

# worldpay

## **eComm Account Updater Implementation and Operations Guide**

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## About This Guide

This guide explains how to implement and use Account Updater, an optional product from Worldpay eCommerce.

### Intended Audience

This guide is intended for technical personnel who will be implementing Account Updater and operations personnel who will be monitoring Account Updater transactions on a merchant's payment processing system.

### Revision History

This document has been revised as follows:

**TABLE 1** Document Revision History

Version	Description of Change	Location
4.8	Added information about best practices for retrieving completed files.	Section 3.2.1
4.7	Fixed typos in section 4.1 examples.	Chapter 4
4.6	Removed references to FTP with PGP encryption.	Chapter 1
4.5	Added info about new response code, 507 - Cardholder has opted out of update program.	Chapters 3 and 4
4.4	Removed reference to the Post-Live environment.	Chapter 2
4.3	Changed the <code>id</code> attribute of the <code>accountUpdateResponse</code> message from required to optional.	Chapter 5
4.2	Removed mention of a Welcome kit. Removed spaces from filename example.	Chapter 1 Chapter 3

**TABLE 1** Document Revision History

Version	Description of Change	Location
4.1	Corrected some discrepancies in the timing of the AU process. Added note about max filename length. Added info about tokenUrl element (not yet generally available).	Chapter 1 Chapter 2 Chapter 4
4.0	Re-branded entire document format due to the Vantiv-Worldpay merger; replaced many instances of the 'Vantiv' with 'Worldpay.'	All
3.2	Corrected error in some request and response examples (added id attribute where missing).	Chapter 4
3.1	Corrected error in RFR Request example.	Chapter 4
3.0	Updated guide for V12.0 of API, removing all "litle" references and renaming elements/namespace as required.	All
2.17	Updated text, examples, and element names for V12.0.	All
2.16	Fixed error in an example - Section 4.2.1	Chapter 4
2.15	Added orderId to accountUpdateResponse	Chapters 4 & 5
2.14	Changed all instances of 'LitleXML' with 'cnpAPI,' due to change in product name.	All
	Updated and reworked Chapter 3.	Chapter 3
2.13	Removed orderId from response examples, since V10.x does not return it in the response message.	Chapters 4 & 5
2.12	Changed Discover card number returned in Test 26 to be MOD 10 compliant (last-four 0006 to 0003).	Chapter 2
2.11	Updated expiration dates in tests 13, 15, and 24. Updated document template.	Chapter 2 All
2.10	Updated document for V10.x. The id attribute is now required.	Chapter 4
2.9	Modified expiration date in most test cases. Also modified RFR Note in section 2.3.	Chapter 2
2.8	Modified several sections to remove references to file submission via HTTP Post and TCP/IP.	Chapters 1, 2, and 3
2.7	Change to the recommended number of transactions in a Session/Batch file.	Chapter 1
2.6	Corrected description of id attribute in batchResponse file	Appendix A
2.5	Rebrand document.	All
2.4	Revamp all Certification Tests.	Chapter 2
2.3	Added <bin> element to <originalToken> and <updatedToken> elements	Chapter 4 and Appendix A



**TABLE 1** Document Revision History

Version	Description of Change	Location
2.2	Clarify registration requirements for Discover	Chapter 1
2.1	Update document to include Account Updater for Discover cards.	All
2.0	Updated with info about Account Updater for tokenized merchants.	All
1.2	Updated to latest template. restructured XML information and examples. Also, minor changes and typos fixed.	All
1.1	Changed the test data Account Number for Item 10 in <a href="#">Table 2-1</a> Also, fixed some autonumbering issues.	Table 2-1 on page 13
1.0	Initial Release	N/A

## Document Structure

This guide contains the following sections:

### Chapter 1, "Introduction"

This chapter provides an overview of the Account Updater feature and explains how to plan for a smooth Account Updater implementation.

### Chapter 2, "Testing Your Account Updater cnpAPI"

This chapter provides information concerning the testing and certification process used to verify your Account Updater cnpAPI templates and qualify you for use of the feature.

### Chapter 3, "Managing Customer Account Data"

This chapter explains how to use Account Updater.

### Chapter 4, "Account Updater cnpAPI Examples"

This chapter provides information concerning the structure of the cnpAPI transactions used for Account Updater, as well as XML examples of requests and responses.

### Appendix 5, "cnpAPI Account Updater Elements"

This appendix provides definition of the various cnpAPI elements used in Account Updater transaction.

## Documentation Set

For information concerning any Worldpay eComm product/service, please refer to the appropriate manual from the following list:

- *Worldpay eComm iQ Reporting and Analytics User Guide*
- *Worldpay eComm cnpAPI Reference Guide*
- *Worldpay eComm Chargeback API Reference Guide*
- *Worldpay eComm Chargeback Process Guide*
- *Worldpay eComm PayPal Integration Overview Guide*
- *Worldpay eComm PayFac API Reference Guide*
- *Worldpay eComm PayFac Portal User Guide*
- *Worldpay eProtect Integration Guide*
- *Worldpay eComm cnpAPI Differences Guide*
- *Worldpay eComm Scheduled Secure Reports Reference Guide*

## Typographical Conventions

[Table 2](#) describes the conventions used in this guide.

**TABLE 2** Typographical Conventions

Convention	Meaning
. . . . . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted.
<>	Angle brackets are used in the following situations: <ul style="list-style-type: none"> <li>• user-supplied values (variables)</li> <li>• XML elements</li> </ul>
[ ]	Brackets enclose optional clauses from which you can choose one or more option.
<b>bold text</b>	Bold text indicates emphasis.
<i>italicized text</i>	Italic type in text indicates a term defined in the text, the glossary, or in both locations.
<a href="#">blue text</a>	Blue text indicates a hypertext link.

## Contact Information

This section provides contact information for organizations within Worldpay eCommerce.

**Technical Publications** - For questions or comments about this document, please address your feedback to the Technical Publications Department. All comments are welcome.

**Technical Support** - For technical issues such as file transmission errors, email Technical Support. A Technical Support Representative will contact you within 15 minutes to resolve the problem.

### Technical Support Contact Information

<b>Telephone</b>	For critical production issues only: 1-888-829-1907
<b>E-mail</b>	<a href="mailto:ecommercesupport@worldpay.com">ecommercesupport@worldpay.com</a>
<b>Hours Available</b>	24/7 (seven days a week, 24 hours a day)

**Relationship Management/Customer Service** - For non-technical issues, including questions concerning iQ Reporting and Analytics, help with passwords, modifying merchant details, and changes to user account permissions, contact the Relationship Management/Customer Service Department. If you are a Payment Facilitator, refer to the second table.

Relationship Management/Customer Service Contact Information - Merchants

<b>Telephone</b>	1-844-843-6111 (Option 3)
<b>E-mail</b>	<a href="mailto:ecomcustomercare@worldpay.com">ecomcustomercare@worldpay.com</a>
<b>Hours Available</b>	Monday – Friday, 8:00 A.M.– 6:00 P.M. EST

Relationship Management/Customer Service Contact Information - Payment Facilitators

<b>Telephone</b>	1-844-843-6111 (Option 5)
<b>E-mail</b>	<a href="mailto:PayFacEComm@worldpay.com">PayFacEComm@worldpay.com</a>
<b>Hours Available</b>	Monday – Friday, 8:00 A.M.– 5:00 P.M. EST

Technical Publications Contact Information

<b>E-mail</b>	<a href="mailto:TechPubs@vantiv.com">TechPubs@vantiv.com</a>
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## Introduction

Account Updater is an optional product that allows you to request and receive updated information concerning MasterCard, Visa, and Discover cardholder accounts. This product is used most often by merchants who offer a recurring billing payment plan for their customers. This chapter contains the following sections:

- [Overview of Account Updater](#)
- [Account Updater Requirements](#)
- [Account Updater Best Practices](#)

## 1.1 Overview of Account Updater

The primary users of the Account Updater service are merchants that engage in recurring billing scenarios. This type of billing includes subscription services, membership fees, multi-payment programs, and various preferred customer programs.

If you engage in this type of billing, it is inevitable that you receive some percentage of authorization failures each billing period due to changed account information. Normally, someone in your organization would then contact the cardholder to obtain updated information and re-submit the transaction. This ties-up your resources, causes additional expenses, and runs the risk of the cardholder ending the service.

Using Account Updater, you can submit a request (a minimum of five days in advance is recommended) for changed card information about the cardholders approaching their billing date. This same process applies if you are a tokenized merchant, except that you would typically supply the token instead of the card number. Each cardholder for which you receive updated information saves you money, time and (potentially) business.

**NOTE:** Since you only pay for matches, you may wish to make requests for larger numbers of cardholders rather than only those approaching their billing date. As a best practice, Worldpay recommends that you cycle through your cardholder database at least twice per year.

### 1.1.1 Account Updater Features and Limitations

Account Updater enables you to receive updated credit card information without having to contact each customer individually.

The feature provides updates for the following information:

- New account number and/or new expiration date (or new token if applicable)
- Information about accounts transitioning from Visa to MasterCard and vice versa due to bank portfolio migration scenarios.
- Account closed notification
- Contact customer notification

Account Updater is available for Visa, MasterCard, and Discover payment cards. Other payment types do not participate in this program. Also, Account Updater does not support change of address or AVS updates.

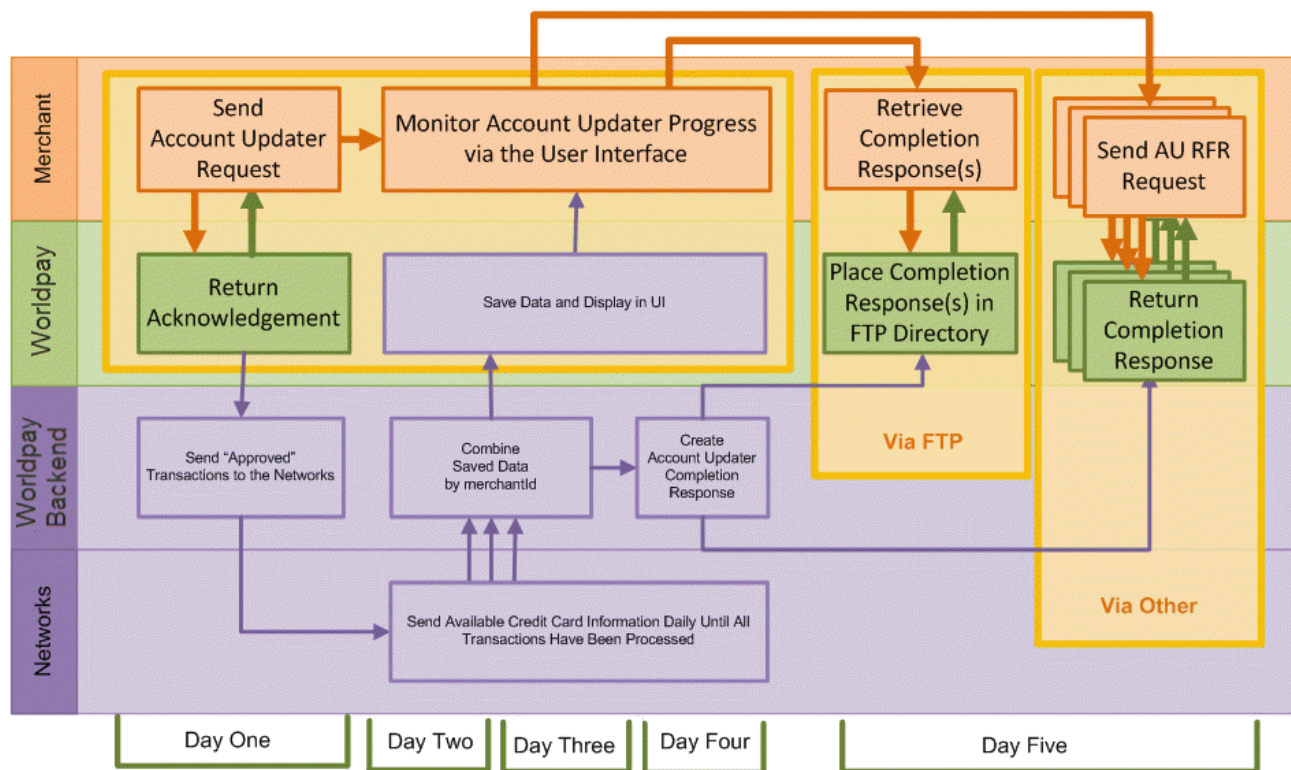
**NOTE:** If you are a tokenized merchant and submit credit card information, the system returns updated credit card information. The system does not register the card and return a token for Account Updater transactions. If you submit a token, the system returns a token.

### 1.1.2 Account Updater Work Flow

The Account Updater work flow is illustrated in [Figure 1-1](#). The Account Updater work flow requires several days. For example, if you submit an Account Updater request on Monday (day One), Worldpay accumulates data from the networks Tuesday through Friday (days Two through Four), and the

completed response would be ready on Saturday (day Five). Worldpay processes Account Updater files seven days per week.

**FIGURE 1-1** Account Updater Work Flow



The process is as follows:

- **Day Zero** - you submit a request containing the relevant customer account numbers and expiration dates to verify. Worldpay immediately returns a confirmation file that contains basic validation information as follows:
  - **Approved** - indicates the data passed validation.
  - **Invalid credit card number** - indicates that the card data failed a validation. You must correct the issue and resubmit.
  - **Invalid expiration date** - indicates that the date failed validation. You must correct the issue and resubmit.

Worldpay forwards all approved Account Updater transactions to the network.

- **Days One Through Four** - Each day, the network provides available account data to Worldpay. Worldpay displays this information in the Worldpay eCommerce iQ Reporting and Analytics system. You log into iQ to monitor the progress of your account updater transactions.
- **Day Five** - Worldpay creates a completion response file containing updated account information. You retrieve your response file by logging in to your FTP account.

After retrieval, review the completion response file and use the data to update your customer data as necessary.

## 1.2 Account Updater Requirements

This section outlines the requirements for using the Worldpay Account Updater feature.

### 1.2.1 Card Network Requirements

In order to use Account Updater, you must first apply for membership to the following (not required by Discover for Worldpay-acquired merchants):

- MasterCard Automatic Billing Updater
- Visa Account Updater

Worldpay completes and submits the necessary forms. Approvals from Visa and MasterCard take between 10-15 business days. Normally, approval occurs without issue; however, the networks can decline you for a variety of reasons. For example, the networks typically decline merchants on a risk mitigation program.

**NOTE:** Visa does not allow merchants with SIC numbers 5962, 5966, 5967, or 7995 to participate in their Account Updater service. MasterCard has no restrictions against any specific MCC numbers.

### 1.2.2 Technical Requirements

The technical requirements for using Account Updater are as follows:

- Data Format: Worldpay cnpAPI format
- Data Processing: Batch processing
- Communication Protocols - Worldpay supports Batch submissions via sFTP.
- Account Updater transactions must be submitted separately from payment transactions.
- Certification Testing: your organization must pass certification testing for Account Updater transactions. For more details about certification testing, see [Chapter 2, "Testing Your Account Updater cnpAPI"](#).



## 1.3 Account Updater Best Practices

Worldpay recommends the following when using the Worldpay Account Updater feature:

- Because of the total time involved in completing the work flow, you should send the Account Updater request at least six days prior to your normal due date for submitting auth/deposits for recurring transactions. This allows for the retrieval of the updates, as well as you updating your database in time to deliver the auth/deposit transactions.
- Due to constraints imposed by the credit card networks, the end of the business day for Account Updater submissions is 6:00 p.m. If you send an Account Updater request after 6:00 p.m., Worldpay processes it on the following business day.

Because of the end-of-day differences noted above, Worldpay recommends that you gather and send your Account Updater information earlier in the day. This action ensures that the Account Updater work flow process begins on the day sent.

### 1.3.1 Recommended Session File Size

Batch processing involves a group of transactions submitted in a single file. A batch is a set of transactions for a single merchant. In the case of a cnpAPI Batch, the parent or root element is the `<cnpRequest>` element. A single `<cnpRequest>`, referred to as a Session, can contain many batches and each batch can contain multiple transactions. Normally, you send in a single file which has one batch for each merchant. This works well when the overall number of transactions is small. The number of transactions you should submit in any individual Session or Batch depend on a number of factors, including whether or not you are an individual merchant or a presenter submitting transactions for multiple merchants. In general, you should keep the following recommendations and rules in mind when determining the number of transactions you submit in an Session/Batch file:

- A Batch should not exceed 20,000 transactions. If the number of transaction for a single merchant exceeds 20,000, you should create multiple batches for the same merchant, each batch containing not more than 20,000 transactions.
- A Batch should not contain only one transaction, unless your organization has only one transaction for the day.
- A Session file must never contain more than 9,999 Batches.
- A Session file must never contain more than 1,000,000 transactions across all Batches.
- Always allow sufficient time between your submission time and your cut-off time for the processing of the Session. Larger files take longer to process.



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## Testing Your Account Updater cnpAPI

This chapter provides information enabling you to verify that your Account Updater templates work correctly and will pass Certification Testing. This chapter contains the following topics:

- [Before You Begin Certification Testing](#)
- [Testing Account Updater Transactions](#)
- [After Completing Certification Testing](#)

**NOTE:** Use the reference material found in [Chapter 4, "Account Updater cnpAPI Examples"](#), to verify your coding and cnpAPI structure.

## 2.1 Before You Begin Certification Testing

Certification testing is a required phase of implementing the Worldpay cnpAPI format. The Worldpay testing process involves submitting specified data in a request and receiving specific data back in a response. The data in the request must match the format specified in the cnpAPI schema. You should use the response message returned to you to verify that your systems correctly parse the Account Updater information.

Worldpay assigns an Implementation Consultant/Manager to assist you. Your Implementation Consultant/Manager will provide the following:

- Process your IP address (required for access to the test server).
- Provide a username and password for you to use during testing to access the Pre-Live certification environment.
- Assist at resolving issues during the certification process.

Contact your Implementation Consultant/Manager.

## 2.2 Transferring Files via FTP

This section describes how to use FTP to submit and retrieve your files (not test system-specific). As discussed in [Technical Requirements](#) on page 4, you can use one of two communication protocols to submit your transactions to Worldpay for processing. This section provides additional information on the methods for transferring your cnpAPI Batch transaction files.

**NOTE:** Before you begin transferring files via FTP, you must obtain a username/ password for the FTP Host and Worldpay eComm Pre-Live testing environment from your Implementation Consultant/Manager.

### To submit a file for processing to the inbound directory:

1. On your local system, add the extension `.prg` (lowercase) to the name of the file you want to submit (for example, `MerchantName_YYMMDD.prg`). Keep in mind the following rules:
  - Spaces are not allowed in the file name.
  - The `.prg` extension must be lower case.

**IMPORTANT:** When submitting a file via sFTP, verify you set the file permission to 664.

Also, file naming conventions are crucial to the file submission process. Incorrect file names prevent us from processing the file or may stop processing due to an incomplete file transfer.

Do not append `.asc` to the end of the filename (Step 3). You must replace the `.prg` extension with `.asc`. If `.prg` appears in the filename, the system will not process the file.

Also, limit the length of the filename to a maximum of 128 characters, including the extension.

2. Open your FTP connection to the Worldpay inbound directory and move your file to the Worldpay directory.
3. After you complete the FTP process, change the extension of the transmitted file (in the Worldpay inbound directory) from `.prg` to `.asc` (lowercase). The system polls the directory for files with an `.asc` extension every thirty seconds. When the system encounters files with the proper extension, it retrieves them for processing.

### 2.2.1 Retrieving Processed Files via sFTP

Depending on the size of your file, your response should be ready within a few minutes. Batch files containing large number of transactions take longer. For example, a batch of 10,000 transactions may require as long as ten minutes to process.

The initial response represents an acknowledgment that we received the transactions and notification that we will deliver them upstream to Visa and/or MasterCard for review. Since we perform validation operations against the credit card number and the expiration date, it is possible that you also receive decline responses containing the appropriate response code.

### To retrieve response files from the outbound directory:

1. Open your FTP connection to the Worldpay outbound directory.

2. Locate the response file, which will have the same name as the submitted file. If the response file has a .prg extension, it is still transferring to the outbound directory and is not ready for retrieval. The extension changes to .asc when the transfer to the outbound directory completes.
3. Retrieve the response file.

**NOTE:** Worldpay removes response files from the outbound directory after 24 hours. Plan to retrieve your files daily.

## 2.3 Testing Account Updater Transactions

All merchants who want to use Account Updater transactions must perform these tests. This process takes approximately one hour.

To test Account Updater transactions:

1. Submit Account Updater Requests for each `orderId` using the values in the **Supplied Data Elements** column of [Table 2-1](#).
2. Verify that the response values for the Account Updater acknowledgment Response match those shown in the Key Response Elements of [Table 2-1](#). Receiving the matching Acknowledgment Response indicates that your Account Updater Request was properly formatted.
3. (Required for https submissions only.) Construct and submit an AU RFR (Account Updater Request for Response) using the information in [Account Updater RFR](#) on page 49 as a guide. The system returns an RFR response (see [RFR File Processing Response](#) on page 51) indicating that your AU RFR was properly formatted. Failure to receive this file may indicate that the RFR was not properly formatted (Also, see Note below).

**NOTE:** To accelerate the testing process, the AU simulator in the Pre-Live environment closes any sessions every hour and produces a response file. Because of this behavior, if you submit multiple Account Updater Request files in the same day, the system generates multiple response files for the same MID/day. Pre-Live cannot determine which file you are referencing in the RFR, so will be unable to return an RFR response.

4. The Pre-Live environment constructs an AU Response file every hour for the requests submitted in the previous hour. For example, the response file created at 1:00 PM contains responses for requests submitted between 12:00 PM and 12:59 PM. Verify that the information contained in the response files matches the AU response informations shown in the Key Response Elements of [Table 2-1](#).

**NOTE:** Once you have begun processing in the production environment, a response file will contain Visa, MasterCard, and Discover information. You will receive one completion response file per day per `merchantId`.

**TABLE 2-1** Account Updater Test Data

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
1	<type> MC <number> 5194560012341234 <expDate> 1250		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 500 <message> The account number was changed. <updatedCard> (parent element) <type> VI <number> 4457010000000009 <expDate> 0150 <originalCard> (parent element) <type> MC <number> 5194560012341234 <expDate> 1250	
2	<type> MC <number> 5435101234510196 <expDate> 0750		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 501 <message> The account was closed. <originalCard> (parent element) <type> MC <number> 5435101234510196 <expDate> 0750	



**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
3	<type> <number> <expDate>	MC 5112010000000003 0250	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message> <updatedCard> <type> <number> <expDate> <originalCard> <type> <number> <expDate>	000 Approved 502 The expiration date was changed. (parent element) MC 5112010000000003 0150 (parent element) MC 5112010000000003 0250
4	<type> <number> <expDate>	MC 5112002200000008 1150	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message>	000 Approved 506 No changes found
5	<type> <number> <expDate>	MC 5112000200000002 1150	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message>	000 Approved 505 No match found

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
6	<type> MC <number> 5112010140000004 <expDate> 0250		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 503 <message> The issuing bank does not participate in the update program.	
7	<type> MC <number> 5112010100000002 <expDate> 0750		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 301 <message> Invalid account number <originalCard> (parent element) <type> MC <number> 5112010100000002 <expDate> 0750	
8	<type> MC <number> 5500000254444445 <expDate> 0350		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 301 <message> Invalid account number <originalCard> (parent element) <type> MC <number> 5500000254444445 <expDate> 0350	

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
9	<type> MC <number> 5592106621450897 <expDate> 0350		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 320 <message> Invalid expiration date <originalCard> (parent element) <type> MC <number> 5592106621450897 <expDate> 0350	
10	<type> MC <number> 5590409551104142 <expDate> 0350		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 191 <message> Merchant is not registered in the update program. <originalCard> (parent element) <type> MC <number> 5590409551104142 <expDate> 0350	
11	<type> MC <number> 5112002100000009 <expDate> 0000		<b>Acknowledgment Response:</b> <response> 320 <message> Invalid expiration date	
12	<type> MC <number> 5112000400400018 <expDate> 0250		<b>Acknowledgment Response:</b> <response> 301 <message> Invalid account number	

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
13	<type> VI <number> 4457010000000009 <expDate> 0150		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 500 <message> The account number was changed. <updatedCard> (parent element) <type> MC <number> 5194560012341234 <expDate> 1250 <originalCard> (parent element) <type> VI <number> 4457010000000009 <expDate> 0150	
14	<type> VI <number> 4457000900000001 <expDate> 0850		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 501 <message> The account was closed. <originalCard> (parent element) <type> VI <number> 4457000900000001 <expDate> 0850	

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
15	<type> VI <number> 4457000300000007 <expDate> 0150		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 502 <message> The expiration date was changed <updatedCard> (parent element) <type> VI <number> 4457000300000007 <expDate> 0250 <originalCard> (parent element) <type> VI <number> 4457000300000007 <expDate> 0150	
16	<type> VI <number> 4457010100000008 <expDate> 0650		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 503 <message> The issuing bank does not participate in the updating program. <originalCard> (parent element) <type> VI <number> 4457010100000008 <expDate> 0650	

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
17	<type> <number> <expDate>	VI 4457010140000141 0950	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message> <originalCard> <type> <number> <expDate>	000 Approved 504 Contact the cardholder for updated information. <i>(parent element)</i> VI 4457010140000141 0950
18	<type> <number> <expDate>	VI 4457010200000247 0850	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message> <originalCard> <type> <number> <expDate>	000 Approved 505 No match found <i>(parent element)</i> VI 4457010200000247 0850
19	<type> <number> <expDate>	VI 4100200300011001 0550	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message> <originalCard> <type> <number> <expDate>	000 Approved 506 No changes found <i>(parent element)</i> VI 4100200300011001 0550

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
20	<type> <number> <expDate>	VI 4457000400000006 0000	<b>Acknowledgment Response:</b>  <response> <message>	 320 Invalid expiration date
21	<type> <number> <expDate>	VI 4457000200400008 0250	<b>Acknowledgment Response:</b>  <response> <message>	 301 Invalid account number
22	<type> <number> <expDate>	DI 6011010000000003 0350	<b>Acknowledgment Response:</b>  <response> <message>  <b>AU File Response:</b>  <response> <message> <updatedCard> <type> <number> <expDate> <originalCard> <type> <number> <expDate>	 000 Approved  500 The account number was changed (parent element) DI 601102010020228 0350 (parent element) DI 6011010000000003 0350
23	<type> <number> <expDate>	DI 6011010100000002 0850	<b>Acknowledgment Response:</b>  <response> <message>  <b>AU File Response:</b>  <response> <message> <originalCard> <type> <number> <expDate>	 000 Approved  501 The account was closed. (parent element) DI 6011010100000002 0850

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
24	<type> <number> <expDate>	DI 6011010140000004 0850	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message> <updatedCard> <type> <number> <expDate> <originalCard> <type> <number> <expDate>	000 Approved 502 The expiration date was changed. (parent element) DI 6011010140000004 0950 (parent element) DI 6011010140000004 0850
25	<type> <number> <expDate>	DI 6500102012345662 0150	<b>Acknowledgment Response:</b> <response> <message> <b>AU File Response:</b> <response> <message> <originalCard> <type> <number> <expDate>	000 Approved 506 No changes found (parent element) DI 6500102012345662 0150



**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements	
	Element	Value	Element	Value
26	<type> DI <number> 6011102067026227 <expDate> 0150		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 500 <message> The account number was changed. <updatedCard> (parent element) <type> DI <number> 6011010000000003 <expDate> 0150 <originalCard> (parent element) <type> DI <number> 6011102067026227 <expDate> 0150	
27	<type> DI <number> 6011102087026223 <expDate> 0150		<b>Acknowledgment Response:</b> <response> 000 <message> Approved <b>AU File Response:</b> <response> 504 <message> Contact the cardholder for updated information. <originalCard> (parent element) <type> DI <number> 6011102087026223 <expDate> 0150	
28	<type> DI <number> 6011102087026223 <expDate> 0000		<b>Acknowledgment Response:</b> <response> 320 <message> Invalid expiration date	

**TABLE 2-1** Account Updater Test Data (Continued)

orderId	Supplied Data Elements		Key Response Elements		
	Element	Value	Element	Value	
29	<type>	DI	<b>Acknowledgment Response:</b>		
	<number>	6011010140000005		<response>	301
	<expDate>	1150		<message>	Invalid account number

## 2.4 After Completing Certification Testing

After you successfully complete Account Updater certification testing, Worldpay enables the Account Updater service for your use in the production environment.



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## Managing Customer Account Data

This chapter provides further information on using Account Updater and contains the following sections:

- [Submitting an Account Updater Request](#)
- [Retrieving Your Account Updater Completion Results](#)
- [Reviewing Account Updater Results and Data in iQ](#)

## 3.1 Submitting an Account Updater Request

To start the Account Updater process, you submit an Account Updater batch request for the relevant customer accounts (see [Account Updater Batch Request](#) on page 44 for a sample request). When Worldpay receives an Account Updater request, the system immediately returns an acknowledgment file to you. This acknowledgment contains basic validation information shown in [Table 3-1](#). If the response file indicates any errors, you must resolve them and submit corrected information in a new Account Updater request.

- The Response Code value appears in the <response> element.
- The Response Message value appears in the <message> element.
- The Resolution column explains how to correct the account error, if necessary.

**TABLE 3-1** Account Updater Acknowledgment Response Codes

Response Code	Response Message	Resolution
000	Approved	Worldpay forwards these accounts to the network (Visa and MasterCard).
301	Invalid Account Number	Correct the account number, and resubmit the card data.
320	Invalid Expiration Date	Correct the expiration date, and resubmit the card data.

**NOTES:** Worldpay verifies that the submitted card number is Mod 10 compliant.  
Worldpay verifies that the date does not contain null or 0000 values. You must submit the expiration date as MMY.

For a sample of the file, see [Account Updater Acknowledgment Response](#) on page 46.

On days two, three, and four (see [Account Updater Work Flow](#) on page 2), Visa and MasterCard each send a file of updated information to Worldpay. This file contains all of the information that Visa and MasterCard has at the time, so this file may not necessarily include information regarding all of the accounts you submitted.

During this interim period, you can use Worldpay eCommerce iQ Reporting and Analytics to monitor the progress of your Account Updater transactions, as described in the following sections later in this chapter:

- [Viewing Account Updater Session Data](#)
- [Viewing the Batch Detail Report](#)
- [Account Updater Information in Transaction Detail Screens](#)

## 3.2 Retrieving Your Account Updater Completion Results

When Worldpay receives all responses from Visa and MasterCard, the system creates one or more Account Updater completion response files. This typically occurs five (5) days after the initial Account Updater request.

It is also possible to review the Account Updater completion results on the eCommerce iQ Reporting and Analytics system. For more information, see [Reviewing Account Updater Results and Data in iQ](#) on page 29.

To obtain your Account Updater completion response files, continue to the next section.

### 3.2.1 Retrieving Your Files via FTP

If you are using FTP, the Account Updater response file is automatically placed in your organization's outbound directory. You merely pick up your response files from your FTP directory as described in [Retrieving Processed Files via sFTP](#) on page 9. Worldpay assigns a name to the response file using the following format:

```
merchantId.mmddyyyy.sessionid.rfr.asc
```

Please keep in mind that the merchantId in the filename may not be the same value as the merchantId attribute of the batchRequest/batchResponse (see [batchRequest](#) and/or [batchResponse](#)). Validate the production values with your Implementation or Relationship Manager. Best practice dictates you should sweep your FTP folder multiple times each day and download any completed files (i.e., files with an .asc extension). Parse the batch files based upon the merchantId attribute, not the merchantId in the filename.

**NOTE:** Worldpay purges all files in the FTP directory every 24 hours. You should plan to retrieve your files daily.

### 3.2.2 Reviewing Your Account Updater Completion Response File

The Account Updater completion response code and its associated message (as listed in [Table 3-2](#)) specify whether or not an account number has been changed and what type of change occurred, if any.

- The Response Code value appears in the <response> element.
- The Response Message value appears in the <message> element.
- The Resolution column explains how to update the account number, if needed.

Review the completion response file and update your customer data as indicated in the file.

For technical information on the completion response file, see [RFR File Processing Response](#) on page 51.

**TABLE 3-2** Account Updater Completion Response Codes

Response Code	Response Message	Resolution
191	The merchant is not registered in the update program	Escalate this to your Customer Experience Manager. This indicates a set-up problem that must be resolved prior to submitting another request file.
500	The account number was changed	Submit the account number returned in the completion response.
501	The account was closed	Contact the cardholder for updated information.
502	The expiration date was changed	Submit the expiration date returned in the completion response.
503	The issuing bank does not participate in the update program.	Submit the original card information
504	Contact the cardholder for updated information	Contact the cardholder for updated information.
505	No match found	Submit the original card information
506	No changes found	Submit the original card information
507	The cardholder has opted out of the update program	The cardholder has chosen not to participate in the updater program. Updates are not available for this card/cardholder.



## 3.3 Reviewing Account Updater Results and Data in iQ

The Worldpay eCommerce iQ Reporting and Analytics system provides information on the status of your Account Updater requests, as well as detailed information on batches and Account Updater transaction submitted. This section contains the following topics:

- [Viewing Account Updater Session Data](#)
- [Viewing the Batch Detail Report](#)
- [Account Updater Information in Transaction Detail Screens](#)
- [Exporting Session Data by Transaction](#)

For additional information, see the *Worldpay eCommerce iQ Reporting and Analytics User Guide*.

### 3.3.1 Viewing Account Updater Session Data

The Session Activity report provides a real-time view of the data you present for processing. From the Session Activity report, you can monitor Account Updater sessions in different states of completion (**Sessions Started**, **Sessions with Activity**, and **Sessions Ended**). This includes a summary of all batches and transactions in the batch, and a table detailing the Account Updater batches contained in the selected session. You can also:

- Navigate to the Batch Detail Report to view the list of transactions contained in the selected batch (see [Viewing the Batch Detail Report](#)), where you can select any transaction for viewing additional data.
- Export transaction-level session data to a file (see [Exporting Session Data by Transaction](#) on page 37).

To open the Session Activity Report in iQ:

1. From the iQ Bar, click the **Operations** icon and select **Sessions** from the list of available reports, or from the Operations Navigation bar. The Session Activity Report displays as shown in [Figure 3-1](#).
2. Specify the desired report view, either **Sessions Started**, **Sessions with Activity**, or **Sessions Ended** during your selected date range.
3. Specify the desired **Date Range**, and click **View**.

Each Session report view comprises a summary panel and a granular detail panel.

4. Click the plus sign next to the **Session ID** of a session containing multiple batches to reveal the Batch IDs. When you do this, the parent row shows the totals (in bold) for all of the included batches.
5. Items shown as hyperlinks in the Session Activity report provide links to reports with more detailed information. From the Session Activity report, click an item from the **Batch ID** or **Status** column to navigate to the **Batch Detail Report** (see [Viewing the Batch Detail Report](#)).

See [Table 3-3](#) for a description of each of the columns in the Session Activity report. Online Help is available for the Sessions report by clicking the help icon in the top navigation bar.

**FIGURE 3-1** Session Activity Report

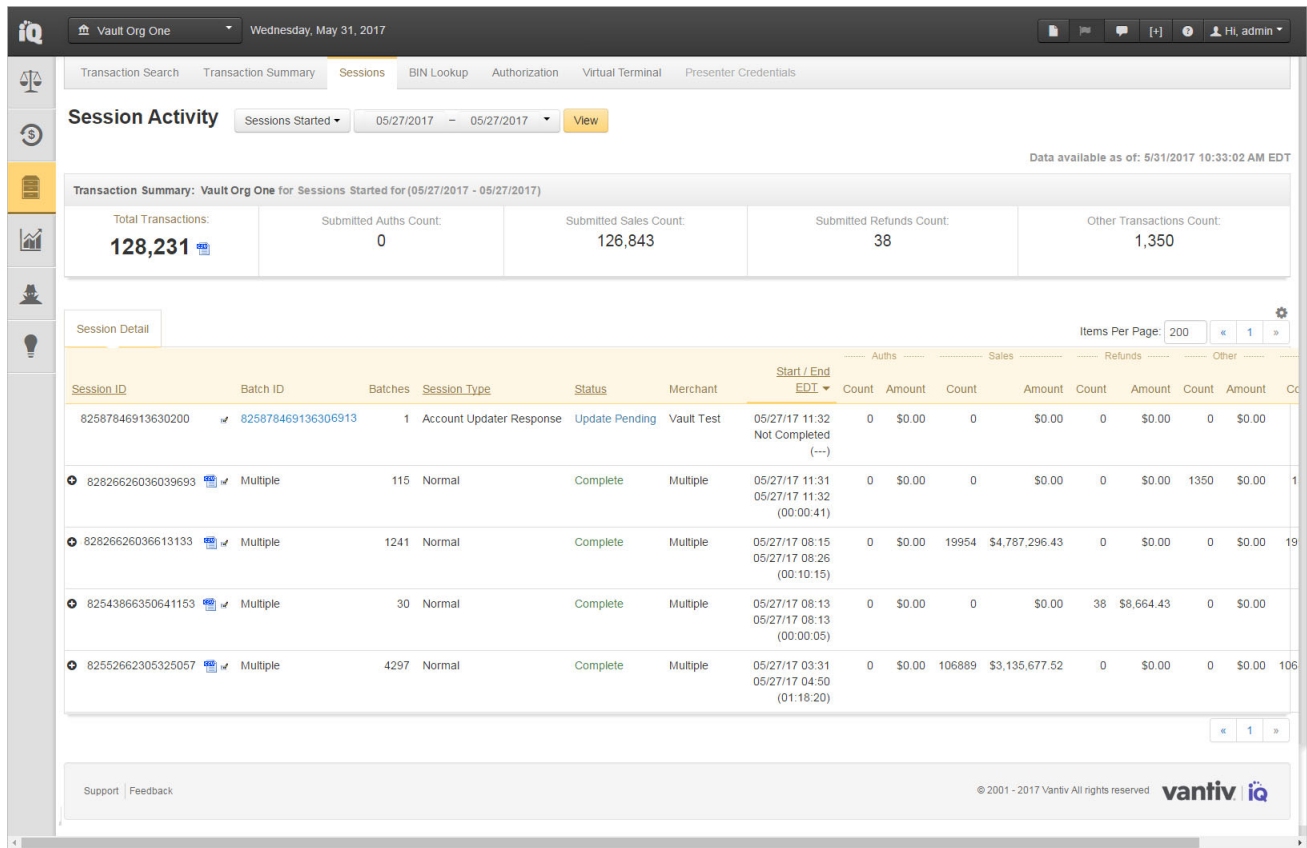


Table 3-3 describes the columns in the Session Activity Report

**TABLE 3-3** Session Activity Report Columns

Column	Description
Session ID	A unique number automatically assigned to each session. To view a session, click the desired Session ID link. This is a sortable column.
Batches	The number of batch files transmitted during a session. <b>Note:</b> When the number of transactions in a batch exceeds 100,000, the batch is automatically split into two or more batches, increasing the number in this column.
Batch ID	A unique number automatically assigned to each batch within a session. To view details about a batch, click the desired Batch ID link to navigate to the <b>Batch Detail Report</b> . If iQ displays <b>Multiple</b> in the column, click the plus (+) sign to expand the row to reveal the batches contained in the session.

**TABLE 3-3** Session Activity Report Columns (Continued)

Column	Description
Session Type	<p>Defines the type of file submitted. The possible values are:</p> <ul style="list-style-type: none"> <li>• Normal (batch)</li> <li>• Online (online HTTPS)</li> <li>• POS (Retail card swiped at Point of Sale terminal)</li> <li>• RFR (Account Updater Request for Response)</li> <li>• Account Updater Response</li> <li>• Worldpay-Initiated Recycling</li> </ul>
Status	<p>The transmission status of the transaction files. Common types are:</p> <ul style="list-style-type: none"> <li>• <b>Received</b> - session was received by Worldpay, but processing not yet complete.</li> <li>• <b>Complete</b> - processing of this session was completed by Worldpay.</li> <li>• <b>Update Pending</b> - Account Updater operation is pending.</li> <li>• <b>Error</b> - contact Worldpay eComm Technical Support.</li> <li>• <b>Discarded - Duplicate</b> - duplicate sessions were submitted, detected by Worldpay, and discarded. Contact Worldpay eComm Technical Support.</li> <li>• <b>Discarded</b> - this batch was manually discarded by Worldpay as directed by your organization; or in the case of Dynamic Payout Funding Instructions, it was discarded due to insufficient funds in your FBO settlement account.</li> </ul> <p>This is a sortable column.</p>
Merchant	<p>Identifies the organization for which the file was transmitted. If the session included transactions for more than one merchant or batch, the merchant name appears as <i>Multiple</i>. In this case, click the plus (+) sign to expand the row to reveal the batches contained in the session.</p>
Start/End ( <i>Time Zone</i> )	<p>The start, end, and elapsed time of the file transmission. The start and end time is shown in your local time zone, configurable in your User Profile. This is a sortable column.</p>
Total	<p>Specifies the total number of transactions in the session (Count) and the total financial value of the transactions in the session (sum of Auths, Sales, and Refund Amounts).</p>
Auths	<p>Count and total amount of authorizations processed.</p>
Sales	<p>Count and total amount of sales processed.</p>
Refunds	<p>Count and total amount of refunds processed.</p>
Other	<p>Count and total amount of 'non-standard' types of transactions processed (reversals, voids, account updater transactions, token requests, funding instructions, etc.) processed.</p>

### 3.3.2 Viewing the Batch Detail Report

The Batch Detail report provides a detailed breakdown of transactions contained within a batch, and includes a summary of batches in the top panel as well as a detailed data table below. From the same report window, you can select whether to view 'standard' transactions or those associated with Account Updater requests, token requests, etc., by selecting the appropriate detailed tab view. From within each of the tabs in the Batch Detail report, you can click a link to navigate to the Transaction Detail Screen for further details of a payment within the batch.

To open the Batch Detail report:

1. From the iQ Bar, click the **Operations** icon and select **Sessions** from the list of available reports, or from the Operations Navigation bar. The Session Activity report displays as shown in [Figure 3-1](#).
2. Specify the desired report view, either **Sessions Started**, **Sessions with Activity**, or **Sessions Ended** during your selected date range.
3. Specify the desired **Date Range**, and click **View**. Individual batch and transactional data is available for the previous 24 months only.
4. In the **Batch ID** column, select the desired Batch ID link. Click the plus sign next to the **Session ID** of a session containing multiple batches to reveal the Batch IDs. (When you do this, the parent row shows the totals in bold for all of the included batches.)
5. Click the **Account Updater (AU) Detail** tab to view Account Updater transactions (see [Batch Detail Report - Account Updater \(AU\) Detail](#) on page 34).

The Summary Panel provides information on all the transactions included in this batch. See [Table 3-4](#) for a description of each of the fields in the summary panel of the Batch Detail report. The 'processed on...' time stamp at the top of the panel is presented in your selected time zone.

By default, the Batch Detail report displays 200 records per page. You can modify this by entering a different amount in the **Items Per Page** field and clicking **Apply**.

**FIGURE 3-2** Batch Detail Report Showing Account Updater Detail Tab

**Batch Detail:** for Batch 825526604201574660 from Session 825526604201574419

**Batch Summary:** for batch 825526604201574660 processed on 05/24/2017 at 11:36 EDT

Total Activity Amount: <b>\$0.00</b>	Submitted Auths Amount: <b>\$0.00</b>	Submitted Sales Amount: <b>\$0.00</b>	Submitted Refunds Amount: <b>\$0.00</b>	Other Transactions Amount: <b>\$0.00</b>
8013  Total Transactions	Submitted Auths Count: <b>0</b>	Submitted Sales Count: <b>0</b>	Submitted Refunds Count: <b>0</b>	Other Transactions Count: <b>8013</b>

AU Request ID	Merchant Order Number	Transaction Reason	MOP	Account Suffix	Response Message	Purchase Currency	Transaction Type
8257025471153856915	0019118EBAAFFB576B1A12191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	The issuing bank does not participate in the update program	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857015	00191FA496221E281703AFC191	ACCOUNT_UPDATE	MasterCard	XXXXXXXXXXXX-0000	No changes found	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857115	001912A8A994962BC2C8B78191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	The account was closed	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857215	0019144288FC0965E707C8B191	ACCOUNT_UPDATE	MasterCard	XXXXXXXXXXXX-0000	No match found	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857315	001918B5FA767060BB672504191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	Contact the cardholder for updated information	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857415	00191DFA51C533366F7590B191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	Contact the cardholder for updated information	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857515	00191BF5192A11C57830F41191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	The account was closed	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857615	00191A79777DE9DB470DFB4191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	The account was closed	USD	ACCOUNT_UPDATE_RESPONSE
8257025471153857715	00191C788D1F61697A03E374191	ACCOUNT_UPDATE	VISA	XXXXXXXXXXXX-0000	The issuing bank does not participate in the update program	USD	ACCOUNT_UPDATE_RESPONSE

**TABLE 3-4** Batch Detail Summary Panel Field Descriptions

Field	Description
Total Activity Amount	The total dollar amount of all the transactions in this batch. Includes data from all the detail tabs (Batch, AU, Token, Recurring, and Fraud).
Total Transactions	The total number of all the transactions in this batch. Includes data from all the detail tabs (Batch, AU, Token, Recurring, and Fraud).  Click the CSV Export icon (  ) next to the Total Transactions count to export transaction-level session data. See <a href="#">Exporting Session Data by Transaction</a> for more information.
Submitted Auths Amount and Count	The total amount and count of authorization transactions submitted in this batch.
Submitted Sales Amount and Count	The total amount and count of sale transactions submitted in this batch.
Submitted Refunds Amount and Count	The total amount and count of refund transactions submitted in this batch.

**TABLE 3-4** Batch Detail Summary Panel Field Descriptions (Continued)

Field	Description
Other Transactions Amount and Count	The total amount of count of other types of transactions (reversals, voids, account updater transactions, token requests, etc.) submitted.

### 3.3.2.1 Batch Detail Report - Account Updater (AU) Detail

The Account Updater (AU) Detail tab (Figure 3-2) of the Batch Detail report provides a view of all the Account Updater requests in the specified batch. Each AU Request listing includes an **AU Request ID** hyperlink, where you can access the Transaction Detail Screen associated with the Account Updater Request.

Table 3-5 describes each of the fields in the AU Detail tab of the Batch Detail report.

**TABLE 3-5** Batch Detail Report - AU Detail Field Descriptions

Field	Description
AU Request ID	The automatically-assigned number that identifies this Account Updater request transaction.
Merchant Order Number	The merchant-designated identifier for this transaction.
MOP	The method of payment used for transferring funds from a customer to your organization.
Response Message	The account updater response message corresponding to the response code returned by Worldpay for this transaction (for example, <i>The expiration date has changed</i> ).
Purchase Currency	The currency used for the purchase, designated by a three-letter abbreviation of the country.
Transaction Type	The actions associated with this account updater transaction.

### 3.3.3 Account Updater Information in Transaction Detail Screens

The Transaction Detail screens display comprehensive information on a single transaction or payment action including transaction data, identifying information, credit card and token data, tracking data, response data, etc. The Transaction Detail screen also provides information on all transactions that are associated with the current transaction, and a summary panel showing snapshot of the purchase history for the customer.

iQ displays a Transaction Detail screen specific to the transaction or action. For example, a Authorization transaction is displayed as an Authorization Detail screen, and an account updater request is displayed as an Account Updater Request Detail screen.

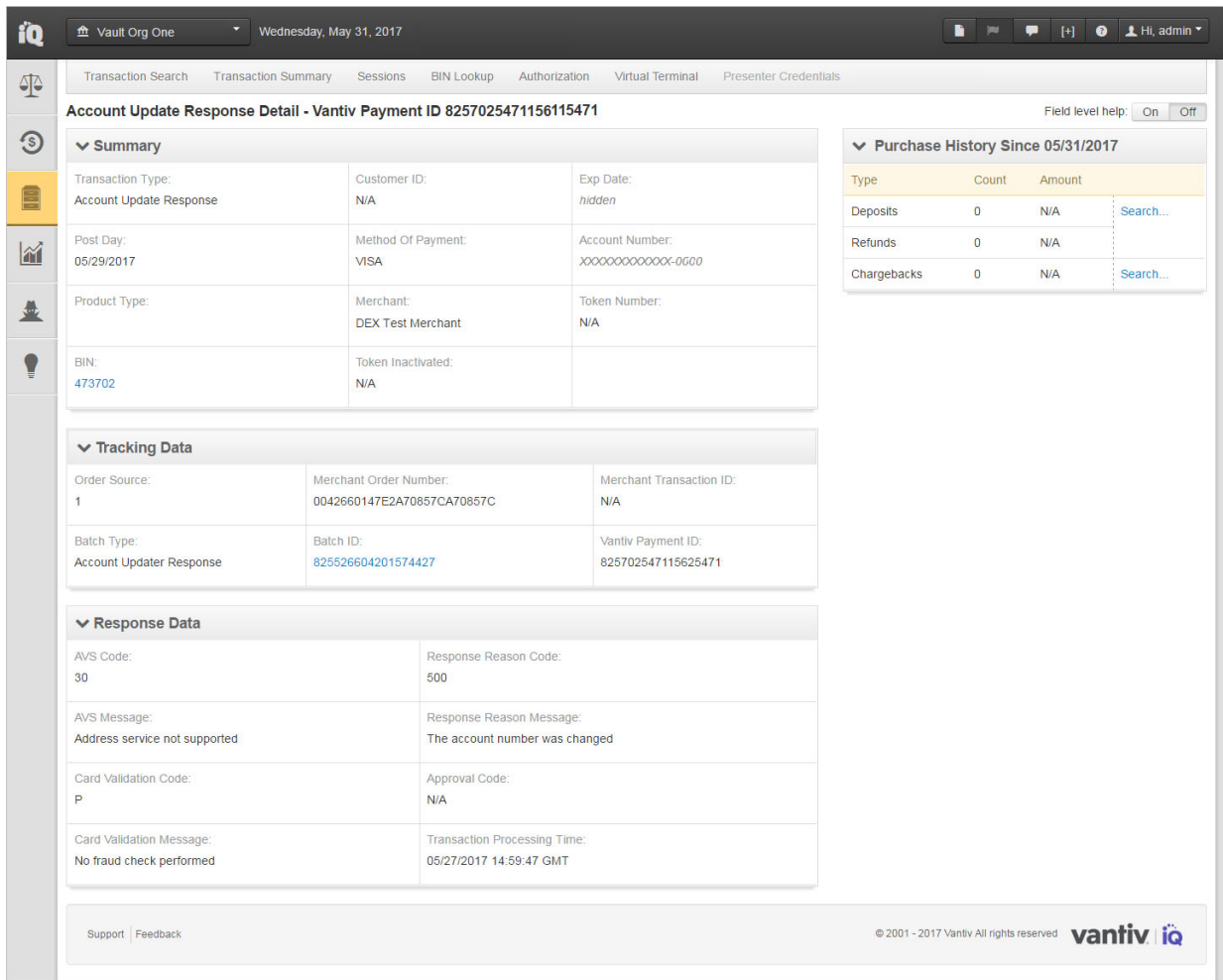
#### 3.3.3.1 Opening a Transaction Detail Screen

To open a Transaction Detail screen:

1. Navigate to the Batch Detail Report as described in [Viewing the Batch Detail Report](#) on page 32.
2. From the Batch Detail report, click the desired **Vantiv Payment ID** link in the Payment ID column. [Figure 3-3](#) shows an example of a **Account Updater Response Detail** screen.



**FIGURE 3-3** Account Updater Response Detail Screen



### 3.3.3.2 Viewing Account Updater Data in a Transaction Detail Screen

The Account Updater data panel appears for credit card transactions only (Visa, MasterCard, and Discover) and provides information pertaining to the Account Updater service. Two sections display the **Original Card** and the **Updated Card**.

Account numbers and expiration dates are masked or displayed as 'hidden.' If you have the appropriate permissions, you can show or hide cardholder data and personal information on your screen by clicking the **Show All Customer Data/Hide All Customer Data** hyperlink in the upper right of the Summary data panel. Contact Customer Service for more information on permissions.

**NOTE:** When you Hide or Show Customer Data in the Account Updater panel, other data panels (Summary data) with cardholder and/or personal data are also hidden (or shown).

Figure 3-4 shows a sample Account Updater data panel, and Table 3-6 describes all possible fields.



**FIGURE 3-4** Transaction Detail - Account Updater

▼ Account Updater <span style="float: right;"><a href="#">Show all Customer Data</a></span>		
Updated Card		
Method Of Payment: VISA	Account Number: XXXXXXXXXXXX-0009	Exp Date: <i>hidden</i>
BIN: <a href="#">445701</a>	Token Number: N/A	Token Inactivated: N/A
Response Reason Code: 502	Response Reason Message: The expiration date was changed	

**TABLE 3-6** Transaction Detail - Account Updater Field Descriptions

Field	Description
Method of Payment	The method of payment used for this transaction (Visa, MasterCard, or Discover).
Account Number	The account number that the customer used for this transaction. Only the last four digits are visible, unless you have permission to view the full account number.
Exp. Date	The expiration date of the credit card used in the transaction. Displays as “ <i>hidden</i> ” unless you have appropriate permissions.
BIN	The Bank Identification Number (first six digits of the card number). If available, click the link to view the BIN Lookup with Results screen. This is available for MasterCard, Visa, and Discover only.
Token Number	The reference number (token) issued by Worldpay associated with this transaction.
Token Inactivated	The date/time the token associated with this transaction was inactivated (if the token was inactivated).
Response Reason Code	The account updater response code representing the reason for the decline of the authorization (500 through 506).
Response Reason Message	The account updater response message corresponding to the response code returned by Worldpay for this transaction (for example, <i>The expiration date has changed</i> ).

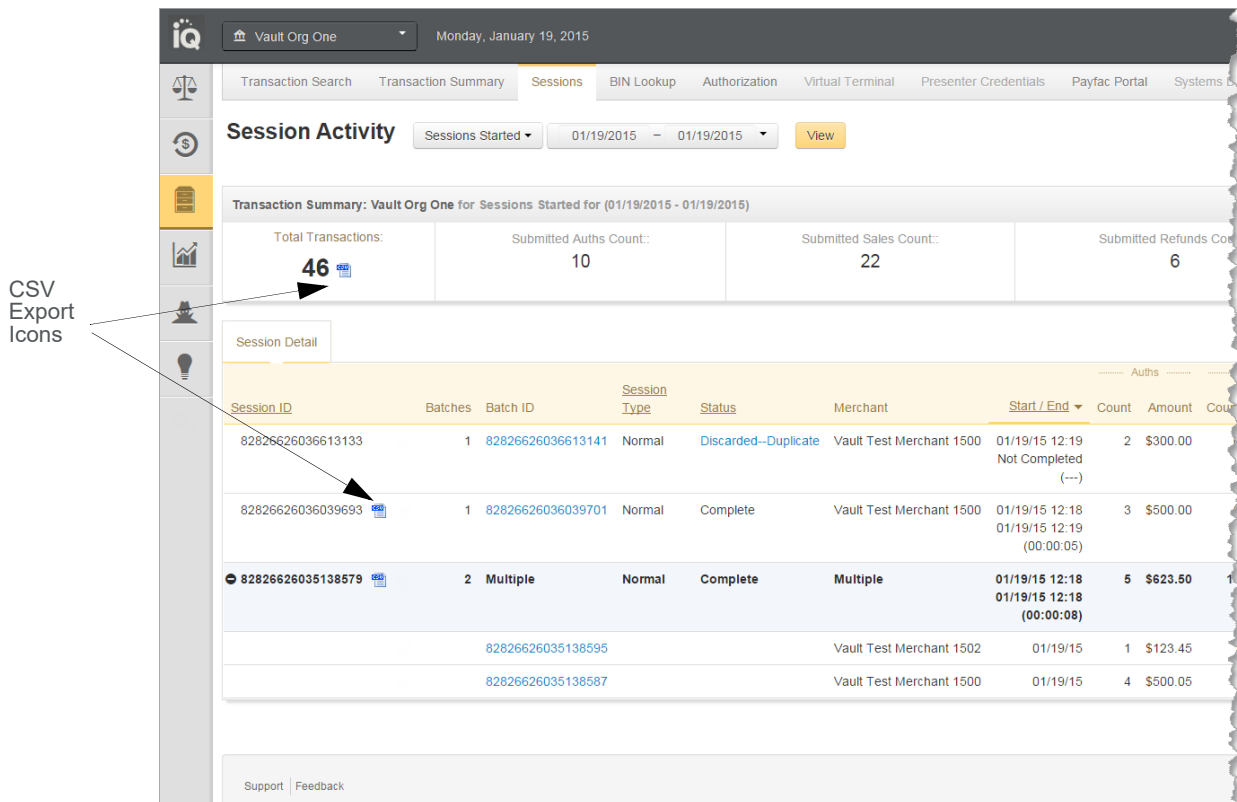
### 3.3.4 Exporting Session Data by Transaction

You can export single-day transaction-level session data from the Session Activity report or the Batch Detail report. The Session Export is designed to assist you in performing transaction-level reconciliation in

order to ensure that transaction counts align with expectations and your internal systems. The Session Export is not designed for fiscal reconciliation processes, as it does not contain settlement, fee, or deposit data. Transaction-level data is available for any single day during the previous 24 months only.

A CSV Export icon (📄) may appear on each of the reports (as shown in Figure 3-5), either next to the Total Transactions in the Summary Panel or next to a Session ID, each producing different results (explained in Table 3-7). The data is listed by transaction and exported to a file in comma separated value (csv) format.

**FIGURE 3-5** Export Icons on Session Activity Report




Note the following:

- The CSV Export icon that appears **in-line** next to the individual sessions allows you to export the indicated session. If you specify a date range that is greater than one day, the CSV export icon does not appear.
- The CSV Export icon that appears in the **Total Transactions** field of the report page (Session Activity and Batch Detail), allows you to export all sessions or transactions displayed on the page within a one-day span. If you specify a date range that is greater than one day, or is older than 24 months, the export icon is grayed out.

**TABLE 3-7** Session Export Options and Results

Report Name	Export Icon Location	Result: A CSV file containing...
Session Activity Report	In the Total Transactions Field	All transactions for all of the sessions listed in this view of the Session Activity report.
	Next to Session ID	All transactions for the session indicated.
Batch Detail Report	In the Total Transactions Field	All transactions in the batch.

To export transaction-level data from the Session or Batch Detail report:

1. From the iQ Bar, click the **Operations** icon and select **Sessions** from the list of available reports, or from the Operations Navigation bar.
2. Specify the desired report view, either **Sessions Started**, **Sessions with Activity**, or **Sessions Ended** during your selected date range.
3. Specify the desired **Date Range**, and click **View**.
4. Click the CSV Export icon (  ) in the **Total Transactions** field or next to a Session ID. See [Table 3-7](#) to understand the results expected for each type of export. Depending upon your browser, the File Download dialog box may appear.
5. Choose an option as follows:
  - **Open** - opens the report in your default spreadsheet application (e.g., Microsoft Excel).
  - **Save** - saves the CSV file to your computer.
  - **Cancel**

The data listed in [Table 3-8](#) are included in the file.

**TABLE 3-8** Session Export by Transaction Report Data

Field	Description
Session ID	An automatically-assigned unique identification number for the session associated with the transaction.
Batch ID	A automatically-assigned unique identification number for the batch associated with the transaction.
Batch Post Day	The calendar day that the batch was received by Worldpay.
Transaction Processing Time stamp GMT	The time (in GMT) when the transaction was processed by Worldpay.
Batch Completion	The time (in GMT) when all transactions contained in the batch were processed by Worldpay.
Reporting Group	The Reporting Group to which the transaction applies.

**TABLE 3-8** Session Export by Transaction Report Data (Continued)

Field	Description
Presenter	The presenter who submitted the transaction. <b>Note:</b> If your organization self-presents, this field displays your organization name.
Merchant	The name of the parent organization (or Reporting Group) to which the transaction applies.
Merchant ID	The Merchant ID (or MID) to which this transaction applies.
Vantiv Payment ID	The automatically-assigned unique identifier for this transaction.
Parent Vantiv Payment ID	The Payment ID for the parent transaction. If the transaction was an reversal, capture, or credit, for example, this is the Vantiv Payment ID for the original transaction.
Merchant Order #	The unique merchant-designated identifier for this transaction.
Customer ID	The unique identifier of the purchaser associated with the transaction.
Txn Type	The type of transaction (for example, Auth, Deposit, etc.).
Purchase Currency	The currency used for the purchase, designated by a three-letter abbreviation of the country.
Purchase Amt	The total amount of the purchase associated with this transaction.
Payment Type	The method of payment (Visa, MasterCard, etc.) for this transaction.
BIN	The Bank Identification Number of the issuing bank associated with this transaction.
Account Suffix	The account number suffix that the customer used for this transaction. Regardless of account permissions, only the last four digits are visible for credit cards, and the last three digits for eChecks.
Response Reason Code	The code representing the reason for the decline of the authorization ('0' if approved).
Response Reason Message	The transaction response returned by Worldpay for this transaction. If the transaction was declined, this message provides a reason.
AVS	The Address Verification Service response code.
Fraud Check Sum Response	The response from the network for additional fraud prevention data submitted (CVV2, etc.) with this transaction.
Payer ID	The Payer ID for a PayPal transaction, typically the customer's E-mail address.
Merchant Transaction ID	The identifier specified by the merchant for this transaction. This value corresponds to the id attribute (id="value") of the transaction and is used with Online transactions for Duplicate Transaction Detection.
Affiliate	The merchant-specified identifier used to track transactions associated with your affiliate organizations.

**TABLE 3-8** Session Export by Transaction Report Data (Continued)

Field	Description
Campaign	The merchant-specified identifier used to track transactions associated with specific marketing campaigns or promotions.
Merchant Grouping ID	The merchant-specified identifier for grouping transactions by an additional transaction level ID outside of Affiliate or Campaign.
Sales Tax	The sales tax amount passed in from the merchant for the specific transaction.
FTP Filename	The name of the original file submitted by the presenter.
Session Type	The type of file submitted. The possible values are: <ul style="list-style-type: none"> <li>• Normal (batch)</li> <li>• Online (online HTTPS)</li> <li>• POS (Retail card swiped at Point of Sale terminal)</li> <li>• RFR (Account Updater Request for Response)</li> <li>• Account Updater Response</li> <li>• Worldpay-Initiated Recycling</li> </ul>
Action Performed By	The name of the Virtual Terminal user performing the action.
Customer Reference	The reference string used by the customer for the purchase (for example, a Purchase Order Number).
Secondary Amt	The Secondary amount is the principal purchase amount of the transaction, before the convenience fees, etc.



---

## Account Updater cnpAPI Examples

This chapter contains information and examples on the structure of cnpAPI transaction messages used by the Account Updater feature. For definitions of the various elements, please refer to [Chapter 5, "cnpAPI Account Updater Elements"](#).

This chapter contains the following examples:

- [Account Updater Batch Request](#)
- [Account Updater Acknowledgment Response](#)
- [Account Updater RFR](#)
- [RFR File Processing Response](#)
- [Account Updater Completion Response](#)

## 4.1 Account Updater Batch Request

To begin the Account Updater process, you need to submit an Account Updater batch request. As shown in the examples below, the parent element is `<cnpRequest>`. This element has several attributes and contains the `<authentication>` and `<batchRequest>` child elements. The `<batchRequest>` element contains the submitted card or token information as children of the `<accountUpdate>` element. [Chapter 5](#) provides definitions of each element and/or attribute.

### Example: Account Updater Request XML Structure

You must use the following structure when submitting an Account Updater request. As shown, you can submit the request using either card information or token information.

```
<cnpRequest version="12.0" xmlns="http://www.vantivcnp.com/schema" id="requestId"
numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <batchRequest id="batchId" numAccountUpdates="2" merchantId="testMerchant01">
    <accountUpdate id="1234" reportGroup="merchant01ReportGrpoup">
      <orderId>Order Id</orderId>
      <card>
        <type>Card Type</type>
        <number>Card Number</number>
        <expDate>Card Expiration Date</expDate>
      </card>
    </accountUpdate>
    <accountUpdate id="1235" reportGroup="merchant01ReportGrpoup">
      <orderId>Order Id</orderId>
      <token>
        <cnpToken>Token Number</cnpToken>
        <expDate>Card Expiration Date</expDate>
      </token>
    </accountUpdate>
  </batchRequest>
</cnpRequest>
```



**Example: Account Updater Batch Request**

```

<cnpRequest version="12.0" xmlns="http://www.vantivcnp.com/schema" id="requestId"
  numBatchRequests="2">
  <authentication>
    <user>TestOrg</user>
    <password>TestOrgPassword</password>
  </authentication>
  <batchRequest id="batchId" numAccountUpdates="02" merchantId="TestMerchant01">
    <accountUpdate id="1234" reportGroup="Merch01ReportGrp">
      <orderId>MERCH01-0001</orderId>
      <card>
        <type>MC</type>
        <number>5151102088487202</number>
        <expDate>1110</expDate>
      </card>
    </accountUpdate>
    <accountUpdate id="1235" reportGroup="Merch01ReportGrp">
      <orderId>MERCH01-0003</orderId>
      <card>
        <type>VI</type>
        <number>4271125020000039</number>
        <expDate>1211</expDate>
      </card>
    </accountUpdate>
  </batchRequest>
  <batchRequest id="batchId" numAccountUpdates="01" merchantId="TestMerchant02">
    <accountUpdate id="1256" reportGroup="Merch02ReportGrp">
      <orderId>MERCH02-0001</orderId>
      <token>
        <cnpToken>1712990000047202</cnpToken>
        <expDate>1110</expDate>
      </token>
    </accountUpdate>
  </batchRequest>
</cnpRequest>

```

## 4.2 Account Updater Acknowledgment Response

This section provides information concerning the format and elements of an Account Updater acknowledgment response. This section contains the following topics:

- [Account Updater Acknowledgment Response Format](#)
- [Account Updater Acknowledgment Response Codes](#)

### 4.2.1 Account Updater Acknowledgment Response Format

When you submit an Account Updater request, Worldpay returns an acknowledgment response. This response confirms that we have received the request and contains validation information concerning the XML syntax of the request, card numbers, and expiration dates.

#### Example: Account Updater Acknowledgment Response XML Structure

```
<cnpResponse version="11.2" response="0" message="Valid Format"
cnpSessionId="1700000128">
  <batchResponse cnpBatchId="1700000136" merchantId="TestMerchant01">
    <accountUpdateResponse id="1234" reportGroup="MerchantReportGroup01">
      <cnpTxnId>Transaction Id</cnpTxnId>
      <orderId>Order Id</orderId>
      <response>Response Code</response>
      <responseTime>Date and Time in GMT</responseTime>
      <message>Response Message</message>
    </accountUpdateResponse>
  </batchResponse>
</cnpResponse>
```

As shown in the structure above, the parent element is `<cnpResponse>`. This element has several attributes and can contain one or more `<batchResponse>` child elements. The `<batchResponse>` element also has several attributes and can contain one or more `<accountUpdateResponse>` child elements. [Chapter 5](#) provides definitions of each element and/or attribute.

#### Example: Account Updater Acknowledgment Response

```
<cnpResponse version="12.0" response="0" message="Valid Format"
cnpSessionId="1700000128">
  <batchResponse cnpBatchId="1700000136" merchantId="TestMerchant01">
    <accountUpdateResponse id="1234" reportGroup="Merch01ReportGrp">
      <cnpTxnId>1100000090</cnpTxnId>
      <orderId>MERCH01-0001</orderId>
      <response>000</response>
      <responseTime>2017-04-11T15:44:25</responseTime>
      <message>Approved</message>
    </accountUpdateResponse>
  </batchResponse>
</cnpResponse>
```

```

</accountUpdateResponse>
<accountUpdateResponse id="1235" reportGroup="Merch01ReportGrp">
  <cnpTxnId>1100000108</cnpTxnId>
  <response>000</response>
  <responseTime>2017-04-11T15:44:26</responseTime>
  <message>Approved</message>
</accountUpdateResponse>
</batchResponse>
<batchResponse cnpBatchId="1700000138" merchantId="TestMerchant02">
  <accountUpdateResponse id="1236" reportGroup="Merch02ReportGrp">
    <cnpTxnId>1100000090</cnpTxnId>
    <orderId>MERCH02-0001</orderId>
    <response>000</response>
    <responseTime>2017-04-11T15:44:25</responseTime>
    <message>Approved</message>
  </accountUpdateResponse>
  <accountUpdateResponse id="1237" reportGroup="Merch02ReportGrp">
    <cnpTxnId>1100000108</cnpTxnId>
    <orderId>MERCH02-0002</orderId>
    <response>000</response>
    <responseTime>2017-04-11T15:44:26</responseTime>
    <message>Approved</message>
  </accountUpdateResponse>
</batchResponse>
</cnpResponse>

```

## 4.2.2 Account Updater Acknowledgment Response Codes

As explained above, when Worldpay receives an Account Updater request, we immediately return an acknowledgment file to you. If the response file indicates that there are any errors, you must resolve the issues and submit corrected account information in a new Account Updater request. [Table 4-1](#) provides information concerning the possible contents of the <response> and <message> elements.

**TABLE 4-1** Account Updater Acknowledgment Response Codes

Response Code	Response Message	Resolution
000	Approved	Worldpay forwards these accounts to the network (Visa and MasterCard).
301	Invalid account number	The card number is not valid. Correct the account number and resubmit the card data.
320	Invalid Expiration Date	The expiration date is not valid. Correct the expiration date and resubmit the card data.

**TABLE 4-1** Account Updater Acknowledgment Response Codes (Continued)

<b>Response Code</b>	<b>Response Message</b>	<b>Resolution</b>
821	Merchant is not authorized for tokens	You are not authorized to use tokens.
822	Token was not found	The submitted token was not found in the system. Correct the token number and resubmit.
823	Token was Invalid	The submitted token failed validation. Correct the token number and resubmit.
899	Generic token use error	There is an unspecified token use error; contact Customer Service.

## 4.3 Account Updater RFR

The Account Updater RFR (request for response) provides an alternate method of retrieving Account Updater response files for merchants not using the FTP. To allow adequate time for processing by the associations, you should submit the RFR five days after submitting the Account Updater request.

Regardless of the number of Account Updater request files submitted each day, Worldpay creates one response file per merchant ID, per (fiscal) day. As a result, if you submitted request files for more than one merchant ID, you need to submit an RFR for each one of those merchant IDs.

This section explains the format of an Account Updater RFR request.

**NOTE:** If you submit and retrieve your files via FTP, you do not need to submit an RFR. For additional information, see [Retrieving Processed Files via sFTP](#) on page 9.

### 4.3.1 Account Updater RFR Request Format

This section provides information concerning the required XML structure of a RFR request. The examples below shows a structure view of an Account Updater RFR request and an actual request. [Chapter 5](#) provides definitions of each element and/or attribute.

#### Example: RFR Request XML Structure

```
<cnpRequest version="11.2" xmlns="http://www.vantivcnp.com/schema" id="requestId"
numBatchRequests="1">
  <authentication>
    <user>userName</user>
    <password>password</password>
  </authentication>
  <RFRRequest>
    <accountUpdateFileRequestData>
      <merchantId>Merchant ID</merchantId>
      <postDay>Post date of AU request</postDay>
    </accountUpdateFileRequestData>
  </RFRRequest>
</cnpRequest>
```

**Example: Account Updater RFR Request**

```
<cnpRequest version="12.0" xmlns="http://www.vantivcnp.com/schema" id="requestId"
  numBatchRequests="0">
  <authentication>
    <user>TestOrg</user>
    <password>TestOrgPassword</password>
  </authentication>
  <RFRRequest>
    <accountUpdateFileRequestData>
      <merchantId>101</merchantId>
      <postDay>2017-06-10</postDay>
    </accountUpdateFileRequestData>
  </RFRRequest>
</cnpRequest>
```

## 4.4 RFR File Processing Response

The file is considered to be incomplete until all data pertaining to the file is received by Worldpay. If you submit an RFR request and the Account Update file is not yet complete, Worldpay sends you the following response:

**Example: Account Updater RFR “not ready” Response**

```
<cnpResponse version="12.0">  
  <RFRResponse response="1" message="The account update file is not ready yet.  
  Please try again later.">  
  </RFRResponse>  
</cnpResponse>
```

If you receive this response, please re-submit the RFR request.

## 4.5 Account Updater Completion Response

When you send an Account Updater RFR request and the response file is complete, Worldpay returns the Account Updater Completion Response, providing you with updated customer account information including reason codes supplied by the network. You can use this information to update your stored customer account information as needed.

Typically, Worldpay generates this file five days after the merchant first submits their Account Updater batch request, which is described in [Account Updater Batch Request](#) on page 44.

This section contains the following topics:

- [Account Updater Completion Response Format](#)
- [Account Updater Completion Response Codes](#)

### 4.5.1 Account Updater Completion Response Format

The examples that follow show a tree structure view of an Account Updater acknowledgment response and an example response. [Chapter 5](#) provides definitions of each element and/or attribute.

**NOTE:** If there was no change in the submitted card/token information, the system returns the original card or token information, but the response will not contain the updatedCard or updatedToken child elements.

#### Example: Account Updater Completion Response XML Structure

```
<cnpResponse version="11.2" response="0" message="Merchant Fiscal Day: 06102010"
cnpSessionId="1700000128">
  <batchResponse cnpBatchId="1700000136" merchantId="TestMerchant01">
    <accountUpdateResponse id="1234" reportGroup="MerchantReportGroup01">
      <cnpTxnId>Transaction Id</cnpTxnId>
      <orderId>Order Id</orderId>
      <response>Response Code</response>
      <responseTime>Date and Time in GMT</responseTime>
      <message>Response Message</message>
      <originalCard>
        <type>Original Card Type</type>
        <number>Original Card Number</number>
        <expDate>Original Expiration Date</expDate>
      </originalCard>
      <updatedCard>
        <type>New Card Type</type>
        <number>New Card Number</number>
      </updatedCard>
    </accountUpdateResponse>
  </batchResponse>
</cnpResponse>
```



```

    <expDate>New Expiration Date</expDate>
  </updatedCard>
</accountUpdateResponse>
<accountUpdateResponse id="1235" reportGroup="MerchantReportGroup01">
  <cnpTxnId>Transaction Id</cnpTxnId>
  <response>Response Code</response>
  <responseTime>Date and Time in GMT</responseTime>
  <message>Response Message</message>
  <originalToken>
    <cnpToken>Original Token Number</cnpToken>
    <expDate>Original Expiration Date</expDate>
    <type>Original Card Type</type>
    <bin>Original BIN</bin>
  </originalToken>
  <updatedToken>
    <cnpToken>New Token Number</cnpToken>
    <expDate>New Expiration Date</expDate>
    <type>New Card Type</type>
    <bin>Original BIN</bin>
  </updatedToken>
</accountUpdateResponse>
</batchResponse>
</litleResponse>

```

**Example: Account Updater Completion Response**

```

<cnpResponse version="12.0" response="0" message="Merchant Fiscal Day: 04192010"
  cnpSessionId="1700008089">
  <batchResponse cnpBatchId="1700008097" merchantId="MerchandId">
    <accountUpdateResponse id="1234" reportGroup="TEST">
      <cnpTxnId>1100019298</cnpTxnId>
      <orderId>123456789ABC12345</orderId>
      <response>503</response>
      <responseTime>2017-05-01T10:24:31</responseTime>
      <message>The issuing bank does not participate in the update
program.</message>
      <originalCard>
        <type>VI</type>
        <number>4841020582907</number>
        <expDate>1210</expDate>
      </originalCard>
    </accountUpdateResponse>
  </batchResponse>
</cnpResponse>

```

```

    </originalCard>
</accountUpdateResponse>
<accountUpdateResponse id="1235" reportGroup="TEST">
  <cnpTxnId>1100019264</cnpTxnId>
  <orderId>123456789ABC12346</orderId>
  <response>502</response>
  <responseTime>20017-05-01T10:24:31</responseTime>
  <message>The expiration date was changed</message>
  <originalCard>
    <type>VI</type>
    <number>4841020582904077</number>
    <expDate>1109</expDate>
  </originalCard>
  <updatedCard>
    <type>VI</type>
    <number>4841020582904077</number>
    <expDate>1111</expDate>
  </updatedCard>
</accountUpdateResponse>
<accountUpdateResponse id="1236" reportGroup="TEST">
  <cnpTxnId>1100019249</cnpTxnId>
  <orderId>123456789ABC12347</orderId>
  <response>500</response>
  <responseTime>2017-05-01T10:24:31</responseTime>
  <message>The account number was changed</message>
  <originalCard>
    <type>VI</type>
    <number>4841102000050004</number>
    <expDate>1109</expDate>
  </originalCard>
  <updatedCard>
    <type>VI</type>
    <number>4841102010003209</number>
    <expDate>1112</expDate>
  </updatedCard>
</accountUpdateResponse>
<accountUpdateResponse id="1237" reportGroup="TEST">
  <cnpTxnId>1100019322</cnpTxnId>
  <orderId>123456789ABC12348</orderId>
  <response>500</response>
  <responseTime>2017-05-01T10:24:31</responseTime>
  <message>The account number was changed</message>
  <originalToken>
    <cnpToken>1741102000080001</cnpToken>

```

```

    <expDate>1110</expDate>
    <type>VI</type>
    <bin>484110</bin>
  </originalToken>
  <updatedToken>
    <cnpToken>1741102000080216</cnpToken>
    <expDate>1111</expDate>
    <type>VI</type>
    <bin>484111</bin>
  </updatedToken>
</accountUpdateResponse>
</batchResponse>
</cnpResponse>

```

**NOTE:** The example above shows both card and token response information to illustrate the XML structures. In practice, you would not receive both token and card information in a response. If you are not using the Vault, you receive only card information; if you are using the Vault, you receive only token information.

## 4.5.2 Account Updater Completion Response Codes

The Account Updater completion response code and its associated message (as shown in [Table 4-2](#)) specify whether or not an account number has been changed and what type of change occurred, if any.

- The Response Code value appears in the <response> element.
- The Response Message value appears in the <message> element.
- The Resolution column provides a recommended action.

**TABLE 4-2** Account Updater Completion Response Codes

Response Code	Response Message	Resolution
191	The merchant is not registered in the update program	Escalate this to your Customer Experience Manager. This indicates a set-up problem that must be resolved prior to submitting another request file.
500	The account number was changed	Submit the account number returned in the completion response. <b>Note:</b> The response may also indicate that both the account number and expiration date changed.
501	The account was closed	Contact the cardholder for updated information.
502	The expiration date was changed	Submit the expiration date returned in the completion response.

**TABLE 4-2** Account Updater Completion Response Codes (Continued)

<b>Response Code</b>	<b>Response Message</b>	<b>Resolution</b>
503	The issuing bank does not participate in the update program.	The Issuer does not participate in the Account Updater program. Submit original card information.
504	Contact the cardholder for updated information	Contact the cardholder for updated information
505	No match found	There was no match found in the updated information. Submit the original card information
506	No changes found	Submit the original card information
507	The cardholder has opted out of the update program	The cardholder has chosen not to participate in the updater program. Updates are not available for this card/cardholder.

---

## cnpAPI Account Updater Elements

This chapter provides definitions for the elements and attributes used in cnpAPI associated with the Account Updater feature. This information is intended to be used in combination with the various cnpAPI schema files to assist you as you build the code necessary to submit Account Updater transactions to our transaction processing systems. Each section defines a particular element, its relationship to other elements (parents and children), as well as any attributes associated with the element.

For additional information on the structure of cnpAPI requests and responses using these elements, as well as cnpAPI examples, please refer to [Chapter 4, "Account Updater cnpAPI Examples"](#).

The XML elements defined in this chapter are listed alphabetically.

## 5.1 accountUpdate

The `accountUpdate` element is the parent element for all Account Updater request transactions. You can use this only with Batch transactions.

### Parent Elements:

[batchRequest](#)

### Attributes:

Attribute Name	Type	Required?	Description
id	String	Yes	A unique identifier assigned by the presenter and mirrored back in the response. <b>minLength</b> = N/A <b>maxLength</b> = 25
customerId	String	No	A value assigned by the merchant to identify the consumer. <b>minLength</b> = N/A <b>maxLength</b> = 50
reportGroup	String	Yes	Required attribute that defines the merchant sub-group in the user interface where this transaction will be displayed. <b>minLength</b> = 1 <b>maxLength</b> = 25

### Child Elements: (Required)

[orderId](#), [cardOrToken](#) (allows the substitution of either the `card` or `token` elements)

## 5.2 accountUpdateFileRequestData

The `accountUpdateFileRequestData` element is a child of the `RFRRequest` element, required when requesting the response file for an Account Updater submission.

### Parent Elements:

[RFRRequest](#)

### Attributes:

None

### Child Elements:

Required: [merchantId](#)

Optional: [postDay](#)

### Example: accountUpdateFileRequestData Structure

```
<accountUpdateFileRequestData>
  <merchantId>Merchant ID</merchantId>
  <postDay>Post Date</postDay>
</accountUpdateFileRequestData>
```

## 5.3 accountUpdateResponse

The `accountUpdateResponse` element is the parent element for all Account Updater responses transactions. You can use this only with Batch transactions.

### Parent Elements:

[batchResponse](#)

### Attributes:

Attribute Name	Type	Required?	Description
id	String	No	The response returns the same value submitted in the <code>accountUpdate</code> transaction. <b>minLength</b> = N/A <b>maxLength</b> = 25
customerId	String	No	The response returns the same value submitted in the <code>accountUpdate</code> transaction. <b>minLength</b> = N/A <b>maxLength</b> = 50
reportGroup	String	Yes	The response returns the same value submitted in the <code>accountUpdate</code> transaction. <b>minLength</b> = 1 <b>maxLength</b> = 25

### Child Elements: (Required)

[cnpTxnId](#), [orderId](#), [response](#), [responseTime](#), [message](#)

### Child Elements: (Optional)

[originalCard](#), [updatedCard](#), [originalToken](#), [updatedToken](#)



## 5.4 authentication

The `authentication` element is a required element of both the `cnpOnlineRequest` and the `batchRequest` elements. It contains child elements used to authenticate that the XML message is from a valid user.

**Parent Elements:**

`cnpOnlineRequest`, `cnpRequest`

**Attributes:**

None

**Child Elements:**

Required: `user`, `password`

**Example: authentication Structure**

```
<authentication>
  <user>User Name</user>
  <password>Password</password>
</authentication>
```

## 5.5 batchRequest

This is the root element for all cnpAPI Batch requests.

### Parent Elements:

[cnpRequest](#)

### Attributes:

**NOTE:** Worldpay requires the xxxAmount attributes if you include a greater than 0 for the associated numXXX attribute. For example, if numAuths=5 and each Authorization is \$10.00, then you must include authAmount=5000.

Attribute Name	Type	Required?	Description
id	String	No	A unique string to identify this batchRequest within the system. <b>minLength</b> = N/A <b>maxLength</b> = 50
numAuths	Integer	No	Defines the total count of Authorization transactions in the batchRequest. <b>minLength</b> = N/A <b>maxLength</b> = N/A
authAmount	Integer	No	Defines the total dollar amount of Authorization transactions in the batchRequest. The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits</b> = 10
numAuthReversals	Integer	No	Defines the total count of AuthReversal transactions in the batchRequest. <b>minLength</b> = N/A <b>maxLength</b> = N/A
authReversalAmount	Integer	No	Defines the total dollar amount of AuthReversal transactions in the batchRequest. The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits</b> = 10
numCaptures	Integer	No	Defines the total count of Capture transactions in the batchRequest. <b>minLength</b> = N/A <b>maxLength</b> = N/A

Attribute Name	Type	Required?	Description
captureAmount	Integer	No	Defines the total dollar amount of Capture transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numCredits	Integer	No	Defines the total count of Credit transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
creditAmount	Integer	No	Defines the total dollar amount of Credit transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numForceCaptures	Integer	No	Defines the total count of Force Capture transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
forceCaptureAmount	Integer	No	Defines the total dollar amount of Force Capture transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numSales	Integer	No	Defines the total count of Sale transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
saleAmount	Integer	No	Defines the total dollar amount of Sale transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numEmails (not used at this time)	Integer	No	Defines the total count of Email Notification transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
emailAmount (not used at this time)	Integer	No	Defines the total dollar amount of Email Notification transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numCaptureGivenAuths	Integer	No	Defines the total count of Capture Given Auth transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>

Attribute Name	Type	Required?	Description
captureGivenAuthAmount	Integer	No	Defines the total dollar amount of Capture Given Auth transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numEcheckSales	Integer	No	Defines the total count of Echeck Sale transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
echeckSaleAmount	Integer	No	Defines the total dollar amount of Echeck Sale transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numEcheckCredit	Integer	No	Defines the total count of Echeck Credit transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
echeckCreditAmount	Integer	No	Defines the total dollar amount of Echeck Credit transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numEcheckVerification	Integer	No	Defines the total count of Echeck Verification transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
echeckVerificationAmount	Integer	No	Defines the total dollar amount of Echeck Verification transactions in the <code>batchRequest</code> . The decimal point is implied. For example, you enter \$25.00 as 2500. <b>totalDigits = 10</b>
numEcheckRedeposit	Integer	No	Defines the total count of eCheck Redeposit transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
numAccountUpdates	Integer	No	Defines the total count of Account Update transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>
numTokenRegistrations	Integer	No	Defines the total count of Token Registration transactions in the <code>batchRequest</code> . <b>minLength = N/A maxLength = N/A</b>

Attribute Name	Type	Required?	Description
merchantId	String	Yes	A unique string to identify the merchant within the system. <b>minLength</b> = N/A <b>maxLength</b> = 50

**Child Elements:**

Required: [authentication](#)

At least one of the following required: [accountUpdate](#), authorization, authReversal, capture, captureGivenAuth, credit, echeckSale, echeckCredit, forceCapture, sale

## 5.6 batchResponse

The `batchResponse` element is the parent element for information returned to you in response to a batch you submitted for processing. It is a child of a `cnpResponse` element.

### Parent Elements:

[cnpResponse](#)

### Attributes:

Attribute Name	Type	Required?	Description
id	String	No	In the acknowledgment message, the response returns the same value submitted in the <code>batchRequest</code> . This attribute is not returned in the AU completion response message. <b>minLength</b> = N/A <b>maxLength</b> = 25
cnpBatchId	Long	Yes	A unique value assigned by us to identify the batch. <b>minLength</b> = N/A <b>maxLength</b> = 19
merchantId	String	Yes	The response returns the same value submitted in the authorization transaction. <b>minLength</b> = 1 <b>maxLength</b> = 50

### Child Elements:

Required: [accountUpdateResponse](#), `authorizationResponse`, `authReversalResponse`, `captureResponse`, `captureGivenAuthResponse`, `creditResponse`, `echeckCreditResponse`, `echeckSaleResponse`, `forceCaptureResponse`, `saleResponse`

## 5.7 bin

The `bin` element provides the 6-digit Bank (or Issuer) Identification Number of the Issuing Bank. The system returns this value in XML responses when issuing new tokens to replace Visa or MasterCard account numbers. For Discover and American Express cards, this element is empty.

**Type** = String; **minLength** = 0; **maxLength** = 6

### Parent Elements:

The `bin` element is an optional child of each listed parent element.

`registerTokenResponse`, `tokenResponse`, `newCardTokenInfo`, `originalCardTokenInfo`, [originalToken](#), [updatedToken](#)

### Attributes:

None

### Child Elements:

None

## 5.8 card

The `card` element defines payment card information. It is a required element for most transaction types unless the transaction uses an alternate payment method such as PayPal. It contains one or more child elements depending upon whether the transaction is a card-not-present or a card-present (face-to-face) transaction.

### Parent Elements:

[accountUpdate](#), authorization, captureGivenAuth, credit, forceCapture, sale

### Attributes:

None

### Child Elements:

For card-not-present transactions and Account Update (Required): [type](#), [number](#), [expDate](#)

For card-present transactions (Required): [track](#)

For both transactions types (Optional): [cardValidationNum](#)

### Example: card Structure - Card-Not-Present

```
<card>
  <type>Card Type Abbreviation</type>
  <number>Account Number</number>
  <expDate>Expiration Date</expDate>
  <cardValidationNum>Card Validation Number</cardValidationNum>
</card>
```

### Example: card Structure - Card-Present

```
<card>
  <track>Magnetic Stripe Read</track>
</card>
```



## 5.9 cardOrToken

The `cardOrToken` element is an abstract that allows the substitution of either the card or token element. You must specify one of the two substitution elements as a child of the `accountUpdate` element.

**Parent Elements:**

`accountUpdate`

**Substitution Options:**

`card`, `token`

## 5.10 cnpRequest

This is the root element for all cnpAPI Batch requests.

### Parent Elements:

None

### Attributes:

Attribute Name	Type	Required?	Description
version	String	Yes	Defines the cnpAPI schema version against which the XML is validated. The current version is 7.3, but you may be using an older version. <b>minLength</b> = N/A <b>maxLength</b> = 10
xmlns	String	Yes	Defines the URI of the schema definition. This is a fixed location and must be specified as: http://www.vantivcnp.com/schema. <b>minLength</b> = N/A <b>maxLength</b> = 38
id	String	No	A unique string to identify the session within the system. <b>minLength</b> = N/A <b>maxLength</b> = 25
numBatchRequests	Integer	Yes	Defines the total number of batchRequest children included in the cnpRequest. If the cnpRequest contains only an RFRRequest, then set this attribute to "0".

### Child Elements:

Required: [authentication](#)

One of the following required: [batchRequest](#), [RFRRequest](#)

## 5.11 cnpResponse

This is the root element for all cnpAPI Batch responses.

### Parent Elements:

None

### Attributes:

Attribute Name	Type	Required?	Description
version	String	Yes	Defines the cnpAPI schema version against which we validate the XML message. <b>minLength</b> = N/A <b>maxLength</b> = 10
id	String	No	The response returns the same value submitted in the authorization transaction. <b>minLength</b> = N/A <b>maxLength</b> = 25
response	String	Yes	Indicates whether your XML syntax passed validation. Expected values are as follows: 0 - XML validation succeeded. 1 - XML validation failed. See the message attribute for more details. <b>minLength</b> = N/A <b>maxLength</b> = 3
message	String	Yes	XML validation error message. Expected values are as follows: <ul style="list-style-type: none"> <li>If the response attribute returns 0, the message attribute returns the text "Valid Format."</li> <li>If the response attribute returns 1, the message attribute returns an error message that helps you to identify and troubleshoot the syntax problem.</li> </ul> <b>minLength</b> = N/A <b>maxLength</b> = 512
cnpSessionId	Long	Yes	A unique value assigned by us to identify the session. <b>minLength</b> = N/A <b>maxLength</b> = 19

### Child Elements:

One of the following required: [batchResponse](#), [RFRResponse](#)

## 5.12 cnpToken

The `cnpToken` element defines the value of the token. The system returns this value in XML responses when issuing new tokens to replace account numbers. The length of the token is the same as the length of the submitted account number.

**Type** = String; **minLength** = 13; **maxLength** = 25

### Parent Elements:

The `cnpToken` element is an optional child of each listed parent element.

`registerTokenResponse`, and `tokenResponse`, [originalToken](#), [updatedToken](#)

### Attributes:

None

### Child Elements:

None

## 5.13 cnpTxnId

The `cnpTxnId` element is used to identify transactions in the system. The system returns this element in XML responses. You use it in various requests to reference the original transaction. For example, when you submit a Capture transaction, you include the `cnpTxnId` for the associated Authorization.

**Type** = Long; **minLength** = N/A; **maxLength** = 19

### Parent Elements:

This element is a required child of the following: [accountUpdateResponse](#), `authorizationResponse`, `authReversalResponse`, `capture`, `captureResponse`, `credit`, `creditResponse`, `captureGivenAuthResponse`, `echeckCredit`, `echeckCreditResponse`, `echeckSaleResponse`, `forceCapture`, `forceCaptureResponse`, `saleResponse`, `void`, `voidResponse`

This element is an optional child of the following: `authorization`, `echeckSale`, `sale`

### Attributes:

None

### Child Elements:

None

## 5.14 expDate

The `expDate` element is a child of the `card` element, which specifies the expiration date of the card and is required for card-not-present transactions.

**Type** = String; **minLength** = 4; **maxLength** = 4

**Parent Elements:**

[card](#), [token](#)

**Attributes:**

None

**Child Elements:**

None

## 5.15 merchantId

The `merchantId` element is a child of the `accountUpdateFileRequestData` element used when you request an Account Update file. This value is a unique string used to identify the merchant within the system.

Type = String; minLength = N/A; maxLength = 50

### Parent Elements:

[accountUpdateFileRequestData](#)

### Attributes:

None

### Child Elements:

None

**NOTE:** Several elements use `merchantId` as an attribute, including `batchRequest`, `batchResponse`, and `cnpOnlineRequest`.

## 5.16 message

The `message` element contains a brief definition of the response code returned for the transaction.

For a complete list of response codes and associated messages, please refer to the *Worldpay eComm cnpAPI Reference Guide*.

**Type** = String; **minLength** = N/A; **maxLength** = 512

### Parent Elements:

[accountUpdateResponse](#), `authorizationResponse`, `captureResponse`, `captureGivenAuthResponse`, `creditResponse`, `echeckCreditResponse`, `echeckSaleResponse`, `forceCaptureResponse`, `saleResponse`, `voidResponse`

### Attributes:

None

### Child Elements:

None



## 5.17 number

The `number` element is a required child of the `card` element, used for card-not-present transactions and Account Update transactions. It is also an optional child of the `accountInformation` element, used in Authorization and Sale responses. It defines the account number associated with the transaction.

**Type** = String; **minLength** = 13; **maxLength** = 25

### Parent Elements:

accountInformation, [card](#)

### Attributes:

None

### Child Elements:

None

## 5.18 orderId

The `orderId` element defines a merchant-assigned value representing the order in the merchant's system.

**Type** = String; **minLength** = N/A; **maxLength** = 25

**Parent Elements:**

[accountUpdate](#), [accountUpdateResponse](#), authorization, authorizationResponse, captureResponse, credit, creditResponse, captureGivenAuth, captureGivenAuthResponse, echeckCredit, echeckCreditResponse, echeckSale, echeckSaleResponse, forceCapture, forceCaptureResponse, sale, saleResponse, registerTokenRequest

**Attributes:**

None

**Child Elements:**

None

## 5.19 originalCard

The `originalCard` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the original information for the submitted card.

### Parent Elements:

`accountUpdateResponse`

### Attributes:

None

### Child Elements:

`type`, `number`, `expDate`

### Example: originalCard Structure

```
<originalCard>
  <type>Card Type</type>
  <number>Old Account Number</number>
  <expDate>Old Expiration Date</expDate>
</originalCard>
```

## 5.20 originalToken

The `originalToken` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the original information for the submitted token.

### Parent Elements:

[accountUpdateResponse](#)

### Attributes:

None

### Child Elements:

[cnpToken](#) or [tokenUrl](#), [expDate](#), [type](#), [bin](#)

### Example: originalToken Structure

```
<originalToken>
  <cnpToken>Old Token Number</cnpToken>
  <expDate>Old Expiration Date</expDate>
  <type>Card Type</type>
  <bin>Card BIN</bin>
</originalToken>
```

## 5.21 password

The `password` element is a required child of the `authentication` element. It is used in combination with the `user` element to authenticate that the message is from a valid source.

**Type** = String; **minLength** = N/A; **maxLength** = 20

### Parent Elements:

[authentication](#)

### Attributes:

None

### Child Elements:

None

## 5.22 postDay

The `postDay` element is an optional child of the `accountUpdateFileRequestData` element that defines the date you submitted the Account Updater request. The format is YYYY-MM-DD.

**NOTE:** This is also the same date that we created the Account Updater acknowledgment file.

Type = Date; minLength = N/A; maxLength = 10

### Parent Elements:

[accountUpdateFileRequestData](#)

### Attributes:

None

### Child Elements:

None

## 5.23 response

The `response` element contains a three digit numeric code which specifies either that the transaction is approved (000 code) or declined. The message element provides a brief definition of the response code.

For a complete list of response codes and associated messages, please refer to Appendix A of the *Worldpay eComm cnpAPI Reference Guide*.

**Type** = String; **minLength** = N/A; **maxLength** = 3

### Parent Elements:

[accountUpdateResponse](#), [authorizationResponse](#), [authReversalResponse](#), [captureResponse](#), [captureGivenAuthResponse](#), [creditResponse](#), [echeckSaleResponse](#), [echeckCreditResponse](#), [forceCaptureResponse](#), [registerTokenResponse](#), [saleResponse](#), [voidResponse](#)

### Attributes:

None

### Child Elements:

None

## 5.24 responseTime

The `responseTime` element provides a date/time stamp of the response. The format of the element is YYYY-MM-DDTHH:MM:SS. For example, 2009-12-21T11:37:04.

**Type** = String; **minLength** = N/A; **maxLength** = 19

### Parent Elements:

[accountUpdateResponse](#), [authorizationResponse](#), [authReversalResponse](#), [captureResponse](#), [captureGivenAuthResponse](#), [creditResponse](#), [echeckSaleResponse](#), [echeckCreditResponse](#), [forceCaptureResponse](#), [registerTokenResponse](#), [saleResponse](#), [voidResponse](#)

### Attributes:

None

### Child Elements:

None



## 5.25 RFRRequest

The RFRRequest element is an optional child of a cnpRequest element. You can use this type of request in one of two ways.

- To request a session response from a previously processed cnpRequest, include the cnpSessionId child. The resulting RFR response will duplicate the original session response associated with the cnpSessionId. The session ID returned in the response will be the session ID of the original session.
- To request an Account Updater completion response file, include the accountUpdateFileRequestData element. If the completion file is ready, it is returned. If the completion file is not ready, you receive an RFR Response message with the response attribute set to 1 and the message attribute reading, "The account Update file is not ready yet. Please try again later."

### Parent Elements:

[cnpRequest](#)

### Attributes:

None

### Child Elements: (Choice of)

cnpSessionId or [accountUpdateFileRequestData](#)

### Example: RFRRequest Structure - Batch

```
<RFRRequest>
  <cnpSessionId>Session ID</cnpSessionId>
</RFRRequest>
```

### Example: RFRRequest Structure - Account Updater

```
<RFRRequest>
  <accountUpdateFileRequestData>
    <merchantId>Merchant ID</merchantId>
    <postDay>Post Date</postDay>
  </accountUpdateFileRequestData>
</RFRRequest>
```

## 5.26 RFRResponse

The RFRResponse element is an optional child of a cnpResponse element returned in response to a RFRRequest.

### Parent Elements:

[cnpResponse](#)

### Attributes:

Attribute Name	Type	Required?	Description
response	String	Yes	The RFR Response Code indicating the result of the RFR request. <b>minLength = N/A maxLength = 3</b>
message	String	Yes	A brief definition of the response code returned for this transaction. <b>minLength = N/A maxLength = 512</b>

### Child Elements:

None

## 5.27 token

The `token` element replaces the `card` element in tokenized transactions and defines the tokenized payment card information.

### Parent Elements:

authorization, captureGivenAuth, credit, forceCapture, sale, [accountUpdate](#)

### Attributes:

None

### Child Elements:

Required: [cnpToken](#) or [tokenUrl](#)

Optional: [expDate](#), cardValidationNum, checkoutId

## 5.28 tokenUrl

The `tokenUrl` element is an optional child of the `token`, `originalToken`, `updatedToken` elements. You use it to submit the token URL value when submitting an Account Updater request via WPG (Worldpay Gateway). This value must use the following pattern: `http.?://.*/*`

**Type** = String; **minLength** = N/A; **maxLength** = 400

**NOTE:** You can only use the `tokenUrl` element in an Account Updater request, when requesting the Account Updater service from WPG.

### Parent Elements:

`token`, `updatedToken`, `originalToken`

### Attributes:

None

### Child Elements:

None

## 5.29 type

This `type` element defines the type of account used in the transaction in terms of card association, card company, Bill Me Later, or PayPal. From an Account Updater perspective, MC, VI, and DI are the only valid enumerations.

**NOTE:** Please refer to the *Worldpay eComm cnpAPI Reference Guide* for information about other uses of the `type` element.

**Type** = String (Enum); **minLength** = N/A; **maxLength** = 2

### Parent Elements:

accountInformation, [originalCard](#), [updatedCard](#), registerTokenResponse, tokenResponse, [card](#), [originalToken](#), [updatedToken](#)

### Attributes:

None

### Child Elements:

None

### Enumerations: (Only VI, MC, and DI valid for Account Updater)

Enumeration	Description
MC	MasterCard
VI	Visa
AX	American Express
DC	Diner's Club
DI	Discover
PP	PayPal
JC	JCB (Japanese Credit Bureau)
BL	Bill Me Later
"" (empty)	Card type unknown or undefined

## 5.30 updatedCard

The `updatedCard` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the updated information for the submitted card.

### Parent Elements:

[accountUpdateResponse](#)

### Attributes:

None

### Child Elements:

[type](#), [number](#), [expDate](#)

### Example: originalCard Structure

```
<updatedCard>
  <type>Card Type</type>
  <number>New Account Number</number>
  <expDate>New Expiration Date</expDate>
</updatedCard>
```

**NOTE:** The `updatedCard` element may also contain the value of "N/A" for the `type`, `number`, and `expDate` element.

## 5.31 updatedToken

The `updatedToken` element is an optional child of the `accountUpdateResponse` element, which contains child elements providing the updated information for the submitted token.

### Parent Elements:

`accountUpdateResponse`

### Attributes:

None

### Child Elements:

`cnpToken` or `tokenUrl`, `expDate`, `type`, `bin`

### Example: updatedToken Structure

```
<updatedToken>
  <cnpToken>New Token Number</cnpToken>
  <expDate>New Expiration Date</expDate>
  <type>Card Type</type>
  <bin>Card BIN</bin>
</updatedToken>
```

**NOTE:** The `updatedToken` element may also contain the value of "N/A" for the `cnpToken`, `expDate`, and `type` elements.

## 5.32 user

The `user` element is a required child of the `authentication` element. It is a unique identifier of the user/merchant used to authenticate that the message is from a valid source.

**Type** = String; **minLength** = N/A; **maxLength** = 20

### Parent Elements:

[authentication](#)

### Attributes:

None

### Child Elements:

None



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