thredd

Fees Guide

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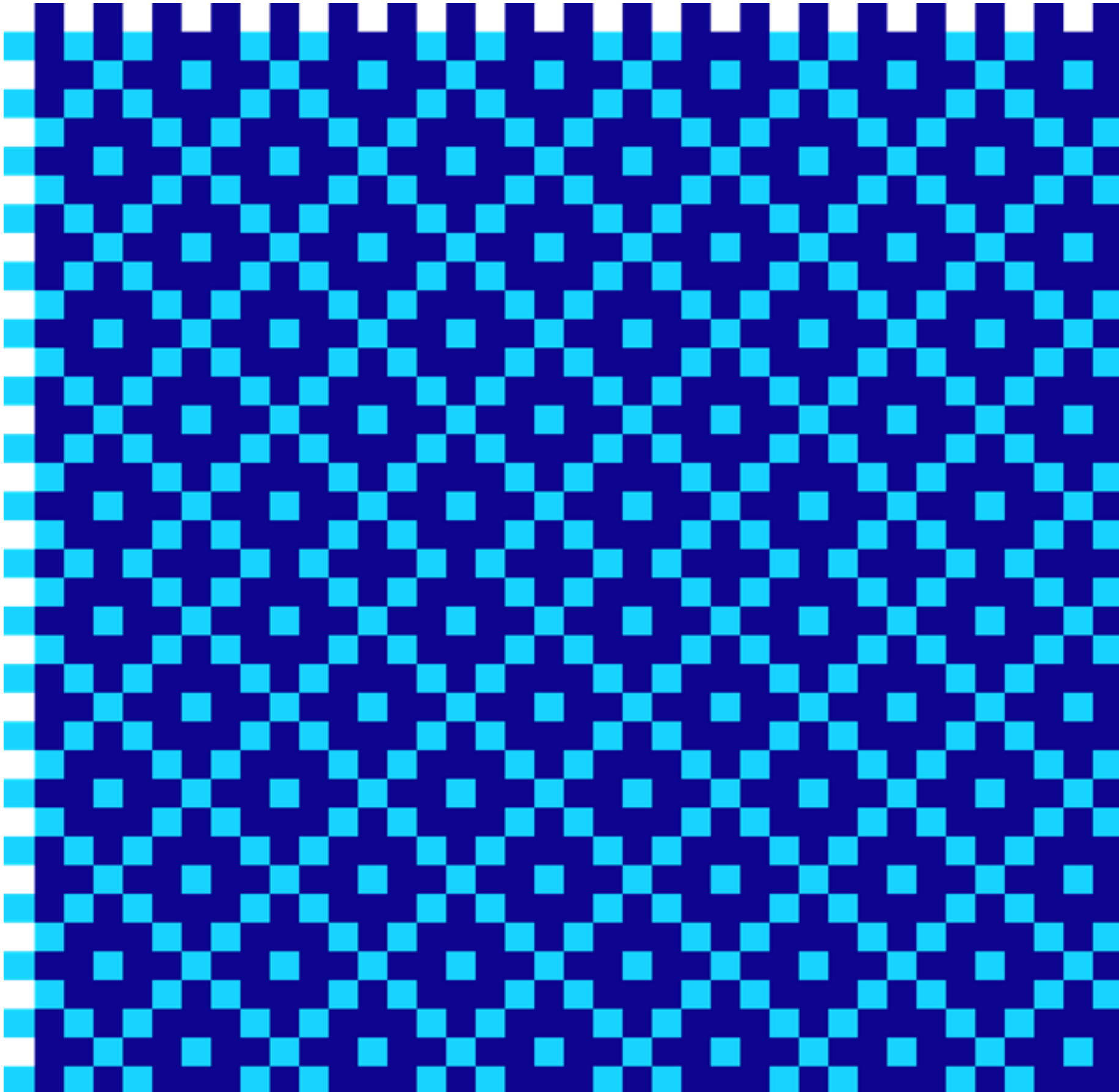
For the latest technical documentation, see the Documentation Portal.

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About This Document

This guide describes how to set up and manage card fees for your card products on the Thredd 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 Thredd clients (Program Managers) 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.

How to use this Guide

If you are new to Thredd and want to understand how card usage fees work and some of the available fee options, see the Overview 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 using Thredd SOAP Web Services, see Fee Maintenance (SOAP Web Services).

For information about options for viewing and managing fees using Thredd REST-based Cards API, see Fee Maintenance (Cards API).

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 Thredd SOAP Web Services API.
Cards API Website	Provides details of the Thredd REST-based Cards API.
EHI Guide	Provides details of the Thredd External Host Interface (EHI).
Thredd Portal Guide	Describes how to use the new web-based Thredd Portal to manage your cards and transactions.
Smart Client Guide	Describes how to use our legacy Thredd Smart Client desktop application to manage your cards and transactions.
Transaction XML Reporting Guide	Provides details of the Thredd transaction XML reports Thredd sends to customers.
Payment Disputes Management Guide	Describes the payments dispute management process and how Thredd supports chargeback management.

> **Tip:** For the latest technical documentation, see the Documentation Portal.

1 Introduction

The Thredd system provides flexible configuration 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.

> **Note:** The card fees you charge cardholders must be approved by your issuer (BIN Sponsor), and must comply with the card scheme (payment network) regulations.

Thredd fees for your card products are configured 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 and currency options) and link each card to a set of fee groups. Each fee group defines the fees that are applicable to a card. See Figure 1 below:
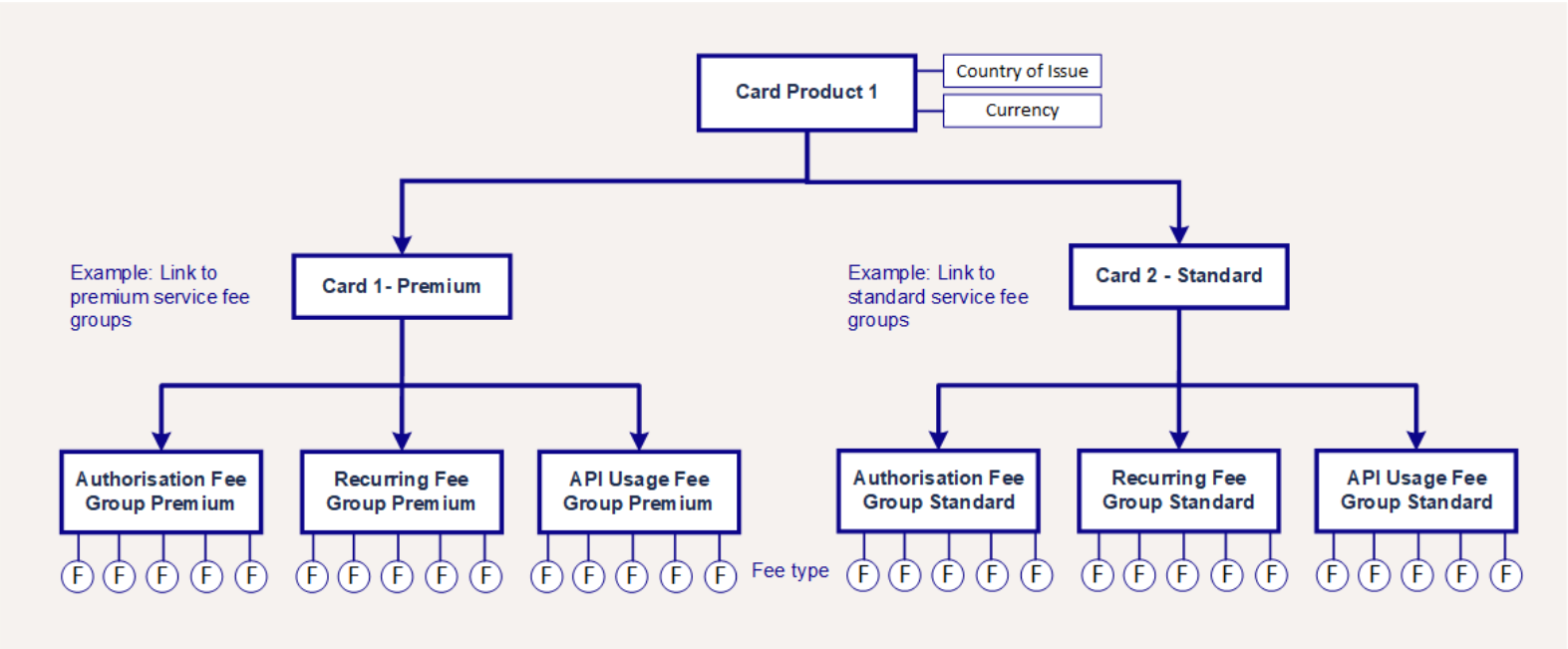

Figure 1: Card Products and Fee Groups

When creating a card on the Thredd 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 Thredd 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 Thredd API, 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 Thredd 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 notice[1].

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

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

Fees and EHI Mode

The option to configure fees using the Thredd system is available to customers on all External Host Interface (EHI) modes[2]. However, in EHI modes where you maintain the card balance (Gateway Processing - Mode 1 and Gateway Processing with STIP - Mode 4), Thredd strongly recommends you also manage the fees applied to the card using your own systems.

1.1 Fee Groups

Thredd provides three main fee groups:

- Authorisation Fee groups
- Recurring Fee groups
- API Usage Fees groups

Each of these groups in described in further detail below.

1.1.1 Authorisation Fee Groups

The Authorisation Fee groups define fees to apply 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. For more information, see Authorisation Fees.

> **Note:** For examples of authorisation fees and how they can be applied to your cards, see Appendix 6: Basic Authorisation Fee Examples.

1.1.2 Recurring Fee Groups

The Recurring Fee groups define fees to apply to a card on a recurring basis (e.g., monthly, annually or over a defined period). For more information, see Recurring Fees.

1.1.3 API Usage Fees Groups

The API Usage Fee groups define fees to apply to a card when a specific Thredd API is used (example, for a load, balance transfer or balance enquiry). Thredd offer a choice of either SOAP Web Services API or REST-based Cards API for managing your card program. For more information, see API Usage Fees.

1.2 Configuring your Program Fees

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

The card fees that apply to your program are defined using the Product Setup Form (PSF). The PSF provides the following tabs where the fee groups for your program are recorded:

- 06a. Basic Auth Fees and 06b. Advanced Auth Fees
- 07. Recurring Fees
- 0.8 API Usage Fees

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 Thredd system.

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 - complicated fee configuration can lead to a poor user experience.

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[2]Please check with your account manager for restrictions, as some fee options may not work for some EHI modes. Currently, web service fees and recurring fees are not supported on Gateway Processing (Modes 1 and 4).

Bespoke fees

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

1.2.1 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).

1.2.2 Viewing and Updating a Card's Fee Groups

You can use the Thredd API to query the fee groups linked to a card. The Thredd 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 of how to change a card's fees groups using Thredd SOAP Web Services, see Managing Fee Groups (SOAP with XML examples). For details of how to change a card's fees groups using Thredd REST-based Cards API, see Managing Fee Groups (REST with JSON examples).

1.2.3 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 Thredd External Host Interface (EHI) and on Thredd Portal or Smart Client. For details, see Viewing Fees.

1.2.4 Negative Balances and Fees

Thredd cards provide a balance and a spending limit equal to the available balance; Thredd 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, Thredd can create a pending fee record. See Querying Pending Fees. (**Note**: available on SOAP Web Services). Thredd also enable you to specify that a partial fee amount is taken if insufficient funds are available to take the full fee[3].See Partial Fees.

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

1.3 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).
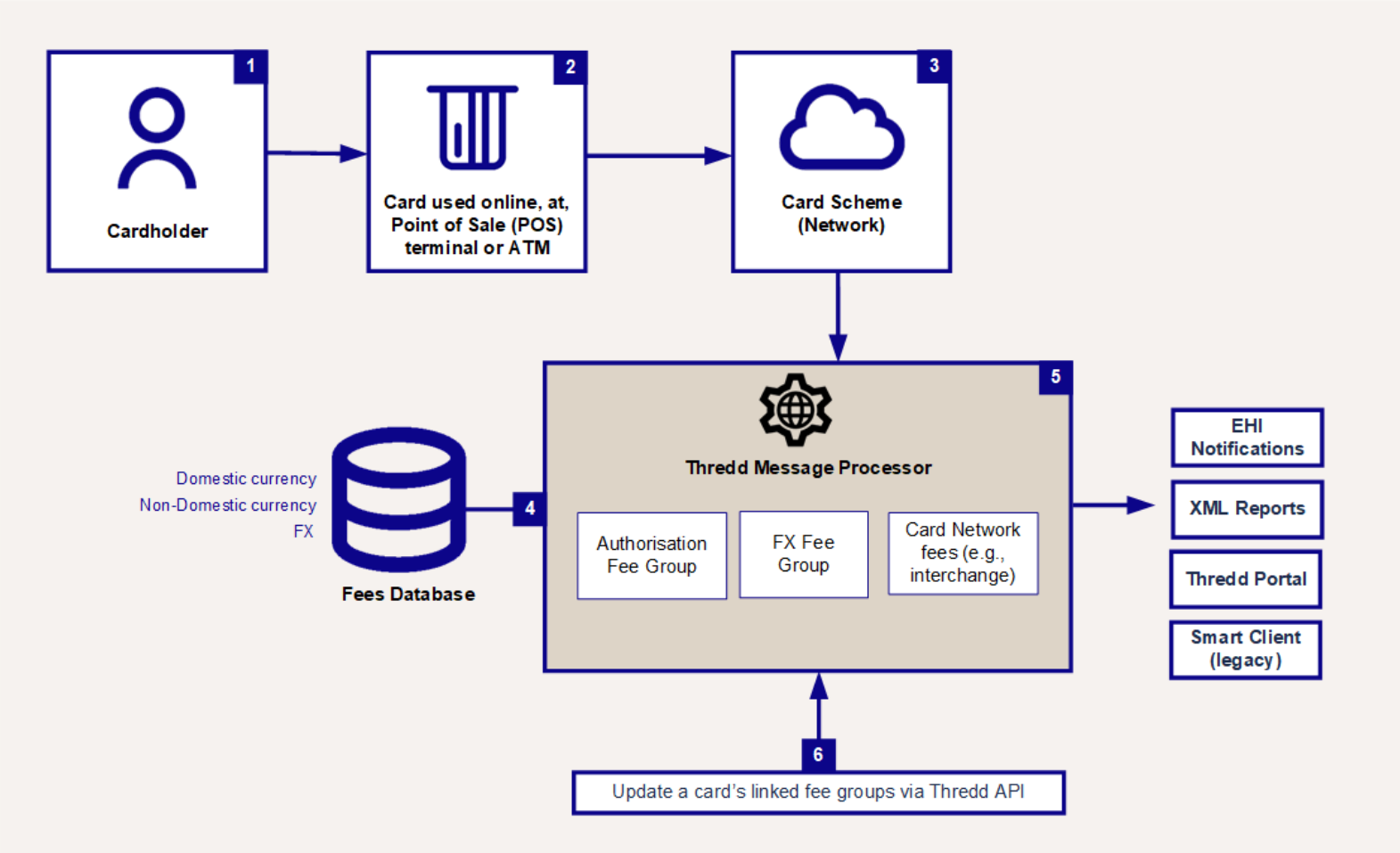

Figure 2: Applying Card Fees

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 (payment network).

3. The card scheme (e.g., Visa, Mastercard or Discover) sends the transaction to Thredd.

4. The Thredd 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 (Full Service Processing - mode 3) or forwards to your systems for authorisation (Gateway Processing - modes 1,4,5 or Cooperative Processing - mode 2).
   Thredd 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. Thredd 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 Thredd Portal or Smart Client.

6. You can use the Thredd API 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.

1.3.1 Fee Application and Fee Reconciliation

The fee charges applied to a card for a transaction can be viewed in Thredd Portal or Smart Client and in the Transaction Reporting Fee records. Please note the following:

- Any authorisation fees applied by Thredd will be based on the fee configuration you have set up for different transaction types. See Authorisation Fees: Transaction Types.

- Where an authorisation request is declined, you can configure decline fee to be applied, based on the reason (response code) for the decline. See Authorisation Fees: Response Codes.

- For details of how fees are applied to cross-currency transactions, see Appendix 8: Applying Fees to FX Transactions.

- The following fees may apply to reversals and refunds:

- If you have set up fees to apply for *authorisation reversals* and *refunds*, then these fees will be applied at the time when a transaction is reversed or refunded.

- In some instances, merchants may issue *partial refunds*, and not refunds for the full amount (for example, where their contract terms specify a non-refundable booking element), in which case the cardholder will not receive back the same amount as the original transaction amount.

- For cross-currency transactions where the *transaction* currency is different to the *billing* (base card) currency, the Card Schemes apply a currency conversion rate to the conversion from the transaction amount to the card billing amount. As this conversion rate is based on the Scheme's daily currency pair conversion rate, this rate is not static, and can fluctuate. Bear this in mind, in particular when reconciling fees applied around authorisations, authorisation reversals and refunds — which may take place on different days with differing conversion rates being applied. See Appendix 8: Applying Fees to FX Transactions.

- Merchants, acquirers and the card networks may apply additional fees to a transaction (for example, an ATM withdrawal fee and an interchange fee for cross-border transactions). These fees are also visible in the detailed transaction records. See Other Card Fees.

- Where Thredd is unable to deduct the full fee from the card, due to insufficient funds, we will create a pending fee record. See Querying Pending Fees.
  If enabled for your card product, Thredd can also apply a partial fee. See Partial Fees.

1.4 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 Thredd systems.

1.4.1 Network Fees

The acquirers and card schemes (networks such as Visa, Mastercard and Discover) 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.

1.4.2 Chargeback Fees

Disputed transactions where a Chargeback is raised may incur additional Chargeback fees, payable to the card scheme (e.g., Visa, Mastercard or Discover) 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. (**Note**: available on SOAP Web Services).

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

2 Fee Use Cases

This section provides details of common use case scenarios when setting up fees for your card program. These fee configuration use cases can be flexibly combined, to meet the needs of your card program.

Basic Authorisation Fee Configuration (Currency Based Only)

These use cases are applicable to simple card programs, and should be sufficient to meet the needs of many card programs.
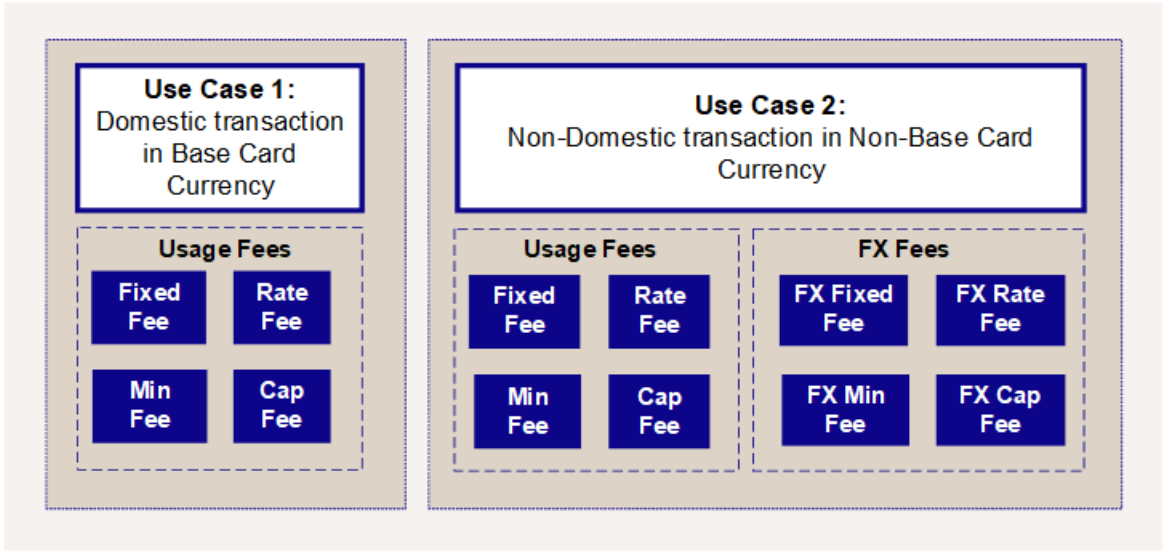

Figure 3: Basic Fee Building Blocks

Note: For examples of basic fees and how they can be applied to your cards, see Appendix 6: Basic Authorisation Fee Examples.

Use Case 1: Domestic Transaction in Base Card Currency

This use case provides a simple way to apply fees to transactions where the *transaction* currency is the same as the card's *billing* currency. There are no country checks.

For example, a transaction made in Singapore, in SGD (Singapore Dollars), where the card's billing currency is also SGD.

- The fee configuration building blocks include a combination of **Fixed Fee** and/or **Rate Fee** (fee percentage) applied per transaction, as well as the **Minimum** and **Maximum** (Cap) fee to apply to the transaction.
- Fees can be applied per transaction type – enabling you to specify different fees for different types of transactions. For example, you can set up different fees for purchases, ATM withdrawals, refunds, balance inquiries, and so on.

Use Case 2: Non-Domestic Transaction in Non-Base Card Currency

This use case extends the card fees setup to scenarios where the *transaction* currency is different to the card's *billing* currency. There are no country checks.

For example, a transaction made in ASD (Australian Dollars), on card with SGD (Singapore Dollars) as the card's billing currency.

You can apply fees to cover any additional charges or costs associated with transactions that involve currency conversion (as a way of recovering costs or as a means of earning revenue on such transactions).

- The fee configuration building blocks include a combination of **Fixed Fee** and/or **Rate Fee** (fee percentage) applied per transaction, as well as the **Minimum** and **Maximum** (Cap) fee to apply to the transaction made in the foreign country.
- **FX fee** configuration building blocks can be used to ensure that different fees are applied to transactions involving foreign currency (FX) exchange. The fee building blocks include the same combination of **Fixed Fee**, **Rate Fee**, **Minimum** and **Maximum** fee to apply to the FX transaction.
- These configuration building blocks can be applied per transaction type – enabling you to specify different fees for different types of transactions. For example, you can set up different fees for purchases, ATM withdrawals, refunds, balance inquiries, and so on.

Advanced Authorisation Fee Configuration (Cross-Border and FX Fees)

Advanced fee configuration options provide a more granular application of fees, suitable for more complex fee configurations. The use cases in this section enable different fees to be applied based on different combinations of country and currency.
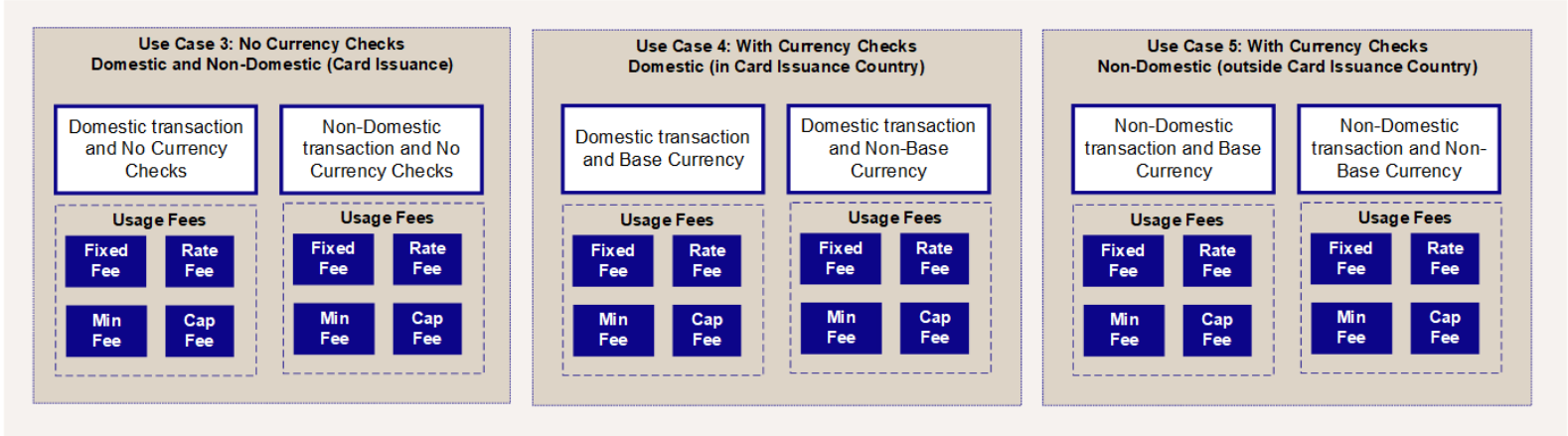

Figure 4: Advanced Fee Building Blocks

Note: For examples of advanced fees and how they can be applied to your cards, see Appendix 7: Advanced Fee Examples.

Use Case 3: No Currency Checks – Domestic and Non-Domestic (Card Issuance)

This use case provides a way to apply fees to both local (domestic) transactions, made in the same country as the card is issued, and non-domestic transactions (made in another country). The currency of the transaction is not taken into account.
For example, a transaction made in the France, in EUR (Euro), on a German-issued EUR card.

- Separate fee configuration building blocks are available for domestic versus non-domestic transactions, and include a combination of **Fixed Fee** and/or **Rate Fee** (fee percentage) applied per transaction, as well as the **Minimum** and **Maximum** (Cap) fee to apply to the transaction.

- Fees can be applied per transaction type – enabling you to specify different fees for different types of transactions. For example, you can set up different fees for ATM withdrawals in a non-domestic country (bank charges for such withdrawals may be higher than in the domestic country).

Use Case 4: With Currency Checks – Domestic (in Card Issuance Country)

This use case provides a way to apply fees to domestic transactions, made in the same country as the card is issued, but where the currency of the transaction may be different. The focus here is on the *currency* that is being used in the *domestic* transaction.
For example, a transaction made in the UK, in EUR (Euro), on a UK-issued GBP card (this could happen when a cardholder withdraws cash from a local ATM that supports foreign currency cash withdrawals; such ATMs are commonly found at domestic airports and major transport hubs).

- Separate fee configuration building blocks are available for domestic transactions in the same currency as the card versus domestic transactions in a non-base currency. They include a combination of **Fixed Fee** and/or **Rate Fee** (fee percentage) applied per transaction, as well as the **Minimum** and **Maximum** (Cap) fee to apply to the transaction.

- Fees can be applied per transaction type – enabling you to specify different fees for different types of transactions. For example, you can set up different fees for ATM withdrawals in a non-domestic currency (bank charges for such foreign currency withdrawals may be higher than for domestic currency withdrawals).

Use Case 5: With Currency Checks – Non-Domestic (outside Card Issuance Country)

This use case provides a way to apply fees to non-domestic transactions, made in the same currency as the card is issued, or in a different currency. It is similar to use case 4, but here the focus is on the *currency* that is being used in the *non-domestic* transaction.
For example, a transaction made in the Italy, in EUR (Euro), on a UK-issued EUR card, and a transaction in Turkey, in TRY (Turkish Lira), on a UK-issued EUR card.

- Separate fee configuration building blocks are available for non-domestic transactions in the same currency as the card versus non-domestic transactions in a non-base currency. They include a combination of **Fixed Fee** and/or **Rate Fee** (fee percentage) applied per transaction, as well as the **Minimum** and **Maximum** (Cap) fee to apply to the transaction.

- Fees can be applied per transaction type – enabling you to specify different fees for different types of transactions.

Use Case 6: With Default or Bespoke Currency Pair Checks – Domestic and Non-Domestic

This use case is similar to use cases 4 and 5, however here you can select bespoke currency pairs and apply fees to usage of the currency pairs. For example:

- Apply separate fees for different currencies, plus bespoke fees per currency. For example:
  - fee for a domestic transaction in USD (US Dollars), where USD is defined as the default currency
  - fee for a non-domestic transaction made in France, in USD (US Dollars), where USD is defined as the default currency
- Exclude specific currency pairs from FX transactions fees. For example:
  - fee for a EUR to USD FX transaction

Recurring and API Usage Fee Configuration

Use Case 7: Subscriptions and Recurring charges

In this use case, you can apply annual or monthly scheduled fees, and fees for card dormancy and card inactivity. These fees can be based on the frequency and day of the month you specify. For example, your card product may include an annual subscription charge. You can also apply fees if the card is dormant (not activated) or not used over a specified period (e.g., as a way to apply card administration fees and/or encourage card usage).
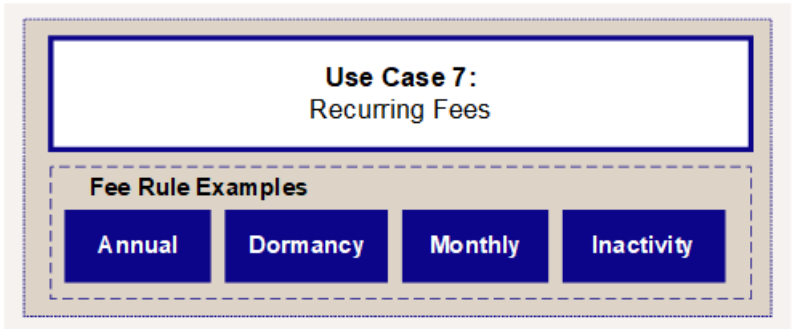
Figure 5: Recurring Fee Building Blocks

Use Case 8: Thredd API Usage Fees

In this use case, you can apply fees to a card when specific Thredd API are used. You may provide your cardholder and customer service call centre staff with an app or online portal where they can log in to check the card balance, order card replacements, load funds onto the card or transfer to another account. Whenever users make these types of transactions, your systems will need to call the Thredd API to retrieve information or update the card record. In this scenario, use of the Thredd API may involve costs that you may consider passing on to the cardholder.

Figure 6: API Usage Fee Building Blocks

3 How to Set Up Card Fees

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

Once they have set up your fee groups, you can use the Thredd API (Thredd REST-based Cards API or SOAP Web Services) 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 Thredd API to return details of any pending fees on a card and query 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.

3.1.1 Setting up Fee Groups and Linking Cards to Fees
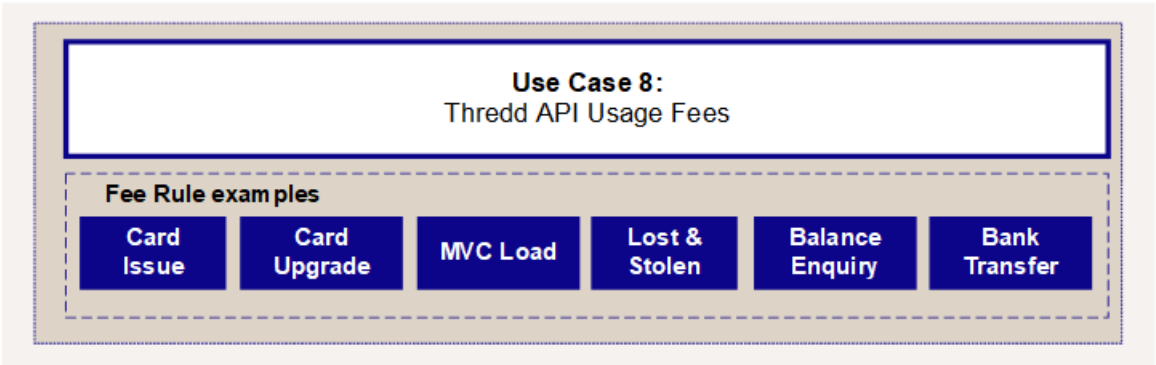
1. Consult with your implementation manager, who will complete your Product Setup Form (PSF) with details of the fee groups and fees you want to configure for your program. Fee configuration is described in the following topics:

   - Authorisation Fees
   - Recurring Fees
   - API usage Fees

2. Your implementation manager sets up your fees on the Thredd system.

3. When you create a card using the Thredd API, you specify a product code (`CardDesign` in Web Services or `designId` in REST API), 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 (SOAP Web Services) or Linking Cards to Fee Groups (REST Cards API).

3.1.2 Viewing and Maintaining Card Fees

Refer to the table below for details of options available via Web Services or Cards API.

Web Services	REST API
- 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.	- Query the fee groups linked to a specific card. See Listing Card Control Groups. - Change the fee groups linked to a specific card. See Updating Card Fees Groups. - Query details of card transaction fees over a defined period. Listing Card Transaction Fees.

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 Thredd system.

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.
- Thredd Portal enables you to view details of transaction fees charged to a card or for a specific transaction. See Viewing Card Fees on Thredd Portal.
- 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 Authorisation Fees

Basic authorisation fees are set up on the **06a. Basic Auth Fee** tab on the Product Setup Form (PSF). Advanced authorisation fees are set up on the **06a. Basic Auth Fee** tab.

An Authorisation Fee group enables you to define unique fees for a card product. You can have multiple **Authorisation Fee Groups** set up for your program (for example, to apply different fees depending on your card product).

Within a fee group, you can set up multiple fees, to be applied based on the type of card authorisation transaction. The type of authorisation transaction is determined by the 6-letter processing code assigned to the transaction. For a full list of transaction types, see Transaction Types.

4.1 Basic Authorisation Fee Configuration

The figure below shows basic fee configuration options (currency-based only). These options are suitable for simple card programs that do not require complex FX currency configuration.

Figure 7: Authorisation Fee Group - showing basic, currency-based only

For further information on fee use cases and configuration, see Fee Use Cases.

For examples of fee configuration, based on these use cases see Appendix 6: Basic Authorisation Fee Examples.

4.2 Advanced Authorisation Fee Configuration

The figure below shows advanced fee configuration options (cross-border and bespoke FX fees), which can be specified on the **06b. Advanced Auth Fee** tab of the Product Setup Form. These options are suitable for card programs that require complex FX currency configuration.

Figure 8: Authorisation Fee Group - showing advanced fees (Cross-Border & Bespoke FX Fees)

For further information on fee use cases and configuration, see Fee Use Cases.

For examples of fee configuration, based on these use cases see Appendix 7: Advanced Authorisation Fee Examples.

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. This name is used when linking a card to an authorisation fee group (using Thredd's API).

2. The **Thredd Code** field displays the internal Thredd fee code.

3. Each transaction type is listed as its own row in column D (**Authorisation Fee**). See Transaction Types. To add additional transaction type, select a transaction type from drop-down menu, and then configure the fees you want to apply to that transaction type.

> **Tip:** Click the ▼ arrow to view and select a transaction type.

4.2.1 Transaction Types

Refer to the table below for a list of transaction types. The code in square brackets (for example [000000]) is the processing code for this transaction type, as provided by the card scheme (payment network). This processing code is returned in the transaction XML reports and EHI messages and is used as part of the Thredd 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 transaction types listed below are relevant to both Mastercard and Visa, unless specified otherwise. Rows highlighted 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.

Transaction 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	

Transaction Type	Description
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[4].

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.
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.

---

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

Transaction Type	Description
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).

4.2.2 Authorisation Fee Options (Basic - Currency Based Only)

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 - Base 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.
Non-Domestic - Non-base 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.
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.

Fee Option	Description
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 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**
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.

4.2.3 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.

Only necessary if DECLINE FEE is a requirement of the programme

Response Codes

Pick from drop down lists below
01 Refer to card issuer

05 Do not honour
06 Unspecified error

08 Honor with identification
10 Partial Approval
12 Invalid Transaction
13 Invalid amount

Figure 9: 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 of ASI Transactions.

4.2.4 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 Thredd only checks the first two digits of the processing code
- If set to *YES*, then Thredd 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 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

5 Recurring Fees

Recurring fees are applied on a recurring basis, based on the frequency you specify (e.g., monthly or annually). These are also referred to as *scheduled fees*, and can be used to apply fees for annual subscriptions, card activation, card load, card dormancy and card inactivity charges to your card products.

Below is an example of one of the Recurring Fee groups set up on the **Recurring Fee Groups** tab of the Product Setup Form (PSF). The Recurring Fee group enables you to define unique fees for a card product. You can have multiple **Recurring Fee Groups** set up for your program (for example, to apply different fees depending on your card product).

Figure 10: 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 fee[5].

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 **Thredd Code** field displays the internal Thredd fee code.
3. The **Enable Pending** field indicates whether pending fees are enabled[6].
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.

5.1 Recurring Fee Types

Below is a list of recurring fees that you can set up. For more information on the available recurring fee configuration options, see Recurring Fee Configuration Options.

---

[5]Thredd 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.

[6]If a fee cannot be taken due to insufficient funds, Thredd creates a Pending fee record.

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.
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.

Recurring Fee Type	Description
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.

6 API Usage Fees

Fees can be applied to a card when specific Thredd APIs are used. Examples of use of Thredd API include card balance enquires, card replacement, card load and bank transfer fees (for a list of API Usage fee processing codes, see Appendix 2: Fee Processing Codes).

> **Note:** API Usage Fees are only available for Thredd's SOAP web services

Below is an example of one of the API Usage fee groups set up on the **0.8 API Usage Fee** tab. You can have multiple fee groups set up for your program.

Figure 11: API Usage Fee Group

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

You can define the following fees for each API usage 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 API triggers an SMS message that is sent to the cardholder.

How to use the API Usage Fee Groups Form

Your implementation manager completes this form:

1. The **Group Name** field displays the unique name of the fee group.
2. The **Thredd Code** field displays the internal Thredd fee code.
3. The **Enable Pending** field indicates whether pending fees are enabled[7].
4. API usage fee types are listed in column C, in the row under **API Usage Fee** (select from drop-down menu). For a list of fee processing codes, see Appendix 2: Fee Processing Codes.
5. Each API usage fee type is listed as its own row in column C. The **down** arrow enables you to view and select additional API types if

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[7]If a fee cannot be taken due to insufficient funds, Thredd creates a Pending fee record.

required.

6. For each row, the fees and fee options that apply to this API type are shown.

7 Fee Maintenance (SOAP Web Services)

This section describes the options for viewing and maintaining fees for your program if you are using the Thredd SOAP Web Services. For more information on the Thredd API described in this section, see the Web Services Guide (SOAP).

> **Note:** If you are using the Thredd REST-based Cards API, please read the section Fee Maintenance (Cards API).

7.1 Managing Fee Groups

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

7.1.1 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 = API Usage (Web Service) Fee Groups

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

Request

```XML
1  <soapenv:Body>
2      <hyp:Ws_List_Group>
3          <hyp:WSID>1234</hyp:WSID>
4          <hyp:IssCode>ABCD</hyp:IssCode>
5          <hyp:GroupType>2</hyp:GroupType>
6      </hyp:Ws_List_Group>
7      </soapenv:Body>
```

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</GroupDesc>
10             </GroupListInfo>
11             <GroupListInfo>
12                <GroupCode>GRPAUTH2</GroupCode>
13                <GroupDesc> GROUP Auth 2</GroupDesc>
14             </GroupListInfo>
15             <GroupListInfo>
16                <GroupCode>GRPAUTH3</GroupCode>
17                <GroupDesc>GROUP Auth 3</GroupDesc>
18             </GroupListInfo>
19           </GroupInfo>
20        </Ws_List_GroupResult>
```

Notes

Authorisation Fee Groups set up on Thredd:

```
 6              <GroupInfo>
 7                  <GroupListInfo>
 8                      <GroupCode>GRPAUTH1</GroupCode>
 9                      <GroupDesc>GROUP Auth 1</GroupDesc>
10                  </GroupListInfo>
11                  <GroupListInfo>
12                      <GroupCode>GRPAUTH2</GroupCode>
13                      <GroupDesc> GROUP Auth 2</GroupDesc>
14                  </GroupListInfo>
15                  <GroupListInfo>
16                      <GroupCode>GRPAUTH3</GroupCode>
17                      <GroupDesc>GROUP Auth 3</GroupDesc>
18                  </GroupListInfo>
```

> **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.

7.1.2 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

XML
```
 1  <hyp:Ws_CreateCard>
 2      <hyp:WSID>1234</hyp:WSID>
 3      <hyp:IssCode>ABCD</hyp:IssCode>
 4        ……
 5  <hyp:LimitsGroup>DF - 01</hyp:LimitsGroup>
 6      <hyp:MCCGroup></hyp:MCCGroup>
 7      <hyp:PERMSGroup></hyp:PERMSGroup>
 8        ………
 9  <hyp: FeeGroup>GROUP1</hyp: FeeGroup>
10  <hyp:SchedFeeGroup>GROUP1</hyp:SchedFeeGroup>
11  <hyp:WSFeeGroup>GROUP2</hyp:WSFeeGroup>
12  <hyp:FxGroup>GROUP4</hyp:FxGroup>
13      ….
14  <hyp:FeeWaiver></hyp:FeeWaiver>
```

Notes

Specify the fee groups to link to this new card:

```
 9  <hyp: FeeGroup>GROUP1</hyp: FeeGroup>
10  <hyp:SchedFeeGroup>GROUP1</hyp:SchedFeeGroup>
11  <hyp:WSFeeGroup>GROUP2</hyp:WSFeeGroup>
```

```
14  <hyp:FeeWaiver></hyp:FeeWaiver>
```

Response

XML
```
<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>
```

7.1.3 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 Thredd 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>
```

Response

XML
```
<soap:Body>
        <Ws_Card_Change_GroupsResponse xmlns="http://www.globalprocessing.ae/HyperionWeb">
            <Ws_Card_Change_GroupsResult>
                <WSID>1234</WSID>
                <IssCode>ABCD</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>
```

7.2 Viewing and Applying Card Fees

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

7.2.1 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

```xml
1      <hyp:Ws_List_Pending_Fees>
2         <hyp:WSID>123456789</hyp:WSID>
3         <hyp:IssCode>ABCD</hyp:IssCode>
4         <hyp:PAN></hyp:PAN>
5         <hyp:PublicToken>123456789</hyp:PublicToken>
6         <hyp:FeeProcessingCode></hyp:FeeProcessingCode>
7      </hyp:Ws_List_Pending_Fees>
```

Notes
Specifies the card you are querying:

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

Response

```xml
      <Ws_List_Pending_FeesResponse>
         <Ws_List_Pending_FeesResult>
            <WSID>123456789</WSID>
            <ActionCode>000</ActionCode>
         <Fees>
            <Fee>
               <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</RemainingAmt>
               <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</RemainingAmt>
               <Description>Card Issue Fee</Description>
               <PartialAllowed>false</PartialAllowed>
               <Collected>true</Collected>
               <PendingFeesEnabled>true</PendingFeesEnabled>
            </Fee>
         </Fees>
```

7.2.2 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 Thredd *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
<hyp:Ws_Card_Statement>
    <hyp:WSID>1234</hyp:WSID>
    <hyp:IssCode>ABCD</hyp:IssCode>
    <hyp:TxnCode>5</hyp:TxnCode>
    ….
    <hyp:PublicToken>123456789</hyp:PublicToken>
    ….
    <hyp:TxnFilter>5</hyp:TxnFilter>
    <hyp:StartDate> 2020-01-15</hyp:StartDate>
    <hyp:EndDate>2021-01-15</hyp:EndDate>
    <hyp:NumTxn></hyp:NumTxn>
    <hyp:DataSrc>0</hyp:DataSrc>
</hyp:Ws_Card_Statement>
```

Response

```xml
<Ws_Card_StatementResult>
        <WSID>1234</WSID>
        <IssCode>ABCD</IssCode>
        <TxnCode>5</TxnCode>
        …
        <PublicToken>123456</PublicToken>
        ..
        <StartBal>10</StartBal>
        <EndBal>0</EndBal>
        <TxnFilter>5</TxnFilter>
        <StartDate>2020-01-15</StartDate>
        <EndDate>2021-01-15</EndDate>
        <NumTxn>2</NumTxn>
        <ItemSrc>2</ItemSrc>
        <CurBill>GBP</CurBill>
        <AvlBal>0</AvlBal>
        <BlkAmt>0</BlkAmt>
        ….
        <Transactions>
            <Transaction1>
                <TxnDate>2021-02-01</TxnDate>
                <PostDate>2021-02-01</PostDate>
                <AmtBill>10</AmtBill>
                <AmtTxn>10</AmtTxn>
            …
                <Description> Unload: UnLoad</Description>
                ..
                <TransactionType>U</TransactionType>
                <StatusCode>S</StatusCode>
                <StatusDesc> Settled: -</StatusDesc>
                …
        <FeeId>0</FeeId>
                <FixedFee>0.05</FixedFee>
                <RateFee>0</RateFee>
                <FxPdg>0</FxPdg>
                …
                <ProcCode>230000</ProcCode>
            </Transaction1>
                <Transaction2>
```

```
40              <TxnDate>2021-01-15</TxnDate>
41              <PostDate>2021-01-15</PostDate>
42              <AmtBill>10</AmtBill>
43              <AmtTxn>10</AmtTxn>
44              <BillConvRate>1</BillConvRate>
45              <DebOrCred>1</DebOrCred>
46              <TerminalId/>
47              <Description> Load: Web services load </Description>
48              <RRN/>
49              <CurTxn>GBP</CurTxn>
50              <ItemId>1233</ItemId>
51              <AvlBal>10</AvlBal>
52              <BlkAmt>0</BlkAmt>
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>
60              <RateFee>0</RateFee>
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:

```
47              <Description> Load: Web services load </Description>
```

```
63              <ProcCode>220000</ProcCode>
```

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

7.2.3 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 Fees

Request

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

Notes

Enter the two-digit Thredd processing code and add a description to the fee:

```
6          <hyp:ProcCode>83</hyp:ProcCode>
7          <hyp:Comment>Admin fee</hyp:Comment>
```

```
11          <hyp:Fee>0.0</hyp:Fee>
```

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

8 Fee Maintenance (Cards API)

This section describes the options for viewing and maintaining fees for your program using the Thredd REST-based Cards API. For more information on the Thredd API described in this section, see the Cards API Website (REST).

> **Note:** If you are using the Thredd SOAP Web Services, please read the section Fee Maintenance (SOAP Web Services).

8.1 Managing Fee Groups

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

8.1.1 Listing Card Control Groups

You can use the List Card Control Groups API to list all groups. This will include your fee groups.

Request

```JSON
curl --request GET \
     --url https://cardsapi-uat-pub.globalprocessing.net/api/v1/groups \
     --header 'accept: application/json'
```

Response

```JSON
[
    {
        "groupType": "AuthFeeGroup",
        "groups": [
            {
                "id": 786,
                "code": "TEST",
                "description": "TEST"
            },
            {
                "id": 1063,
                "code": "TEST-1",
                "description": "TEST 1"
            },
            {
                "id": 1137,
                "code": "TEST-2",
                "description": "Tran Test"
            },
            {
                "id": 1202,
                "code": "NEW-TEST-1",
                "description": "MENA TEST 1"
            },
            {
                "id": 1221,
                "code": "TEST008",
                "description": "Test 08"
            }
        ]
    }
]
```

8.1.2 Updating Card Fee Groups

When creating a card using the Create a Card API, the default groups for the card product associated with the card are used.

You can use the Update Card Control Groups API to update the Fee groups linked to a card. See the example below:

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

Request

```json
JSON
 curl --request PATCH \
     --url https://cardsapi-uat-pub.globalprocessing.net/api/v1/cards/publicToken/groups \
     --header 'accept: application/json' \
     --header 'content-type: application/*+json' \
     --data '
 {
   "controlGroups": {
     "webServiceFeeGroup": 1234,
     "authFeeGroup": 2345,
     "recurringFeeGroup": 3456
   }
 }
 '
```

Response

A successful response will return a HTTP 200 response code and the following response:

```json
JSON
 {
     "limitsGroup": 3368,
     "usageGroup": 374,
     "recurringFeeGroup": 3456,
     "webServiceFeeGroup": 1234,
     "authFeeGroup": 2345,
     "mccGroup": 0,
     "cardLinkageGroup": 0,
     "calendarGroup": 0,
     "fxGroup": 0,
     "paymentTokenUsageGroup": 0,
     "cardAcceptorAllowList": 1,
     "cardAcceptorDisallowList": 1
 }
```

8.1.3 Listing Card Transaction Fees

You can use the Get card Transaction API to retrieve details of card transactions, including fees, over a defined period.

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

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

Request

```json
JSON
 curl --request GET \
     --url 'https://cardsapi-uat-pub.globalprocessing.net/api/v1/cards/12345677/transactions?fromDate=20240101&toDate=20240131' \
     --header 'accept: application/json'
```

Response

```json
JSON
 [
     {
         "id": 6160502008,
         "description": "string",
         "dateTime": "2024-02-20T14:16:18.34Z",
         "lifeCycleId": null,
         "type": {
             "code": "U",
             "description": "Unload"
```

```
        },
        "status": {
            "code": "S",
            "description": "Settled"
        },
        "amount": {
            "billingValue": 50.00,
            "billingCurrency": "GBP",
            "transactionValue": 50.0000,
            "transactionCurrency": "GBP",
            "settlementAmount": 50.00,
            "settlementCurrency": "GBP",
            "actualBalance": 1950.00,
            "availableBalance": 1950.00
        },
        "fees": {
            "id": 0,
            "fixedFee": 0.05,
            "rateFee": 0.00,
            "fxPadding": 0.00,
            "mccPadding": 0.00
        },
        "productId": 10023,
        "cardNetwork": "MASTERCARD",
        "processingCode": "230000",
        "recordId": 0,
        "note": "API Load by ",
        "systemTraceAuditNumber": 0,
        "transactionCountry": "GBR",
        "transactionLink": 6160502008,
        "additionalDetail": null,
        "paymentTokenId": null,
        "paymentMethod": "None"
    }
]
```

Notes

The Fee amount =

```
},
        "fees": {
            "id": 0,
            "fixedFee": 0.05,
            "rateFee": 0.00,
            "fxPadding": 0.00,
            "mccPadding": 0.00
        },
```

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

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 Thredd Portal and Smart Client.

8.1.4 Add One-off Fee

Use the Load or Unload Card endpoint to apply one-off fees to a card by setting the transactionType field to Fee in the request body. When the transactionType is set to Fee, the following fields must be included in the request.

- currencyCode

- feeAmount

- feeType

The following example displays the payload of a fee of £20 for transferring funds.

```
{
    "transactionType": "Fee",
    "feeType": "FundsTransferFee",
    "currencyCode": "GBP",
    "feeAmount": 20
```

```
    }
```

If successful, a 200 response is returned with details of the transaction and the updated balance on the card.

```
{
    "transaction": [
        {
            "transactionType": "Fee",
            "transactionId": 6161692763,
            "amount": 20,
            "currencyCode": "GBP",
            "publicToken": "116611859"
        }
    ],
    "balance": {
        "currencyCode": "GBP",
        "cardBalance": 910,
        "pendingAmount": 0,
        "availableBalance": 910
    }
}
```

The following table describes each of the fee types available.

Fee Type	Description
undefined	An undefined fee.
FundsTransferFee	Bank Transfer.
PINCVVServiceFee	Service Fee for PIN and CVV.
MonthlyServiceFee	Monthly Service Fee.
ReloadFromMVCFee	MVC Load.
CardConversionFee	Card Conversion Fee.
PhysicalCardIssuingFee	Card Issue Fee (Physical).
AdministrationFee	Administration Fee.
CardReplacementFee	Card Replacement Fee.
VirtualCardIssuingFee	Card Issue Fee (Virtual).
ParentCardActivationFee	Primary Card Activation Fee.
ChildCardActivationFee	Secondary Card Activation Fee.
FirstLoadFromMVCFee	First Load from MVC.
RecurringFee	Recurring Fee.

9 Viewing Card 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 Thredd Portal or Smart Client.

9.1 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
XML
 1   <CardAuthorisation>
 2   <RecType>ADV</RecType>
 3   <AuthId>101455187</AuthId>
 4   <AuthTxnID>11606448</AuthTxnID>
 5   …
 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:

```xml
13   <Rate_Fee value="0.00"></Rate_Fee>
14   <Fixed_Fee value="0.20"></Fixed_Fee>
```

For more information, see the Transaction XML Reporting Guide.

9.2 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.

9.2.1 JSON Example

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

```json
JSON
 {
    "Acquirer_Country": "GBR",
    "FxProviderCardholderRate": 0.0,
    ........
    "ActBal": 10001.0000,
    "Auth_Code_DE38": "143088",
    "Avl_Bal": 10001.0000,
    "Bill_Amt": 1.0000,
    "Bill_Ccy": "826",
    "BlkAmt": 0.0000,
    "FX_Pad": 0.0000,
    "Fee_Fixed": 0.0000,
    "Fee_Rate": 0.0000,
    "MCC_Code": "4111",
    "MCC_Desc": "Commuter Transport, Ferries",
    "MCC_Pad": 0.0000,
    .......
```

```
  "Proc_Code": "200000",
  .......
  "Settle_Amt": 1.0000,
  "Settle_Ccy": "826",
  "Status_Code": "00",
.........
  "Dom_Fee_Fixed": 0.0000,
  "Non_Dom_Fee_Fixed": 0.0000,
  "Fx_Fee_Fixed": 0.0000,
  "Other_Fee_Amt": 0.0000,
  "Fx_Fee_Rate": 0.0000,
  "Dom_Fee_Rate": 0.0000,
  "Non_Dom_Fee_Rate": 0.0000,
  ........
}
```

9.2.2 XML Example

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    ….
3               <ActBal>0.08</ActBal>
4               <Avl_Bal>-6.95</Avl_Bal>
5    ……
6               <Bill_Amt>-6.95</Bill_Amt>
7               <Bill_Ccy>826</Bill_Ccy>
8               <BlkAmt>-6.95</BlkAmt>
9    …
10              <FX_Pad>0.00</FX_Pad>
11              <Fee_Fixed>0.10</Fee_Fixed>
12              <Fee_Rate>0.00</Fee_Rate>
13   …….
14              <MCC_Code>5812</MCC_Code>
15              <MCC_Desc>Eating Places, Restaurants</MCC_Desc>
16              <MCC_Pad>0.00</MCC_Pad>
17              <Merch_ID_DE42>228284651</Merch_ID_DE42>
18              <Merch_Name_DE43>LA FROMAGERIE LIMITED  LONDON        GBR</Merch_Name_DE43>……
19              <Proc_Code>000000</Proc_Code>
20              <Resp_Code_DE39>00</Resp_Code_DE39>
21              <Ret_Ref_No_DE37>018210004379</Ret_Ref_No_DE37>
22              <Settle_Amt>0.00</Settle_Amt>
23              <Settle_Ccy></Settle_Ccy>
24              <Status_Code>00</Status_Code>
25              <Token>857264992</Token>
26              <Trans_link>160113703254012319</Trans_link>
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_<span class="General.BrandName mc-variable">Thredd</span>_Date>2016-01-13 14:05:13.747</Txn_<span class="Ge-
     eneral.BrandName mc-variable">Thredd</span>_Date>
32   ……
33              <Dom_Fee_Fixed>0.10</Dom_Fee_Fixed>
34              <Non_Dom_Fee_Fixed>0. 0</Non_Dom_Fee_Fixed>
35              <Fx_Fee_Fixed>0.00</Fx_Fee_Fixed>
36              <Other_Fee_Amt>0.00</Other_Fee_Amt>
37              <Fx_Fee_Rate>0.00</Fx_Fee_Rate>
38              <Dom_Fee_Rate>0.00</Dom_Fee_Rate>
39              <Non_Dom_Fee_Rate>0.01</Non_Dom_Fee_Rate>
40   ….
41              <Currency_Code_Fee></Currency_Code_Fee>
42              <Currency_Code_Fee_Settlement></Currency_Code_Fee_Settlement>
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:

```
33              <Dom_Fee_Fixed>0.10</Dom_Fee_Fixed>
34              <Non_Dom_Fee_Fixed>0. 0</Non_Dom_Fee_Fixed>
```

FX Fee Group charges applied:

```
35              <Fx_Fee_Fixed>0.00</Fx_Fee_Fixed>
36              <Other_Fee_Amt>0.00</Other_Fee_Amt>
37              <Fx_Fee_Rate>0.00</Fx_Fee_Rate>
38              <Dom_Fee_Rate>0.00</Dom_Fee_Rate>
39              <Non_Dom_Fee_Rate>0.01</Non_Dom_Fee_Rate>
```

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

9.3 Viewing Card Fees on Thredd Portal

You can view details of fees charges for a transaction in Thredd Portal, on the **Cards and Transactions** and **Transaction Lifecycle** screens:

1. Search for a transaction to display the transactions in the **Transaction Search Results**.

2. Click the required transaction to display the additional transaction details on the right of the page.

3. Click the **Transaction Lifecycle** button to display the Amount and Fees section.

> **Note:** For more information, see the Thredd Portal Guide > Viewing Transactions.

9.4 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:

1. Log in to Smart Client and select **Card Activity > Transactions**.
   The **View Transactions** screen shows a list of transactions held on the Thredd 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 12: 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 13: Fee Detail Note on the Transaction Details screen

Note: For more information, see the Smart Client Guide.

10 Advanced Authorisation Fee Configuration

This section provides more details of advanced authorisation fee configuration, suitable for programs that require complex foreign exchange (FX) fees.

10.1 Authorisation Fee Options (Advanced- Currency Based Only)

Refer to the table below for a list of fee configuration options. Fees are set up based on the type of transaction. See Authorisation Fees: Transaction Types.

10.1.1 Domestic/Non-Domestic (Card Issuance) - No Currency Checks

Fee Option	Description
Domestic & No Currency Checks	
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.
Non-Domestic & No Currency Checks	
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.

10.1.2 Domestic (in Card Issuance Country) with Currency Checks

Fee Option	Description
Domestic & Base 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.
Domestic & Non Base Currency	

Fee Option	Description
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.

10.1.3 Non-Domestic (outside Card Issuance Country) with Currency Checks

Fee Option	Description
Non-Domestic & Base 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.
Non-Domestic & Non Base 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.

For further information on fee use cases and configuration, see Fee Use Cases.

For examples of fee configuration, based on these use cases see Appendix 7: Advanced Fee Examples.

Appendix 1: Processing Codes (DE003)

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

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
Transaction 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 (API Usage) codes	
006999	Fees : Agent
007999	Fees : Head Office
008999	Fees : Call Centre

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

Note: Legacy fee codes and fee codes that are reserved for specific Thredd clients are not listed above.

Appendix 2: Fee Processing Codes

Refer to the table below for a list of Thredd fee processing codes which are used in Thredd API and displayed in Thredd Portal and Smart Client. You can use these codes to define the fees you want to apply when a specific Thredd API is used. See API Usage Fees.

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 : Thredd Kiosk
003	Fees : Thredd 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

Code	Description
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
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)

Code	Description
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

Note: Legacy fee codes and fee codes that are reserved for specific Thredd 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 Fees.

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

Code	Description
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
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 Thredd API is used to trigger that event. Below is a list of events that are initiated using either SOAP web services or REST-based Cards API , which you can configure to trigger fees. For details of how to configure the fee in the Thredd system, see API Usage Fees.

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

Appendix 5: Fee Processing Flows

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

Authorisation Fee Processing Flow

Figure 1 below describes the steps in processing an authorisation fee on the Thredd system. The transaction processing code (`Proc_Code`) returned from the Card Scheme (Visa/Mastercard/Discover) is used to determine which fee to charge, based on the Authorisation Fee Group linked to the card record.
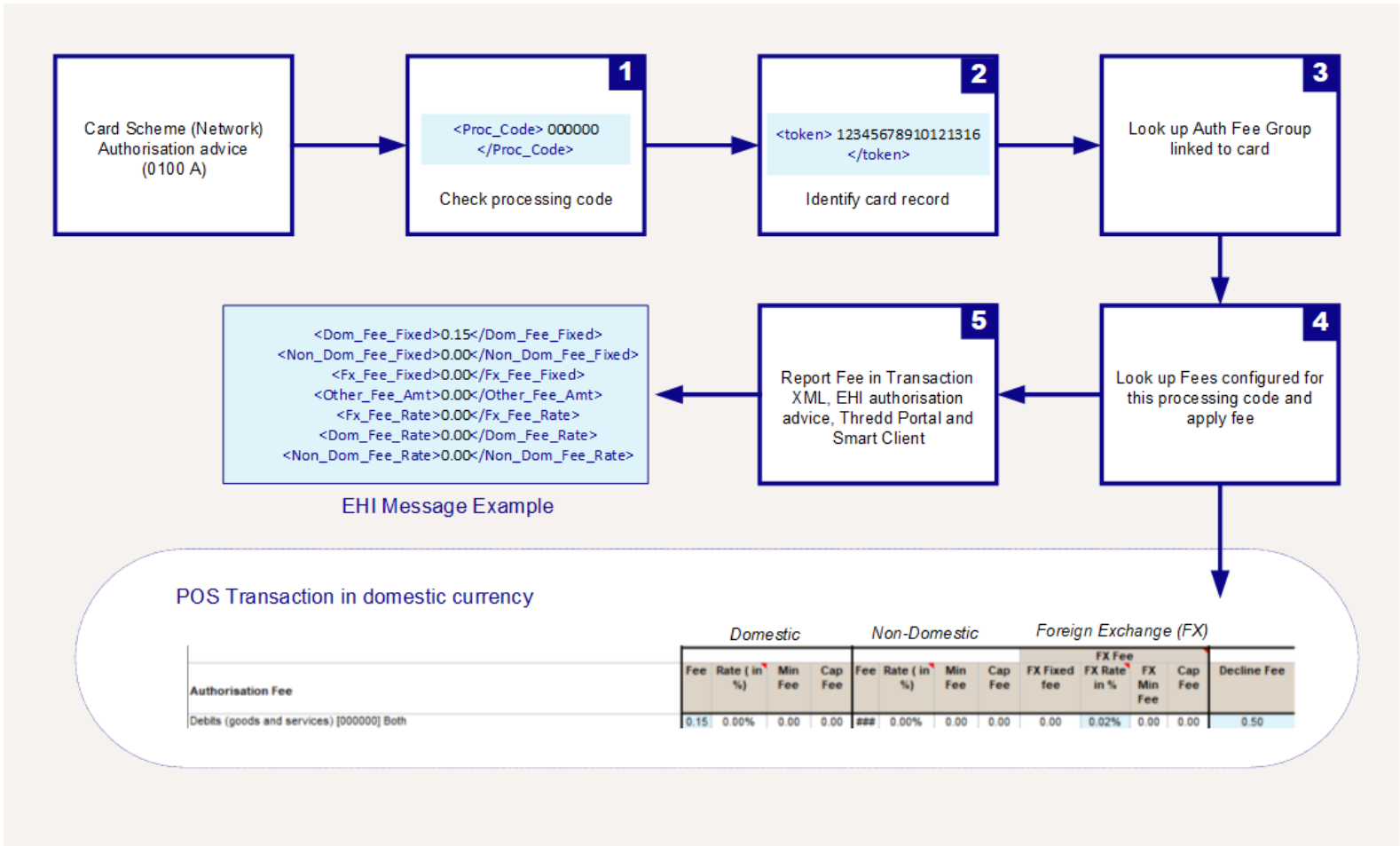
Figure 14: Authorisation Fee Processing Flow

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

Thredd API Usage Fee Processing Flow

Fees for using the Thredd API (SOAP web services or RESP API) are triggered in one of two scenarios:

- **Automatically triggered** – when a Thredd API is used, a fee is triggered automatically if a fee for this API has been set up in an API Usage Fee group. See API Usage Fees.
- **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. (**Note**: the manual fee option is only available when using SOAP Web Services)

Figure 2 below describes the steps in processing an API usage fee on the Thredd system, where the fee is automatically triggered via a fee group. Thredd use the transaction processing code (Proc_Code) to determine which fee to charge, based on the API Usage Fee Group linked to the card record.
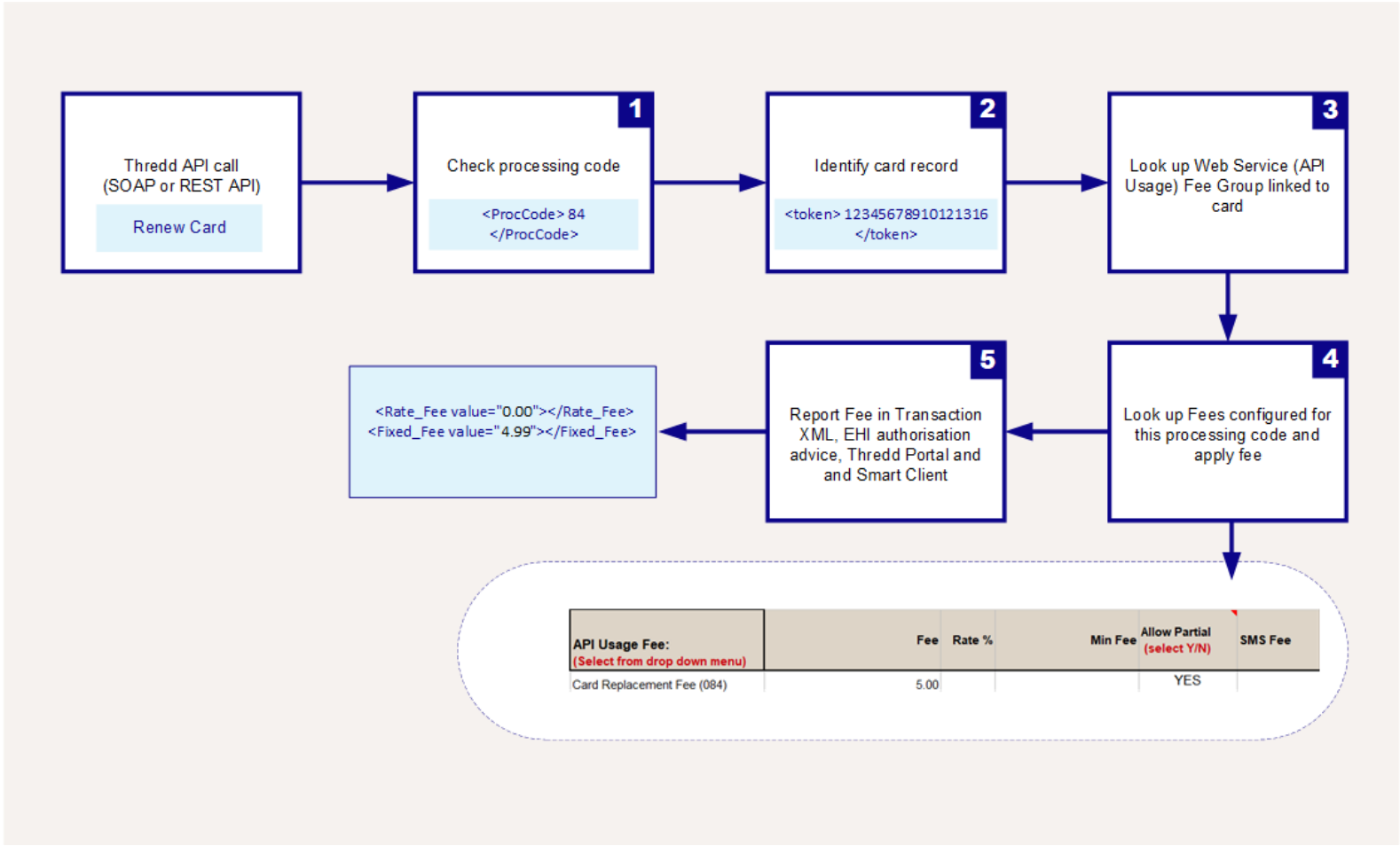
Figure 15: Thredd API Usage Fee Processing Flow

For details of how to configure your API Usage fee groups, see API Usage Fees.

Recurring Fee Processing Flow

Figure 3 below describes the steps in processing a Recurring fee on the Thredd 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. Thredd use the Recurring Fee Group linked to the card record to determine when to apply a fee and which fee to charge.
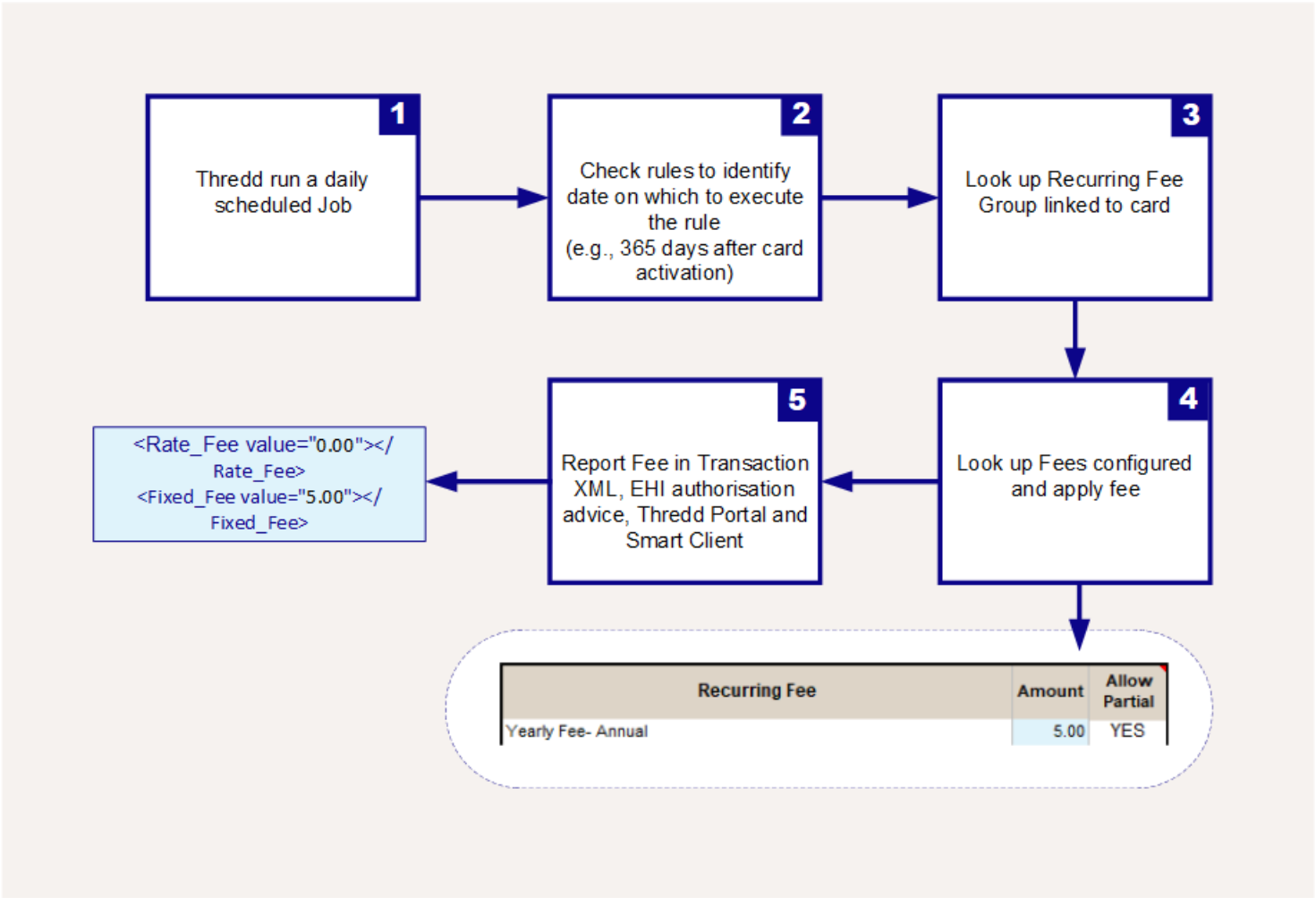

Figure 16: Recurring Fee Processing Flow

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

Recurring Fee Configuration Options

Refer to the table below for recurring fee configuration options.

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

Recurring Fee Name	Trigger	When does the fee start?	When is the recurring fee applied?	How does fee end?
		Fees Guide		occurs (includes loads) No Balance Card Expiry

Fee Processing of 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, Thredd responds to the merchant with *00* (approve). The merchant typically then submits a second authorisation transaction, with an actual transaction amount included.

When the Thredd system receives an authorisation request for an ASI transaction[1], 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 4 below.
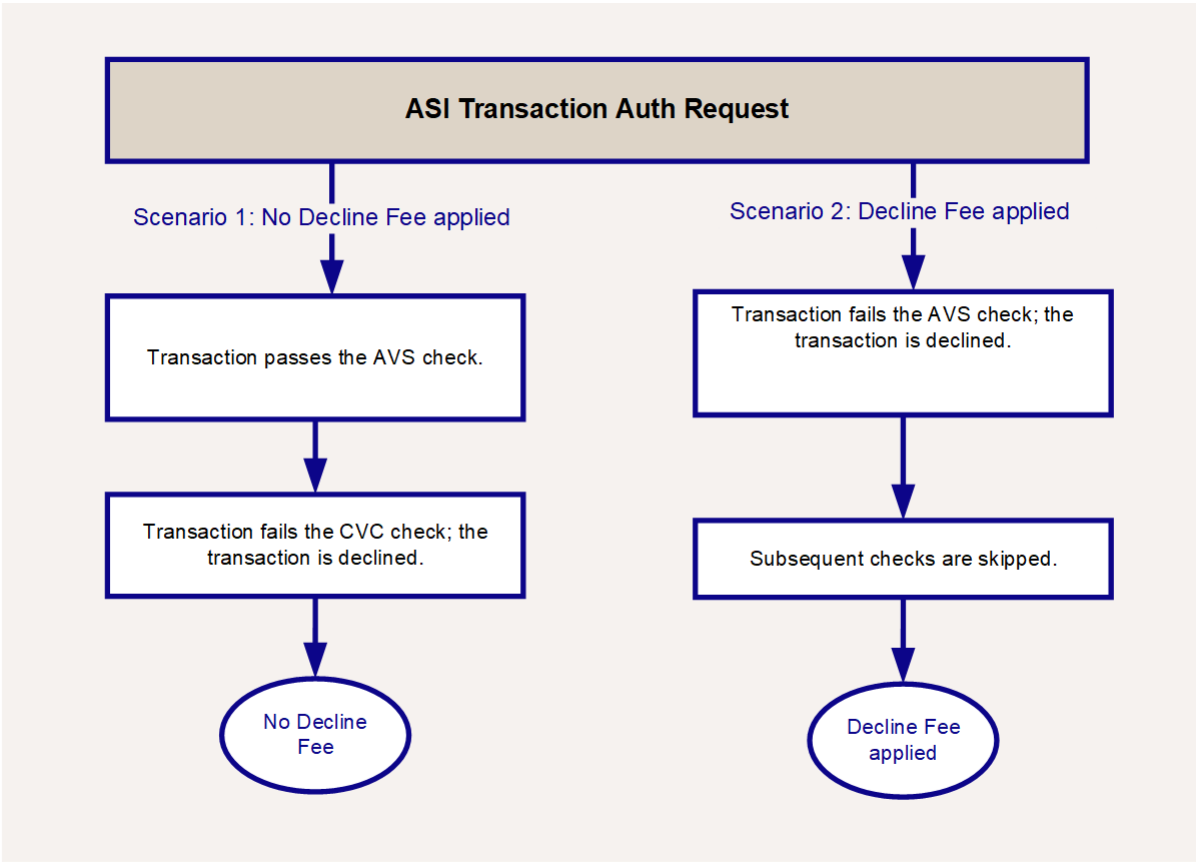

Figure 17: Decline Fees for ASI Transactions

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[1]ASI transactions usually have 0 bill amount. You can identify a transaction as ASI in Thredd Portal or 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 External Host Interface (EHI) Guide.

Appendix 6: Basic Authorisation Fee Examples

This section provides some basic examples to illustrate how fees configuration works when applied to card transactions.

Examples of Authorisation Fees with Currency Only

Example 1 – Basic Authorisation Fees (Domestic Currency)

This example shows authorisation fees for card usage in the card's domestic (base) currency. No country checks are performed. The fees system uses the transaction processing code to decide what type of fees to apply.

Authorisation Fee [Processing Code]	Dom Fee	Dom Rate (%)	Dom Min Fee	Dom Max Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00
Debits (for ATM withdrawals) [010000]	**0.50**	0.00	0.00	0.00
Debits (goods with cash back) [090000]	**0.55**	0.00	0.00	0.00

Transaction currency = Billing currency (card's domestic currency)

- When the card is used at an ATM for cash withdrawals [Proc_Code = 010000], a charge of 0.50 in base currency units is applied to the transaction.
- When the card is used for a purchase with cashback [Proc_Code = 090000], a charge of 0.55 in base currency units is applied to the transaction.

Example 2 – Basic Authorisation Fees (Non-domestic Currency)

This example shows authorisation fees for card usage in a *non-domestic* currency (not in the same currency as the card's base currency). No country checks are performed. The fees system uses the transaction processing code to decide what type of fees to apply.

Authorisation Fee [Processing Code]	Non-Dom Fee	Non-Dom Rate (%)	Non-Dom Min Fee	Non-Dom Max Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00
Debits (for ATM withdrawals) [010000]	**2.00**	**1.00**	**2.50**	0.00

Transaction currency ≠ Billing currency (card's domestic currency)

- When the card is used at an ATM for non-domestic cash withdrawals [Proc_Code = 010000], a fixed charge of 2.00 base currency units plus a Non-Dom Rate of 1% is applied to the transaction billing amount. The minimum fee that will be charged for non-domestic usage on this processing code is 2.50 base currency units .
    - **Example A - Base Currency is GBP**: The cardholder makes an ATM withdrawal of 90.00 EUR (base currency billing amount = 75.00 GBP). The fees system applies a 1% Non-Dom Rate of 0.75 GBP, plus a Non-Dom Fee of 2.00 GBP. The total fee applied is 2.75 GBP.
    - **Example B - Base Currency is GBP**: The cardholder makes an ATM withdrawal of 30.00 EUR (base currency billing amount = 25.00 GBP). The fees system applies a 1% Non-Dom Rate of 0.25 GBP, plus a Non-Dom Fee of 2.00 GBP. The total fee is 2.25 GBP. Since this is less than the Non-Dom Min Fee of 2.50 GBP, the fee that is applied is the minimum fee of 2.50 GBP.

Examples of Authorisation Fees with Currency and FX

Example 3 – Foreign Exchange (FX) Fees

This example shows authorisation fees where a Thredd fee is applied for foreign exchange (FX) transactions. The fees system uses the transaction processing code to decide what type of fees to apply.

Authorisation Fee	FX Fixed Fee	FX Rate (%)	FX Min Fee	FX Cap Fee
Debits (goods and services) [000000]	0.00	**1.50**	**1.00**	0.00
Debits (for ATM withdrawals) [010000]	0.00	**1.50**	**1.00**	0.00

Transaction currency ≠ Billing currency (card's domestic currency)

- When the card is used for purchases or cash withdrawals in a foreign currency, then a percentage FX Rate of 1.5% is applied to the transaction billing amount.
- **Example - Base currency is GBP**: for a *transaction amount* of 60.00 EUR (*billing amount* of 50.00 GBP), a 1.5% FX Rate of 0.75 GBP is applied. Since (FX Fixed Fee + FX Rate) is less than FX Min Free, the FX Min Fee of 1.00 GBP is applied.

Example 4 – Combining Authorisation Fees

Your fee setup can include a combination of fees. The complexity of your fees can be configured to the needs of your card programme. See the example below (combining some of the authorisation fees from examples 1-3).

Authorisation Fee	Dom Fee	Dom Rate (%)	Dom Min Fee	Dom Max Fee	Non-Dom Fee	Non-Dom Rate (%)	Non-Dom Min Fee	Non-Dom Max Fee	Non-Dom Cap Fee	FX Fixed Fee	FX Rate (%)	FX Min Fee	FX Cap Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**1.50**	**1.00**	0.00
Debits (for ATM withdrawals) (010000)	**0.50**	0.00	0.00	0.00	**2.00**	**1.00**	**2.50**	0.00	0.00	0.00	**1.50**	**1.00**	0.00

- In this example, no fees are applied for purchases [Proc_Code = 000000] in the domestic currency or non-domestic currency. Foreign Exchange (FX) rate fees and minimum fees are applied.
- A fixed fee of 0.5 base currency units is applied to ATM withdrawals in the domestic currency.
- For ATM withdrawals in a non-domestic currency, a number of fees apply.

Example - base currency is GBP: For an ATM withdrawal with a *transaction amount* of 60.00 EUR (*billing currency* = 50.00 GBP), the following fees apply:

- Fixed Non-Dom Min Fee: 2.50 GBP
- FX Min Fee: 1.00 GBP
- Total = 3.50 GBP

Appendix 7: Advanced Authorisation Fee Examples

This section provides some examples to illustrate how fees configuration works when applied to card transactions. Terminology used in this section:

- **Domestic country** – local country in which the card is issued.
- **Base currency** – currency in which the card is issued.
- **Transaction currency** – currency in which the transaction takes place.
- **Non-domestic country** – country that is not the same as the country in which the card is issued. Example, a purchase in Spain on a card issued in France.
- **Non-base currency** – currency that is not the same as the currency in which the card is issued. Example, a purchase in EUR on a card issued in GBP.

You can set up your authorisation fees to take into account both the Currency and the Country of the card and transaction.

Examples of Authorisation Fees without Currency Checks

Example 1 – Advanced Authorisation Fees (Domestic Country)

This example shows setup of simple authorisation fees for card usage in the same country as the card is issued. The processing code determines what fee is applied.

Authorisation Fee [Processing Code]	Fee	Rate (%)	Min Fee	Cap Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00
Debits (for ATM withdrawals) [010000]	**0.50**	0.00	0.00	0.00
Debits (goods with cash back) [090000]	**0.55**	0.00	0.00	0.00

Domestic country: Card issued in the United Kingdom

- When the card is used in the UK at an ATM for cash withdrawals [Proc_Code = 010000], a charge of 0.50 GBP is applied to the transaction.
- When the card is used n the UK for a purchase with cashback [Proc_Code = 090000], a charge of 0.55 GBP is applied to the transaction.

Example 2 – Advanced Authorisation Fees (Non-domestic Country)

This example shows authorisation fees for card usage in a *non-domestic* country (not in same country as where the card is issued). The processing code determines what fee is applied.

Authorisation Fee [Processing Code]	Fee	Rate (%)	Min Fee	Cap Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00
Debits (for ATM withdrawals) [010000]	**2.00**	0.00	0.00	0.00

Non-Domestic country: Card issued in France, Non-Domestic country

- When the card is used at an ATM for non-domestic country cash withdrawals [Proc_Code = 010000], a fixed charge of 2.00 EUR.
  - **Example**: For an ATM Withdrawal of 90.00 EUR a non-domestic fixed charge of 2.00 EUR. The total fee applied will be 92.00 EUR.

Examples of Authorisation Fees with Currency Checks

Example 3 – Advanced Authorisation Fees (Domestic Country and Non-base Currency)

This example shows authorisation fees for card usage in a *domestic* country and in a non-domestic card currency. The processing code determines what fee is applied.

Authorisation Fee [Processing Code]	Non-Dom Fee	Non-Dom Rate (%)	Non-Dom Min Fee	Non-Dom Max Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00
Debits (for ATM withdrawals) [010000]	**2.00**	**1.00**	0.00	0.00

Domestic country and currency: Card issued in the United Kingdom, GBP. Non-Domestic currency: EUR

- When the card is used at an ATM for non-base currency cash withdrawals [Proc_Code = 010000], a fixed charge of 2.00 GBP plus a Non-Dom rate of 1% is applied to the transaction. The minimum fee that will be charged for non-domestic usage on this processing code is 2.50 GBP.
  - **Example 1**: For an ATM Withdrawal of 90.00 EUR (75.00 GBP), a percentage rate charge of 0.75 GBP, plus a non-domestic fixed charge of 2.00 GBP. The total fee applied will be 2.75 GBP.

Example 4 – Advanced Authorisation Fees (Non-domestic Country and Non-base Currency)

This example shows authorisation fees for card usage in a *non-domestic* country (not in same country as where the card is issued) and in a non-domestic card currency. The processing code determines what fee is applied.

Authorisation Fee [Processing Code]	Non-Dom Fee	Non-Dom Rate (%)	Non-Dom Min Fee	Non-Dom Max Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00
Debits (for ATM withdrawals) [010000]	**2.00**	**1.00**	0.00	0.00

Domestic country and currency: Card issued in the United Kingdom, GBP. Non-Domestic country: Card used in France

- When the card is used at an ATM for non-domestic cash withdrawals [Proc_Code = 010000], a fixed charge of 2.00 GBP plus a Non-Dom rate of 1% is applied to the transaction. The minimum fee that will be charged for non-domestic usage on this processing code is 2.50 GBP.
  - **Example 1**: For an ATM Withdrawal of 90.00 EUR (75.00 GBP), a percentage rate charge of 0.75 GBP, plus a non-domestic fixed charge of 2.00 GBP. The total fee applied will be 2.75 GBP.
  - **Example 2**: For an ATM Withdrawal of 30.00 EUR (25.00 GBP), a percentage rate charge of 0.25 GBP, plus a non-domestic fixed charge of 2.00 GBP. The total fee is 2.25 GBP. Since this is less than the Non-Dom Min Fee of 2.50 GBP, the fee that is applied is the minimum fee of 2.50 GBP.

Note: If the Non-Dom minimum fee exceeds the combined value of the Non-Dom fixed fee and Non-Dom fee rate, then Thredd will apply the Non-Dom minimum fee. However, if the Non-Dom minimum fee is lower than the sum of the Non-Dom fixed fee and Non-Dom rate fees, then Thredd will apply the fee which includes the combination of Non-Dom fixed fee and Non-Dom fee rate.

Example 5 – Foreign Exchange (FX) Fees

This example shows authorisation fees for transactions with currency conversion. The processing code determines what fee is applied.

Authorisation Fee	FX Fixed Fee	FX Rate (%)	FX Min Fee	FX Cap Fee
Debits (goods and services) [000000]	0.00	1.50	1.00	0.00
Debits (for ATM withdrawals) [010000]	0.00	1.50	1.00	0.00

Domestic currency: GBP. Non-Domestic currency: EUR

When the card is used for purchases that involve currency conversion, then a percentage fee rate of 1.5% is applied to the transaction.
 Example: for a purchase for 60.00 EUR (50.00 GBP), a percentage rate charge of 0.75 GBP is applied. Since this is below the FX Min Free threshold, the minimum fee of 1.00 GBP is applied.

Example 6 – Combining Authorisation Fees

Your fee setup can include a combination of fees. The complexity of your fees can be configured to the needs of your card programme. See the example below (combining some of the authorisation fees from examples 1-3).

Authorisation Fee	Dom Fee	Dom Rate (%)	Dom Min Fee	Dom Max Fee	Non-Dom Fee	Non-Dom Rate (%)	Non-Dom Min Fee	Non-Dom Max Fee	Non-Dom Cap Fee	FX Fixed Fee	FX Rate (%)	FX Min Fee	FX Cap Fee
Debits (goods and services) [000000]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	2.00	0.00
Debits (for ATM withdrawals) (010000)	0.50	0.00	0.00	0.00	2.00	1.00	2.50	0.00	0.00	0.00	1.50	2.00	0.00

- In this example, no fees are applied for purchases [Proc_Code = 000000] in the domestic country or non-domestic countries. Minimum Fees are applied for FX conversion.
- A fixed fee of 0.5 GBP is applied ATM withdrawals in the domestic country.
- For ATM withdrawals in a non-domestic country and currency, a number of fees apply.

Example: For an ATM Withdrawal of 60.00 EUR (50.00 GBP), the following fees apply:

- Fixed Non-Dom Min Fee: 2.50 GBP
- FX Min Fee: 1.00 GBP
- Total = 3.50 GBP

Appendix 8: Applying Fees to FX Transactions

This section provides details of how fees are applied for foreign exchange (FX) transactions.

- Where the *transaction amount* is in a non-domestic currency, the card scheme (e.g., Visa, Mastercard or Discover) applies their daily exchange rate to convert this to the *billing amount* in the card's domestic currency.

- The Thredd Fees module fixed fees and fee rates are applied to the *billing amount* in the card's billing currency.

- If the *non-domestic minimum fee* exceeds the combined value of the *non-domestic fixed fee* and *non-domestic fee rate*, then Thredd will apply the *non-domestic minimum fee*.

- If the *non-domestic minimum fee* is lower than the sum of the *non-domestic fixed fee* and *non-domestic fee rate*, then Thredd will apply the fee which includes the combination of *non-domestic fixed fee* and *non-domestic fee rate*.
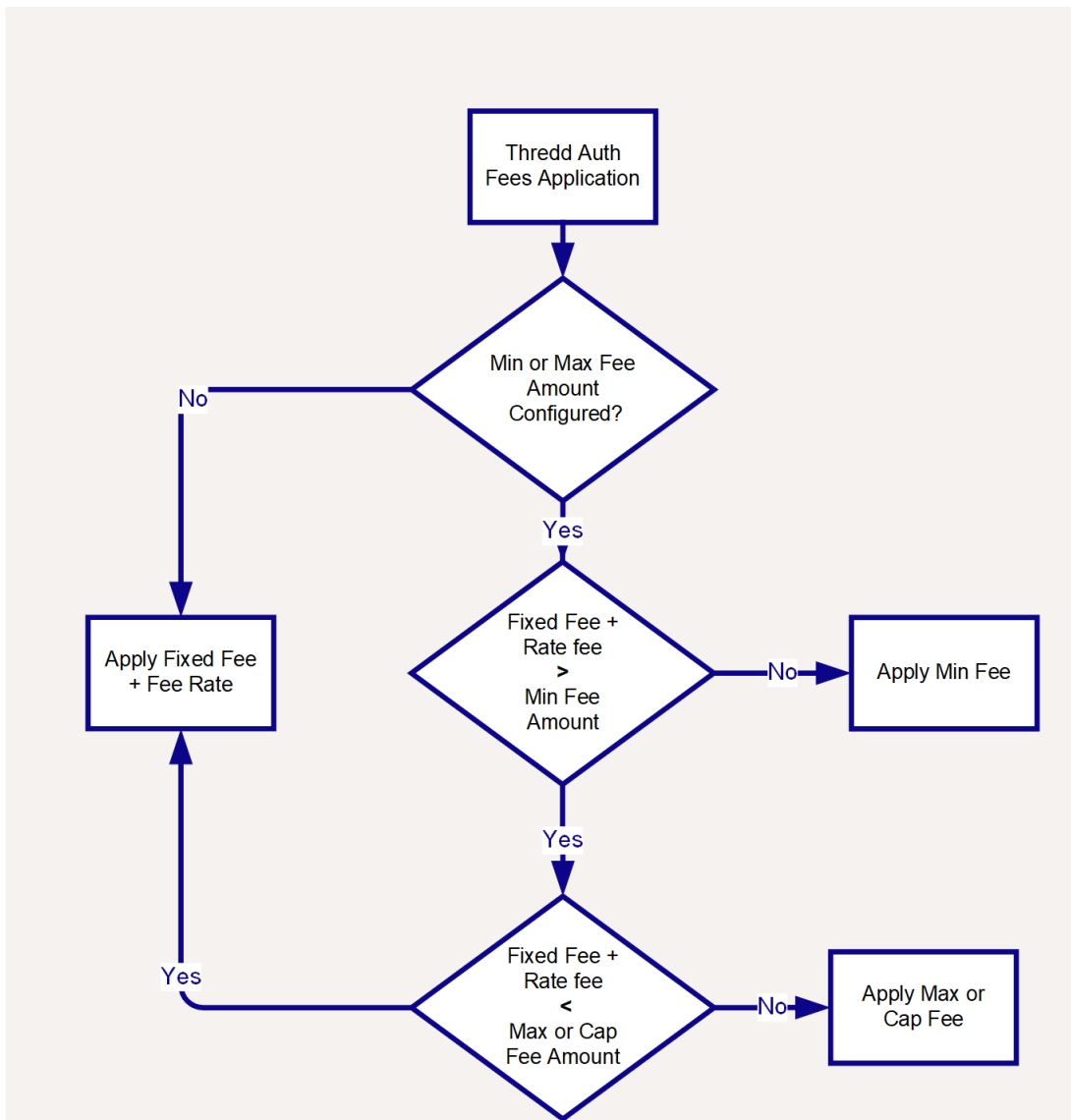
See the figure below.

Figure 18: Authorisation Fee Processing Flow for an FX Transaction

FAQs

This section provides answers to frequently asked questions.

Fee Setup

Q. Do I need to set up my card fees on the Thredd 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 Thredd manages your transaction authorisation and maintains the card balance ledger, you can use Thredd 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 Thredd API (SOAP web services or REST-based Cards API), 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 Configuring your Program Fees.

- Using SOAP Web Services: 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.
- Using REST-based Cards API: When creating a card, the default fee groups for your product are linked to the card. You can use the Update Card Control Groups API to update the Fee groups linked 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 Fees.

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). (**Note**: available on Web Services only). 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*, Thredd 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.

Q. How are fees applied and reported for declined transactions?

When a transaction is declined, the system applies a pre-configured decline fee. This fee is processed and reported in Thredd Portal, Smart Client and External Host Interface (EHI) messages as follows:

Fee Application Process

- The *Fixed Fee* and *Rate Fee* are set to 0.
- The *Note* field is updated to include details of both the *Fixed Fee* and *Rate Fee*.
- If a *Decline Fee* is defined for the specific card product:
    - This fee is deducted from the card balance.
    - The deducted amount is populated in the *Fixed fee* field in both the EHI message, Thredd Portal and Smart Client.

    This will be the only fee that is applied to the card for a declined transaction.

> **Note:** For more information on setting up fees for declined transactions, see Authorisation Fees: Decline Fees.

Fee Maintenance

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

Yes.

- Using SOAP Web Services: 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.
- Using REST-based Cards API: You can use the Update Card Control Groups API to update the Fee groups linked to a card.

Q. Do you provide an API to allow me to change the fee settings or amounts?

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

- Using SOAP Web Services: 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.
- Using REST-based Cards API: You can use the Update Card Control Groups API to update the Fee groups linked to a 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 Thredd Portal or 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.

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 row for Debits (Goods and Services) [000000] Both. Scroll across the row to view the specific fees applicable to this type of transaction.

Q. What if the transaction fee doesn't match the fee configuration?

If there is a discrepancy between the transaction fee that was deducted for the transaction and what you expect to see from the fee set up on the PSF, then check the following:

- Are there any additional fees you have set up that may have been triggered for this transaction? (for example, a multi-currency conversion fee, a non-domestic usage fee, reversal fee or decline fee)
- Is this a multi-currency transaction, where the transaction currency differs from the billing currency? (In this case, a conversion rate will have been applied to the transaction). For details of how fees are applied to cross-currency transactions, see Appendix 8: Applying Fees to FX Transactions.
- Were there any other card fees (non-Thredd fees) applied to the transaction? (Such as a merchant, acquirer or network fee)

For more information, see Introduction: Fee Application and Fee Reconciliation.

Glossary

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

A

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 Thredd 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 cardholders.

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.

API Usage Fees Group

The API Usage Fee group defines a fee that is charged to a card on a per transaction basis for a card transaction via Thredd API (typically reflecting a payment or transfer into the card account or balance enquiry, but could be used for card renewal, replacement, lost and stolen, admin fees, and so on).

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.

C

Card Scheme (Network)

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.

E

EMV

EMV is an acronymn 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 Thredd sends real-time transaction-related data. The URL to this system is configured within Thredd 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 Thredd product providing clients either a real time feed or the ability to be involved in authorisations.

F

Fee Groups

Groups which control the card transaction authorisation fees, and other fees, such as recurring fees and Thredd API usage 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.

I

Issuer (BIN Sponsor)

Financial organisation and scheme member, licensed by the scheme to issue cards and process transactions using the scheme's network.

M

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.

P

PAN

The card's 16-digit primary account number (PAN) that is typically embossed on a physical card.

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 Thredd account setup. The details are used to configure your Thredd account.

Program Manager

A Thredd 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.

R

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).

S

Smart Client

Smart Client is Thredd's legacy desktop application for managing your cards and transactions on the Thredd Platform.

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 Thredd mode, Thredd may also provide STIP on your behalf, where your systems are unavailable.

T

Thredd Portal

Thredd Portal is Thredd's new web application for managing your cards and transactions on the Thredd Platform.

V

Validation

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

Document History

Version	Date	Description	Revised by
1.7	11/06/2025	Added note to API Usage Fees to clarify API Usage Fees are only available for Thredd's SOAP web services.	JB
	11/02/2025	Added references to Thredd Portal, our new web application for managing your cards and transactions.	WS
	07/11/2024	Reorganisation of the Fees guide to provide separate sections and content updates for Authorisation Fees, Recurring Fees and API Usage Fees. Guide updates to reflect the new advanced fees functionality. New sections added: Fee Application and Fee Reconciliation, Fee Use Cases, Appendix 7: Advanced Authorisation Fee Examples and Appendix 8: Applying Fees to FX Transactions.	WS
1.6	06/08/2024	New section added showing fee examples. See Appendix 6: Basic Authorisation Fee Examples. New FAQ added, explaining how fees are applied and reported for declined transactions. See the FAQs.	WS
	02/07/2024	Added section on adding a one-off fee using REST to Fee Maintenance (Cards API). Updated the company address.	PC
1.5	19/03/2024	Updates to content and graphics to align with taxonomy updates on our Documentation Portal. Additional content and sections covering usage of the Thredd REST-based Cards API for fee maintenance. See Fee Maintenance (Cards API).	WS
	25/12/2023	Revised note on EHI mode restrictions when applying fees and recurring payments. See Fees and EHI Mode.	WS
	29/09/2023	Updated Smart Client screen shots in Viewing Card Fees in Smart Client	MW
	07/06/2023	Updated Operations email address to be occ@thredd.com	MW
	27/04/2023	Guide re-brand to new company name and brand identity.	WS
1.4	01/03/2023	Fix to table of contents in online version	WS
	21/12/2022	Updated numbering in the Table of Contents	MW
	01/12/2022	Updated Copyright Statement.	MW
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 of ASI Transactions	WS
1.1	29/09/2021	Thredd 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

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