



# Dynamic Currency Conversion Performance Guide

**Helping Acquirers and Their DCC Service Providers  
to Offer an Optimal Cardholder Experience**

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# 1. INTRODUCTION

This section contains an overview of this guide and other available resources.

## 1.1 ABOUT THIS GUIDE (DISCLAIMER)

The purpose of this guide is to provide a high-level overview of **Mastercard point-of-interaction (POI) currency conversion**, otherwise known as dynamic currency conversion (DCC), and the associated performance program. The Mastercard Standards refer to DCC and POI currency conversion interchangeably, where the POI reflects the location at which the transaction takes place (e.g., automated teller machine [ATM], internet [merchant website], or point-of-sale [POS] terminal).

Mastercard has endeavored to ensure that the information presented in this guide is accurate. In the event of a discrepancy or conflict between the information presented herein and a Mastercard Standard, policy, operating regulation, or procedure, including those set forth in the Mastercard *Transaction Processing Rules*, the Mastercard Standard, policy, operating regulation, or procedure shall exclusively govern and the conflicting information set forth herein shall be of no effect. Mastercard disclaims any warranty of any kind to the use of or reliance on the information set forth herein.

## 1.2 NOT A TRANSACTION PROCESSING RULES REPLACEMENT

This guide does not serve as a replacement for the *Transaction Processing Rules* or any other Mastercard manual. For current details regarding Mastercard Standards, refer to the Mastercard manuals found on the **References** page of the **Technical Resource Center** application on **Mastercard Connect™** ([www.mastercardconnect.com](http://www.mastercardconnect.com)). As Mastercard Standards and the DCC performance program are constantly evolving, refer to **Announcements** published by Mastercard in the **Technical Resource Center** application for upcoming changes to the Standards and DCC-related processes.

## 1.3 WHERE CAN I LEARN MORE?

Cardholders should contact their card issuer, and merchants should contact their acquirer for assistance or additional information regarding DCC.

Issuers, acquirers, and service providers may contact the Mastercard POI Currency Conversion team via e-mail at [poi\\_currency\\_conversion@mastercard.com](mailto:poi_currency_conversion@mastercard.com).

The manuals in the following subsections provide vital information for DCC. They are available via the **References** page of the Technical Resource Center application on Mastercard Connect.

### 1.3.1 TRANSACTION PROCESSING RULES

Mastercard Standards on processing, terminal and receipt requirements, and acceptance procedures can be found in Section 3.8, "POI Currency Conversion", of the *Transaction Processing Rules* manual. In addition, model DCC screens and receipts and associated requirements can be found in Appendix F, "Signage, Screen, and Receipt Text Display", of the manual.



### 1.3.2 MANUALS FOR TRANSACTION PROCESSING REQUIREMENTS AND DATA ELEMENTS

DCC transactions have specific processing requirements associated with **data element** (DE) 54 (Amounts, Additional). The manuals listed in the table below provide information and DE definitions for different types of transaction messages.

**Table 1: Location of DE Definitions in Mastercard Manuals**

| Manual Title and DE Definitions<br>Chapter Number       | Transaction Message Type  |
|---|---|
| <i>Customer Interface Specification – Chapter 4</i>     | Authorization messages sent via the Mastercard Dual Message System                          |
| <i>IPM Clearing Formats – Chapter 7</i>                 | Integrated Product Messages (IPM) clearing messages sent via the Mastercard Clearing System |
| <i>Single Message System Specifications – Chapter 4</i> | Financial Transaction messages sent via the Mastercard Single Message System                |

For additional information on DCC transaction processing requirements, refer to subsection 2.2.4, "Transaction Processing", of this guide.

### 1.3.3 MASTERCARD SERVICE PROVIDER REGISTRATION GUIDE

The *Mastercard Service Provider Registration Guide* provides information on the service provider registration process. Acquirers must register themselves and any DCC service providers with Mastercard prior to offering DCC. For more information about this requirement, refer to subsection 3.3, "Registration", of this guide.

### 1.3.4 OTHER USEFUL MANUALS

- *Authorization Manual*
- *Chargeback Guide*
- *Global Clearing Management System Reference Manual*
- *Mastercard Rules*
- *Quick Reference Booklet*
- *Settlement Manual*
- *Single Message System Settlement and Reports*

## 2. DYNAMIC CURRENCY CONVERSION

Mastercard created this guide to help acquirers, DCC service providers, and merchants better understand the requirements and Standards of the DCC service and to clarify the steps they need to take to perform this service in accordance with Mastercard Standards.

### 2.1 DESCRIPTIONS AND PRINCIPLES

DCC is a service provided by acquirers and their merchants or ATM owners that allows a cardholder to choose to complete their cross-border transaction in either the **local currency or their billing currency** (i.e., the currency in which the card was issued). If the cardholder chooses to complete the transaction in the merchant's or ATM's local currency, the transaction amount will be converted using the exchange rate provided by their card issuer. If the cardholder chooses to complete the transaction in their card's billing currency, their account will be debited using the exchange rate offered by the acquirer.

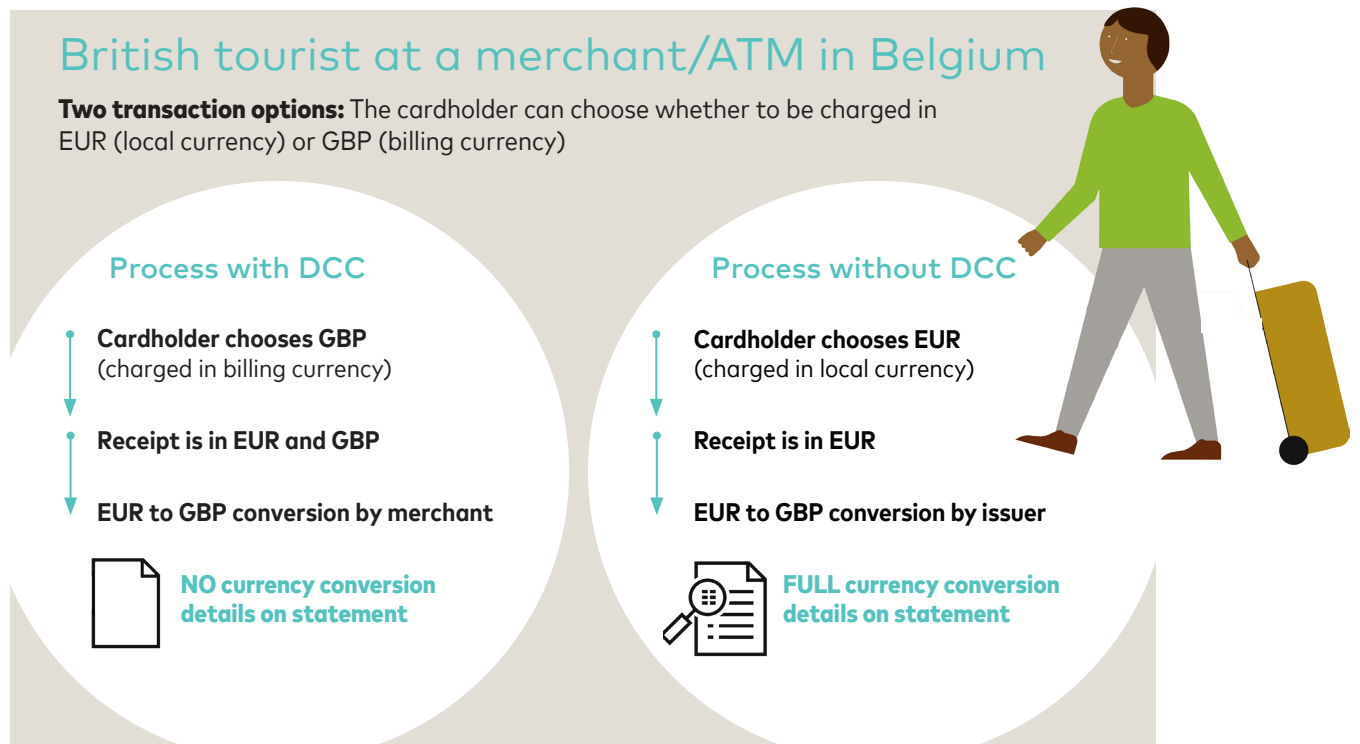
**DCC is not a Mastercard product or service.** However, Mastercard has constructed a set of Standards and requirements for any acquirer, DCC service provider, merchant, or ATM owner offering DCC. These Standards ensure that the currency conversion process is transparent, as all relevant information is available to the cardholder to allow them to make an informed decision. Further, this transparency provides the following benefits:

- Helps prevent cardholder confusion or dissatisfaction during the purchasing process or upon viewing their account statement; and
- Instills cardholder confidence in the service and the Mastercard brand.

Accordingly, there is an associated performance program that proactively monitors adherence to these Standards.

#### 2.1.1 CROSS-BORDER TRANSACTION FLOW

This flowchart demonstrates the difference in the transaction flow when a cross-border transaction is processed with or without DCC.





## 2.2 BASIC REQUIREMENTS AS PER THE MASTERCARD STANDARDS

Before offering DCC to cardholders at any of their merchants or ATM locations, the acquirer must first **register** themselves and any DCC service provider. For more information on the registration process, refer to subsection 3.3, "Registration", of this guide.

The following requirements apply when offering DCC:

- No specific currency conversion method may be implemented as the default option;
- The cardholder must not be required or encouraged (i.e., "steered") in any manner to use DCC;
- The offer must be presented in a clear and neutral manner;
- The cardholder's choice must be honored by all entities that offer DCC; and
- The offer must comply with all applicable cardholder disclosure requirements.

Additionally, the offer must comply with all applicable local laws and regulations.

If the cardholder does not **explicitly choose** to have the transaction completed in their billing currency, it must be processed in the local currency. **DCC must not be selected in the cardholder's absence.**

In the case of any refunds, the refund must be processed in the same currency used in the original transaction.



### Case Study: Refunds

**Scenario:** *I chose to use DCC when making a purchase. However, my card was charged for a significantly higher amount than the payment amount disclosed to me during checkout. I tried to cancel, but the refund was not made in the same currency, resulting in a second conversion loss.*

**Issue:** *Incorrect refund processing*

Merchant staff must not submit refunds in a different currency from the currency of the original transaction. Section 3.8.5, "Transaction Processing Requirements", of the *Transaction Processing Rules* states that refunds of DCC transactions must be processed in the same currency used in the original transaction. This Standard is in place to ensure that the cardholder is properly reimbursed and does not suffer a loss due to a second conversion.

**Resolution:** Refunds of DCC transactions should be submitted as one of the following:

- As a reversal;
- As a credit in the DCC currency and amount, matching the DCC currency in which the purchase transaction was processed; or
- As a credit with DCC applied at the exact exchange rate as the original purchase transaction, such that the final currency and amount match the currency and amount of the original purchase transaction.

If the cardholder suffers a loss due to currency conversion, they have a chargeback right for the loss amount. Please refer to the *Chargeback Guide* for further information.



## 2.2.1 PREVENTING CARDHOLDER INFLUENCING OR STEERING

In order to ensure that the cardholder has an opportunity to equally weigh the options available:

- The cardholder must be clearly advised of the option of completing their transaction in **either** the local currency or the billing currency.

NOTES: Presenting the options without **offer wording** does not clearly introduce the service to the cardholder and is not sufficient to inform them about the choice that they are being offered.

The offer wording is a clear message advising the cardholder of their choice to complete the transaction in either the local currency or the cardholder's billing currency. This wording must be placed prominently on the screen of the cardholder's POI.

- The currency options must be presented equally in manner and prominence.
- The DCC offer wording must not use confusing, biased, or misleading language or formatting.

Prohibited practices with regard to cardholder influencing or steering include, but are not limited to, the examples below:

- The cardholder must not be asked to select "yes" or "no", "accept" or "decline", "continue" or "cancel", or similar pairs of positive and negative options.
- The offer must not single out DCC as the only option or be phrased as a yes-or-no question.
- Currency selection must not use "traffic lighting" color patterns, such as red and green buttons.
- The terminal must not highlight or preselect the DCC option.
- The terminal must not use language that misrepresents or may draw false conclusions about the issuer's conversion process, such as implying that the issuer's conversion will add fees or unexpected conversion charges, or otherwise.
- DCC must not be presented as the more favorable option.
- Currency conversion options must not be misrepresented as being provided by Mastercard.

## 2.2.2 CARDHOLDER DISCLOSURE

Before an authorization or preauthorization request for the transaction is submitted, and before the cardholder is asked to make their currency selection, the cardholder must be informed of all of the following:

- Their right to choose the currency in which the transaction will be completed;
- The transaction amount in the local currency;
- The transaction amount in the billing currency;
- The currency conversion rate to be applied if the transaction is completed in the billing currency; and
- Any other fee that can be charged if the cardholder selects DCC (for example, commission, value added tax [VAT], etc.).

The merchant or terminal operator must also comply with any additional cardholder disclosure requirements that apply to the acceptance environment.

All information and instructions must be provided in English or in the cardholder's native language.



## Case Study: Cardholder Billing Currency

**Scenario:** *I made an ATM withdrawal while travelling, and DCC was applied without my knowledge. Additionally, the transaction was converted to the wrong currency instead of my card's billing currency. This resulted in double conversion, which caused a financial loss.*

**Issues:** *Automatic DCC; Incorrect identification of cardholder billing currency*

When a DCC transaction is converted to the wrong currency, this is most commonly an indication that the acquirer or DCC provider is not using up-to-date bank identification number (BIN) tables sourced from Mastercard. This can cause the cardholder's billing currency to be misidentified.

**Resolution:** Acquirers must regularly update and maintain accurate BIN range information using files sourced from Mastercard. Furthermore, they must ensure that all downstream entities, such as DCC service providers and merchant/ATM systems, are also using the current files.

### 2.2.2.1 ATTENDED ACCEPTANCE ENVIRONMENTS

At an attended POS terminal, the cardholder disclosure requirements may be fulfilled via a(n):

- Cardholder-facing terminal;
- Advice slip (i.e., a hard copy DCC offer, typically printed by the register connected to the terminal); or
- Verbally by the merchant.

If the offer is presented on multiple or scrolling screens, the screen flow must **require** the cardholder to view all of the required cardholder disclosure elements **before** the currency selection options are presented to the cardholder.




### 2.2.2.2 UNATTENDED ACCEPTANCE ENVIRONMENTS

All unattended acceptance environments must display the following standard **cardholder disclosure disclaimer message** to the cardholder, **verbatim**, before an authorization or preauthorization request for the transaction is submitted, and before the cardholder is asked to make their currency selection:

**"MAKE SURE YOU UNDERSTAND THE COSTS OF CURRENCY CONVERSION AS THEY MAY BE DIFFERENT DEPENDING ON WHETHER YOU SELECT YOUR HOME CURRENCY OR THE TRANSACTION CURRENCY."**



**Table 2: DCC Offer Requirements in Different Unattended Acceptance Environments**

| Acceptance Environment  | DCC Offer Requirements   |
|---|--|
|  <p><b>POS terminal</b></p>          | <p>If an unattended POS terminal cannot comply with the cardholder disclosure requirements, the merchant must satisfy the requirements by some alternative means to ensure that the cardholder understands the DCC offer before being asked to make their currency selection.</p> <p>NOTE: An unattended POS terminal is an environment in which the cardholder completes a purchase for a product or service without an interaction with a cashier or other merchant staff member.</p>  |
|  <p><b>ATM terminal</b></p>          | <p>An acquirer must obtain approval to implement or update an ATM DCC offer by submitting samples of their proposed screens and receipts to Mastercard via e-mail (<a href="mailto:poi_currency_conversion@mastercard.com">poi_currency_conversion@mastercard.com</a>) for review.</p> <p>A cash withdrawal without a printed receipt at an ATM terminal is only allowed if the device is out of paper. An exception to this requirement is in the Europe region where ATM terminals <b>without receipt printing capability</b> are not required to offer a DCC receipt.</p> <p>When a printed receipt is not available, the cardholder must be so advised <b>prior to the transaction</b> taking place.</p> |
|  <p><b>E-commerce and mobile</b></p> | <p><b>During the checkout process</b>, the merchant's website or application must clearly and prominently provide all of the required cardholder disclosure elements listed in subsection 2.2.2 of this guide before asking the cardholder to make their currency selection.</p> <p>When DCC is offered for an e-commerce transaction, a currency conversion option may be preselected by the DCC service provider, but the cardholder must be clearly provided with the means to opt out of the currency conversion during the checkout process and pay in the local currency.</p>  |

### 2.2.3 TRANSACTION RECEIPTS

If a cardholder chooses to complete a transaction using DCC, they must be offered a transaction receipt that discloses each of the following:

- Total transaction amount in the local currency;
- Total transaction amount in the converted currency as agreed to by the cardholder;
- Currency symbol or code of each; and
- Currency conversion rate used for the transaction.

### 2.2.4 TRANSACTION PROCESSING

When DCC is performed, transaction messages must contain an occurrence of **DE 54 (Amounts, Additional)** populated with the subfield information shown in the table below.

**Table 3: DE 54 Subfield Descriptions**

| Subfield Number | Subfield Name                           | Purpose  |
|-----------------|---|--|
| 2               | <b>Additional Amount, Amount Type</b>   | Indicates through a <b>value of 58</b> that DCC was performed on the transaction and that the other subfields in the DE 54 occurrence relate to the conversion details.  |
| 3               | <b>Additional Amount, Currency Code</b> | Records the original, pre-conversion transaction currency code (i.e., the merchant's local currency).<br>NOTE: DE 49 (Currency Code, Transaction) reflects the updated transaction currency as chosen by the cardholder.                             |
| 5               | <b>Additional Amount, Amount</b>        | Records the original, pre-conversion total transaction amount, inclusive of any fees, surcharges, or cash back, if applicable.<br>NOTE: DE 4 (Amount, Transaction) reflects the updated transaction amount in the currency chosen by the cardholder. |

## 2.3 DCC PROHIBITIONS

DCC must not be offered on:

- **Contactless transactions** at or below the applicable cardholder verification method (CVM) limit or ceiling limit, as DCC is not consistent with the convenient nature of contactless payments.
- Mastercard or Maestro **prepaid travel cards** or **debit multicurrency cards**. These cards are issued in one or more foreign currencies of the cardholder's choice, which allows use in the local currency when travelling abroad. Performing DCC on these cards results in the transaction amount being converted multiple times, thereby negating the cards' benefit.
- **Mastercard Enterprise Solution Wholesale Travel Program (MWP)** account ranges, as they are single-use virtual accounts used exclusively for business-to-business (B2B) payments and generated in the intended currency.



### Case Study: Prepaid Travel and Debit Multicurrency Cards



**Scenario:** *I have a prepaid travel card, and I loaded it with the currency of the country that I was going to visit. When I tried to make a cash withdrawal in the local currency while on my trip, the ATM offered me DCC, even though my card was denominated in the local currency and there was no need for conversion.*

**Issue:** *Applying DCC on cards that support the local currency*

DCC must not be offered on prepaid travel cards, issued in single or multiple foreign currencies, or on debit multicurrency cards. Offering DCC negates the benefit to the cardholder of locking in the exchange rate at the time of load and the convenience of selecting their intended currencies beforehand. The offering of DCC on these types of cards results in the transaction amount going through multiple conversions before being deducted from the card's account balance.

**Resolution:** Acquirers and DCC providers must only offer DCC for account ranges that allow DCC.

# 3. DCC PERFORMANCE MONITORING

This section outlines the performance monitoring process, including the structure and requirements of the associated performance programs, the registration process, and cardholder complaints.

## 3.1 THE ENHANCED EUROPEAN DCC PERFORMANCE PROGRAM

Mastercard introduced the Enhanced European DCC Performance Program to provide a consistent and structured performance approach.

This program applies to:

- Single European Payments Area (SEPA) countries
- Albania
- Bosnia and Herzegovina
- Kosovo
- Macedonia
- Moldova
- Montenegro
- Serbia
- Turkey
- Ukraine

The goals of the performance program are to:

- Support DCC implementation;
- Ensure adherence to Mastercard Standards;
- Improve the cardholder experience; and
- Support the expansion of acquirers', merchants', and ATM owners' DCC business.



## 3.2 THE GLOBAL POI CURRENCY CONVERSION PERFORMANCE PROGRAM

Mastercard introduced the Global POI Currency Conversion Performance Program to support DCC activities at a global level. This program covers all countries not included in the Enhanced European DCC Performance Program.

## 3.3 REGISTRATION

If an acquirer offers DCC at any of their merchant/ATM locations, the acquirer must **register themselves and any DCC service providers**:

- If an acquirer does not use a third party service provider, they must register themselves as their own service provider.
- An acquirer does not need to register the merchant/ATM locations where DCC is offered.
- Registration is performed at the Customer ID (CID) level; therefore, it is not necessary to register individual ICA numbers, provided that the ICA numbers fall under the same CID.
- The responsibility for fees remains with the acquirer, even in cases when they are using a service provider.
- Initial and renewal fees are charged per registration — regardless of whether an acquirer or service provider is the registree. An acquirer may register multiple service providers.
- Any of the ICA numbers under the registered CID that are set up for billing can be designated as the billing ICA number.
- Registration automatically renews in July of each year until the customer marks the service provider, or the DCC service, as terminated.

### 3.3.1 REGISTRATION PROCESS

Registration is completed through the **My Company Manager** application on Mastercard Connect. Users must have **Business Administrator** access to add or modify a registration.

To add or modify a registration, select **POI Currency Conversion/DCC** in the checklist of services provided and indicate the **effective date**. This date can be set in the future, but it cannot be backdated. Once submitted, registration details are updated in real time.

Step-by-step guides are available on Mastercard Connect. To access:

1. Click the **Support** tab.
2. Select **About products and services** on the left side of the screen under Categories.
3. Click **Manage My Company guides and videos** from the list under My Company Manager.

The guides contain screenshots and videos. Translations are available on My Company Manager in simplified Chinese, French, Portuguese, Russian, and Spanish.

Additionally, the **Mastercard Service Provider Registration Guide** is accessible in the **Rules** application on the **References** page of the **Technical Resource Center** on Mastercard Connect. To access:

1. Click the **Support** tab.
2. Select **Technical Resource Center** on the right side of the screen under Publication documents.
3. Click **References** on the left side of the screen under Browse Documents.
4. Select the **Rules** application from the list under References.

### 3.4 MARKET AUDITING AND MONITORING

To ensure that DCC is deployed in accordance with the applicable Standards, an independent, external organization conducts extensive auditing on behalf of Mastercard through "mystery shopping".

The audit primarily, but not exclusively, focuses on:

- Choice and transparency for the cardholder;
- Absence of default conversion;
- Screen clarity as per Mastercard Standards; and
- Accuracy in transaction messages.

Any location for which Mastercard has previously received a **cardholder complaint** may be included for further investigation in an upcoming audit.

### 3.5 EFFECTIVE IMPLEMENTATION OF ANY CORRECTIVE PLANS

Any issues encountered during the audit will be communicated to the acquirer, and they will need to develop a corrective plan to be agreed upon with the Mastercard Acceptance Performance team. The corrective action plan will be considered successful when the actions in the plan have been implemented and confirmed by a second audit.

### 3.6 CARDHOLDER COMPLAINTS

A cardholder may raise a complaint (directly to Mastercard or their issuing bank) about the DCC process when they have not been made fully aware of any of the following:

- Choice of currency;
- Transaction amount in both currencies; or
- Exchange rate.

When Mastercard receives a complaint, the Acceptance Performance team investigates the complaint and then notifies the acquirer of the initial findings. The acquirer must respond within the set timeframe and with all of the information requested by the team. Where appropriate, the acquirer will be asked to take action to remedy the complaint.

Once confirmation has been received from the acquirer that the complaint has been addressed at the merchant and/or ATM owner level, Mastercard's auditing team will test the acquirer's corrective actions to ensure that the merchant's and/or ATM owner's performance is in accordance with Mastercard Standards.



## Case Study: Cardholder Choice

**Scenario:** *While visiting continental Europe from London, I paid for dinner at a restaurant by card. The wait staff brought a portable terminal to my table, inserted my card, and then passed the terminal to me to enter my PIN. After entering my PIN, I gave the terminal back to the wait staff. They pressed a few other buttons, then gave me the receipt.*

*To my surprise, I noticed that I had been charged in GBP instead of EUR. I asked the wait staff to reverse and correct the transaction, but they didn't know how to do it.*

**Issues:** *Automatic DCC; Insufficient merchant training on DCC*

When DCC is performed without the cardholder's knowledge, this practice is referred to as **automatic DCC**, and it is the most common type of cardholder complaint. It is also a typical example of issues encountered during merchant audits.

In this instance, the choice of currency conversion was offered on the terminal, but it was performed after the cardholder's PIN had been entered, and the option was not conveyed to the cardholder by the wait staff. This is not the correct procedure and is not permitted under Mastercard Standards.

**Resolution:** The choice of currency conversion always should be offered to the cardholder before they enter their PIN. The cardholder's PIN provides confirmation and approval of the transaction that is about to occur and should therefore always be the **last step** in the transaction submission to the issuer for authorization.

The terminal screen should clearly state the option of DCC prior to the cardholder entering their PIN, and it should prompt them at that time to choose either the local currency or their billing currency for the transaction. This helps avoid confusion or disappointment by the cardholder.

The merchant's staff must be provided with the required DCC service training on cardholder choice as well as voiding sales when requested by the cardholder.

Other common examples of automatic DCC applied in different acceptance environments include but are not limited to:

- **Retail merchant** – DCC was automatically applied to the transaction either by improper terminal software specifications or because the merchant chose DCC on the cardholder's behalf.
- **E-commerce** – DCC was applied to an internet transaction because the option to opt out was either unclear or nonexistent.
- **ATM** – An ATM offered DCC to a cardholder but only gave the option to accept or cancel, or the ATM did not process the transaction according to the cardholder's choice due to incorrect software specifications.
- **Car rental merchant** – A car rental company automatically applied DCC without informing the cardholder. The information about DCC was not clearly identified or was hidden in the paperwork.
- **Hotel** – A hotel offered DCC to a cardholder using an advice slip on which the cardholder was asked to write a checkmark next to their currency choice. However, the merchant did not respect the cardholder's choice and instead performed a "back office" DCC transaction.





### 3.7 CARDHOLDER CHARGEBACK RIGHTS

If a cardholder complains that they were not given a currency choice for a DCC transaction, or DCC was otherwise performed incorrectly, the issuer has a chargeback right against the acquirer.

For further details regarding this right, refer to the **Point-of-Interaction Error** section in the Dual Message System Chargebacks chapters of the **Chargeback Guide**.



## Case Study: Cardholder Chargeback Rights

**Scenario:** *I booked a hotel on the internet. When I went on my trip, I was given a receipt by the hotel staff which showed that two months prior to my arrival in the country (when I was not present and had no way of choosing), the hotel used DCC and chose GBP rather than the local currency. This has happened to me a few times with different retailers when travelling. However, I did not know that it was possible to complain.*

*The receipts that I received from these retailers stated, "I understand I have been offered a choice of currencies and this choice is final."*

*The portion of this statement that dissuaded me from doing anything about the multiple times that DCC was applied without my consent was the "this choice is final" part. I did not know that I could dispute anything.*

**Issues:** *Automatic DCC; Lack of cardholder knowledge of the complaints process and their chargeback rights; Incorrect/misleading receipt disclaimer information*

Automatic DCC is strictly prohibited, and cardholders have **chargeback rights** when DCC is applied without their consent or performed incorrectly. Wording such as "choice is final", "no recourse", or similar statements can mislead or intimidate cardholders into believing that they do not have the right to raise disputes.

**Resolution:** Acquirers, merchants, and ATM owners must not add disclaimer language to receipts that discourages cardholders from exercising their right to dispute incorrectly applied DCC charges.



# 4. SCREEN AND RECEIPT PERFORMANCE GUIDANCE

This section contains guidance on requirements for implementing DCC screens and receipts in accordance with Mastercard Standards. The examples in subsections 4.1.1, "Requirements", and 4.1.2, "Unacceptable Screen Elements", cover both POS and ATM acceptance environments. The requirements apply equally across **all acceptance environments**, with the exception of the standard cardholder disclosure disclaimer which is not required for attended POS terminals.

## 4.1 TERMINAL SCREENS

When DCC is offered via a terminal screen interface in any acceptance environment, the screen must present all of the required cardholder disclosure information in a clear and neutral manner.

### 4.1.1 REQUIREMENTS

Below are examples of screen elements that meet Mastercard Standards. These examples are provided **for illustration purposes only**.

In the case of an attended POS terminal DCC offer, the merchant must proactively offer the DCC screen to the cardholder.

**Figure 1: Examples of ATM Screens That Meet Mastercard Standards**

**You can choose to be charged for this withdrawal in local currency or directly in your home currency** 1

|                    |                        |   |
|--------------------|------------------------|---|
| Withdrawal amount  | EUR XX,XX              | 2 |
| ATM access fee     | EUR X,XX               | 3 |
| Exchange rate*     | EUR 1.00 = GBP X,XXXXX | 2 |
| Transaction amount | GBP XX,XX              | 2 |

Make sure you understand the costs of currency conversion as they may be different depending on whether you select your home currency or the transaction currency 4

\* Exchange rate is computed from the ECB exchange plus a X,XX% markup 3

Charge EUR XX,XX 6      Charge GBP XX,XX 3

**This ATM offers two types of cash withdrawal transactions** 1

Make sure you understand the costs of currency conversion as they may be different depending on whether you select your home currency or the transaction currency 4

| WITHOUT CONVERSION   | WITH CONVERSION   |
|--|---|
| Withdrawal Amount: XX,XX GBP   | Withdrawal Amount: XX,XX GBP 2  |
| This amount will be subsequently calculated according to your card issuer's exchange rate. 7 | Exchange rate provided by [XXX] 2<br>1 GBP = X,XXXX EUR including X% markup 3 |
|  | Your account charge: XX,XX 2  |

Accept without conversion 6      Accept with conversion 2

- 1 Offer wording clearly informs the cardholder of a choice between two options without bias toward either one.
- 2 Amounts in local and billing currencies are displayed, as well as the exchange rate being used.
- 3 Any applicable fees and markups are clearly disclosed.

**NOTE: A markup is a commercial agreement between an acquirer and a merchant/ATM owner, and it does not necessarily reflect a comparison to market exchange rates. However, local regulations in some areas may require comparison to central bank exchange rates.**

- 4 Standard cardholder disclosure disclaimer is exactly word-for-word as written in the *Transaction Processing Rules* manual.
- 5 Central bank exchange rate noted where required.
- 6 Cardholder is given two positive options using separate and equivalent buttons that are clear and consistent with the rest of the screen.
- 7 Additional information provides increased clarity to cardholders.

All information is presented in English or in the cardholder's native language.

**Figure 2: Examples of POS Terminal Screens That Meet Mastercard Standards**

**1** Cardholder is clearly asked to choose a currency.

**2** Amounts in local and billing currencies are displayed, as well as the exchange rate being used.

**3** Any applicable fees and markups are clearly disclosed.

**NOTE: A markup is a commercial agreement between an acquirer and a merchant/ATM owner, and it does not necessarily reflect a comparison to market exchange rates. However, local regulations in some areas may require a comparison to central bank exchange rates.**

**4** Cardholder is given two positive options using separate and equivalent buttons that are clear and consistent with the rest of the screen.

**5** Options are mapped to neutral keys on the terminal.

All information is presented in English or in the cardholder's native language.

### 4.1.2 UNACCEPTABLE SCREEN ELEMENTS

Below are examples of screen elements that do not meet Mastercard Standards and would be identified as audit failures. These examples apply equally across **all acceptance environments** and are not comprehensive of all types of performance issues or violations of Mastercard Standards.

**Figure 3: Examples of ATM Screens That DO NOT Meet Mastercard Standards**

**1** Offer wording singles out DCC as the only option, instead of advising the cardholder of the option to pay in **either the local currency or the cardholder's billing currency**.

**NOTE: This practice is considered leading, and the cardholder is not sufficiently informed by the presence of the option buttons alone.**

**2** Presents the decision as positive/negative choices, such as "yes/no", "accept/decline", "continue/cancel", or similar pairs of options.

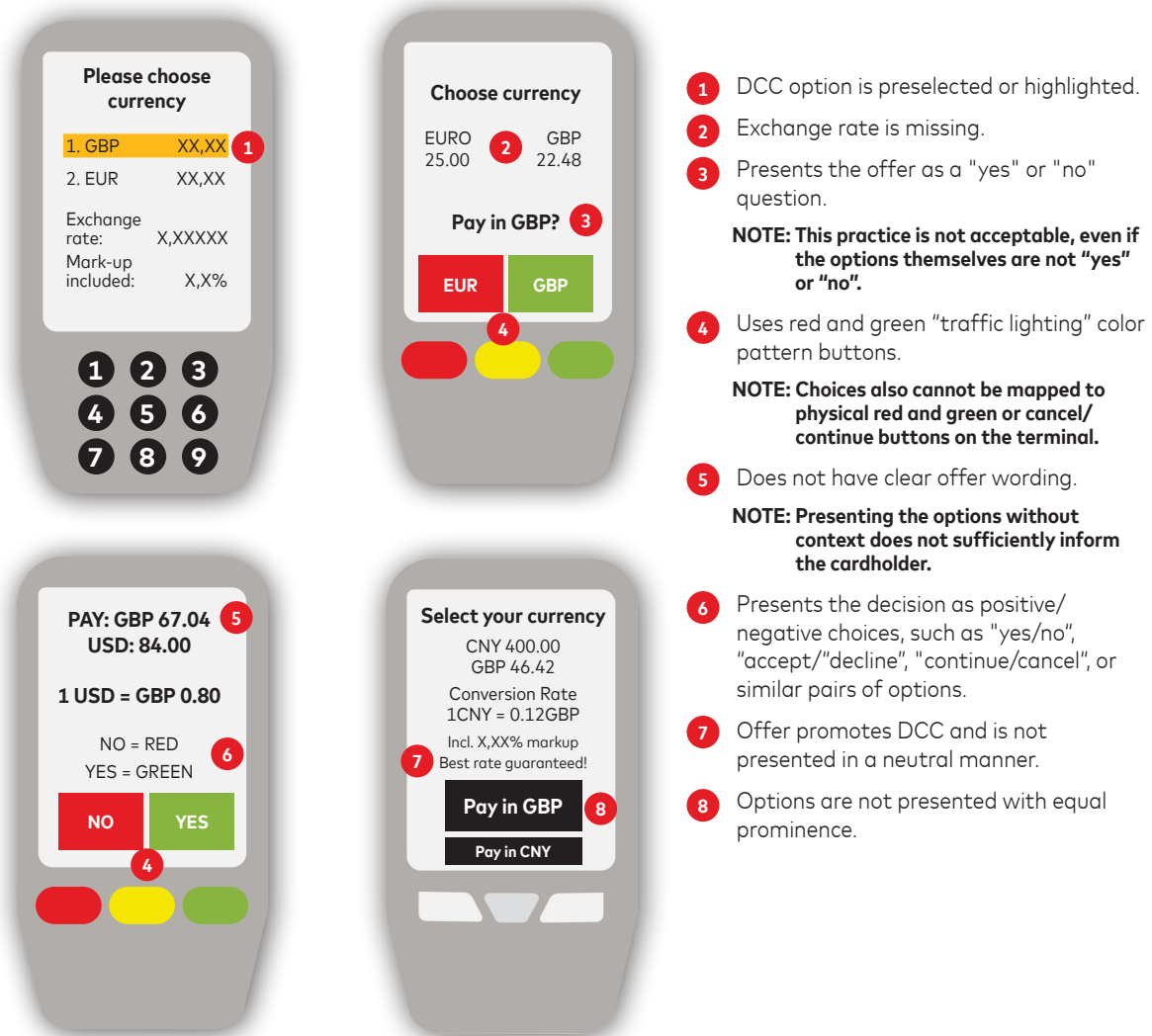
**3** Offer promotes DCC and is not presented in a neutral manner.

**4** Disclaimer is hidden on another screen.

**5** Confusing layout; options are not placed in an equally prominent manner.

**6** Presumptive of issuer's conversion process and represents it negatively.

**Figure 4: Examples of POS Terminal Screens That DO NOT Meet Mastercard Standards**

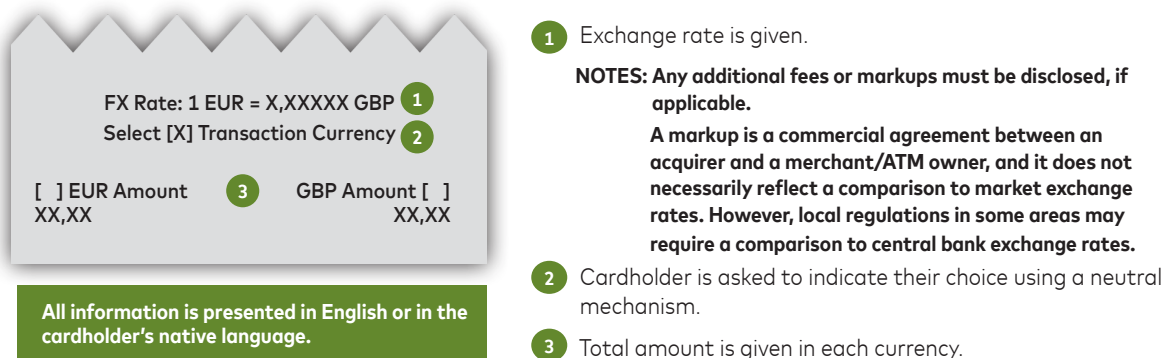


- 1 DCC option is preselected or highlighted.
- 2 Exchange rate is missing.
- 3 Presents the offer as a "yes" or "no" question.  
**NOTE: This practice is not acceptable, even if the options themselves are not "yes" or "no".**
- 4 Uses red and green "traffic lighting" color pattern buttons.  
**NOTE: Choices also cannot be mapped to physical red and green or cancel/continue buttons on the terminal.**
- 5 Does not have clear offer wording.  
**NOTE: Presenting the options without context does not sufficiently inform the cardholder.**
- 6 Presents the decision as positive/negative choices, such as "yes/no", "accept/decline", "continue/cancel", or similar pairs of options.
- 7 Offer promotes DCC and is not presented in a neutral manner.
- 8 Options are not presented with equal prominence.

## 4.2 ADVICE SLIPS

If hard copy advice slips are used, they must contain the same details that a terminal screen offer would, such as the elements illustrated below. Refer to subsection 5.2.3, "Advice Slips", of this guide for more information on advice slips.

**Figure 5: Example of Advice Slip That Meets Mastercard Standards**



## 4.3 TRANSACTION RECEIPTS

Regardless of whether the cardholder selects DCC, the cardholder must receive a receipt confirming the details of the transaction. If DCC was applied, the receipt must include the total transaction amount in each currency, the currency codes or symbols, and the exchange rate.

**Figure 6: Examples of Transaction Receipts That Meet Mastercard Standards**

### ATM

|                     |                     |   |
|---------------------|---------------------|---|
| Withdrawal Amount:  | XX,XX EUR           | 1 |
| Access Fee:         | X,XX EUR            | 2 |
| Total Amount:       | XX,XX EUR           | 1 |
| Exchange Rate:      | 1 EUR = X,XXXXX GBP | 3 |
| Mark-up Included:   | X%                  | 2 |
| Transaction Amount: | XX,XX GBP           | 1 |

1 Original transaction amount in the local currency and the final amount charged in the billing currency are recorded.

2 Any applicable fees and markups are recorded.

**NOTE: A markup is a commercial agreement between an acquirer and a merchant/ATM owner, and it does not necessarily reflect a comparison to market exchange rates. However, local regulations in some areas may require a comparison to central bank exchange rates.**

3 Exchange rate applied to the transaction is recorded.

### POS

|                                     |                     |   |
|-------------------------------------|---------------------|---|
| Total Amount:                       | XX,XX EUR           | 1 |
| Exchange Rate:                      | 1 EUR = X,XXXXX GBP | 3 |
| Mark-up Included:                   | X%                  | 2 |
| Transaction Amount With Conversion: | XX,XX GBP           | 1 |

Mastercard does not have a standard receipt disclaimer. At their discretion, the acquirer may add their own disclaimers, in alignment with the following requirements:

- Disclaimers must not reference Mastercard; and
- The cardholder must not be discouraged from exercising their chargeback rights.

**Figure 7: Example of Transaction Receipt That DOES NOT Meet Mastercard Standards**

|  |   |
|--|---|
| I have chosen not to use the <b>Mastercard</b> <b>currency conversion</b> process and I will have <b>no recourse or remedies</b> against [XXX] or against <b>Mastercard</b> concerning the currency rate or disclosure | 1 |
|  | 2 |
|  | 1 |

1 Disclaimer references Mastercard.

**NOTE: Mastercard does not perform currency conversion; this statement is incorrect. Mastercard must not be mentioned in reference to DCC.**

2 Cardholder is discouraged from exercising their chargeback rights.

**Mastercard's previous standard disclaimer language applied to receipts as well as to terminals, but the disclaimer was updated in 2015. Using the previous disclaimer language does not meet Mastercard Standards.**



# 5. CARDHOLDER EXPERIENCE PERFORMANCE GUIDANCE

The most important aspect of DCC is cardholder choice—the cardholder must be presented with appropriate options and not be forced to accept DCC by default.

Merchants offering DCC must abide by the core principles of clear choice and transparency, including all of the cardholder disclosure requirements described in subsection 2.2.2, “Cardholder Disclosure”, of this guide. Most importantly, merchants must honor cardholder choice and never apply DCC by default.

## 5.1 MERCHANT TRAINING

**Acquirers** must ensure that:

- New merchants starting to offer DCC understand the requirements of offering this service and apply them systematically; and
- Staff at existing DCC merchants must be regularly trained and retrained so they are kept up-to-date about these requirements.

In addition, merchants should be trained to proactively offer DCC in a neutral, transparent manner.

**Merchants must integrate** DCC training into their staff orientation processes and ensure that a train-the-trainer program is established for merchants with high staff turnover (e.g., retail) to ensure operational continuity.

Mastercard encourages acquirers to conduct their own mystery shopping tests of their merchants.

**Table 4: Recommended DCC Training Topics**

| Topic                                 | Description  |
|---------------------------------------|--|
| <b>Introduction</b>                   | Providing an overview of the DCC service offering  |
| <b>Cardholder choice</b>              | Reinforcing that cardholders must be given a choice of which currency to complete the transaction  |
| <b>Terminal visibility</b>            | Providing guidance on making sure that terminal visibility to the cardholder is part of DCC service offering clarity                                       |
| <b>Language selection on terminal</b> | Ensuring that the offer wording can be presented in a language that the cardholder understands   |
| <b>Contactless thresholds</b>         | Explaining the thresholds and their significance – DCC must not be offered under the prescribed thresholds   |
| <b>PIN</b>                            | Ensuring that the DCC service offering is made to the cardholder <b>before</b> they are asked to enter their PIN, if a PIN is required for the transaction |
| <b>Receipts</b>                       | Reinforcing that the offering of a receipt to the cardholder is mandatory  |
| <b>Pre-authorization</b>              | Defining the term and when this option may be used for DCC transactions  |
| <b>Tip adjustments</b>                | Instructing how to process a transaction where the cardholder has selected DCC and added a tip (gratuity)  |
| <b>Voiding the sale</b>               | Explaining how to correctly reverse a transaction where DCC has been incorrectly or accidentally selected or applied                                       |
| <b>Refunds</b>                        | Instructing how to provide refunds on transactions where DCC has been selected or applied  |

## 5.2 MERCHANT COMMUNICATION METHODS FOR OFFERING DCC IN ATTENDED POS ENVIRONMENTS

In an attended POS environment, the DCC offer and the required cardholder disclosure information can be presented through three different methods:

- Verbally by the merchant staff;
- Visually via the POS terminal screen; or
- In-hand by providing a printed advice slip.

This subsection contains best practice guidance for each type of communication method.

### 5.2.1 VERBAL ASSISTANCE

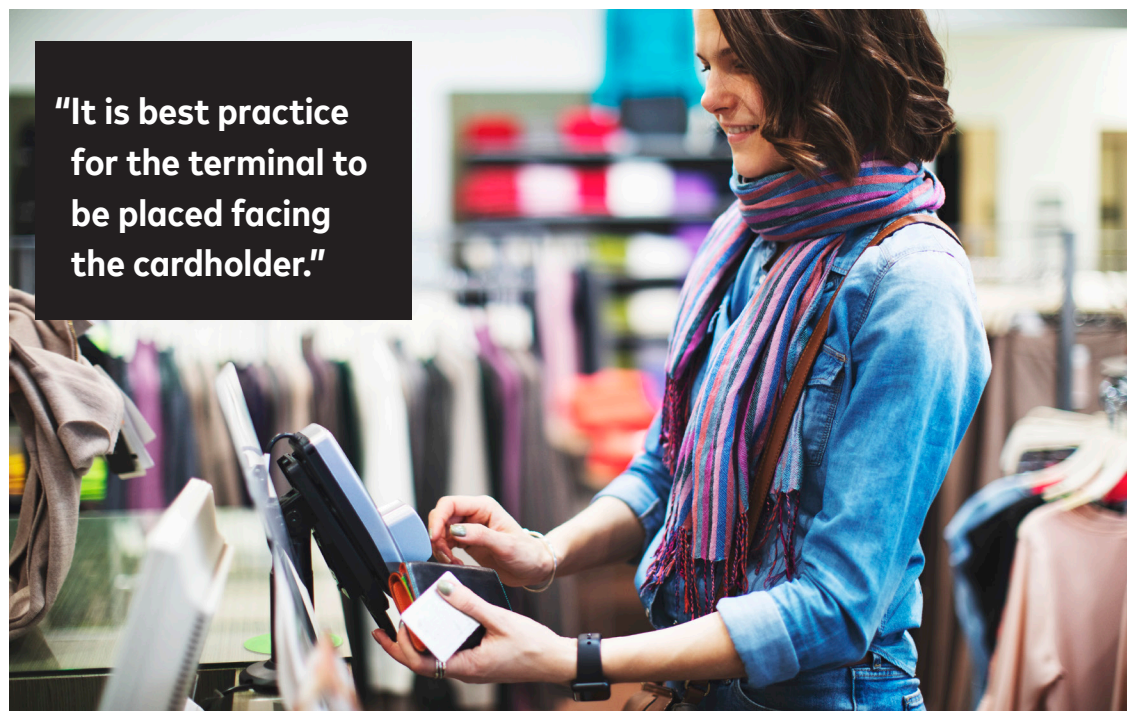
For a cardholder to have a positive experience using DCC, the merchant staff member must be able to answer basic questions about DCC and the transaction as well as to provide transparency during the process.

### 5.2.2 TERMINAL SCREENS

A terminal-led solution helps ensure that the cardholder disclosure requirements are consistently met by providing all of the necessary information on-screen. Therefore, it is best practice for the terminal to be placed **facing the cardholder** instead of placed behind the counter where the cardholder cannot see it.

If the merchant must hand the terminal to the cardholder to offer DCC, then a prompt should be added to the screen to remind the merchant staff member to do so.

Cardholder access to the terminal screens can help overcome language barriers and reduce the potential for human error.



### 5.2.3 ADVICE SLIPS

When terminal screen software or space limitations prevent all of the required DCC information from being displayed, an advice slip can be printed out as an alternate way of providing DCC information to the cardholder.

Merchants must provide the advice slip to the cardholder and respect the cardholder's indicated selection. If the cardholder does not make a selection, then the transaction must be processed in the merchant's local currency.



## Case Study: Merchant Transparency

**Scenario:** *On my last trip, I was offered DCC with all of the currency conversion information presented to me on advice slips. I was impressed to see a solution that overcame the language barrier, and I felt confident that I could make informed decisions. However, it was disappointing that some merchants neglected to provide the advice slip or give me the choice. Additionally, sometimes my receipt did not reflect the conversion details.*

**Issues:** *Merchant oversight or error; Insufficient merchant staff training on DCC*

Merchant staff neglecting to provide advice slips or to ensure that transaction receipt information is complete are common gaps in the cardholder's DCC experience encountered in audits.

**Resolution:** Merchants must provide the cardholder with clear DCC options — either using an advice slip or simply by putting all of the required cardholder disclosure information on the terminal or website screen. This disclosure is a fundamental requirement under Mastercard Standards.

Proper software controls must be implemented to enable DCC to be offered correctly and mitigate the possibility of merchant oversight or error. All on-screen messages should be clear and comprehensive, in English or in the cardholder's native language, to avoid language barriers and to help ensure that the cardholder understands the offer.

At the completion of the transaction, the receipt must contain a record of the conversion details. When there are two separate receipts for the DCC information and the purchase itself, merchant staff must provide both.

Ensuring proper merchant training is essential to maintaining best practices in any transaction where DCC is an option. Merchants must proactively make all necessary information available to the cardholder, both before and after the transaction. Mastercard strongly recommends that acquirers periodically refresh merchant training to help ensure that merchant staff always follows the correct process for offering DCC.



### 5.3 PREAUTHORIZED TRANSACTIONS

If DCC is performed on a preauthorized transaction, the total amount billed by the merchant cannot exceed the amount of the preauthorization.

#### 5.3.1 HOTELS

In an express checkout transaction, there must be an advance, documented agreement from the cardholder that they have accepted the DCC offer.

The agreement should contain the following information:

- The specific merchant's pricing currency in which the transaction will take place;
- The total including all fees (commission, VAT, etc.) applied to the DCC transaction;
- A declaration that:
  - The cardholder understands that DCC will take place without further consultation;
  - The exchange rate will be determined on the date that the transaction is processed (final authorization);

- The cardholder has the right to change their mind and opt out of DCC – in which case, there will be no express checkout; and
- An acknowledgement that the cardholder has been offered a choice of currencies, including the merchant's local currency.

### 5.3.2 CAR RENTAL AGENCIES

Car rental merchants offering DCC service are expected by Mastercard to adhere to the same DCC requirements as other merchants offering this service.

#### 5.3.2.1 CAR RENTAL PREFERRED CUSTOMER PROGRAMS

If the cardholder has no interaction with a rental sales agent at the time of returning the car, a notice must be provided to the cardholder that explains the currency in which they will be billed as well as any currency conversion commission, fees, or markup on the exchange rate. The transaction should use the exchange rate on the day that the car is returned, and the cardholder must be advised when making their currency selection that the exchange rate may be subject to change.

As part of the cardholder's response to the notice, the merchant must obtain the cardholder's express written agreement to apply DCC to the car rental transaction by the time that the car is returned and acknowledgement that they were offered a choice of currencies for payment. If the cardholder does not respond to this notice from the rental car merchant, then the merchant must use the **local currency** for the transaction.





# 6. FREQUENTLY ASKED QUESTIONS

This section contains responses to questions frequently asked by acquirers and issuers.

## 6.1 FOR ACQUIRERS

The responses in this section are intended to provide DCC implementation guidance to acquirers.

### 6.1.1 I WANT TO START OFFERING DCC, WHAT DO I NEED TO DO?

If you are planning to offer DCC, you must first register yourself or any DCC service provider that you want to offer this service on your behalf. For details, refer to subsection 3.3, "Registration", of this guide.

Additionally, you or your DCC service provider, as appropriate, must work with the Mastercard Customer Implementation Services (CIS) team to complete an Extension Business Program project. This project will ensure the following:

- The screen message as well as the receipt sample are validated in alignment with current Mastercard Standards; and
- The transaction data in the authorization and clearing messages is correctly identified and populated.

### 6.1.2 I WANT TO STOP OFFERING DCC AND I AM CURRENTLY IN THE EUROPE REGION. HOW DO I DEACTIVATE THIS OFFERING TO AVOID THE ANNUAL FEES?

There is no formal deactivation process. If an ICA number stops processing DCC transactions, it will no longer appear on the list for billing. This stoppage can be performed at any time in the year, and the fees will be prorated. For example, if DCC transactions are stopped in March 2020, the proration would run from October 2019 to March 2020.

### 6.1.3 ARE THERE RESTRICTIONS ON WHICH CURRENCIES OR IN WHICH COUNTRIES DCC CAN BE OFFERED? CAN DCC BE OFFERED IN MULTIPLE CURRENCIES?

The DCC program does not place any restrictions on currencies or countries. DCC with multiple currencies is allowed, and the currencies that an acquirer offers is based on their business decision.

## 6.2 FOR ISSUERS

The responses in this section are intended to help issuers respond to common DCC-related questions from cardholders and to provide guidance on how issuers can best support their cardholders when DCC complaints are received.

### 6.2.1 WHAT DO I DO IF I HAVE A COMPLAINT FROM MY CARDHOLDER REGARDING DCC THAT WAS PERFORMED INCORRECTLY?

If your cardholder informs you that currency conversion was performed incorrectly or without their consent, they have the option to submit a chargeback to seek financial remedy. Please assist your cardholder in initiating the dispute process.

The cardholder can also report these incidents to the Mastercard Point-of-Interaction (POI) Currency Conversion team via the **askMastercard** platform online (<https://www.mastercard.us/en-us/personal/get-support/ask-mastercard-webform.html>), on Twitter (<https://twitter.com/askmastercard>), or directly via e-mail at [poi\\_currency\\_conversion@mastercard.com](mailto:poi_currency_conversion@mastercard.com).

Mastercard takes these reports very seriously and conducts performance investigations in



response to these reports. Advise the cardholder to provide a scan of their transaction receipt and make sure that the following information is clearly legible:

- Merchant name;
- Transaction date;
- Transaction amount; and
- Last 4 digits of the cardholder's Mastercard card number.

If the cardholder no longer has a copy of the receipt, they can look up this information on their account statement.

### 6.2.2 THE EXCHANGE RATE MARKUP DISCLOSED TO MY CARDHOLDER DOES NOT SEEM TO BE AN ACCURATE COMPARISON TO THE MARKET EXCHANGE RATES. HOW IS THE MARKUP SET?

A markup is a **standalone fee** added on top of the exchange rate based on a commercial agreement between the merchant or ATM owner and their acquirer. Since it is a fee, it should be viewed as such and not as a comparison of exchange rates.

Exchange rates and markups are set by merchants and ATM owners and their acquirers because DCC is a service offered by them, not by Mastercard. Mastercard does not control their pricing nor add any fees.

### 6.2.3 DOES MASTERCARD ADD FEES TO FOREIGN TRANSACTIONS?

Mastercard does not charge any fees to cardholders. If a cardholder decides to pay in their card billing currency, then the merchant or ATM owner and their acquirer may add fees for providing the DCC service, which should be clearly disclosed in the DCC offer and on the cardholder's receipt.

### 6.2.4 HOW DOES A CARDHOLDER OPT OUT OF DCC OR CAN I PROVIDE AN OPTION FOR A CARDHOLDER TO AUTOMATICALLY OR PERMANENTLY OPT OUT OF DCC?

A cardholder should always be given the choice of currency in which to pay for a transaction so that they can choose to pay in the local currency instead of using DCC to pay in their billing currency.

However, it is not possible to automatically or permanently opt out because DCC is offered and performed by merchants/ATM owners and their acquirers within their acceptance infrastructure. Therefore, issuers cannot control whether or not DCC is performed on a transaction. Also, blocking all DCC transactions on a card would prevent card acceptance and violate Mastercard Standards.

Although declining a transaction based on **cardholder-designated** restrictions is acceptable, declining a DCC transaction does not cause the transaction to be processed in the local currency. Instead, the decline causes additional friction to the cardholder.

The only exception applies to cardholders using prepaid travel cards or debit multicurrency cards. Acquirers are prohibited from offering DCC to them.

### 6.2.5 WHAT KIND OF PROOF IS NEEDED TO SUBMIT A CHARGEBACK FOR A DUAL MESSAGE TRANSACTION WHEN DCC IS INCORRECTLY APPLIED?

The only supporting documentation required for a POI currency conversion dual message chargeback is the cardholder's description of their complaint. For more information, refer to the *Chargeback Guide* or contact the Dispute Resolution Management team.