

Dynamic Currency Conversion (DCC)

Dynamic Currency Conversion (DCC) allows a non-domestic cardholder, while travelling, to have a choice to pay in their home currency instead or the base currency used by the merchant. This may provide a better rate than their credit card provider, at times.

For DCC transactions integrated with Fexco, SCA application sends a rate request for each transaction directly to Fexco. This request includes the first 8 digits of the PAN to help Fexco identify the card issuer's country and corresponding currency.

Fexco responds with relevant currency conversion details, which the application prompts the user for currency selection, if the card is a foreign card. If Fexco responds the card as a local card, transaction will be processed in local currency.

To support DCC Fexco functionality, it is mandatory to enable the Clear BIN 8 Digits feature (CLEAR_BIN_8_DIGITS) in the CAMCORE.INI configuration.

For EMV cards, the application includes logic to verify if the issuer country code matches the terminal currency. If they match, the application will not send a rate request to Fexco.

Refer to [DCC Parameters](#) for more details on DCC parameters.

Note

From this version of publication, the HFEX.DAT configuration file for DCC Fexco is no more applicable.

DCC - SAF Eligibility

SCA application also approve DCC transactions offline if it meets the SAF eligibility criteria based on USD amount. The transaction will be processed online in DCC using the rate and currency selected by the cardholder at the time when transaction was stored offline. This scenario would be coming into play if device has got DCC rate through an acquirer, however, loses connectivity to the gateway while processing the DCC selection of cardholder. This feature can be controlled by ALLOWDCCTOSAF parameter. Disabling this parameter would result in approving the transactions in Local Currency.

Example DCC Screen

DCC selection screen is added as part of the transaction flow after card data validation for the user to select the home currency if the transaction is eligible for DCC.



DCC Controller

DCC Controller is added to handle initializing and DCC processing as part of the payment flow. This controller performs all required actions to check the DCC eligibility for the current transaction and update command object with the currency details. This controller provides the following two services:

Fields	Description
initDCC	This service is used to initialize and perform all actions, needed for DCC processing.
DCCProcessing	This service is used to check the DCC eligibility for the given transaction and prompts the user for currency selection.

Following fields are description which are sent in host request to PWC if transaction is eligible for DCC. These fields are added to CAPTURE and REFUND sections of HostMessages.xml file.

Field Name	Rules	Data Types	Length	Description
DCC_IND	Required for DCC transaction	Integer	1	DCC Indicator. Valid values: <ul style="list-style-type: none">1 - Transaction is DCC eligible and cardholder has accepted the option.2 - Transaction is not eligible for DCC.3 - Transaction is DCC eligible yet cardholder has not accepted the option.

Field Name	Rules	Data Types	Length	Description
DCC_TRAN_AMOUNT	Conditional	VARCHAR	16	<p>The transaction amount provided by SCA that has been calculated in the currency requested by the Cardholder.</p> <ul style="list-style-type: none"> • Device will be responsible for sending all amounts with or without decimals to PWC, based on the requirements of the currency code. • PWC will only be required to explicitly remove the decimal when sending transaction to FDRC. • If DCC_TRAN_AMOUNT is provided, FDRC Requires DCC_CURR_CODE and DCC_CONV_RATE to also be provided. • DCC_TRAN_AMOUNT required for DCC_IND = 1.
DCC_CONV_RATE	Conditional	Decimal	7	<p>The DCC Conversion Rate provided by SCA that was used in calculating the DCC_TRAN_AMOUNT.</p> <ul style="list-style-type: none"> • DCC_CONV_RATE is required for DCC_IND=1. • FDRC Requires DCC_CONV_RATE to be provided any time DCC_TRAN_AMOUNT is provided.
DCC_CURR_CODE	Required for DCC transaction	Integer	3	<p>The DCC Currency Code used for DCC Calculations. This value will be standardized across all Countries. FDRC Requires DCC_CURR_CODE to be provided on all DCC Attempts including DCC_IND 1,2,3.</p>
DCC_DATETIME	Conditional	DateTime	20	<p>This indicates the date and time, when the DCC conversion took place. This is a PWC requirement as the DCC calculation will occur prior to the transaction being sent to PWC. This is used as an Audit Trail. This value will be provided by SCA/Merchants Integration.</p>

Field Name	Rules	Data Types	Length	Description
				<p>This is the time zone for the DCC_DATETIME that will be provided by SCA/Merchants Integration.</p> <ul style="list-style-type: none"> • FDRC requires DCC_TIMEZONE field to be provided. • If DCC_TIMEZONE is provided, then this must be sent as +- and 2-digit hour offset from GMT. • If DCC_TIMEZONE is not provided by SCA, then PWC will default to the Merchants TimeZone as configured in PWC.
DCC_TIMEZONE	Conditional	Integer	3	
				<p>The source of the DCC Rates will be provided as an Audit Trail for PWC:</p> <ul style="list-style-type: none"> 0 - Merchant Supplied Values 1 - Device-FEXCO Direct 2 - PWC xxxx (Reserved for Future Use) and so on.
DCC_SOURCE	Conditional	Integer	1	
				<p>The source of the calculation of DCC_TRAN_AMOUNT. This will be used in as an Audit Trail for PWC:</p> <ul style="list-style-type: none"> 0 - Merchant Supplied Values 1 - PWC performs calculation based on DCC_CONV_RATE provided by Merchant 2 - Reserved for future use
DCC_CALCULATION	Conditional	Integer	1	

Example DCC Receipt

Point Solutions Ver 2.19.24

PHASE 1

BUSINESS RECEIPT

Client ID:100010001

Merchant ID:9792

Terminal ID:001

05/27/16

17:57:11

SALE

Invoice:654

Account:MASTERCARD *****0134

Payment Type:CREDIT

Cardholder:FDMS*DCC*TEST*CARD

Card Entry Mode:Swiped

Result:APPROVED

Authorization Code:OK0633

CTroutd:87

Approved Amount:ZAR 117.15

Subtotal: USD\$ 16.00

Total: USD\$ 16.00

Card Holder Currency:ZAR

Exchange Rate:7.3220

Rate Includes : 3.50 % Margin

Transaction Currency: ZAR 117.15

I have been offered a choice of
currencies and agree to pay in