



electronic payment exchange

API - Automatic Account Updater

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REVISION HISTORY

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5/20/16	2.0	C. Meaney	Reformatting
4/27/18	2.1	C. Meaney	Added program registration information for Visa and MasterCard.

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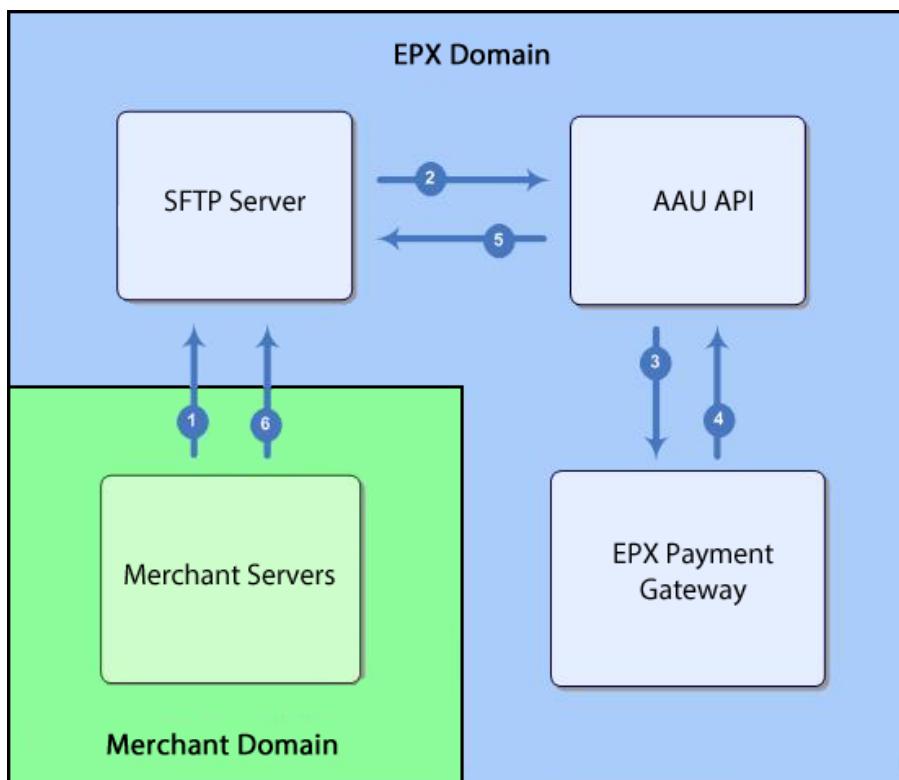
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API- Automatic Account Updater Overview

The EPX Automatic Account Updater (AAU) API is an SFTP service designed to allow merchants to update BRIC storage account information. Depending on the network and issuer participation, the updates may include changes to account numbers and expiration date.

Process Flow

The figure that follows depicts the AAU processing flow.



1. The merchant uploads the XML batch file of requests to their home directory of the EPX SFTP site using SFTP client on port 22 and the credentials provided by EPX.
2. The file is picked up by the AAU API for parsing and processing.
3. The AAU API sends each parsed request to the EPX Payment Gateway for processing.
4. The AAU API receives the response for each and combines those responses into an XML response file.
5. The AAU API places the XML response file into the home directory where the request file was retrieved.

6. The merchant then reconnects to the EPX SFTP server to retrieve the XML response file for parsing.

Request Files

The Request file is formatted using XML (Extensible Markup Language). The file needs to conform to a simple layout defined by EPX. This is done using predefined XML tags.

The layout consists of three main tags: <FILE>, <BATCH>, and <DETAIL>.

Name	Description	Allowed Number of Uses
<FILE>	unique identifier	1
<BATCH>	separate different batches in the file	1+ (depends on # of 4PK, IDs)
<DETAIL>	actual transaction identifier; can contain several different sub-tags depending on the type of the request	1+ per batch

Below is a sample of the structure of a basic XML Batch file. Refer to the appropriate Transaction Specifications manual to view a list of mandatory and optional fields for use with the transactions in that industry.

```

<FILE>
<BATCH>
<DETAIL>
</DETAIL>
<DETAIL>
</DETAIL>
...
</BATCH>
<BATCH>
<DETAIL>
</DETAIL>
...
</BATCH>
...
</FILE>

```

Tag Attributes

The <FILE> and <BATCH> tags have attributes associated with them. For information about these attributes, please refer to the *Processing Data Dictionary*.

Request Fields

The accepted fields within each detail record include the AAU ACTION_CODE, the ORIG_AUTH_GUID of the BRIC Storage transaction, and the optional USER_DATA fields 1 through 10, which can hold additional data to be part of the response file. For more information about these fields please refer to the *EPX Data Dictionary*.

Sample Request File

The following is a sample Request file.

```
<FILE file_tran_count="4" file_id="20140128C">
<BATCH batch_tran_count="4" batch_id="201401171" terminal_nbr="1" dba_nbr="1"
merch_nbr="12345" cust_nbr="1234">
<DETAIL>
<ACTION_CODE>U</ACTION_CODE>
<ORIG_AUTH_GUID>033BVRBWQKTBV379001</ORIG_AUTH_GUID>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_2>Optional</USER_DATA_2>
<USER_DATA_3>Optional</USER_DATA_3>
<USER_DATA_4>Optional</USER_DATA_4>
<USER_DATA_5>Optional</USER_DATA_5>
<USER_DATA_6>Optional</USER_DATA_6>
<USER_DATA_7>Optional</USER_DATA_7>
<USER_DATA_8>Optional</USER_DATA_8>
<USER_DATA_9>Optional</USER_DATA_9>
<USER_DATA_10>Optional</USER_DATA_10>
</DETAIL>
<DETAIL>
<ACTION_CODE>U</ACTION_CODE>
<ORIG_AUTH_GUID>033BVRBWQKTGQ1UF004</ORIG_AUTH_GUID>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_10>Optional</USER_DATA_10>
</DETAIL>
<DETAIL>
<ACTION_CODE>U</ACTION_CODE>
<ORIG_AUTH_GUID>033BVRBWQKTHA99L006</ORIG_AUTH_GUID>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_10>Optional</USER_DATA_10>
</DETAIL>
<DETAIL>
<ACTION_CODE>U</ACTION_CODE>
<ORIG_AUTH_GUID>033BVRBWQKTLURMF008</ORIG_AUTH_GUID>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_2>Optional</USER_DATA_2>
<USER_DATA_3>Optional</USER_DATA_3>
</DETAIL>
</BATCH>
</FILE>
```

File Name Convention

The following tables contain examples of the Request and Response file name conventions with each of the values identified.

NOTE: Each value is separated by an underscore character (_).

Field Name	Assigned By	Format	Details
CUST_NBR	EPX	Numeric	
MERCH_NBR	EPX	Numeric	
DATE	Merchant	Format as YYYYMMDD (Part of the File ID)	FILE_ID value must match the XML tag within the file.
FILE_MODIFIER	Merchant	0 - 9, A - F (Part of the File ID)	FILE_MODIFIER is required for the file name to be unique.
Sample File Names:			
<ul style="list-style-type: none"> Request – 1234_12345_20140128C_AAU_REQ.xml Response – 1234_12345_20140128C_AAU_RESP.xml 			

Transmission of Files

Prior to transmitting a test file to EPX, your integration specialist is required to review the format of the file. You can send your file to the EPX Integration team and you will receive feedback on its accuracy. Once the file has been reviewed you will receive credentials for connecting to the EPX Certification environment where you can transmit your file for processing.

Send your file to EPX using the industry-standard SFTP (SSH File Transfer Protocol) to provide secure file transfer.

Use the SFTP Put command (Push) to send the file. After EPX receives the merchant's Request file, EPX forwards the authorizations to the appropriate network. Upon receiving the responses from the network, EPX generates the Response file, which you receive with the SFTP Get command (Pull).

The time between the Push of the Request file and the Pull of the Response file depends on the number of requests in the Request file and the latency to the networks.

The transmission of batch files is available 24/7/365.

Response File

The Response file is formatted using XML (Extensible Markup Language). The general tags are identical to those in the Request file. The <FILE> and <BATCH> tags contain the same information as received in the Request file. The <DETAIL> tags contain the Response tags that indicate the result of the authorization request.

Tag Attributes

The <DETAIL> tag contains the response that is returned from EPX. The pieces of the response are delivered in the child elements. The <DETAIL> tag has an attribute of ORIG_AUTH_GUID, which corresponds to the <ORIG_AUTH_GUID> tag that was sent as part of the detail tag in the Request file. You can use this attribute to match this response to the originating request.

Sample Response File

Below is a sample structure of a response file. For more information about the possible AAU responses, please refer to the AUTH_RESP section of the *EPX Data Dictionary*.

```

<FILE file_id="20140128C">
<DETAIL ORIG_AUTH_GUID="033BVRBWQKTHA99L006">
<CUST_NBR>1234</CUST_NBR>
<MERCH_NBR>12345</MERCH_NBR>
<DBA_NBR>1</DBA_NBR>
<ACCOUNT_NBR>*****3861</ACCOUNT_NBR>
<SYSTEM_TRACE_GUID>009W08UHBNJQXL001A</SYSTEM_TRACE_GUID>
<AUTH_RESP>A</AUTH_RESP>
<AUTH_RESP_TEXT>Account number change message</AUTH_RESP_TEXT>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_10>Optional</USER_DATA_10>
</DETAIL>
<DETAIL ORIG_AUTH_GUID="033BVRBWQKTBV379001">
<CUST_NBR>1234</CUST_NBR>
<MERCH_NBR>12345</MERCH_NBR>
<DBA_NBR>1</DBA_NBR>
<ACCOUNT_NBR>*****4949</ACCOUNT_NBR>
<EXP_DATE>1511</EXP_DATE>
<SYSTEM_TRACE_GUID>009W08UHBV7J9E3M018</SYSTEM_TRACE_GUID>
<AUTH_RESP_TEXT>Match made; update data provided</AUTH_RESP_TEXT>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_2>Optional</USER_DATA_2>
<USER_DATA_3>Optional</USER_DATA_3>
<USER_DATA_4>Optional</USER_DATA_4>
<USER_DATA_5>Optional</USER_DATA_5>
<USER_DATA_6>Optional</USER_DATA_6>
<USER_DATA_7>Optional</USER_DATA_7>
<USER_DATA_8>Optional</USER_DATA_8>
<USER_DATA_9>Optional</USER_DATA_9>
```

```
<USER_DATA_10>Optional</USER_DATA_10>
</DETAIL>
<DETAIL ORIG_AUTH_GUID="033BVRBWQKTLURMF008">
<CUST_NBR>1234</CUST_NBR>
<MERCH_NBR>12345</MERCH_NBR>
<DBA_NBR>1</DBA_NBR>
<ACCOUNT_NBR>*****9722</ACCOUNT_NBR>
<SYSTEM_TRACE_GUID>009W08UHW064N19Z01B</SYSTEM_TRACE_GUID>
<AUTH_RESP>N</AUTH_RESP>
<AUTH_RESP_TEXT>Non participating BIN</AUTH_RESP_TEXT>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_2>Optional</USER_DATA_2>
<USER_DATA_3>Optional</USER_DATA_3>
</DETAIL>
<DETAIL ORIG_AUTH_GUID="033BVRBWQKTGQ1UF004">
<CUST_NBR>1234</CUST_NBR>
<MERCH_NBR>12345</MERCH_NBR>
<DBA_NBR>1</DBA_NBR>
<ACCOUNT_NBR>*****5842</ACCOUNT_NBR>
<SYSTEM_TRACE_GUID>009W08UHBVN899MG019</SYSTEM_TRACE_GUID>
<AUTH_RESP>P</AUTH_RESP>
<AUTH_RESP_TEXT>The account number could not be found in the ABU
database</AUTH_RESP_TEXT>
<USER_DATA_1>Optional</USER_DATA_1>
<USER_DATA_10>Optional</USER_DATA_10>
</DETAIL>
</FILE>
```

Merchant Enrollment Procedure

Overview

This chapter provides the steps used by EPX Relationship Managers and the Merchant Setup team to enroll merchants in the Account Updater programs for Visa and MasterCard.

Visa

The process for merchant enrollment in the Visa program is as follows:

1. The merchant requests enrollment in the Visa program from the EPX Relationship Manager (RM).
2. The EPX RM completes the Visa Merchant Enrollment Form on behalf of the merchant. The form is shown below:

Visa Account Updater Merchant Enrollment/Update Form



The form must be completed by acquirers enrolling merchants in the Visa Account Updater (VAU) Service. Please allow a minimum of 10 business days for setting up the merchant when selecting your merchant's service start date.

Note this form is completed electronically; all fields are required and will expand to fit the data entered. When completed, please save using the following naming convention: MerchantName_YYYY_MM_DD, inserting Merchant's Name. *Please send via email to the VAU Product Office at updater@visa.com.*

FORM TYPE	<input checked="" type="checkbox"/> Initial Enrollment	<input type="checkbox"/> Enrollment Update/Change
------------------	--	---

1. MERCHANT INFORMATION	
Merchant Full Business Name	<input type="text"/>
Parent Company Name	<input type="text"/>
Internet Address	<input type="text"/>
Merchant Category Code(s)	<input type="text"/> 4259
VAU Merchant Identification Number	<input type="text"/> <small>This field must be 12 characters long and adhere to the acquirer's merchant numbering schema (prearranged between the acquirer and the VAU Product Office).</small>
Merchant Descriptor(s) <small>Name(s) as it they appear in Visa Transactions (BASE II)</small>	<input type="text"/>
Acquirer's BIN(s) used by Merchant	<input type="text"/> <small>Acquirer's BINs used for processing merchant's transactions.</small>
Merchant Contact Name	<input type="text"/>
Email and Telephone	Email <input type="text"/> Telephone <input type="text"/>
Address	Street <input type="text"/> City <input type="text"/> Norfolk State/Province <input type="text"/> VA Zip/Postal Code <input type="text"/> 23511 Country US
Type of Biller	<input type="checkbox"/> Recurring (<i>regular billing cycle, for example, monthly membership</i>) <input type="checkbox"/> On Demand (<i>account data is stored for "occasional use", for example, auto rental preferred clubs or on-line repeat customers</i>) <input checked="" type="checkbox"/> Both
Merchant's Total Number of Accounts on File	<input type="text"/> <input type="text"/> Estimated Number of Visa Accounts on File <input type="text"/>
Visa Account Updater Inquiry Frequency	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semiannually
Please Describe Merchant's Line of Business	<input type="text"/> Local Newspaper, Circular Communication, Advertisement, Sales&Marketing

Visa Account Updater Merchant Enrollment Form
Page 2 of 2

1. MERCHANT INFORMATION

Merchant Full Business Name	[REDACTED]
If applying for a subset of a merchant's total business, please define and explain	[REDACTED]

2. ACQUIRER INFORMATION

Acquirer Name	The Bancorp
Business Identification (BID)	10047681
VAU Segment Name	The Bancorp Bank (EPX)
VAU Segment ID	00051
Contact Name	[REDACTED]
Email and Telephone (Visa will send decision notification to this email.)	Email [REDACTED] Telephone [REDACTED]
Country (Location of Above Acquirer)	USA
Acquirer Processor Name	EPX Acquisition Company, LLC

I hereby authorize Visa to process Visa Account Updater Files in accordance with Visa Account Updater technical specifications and agreements.

Completed by: [REDACTED]

Title: Senior Relationship Manager Date: 03/01/2018

Note: Because this form is completed electronically and submitted via email, it does not require a signature.

3. The RM creates an ITS support ticket and attaches the completed Visa Merchant Enrollment Form.
4. The I.T. Support Team will provide the Registration Number needed and re-assign the ITS ticket back to the RM.
5. The RM sends the completed form along with the Registration Number to Visa Updater@visa.com.
6. Visa reviews the information and responds with an approval. The review process can take up to 10 business days.

MasterCard

The process for merchant enrollment in the MasterCard program is as follows:

1. The merchant requests enrollment in the MasterCard program from the EPX RM.

2. The RM creates in Salesforce a MPAC request for the Merchant Setup team to enable the Account Updater service for the merchant.
3. In webSuite, the Merchant Setup team enables the "Account Updater Service" by selecting the checkbox shown below.

Information	Settings	Parameters
<div style="margin-bottom: 10px;"> <input checked="" type="checkbox"/> Enable Credit Card Billing <input type="checkbox"/> Enable Debit Card Billing <input type="checkbox"/> Enable ACH Billing </div> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>Credit Card Trx Min: <input type="text" value="0.01"/></p> <p>Credit Card Purchase Max: <input type="text" value="500.00"/></p> <p>Credit Card Return Max: <input type="text" value="500.00"/></p> <p>Credit Card Payment Max: <input type="text" value="0.00"/></p> </div> <div style="flex: 1;"> <p>Debit Card Trx Min: <input type="text" value="0.01"/></p> <p>Debit Card Purchase Max: <input type="text" value="1,100.00"/></p> <p>Debit Card Return Max: <input type="text" value="1,100.00"/></p> <p>Debit Card Cash Bk Max: <input type="text" value="0.00"/></p> </div> <div style="flex: 1;"> <p>ACH Trx Min: <input type="text" value="0.00"/></p> <p>ACH Purchase Max: <input type="text" value="0.00"/></p> <p>ACH Return Max: <input type="text" value="0.00"/></p> </div> </div> <div style="display: flex; justify-content: space-between;"> Stored Stored Value Stored Value </div> <hr/> <div style="display: flex; justify-content: space-between; font-size: small;"> Return on Exceed Purchase: <input type="checkbox"/> </div>		
<div style="display: flex; justify-content: space-around; font-size: small;"> Auths Captures Returns Cash Back Pinless Sale Pinless Return Pinless Sale Pinless Return Balance Inq Funds Transfer BRIC Reversals Trx for Release Cash </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> Debit: <input type="checkbox"/> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> CyberSource Digital Signature Capture Batch Totals Account Query PayTrue Account Updater Service Token Request Account Lookup New Account Request </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> Special Processing: <input type="checkbox"/> </div>		

3. The MasterCard registration process is complete.