



electronic payment exchange

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10/14/16	2.1	C. Meaney	Updated XML examples throughout; added HTTPS examples. Added new Timeout Reversal section.
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7/22/2021	2.6	M. Billips	Add online return auth only / capture only and MC pre / final auth support.
8/12/2021	2.7	M. Billips	Add ACI_EXT language to Sale CCE1 / Edit Sale CCEN

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Ecommerce overview

This guide contains information on mandatory and optional fields for the following types of transactions commonly used in an ecommerce environment:

- account verification
- sales
- authorizations
- captures
- refunds/returns
- reversals
- edit sales
- voids

BRIC/Token Information

The EPX BRIC (GUID TokenName) can be used to create new transactions within the EPX system, it is important to understand how long the value will be available for this use. BRICs received with the response of a financial transaction, such as an authorization, will only be accessible for 13 months from creation. This limitation applies to all financial BRICs by default. Since each financial transaction created with a BRIC receives a new BRIC in the response, a common practice is for merchants to replace the previous BRIC with the new one, as this new token is valid for a new 13-month interval.

For those merchants who need the BRIC availability to exceed this limitation, the BRIC Storage transaction is available and will create BRICs that will be accessible indefinitely.

For more information on the usage of BRICs, please refer to the *EPX BRIC Reference manual*.

NOTE: CVV2 is not stored to the BRIC for future use. In order to receive the best possible interchange rates (for card present transactions), the track data must be sent with each transaction.

Field types

The sections that follow provide examples of each transaction type. Within the examples, some fields are listed as mandatory and others as optional.

Note the following about mandatory and optional fields:

- Mandatory fields are shown in **bold** and need to be submitted with the transaction request to ensure a successful response.
- Optional fields can be omitted; however, optional fields might still be used during the transaction. For example, if optional AVS fields are provided, they are validated and an AVS response is sent back. Also, a merchant's profile can be set up to make some optional fields mandatory to comply with Risk and Underwriting requirements.

Transaction types

Account verification (CCE0)

The account verification transaction is used to validate a customer's account information before running a financial transaction. This is done by sending a \$0.00 amount during the transaction.

NOTES:

- Not all issuers will respond with an approval on this transaction; however, the AVS and CVV2 responses may still be legitimate.
- An AUTH_RESP code of "00" or "85" can be returned by the issuer and should be interpreted as an approval. Any other response code should be handled as a decline.
- American Express does not validate on CVV2 for this transaction type. The AUTH_CVV2 field will contain a Null value or will be completely omitted from the EPX response message.

Account information

In the following example, the ACCOUNT_NBR and EXP_DATE are used to process the account verification transaction.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE0</TRAN_TYPE>
<AMOUNT>0.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>111</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference a previous credit card transaction BRIC in the EPX system. When performing a GUID/BRIC account verification transaction, it is also optional to send the EXP_DATE field with the transaction. The GUID/BRIC in the response can then be used to process new GUID/BRIC transactions using the previous account information and updated expiration date.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE0</TRAN_TYPE>
<AMOUNT>0.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>112</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRUDDY6B4A8EDR7</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=112&TRAN_TYPE=CCE0&AMOUNT=0 .00&BATCH_ID=20161013&TRAN_NBR=112&ORIG_AUTH_GUID=09KEFRUDDY6B4A8EDR7&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377

Sale (CCE1)

The sale transaction is an authorization and capture within the same transaction. Because of this, the authorization is immediately captured by the EPX platform so no additional transaction is required to capture the authorization. If the sale is approved, the transaction will close and settle during the next batch close time for funding to take place.

Account Information

In the following example, the ACCOUNT_NBR and EXP_DATE are used to process the sale transaction. When the sale transaction is run against the account number, the authorization and capture will occur for the dollar amount in the transaction.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE1</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>113</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE1&AMOUNT=77.00&BATCH_ID=20161013&TRAN_NBR=113&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference a previous credit card transaction BRIC in the EPX system. Since the EPX BRIC is a unique reference value, there is no need to send the account information. When the sale transaction is run against the account number from the BRIC, the authorization and capture will occur for the dollar amount in the transaction. The GUID/BRIC sale is commonly used to collect funds from a customer after the initial purchase using the card information, such as in recurring or card on file payment models. When performing a GUID/BRIC Sale transaction, it is also optional to send the EXP_DATE field with the transaction. The GUID/BRIC in the response can then be used to process new GUID/BRIC transactions using the previous account information and updated expiration date. For more information on card on file and recurring transactions, please reference the respective transaction specifications.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE1</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>114</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRUDDY6B4A8EDR7</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE1&AMOUNT=77.00&BATCH_ID=20161013&TRAN_NBR=114&ORIG_AUTH_GUID=09KEFRUDDY6B4A8EDR7&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

Authorization Only (CCE2)

The authorization only transaction is an authorization that will hold funds equal to the AMOUNT of the transaction on a cardholders' account. A subsequent capture transaction is required in order for settlement and funding to take place. However, when no capture is performed, the funds that are held from the authorization will not be made available to the cardholder until the issuing bank releases them which is typically 3-10 days later. The card brands usually allow up to 30 days to capture the authorization, because of this the EPX platform will not allow an authorization BRIC to be captured after the 30 day window. If there is no intention to capture and settle the authorization, a reversal should be performed on the authorization BRIC per card brand rules.

- EPX supports incremental and partial authorizations.
 - For additional information on incremental authorizations, reference the Incremental Authorization Transaction Specifications.
 - For additional information on partial authorizations, reference the Partial Authorization section in the Data Dictionary.

IMPORTANT!

MasterCard offers the ability to indicate an authorization transaction as a "Normal Authorization / Undefined Finality" (Pre-Auth) or "Final Authorization". The EPX platform will send all authorization only requests to MasterCard as "Normal Authorization/Undefined Finality" or "Open Auth". If there is a need to indicate the MasterCard authorization only as "Final Authorization", an ACI_EXT value of "AF" must be present in the transaction request.

NOTE: MasterCard is the only Network that currently supports the Pre-Auth / Final-Auth logic.

Account information

In the following example, the ACCOUNT_NBR and EXP_DATE are used to process the authorization only transaction. When the authorization transaction is run against the account number, the authorization occurs for the AMOUNT in the transaction.

Note: The authorization must be captured in order for settlement and funding to take place.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE2</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>115</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE2&AMOUNT=77.00&BATCH_ID=20161013&TRAN_NBR=115&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference a previous credit card transaction BRIC in the EPX system. Since the EPX BRIC is a unique reference value, there is no need to send the account information. When the authorization transaction is run against the account number from the BRIC, the authorization occurs for the AMOUNT in the transaction. When performing a GUID/BRIC authorization transaction, it is also optional to send the EXP_DATE field with the transaction. The GUID/BRIC in the response can then be used to process new GUID/BRIC transactions using the previous account information and updated expiration date.

Note: The authorization must be captured in order for settlement and funding to take place.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE2</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>116</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRUDDY6B4A8EDR7</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE2&AMOUNT=77.00&BATCH_ID=20161013&TRAN_NBR=116&ORIG_AUTH_GUID=09KEFRUDDY6B4A8EDR7&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

MasterCard Final Authorization w/ Account information

In the following example, the ACCOUNT_NBR and EXP_DATE are used to process a MasterCard authorization only transaction as a Final Authorization with the inclusion of the ACI_EXT tag containing a value of "AF". When the authorization transaction is run against the account number, the authorization occurs for the AMOUNT in the transaction.

Note:

The authorization must be captured in order for settlement and funding to take place.

If the ACI_EXT tag with a value of "AF" is not present in the authorization only request, it will be sent as "Normal Authorization/Undefined Finality" (Pre-Auth) transaction.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE2</TRAN_TYPE>
<ACI_EXT>AF</ACI_EXT>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>210722</BATCH_ID>
<TRAN_NBR>115</TRAN_NBR>
<ACCOUNT_NBR>501111111111119</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE2&ACI_EXT=AF
&AMOUNT=77.00&BATCH_ID=210722&TRAN_NBR=115&ACCOUNT_NBR=501111111111119&EXP_DATE=4
912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADD
RESS=123+Main+Street&CITY=wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer
ID 773377
```

MasterCard Final Authorization w/ GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference a previous credit card transaction BRIC in the EPX system to process a MasterCard authorization only transaction as a Final Authorization with the inclusion of the ACI_EXT tag containing a value of "AF". Since the EPX BRIC is a unique reference value, there is no need to send the account information. When the authorization transaction is run against the account number from the BRIC, the authorization occurs for the AMOUNT in the transaction. When performing a GUID/BRIC authorization transaction, it is also optional to send the EXP_DATE field with the transaction. The GUID/BRIC in the response can then be used to process new GUID/BRIC transactions using the previous account information and updated expiration date.

Note:

The authorization must be captured in order for settlement and funding to take place.

If the ACI_EXT tag with a value of "AF" is not present in the authorization only request, it will be sent as "Normal Authorization/Undefined Finality" (Pre-Auth) transaction.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE2</TRAN_TYPE>
<ACI_EXT>AF</ACI_EXT>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>210722</BATCH_ID>
<TRAN_NBR>116</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRUDDY6B4A8EDR7</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE2&ACI_EXT=AF
&AMOUNT=77.00&BATCH_ID=210722&TRAN_NBR=116&ORIG_AUTH_GUID=09KEFRUDDY6B4A8EDR7&CARD
_ENT_METH=Z&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123
+Main+Street&CITY=wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID
773377
```

Capture (CCE4)

The capture transaction is used to capture a previous authorization to allow settlement to occur. A capture can be run for an AMOUNT equal or less than the amount of the referenced authorization. If the capture is approved, the transaction will close and settle during the next batch close time in order for funding to take place.

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference the previous authorization BRIC in the EPX system. Since the EPX BRIC is a unique reference value, there is no need to send additional information such as the account number or customer information.

If the capture is approved, the transaction will close and settle during the next batch close time for funding to take place.

Note: A void can be performed on an open capture that has not been closed or settled and this course of action will reopen the original authorization BRIC for it to be captured again. This is typically used when there previous capture AMOUNT needs to be adjusted.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE4</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>117</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRVNWYTW11GYE4V</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=117&TRAN_TYPE=CCE4&AMOUNT=7
7.00&BATCH_ID=20161013&TRAN_NBR=117&ORIG_AUTH_GUID=09KEFRVNWYTW11GYE4V&CARD_ENT_ME
TH=Z&INDUSTRY_TYPE=E
```

Account Information with AUTH_CODE

In the following example, the AUTH_CODE from the authorization response is being used with the ACCOUNT_NBR and EXP_DATE to reference the previous authorization. The EPX platform will perform a lookup and attempt to link the capture to the original authorization BRIC.

Preferably, merchants should use the original Authorization BRIC when performing a capture; however, the AUTH_CODE is available to support merchants who may not have the original Authorization BRIC for reasons such as having a voice authorization environment. If the capture is approved, the transaction will close and settle during the next batch close time for funding to take place.

Note: A void can be performed on an open capture that has not been closed or settled and this course of action will reopen the original authorization BRIC for it to be captured again. This is typically used when there previous capture AMOUNT needs to be adjusted.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE4</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
```

```
<TRAN_NBR>118</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<AUTH_CODE>007731</AUTH_CODE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE4&AMOUNT=77 .  

00&BATCH_ID=20161013&TRAN_NBR=118&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&  

AUTH_CODE=007731&CARD_ENT_METH=E&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NA  

ME=Tester&ADDRESS=123+Main+Street&CITY=wilmington&STATE=DE&ZIP_CODE=12345&USER_DAT  

A_1=Customer ID 773377
```

Non-Auth BRIC with AUTH_CODE

In the following example, a non-Authorization BRIC is being used to provide account information while using the AUTH_CODE from the original authorization and sending the AUTH_SOURCE field with a value of "OTHER". The EPX platform will perform a lookup and attempt to link the capture to the original authorization BRIC. If the capture is approved, the transaction will close and settle during the next settlement time.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE4</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>119</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRVNWYTW11GYE4V</ORIG_AUTH_GUID>
<AUTH_SOURCE>OTHER</AUTH_SOURCE>
<AUTH_CODE>007731</AUTH_CODE>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
```

</DETAIL>

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE4&AMOUNT=77.00&BATCH_ID=20161013&TRAN_NBR=119&ORIG_AUTH_GUID=09KEFRVNWYTW11GYE4V&AUTH_SOURCE=0THER&AUTH_CODE=007731&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

Refund/Return (CCE9)

The refund or return transaction is a transaction used to return funds to an account previously acted upon by a settled sale or capture transaction. A single refund for the full amount of the original transaction or numerous partial refunds can be performed with dollar amounts less than and not to exceed the total amount of the original sale or capture being acted upon.

IMPORTANT!

Before sending the refund/return request to the Issuer, the EPX platform will automatically convert TRAN_TYPE "CCE9" in the transaction request to a "CCEA" (Return Authorization & Capture) only for the supporting card brands and to accommodate Network processing requirements. As a result, the response message will contain the newly returned "CCEA" value in the TRAN_TYPE field (instead of CCE9).

* An AUTH_RESP code of "00" or "85" can be returned by the issuer and should be interpreted as an approval. Any other response code should be handled as a decline.

The original TRAN_TYPE "CCE9" that was included in the initial request will be in the ORIG_TRAN_TYPE response field and can be used for matching purposes by the client.

As a general rule, please ensure the client application is never hardcoded to the TRAN_TYPE field and value in the response message.

NOTE: To receive the optional ORIG_TRAN_TYPE tag in the response message from EPX, the EPX terminal profile must be set with a minimum Response Version of 8.

EPX recommends that the client application implements logic to support the submission of the ORIG_BATCH_ID and ORIG_TRAN_NBR fields in the transaction request for the Refund/Return CCE9 transaction.

To help reduce the scope of potential refund abuse, and based on Underwriting/Risk rules, in some circumstances merchant accounts may require these tags to be present in all Return/Refund request messages. The Card Networks may eventually make this a mandate as well. To accommodate this possibility, EPX recommends that these fields are dynamically supported by the client application.

The ORIG_BATCH_ID and ORIG_TRAN_NBR fields will need to contain the original values that were sent in the BATCH_ID and TRAN_NBR fields within the original transaction request message of the following types:

- Sale Authorization and Capture (CCE1)
- Authorization Only (CCE2)
- Capture Only (CCE4)

These values must be populated in the respective ORIG_BATCH_ID and ORIG_TRAN_NBR fields and included with the Refund/Return (CCE9) request message.

NOTE: Some merchants' business models may require the support of "saleless" refunds/returns. For these cases, the aforementioned logic for ORIG_BATCH_ID and ORIG_TRAN_NBR can be overridden by parameters within the merchant Profile. This will need to be accessed and approved by Risk/Underwriting.

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference the previous sale or capture BRIC in the EPX system. Since the EPX BRIC is a unique reference value, there is no need to send additional information such as the account number or customer information. If the return is approved, the transaction will close and settle during the next batch close time in order for the funds to move from the merchant account back to the cardholder account being acted upon.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE9</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>137</BATCH_ID>
<TRAN_NBR>120</TRAN_NBR>
<ORIG_AUTH_GUID>09KGMR71RAVBB5U6PY0</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<ORIG_BATCH_ID>777</ORIG_BATCH_ID>
<ORIG_TRAN_NBR>321</ORIG_TRAN_NBR>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE9&AMOUNT=77.00&BATCH_ID=137&TRAN_NBR=120&ORIG_AUTH_GUID=09KGMR71RAVBB5U6PY0V&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&ORIG_BATCH_ID=777&ORIG_TRAN_NBR=321
```

Response Example with Terminal Response Version of 8, to include ORIG_TRAN_TYPE

```

<RESPONSE>
<FIELDS>
<FIELD KEY="MSG_VERSION">003</FIELD>
<FIELD KEY="CUST_NBR">1234</FIELD>
<FIELD KEY="MERCH_NBR">1234567</FIELD>
<FIELD KEY="DBA_NBR">1</FIELD>
<FIELD KEY="TERMINAL_NBR">1</FIELD>
<FIELD KEY="TRAN_TYPE">CCEA</FIELD>
<FIELD KEY="BATCH_ID">137</FIELD>
<FIELD KEY="TRAN_NBR">120</FIELD>
<FIELD KEY="LOCAL_DATE">031419</FIELD>
<FIELD KEY="LOCAL_TIME">152813</FIELD>
<FIELD KEY="AUTH_GUID">09KGMR77GDJ32PPMPYR</FIELD>
<FIELD KEY="AUTH_RESP">00</FIELD>
<FIELD KEY="AUTH_CODE">001890</FIELD>
<FIELD KEY="AUTH_AVIS">Z</FIELD>
<FIELD KEY="AUTH_RESP_TEXT">ZIP MATCH</FIELD>
<FIELD KEY="AUTH_CARD_TYPE">V</FIELD>
<FIELD KEY="AUTH_TRAN_DATE_GMT">03/14/2019 09:28:12 PM</FIELD>
<FIELD KEY="AUTH_AMOUNT_REQUESTED">77.00</FIELD>
<FIELD KEY="AUTH_AMOUNT">77.00</FIELD>
<FIELD KEY="AUTH_CURRENCY_CODE">840</FIELD>
<FIELD KEY="NETWORK_RESPONSE">00</FIELD>
<FIELD KEY="AUTH_CARD_COUNTRY_CODE">840</FIELD>
<FIELD KEY="AUTH_CARD_CURRENCY_CODE">840</FIELD>
<FIELD KEY="AUTH_CARD_B">C</FIELD>
<FIELD KEY="AUTH_CARD_C">F</FIELD>
<FIELD KEY="AUTH_CARD_E">N</FIELD>
<FIELD KEY="AUTH_CARD_F">Y</FIELD>
<FIELD KEY="AUTH_CARD_G">N</FIELD>
<FIELD KEY="AUTH_CARD_I">Y</FIELD>
<FIELD KEY="AUTH_MASKED_ACCOUNT_NBR">*****1111</FIELD>
<FIELD KEY="ORIG_TRAN_TYPE">CCE9</FIELD>
</FIELDS>
</RESPONSE>

```

Account Information

In the following example, the ACCOUNT_NBR and EXP_DATE are being used to reference a previous sale or capture in the EPX system. If the return is approved, the transaction will close and settle during the next batch close time in order for the funds to move from the merchant account back to the cardholder account being acted upon.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE9</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>137</BATCH_ID>
<TRAN_NBR>121</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<ORIG_BATCH_ID>777</ORIG_BATCH_ID>
<ORIG_TRAN_NBR>323</ORIG_TRAN_NBR>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE9&AMOUNT=77.00&BATCH_ID=137&TRAN_NBR=121&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&ORIG_BATCH_ID=777&ORIG_TRAN_NBR=323&CVV2=123&FIRST_NAME=Tedd y&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

Response Sample with Terminal Response Version of 8 to include ORIG_TRAN_TYPE

```
<RESPONSE>
<FIELDS>
<FIELD KEY="MSG_VERSION">003</FIELD>
<FIELD KEY="CUST_NBR">1234</FIELD>
<FIELD KEY="MERCH_NBR">1234567</FIELD>
<FIELD KEY="DBA_NBR">1</FIELD>
<FIELD KEY="TERMINAL_NBR">1</FIELD>
<FIELD KEY="TRAN_TYPE">CCEA</FIELD>
<FIELD KEY="BATCH_ID">137</FIELD>
<FIELD KEY="TRAN_NBR">121</FIELD>
<FIELD KEY="LOCAL_DATE">031419</FIELD>
<FIELD KEY="LOCAL_TIME">153330</FIELD>
<FIELD KEY="AUTH_GUID">09KGMR7H86B0ALM9PQ8</FIELD>
<FIELD KEY="AUTH_RESP">00</FIELD>
<FIELD KEY="AUTH_CODE">001898</FIELD>
<FIELD KEY="AUTH_AVIS">Y</FIELD>
<FIELD KEY="AUTH_CVV2">M</FIELD>
<FIELD KEY="AUTH_RESP_TEXT">EXACT MATCH</FIELD>
<FIELD KEY="AUTH_CARD_TYPE">V</FIELD>
<FIELD KEY="AUTH_TRAN_DATE_GMT">03/14/2019 09:33:29 PM</FIELD>
<FIELD KEY="AUTH_AMOUNT_REQUESTED">77.00</FIELD>
```

```

<FIELD KEY="AUTH_AMOUNT">77.00</FIELD>
<FIELD KEY="AUTH_CURRENCY_CODE">840</FIELD>
<FIELD KEY="NETWORK_RESPONSE">00</FIELD>
<FIELD KEY="AUTH_CARD_COUNTRY_CODE">840</FIELD>
<FIELD KEY="AUTH_CARD_CURRENCY_CODE">840</FIELD>
<FIELD KEY="AUTH_CARD_B">C</FIELD>
<FIELD KEY="AUTH_CARD_C">F</FIELD>
<FIELD KEY="AUTH_CARD_E">N</FIELD>
<FIELD KEY="AUTH_CARD_F">Y</FIELD>
<FIELD KEY="AUTH_CARD_G">N</FIELD>
<FIELD KEY="AUTH_CARD_I">Y</FIELD>
<FIELD KEY="AUTH_MASKED_ACCOUNT_NBR">*****1111</FIELD>
<FIELD KEY="ORIG_TRAN_TYPE">CCE9</FIELD>
</FIELDS>
</RESPONSE>

```

Refund/Return Authorization and Capture (CCEA)

The return CCEA transaction is an authorization and capture within the same transaction. Because of this, the authorization is immediately captured by the EPX platform so no additional transaction request is required to capture the authorization. When a return authorization and capture transaction is run against an account number or BRIC, the authorization occurs and will appear on the cardholder account for the dollar amount in the transaction. If the return authorization and capture is approved, the transaction will close and settle during the next batch close time in order for the funds move from the merchant account back to the cardholder account being acted upon.

IMPORTANT!

- The CCEA return authorization and capture is supported by card brands Visa, MasterCard, and Discover. American Express does not support this transaction type.
- Not all Visa and MasterCard issuers support the CCEA return authorization and capture.
- An AUTH_RESP code of "00" or "85" can be returned by the issuer and should be interpreted as an approval. Any other response code should be handled as a decline.

EPX recommends that the client application implements logic to support the submission of the ORIG_BATCH_ID and ORIG_TRAN_NBR fields in the transaction request for the refund/return authorization and capture CCEA transaction.

To help reduce the scope of potential refund abuse, and based on Underwriting/Risk rules, in some circumstances merchant accounts may require these tags to be present in all return/refund request messages. The Card Networks may eventually make this a mandate as well. To accommodate this possibility, EPX recommends that these fields are dynamically supported by the client application.

The ORIG_BATCH_ID and ORIG_TRAN_NBR fields will need to contain the original values that were sent in the BATCH_ID and TRAN_NBR fields within the original transaction request message of the following types:

- Sale Authorization and Capture (CCE1)
- Authorization Only (CCE2)
- Capture Only (CCE4)

These values must be populated in the respective ORIG_BATCH_ID and ORIG_TRAN_NBR fields and included with the refund/return authorization and capture (CCEA) request message.

NOTE: Some merchants' business models may require the support of "saleless" refunds/returns. For these cases, the aforementioned logic for ORIG_BATCH_ID and ORIG_TRAN_NBR can be overridden by parameters within the merchant Profile. This will need to be accessed and approved by Risk/Underwriting.

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference the previous sale or capture BRIC in the EPX system. Since the EPX BRIC is a unique reference value, there is no need to send additional information such as the account number or customer information. If the return authorization and capture is approved, the transaction will close and settle during the next batch close time in order for the funds to move from the merchant account back to the cardholder account being acted upon.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEA</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>137</BATCH_ID>
<TRAN_NBR>120</TRAN_NBR>
<ORIG_AUTH_GUID>09KGMR71RAVBB5U6PY0</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<ORIG_BATCH_ID>777</ORIG_BATCH_ID>
<ORIG_TRAN_NBR>321</ORIG_TRAN_NBR>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCEA&AMOUNT=77.00&BATCH_ID=137&TRAN_NBR=120&ORIG_AUTH_GUID=09KGMR71RAVBB5U6PY0V&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&ORIG_BATCH_ID=777&ORIG_TRAN_NBR=321
```

Account Information

In the following example, the ACCOUNT_NBR and EXP_DATE are being used to reference a previous sale or capture in the EPX system. If the return authorization and capture is approved, the transaction will close and settle during the next batch close time in order for the funds to move from the merchant account back to the cardholder account being acted upon.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEA</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>137</BATCH_ID>
<TRAN_NBR>121</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<ORIG_BATCH_ID>777</ORIG_BATCH_ID>
<ORIG_TRAN_NBR>323</ORIG_TRAN_NBR>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCEA&AMOUNT=77.00&BATCH_ID=137&TRAN_NBR=121&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&ORIG_BATCH_ID=777&ORIG_TRAN_NBR=323&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

Refund/Return Authorization and Capture Hold (CCEA) with ACI “AH”

The return CCEA transaction that contains an ACI value of “AH” is an authorization and capture hold transaction that will reflect the return AMOUNT of the transaction on a cardholders’ account. A subsequent return capture hold release CCEG transaction is required in order for the CCEA return hold to be released for settlement and funding to take place. When a return authorization and capture hold transaction is run against an account number or BRIC, the authorization occurs in real time and will appear on the cardholder account for the dollar amount in the transaction. Once the return capture hold release (CCEG) is

processed and is approved it will close and settle during the next batch close time in order for the funds move from the merchant account back to the cardholder account being acted upon.

IMPORTANT!

- The ACI tag with a value of "AH" must be included with the transaction request in order for it to process as a return authorization and capture "hold", otherwise the CCEA transaction will process as a standard return authorization and capture.
- The CCEA return authorization and capture is supported by card brands Visa, MasterCard, and Discover. American Express does not support this transaction type.
- Not all Visa and MasterCard issuers support the CCEA return authorization only.
- An AUTH_RESP code of "00" or "85" can be returned by the issuer and should be interpreted as an approval. Any other response code should be handled as a decline.

EPX recommends that the client application implements logic to support the submission of the ORIG_BATCH_ID and ORIG_TRAN_NBR fields in the transaction request for the refund/return authorization and capture CCEA transaction.

To help reduce the scope of potential refund abuse, and based on Underwriting/Risk rules, in some circumstances merchant accounts may require these tags to be present in all return/refund request messages. The Card Networks may eventually make this a mandate as well. To accommodate this possibility, EPX recommends that these fields are dynamically supported by the client application.

The ORIG_BATCH_ID and ORIG_TRAN_NBR fields will need to contain the original values that were sent in the BATCH_ID and TRAN_NBR fields within the original transaction request message of the following types:

- Sale Authorization and Capture (CCE1)
- Authorization Only (CCE2)
- Capture Only (CCE4)

These values must be populated in the respective ORIG_BATCH_ID and ORIG_TRAN_NBR fields and included with the refund/return authorization only (CCEA) request message.

NOTE: Some merchants' business models may require the support of "saleless" refunds/returns. For these cases, the aforementioned logic for ORIG_BATCH_ID and ORIG_TRAN_NBR can be overridden by parameters within the merchant Profile. This will need to be accessed and approved by Risk/Underwriting.

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference the previous sale or capture BRIC in the EPX system. Since the EPX BRIC is a unique reference value, there is no

need to send additional information such as the account number or customer information. When the return authorization and capture hold transaction is run against the account number from the BRIC, the authorization occurs for the AMOUNT in the transaction. When performing a GUID/BRIC authorization transaction, it is also optional to send the EXP_DATE field with the transaction. The GUID/BRIC in the response can then be used to process new GUID/BRIC transactions using the previous account information and updated expiration date.

Note: The return authorization and capture hold BRIC must be released (CCEG) in order for settlement and funding to take place.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEA</TRAN_TYPE>
<ACI>AH</ACI>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>137</BATCH_ID>
<TRAN_NBR>120</TRAN_NBR>
<ORIG_AUTH_GUID>09KGMR71RAVBB5U6PY0</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<ORIG_BATCH_ID>777</ORIG_BATCH_ID>
<ORIG_TRAN_NBR>321</ORIG_TRAN_NBR>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCEA&ACI=AH&AMOUNT=77.00&BATCH_ID=137&TRAN_NBR=120&ORIG_AUTH_GUID=09KGMR71RAVBB5U6PY0V&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&ORIG_BATCH_ID=777&ORIG_TRAN_NBR=321
```

Account Information

In the following example, the ACCOUNT_NBR and EXP_DATE are being used to reference a previous sale or capture in the EPX system. When the return authorization and capture hold transaction is run against the account number, the authorization occurs for the AMOUNT in the transaction.

Note: The return authorization and capture hold BRIC must be released (CCEG) in order for settlement and funding to take place.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEA</TRAN_TYPE>
<ACI>AH</ACI>
<AMOUNT>77.00</AMOUNT>
<BATCH_ID>137</BATCH_ID>
<TRAN_NBR>121</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<ORIG_BATCH_ID>777</ORIG_BATCH_ID>
<ORIG_TRAN_NBR>323</ORIG_TRAN_NBR>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCEA&ACI=AH&AMOUNT=77.00&BATCH_ID=137&TRAN_NBR=121&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&ORIG_BATCH_ID=777&ORIG_TRAN_NBR=323&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377

Return/Refund Authorization Capture Hold Release (CCEG)

The return authorization and capture hold release transaction is used to release the hold on an open return authorization and capture hold (CCEA with ACI value of "AH") to allow settlement to occur. If the AMOUNT is included in the return hold release request, it must match the AMOUNT from the return authorization and capture hold (CCEA) transaction or it will decline. If the AMOUNT is not included with the return hold release request the amount from the return authorization and capture hold (CCEA) transaction will be used. If the return hold release is approved, the transaction will close and settle during the next batch close time in order for funding to take place.

GUID/BRIC

In the following example, the ORIG_AUTH_GUID is being used to reference the previous return authorization and capture hold BRIC in the EPX system. Since the EPX BRIC is a unique

reference value, there is no need to send additional information such as the account number or customer information. If the return authorization and capture hold release is approved, the transaction will close and settle during the next batch close time for funding to take place.

Note: If a void is performed on an open CCEA return authorization and capture (regardless of "hold" status) that has not been closed or settled, a new return authorization and capture CCEA will need to be processed in order for the cardholder to receive credit.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEG</TRAN_TYPE>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>117</TRAN_NBR>
<ORIG_AUTH_GUID>09LXZ3RGQGWHXFPZGPM</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<AMOUNT>77.00</AMOUNT>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=117&TRAN_TYPE=CCEG&BATCH_ID=20161013&TRAN_NBR=117&ORIG_AUTH_GUID=09KEFRVNWYTW11GYE4V&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&AMOUNT=77.00
```

Reversal (CCE7)

The reversal transaction is used to remove the authorization hold on a credit card and void the transaction within the same request. This will release the funds that are being held at the issuing bank. The EPX BRIC sent during this transaction is one from an open / unsettled sale (CCE1) or open / uncaptured authorization (CCE2) transaction. It is important to note that a small percentage of issuing banks do not honor the reversal and will decline the transaction. In scenarios where the initial reversal (CCE7) transaction attempt is declined by the issuer, a void (CCEX) transaction should be sent to ensure that the transaction is voided so it does not settle and funding does not take place.

- EPX supports partial reversals.
 - For additional information on partial reversals, reference the Partial Reversal section in the Data Dictionary.

NOTE: The reversal (CCE7) transaction type cannot be used on capture only (CCE4) or return (CCE9) transactions.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE7</TRAN_TYPE>
<ORIG_AUTH_GUID>09KEFZ10B57JFAWKEEJ</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>122</TRAN_NBR>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE7&ORIG_AUTH_
GUID=09KEFZ10B57JFAWKEEJ&CARD_ENT_METH=Z&INDUSTRY_TYPE=E&BATCH_ID=20161013&TRAN_NB
R=122
```

Timeout Reversal (CCE7)

The timeout reversal transaction is used when the connection is disrupted during a transaction (timeout) and no response is received from the Host. This transaction provides evidence that the initial transaction was not successful, and/or prevents the possibility of duplicate transaction authorizations. An EPX BRIC will not be present since the client application or device did not receive a response from the Host.

To perform a timeout reversal, you must include the exact BATCH_ID and TRAN_NBR that was used for the initial transaction. This reversal request must be sent within 2 minutes of the original transaction as there are time limitations

NOTE: If the initial transaction did not process successfully or load to the EPX database, the response will contain an AUTH_RESP value of "25" (unable to locate).

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE7</TRAN_TYPE>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>115</TRAN_NBR>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE7&BATCH_ID=2
0161013&TRAN_NBR=115
```

Void (CCEX)

The void transaction is used to stop a sale, capture, or refund transaction prior to settlement. If the transaction BRIC referenced by the ORIG_AUTH_GUID has already been closed or settled, this function will not be available.

NOTE: Any funds that are held during the authorization portion of the sale are not affected by the void, and will not be available until the issuing bank releases them which is typically within 3-10 days.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEX</TRAN_TYPE>
<ORIG_AUTH_GUID>09KEFZ10B57JFAWKEEJ</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>123</TRAN_NBR>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCEX&ORIG_AUTH_
GUID=09KEFZ10B57JFAWKEEJ&CARD_ENT_METH=Z&BATCH_ID=20161013&TRAN_NBR=123
```

Sale (CCE1) with Tip Functionality

The sale transaction is an authorization and capture within the same transaction. Because of this, the authorization is immediately captured by the EPX platform so no additional transaction is required to capture the authorization. If the sale is approved, the transaction will close and settle during the next batch close time for funding to take place.

IMPORTANT!

When using the Sale CCE1 and the Edit Sale CCEN for tip adjust purposes, all MasterCard Sale CCE1 transactions are required to contain the ACI_EXT tag with a value of "AO" for open authorization. This is mandated by MasterCard due to the authorization amount from the CCE1 will not match the final CCE1 capture amount after the Edit Sale CCEN takes place. If the ACI_EXT with a value of "AO" is not present with the Sale CCE1 and the merchant performs an Edit Sale CCEN to increase the CCE1 capture amount, it will result in potential data integrity penalties.

NOTE: MasterCard is the only Network that currently requires the Sale CCE1 as an open authorization when the Edit Sale CCEN is initiated to increase the CCE1 capture amount.

Track Data

In the following example, the ACCOUNT_NBR and EXP_DATE are used to process the sale transaction. When the sale transaction is run against the account number, the authorization and capture will occur for the dollar amount in the transaction.

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCE1</TRAN_TYPE>
<AMOUNT>60.00</AMOUNT>
<BATCH_ID>20161013</BATCH_ID>
<TRAN_NBR>113</TRAN_NBR>
<ACCOUNT_NBR>4111111111111111</ACCOUNT_NBR>
<EXP_DATE>4912</EXP_DATE>
<CARD_ENT_METH>E</CARD_ENT_METH>
<INDUSTRY_TYPE>E</INDUSTRY_TYPE>
<CVV2>123</CVV2>
<FIRST_NAME>Teddy</FIRST_NAME>
<LAST_NAME>Tester</LAST_NAME>
<ADDRESS>123 Main St</ADDRESS>
<CITY>Wilmington</CITY>
<STATE>DE</STATE>
<ZIP_CODE>12345</ZIP_CODE>
<USER_DATA_1>Customer ID 773377</USER_DATA_>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCE1&AMOUNT=60.00&BATCH_ID=20161013&TRAN_NBR=113&ACCOUNT_NBR=4111111111111111&EXP_DATE=4912&CARD_ENT_METH=E&INDUSTRY_TYPE=E&CVV2=123&FIRST_NAME=Teddy&LAST_NAME=Tester&ADDRESS=123+Main+Street&CITY=Wilmington&STATE=DE&ZIP_CODE=12345&USER_DATA_1=Customer ID 773377
```

Edit Sale “Authorization and Capture” (CCEN)

The edit sale - authorization and capture (CCEN) transaction is used to edit an open sale (CCE1) transaction with the tags listed below. The CCEN transaction is a BRIC-based request and can be performed only on an approved sale (CCE1) transaction that has not been voided, closed, or settled. This can be used in ecommerce restaurant models for the tip adjust process where the Tip Amount (TIP_AMT) is being specified, and the new Total Sale Amount (AMOUNT) includes the tip amount.

IMPORTANT!

When using Edit Sale CCEN to adjust amount of the Sale CCE1, all MasterCard Sale CCE1 transactions are required to contain the ACL_EXT tag with a value of “AO” for open authorization.

The ORIG_AUTH_GUID BRIC of the transaction to be edited must be provided as well as the AMOUNT tag.

If the AMOUNT in the request is set to “0.00” the transaction will not be modified and the current amount of the requested transaction to be settled will be returned in the tag AUTH_AMOUNT.

If the AMOUNT in the transaction is modified, the response will contain the new amount to be settled in the tag AUTH_AMOUNT. It is very important to understand that this will only modify / adjust the capture AMOUNT and in no way does this transaction go out to the issuer for additional authorization on the cardholder's account.

The CCEN transaction cannot be performed on a capture CCE4 transaction.

With the CCEN transaction, the following tags can be edited by sending the desired tag along with a value. Refer to the *EPX Data Dictionary* for definitions of these tags.

NOTE: To edit one or more tags without changing the original AMOUNT value, always include the original AMOUNT and its value along with the tags and data to update.

- AMOUNT
- TIP_AMT
- TAX_AMT
- TAX_EXEMPT
- USER_DATA_1
- USER_DATA_2
- USER_DATA_3
- USER_DATA_4
- USER_DATA_5
- USER_DATA_6
- USER_DATA_7
- USER_DATA_8
- USER_DATA_9
- USER_DATA_10
- INVOICE_NBR
- ORDER_NBR
- RENTAL_NBR
- FOLIO_NBR
- REFERENCE_NBR

XML

```
<DETAIL cust_nbr="1234" merch_nbr="1234567" dba_nbr="1" terminal_nbr="1">
<TRAN_TYPE>CCEN</TRAN_TYPE>
<AMOUNT>77.00</AMOUNT>
<TIP_AMT>17.00</TIP_AMT>
<BATCH_ID>20170621</BATCH_ID>
<TRAN_NBR>116</TRAN_NBR>
<ORIG_AUTH_GUID>09KEFRUDDY6B4A8EDR7</ORIG_AUTH_GUID>
<CARD_ENT_METH>Z</CARD_ENT_METH>
<INVOICE_NBR>11227799</INVOICE_NBR>
<USER_DATA_1>Customer ID 773377</USER_DATA_1>
</DETAIL>
```

HTTPS

```
CUST_NBR=1234&MERCH_NBR=1234567&DBA_NBR=1&TERMINAL_NBR=1&TRAN_TYPE=CCEN&AMOUNT=77.00&TIP_AMT=17.00&BATCH_ID=20170621&TRAN_NBR=116&ORIG_AUTH_GUID=09KEFRUDDY6B4A8EDR7&CARD_ENT_METH=Z&INVOICE_NBR=11227799&USER_DATA_1=Customer ID 773377
```