee groups:

- · Authorisation Fees group
- · Scheduled Fees group
- · Web Service Fees group

Each of these groups in described in further detail below.

Authorisation Fees Group

The Authorisation Fees group defines fees that are charged to a card on a per transaction basis when the card is used (e.g., at an ATM, website or merchant terminal) or when a payment is made out of the account.

Recurring Fees Group

The Recurring Fees group defines fees that are charged to a card on a recurring basis (e.g., monthly, annually or over a defined period).

Web Service Fees Group

The Web Service Fee group defines a fee that is charged to a card on a per transaction basis for a card transaction via web services (typically reflecting a payment or transfer into the card account or balance enquiry).

The Fee Groups are described in detail in the section Completing your PSF.

2.2 Configuring your Program Fees

GPS recommends that you always speak to your card issuer for advice on what fees to apply to your cards. Then talk to your GPS implementation manager about your fee requirements and the options readily available on the GPS system.

The card fees that apply to your program are defined using the Product Setup Form (PSF). Your implementation manager will complete this form and provide you with a copy to review and make any amendments required. Once you have agreed the contents of the PSF, your implementation manager will set up your fees on the GPS system. For details, see Completing your PSF.

If you have already set up fees and require changes or new fee groups, please contact your account manager. Any changes to fees should also first be approved by your issuer.

Tip: Keep your fees simple - overcomplicated fee options can lead to a poor user experience.

Bespoke fees

If you require a bespoke fee configuration, please speak to your account manager. Any changes that require development work require GPS approval and may incur additional charges.

Linking a Card to Fee Groups

Fee groups are set up at a Program Manager (Institution) level. When you create a card, you should specify the fee groups to link to the card. If you do not specify any fee groups, then the default fee groups for the linked card product are applied (if default fee groups have been set up).

Viewing and Updating a Card's Fee Groups

You can use the GPS web services API to query the fee groups linked to a card. The web services API also enables you to change the fee groups linked to a card and to apply any additional one-off fee charges to a card. For details, see Managing Fee Groups.

Viewing a Card's Transaction Fees

Transaction-related fees are listed in your daily transaction XML report. You can also view transaction-related fees in messages sent via the GPS External Host Interface (EHI) and on Smart Client. For details, see Viewing a Card's Transaction Fees.

Negative Balances and Fees

GPS cards provide a balance and a spending limit equal to the available balance; GPS will not deduct a fee if it takes a card into a negative balance. If insufficient funds are available on a card to cover your card transaction and administration fees, GPS can create a pending fee record. See Querying Pending Fees. GPS also enable you to specify that a partial fee amount is taken if insufficient funds are available to take the full fee¹. See Example of a Partial Fee.

2.3 How are fees applied when a card is used?

Figure 2 below shows the typical process for applying fees on a per transaction basis when a card is used (authorisation process).

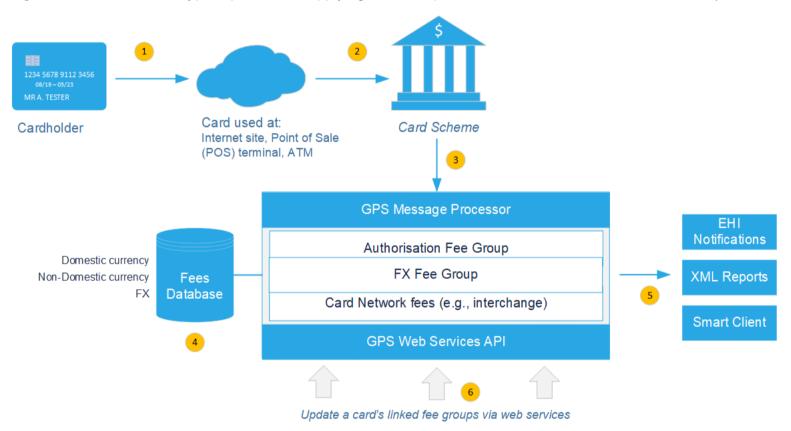


Figure 2: Applying Card Fees

- 1. The cardholder uses their card at a Point of Sale (POS) Terminal, ATM or online merchant website.
- 2. The merchant website, POS terminal or ATM sends an authorisation request, via their acquirer, to the card scheme.
- 3. The Card Scheme (Visa/Mastercard) sends the transaction to GPS.
- 4. The GPS Message Processing System (MPS) processes the transaction. It validates the card, looks up the card's usage group to verify the transaction is permitted and then authorises the transaction (EHI mode 3) or forwards to your systems for authorisation (EHI modes 1,2,4,5). GPS identifies the type of transaction based on the processing code in the message, checks the fee groups linked to the card (each fee group defines the type of fee, fee currency and amount) and calculates the correct card product fees.
- 5. GPS provides real-time authorisation messages and financial notifications via the External Host Interface (EHI), which include details of fees applied to cards during transactions. The daily XML reports also contain details of fees calculated during transactions. You can view details of fees linked to a specific card or transaction in Smart Client.
- 6. You can use the web services to view and change the fee groups linked to a card and to apply additional card fees.

Note: A transaction may incur additional fees, such as Card scheme network interchange fees and FX fees. These are also detailed in the XML reports and EHI messages.

¹Pending fee records and partial fees are only implemented if pending fees has been set up for your fee group.

2.4 Other Card Fees

This section describes additional types of fees that may be raised against a transaction. These are external fees that are not created or managed by GPS systems.

Network Fees

The acquirers and card schemes (Visa and Mastercard) charge interchange fees for the processing of transactions over their networks. For example:

- POS transactions positive interchange fee is paid to the issuer (the merchant pays)
- ATM transactions negative interchange fee is paid to the operator of the ATM
- ATM card capture fee is paid to the operator of the ATM
- Stolen card fee interchange fee is paid to the issuer

These fees are only finalised at the presentment stage when settlement and transfer of funds occurs. These fees are not charged directly to the cardholder and are reported separately. You should factor your fee structure in line with potential network fees.

Chargeback Fees

Disputed transactions where a Chargeback is raised may incur additional Chargeback fees, payable to the Card Scheme (Visa/Mastercard) and acquirer/issuer.

It is possible to configure a one-off fee to apply to a card, to reflect any fees incurred as a result of a Chargeback. See Applying Fees to a Card.

For further details on Chargebacks, refer to the Payment Disputes Management Guide.

3 How to Set Up Card Fees

Your implementation manager will set up your card usage groups and **fee groups** on the GPS system, based on the details in your Product Setup Form (PSF).

Once they have set up your fee groups, you can use the GPS web services API to view the available fee groups, link a card to a relevant fee groups and change the fee groups linked to a card. You can also use the web services to return details of any pending fees on a card and guery details of card transaction fees over a defined period.

3.1 Steps in Setting up Card Fees

Below is a high-level summary of the steps in setting up and managing the fees linked to the cards in your program.

Setting up Fee Groups and Linking Cards to Fees

- 1. Consult with your implementation manager, who will complete your Product Setup Form (PSF) with details of the fee groups and fees you want to configure for your program. See Completing your PSF.
- 2. Your implementation manager sets up your fees on the GPS system.
- 3. When you create a card using the web services API, you specify a product code (CardDesign), which links the card to any default usage and fee groups configured for this product (if set up). You can override the default card product fee groups and specify specific fee groups to link to the card. See Linking Cards to Fee Groups.

Viewing and Maintaining Card Fees

- 1. You can use the GPS web services to:
 - Query the fee groups linked to a specific card. See Listing Fee Groups.
 - Change the fee groups linked to a specific card. See Changing the Fees Groups Linked to a Card.
 - View pending fees on a specified card. See Querying Pending Fees.
 - Query details of card transaction fees over a defined period. Querying Card Transaction Fees.
- 2. If you need to change any of the fee options, including fee amounts, that are set up within a fee group, please contact your account manager or raise a JIRA change request. You will need to sign off any changes to your Product Setup Form (PSF) before these changes can be implemented on the GPS system.
- 3. Details of fees charged on a per transaction basis are available from the following sources:
 - The daily XML transaction report. See Viewing Card Fees in the XML Report.
 - Authorisation and financial notifications sent via the External Host Interface (EHI). See Viewing Card Fees on EHI.
 - Smart Client enables you to view details of transaction fees charged to a card or for a specific transaction. See Viewing Card Fees on Smart Client.

4 Completing your PSF

The Product Setup Form (PSF) provides three tabs where the fee groups for your program are recorded:

- 06. Auth Fees
- 07. Recurring Fees
- 0.8 Web Service Fees

Each of these is described in detail below.

4.1 Authorisation Fee Groups

The Authorisation Fee group enables you to define unique fees for each type of card authorisation transaction. For a list of authorisation fee types, see Authorisation Types.

Below is an example of one of the authorisation fee groups set up on the **Auth Fee Groups** tab. You can have multiple **Authorisation Fee Groups** set up for your program.

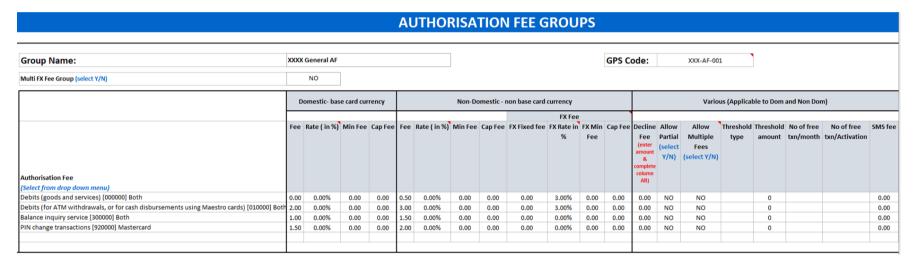


Figure 3: Authorisation Fee Group

Authorisation fees are set up as a matrix, enabling you to specify at a detailed level the fees to be applied to each type of authorisation transaction.

The **Group Name** is the unique name of the Authorisation Fee group, to be used when linking a card to an authorisation fee group. This is a description of the fee group and should include the Program Manager name and currency (if applicable). For example: *GPS GBP Low Limits*.

How to use the Authorisation Fee Groups Form

Your implementation manager completes this form:

- 1. The Group Name field displays the unique name of the fee group.
- 2. The GPS Code field displays the internal GPS fee code.
- 3. The **Authorisation Fee** types are listed in column C, in the row under **Authorisation Fee** (select from drop-down menu). See Authorisation Types.

Each authorisation type is listed as its own row in column C. The **down** arrow enables you to view and select additional authorisation fee types if required.

4. For each row, the fees and fee options that apply to this authorisation fee type are shown. See Authorisation Types.

Authorisation Types

Refer to the table below for a list of authorisation types. The code in square brackets (for example [000000]) is the processing code for this transaction type, as provided by the card scheme. This processing code is returned in the transaction XML reports and EHI messages and is used as part of the GPS fee logic to calculate the fee.

You can use the processing code to track the source of any authorisation transaction card fee applied to a card. For a full list, see Appendix 1: Processing Codes (DE003).

Note: The Authorisation types listed below are relevant to both Mastercard and Visa, unless specified otherwise. Rows high-lighted in **yellow** indicate the main transaction type codes (identified by the first two digits of the code. Rows below this are sub-level codes that indicate a variation of the main code.

| Authorisation Type | Description | |
|--|--|--|
| Debit POS payments | | |
| Debits (goods and services) [000000] | Payment in store at a point of sale (POS) terminal. | |
| Purchase with Savings account [001000] | POS payment using a linked savings account. | |
| Purchase with Checking account [002000] | POS payment using a linked checking account. | |
| Purchase with Credit Card account [003000] | POS payment using a linked credit card account. | |
| Purchase with Universal account [004000] | POS payment using a linked universal account. | |
| ATM Payments | | |
| Debits (for ATM withdrawals, or for cash disbursements using Maestro cards) [010000] | Cash withdrawal from an automated teller machine (ATM). | |
| Withdrawal with Savings account [011000] | ATM withdrawal from a savings account. | |
| Withdrawal with Checking account [012000] | ATM withdrawal from a checking account. | |
| Withdrawal with Credit Card account [013000] | ATM withdrawal from a credit card account. | |
| Withdrawal with Universal Account [014000] | ATM withdrawal from a universal account. | |
| Cashback Payments | | |
| Debits (goods with cash back) [090000] | Cashback transaction. | |
| Purchase with Cash Back with Checking Account [092000] | Cashback transaction from a checking account. | |
| Account Funding transactions | | |
| Account Funding Transaction (AFT) [100000] | Transaction where funds are pulled from a Visa account and are subsequently used to fund another Visa or non-Visa account ¹ . | |
| Quasi-cash (POS) transactions | | |
| Visa quasi-cash (POS) transactions [110000] Visa | POS transaction where the payment was for a cash service (Visa). | |
| Quasi-Cash Transaction (Credit Card Account) [113000] Visa | Quasi-cash transaction for a credit card account (Visa). | |
| Cash disbursements and cash advances | | |
| Cash Disbursement [120000] Mastercard Clearing | Cash payment (Mastercard). | |
| Debits (for cash advances) [170000] Mastercard | Cash advance (Mastercard). | |
| Debits (for cash advances) [171000] Mastercard | Cash advance (Mastercard). | |
| Cash disbursement [172000] Mastercard | Cash payment (Mastercard). | |
| Cash disbursement with Credit Card Account [173000] Mastercard | Cash payment from a credit card account (Mastercard). | |
| Refunds and credits | | |
| Purchase refunds [200000] | Refund to the cardholder. | |
| Purchase Return/Refund - Checking Account [202000] | Refund from a checking account. | |
| Purchase Return/Refund - Credit Card Account [203000] | Refund from a credit card account. | |

¹Not supported by all issuers. In this case, the AFT is converted to a debit transaction (000000).

| Authorisation Type | Description | |
|---|---|--|
| Original Credit [260000] Visa | Payment credit (Visa). | |
| Credits (for Payment Transaction) [280000] Mastercard | Payment credit (Mastercard). | |
| Balance Enquiries (ATM) | | |
| Balance inquiry service [300000] | ATM balance enquiry. | |
| Balance Enquiry with Saving Account [301000] | Balance enquiry on a savings account. | |
| Balance Enquiry with Checking Account [302000] | Balance enquiry on a checking account. | |
| Balance Enquiry with Credit Card Account [303000] | Balance enquiry on a checking account. | |
| Balance Enquiry with Universal Account [304000] | Balance enquiry on a universal account. | |
| PIN Services (ATM) | | |
| PIN change transactions [700000] Visa | Cardholder requests a PIN change (Visa). | |
| PIN unblock transactions [720000] Visa | Cardholder requests a PIN unblock (Visa). | |
| PIN unblock transactions [910000] Mastercard | Cardholder requests a PIN unblock (Mastercard). | |
| PIN change transactions [920000] Mastercard | Cardholder requests a PIN change (Mastercard). | |

Authorisation Fee Options

Refer to the table below for a list of fees and fee options that can be applied to each of the authorisation fee types listed above.

| Fee Option | Description |
|------------------------|--|
| Domestic and | Non-Domestic Card currency |
| Fixed fee | Fixed amount to apply to the transaction. |
| Rate (%) fee | Percentage of the transaction amount to apply. |
| Minimum fee | Minimum fee to apply. |
| Cap Fees | Maximum fee to apply. |
| Foreign Curre | ency Exchange (FX) Fees |
| FX Fixed fee | Fixed amount to apply to an FX transaction. |
| FX Rate (%) fee | Percentage of an FX transaction amount to apply. |
| FX Minimum fee | Minimum fee to apply. |
| FX Cap Fees | Maximum fee to apply. |
| Various Fees | |
| Decline Fee | Enter the amount and in column AB select the decline Response Codes that will trigger the decline fee. You can select multiple response codes. See Response Codes. Note: if you do not select any response codes, then all the decline response codes can trigger the decline fee. |
| Allow Partial | Whether to apply a partial fee if the card does not have sufficient funds to cover the full fee. Select YES or NO. |
| Allow Multiple Fees | Allows you to define different fees for lower-level transactions of the same type (i.e., that have the same first two digits in their processing code). The default is NO. See Allowing Multiple Fees. Note: This option should always be set to NO, unless required for agency banking or to support card processing in your region. |
| Threshold type | Select the threshold type to trigger the fee: > triggers the fee if the amount is greater than the specified Threshold amount < triggers the fee if the amount is less than the specified Threshold amount |

| Fee Option | Description |
|---------------------------|---|
| Threshold amount | Specify a transaction threshold amount to trigger the fee. For example: > 1.50. Any authorisation above this amount will trigger the fee. |
| No of free txn/- month | Specify the number of free transactions allowed per month before the fee is triggered. |
| No of free txn/Activation | Specify the number of free transactions allowed once the card is activated before the fee is triggered. |
| SMS fee | Specify the fee to be charged for any SMS notification messages sent to the cardholder for this type of transaction. |
| Currency | Specify the 3-digit ISO currency code. Only applicable for Multi-Wallet setup. |

Response Codes

You can configure the **Response Codes** that trigger a Decline fee. The response codes that trigger a decline fee are shown in **Column AB**, in the row beneath **Response Codes**. See the example below. For a list of response codes, see Appendix 3: Response Decline Codes.

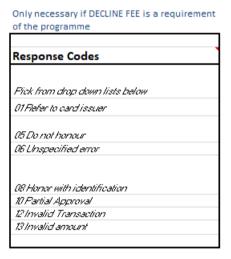


Figure 4: Example of Response Codes

If you do not select any response codes, then all the decline response codes can trigger the decline fee.

Note: There is a specific type of authorisation, known as an Account Status Information (ASI) transaction, which may not trigger a decline fee. For details, see Fee Processing Rules for ASI Transactions.

Allowing Multiple Fees

The *Allow Multiple Fees* option enables you to define lower-level transaction fees for transactions of the same type (i.e., that have the same first two digits in their processing code).

- If set to NO, then GPS only checks the first two digits of the processing code
- If set to YES, then GPS checks the full 6 digits of the processing code, enabling you to apply different fees for each type of lower-level transaction.

Note: The default option is NO (disabled) and this setting is recommended. Multiple fees should only be used to support Agency Banking or specific regional use cases.

Example

Payments Out (processing code 160000) can be broken down into separate fees per payment type by enabling multiple fees and configuring separate fees for each of the following:

- Faster Payment out = 161000
- BACS Out = 162000
- Direct Debit out = 163000

Payments In (processing code 290000) can be broken down into separate fees per payment type by enabling multiple fees and configuring separate fees for each of the following:

- Faster Payments In = 291000
- BACS In = 292000

4.2 Recurring Fee Groups

Recurring fees are applied on a recurring basis, based on the frequency you specify (e.g., monthly or annually).

Below is an example of one of the Recurring Fee groups set up on the **Recurring Fee Groups** tab. You can have multiple **Recurring Fee Groups** set up for your program.

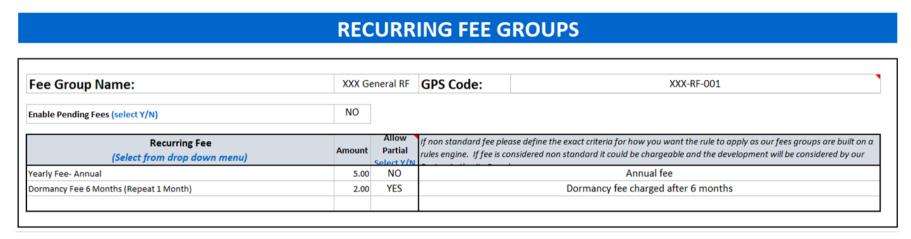


Figure 5: Recurring Fee Groups

A Recurring Fee group consists of a set of recurring fees configured for that group. For each recurring fee within a Recurring Fee group, you can define:

- The fee Amount.
- Whether to allow a **Partial Fee** to be taken if the available balance on the card is less than the full fee¹.

How to use the Recurring Fee Groups Form

Your implementation manager completes this form:

- 1 The **Group Name** field displays the unique name of the fee group.
- 2. The GPS Code field displays the internal GPS fee code.
- 3. The **Enable Pending** field indicates whether pending fees are enabled².
- 4. The Recurring fee types are listed in column C, in the row under **Recurring Fee** (select from drop-down menu). See Recurring Fee Types.
- 5. Each recurring fee type is listed as its own row in column C. The **down** arrow enables you to view and select additional recurring fee types if required.
- 6. For each row, the fees and fee options that apply to this recurring fee type are shown.

Recurring Fee Types

Below is a list of recurring fees that you can set up. For more information on the rules around processing of recurring fees, see Rules for Recurring Fees.

| Recurring Fee Type | Description |
|--|--|
| Dormancy Fees | |
| Dormancy Fee 1 Months (Repeat 1 Month) | Fee applied when a card has not had any transactions during the past month. |
| Dormancy Fee 2 Months (Repeat 1 Month) | Fee applied when a card has not been loaded with funds or had any transactions during the past 2 months. |
| Dormancy Fee 3 Months (Repeat 1 Month) | Fee applied when a card has not been loaded with funds or had any transactions during the past 3 months. |

¹GPS fees cannot be taken if they will result in an account going into a negative balance. If you allow partial fees, the available balance on the card will be used to pay off part of the fee charge.

²If a fee cannot be taken due to insufficient funds, GPS creates a Pending fee record.

| Recurring Fee Type | Description |
|---|---|
| Dormancy Fee 6 Months (Repeat 1 Month) | Fee applied when a card has not been loaded with funds or had any transactions during the past 6 months. |
| Dormancy Fee 12 Months (Repeat 1 Month) | Fee applied when a card has not been loaded with funds or had any transactions during the past 12 months. |
| Dormancy Fee 13 Months (Repeat 1 Month) | Fee applied when a card has not been loaded with funds or had any transactions during the past 13 months. |
| Dormancy Fee 24 Months (Repeat 1 Month) | Fee applied when a card has not been loaded with funds or had any transactions during the past 24 months. |
| Monthly Dormancy Fee - after card expires | Fee applied after a card has expired. |
| Activation Fees | |
| Monthly Fee - Activation | Activation fee is applied after the card is activated. |
| Monthly Fee - Activation Fee Taken 1st (1 Months After) | Activation fee is applied 1 month after the card is activated, on the 1st of the month. |
| Monthly Fee - Activation Fee Taken 1st (5 Month After) | Activation fee is applied 5 months after the card is activated, on the 1st of the month. |
| Monthly Fee - Activation Fee Taken 1st (6 Months After) | Activation fee is applied 6 months after the card is activated, on the 1st of the month. |
| Monthly Fee - Activation Fee Taken 1st (12 Months After) | Activation fee applied 12 months after the card is activated, on the 1st of the month. |
| Load Fees | |
| Monthly Fee - Following reload | Fee applied following a reload (only triggered once a card is reloaded). |
| Monthly Fee After Load (1 Month After) | Fee applied one month after a reload. |
| Monthly Fee After Load (1 Year After) | Fee applied one year after a reload. |
| Inactivity Fees | |
| Monthly Fee - No transaction in last 2 days | Fee applied when there have been no transactions on the card during the last 2 days. |
| Monthly Fee - No transaction in last 90 days | Fee applied when there have been no transactions on the card during the last 90 days. |
| Monthly Fee - No transaction in last 120 days | Fee applied when there have been no transactions on the card during the last 120 days. |
| Monthly Fee - No transaction in last 180 days | Fee applied when there have been no transactions on the card during the last 180 days. |
| Monthly Fee - No transaction in last 365 days | Fee applied when there have been no transactions on the card during the last 365 days. |
| Monthly Fee - Last Day of Month | Monthly fee, applied on the last day of each month. |
| Monthly fee 8th of every month | Monthly fee, applied on the 8th day of each month. |
| Annual Fees | |
| Yearly Fee- Annual | Annual card management fee. |

Note: Monthly fees apply to the main account only, not to sub-accounts.

Dormancy Fees

If configured, dormancy fees apply when a card has not been loaded with funds or had any transactions during the specified period. Certain types of transactions are excluded from the dormancy assessment, such as:

- ATM Balance enquiries
- ATM PIN changes and PIN unblock
- Fee adjustments
- Recurring fees

If one of these types of transactions has occurred during the dormancy period, the dormancy fee will still be applied.

Example of a Partial Fee

A customer using a card with balance £11.00, withdraws £10.00 at an ATM and there is an ATM Withdrawal fee for £2.00. The total cost of the transaction will be £12.00 (£10.00 + £2.00). The £10.00 will be withdrawn successfully but only a Fee of £1.00 will be charged.

If set to NO, the transaction will be declined for Insufficient Funds.

Fees on MVC and Multi-currency Cards

For an MVC or multicurrency cards, where there is a primary card and linked secondary cards, the recurring fee can be set to apply separately to each card/token, or taken from one of the cards. For example, if you have the following links cards:

- MVC primary card token: 123456789 (holds the main account balance)
- Sub-card token: 123456897 (is topped up when required from available funds in the primary card)

You can set up the fee to be deducted from the primary card

Customised Fees

If you want any customised fees, you will need to specify how you want the recurring fee to apply:

- What triggers the fee
- · Fee start date
- · Fee end date
- Fee period
- How to calculate the day of the month to charge on
- How does the fee stop?
- Does the fee continue after card expiry?

Note: Any development work required to implement any non-standard fee requirements may be chargeable. For details, check with your account manager.

4.3 Web Service Fee Groups

Web Service fees can be applied to a card when specific GPS web services are used. Examples of use of the web services include card balance enquires, card replacement, card load and bank transfer fees. (For a list of web service fee processing codes, see Appendix 2: Fee Processing Codes.)

Below is an example of one of the web services fee groups set up on the **Web Services Fees** tab. You can have multiple **Web Service Fee Groups** set up for your program.

WEB SERVICE FEE GROUPS

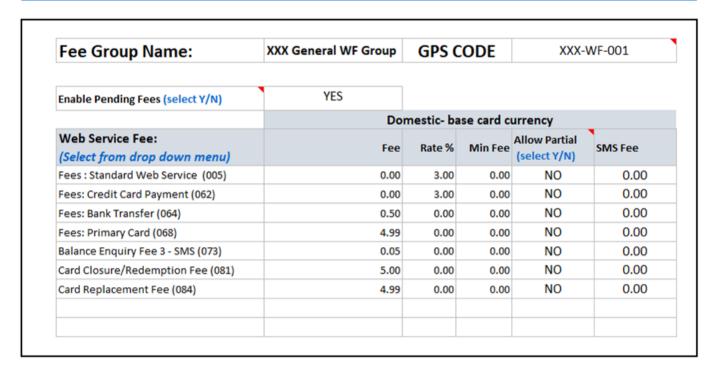


Figure 6: Web Service Fee Group

The **Group Name** is the unique name of the Web Service Fee group, to be used when linking a card to the fee group. Web Service fees are set up in the card's domestic currency.

You can define the following fees for each web service fee type:

- Fee fixed fee to be applied to that transaction
- Rate (%) fee a percentage of the transaction is charged
- Minimum fee a minimum fee to apply to a transaction if you are using a rate fee.
- Allow Partial Fee whether to allow a partial fee of the required fee to be charged based on the available balance (less than the fee) on the card.
- SMS Fee if the web service triggers an SMS message that is sent to the cardholder.

How to use the Web Service Fee Groups Form

Your implementation manager completes this form:

- 1. The **Group Name** field displays the unique name of the fee group.
- 2. The GPS Code field displays the internal GPS fee code.
- 3. The **Enable Pending** field indicates whether pending fees are enabled¹.
- 4. Web service fee types are listed in column C, in the row under **Web Service Fee** (select from drop-down menu). For a list of web service fee processing codes, see Appendix 2: Fee Processing Codes.
- 5. Each web service fee type is listed as its own row in column C. The **down** arrow enables you to view and select additional web service types if required.
- 6. For each row, the fees and fee options that apply to this web service type are shown.

¹If a fee cannot be taken due to insufficient funds, GPS creates a Pending fee record.

5 Fee Maintenance

This section describes the options for viewing and maintaining fees for your program. For more information on the web services API described in this section, see the <u>Web Services Guide</u>.

5.1 Managing Fee Groups

You can use the GPS web services API to query and update the fee groups linked to a card and to apply additional fees to a card.

Listing Fee Groups

You can use the List Groups web service (Ws_list_group) to list the codes and descriptions of all groups of a certain type (e.g. Fee Groups). You can specify one the following <GroupType> values related to fees:

2 = Authorisation Fee Groups

3 = Recurring/Scheduled Fee Groups

4 = Web Service Fee Groups

See the example below: (only relevant fields are shown)

Request

Notes

Authorisation Fee Group = 2:

```
5 <hyp:GroupType>2</hyp:GroupType>
```

Response

```
XML
 1
              <Ws_List_GroupResult>
 2
                <WSID>1234</WSID>
 3
                <IssCode>ABCD</IssCode>
 4
                <GroupType>1</GroupType>
 5
                            <ActionCode>000</ActionCode>
 6
                <GroupInfo>
 7
                   <GroupListInfo>
 8
                      <GroupCode>GRPAUTH1</GroupCode>
 9
                      <GroupDesc>GROUP Auth 1
10
                   </GroupListInfo>
                   <GroupListInfo>
11
12
                      <GroupCode>GRPAUTH2</GroupCode>
13
                      <GroupDesc> GROUP Auth 2
14
                   </GroupListInfo>
15
                   <GroupListInfo>
16
                      <GroupCode>GRPAUTH3</GroupCode>
17
                      <GroupDesc>GROUP Auth 3</GroupDesc>
                   </GroupListInfo>
19
                </GroupInfo>
20
             </Ws_List_GroupResult>
```

Notes

Authorisation Fee Groups set up on GPS:

Note: If you do not specify a <GroupType> value in the request or request a type that does not exist, this will return an error.

Linking Cards to Fee Groups

When creating a card using the Create Card web service (Ws_CreateCard), if you do not specify fee groups then the default groups for the card product associated with the card are used. Alternatively, you can link the card to specific fee groups at the time when the card is created.

If the card is being loaded for the first time and you do not want to apply your normal card load fee, you can use the <FeeWaiver> parameter to exempt the card from the web services load fee.

See the example below: (only relevant fields are shown)

Request

Notes

Specify the fee groups to link to this new card:

```
<Ws_CreateCardResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
        <Ws_CreateCardResult>
           <WSID>1234</WSID>
           <IssCode>ABCD</IssCode>
           <TxnCode>10</TxnCode>
            <PublicToken>123456789</PublicToken>
            <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>03/22</ExpDate>
            <CVV>123</CVV>
            <MaskedPAN>987654******0123</MaskedPAN>
         </Ws_CreateCardResult>
      </Ws_CreateCardResponse>
```

Changing the Fees Groups Linked to a Card

You can use the **Change Card Groups** web service (Ws_Card_Change_Groups) to change one or more of the usage or fee groups for a specific card.

Note: You must enter the GPS code of an existing a Fee group, as defined in your Product Setup Form (PSF).

See the example below: (only relevant fields are shown)

Request

```
XML
 <soapenv:Body>
       <hyp:Ws_Card_Change_Groups>
          <hyp:\WSID>1234</hyp:\WSID>
          <hyp:IssCode>ABCD</hyp:IssCode>
          <hyp:PAN></hyp:PAN>
          <hyp:PublicToken>123456789/hyp:PublicToken>
          <hyp:LimitsGroup> </hyp:LimitsGroup>
          <hyp:MCCGroup></hyp:MCCGroup>
          <hyp:PERMSGroup></hyp:PERMSGroup>
          <hyp:FeeGroup>GRPAUTH2</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>
```

5.2 Viewing and Applying Card Fees

A number of web services are available for querying and applying fees to a specific card.

Querying Pending Fees

You can use Card List Pending Fees (Ws_List_Pending_Fees) to return details of pending fees that relate to a specific card. Pending fees are any charges that could not be taken from the card due to an insufficient available balance.

For example, if you charge a card activation fee and the card is activated before funds have been loaded, this will generate a pending fee. The pending fee is taken when the card is loaded (i.e., when sufficient funds are available).

See the example below: (only relevant fields are shown)

Request

Notes

Specifies the card you are querying:

```
5 <hyp:PublicToken>123456789</hyp:PublicToken>
```

```
XML
       <Ws_List_Pending_FeesResponse</pre>
          <Ws_List_Pending_FeesResult>
             <WSID>123456789</WSID>
             <ActionCode>000</ActionCode>
          <Fees>
                   <PublicToken>123456789</PublicToken>
                   <PostDate>2021-03-14</PostDate>
                   <TransDate>2021-03-14</TransDate>
                   <ProcCode>84</ProcCode>
                   <ActualAmt>4.99</ActualAmt>
                   <AmtTaken>4</AmtTaken>
                   <RemainingAmt>.99
                   <Description>Load fee</Description>
                   <PartialAllowed>true</PartialAllowed>
                   <Collected>true</Collected>
                   <PendingFeesEnabled>true</PendingFeesEnabled>
                </Fee>
                <Fee>
                   <PublicToken>123456789</PublicToken>
                   <PostDate>2021-03-14</PostDate>
                   <TransDate>2021-03-14</TransDate>
                   <ProcCode>82</ProcCode>
                   <ActualAmt>2</ActualAmt:
                   <AmtTaken>0</AmtTaken>
                   <RemainingAmt>2</Pre>
                   <Description>Card Issue Fee</Description>
                   <PartialAllowed>false</PartialAllowed>
                   <Collected>true</Collected>
                   <PendingFeesEnabled>true</PendingFeesEnabled>
                </Fee>
             </Fees>
```

Querying Card Transaction Fees

You can use the Card Statement web service <Ws_Card_Statement> to query details of card transaction fees over a defined period.

Note: We recommend you use the EHI data feed for viewing details of your fees. Using web services to query card fees may incur additional charges. Please ensure you abide by the GPS *Fair Usage Policy* for web services (refer to your *Letter of Intent or Contract*).

See the example below: (only relevant fields are shown)

Request

```
XML
 1 <Ws_Card_StatementResult>
        <WSID>1234</WSID>
               <IssCode>ABCD</IssCode>
 3
 4
              <TxnCode>5</TxnCode>
 5
 6
               <PublicToken>123456</PublicToken>
 7
 8
               <StartBal>10</StartBal>
 9
               <EndBal>0</EndBal>
10
               <TxnFilter>5</TxnFilter>
11
                <StartDate>2020-01-15</StartDate>
12
               <EndDate>2021-01-15</EndDate>
13
               <NumTxn>2</NumTxn>
14
               <ItemSrc>2</ItemSrc>
15
                <CurBill>GBP</CurBill>
16
                <AvlBal>0</AvlBal>
               <BlkAmt>0</BlkAmt>
17
18
19
                <Transactions>
20
                  <Transaction1>
21
                     <TxnDate>2021-02-01</TxnDate>
22
                     <PostDate>2021-02-01</PostDate>
23
                      <AmtBill>10</AmtBill>
24
                      <AmtTxn>10</AmtTxn>
25
 26
                      <Description> Unload: UnLoad
 27
 28
                      <TransactionType>U</TransactionType>
                      <StatusCode>S</StatusCode>
                      <StatusDesc> Settled: -</StatusDesc>
30
31
32
              <FeeId>0</FeeId>
33
                      <FixedFee>0.05
                      <RateFee>0</RateFee>
34
                      <FxPdg>0</FxPdg>
35
36
                      <ProcCode>230000</ProcCode>
37
                   </Transaction1>
38
39
                   <Transaction2>
40
                      <TxnDate>2021-01-15</TxnDate>
41
                      <PostDate>2021-01-15</PostDate>
42
                      <AmtBill>10</AmtBill>
                      <AmtTxn>10</AmtTxn>
43
```

```
44
                       <BillConvRate>1</BillConvRate>
45
                       <Deb0rCred>1</Deb0rCred>
46
                       <TerminalId/>
                       <Description> Load: Web services load </Description>
47
48
                       <RRN/>
49
                       <CurTxn>GBP</CurTxn>
50
                      <ItemId>1233</ItemId>
51
                      <AvlBal>10</AvlBal>
                      <BlkAmt>0</BlkAmt>
52
53
                       <TransactionType>L</TransactionType>
54
                      <StatusCode>S</StatusCode>
55
                      <StatusDesc>Settled : -</StatusDesc>
56
57
                      <FeeId>0</FeeId>
58
                      <WSID>1234</WSID>
59
                      <FixedFee>0.05</fixedFee>
                      <RateFee>0</RateFee>
60
61
                       <FxPdg>0</FxPdg>
62
63
                      <ProcCode>220000</ProcCode>
64
                    </Transaction2>
65
                </Transactions>
```

Notes

The Fee amount =

```
33 <FixedFee>0.05</FixedFee>
34 <RateFee>0</RateFee>
```

You can use the description and processing code (DE003) to determine the source of the fee:

For details of the processing codes, see Appendix 1: Processing Codes (DE003).

Applying Fees to a Card

You can use the Generic Fees web service <Ws_Generic_Fees> to apply a one-off fee charge with a comment to a particular card.

You need an associated processing code (<ProcCode>) for applying the fee. You can use the default amount configured for the web service fee group or specify an amount using the <Fee> parameter and add a comment to clarify the purpose of the fee (e.g., Administration Fee or Chargeback fee).

Note: We recommend you use processing code 83 (administration fee) when applying ad-hoc fees to a card.

You will first need to configure the details of your Web Service Group in the PSF, and this must then be set up by your implementation manager. See Web Service Fee Groups

Request

```
XML
 1
         <hyp:Ws_Generic_Fees>
 2
            <hyp:\WSID>1234</hyp:\WSID>
 3
            <hyp:IssCode>ABCD</hyp:IssCode>
 4
            <hyp:PAN></hyp:PAN>
            <hyp:PublicToken>123456789/hyp:PublicToken>
            <hyp:ProcCode>83
 6
            <hyp:Comment>Admin fee</hyp:Comment>
 8
            <hyp:LocDate>2013-01-01
 9
            <hyp:LocTime>120000
10
            <hyp:Fee>0.0</hyp:Fee>
11
          </hyp:Ws_Generic_Fees>
```

Notes

Enter the two-digit GPS process code and add a description to the fee:

For details of the processing codes, see Appendix 2: Fee Processing Codes.

5.3 Viewing a Card's Transaction Fees

Transaction-related fees are listed in your daily XML transaction report and in real-time EHI messages. Transaction-related fees can also be viewed on Smart Client.

Viewing Card Fees in the XML Report

The daily XML report provides details of any card fees applied to a transaction.

Below is an example of an extract for a typical XML authorisation transaction: (only relevant fields are shown)

```
XML
 1 <CardAuthorisation>
 2 <RecType>ADV</RecType>
 3 <AuthId>101455187</AuthId>
 4 <AuthTxnID>11606448</AuthTxnID>
 6 <Card PAN="1234567812345678"product=""programid=" "branchcode=""productID=""> </Card>
 7 <Account no="123456789"type="01"></Account>
 8 <TxnCode direction="debit"Type="pos"Group="pos"></TxnCode>
 9 <TxnAmt value="10.00"currency="826"></TxnAmt>
10 ...
11 <PaddingAmt value="0.00"currency="826"></PaddingAmt>
12 <Rate Fee value="0.00"></Rate Fee>
13 <Fixed_Fee value="0.20"></Fixed_Fee>
14 <CommissionAmt value="0.00"currency="826"></CommissionAmt>
15 <Classification MCC="5942"></Classification>
16 <Response approved="no"actioncode="1"responsecode="21"></Response>
```

Notes

Authorisation Fee Group charges applied:

For more information, see the Transaction XML Reporting Guide.

Viewing Card Fees on EHI

EHI messages provide details of any card fees applied during a transaction. Note that the fee type and value are provided, but details of the Fee group used to determine the fee are <u>not</u> provided.

Below is an example of an extract for a typical XML authorisation transaction: (only relevant fields are shown)

```
XML
 1 <GetTransaction xmlns="http://tempuri.org/">
 2 ....
                <ActBal>0.08</ActBal>
 3
 4
                <Avl_Bal>-6.95</Avl_Bal>
                <Bill_Amt>-6.95</Bill_Amt>
 6
                <Bill_Ccy>826</Bill_Ccy>
 7
                <BlkAmt>-6.95</BlkAmt>
 8
                 <FX_Pad>0.00</FX_Pad>
 10
                 <Fee_Fixed>0.10</fee_Fixed>
 TT
12
                 <Fee_Rate>0.00</fee_Rate>
13 ......
                <MCC_Code>5812</MCC_Code>
14
                <MCC_Desc>Eating Places, Restaurants
15
                <MCC_Pad>0.00</MCC_Pad>
16
17
                <Merch_ID_DE42>228284651/Merch_ID_DE42>
                 <Merch_Name_DE43>LA FROMAGERIE LIMITED LONDON
                                                                     GBR</Merch_Name_DE43>.....
18
19
                 <Proc_Code>000000</Proc_Code>
                 <Resp_Code_DE39>00</Resp_Code_DE39>
20
                 <Ret_Ref_No_DE37>018210004379/Ret_Ref_No_DE37>
21
                 <Settle_Amt>0.00</Settle_Amt>
22
                 <Settle_Ccy></Settle_Ccy>
23
24
                 <Status_Code>00</Status_Code>
                 <Token>857264992</Token>
25
```

```
<Trans_link>160113703254012319</Trans_link>
26
27
                <Txn_Amt>11.27</Txn_Amt>
28
                <Txn_CCy>826</Txn_CCy>
29
                <Txn_Ctry>GBR</Txn_Ctry>
30
                <Txn_Desc>LA FROMAGERIE LIMITED LONDON
                                                               GBR</Txn_Desc>
31
                <Txn_GPS_Date>2016-01-13 14:05:13.747</Txn_GPS_Date>
32
33
                <Dom_Fee_Fixed>0.10</Dom_Fee_Fixed>
                <Non_Dom_Fee_Fixed>0. 0</Non_Dom_Fee_Fixed>
34
                <Fx_Fee_Fixed>0.00</fx_Fee_Fixed>
35
                <Other_Fee_Amt>0.00</Other_Fee_Amt>
36
                <Fx_Fee_Rate>0.00</Fx_Fee_Rate>
37
                <Dom_Fee_Rate>0.00</Dom_Fee_Rate>
38
                <Non_Dom_Fee_Rate>0.01</Non_Dom_Fee_Rate>
39
40
                <Currency_Code_Fee></Currency_Code_Fee>
41
                <Currency_Code_Fee_Settlement></Currency_Code_Fee_Settlement>
42
43
                <Interchange_Amount_Fee></Interchange_Amount_Fee>
44
                <Interchange_Amount_Fee_Settlement></Interchange_Amount_Fee_Settlement>
45
                        </GetTransaction>
```

Notes

Authorisation Fee Group charges applied (domestic):

```
11 <Fee_Fixed>0.10</Fee_Fixed>
12 <Fee_Rate>0.00</Fee_Rate>
```

You can use the processing code (DE003) to determine the source of the fee:

```
19 <Proc_Code>000000</Proc_Code>
```

Authorisation Fee Group charges applied:

FX Fee Group charges applied:

For more information, see the External Host Interface (EHI) Guide.

Viewing Card Fees on Smart Client

You can view details of fees charges for a transaction in Smart Client, on the View Transaction and Transaction Details screens:

- Log in to Smart Client and select Card Activity > Transactions.
 The View Transactions screen shows a list of transactions held on the GPS system for your program.
- 2. Double-click the transaction row you are interested in.
 This opens the View Transaction screen, listing the transaction and any linked transactions. Details of fees applied are also displayed:

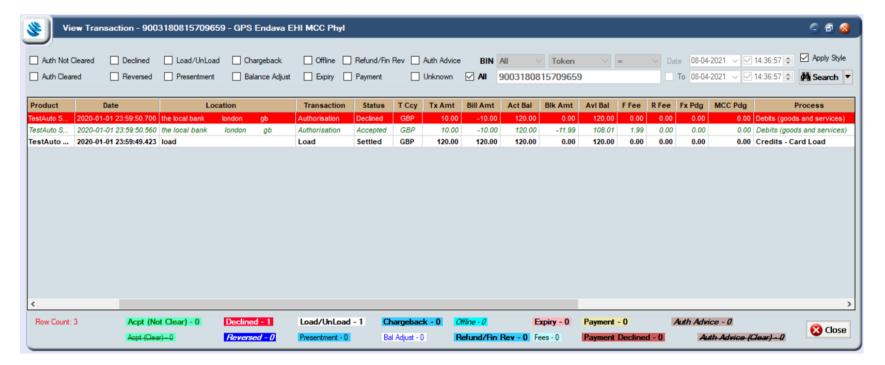


Figure 7: View Transactions Screen

- 3. To view fee details, double-click the transaction row. This opens the **Transaction Details** screen.
- 4. Scroll down to the **Fee Detail Note** section on this screen, as shown in the example below:

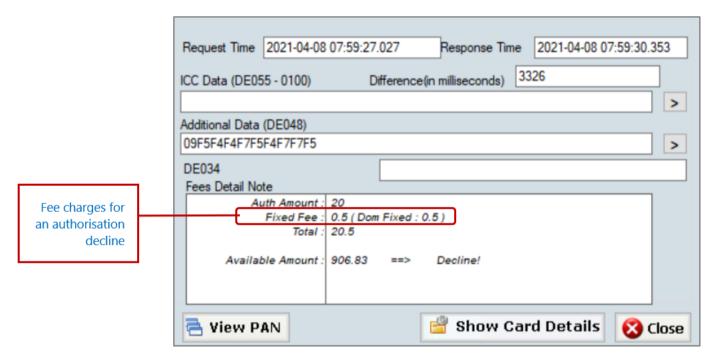


Figure 8: Fee Detail Note on the Transaction Details screen

For more information, see the **Smart Client Guide**.

Appendix 1: Processing Codes (DE003)

Refer to the table below for a list of Card scheme authorisation type processing codes. These codes use the DE003 messages for Mastercard or Visa transactions. GPS also use this field to supply a processing code for GPS-generated transactions. The codes are listed in the Processing Code screen on Smart Client.

Note: To ensure you are using the latest processing codes, we recommend you always check the Processing codes listed in the Web Services Guide.

| Code | Description | |
|--------------------------------|---|--|
| Authorisation processing codes | | |
| 000000 | Debits (goods and services) | |
| 001000 | Purchase with Savings account | |
| 002000 | Purchase with Checking account | |
| 003000 | Purchase with Credit Card account | |
| 003900 | Purchase - Corporate account | |
| 004000 | Purchase with Universal Account | |
| 006000 | Purchase - Stored value account | |
| 010000 | Debits (for ATM withdrawals, or for cash disbursements using Maestro cards) | |
| 011000 | Withdrawal with Savings account | |
| 012000 | Withdrawal with Checking account | |
| 013900 | Withdrawal - Corporate account | |
| 014000 | Withdrawal with Universal Account | |
| 016000 | Withdrawal - Stored value account | |
| 013000 | Withdrawal with Credit Card account | |
| 020000 | Adjustment Credits | |
| 021000 | Adjustment Credits | |
| 022999 | PayPoint Load Fee | |
| Web Service codes | | |
| 006999 | Fees : Agent | |
| 007999 | Fees : Head Office | |
| 008999 | Fees : Call Centre | |
| 009999 | Fees : Customer Web site | |
| 011999 | Fees : Customer kiosk | |
| 012999 | Fees : Customer mobile app | |
| 017999 | Fees : Corporate | |
| 018999 | Fees : epay | |
| 019999 | Fees : HOCA Verifiable | |
| 023999 | Fees : POS Reload | |
| 034999 | Fees : Unload to Repatriate | |
| 047999 | Fees : Unload | |

| Code | Description |
|--------|-------------------------|
| 048999 | Fees : Balance Transfer |
| 049999 | Fees : Sofort Banking |
| 052999 | Fee: Load1 |

Note: Legacy fee codes and fee codes that are reserved for specific GPS customers are not listed above.

Appendix 2: Fee Processing Codes

Refer to the table below for a list of GPS fee processing codes which are used in some web services and displayed in Smart Client. You can use these codes to define the fees you want to apply to specific web services. See Web Service Fee Groups.

Note: To ensure you are using the latest processing codes, we recommend you always check the Fee Processing codes listed in the Web Services Guide.

| 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 |
| 011 | Fees : Customer kiosk |
| 012 | Fees : Customer mobile app |
| 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 Relaod |
| 034 | Fees : Unload to Repatriate |
| 035 | Fees : Loan Repayment |
| 047 | Fees : Unload Fee Test |
| 048 | Fees : Balance Transfer Fee Test |
| 049 | Fees : Sofort Banking |
| 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 | Fess : Ukash Payment |
| 064 | Fees : Bank Transfer |
| 065 | Fees : Giropay |
| 066 | Fees : Sofortüberweisung |

| Code | Description |
|------|--|
| 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 |
| 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 |

| Code | Description | |
|------|--|--|
| 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 | |

Note: Legacy fee codes and fee codes that are reserved for specific GPS customers are not listed above.

Appendix 3: Response Decline Codes

Refer to the table below for a list of response codes returned for a declined transaction. You can use these codes to define the fees you want to apply to specific authorisation declines. See Authorisation Fee Groups.

| Code | Description |
|------|--|
| 01 | Refer to card issuer |
| 03 | Invalid merchant |
| 05 | Do not honour |
| 12 | Invalid transaction |
| 13 | Invalid amount |
| 14 | Invalid card number (no such number) |
| 15 | No such Issuer |
| 17 | Customer cancellation |
| 30 | Format error |
| 46 | Closed account |
| 51 | Insufficient funds |
| 54 | Expired card |
| 55 | Invalid PIN |
| 57 | Transaction not permitted to cardholder |
| 58 | Transaction not permitted to terminal |
| 61 | Exceeds withdrawal amount limit |
| 62 | Restricted card (Card is not active) |
| 63 | Security violation |
| 64 | Original amount incorrect |
| 65 | Exceeds withdrawal frequency limit |
| 66 | Card acceptor call acquirer's security |
| 68 | Response received too late |
| 69 | Verification data failed (Invalid or missing data to verify card, cardholder or other) |
| 70 | Cardholder to contact issuer |
| 71 | PIN not changed |
| 75 | Allowable number of PIN tries exceeded |
| 76 | Wrong PIN, allowable number of PIN |
| 77 | Issuer does not participate in the service |
| 78 | Account balance unavailable |
| 79 | Unacceptable PIN |
| 80 | Network error |
| 81 | Foreign network failure |
| 82 | Timeout at IEM |
| 83 | Card destroyed |

| Code | Description |
|------|---|
| 86 | PIN validation not possible |
| 87 | Purchase amount only, no cash back |
| 88 | Cryptographic failure |
| 89 | Unacceptable PIN |
| 91 | Issuer or switch is inoperative |
| 92 | Unable to route to Issuer |
| 93 | Violation of law |
| 94 | Duplicate transaction |
| 95 | Reconcile error |
| 96 | System malfunction |
| 98 | Refund given to customer |
| 99 | Card voided |
| C0 | Requires Strong Customer Authentication (SCA), Card |
| C1 | Requires Strong Customer Authentication (SCA), non-card |
| N0 | Force STIP |
| N7 | Decline for CVV2 failure |
| P5 | PIN change/Unblock request declined |
| P6 | Unsafe PIN |

Appendix 4: Applying a Fee to an Event

You can apply a fee to an event where a web service is used to trigger that event. Below is a list of events that are initiated using web services, which you can configure to trigger fees. For details of how to configure the fee in the GPS system, see Web Service Fee Groups.

| Proc Code | Event | Web Service that triggers the fee |
|--------------|-------------------------------------|---|
| 058 | PIN Control | WS_PinControl |
| 070 | Balance Enquiry Fee 0 - Call Centre | Ws_Card_BalEnq Ws_Balance_Enquiry(_V2) |
| 071 | Balance Enquiry Fee 1 - Website | Ws_Balance_Enquiry(_V2) |
| 072 | Balance Enquiry Fee 2 - IVR | Ws_Balance_Enquiry(_V2), Ws_Card_BalEnq |
| 073 | Balance Enquiry Fee 3 - SMS | Ws_Balance_Enquiry(_V2), Ws_Card_BalEnq |
| 080 | Card Upgrade Fee | Ws_Convert_Card |
| 081 | Card Closure/Redemption Fee | Ws_StatusChange |
| 082 | Card Issue Fee (Physical) | Ws_CreateCard |
| 084 | Card Replacement Fee | Ws_Renew_Card |
| 085 | Card Issue Fee (Virtual) | Ws_CreateCard |
| 086 | Secondary Card Issue Fee | Ws_link_cards Ws_CreateCard |
| 087 | Primary Card Activation Fee | Ws_Activate_Load Ws_CreateCard |
| 088 | Secondary Card Activation Fee | Ws_Activate_Load Ws_CreateCard |
| 089 | Lost & Stolen Card Fee | Ws_Regenerate Ws_RegenerateWallet |

Appendix 5: Fee Processing Flows

This section provides examples of how card fees are processed on the GPS system.

Authorisation Fee Processing Flow

Figure 9 below describes the steps in processing an authorisation fee on the GPS system. The transaction processing code (Proc_Code) returned from Visa/Mastercard is used to determine which fee to charge, based on the Authorisation Fee Group linked to the card record.

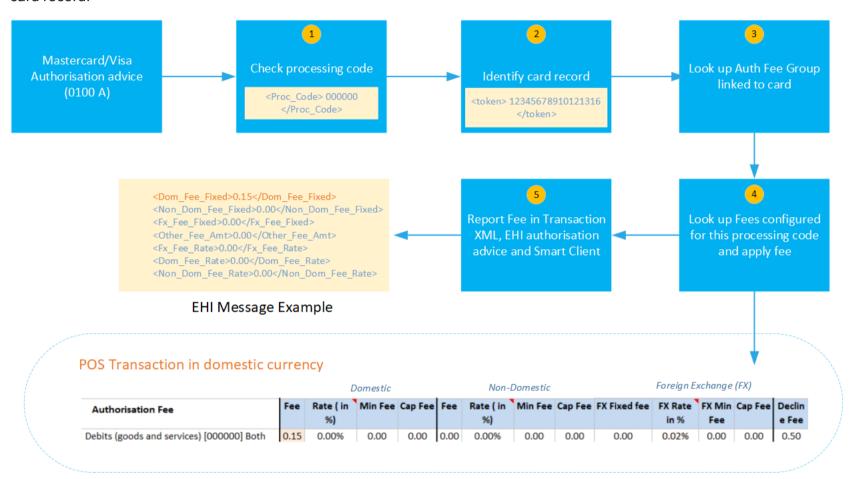


Figure 9: Authorisation Fee Processing Flow

For details of how to configure your Authorisation fee groups, see Authorisation Fee Groups.

Web Service Fee Processing Flow

Web service fees are triggered in one of two scenarios:

• Automatically triggered – when a web service is used, a fee is triggered automatically if a fee for this web service has been set up in a Web Services Fee group.

• Manually applied – when you apply an ad-hoc fee using the Generic Fees (Ws_Generic_Fees) web service (e.g., one-off Administration Fee). See Applying Fees to a Card.

Figure 10 below describes the steps in processing a web service fee on the GPS system, where the fee is automatically triggered via a fee group. GPS use the transaction processing code (Proc_Code) to determine which fee to charge, based on the Web Service Fee Group linked to the card record.

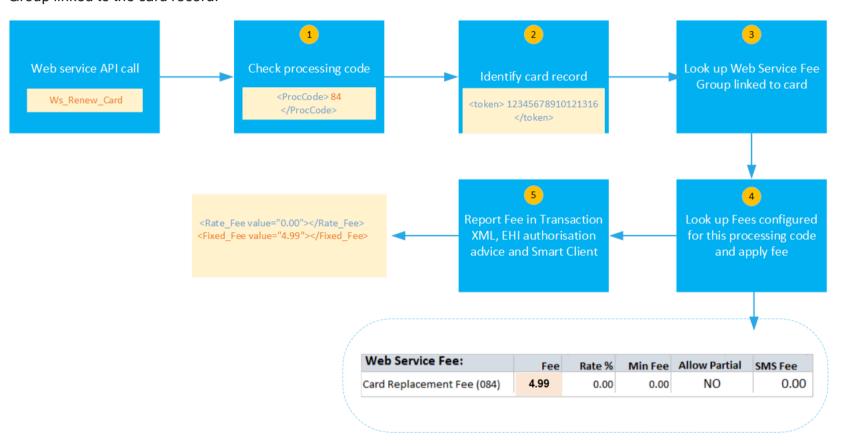


Figure 10: Web Service Fee Processing Flow

For details of how to configure your Web Service fee groups, see Web Service Fee Groups.

Recurring Fee Processing Flow

Figure 11 below describes the steps in processing a Recurring fee on the GPS system. The fee is triggered when a daily scheduled job that is run on the card's database identifies a recurring fee is due on a card. GPS use the Recurring Fee Group linked to the card record to determine when to apply a fee and which fee to charge.

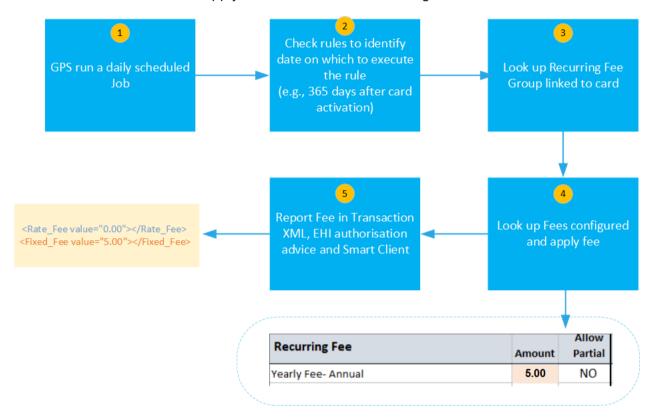


Figure 11: Recurring Fee Processing Flow

For details of how to configure your Recurring Fee groups, see Recurring Fee Groups.

Rules for Recurring Fees

Refer to the table below for recurring fees processing rules.

Monthly Fees

The following fees can be applied on a monthly basis.

| Recurring Fee Name | Trigger | When does the fee start? | When is the fee applied? | How does fee end? |
|---|---|---|--|----------------------------|
| Monthly Fee - Activation | Activation - Monthly Activation Fee (cards activated after 15th of previous month up to 15 of current month, and fee will only take on Last day of current month) | End of current month or end of next month | If the card is activated before 15th of a month then the fee is taken on that month. If the card is activated after 15th of the month, then the fee is taken on the next month. | No balance, Card Expiry |
| Monthly fee - activation fee taken on 5th | Activation | 5th day of every month | When card is activated, 5th day of every month. | No balance, Card Expiry |
| Monthly fee after load | First load | Day after 1st Load | Day after 1st Load and on same day each month thereafter. | No balance, Card Expiry |
| Monthly Fee - Following reload | Reload | Day after the reload | Day after the reload and on same day each month thereafter. | No balance, Card Expiry |
| Monthly service fee | Activation | 1st day of month or 5th day of month | When card is activated, fee taken is on 1st day or 5th day of every month. | No balance, Card Expiry |
| Monthly fee 8th of every month | 8th DAY of every month | 8th day of every month | 8th day of every month. | No balance, Card Expiry |
| Monthly fee | Last day of current month | Last day of current month | Last day of every month. | No balance, Card Expiry |

Annual Fee

The following fee can be applied on an annual basis.

| Recurring Fee Name | Trigger | When does the fee start? | When is the fee applied? | How does fee end? |
|-----------------------|---------|--------------------------|-------------------------------------|----------------------------------|
| Annual Fee | Annual | Activation | 365 days after the card activation. | Every 365 days after activation. |

Card Expiry Fee

The following fee can be applied to expired cards.

| Recurring Fee Name | Trigger | When does the fee start? | When is the fee applied? | How does fee end? |
|-----------------------|--|--------------------------|---|--|
| Card Expiry | Monthly dormancy Fee - After Card Expires | Card Expiry | 3 days (It can be configured) after Card Expires. | 3 days after Card Expires and on same day each month thereafter. |

Dormancy Fees

The following fees can be applied to dormant accounts.

| Recurring Fee Name | Trigger | When does the fee start? | When is the recurring fee applied? | How does fee end? |
|---|--|---|------------------------------------|--|
| Dormancy fee 2 months | 2 months after last transaction | 2 months after the date of the last balance changing transaction | On same day each month | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |
| Dormancy fee 3 months | No transaction in 3 months | 3 months after the date of the last balance changing transaction | On same day each month | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |
| Dormancy fee 6 months | No transaction in 6 months | 6 months after the date of the last balance changing transaction | On same day each month | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |
| Dormancy 12 months | No transaction in 12 months | 12 months after the date of the last balance changing transaction | On same day each month | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |
| Monthly Fee - No transaction in last 90 days | No transactions in last 90 days | 90 days after last balance changing transaction | Every 90 days | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |
| Dormancy 90 | No transactions in last 90 days | 90 days after last balance changing transaction | Every 90 days | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |
| Inactivity fee - no transaction in last 90 days | No transactions in last 90 days on inactive card | Issue date = NOT Null; Activation date = NULL No balance changing transactions after 90 days after Issue Date | Every month | Activation date = NOT Null No Balance Card Expiry |
| No transaction in last 120 days | No transactions in last 120 days | 120 days after last balance changing transaction | Every 120 days | When a balance changing transaction occurs (includes loads) No Balance Card Expiry |

Fee Processing Rules for ASI Transactions

Account Status Inquiry (ASI) Service is a type of authorisation transaction, supported by Mastercard, which allows a merchant to check the Card Validation Code (CVC) and, if address details are provided, to optionally use the Address Verification Service (AVS). If these checks are successful, GPS responds to the merchant with 00 (approve). The merchant typically then submits a second authorisation transaction, with an actual transaction amount included.

When the GPS system receives an authorisation request for an ASI transaction¹, it performs the AVS and CVC checks, and if the ASI request is declined, decides whether to apply a fee for thew decline, in the following sequence:

- 1. Run AVS check
- 2. Run CVC check
- 3. Apply fees if applicable

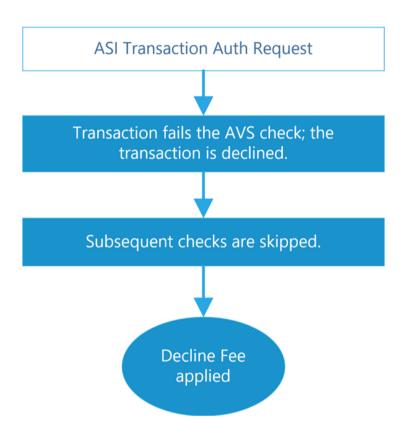
A fee is applied if the transaction is declined at the AVS check stage, but not if the transaction is declined at the CVC check stage. See Figure 12 below.

Scenario 1: No Decline Fee applied

Transaction passes the AVS check. Transaction fails the CVC check; the transaction is declined. No Decline Fee

Figure 12: Decline Fees for ASI Transactions

Scenario 2: Decline Fee applied



¹ASI transactions usually have 0 bill amount. You can identify a transaction as ASI in Smart Client, in the **Notes** field for the transaction. For more information on identifying an ASI transaction in EHI messages, see the FAQ section in the <u>External Host Interface</u> (EHI) Guide.

FAQs

This section provides answers to frequently asked questions.

Fee Setup

Q. Do I need to set up my card fees on the GPS system?

If you are using EHI modes where you maintain a register of the balance on the card for authorisation purposes, we recommend you use your own systems to charge fees to cardholders.

Where GPS manages your transaction authorisation and maintains the card balance ledger, you can use GPS to apply your service fees to the card.

Q. Can I set up default fees to apply to all my cards?

Yes. You can set up default fee groups, to apply to all cards within a card product. When creating a card using the Create Card web service (Ws_CreateCard), if no fee is specified, then the default fee groups for the card product are used.

Q. How do I set up the fees for a specific card?

When setting up your card program, you must set up your fee groups on your *Product Setup Form*. See Completing your PSF.

When creating a card using the Create Card web service (Ws_CreateCard), you can specify the fee groups to apply to the card. See Applying Fees to a Card.

Q. Can I set up recurring fees?

Yes. You can apply a recurring account fee, deducted on a repeat basis (e.g., monthly or annually). You can also apply separate recurring fees for dormant accounts (i.e., where the card has not been used for a period). See Recurring Fee Groups.

Applying Fees

Q. Can I apply a one-off fee?

Yes. You can use the Generic Fees web service <Ws_Generic_Fees> to apply a one-off fee to the card (for example, to reflect a chargeback cost). See Applying Fees to a Card.

Q. What happens if there are insufficient funds available to apply a fee?

If you have enabled *Partial Fees*, GPS will deduct a part of the fee amount and create a Pending Fee Record. See Example of a Partial Fee.

If you have not enabled Partial Fees, the transaction will be declined.

Fee Maintenance

Q. Can I change the Fee groups linked to a card?

Yes. When creating a card using the Create Card web service (Ws_CreateCard), you specify the fee groups to apply to the card. You can use the **Change Card Groups** web service (Ws_Card_Change_Groups) to change one or more of the usage or fee groups for a specific card.

Q. Do you provide a web service to allow me to change the fee settings or amounts?

No. The implementation team manage the fee configuration on the GPS systems. You will need to raise a JIRA request to change the fee settings, including any fee amounts.

You can use the **Change Card Groups** web service (Ws_Card_Change_Groups) to change one or more of the usage or fee groups for a specific card.

Viewing Fees

Q. Where are transaction Fee details provided?

Transaction fee details are provided in the daily XML reports, EHI data feeds and on Smart Client. See Viewing Card Fees on EHI.

Q. How can I find out how a transaction Fee was calculated?

First identify the type of transaction and the processing code linked to the transaction. Fees triggered by an authorisation or a web service are based on the processing code. The description field for the transaction may provide additional information about the fee. See Viewing Card Fees on Smart Client.

Once you have identified the type of transaction and the processing code, check in your *Product Setup Form (PSF)* for the Fee group linked to that transaction type and processing code.

Example: Transaction type is an authorisation, with processing code: 000000. In your PSF, under the **Authorisation** tab, find the authorisation fee type row listed for 000000. The fees and fee options are listed on this row.

Contact Us

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Technical Publications

If you want to contact our technical publications team directly, for queries or feedback related to this guide, you can email us at: doc-s@globalprocessing.com.

Glossary

This page provides a list of glossary terms used in this guide.



Account Status Information (ASI) Service

A standard message type which allows the merchant to check the Card Validation Code (CVC) and, if address details are provided, to optionally use the Address Verification Service (AVS). If these checks are successful GPS responds with an 00 approval to the merchant. They normally then submit a second transaction, but with an actual transaction amount included.

Acquirer

The merchant acquirer or bank that offers the merchant a trading account, to enable the merchant to take payments in store or online from card-holders.

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.

Authentication

This includes checks to confirm the cardholder identity, such as PIN, CVV2 and CAVV.

Authorisation

Stage where a merchant requests approval for a card payment by sending a request to the card issuer to check that the card is valid, and that the requested authorisation amount is available on the card. At this stage the funds are not deducted from the card.

Authorisation Fees Group

The Authorisation Fees group defines fees that are charged to a card on a per transaction basis when the card is used (e.g., at an ATM, website or merchant terminal) or when a payment is made out of the account.



Card Scheme

Card network, such as MasterCard or Visa, responsible for managing transactions over the network and for arbitration of any disputes.

Card Validation Code (CVC)

The Card Verification Code, or CVC, is an extra code printed on a debit or credit card. With most cards (Visa, Mastercard) it is the final three digits of the number printed on the signature strip on the reverse of the card.

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.



EMV

EMV originally stood for "Europay, Mastercard, and Visa", the three companies which created the standard. EMV cards are smart cards, also called chip cards, integrated circuit cards, or IC cards which store their data on integrated circuit chips, in addition to magnetic stripes for backward compatibility.

External Host

The external system to which GPS sends real-time transaction-related data. The URL to this system is configured within GPS per programme or product. The Program Manager uses their external host system to hold details of the balance on the cards in their programme and perform transaction-related services, such as payment authorisation, transaction matching and reconciliation.

External Host Interface (EHI)

External Host Interface. This is a GPS product providing clients either a real time feed or the ability to be involved in authorisations.



Fee Groups

Groups which control the card transaction authorisation fees, and other fees, such as recurring fees and GPS web service API fees.

Fee Type

A card usage fee type that defines the fees that are applied to a specific type of transaction, such as a debit card payment or an ATM withdrawal. A Fee Group will consist of one or more fee types.



Issuer

The card issuer, typically a financial organisation authorised to issue cards. The issuer has a direct relationship with the relevant card scheme.



Merchant

The shop or store providing a product or service that the cardholder is purchasing. A merchant must have a merchant account, provided by their acquirer, in order to trade. Physical stores use a terminal or card reader to request authorisation for transactions. Online sites provide an online shopping basket and use a payment service provider to process their payments.



Point Of Sale (POS) Terminal

A hardware device for processing card payments at retail stores. The device has embedded software that is used to read the card's magnetic strip data.

Presentment

Stage in a transaction where the funds authorised on a card are captured (deducted from the cardholder's account). See also Clearing. Also referred to as the First presentment. For more information, see the External Host Interface Guide.

Product Setup Form (PSF)

A spreadsheet that provides details of your GPS account setup. The details are used to configure your GPS account.

Program Manager

A GPS customer who manages a card program. The program manager can create branded cards, load funds and provide other card or banking services to their end customers.



Recurring Fees Group

The Recurring Fees group defines fees that are charged to a card on a recurring basis (e.g., monthly, annually or over a defined period).



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.

Stand In Processing (STIP)

The card network (Visa and Mastercard) may perform approve or decline a transaction authorisation request on behalf of the card issuer. Depending on your GPS mode, GPS may also provide STIP on your behalf, where your systems are unavailable.



Validation

Checks to confirm the card is valid, such as CHIP cryptograms, mag-stripe data (if available) and expiry date



Web Service Fees Group

The Web Service Fee group defines a fee that is charged to a card on a per transaction basis for a card transaction via web services (typically reflecting a payment or transfer into the card account or balance enquiry).

Document History

| Version | Date | Description | Revised by |
|---------|------------|---|---------------|
| 1.3 | 12/08/2022 | New guide layout and HTML version now available | PC |
| 1.2 | 01/11/2021 | Added information on decline fee processing for ASI transactions. See Fee Processing Rules for ASI Transactions | ws |
| 1.1 | 29/09/2021 | GPS office address updates. Clarification that web services fees are not supported for customers on EHI modes 1, 4 and 5. | ws |
| 1.0 | 24/05/2021 | First version | ws |