

Offline Transaction File Submission

Implementation Guide

August 2018



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Recent Revisions to this Document

Release Date	Changes
August 2018	■ Updated targetAPIVersion. See "File Header," page 15.
July 2018	■ Updated Java sample code.
September 2017	■ Updated information about header requirements in batch files.
August 2016	■ Updated information about creating custom batch templates.
December 2015	■ Updated Java sample code.
October 2014	■ Corrected batch upload validate XML file name. See "Viewing the Status of Your Batch File Submissions," page 20.

About This Guide

Audience

This guide is written for users of the Business Center who are using batch files to process order requests.

Scope

The Offline Transaction File Submission system uses fields from the CyberSource Simple Order API, not from the SCMP API. If you use the SCMP API to process individual transactions, you will need to know which Simple Order API fields correspond to the SCMP API fields with which you are familiar.

Note, Important, and Warning Statements



Note

A *Note* contains helpful suggestions or references to material not contained in the document.



Important

An *Important* statement contains information essential to successfully completing a task or learning a concept.



Warning

A *Warning* contains information or instructions, which, if not heeded, can result in a security risk, irreversible loss of data, or significant cost in time or revenue or both.

Text and Command Conventions

Convention	Usage
bold	<ul style="list-style-type: none"> Field and service names in text; for example: Include the ics_applications field. Items that you are instructed to act upon; for example: Click Save.
<i>italic</i>	<ul style="list-style-type: none"> Filenames and pathnames. For example: Add the filter definition and mapping to your <i>web.xml</i> file. Placeholder variables for which you supply particular values.
monospace	<ul style="list-style-type: none"> XML elements. Code examples and samples. Text that you enter in an API environment; for example: Set the davService_run field to <code>true</code>.

Related Documents

To use a batch file to process credit card transactions, see [Credit Card Services with the Simple Order API](#) for information about the Simple Order API fields available with the CyberSource Credit Card Services.

To use a batch file to process electronic checks, see the Simple Order API chapter in the [Electronic Check Services for the Simple Order API](#) for information about the Simple Order API fields available with the CyberSource Electronic Check Services.

To use a batch file to process transactions that use any other CyberSource service, see the chapter about the Simple Order API in the implementation guide that describes that service.

All the implementation guides are available on the [Support Center](#).

Refer to the Support Center for complete CyberSource technical documentation:

http://www.cybersource.com/support_center/support_documentation

Customer Support

For support information about any CyberSource service, visit the Support Center at:

<http://www.cybersource.com/support>

Offline Transaction File Submission

Offline Transaction File Submission allows you to send a single file, called a batch file or batch transaction file, to CyberSource that contains a set (batch) of transaction requests instead of sending individual requests. The information you provide for each request in the batch file is the same information you provide for an individual service request.

In one file, you can include transactions that use different services, currencies, countries, merchant IDs, and card types, thus eliminating the burden of handling these values separately. However, each template provided through the Business Center covers only one type of transaction.

Most CyberSource services can be accessed in a batch file. However, the following services cannot be requested in a batch file:

- Payer authentication enrollment check (**payerAuthEnrollService**)
- Bank transfer (**bankTransferService**)
- PayPal button creation (**paypalButtonCreateService**)
- PayPal credit (**paypalCreditService**)

To use batch files in the Business Center, you must:

- Download the appropriate template.
- Create the batch file.
- Upload the batch file.



Important

CyberSource does not recommend this feature for TID-based processors or APACS-based processors because batch files for these kinds of processors can cause time outs and errors. For more information, contact your CyberSource Technical Account Manager.

API Fields

The Offline Transaction File Submission system uses API fields from the CyberSource Simple Order API; it does not use fields from the SCMP API. For the mapping between the SCMP API fields and the Simple Order API fields, see [Appendix A, "API Field Mapping," on page 62](#).

Downloading a Template

There is a template for each type of transaction that you can submit in a batch file. The following table lists these templates.

Table 1 Batch File Templates

Card Transactions	Check Transactions	Subscriptions
<ul style="list-style-type: none"> ■ Authorizations ■ Sales ■ Captures ■ Credits ■ Sales with Level III ■ Captures with Level III ■ Credits with Level III 	<ul style="list-style-type: none"> ■ Electronic Check Debits ■ Electronic Check Credits 	<ul style="list-style-type: none"> ■ Create Subscriptions ■ Update Subscriptions ■ Cancel Subscriptions

Step 1 To download a template, go to **Tools & Settings > Batch Transactions > Templates**.

Transaction Batch Templates

[I need help with this page.](#)

Use this page to download the templates for the types of transaction batches that you want to send with CyberSource. Each template is a spreadsheet that lists the fields that you can include in your batch files.

Transaction Batch Templates

Template

Step 2 Select a template from the list of templates.

Step 3 Click **Download**.

Step 4 Enter the destination for the template.

Creating a Custom Template

Custom templates enable you to send batch files that contain information for other transaction services not included with the standard template, such as direct debit and direct debit refunds. When you create a custom template from a standard template, request fields do not have to be in a specific order.

-
- Step 1** Follow the file formatting rules in "Creating a Batch File," page 10 to generate a batch file for upload.
 - Step 2** At the end of the file header, add another comma and type "Template=custom".
 - Step 3** Save the file.
-

Example File Header

```
merchantID=infodev,batchID=12345,creationDate=2007-06-12,recordCount=3,purchaseTotals_
currency=EUR,statusEmail=nobody@example.com,targetAPIVersion=1.90,
Template=custom
```

Creating a Batch File

-
- Step 1** Make a copy of the template you downloaded.
 - Step 2** Open the copy, which is in CSV format. CyberSource recommends that you use Excel or a similar program. If you use Excel, you must *import* the file. If you *open* the file, Excel will not process the CSV formatting correctly.
 - Step 3** Enter a batch ID in the file header. This value is a file (batch) identifier that you assign. The batch ID must be unique. Format: alphanumeric with a maximum of 8 characters.
-



Important

You can enter up to 10 elements in the header of the batch file.

-
- Step 4** Load your transaction data into the file starting in row 4.
The information that you provide for each request in the batch file is the same information that you would provide for an individual service request. The template specifies the required and optional fields for the batch file's transaction type. For a description of each field, see the template descriptions:

[http://apps.cybersource.com/library/documentation/sbc/SB_Batch_Submission_UG/ Batched_Template_Guides.pdf](http://apps.cybersource.com/library/documentation/sbc/SB_Batch_Submission_UG/Batched_Template_Guides.pdf)

Page through the template descriptions to find the pertinent information for your transaction type.

Step 5 You can enter the data in one of three ways:

- Enter it manually.
- Copy and paste it.
- Write a program to load it into the template.



Note

Files that include non-ISO-8859-1 characters (letters with diacritical markings) will be processed, but the characters will appear as question marks when the transaction details are viewed in the Business Center and in the reports.

Step 6 Count the number of records in the file and enter this value for the record count in the file header.



Note

The system will set the trailer record as well as additional fields in the file header.

Step 7 Save the file.

Uploading a Batch File

Step 1 Choose **Tools & Settings > Batch Transactions > Upload**.

Transaction Batch Upload

[Page help](#) [Page feedback](#)

Use this page to send to CyberSource transaction batch files instead of individual transactions. Before uploading your files, make sure that they follow the format described in the transaction batch templates.

Transaction Batch Upload

Reference Notes for Batch

Email Address for Status

File Name No file chosen

Step 2 Optional: Enter reference notes for the batch and an email address for receiving status messages.

Step 3 Click **Browse** and navigate to the batch file.

Step 4 Click **Submit**.**Note**

You can submit multiple batch files by repeating Steps **b** through **d** for each batch file.

CyberSource reads the file, verifies that it conforms to the template, and sends you an email indicating whether the file passed the verification test.

Step 5 Optional: View the batch file's status on the **Batch Upload Search** page. Specify a search date range and click **Search**. Your results appear in the status grid.**Note**

Batch status is available on batches uploaded within 31 calendar days. After processing is completed, the information will be available in the Batch Files Detail Report and Batch Files Daily Summary Report as described in [Chapter 2, "Batch File Reports," on page 31](#).

Table 2 Status Values

Status	Description
Validating	<p>After the file is uploaded, the system displays Validating in the status grid. CyberSource will usually update the status in the grid and send a batch status alert within 30 minutes of receiving the file. However, actual timing depends on the system load and the number of files ahead of yours.</p> <p>CyberSource will not process any of the requests in the file if there is any type of syntax error. If multiple records in the file have errors, CyberSource will send only one email with the line number of the first failed record. Typical errors are:</p> <ul style="list-style-type: none"> ■ The recordCount you specified in the file header does not match the number of data records in the file. ■ A data record in the file does not have the correct number of fields as specified in the data header. The batch status alert will indicate the line number of the problem data record.
Rejected	<p>If the validation fails, the system displays Rejected in the status grid. To handle a failed validation, follow the suggested remedy in the batch status alert. If you need to resend the file, use the same batchID that you used for the original file unless otherwise instructed in the batch status alert.</p>
Processing	<p>If the validation succeeds, the system displays Processing in the status grid and CyberSource begins processing the transactions. The transaction processing time depends on the time of day and the size of your file. You need to submit the batch file early enough in the day to allow plenty of time for validation and processing before your batch cutoff time.</p>
Completed	<p>When the processing has been completed, the system displays Completed in the status grid and the date in the Uploaded column becomes a link to a Batch Files Daily Summary report, which is described in Chapter 2, "Batch File Reports," on page 31.</p>

Step 6 Receive the batch status alerts.

The system sends you an email when batch file validation succeeds or fails and when batch file processing is complete.

**Note**

You can also view validation files as described in "[Viewing the Status of Your Batch File Submissions](#)," page 20.

Step 7 View the reports and response files for your transaction requests:

- After all the requests in a batch file are processed, CyberSource creates three batch reports:

Batch Files Daily Summary Report—Shows a summary of the batched transactions.

Batch Files Detail Report—Shows details of the batched transactions.

Batch Submission Detail Report—Shows real-time detailed status information of the batched transactions.

See [Chapter 2, "Batch File Reports,"](#) on page 31.

- **Payment Submission Detail Report**—Shows all the transactions that were submitted to your processor for settlement. You can download the report daily. If the batch file has an error, the file is not processed and so the file's requests are not included in the report. See the [Reporting Developer's Guide](#).
- **Response files**—After CyberSource processes all of the requests in the batch file, CyberSource creates two types of CSV response files that you can use to determine the results of the requests. See "[Response Files](#)," page 29.

Creating and Uploading Batch Files Manually

When creating and uploading a batch file manually, you can include requests for different CyberSource services in the same file. For example, you can include authorization, capture, and credit transactions in one file. You can include a capture and credit for the same order in a single file, but if you do, the credit must be a stand-alone credit. This means you must provide the customer's name, billing address, and credit card information in the credit request record.

Security Keys

When creating and uploading a batch file manually, you must use a transaction security key:

- If you are using the SCMP API to process transactions, you cannot use the key that you already have. You need to create a separate transaction security key that works with the Simple Order API.
- If you are already using the Simple Order API to process transactions, you do not need to create another key.



Important

You must generate two transaction security keys—one for the CyberSource production environment and one for the test environment. For information about generating and using security keys, see *Creating and Using Security Keys* ([PDF](#) | [HTML](#)).

File Format

Batch files must be in CSV format.



Note

Files that include non-ISO-8859-1 characters are processed, but the characters appear as question marks when you view the transaction details in the Business Center and in the reports.

The format for a batch file is:

- A file header followed by a new line
- A data header followed by a new line
- One or more data records, each on a separate line
- A trailer record that indicates the end of the file

The file follows CSV field formatting rules. Use quotation marks (") to enclose any field that contains a comma. For example:

```
"reference=UK office, John Smith"
```

File Header

The file header consists of comma-separated name-value pairs using the fields listed in the following table.

Table 3 File Header Fields

Field Name	Description	Required or Optional
merchantID	Your CyberSource merchant ID.	Required
batchID	File (batch) identifier that you assign. The batchID must be unique. Format: alphanumeric with a maximum of 8 characters.	Required
creationDate	Creation date of the file. Format: YYYY-MM-DD.	Optional
recordCount	Total number of data records in the file.	Required
reference	Your reference notes for the file.	Optional
statusEmail	Email address or alias where CyberSource sends the file receipt notification. See " File Receipt Response ," page 19.	Required
targetAPIVersion	<p>CyberSource updates the ICS transaction API periodically. When you request an ICS service through the Simple Order API, you must specify which version of the API you want to use. CyberSource recommends that you set this field to the same value that you configure your CyberSource Simple Order API client to use. This is the client you use to send individual ICS requests with the Simple Order API. To determine the latest API version available, go to https://ics2ws.ic3.com/commerce/1.x/transactionProcessor/</p> <p>If you are enabled for partial authorization, the value for targetAPIVersion, set in each OLP input file, must be set to 1.135 or lower to ensure the OLP disables Partial Authorization for all Authorization transactions sent.</p> <p>Important Setting this field to a value that does not exist will prevent your file from being processed.</p>	Required

In the file header, you can also include any CyberSource service API fields that will have a constant value throughout the file. For example, if you plan to use only euros as the currency for all of the requests, instead of declaring a column in the data header for purchaseTotals_currency, you can include purchaseTotals_currency=EUR in the file header. It does not matter where you place it in the header. Any field that you include in the header that is not in the preceding table will be treated as an API field.

Example File Header

```
merchantID=infodev,batchID=12345,creationDate=2007-06-12,recordCount=3,reference=Additional information,purchaseTotals_currency=EUR,statusEmail=nobody@example.com,targetAPIVersion=1.135
```

Data Header

Use the data header to name the Simple Order API fields that are in the requests in the file. The data header needs to consist of a comma-separated list of the fields. The order in which you list the fields in the data header does not matter. You can include any API field that the ICS service uses.



Important

Include all of the fields that the CyberSource service requires. If any required fields are missing from the data header or file header, then all of the requests in the batch file will be rejected.

CyberSource recommends that you use the **purchaseTotals_grandTotalAmount** API field even though it is optional for your requests. CyberSource uses this field when calculating a checksum to validate that the entire file was received. See "[Trailer Record](#)," [page 17](#). You are not required to include a value for **purchaseTotals_grandTotalAmount** for all of the records. To omit the value for a particular record, leave it blank; do not set it to 0.

A request for the capture service might include these API fields:

- **ccCaptureService_run**
- **ccCaptureService_authRequestID**
- **purchaseTotals_currency**
- **merchantReferenceCode**
- **purchaseTotals_grandTotalAmount**

Example Data Header

```
ccCaptureService_run,ccCaptureService_authRequestID,purchaseTotals_
currency,merchantReferenceCode,purchaseTotals_grandTotalAmount
```

Data Records

Each data record consists of a comma-separated list of the values that corresponds to the API fields in the data header. The maximum allowable file size is 60 MB. The order of your requests in the file does not matter. Requests for different ICS services can be mixed together.

Make sure that the first three letters of every data record are not **END** because **END** indicates the trailer record.

Trailer Record

The last item in the file is the trailer record, which consists of two items:

- The word `END` followed by a comma
- The word `SUM` followed by an equal sign and the sum of all of the **`purchaseTotals_grandTotalAmount`** values in all the records in the file. When you calculate the sum, treat credits as positive values and ignore the fact that there might be different currencies. If you leave all of the **`purchaseTotals_grandTotalAmount`** values blank in the file, then set `SUM` to 0. CyberSource uses the sum that you provide to validate that the entire file was received.

Example Trailer Record When Using `purchaseTotals_grandTotalAmount` Values

```
END,SUM=1014.37
```

Example Trailer Record When Leaving `purchaseTotals_grandTotalAmount` Values Blank

```
END,SUM=0
```

File Examples

Example Captures

```
merchantID=infodev,batchID=12345,creationDate=2007-06-12,recordCount=3,"reference=UK office, John Smith",statusEmail=jsmith@example.com,targetAPIVersion=1.29
ccCaptureService_run,ccCaptureService_authRequestID,purchaseTotals_currency,merchantReferenceCode,purchaseTotals_grandTotalAmount
true,1234567891234567,EUR,ABC12320398,327.49
true,1234567891234568,GBP,ABC97611927,187.65
true,1234567891234569,EUR,ABC09177294,499.23
END,SUM=1014.37
```

Example Captures and Credits

```
merchantID=infodev,batchID=12345,creationDate=2007-06-12,recordCount=4,"reference=UK office, John Smith",statusEmail=jsmith@example.com,targetAPIVersion=1.29
ccCaptureService_run,ccCaptureService_authRequestID,ccCreditService_run,ccCreditService_captureRequestID,purchaseTotals_currency,merchantReferenceCode,purchaseTotals_grandTotalAmount
true,1234567891234567,false,,EUR,ABC12320398,327.49
true,1234567891234568,false,,GBP,ABC97611927,187.65
true,1234567891234569,false,,EUR,ABC09177294,499.23
false,,true,1234567891999994,CAD,ABC39882097,14.99
END,SUM=1029.36
```

This example has the same capture requests as the "Captures" example and it also includes a credit request for \$14.99. The data header includes additional fields used for credits. For the credit data record, ccCaptureService_run=false and ccCreditService=true.

Example Credit Card and Electronic Check Transactions

```

merchantID=infodev,batchID=12345,creationDate=2007-06-
12,recordCount=6,"reference=UK office, John Smith",statusEmail=j
smith@example.com,targetAPIVersion=1.29

ccAuthService_run,ccCaptureService_run,ccCaptureService_
authRequestID,ccCreditService_run,ccCreditService_
captureRequestID,ecDebitService_run,purchaseTotals_
currency,merchantReferenceCode,purchaseTotals_
grandTotalAmount,billTo_firstName,billTo_lastName,billTo_
street1,billTo_city,billTo_state,billTo_postalCode,billTo_
country,billTo_email,card_accountNumber,card_
expirationMonth,card_expirationYear,check_accountNumber,check_
accountType,check_bankTransitNumber
false,true,1234567891234567,false,,false,EUR,ABC12320398,327.49,
,,,,,,,,,
false,true,1234567891234568,false,,false,GBP,ABC97611927,187.65,
,,,,,,,,,
false,true,1234567891234569,false,,false,EUR,ABC09177294,499.23,
,,,,,,,,,
false,false,,true,1234567891999994,false,CAD,ABC39882097,14.99,,,,,,
,,,,,
true,true,,false,,false,USD,ABC47283891,299.12,John,Doe,123 Elm
St.,Richmond,CA,95102,US,doe@example.com,4111111111111111,05,2009,,,
false,false,,false,,true,USD,ABC26341197,39.75,Jane,Smith,988 Grape
Way,Napa,CA,96293,US,jane@example.com,,,4100,c,7293920

END,SUM=1368.23

```

This example includes the same transactions as the "Captures and Credits" example and it also includes a credit card sale, which is an authorization and capture together, for \$299.12, and an electronic check debit request for \$39.75.

File Submission Protocol

Submit the batch file to CyberSource using HTTPS. The security for the file submission is based on HTTPS and SSL and uses client certificates as part of the SSL handshake. To access the URLs listed below, your client must provide the same Simple Order API client certificate that you use to request regular individual ICS Simple Order API transactions. The client certificate is stored in a PKCS12 file named <merchantID>.p12 and is protected by a single password.

When testing, your client should submit the file to the test URL at <https://batchtest.cybersource.com/upload/UploadBatchFile>. See "Testing," page 20.

When in production, your client should submit the file to the production URL at <https://batch.cybersource.com/upload/UploadBatchFile>.

See Chapter 3, "Using Java Sample Code to Upload Files," on page 53 for more information about how to upload files to CyberSource.

File Receipt Response

After the batch file has been received, CyberSource validates the syntax and sends you a confirmation email indicating whether the file passed the validation. There is a field in the batch file's file header that specifies the email address or alias where you want the email notifications to be sent. CyberSource usually sends the email notification within 30 minutes of receiving the file. However, actual timing depends on the system load.

The following table lists the possible subject lines of the email notification.

Table 4 Possible Email Notification Subject Lines

Subject Line	Reason and Remedy
SUCCESS: Batch ID <Batch ID #> - Validation	The file was received and passed the validation checks. CyberSource will process the requests in the file. No action is required on your part.
FAILED: Batch ID <Batch ID #> - Validation	<p>Reason: The file did not pass the validation checks.</p> <p>Remedy: Look at the contents of the email and follow the suggested remedy. If you need to resend the file, use the same batch ID that you used for the original file unless otherwise instructed in the email.</p>

CyberSource will not process any of the requests in the file if there is any type of syntax error. If multiple records in the file have errors, CyberSource will send only one email with the line number of the first failed record. Typical errors that might occur are:

- CyberSource does not recognize the merchant ID that you specified in the file.
- The recordCount that you specified in the file header does not match the actual number of data records in the file.
- The file is missing the trailer record.
- A specific data record in the file does not have the correct number of fields as specified in the data header. The email will indicate the line number of the problem data record.

Transaction Processing

After the batch file is validated, CyberSource begins processing the transactions. Transaction processing time depends on the time of day and the size of your file. CyberSource begins submitting the day's settlement information to the payment processors starting at midnight Pacific time. Submit your file early enough to allow CyberSource enough time to process your file before the midnight submission deadline.

To view the results of the requested transaction processing, see "[Viewing the Results of Your Batch File Requests](#)," page 28.

Testing

When testing your system, upload your batch file to the test URL and not the production URL. The test URL is: <https://batchtest.cybersource.com/upload/UploadBatchFile>.

You will receive file receipt emails for your test files. You can also download the corresponding response files from the **Reports** area of the test version of the Business Center at <https://ebctest.cybersource.com>.

Viewing the Status of Your Batch File Submissions

Before processing the requests in your batch file, Offline Transaction File Submission validates the batch file. After attempting to validate your batch file, CyberSource creates the following types of XML-formatted response files that indicate whether the validation succeeded or failed:

- **Successful validation file**—This file indicates that your batch file is valid.
Filename format:
`<merchantID>.<batchID>.validate.Success.xml`
Example filename:
`CyberVacations.39762.validate.Success.xml`
- **Failed validation file**—This file indicates that your batch file is invalid and provides information about why the file failed validation.
Filename format:
`<merchantID>.<batchID>.validate.xml`
Example filename:
`CyberVacations.39768.validate.xml`

The response files are available in the **Reports** area on the [Business Center](#). You can download them the same way you download CyberSource reports, which is explained in the [Reporting Developer's Guide](#).

**Note**

These validation files are an optional feature. Contact Customer Support to have your account configured for these files.

Elements

<Batch>

The <Batch> element is the root of the response file.

```
<Batch BatchID=CDATA
    MerchantID=CDATA
    Name=CDATA
    Version=NMTOKEN>
    (ValidationStatus)
    (ValidatedRecords)
    (ValidationTime)
    (ValidationErrors)
</Batch>
```

Table 5 Attributes of <Batch>

Attribute Name	Description	Data Type & Length
BatchID	Batch file identifier that you assigned.	Alphanumeric (8)
MerchantID	Your CyberSource merchant ID.	Alphanumeric (30)
Name	Name of the report. This value will always be OLP Validation Report.	Alphanumeric (25)
Version	Version number of the report. The current version number is 1.0.	Numeric (10)

Table 6 Child Elements of <Batch>

Element Name	Description	Data Type & Length
ValidationStatus	Status of the attempted validation. Possible values: <ul style="list-style-type: none"> ■ Failed ■ Success ■ OnHold ■ ToBeResolved 	Alphanumeric (10)
ValidatedRecords	Number of records validated. This value is present only if the validation was successful.	Numeric (10)
ValidationTime	Timestamp for the validation process. Format: yyyy-MM-ddTHH:mm:ss	DateTime (25)
ValidationErrors	List of the errors in the batch file. This element is present only if the validation failed. See "<ValidationErrors>," page 22.	Element

<ValidationErrors>

The <ValidationErrors> element contains the errors associated with the batch file.

```
<ValidationErrors>
  (Error)*
</ValidationErrors>
```

Table 7 Child Element of <ValidationErrors>

Element Name	Description	Data Type & Length
Error	Information about an error. See "<Error>," page 23.	Element

<Error>

The <Error> element contains information about an error.

```
<Error>

    (RecordNumber)

    (ErrorCode)

    (ErrorMessage)

    (ErrorRemedy)

</Error>
```

Table 8 Child Elements of <Error>

Element Name	Description	Data Type & Length
RecordNumber	Number of the record that has an error.	Numeric (10)
ErrorCode	Code that identifies the error. See " Error Codes ," page 23.	Numeric (10)
ErrorMessage	Message that describes the error.	Alphanumeric (250)
ErrorRemedy	Message that describes the remedy for the error.	Alphanumeric (250)

Error Codes

These error codes, messages, and remedies are included in the "<Error>" element. In the following table, the %s in the error messages will be replaced with dynamic values, such as batch IDs and record numbers, in the actual error messages.

Table 9 Error Codes, Messages, and Remedies

Error Code	Error Message	Remedy
101	Missing required field in File Header record: %s.	Include the required field in the file and try again.
102	MerchantID (%s) is not in our database.	Check to make sure merchantID is valid.
103	MerchantID (%s) does not match with the ID used to log in for uploading the file.	Check merchantID and try again.
104	batchID exceeds max length of %s.	Generate a shorter batchID and try again.

Table 9 Error Codes, Messages, and Remedies (Continued)

Error Code	Error Message	Remedy
105	%s had already passed validation stage.	batchID has previously been submitted. If this is a new batch, generate a new batchID and send the file again.
106	Invalid recordCount value: %s.	Check recordCount to make sure it is numeric and try again.
107	The file does not contain any data records.	The file must contain at least one data record. Correct and try again.
108	The recordCount exceeds the maximum number of records allowed per batch (%s).	Generate a smaller batch file and try again.
109	Invalid creationDate format: %s.	Correct the date format and try again (use yyyy-mm-dd).
110	Unsupported service: %s.	The service is not supported through batching. You may only request that service directly online.
111	Missing required field in Data Header record: %s.	Include the missing required field in the file and try again.
112	Missing required field in Data Record: %s.	Include the required field in the file and try again.
113	merchantID '%s' is not valid or has not been configured correctly.	Contact CyberSource to confirm that the MerchantID you are using is valid or is configured to be submitted by another merchantID.
114	SUM in Trailer record (%s) does not match with actual total (%s).	Make sure the SUM in the Trailer record matches with the actual sum of all data records.
115	SUM in Trailer record is invalid (%s).	Check to make sure the SUM value is numeric.
116	Missing required field in File Trailer record: %s.	Pass in required field and try again.
117	Duplicate file (batchID: %s).	Make sure that the batchID is unique.
118	Duplicate file. The data content in this file seems to have been submitted in batchID=%s.	Make sure the content of the file has not been previously submitted.
119	File Trailer record is missing.	Correct file format and try again.
120	There was a problem reading the input file.	Contact CyberSource to verify that file %s was received and is readable.
121	Found Data Header record but missing File Header record.	Correct file format and try again.
122	Found Data record but missing Data Header record.	Correct file format and try again.

Table 9 Error Codes, Messages, and Remedies (Continued)

Error Code	Error Message	Remedy
123	Number of fields (%s) does not match with number of field names (%s).	Correct file format and try again.
124	Found trailer record but missing File/Data Header record.	Correct file format and try again.
201	There was a problem inserting the batch status in the database.	Contact CyberSource.
202	Problem updating: batchID: %s, status: %s"	Contact CyberSource.
203	There was a problem retrieving the merchant configuration from the database.	Contact CyberSource.
204	There was a problem validating the batchID against the database.	Contact CyberSource.
205	There was a database problem while doing the checksum.	Contact CyberSource.
301	There was an internal error while validating the file.	Contact CyberSource.

DTD

```

<!ELEMENT Batch (ValidationStatus, ValidatedRecords, ValidationTime,
                ValidationErrors)>

<!ATTLIST Batch BatchID CDATA #REQUIRED
                MerchantID CDATA #REQUIRED
                Name CDATA #REQUIRED
                Version NMTOKEN #REQUIRED>

<!ELEMENT ValidationStatus (#PCDATA)>
<!ELEMENT ValidatedRecords (#PCDATA)>
<!ELEMENT ValidationTime (#PCDATA)>
<!ELEMENT ValidationErrors (Error)*>
<!ELEMENT Error (RecordNumber, ErrorCode, ErrorMessage, ErrorRemedy)>
<!ELEMENT RecordNumber (#PCDATA)>
<!ELEMENT ErrorCode (#PCDATA)>
<!ELEMENT ErrorMessage (#PCDATA)>
<!ELEMENT ErrorRemedy (#PCDATA)>

```

Examples

Example Success

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE Batch SYSTEM "olp_validation_report_1_0.dtd">
<Batch BatchID="11111" MerchantID="gpntest" Name="OLP Validation
Report" Version="1.0">
    <ValidationStatus>Success</ValidationStatus>
    <ValidatedRecords>15</ValidatedRecords>
    <ValidationTime>2009-07-31T14:41:12</ValidationTime>
</Batch>

```

Example Failure Scenario 1

```
<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE Batch SYSTEM "olp_validation_report_1_0.dtd">

<Batch BatchID="22222" MerchantID="gpntest" Name="OLP Validation
Report" Version="1.0">

    <ValidationStatus>Failed</ValidationStatus>

    <ValidationTime>2009-07-31T14:40:14</ValidationTime>

    <ValidationErrors>

        <Error>

            <RecordNumber>3</RecordNumber>

            <ErrorCode>123</ErrorCode>

            <ErrorMessage>Number of fields (17) does not match with
                number of field names (18).</ErrorMessage>

            <ErrorRemedy>Correct file format and try again.
                </ErrorRemedy>

        </Error>

    </ValidationErrors>

</Batch>
```

Example Failure Scenario 2

```

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE Batch SYSTEM "olp_validation_report_1_0.dtd">

<Batch BatchID="33333" MerchantID="gpntest" Name="OLP Validation Report"
Version="1.0">

    <ValidationStatus>Failed</ValidationStatus>

    <ValidationTime>2009-07-31T14:40:36</ValidationTime>

    <ValidationErrors>

        <Error>

            <RecordNumber>0</RecordNumber>

            <ErrorCode>114</ErrorCode>

            <ErrorMessage>SUM in Trailer record (14.00) does not match
                with actual total (15.00).</ErrorMessage>

            <ErrorRemedy>Make sure the SUM in the Trailer record matches
                with the actual sum of all data records.</ErrorRemedy>

        </Error>

    </ValidationErrors>

</Batch>

```

Viewing the Results of Your Batch File Requests

Reports and response files provide information about the requests in your batch files.

Reports

The following reports provide information about your batch file requests:

- **Batch Files Detail Report**—Provides details about the transactions that were batched using the upload process. See ["Batch Files Detail Report," page 31](#).
- **Batch Files Daily Summary Report**—Provides a summary of the batch transactions. See ["Batch Files Daily Summary Report," page 45](#).

- **Payment Submission Detail Report**—Shows all the transactions that were submitted to your processor for settlement. You can download the report daily. If the batch file has an error, the file is not processed and so the file's requests are not included in the report. See the [Reporting Developer's Guide](#).
- **Batch Submission Detail Report**—Provides similar information as the Batch Files Detail Report, but returns a real-time response with details about the transactions that were batched using the upload process. See "[Batch Submission Detail Report: Overview](#)," page 47.

Response Files

After CyberSource processes all the requests in the batch file, CyberSource creates the following types of CSV-formatted response files that you can use to determine the results of the requests in the file:

- **Full file**—This file includes the results for all the requests in the batch file.
Filename format:
`<merchantID>.<batchID>.reply.all`
Filename example: `CyberVacations.12345.reply.all`
- **Exception file**—This file includes the results for the failed requests.
Filename format:
`<merchantID>.<batchID>.reply.rejected`
Filename example: `CyberVacations.12345.reply.rejected`

The response files are available in the **Reports** area on the [Business Center](#). You can download them the same way you download CyberSource reports, which is explained in the [Reporting Developer's Guide](#).

The format for these files is:

- A "File Header" followed by a blank line
- One or more "Data Records", each on a separate line

File Header

The file header consists of a list of comma-separated name-value pairs, including:

- merchantID
- batchID

Example Response File Header

```
merchantID=infodev,batchID=12345
```

Data Records

The data records provide the API reply information for the requests in the batch file. Each data record consists of a comma-separated list of name-value pairs containing the API reply information for a single request. The name-value pairs can be in any order.



Note

The order of the data records in the response file might not correspond to the order of the requests in your file. Use the value of the **merchantReferenceCode** field to link the result in the response file to the corresponding request from the batch file.

Example Response File

This example shows a full file, including two successful requests and one failed request. The failed request is the second data record in the example.

```
merchantID=infodev,batchID=12345

merchantReferenceCode=ABC12320398,ccCaptureReply_reasonCode=100,
reasonCode=100,decision=ACCEPT,ccCaptureReply_reconciliationID=
1018546244150167904178,requestID=1018546244150167904178,ccCaptureReply_
amount=327.49,ccCaptureReply_requestDateTime=2007-06-13T22:43:53Z,
purchaseTotals_currency=EUR

merchantReferenceCode=ABC141854,ccCaptureReply_reasonCode=241,
reasonCode=241,decision=REJECT,requestID=1018546227570167904150

merchantReferenceCode=ABC39882097,ccCreditReply_reasonCode=100,
reasonCode=100,decision=ACCEPT,ccCreditReply_reconciliationID=
1018546230720167904150,requestID=1018546230720167904150,ccCreditReply_
amount=14.99,ccCreditReply_requestDateTime=2005-09-23T22:44:33Z,
purchaseTotals_currency=CAD
```

Batch File Reports

There are three reports for batch files: the Batch Files Detail Report shows details of the transactions that were batched using the upload process, Batch Files Daily Summary Report displays a summary of the batch transactions, and the Batch Submission Detail Report returns a real-time response with details about the transactions that were batched using the upload process.

**Note**

If you request a report too soon after submitting a batch, you may receive an error because the batch has not finished processing. Try the report request again later.

Batch Files Detail Report

The Batch Files Detail Report provides detailed information about the transactions that were batched. See the [Reporting Developer's Guide](#) for information about:

- Downloading CyberSource reports
- XML conventions
- CSV conventions

XML Format

Elements

<Report>

The <Report> element is the root element of the report.

```

<Report Name=CDATA
    Version=NMTOKEN
    xmlns=CDATA
    MerchantID=CDATA
    ReportStartDate=CDATA
    ReportEndDate=CDATA>
    (BatchFiles)
</Report>

```

Table 10 Attributes of <Report>

Attribute Name	Description	Data Type & Length
Name	Name of the report. This element always contains the text <code>Batch Files Detail Report</code> .	Alphanumeric (100)
Version	Version number of the report. The current version number is 1.0.	Numeric (10)
xmlns	XML namespace for the report. The namespace for the current version is <code>http://reports.cybersource.com/reports/bfdr/1.0</code> .	Alphanumeric (100)
MerchantID	CyberSource merchant ID used for the transactions in the report.	Alphanumeric (30)
ReportStartDate	First date included in the report.	DateTime (25)
ReportEndDate	Last date included in the report.	DateTime (25)

Table 11 Child Elements of <Report>

Element Name	Description
<BatchFiles>	Batch files that are included in the report. See " <BatchFiles> ," page 33 for a list of child elements.

Example <Report> Element

```

<Report Name="Batch Files Detail Report"

    Version="1.0"

    xmlns="http://reports.cybersource.com/reports/bfdr/1.0"

    MerchantID="pcpawncshop"

    ReportStartDate="2006-09-29T05:00:00-05:00"

    ReportEndDate="2006-09-30T05:00:00-05:00">

    <BatchFiles>

        ...

    </BatchFiles>

</Report>

```

<BatchFiles>

The <BatchFiles> element contains all of the batch files that are included in the report.

```

<BatchFiles>

    (BatchFile)*

</BatchFiles>

```

Table 12 Child Elements of <BatchFiles>

Element Name	Description
<BatchFile>	Payment processors for the transactions in the batch file. See " <BatchFile> ," page 34 for a list of attributes and child elements.

Example <BatchFiles> Element

```

<BatchFiles>

    <BatchFile BatchFileID="123">

        ...

    </BatchFile>

</BatchFiles>

```

<BatchFile>

The <BatchFile> element contains the payment processors for the transactions in the batch file.

```

<BatchFile BatchFileID=CDATA>

    (PaymentProcessor)*

</BatchFile>

```

Table 13 Attributes of <BatchFile>

Attribute Name	Description	Data Type & Length
BatchFileID	CyberSource batch file in which the transactions were sent.	Numeric (39)

Table 14 Child Elements of <BatchFile>

Element Name	Description
<PaymentProcessor>	Requests associated with the payment processor. See " <PaymentProcessor> ," page 35 for a list of attributes and child elements.

Example <BatchFile> Element

```

<BatchFile BatchFileID="10101">

    <PaymentProcessor PaymentProcessorName="vital">

        ...

    </PaymentProcessor>

</BatchFile>

```

<PaymentProcessor>

The <PaymentProcessor> element contains the requests associated with a payment processor.

```

<PaymentProcessor PaymentProcessorName=CDATA>

    (Request)*

</PaymentProcessor>

```

Table 15 Attributes of <PaymentProcessor>

Attribute Name	Description	Data Type & Length
PaymentProcessorName	Name of a payment processor.	Alphanumeric (30)

Table 16 Child Elements of <PaymentProcessor>

Element Name	Description
<Request>	Information about a payment transaction. See "<Request>," page 36 for a list of attributes.

Example <PaymentProcessor> Element

```

<PaymentProcessor PaymentProcessorName="vital">

    <Request>

        ...

    </Request>

</PaymentProcessor>

```

<Request>

The <Request> element contains information about a payment transaction.

```

<Request RequestID=CDATA>

    (TransactionReferenceNumber)

    (MerchantReferenceNumber)

    (TransactionStatus)

    (Amount)

    (CurrencyCode)

    (PaymentStatus)

</Request>

```

Table 17 Attributes of <Request>

Attribute Name	Description	Data Type & Length
RequestID	Unique identifier generated by CyberSource for the transaction.	Numeric (26)

Table 18 Child Elements of <Request>

Element Name	Description	Data Type & Length
Transaction Reference Number	Reference number that you use to reconcile your CyberSource reports with your processor reports. This field corresponds to the <service>_reconciliationID (Simple Order API) and to the <service>_trans_ref_no (SCMP API) reply fields.	Alphanumeric (60)

Table 18 Child Elements of <Request> (Continued)

Element Name	Description	Data Type & Length
Merchant Reference Number	Merchant-generated order reference or tracking number.	Alphanumeric (50)
Transaction Status	One-word description of the result of the transaction request.	Alphanumeric (50)
Amount	Amount of the transaction.	Amount (19)
CurrencyCode	ISO currency code used for the transaction.	Alphanumeric (5)
PaymentStatus	One-word description of the current status of the transaction. Possible values: <ul style="list-style-type: none"> ■ BATCH_ERROR ■ BATCH_RESET ■ BATCHED ■ CANCELED_REVERS ■ CANCELLED ■ DENIED ■ FAILED ■ PENDING ■ REFUNDED ■ REVERSED ■ TRXN_ERROR ■ VOIDED 	Alphanumeric (50)

Example <Request> Element

```
<Request RequestID="1580782287420174065733">  
  
    <TransactionReferenceNumber>5533830406</  
TransactionReferenceNumber>  
  
    <MerchantReferenceNumber>1158078228539</MerchantReferenceNumber>  
  
    <TransactionStatus>SOK</TransactionStatus>  
  
    <Amount>25.00</Amount>  
  
    <CurrencyCode>USD</CurrencyCode>  
  
    <PaymentStatus>PENDING</PaymentStatus>  
  
</Request>
```

DTD

```

<!ELEMENT Report (BatchFiles)>

<!ATTLIST Report Name CDATA #REQUIRED

                Version NMTOKEN #REQUIRED

                xmlns CDATA #REQUIRED

                MerchantID CDATA #REQUIRED

                ReportStartDate CDATA #REQUIRED

                ReportEndDate CDATA #REQUIRED>

<!ELEMENT BatchFiles (BatchFile)*>

<!ELEMENT BatchFile (PaymentProcessor)*>

<!ATTLIST BatchFile BatchFileID CDATA #REQUIRED>

<!ELEMENT PaymentProcessor (Request)*>

<!ATTLIST PaymentProcessor PaymentProcessorName CDATA #REQUIRED>

<!ELEMENT Request (TransactionReferenceNumber, MerchantReferenceNumber,
                TransactionStatus, Amount, CurrencyCode, PaymentStatus)>

<!ATTLIST Request RequestID CDATA #REQUIRED>

<!ELEMENT TransactionReferenceNumber (#PCDATA)>

<!ELEMENT MerchantReferenceNumber (#PCDATA)>

<!ELEMENT TransactionStatus (#PCDATA)>

<!ELEMENT Amount (#PCDATA)>

<!ELEMENT CurrencyCode (#PCDATA)>

<!ELEMENT PaymentStatus (#PCDATA)>

```

Example

The following example shows a report that contains two batch files. The first batch file contains three requests and the second batch file contains one request.

```

<?xml version="1.0" encoding="utf-8"?>

<!DOCTYPE Report SYSTEM "https://ebctest.cybersource.com/ebctest/
reports/dtd/bfdr.dtd">

<Report Name="Batch Files Detail Report"

    Version="1.0"

    xmlns="https://ebctest.cybersource.com/ebctest/reports/dtd/
bfdr.dtd"

    MerchantID="pcpawshop"

    ReportStartDate="2006-09-29T05:00:00-05:00"

    ReportEndDate="2006-09-30T05:00:00-05:00">

  <BatchFiles>

    <BatchFile BatchFileID="127788">

      <PaymentProcessor PaymentProcessorName="vital">

        <Request RequestID="1595558344253232243215">

          <TransactionReferenceNumber>7242635150</
TransactionReferenceNumber>

          <MerchantReferenceNumber>1158078228539</
MerchantReferenceNumber>

          <TransactionStatus>SOK</TransactionStatus>

          <Amount>25.00</Amount>

          <CurrencyCode>USD</CurrencyCode>

          <PaymentStatus>PENDING</PaymentStatus>

        </Request>

        <Request RequestID="1595558354743232243215">

          <TransactionReferenceNumber>7242636613</
TransactionReferenceNumber>

          <MerchantReferenceNumber>1158078892610</
MerchantReferenceNumber>

          <TransactionStatus>SOK</TransactionStatus>

          <Amount>100.00</Amount>

```

```

        <CurrencyCode>USD</CurrencyCode>

        <PaymentStatus>PENDING</PaymentStatus>

    </Request>

    <Request RequestID="1595558364563232243215">

        <TransactionReferenceNumber>7242637653</
TransactionReferenceNumber>

        <MerchantReferenceNumber>1158079157035</
MerchantReferenceNumber>

        <TransactionStatus>SOK</TransactionStatus>

        <Amount>99.00</Amount>

        <CurrencyCode>USD</CurrencyCode>

        <PaymentStatus>VOIDED</PaymentStatus>

    </Request>

</PaymentProcessor>

</BatchFile>

<BatchFile BatchFileID="123987">

    <PaymentProcessor PaymentProcessorName="smartfdc">

        <Request RequestID="1595564779663232243215">

            <TransactionReferenceNumber>7243278653
            </TransactionReferenceNumber>

            <MerchantReferenceNumber>1159429157035
            </MerchantReferenceNumber>

            <TransactionStatus>SOK</TransactionStatus>

            <Amount>4.00</Amount>

            <CurrencyCode>USD</CurrencyCode>

            <PaymentStatus>PENDING</PaymentStatus>

        </Request>

    </PaymentProcessor>

</BatchFile>

</BatchFiles>

</Report>

```

CSV Format

Records

First Header Record

The first header record describes the name and version of the report and indicates which dates are included in the report.

Example First Header Record

```
Batch Files Detail Report,1,2006-09-29 to 2006-09-30,,,,,,,,
```

Table 19 Fields in the First Header Record

Position	Field Name	Description	Data Type & Length
1 (A)	report_name	Name of the report. This field always contains the text <i>Batch Files Detail Report</i> .	Alphanumeric (100)
2 (B)	version_number	Version number of the report. The current version number is 1.	Numeric (10)
3 (C)	date_range	Dates included in the report in the format <i>YYYY-MM-DD to YYYY-MM-DD</i> . The first date is the start date; the second date is the end date.	Alphanumeric (100)

Second Header Record

The second header record indicates the name of each field in the report. The fields in the second header record follow these rules:

- The content of each field is the same as the field name.
- The data type and length of each field is alphanumeric (100).

Example Second Header Record

```
merchant_id,txn_batch_id,payment_processor,request_id,trans_ref_  
no,merchant_ref_number,ics_rflag,amount,currency,action
```

Transaction Record

Each transaction record contains information about a CyberSource payment transaction.

Example Transaction Record

```
pcpawshop,127788,vital,9979040000003515181891,7242635150,1158078228539
,SOK,25.00,USD,PENDING
```

Table 20 Fields in the Transaction Record

Position	Field Name	Description	Data Type & Length
1	merchant_id	CyberSource merchant ID used for the transaction.	Alphanumeric (30)
2	txn_batch_id	CyberSource batch file in which the transactions were sent.	Numeric (39)
3	payment_processor	Name of a payment processor.	Alphanumeric (30)
4	request_id	Identifier for the transaction.	Numeric (26)
5	trans_ref_no	Reference number that you use to reconcile your CyberSource reports with your processor reports. This field corresponds to the <service>_reconciliationID (Simple Order API) and to the <service>_trans_ref_no (SCMP API) reply fields.	Alphanumeric (60)
6	merchant_ref_number	Merchant-generated order reference or tracking number.	Alphanumeric (50)
7	ics_rflag	One-word description of the result of the transaction request.	Alphanumeric (50)
8	amount	Amount of the transaction.	Amount (19)
9	currency	ISO currency code used for the transaction.	Alphanumeric (5)

Table 20 Fields in the Transaction Record (Continued)

Position	Field Name	Description	Data Type & Length
10	action	One-word description of the current status of the transaction. Possible values: <ul style="list-style-type: none"> ■ BATCH_ERROR ■ BATCH_RESET ■ BATCHED ■ CANCELED_REVERS ■ CANCELLED ■ DENIED ■ FAILED ■ PENDING ■ REFUNDED ■ REVERSED ■ TRXN_ERROR ■ VOIDED 	Alphanumeric (50)

Example

The following example shows a report that contains two batch files. The first batch file contains three requests and the second batch file contains one request.

```

Batch Files Detail Report,1,2006-09-29 to 2006-09-30,,,,,,
merchant_id,txn_batch_id,payment_processor,request_id,trans_ref_no,
merchant_ref_number,ics_rflag,amount,currency,action
pcpawncshop,127788,vital,1598344253232243215,7242635150,1158078228539,SO
K,25.00,USD,PENDING
pcpawncshop,127788,vital,1598354743232243226,7242636613,1158078892610,SO
K,100.00,USD,PENDING
pcpawncshop,127788,vital,1598364563232243237,7242637653,1158079157035,SO
K,99.00,USD,VOIDED
pcpawncshop,123987,smartfdc,1594779663232243248,7243278653,1159429157035
,SOK,4.00,USD,PENDING

```

Batch Files Daily Summary Report

The Batch Files Daily Summary Report is a daily report that summarizes batch transactions as shown in the following figure:

Figure 1 Batch Files Daily Summary Report

Batch Files Daily Summary Report				
struong_acct September 21, 2006				
Batch ID	123123			104
Processor	paymenttech		Total Count	70
Debits			Total Count	70
Transaction Count	Payment Status	Amount	Currency	
1	ERROR	50.00	USD	
67	PENDING	8,976.37	USD	
2	TRANSMITTED	100.00	USD	
Processor	vital		Total Count	34
Debits			Total Count	31
Transaction Count	Payment Status	Amount	Currency	
4	ERROR	250.00	USD	
18	PENDING	1,500.00	USD	
9	TRANSMITTED	1,874.95	USD	
Credits			Total Count	3
Transaction Count	Payment Status	Amount	Currency	
3	TRANSMITTED	100.00	USD	
Batch ID	123678			13
Processor	paymenttech		Total Count	13
Debits			Total Count	13
Transaction Count	Payment Status	Amount	Currency	
2	ERROR	50.00	USD	
9	PENDING	1,432.93	USD	
2	TRANSMITTED	100.00	USD	

- The report consists of a main section (1) for each batch file. The heading for each batch file displays the batch file ID and the total number of transactions in the batch file.
- For each batch file, the report is divided into sections for each processor (2) included in the batch file. The heading for each processor displays the name of the processor and the total number of transactions that were performed for the processor.
- For each processor, the report shows the types of transactions (3) that were performed, such as credits and debits. The heading for each type of transaction displays the total number of transactions for that type of transaction.
- For each type of transaction, the report shows the totals for each different payment status (4), such as ERROR, PENDING, or TRANSMITTED. The line for each payment status displays the total number of transactions with that payment status, the total

amount for all the transactions with that payment status, and the currency used for the transactions with that payment status.

To obtain the Batch Files Daily Summary Report:

- Step 1** Log in to the Business Center.
- Step 2** In the navigation pane, choose **Reports > Report Search**.
- Step 3** In the Report pull-down menu, choose **Batch Files Daily Summary Report**.
- Step 4** Choose a start date and click **Submit**.
- Step 5** On the Report Search Results page, click the link to view the report.
You can download the report in PDF and CSV formats. Links for these downloads are in the upper right corner of the Report View area.

Batch Submission Detail Report: Overview

The Batch Submission Detail Report provides real-time detailed status information about the transactions that you previously uploaded in the Business Center or processed with the Offline Transaction File Submission service.

This report can be downloaded from the Business Center, or programmatically. See the [Reporting Developer's Guide](#) for information about:

- Downloading CyberSource reports
- XML conventions
- CSV conventions

Requesting Report with Query API

The query uses a POST method with search parameters to obtain the details of a batch file. The content of the report is described on [page 30](#), the DTDs on [page 49](#), and the samples on [page 51](#).

Formulating the Query

You can request this report as many times as you wish each day. [Table 21](#) describes the request information.

To request the report, send the required data described in [Table 21](#) to one of these URLs:

Production <https://ebc.cybersource.com/ebc/batchupload/ResponseFileWrite.do>
 Test <https://ebctest.cybersource.com/ebctest/batchupload/ResponseFileWrite.do>

Table 21 Required Data for Report Request

Parameter	Value	Required/Optional
merchantID	Your CyberSource merchant ID.	Required
username	This optional field can be different from the merchant ID. If this field is empty, the merchant ID will be used to generate the report. Important If you use this field, make sure that the user name has the permission to download reports. Otherwise, you will receive an error message and will not be able to download the report.	Optional
password		Required
batchID	CyberSource batch file in which the transactions were sent	Required

Table 21 Required Data for Report Request (Continued)

Parameter	Value	Required/ Optional
Format	xml csv	Required

XML format

To use the XML format, write a program that can send the required fields in a POST request.

HTML format

To use the HTML format, write an HTML form with one of the URLs listed above. The following sample shows the `form` tag with the action to send a report request to the production URL. The form includes the required fields and a Submit button.

```
<html>

<body>

<form action="https://ebc.cybersource.com/ebc/batchupload/
ResponseFileWrite.do" method="post">

<input type="hidden" name="merchantID" value="examplemerchantid"/>

<input type="hidden" name="username" value="exampleusername"/>

<input type="password" name="password" value="password"/>

<input type="hidden" name="batchID" value="12345678"/>

<input type="hidden" name="format" value="csv"/>

<button type="submit">

</form>

</body>

</html>
```

Viewing and Saving the Report

After sending a request, you receive a response immediately. The report contains real-time information on batched transactions.

XML format

If the query is successful, the results appear as a document of mime type `application/xml`. To use this report, write a program to save or process the XML data in the report.

HTML format

If you use a browser that supports XSLT, such as Microsoft Internet Explorer 6.0+ or Firefox 2.0, the XML file that you receive can be converted to HTML and formatted into a table that you can see in your browser. Save the report as follows:

Step 1 Right-click the report.

Step 2 Click **View Source**.

If you do not save the source, only the URL for the request is saved. The report appears in your default text editor.

Step 3 Save the text file as an XML file.

The table representation is restored when you view the report again in the browser.

For a sample report, see [page 51](#).

DTD

```
<!ELEMENT Report (Transaction)*>

<!ATTLIST Report MerchantID CDATA #REQUIRED
                Name CDATA #REQUIRED
                SubmissionFileID CDATA #REQUIRED
                SubmissionDateTime CDATA #REQUIRED
                Version NMTOKEN #REQUIRED>

<!ELEMENT Transaction (LinkToRequest?, RequestID, TransactionDate,
CybsMID, ProcessorMID?, HierarchyID?, TransRefNumber?, MerchantRefNumber?,
TransactionType?, Amount?, TransactionAmountCurrency?, PaymentMethod?,
PaymentType?, AccountSuffix?, Decision?, ReasonCode?, Auth?,
MerchantDefinedData1?, MerchantDefinedData2?, MerchantDefinedData3?,
MerchantDefinedData4?)>

<!ELEMENT LinkToRequest (#PCDATA)>

<!ELEMENT RequestID (#PCDATA)>

<!ELEMENT TransactionDate (#PCDATA)>

<!ELEMENT CybsMID (#PCDATA)>

<!ELEMENT ProcessorMID (#PCDATA)>

<!ELEMENT HierarchyID (#PCDATA)>

<!ELEMENT TransRefNumber (#PCDATA)>
```

```
<!ELEMENT MerchantRefNumber (#PCDATA)>
<!ELEMENT TransactionType (#PCDATA)>
<!ELEMENT Amount (#PCDATA)>
<!ELEMENT TransactionAmountCurrency (#PCDATA)>
<!ELEMENT PaymentMethod (#PCDATA)>
<!ELEMENT PaymentType (#PCDATA)>
<!ELEMENT AccountSuffix (#PCDATA)>
<!ELEMENT Decision (#PCDATA)>
<!ELEMENT ReasonCode (#PCDATA)>
<!ELEMENT Auth (TransRefNumber?, TransactionDate?, RequestID?, Amount?,
Currency?, AuthCode?, ReasonCode?, RCode?)>
<!ELEMENT TransRefNumber (#PCDATA)>
<!ELEMENT TransactionDate (#PCDATA)>
<!ELEMENT RequestID (#PCDATA)>
<!ELEMENT Amount (#PCDATA)>
<!ELEMENT Currency (#PCDATA)>
<!ELEMENT AuthCode (#PCDATA)>
<!ELEMENT ReasonCode (#PCDATA)>
<!ELEMENT RCode (#PCDATA)>
<!ELEMENT MerchantDefinedData1 (#PCDATA)>
<!ELEMENT MerchantDefinedData2 (#PCDATA)>
<!ELEMENT MerchantDefinedData3 (#PCDATA)>
<!ELEMENT MerchantDefinedData4 (#PCDATA)>
```

Example

The following example shows a report that contains one batch file.

```

<?xml version="1.0" encoding="utf-8"?>

<!DOCTYPE Report SYSTEM "https://ebctest.cybersource.com/ebctest/
reports/dtd/bsd.dtd">

<Report Name="Batch Submission Detail Report"

    Version="1.0"

    xmlns="https://ebctest.cybersource.com/ebctest/reports/dtd/
bsd.dtd"

    Name="Batch Submission Detail Report"

    SubmissionFileID="12345678"

    SubmissionDateTime="2010-03-18 15:15:40 GMT"

    Version="1.0">

<Transaction>

    <LinkToRequest>2689254011060008415089</LinkToRequest>

    <RequestID>2689254011060008415089</RequestID>

    <TransactionDate>2010-03-18 15:16:41 GMT</TransactionDate>

    <CybsMID>examplemerchantid</CybsMID>

    <TransRefNumber>81389795F6RU7QH0</TransRefNumber>

    <MerchantRefNumber>12345-8569-8794654</MerchantRefNumber>

    <TransactionType>ics_bill,ics_auth</TransactionType>

    <Amount>1.00</Amount>

    <TransactionAmountCurrency>USD</TransactionAmountCurrency>

    <PaymentMethod>credit card</PaymentMethod>

    <PaymentType>MasterCard</PaymentType>

    <AccountSuffix>1234</AccountSuffix>

    <ReasonCode>231</ReasonCode>

    <Auth>

        <RequestID>2689254011060008415089</RequestID>

    </Auth>

</Transaction>

</Report>

```

Downloading a Report from the Business Center

You can access the Batch Submission Detail Report from the Tools & Settings section of the Business Center. Follow the steps below to download the report.

- Step 1** Open a Web browser:
- Microsoft Internet Explorer 4.0 or greater
 - Netscape Navigator 6.2 or greater
- Step 2** Enter the production URL for the Business Center: <https://ebc.cybersource.com>.
- Step 3** Choose **Tools & Settings > Batch Transactions > Detail Report**.
- Step 4** Enter the batch ID and choose format: XML or CSV.
- Step 5** Click **Get Report**.
You receive a response immediately.

Using Java Sample Code to Upload Files

Requirements

- J2SE 8 or higher
- Unlimited Strength Jurisdiction Policy files from Oracle (`US_export_policy.jar` and `local_policy.jar`), available at <http://www.oracle.com/technetwork/java/javase/downloads/index.html>

Using Sample Code for Basic Authentication

**Note**

The sample code was developed and tested on a Solaris platform.

- Step 1** Replace your Java installation's existing security policy files with the new ones you downloaded from Oracle's site:
- Find your existing `US_export_policy.jar` and `local_policy.jar` files in the `$JAVA_HOME/jre/lib/security` directory.
 - Rename or move your existing files to another directory.
 - Copy the new `US_export_policy.jar` and `local_policy.jar` files that you downloaded from Oracle to the `$JAVA_HOME/jre/lib/security` directory.
- Step 2** Edit the `$JAVA_HOME/jre/lib/security/java.security` file and insert the security provider right after the Oracle provider. Make sure to increment the numbers of the other providers in the list. Your list of security providers will now look similar to this:
- ```
security.provider.1=sun.security.provider.Sun
security.provider.3=com.sun.net.ssl.internal.ssl.Provider
```

```
security.provider.4=com.sun.rsa.jca.Provider
security.provider.5=com.sun.crypto.provider.SunJCE
security.provider.6=sun.security.jgss.SunProvider
```

- Step 3** Import your CyberSource Simple Order API .p12 security key into Internet Explorer.
- a** Open an Internet Explorer Web browser, go to **Tools > Internet Options...**, and click the **Content** tab.
  - b** Click **Certificates...**
  - c** Click **Import...** to open the Certificate Import Wizard and click **Next** to start the Wizard.
  - d** Browse to the location of your .p12 security key and click **Next**.  
For the password for the private key, enter your CyberSource merchant ID. For example, if your key is infodev.p12, enter `infodev` as the password.
  - e** On this page, click the check box for **Mark this key as exportable** and then click **Next**.
  - f** Click **Next** on the Certificate Store page.
  - g** Click **Finish** and you will see a confirmation that the import was successful.

- Step 4** Create a key store file to contain your CyberSource Simple Order API .p12 security key:

- a** In a Web browser, go to one of the following URLs:  
  
If you are in test mode and have not gone live with CyberSource:  
**<https://batchtest.cybersource.com/upload/UploadBatchFile>**  
  
If you have gone live with CyberSource:  
**<https://batch.cybersource.com/upload/UploadBatchFile>**
- b** Go to File > Properties.
- c** Click **Certificates**.
- d** Click the **Certification Path** tab.
- e** Select **Entrust.net Secure Server Certification Authority**.
- f** Click **View Certificate**.
- g** Click the **Details** tab.
- h** Click **Copy to File** and then **Next**.
- i** Click Browse and navigate to where you want to save the file.
- j** Enter the name you want to use for the file, such as `MyCert`. Click **Save** and click **Next**.
- k** Click Finish.  
  
Your file, for example `MyCert.cer`, has been created in the location you specified.
- l** Go to `$JAVA_HOME/bin/keytool` and use the J2SE keytool program to create a keystore file that contains this newly created certificate. You will need to provide a pass phrase for the keystore. You **MUST** use the same password that you used in Step d on page 54, which is part of Step 3 above. For example, if your p12 key is `infodev.p12`, the pass phrase must be `infodev`.

To create the keystore, type the following command:

```
$JAVA_HOME/bin/keytool -import -file <path to certificate>/
<name of certificate file> -keystore <name of keystore
file>.jks -storepass <pass phrase of keystore>
```

For example:

```
$JAVA_HOME/bin/keytool -import -file /home/bluu/MyCert.cer -
keystore MyKeystore.jks -storepass myMerchantID
```

If successful, the output will be similar to this:

```
Owner: CN=batchtest.cybersource.com, OU=Operations,
O=Cybersource Corporation, L=Mountain View, ST=California, C=US
Issuer: CN=Entrust.net Secure Server Certification Authority,
OU=(c) 1999 Entrust.net Limited, OU=www.entrust.net/CPS incorp.
by ref. (limits liab.), O=Entrust.net, C=US
Serial number: 374e1b7b
Valid from: Thu Nov 18 17:15:34 PST 2004 until: Tue Jan 31
17:51:24 PST 2006
Certificate fingerprints:
 MD5: BE:BF:B0:91:69:C4:7B:10:45:EC:D6:0F:16:AA:3D:77
 SHA1: 07:F8:41:DC:B2:FC:F5:DA:FC:EE:09:7A:33:B8:29:15:31:18
Trust this certificate? [no]: yes
Certificate was added to keystore
```

**Step 5** Modify the `SSLFileTransfer.props` file with your settings. The file is part of the CyberSource download package and looks similar to this:

```
Upload host
host=batchtest.cybersource.com

Upload port
port=<Upload port>

Username to log into the Business Center
bcUserName=<Business Center login name>

Password to log into the Business Center
bcPassword=<Business Center login password>

File to upload
uploadFile=<path to your file>/<file name>

Path where to upload it to (provided by CyberSource)
path=/upload/UploadBatchFile

Your CyberSource security key
key=<key location path>/<key file name>
```

```
New key store you just created that contains the certificate
keyStore=<key store location>/<new key store name>
```

```
Pass phrase is the string you used in -storepass option when you
created the key store file earlier
passPhrase=<pass phrase>
```

**Step 6** Set the JAVA\_HOME environment variable to where you installed J2SE. For example:

```
JAVA_HOME=/home/j2se
```

**Step 7** Include \$JAVA\_HOME/bin in the PATH.

**Step 8** Compile and run the sample:

**a** Change to the directory where you stored the CyberSource sample files.

**b** Type the following:

```
javac SSLFileTransfer.java
```

```
java SSLFileTransfer <path to props file>/SSLFileTransfer.props
```

If the upload is successful, the output should look similar to this:

```
HTTP/1.1 200 OK
Date: Wed, 26 Jan 2005 17:26:31 GMT
Server: Apache Coyote/1.0
Content-Type: text/plain
Content-Length: 0
X-Cache: MISS from <your host>
Connection: close
UPLOAD FILE SUCCESSFUL
```



# Sample Code for Basic Authentication

---

The sample below shows how you can upload a batch file to a batch server using Basic Authentication.

```
import java.util.*;
import java.io.*;
import javax.net.ssl.*;
import java.security.*;

public class SSLFileTransfer {
 Properties props = new Properties(); // stores properties from
 property file

 /**
 * Default constructor
 */
 public SSLFileTransfer() {}

 /**
 * Initialize program by reading properties file.
 *
 * @param propsFile properties needed for file transfer
 */
 public void init(String propsFile) {
 try {
 props.load(new BufferedInputStream(new
FileInputStream(new File(propsFile))));
 } catch (Exception e) {
 e.printStackTrace();
 System.exit(-1);
 }
 }

 /**
 * Error message if incorrect arguments are passed.
 */
 public static void usage() {
 System.out.println("USAGE: java SSLFileTransfer <full path
property file name>");
 System.exit(-1);
 }

 /**
 * Get factory for authentication
```

```

*
* @throws IOException if exception occurs
*/
private SSLSocketFactory getFactory() throws IOException {
 try {
 SSLContext ctx;
 KeyManagerFactory kmf;
 KeyStore ks, ks1;
 char[] passphrase =
props.getProperty("passPhrase").toCharArray();
 ctx = SSLContext.getInstance("TLSv1.2");
 kmf = KeyManagerFactory.getInstance("SunX509");
 ks = KeyStore.getInstance("PKCS12");
 ks1 = KeyStore.getInstance("JKS");
 ks.load(new FileInputStream(props.getProperty("key")),
passphrase);
 ks1.load(new
FileInputStream(props.getProperty("keyStore")), passphrase);
 kmf.init(ks, passphrase);

 TrustManagerFactory tmf =
TrustManagerFactory.getInstance("SunX509");
 tmf.init(ks1);
 ctx.init(kmf.getKeyManagers(), tmf.getTrustManagers(),
null);

 return ctx.getSocketFactory();
 } catch (Exception e) {
 e.printStackTrace();
 throw new IOException(e.getMessage());
 }
}

/**
 * Get host from property file
 */
private String getHost() {
 return props.getProperty("host", "localhost");
}

/**
 * Get port from property file
 */
private int getPort() {
 return Integer.parseInt(props.getProperty("port"));
}

/**
 * Send request (file) to the server.

```

```

*
* @param out outstream to send the data to the server
* @throws Exception if an error occurs.
*/
private void sendRequest(PrintWriter out) throws Exception {
 String path = props.getProperty("path");
 out.println("POST " + path + " HTTP/1.0");
 final String BOUNDARY = "7d03135102b8";
 out.println("Host: " + props.getProperty("host"));
 out.println("Content-Type: multipart/form-data;
boundary="+BOUNDARY);

 String uploadFile = props.getProperty("uploadFile");
 String authString = props.getProperty("bcUserName") + ":" +
props.getProperty("bcPassword");
 String encodedAuthString = "Basic " + new
sun.misc.BASE64Encoder().encode(authString.getBytes ());
 out.println("Authorization: " + encodedAuthString);

 final String CRLF = "\r\n";
 StringBuffer sbuf = new StringBuffer();
 sbuf.append("--"+BOUNDARY+CRLF);
 sbuf.append("Content-Disposition: form-data;
name=\"upfile\"; filename=\"\" + uploadFile + "\""+CRLF);
 sbuf.append("Content-Type: text/plain"+CRLF+CRLF);

 char[] buf;
 int cnt;
 FileReader fi = new FileReader(uploadFile);
 try {
 buf = new char[1024000];
 cnt = fi.read(buf);
 } finally {
 fi.close();
 }
 sbuf.append(buf, 0, cnt);
 sbuf.append(CRLF);
 sbuf.append("--"+BOUNDARY+"--"+CRLF);

 int sz = sbuf.length();
 out.println("Content-Length: "+ sz);

 out.println();
 out.println(sbuf);
 out.flush();

 // Make sure there were no surprises
 if (out.checkError()) {

```

```

 System.out.println("SSLFileTransfer: java.io.PrintWriter
error");
 }
}

/**
 * Reads the response from the server.
 * @param in instream to get the data from the server
 * @throws Exception if an error occurs.
 */
private void readResponse(BufferedReader in) throws Exception {
 boolean successful = false;
 String inputLine;
 while ((inputLine = in.readLine()) != null) {
 if (inputLine.startsWith("HTTP") &&
inputLine.indexOf("200") >= 0) {
 successful = true;
 }
 System.out.println(inputLine);
 }

 System.out.println("UPLOAD FILE " + (successful?
"SUCCESSFUL" : "FAILED") + "!!!\n");
}

/**
 * Upload file to the server.
 * @throws Exception if an error occurs.
 */
public void upload() throws Exception {
 try {
 SSLSocketFactory factory = getFactory();
 SSLSocket socket =
(SSLSocket)factory.createSocket(getHost(), getPort());
 PrintWriter out = new PrintWriter(new BufferedWriter(new
OutputStreamWriter(socket.getOutputStream())));
 BufferedReader in = new BufferedReader(new
InputStreamReader(socket.getInputStream()));
 socket.startHandshake();
 sendRequest(out);
 readResponse(in);
 out.close();
 in.close();
 socket.close();
 } catch (Exception e) {
 e.printStackTrace();
 throw e;
 }
}
}

```

```
/**
 * Main method to start file transfer
 * @param args command line arguments (property file, see
usage())
 * @throws Exception if an error occurs.
 */
public static void main(String[] args) throws Exception {
 if (args == null || args.length != 1) {
 usage();
 }

 SSLFileTransfer fileXfer = new SSLFileTransfer();
 fileXfer.init(args[0]);
 fileXfer.upload();
}
}
```

# API Field Mapping

The Offline Transaction File Submission system uses fields from the CyberSource Simple Order API, not from the SCMP API. If you use the SCMP API to process individual transactions, you will need to know which Simple Order API fields correspond to the SCMP API fields with which you are familiar. This appendix provides an alphabetical list of the SCMP API field names and the corresponding Simple Order API field names.

The tables include a comprehensive list of the SCMP API fields that have corresponding Simple Order API fields. Some of the fields might be for CyberSource services that you are not allowed to request in a batch file. See ["Offline Transaction File Submission," page 8](#) for a list of those services.

To request CyberSource services in the SCMP API, set the **ics\_applications** field to a comma-separated list of the services you want to run. For example, if you want to request a credit card authorization and capture, you set the requests for the services that you want as follows:

- SCMP API: **ics\_applications=ics\_auth,ics\_bill**
- Simple Order API: set **ccAuthService\_run=true** and **ccCaptureService\_run=true**

Note also that the core reply fields for the SCMP API and the Simple Order API are different. The following table describes the fields. For more information about interpreting each API's reply, see [Credit Card Services with the Simple Order API](#) and [Credit Card Services with the SCMP API](#).

See the examples in ["File Examples," page 17](#) to help you understand how to use the Simple Order API fields in the requests in a batch file.

## Reply-Level Fields

**Table 1 Core Reply Fields for the SCMP API and the Simple Order API**

| SCMP API Reply Field and Possible Values                                                                                                                                                                                                                                                                                                                                                                                                       | SO API Reply Field and Possible Values                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ics_rcode</b> and <b>&lt;service&gt;_rcode</b> <ul style="list-style-type: none"> <li>▪ -1 (error)</li> <li>▪ 0 (declined)</li> <li>▪ 1 (accepted)</li> </ul>                                                                                                                                                                                                                                                                               | <b>decision</b> <ul style="list-style-type: none"> <li>▪ ERROR</li> <li>▪ REJECT</li> <li>▪ ACCEPT</li> </ul>                                                                                                                                                                                                                                                                                                               |
| <b>ics_rflag</b> and <b>&lt;service&gt;_rflag</b> <ul style="list-style-type: none"> <li>▪ SOK</li> <li>▪ DINVALIDDATA</li> <li>▪ ESYSTEM</li> <li>▪ and so on...</li> </ul> <p>This field returns a one-word description that gives a general reason for a decline or error. The implementation guide for the ICS service that you are implementing contains the list and description of the flags that can be returned for that service.</p> | <b>reasonCode</b> and <b>&lt;service&gt;_reasonCode</b> <ul style="list-style-type: none"> <li>▪ 100</li> <li>▪ 101</li> <li>▪ and so on...</li> </ul> <p>This field returns a 3-digit number that gives the reason for a REJECT or ERROR decision. The implementation guide for the ICS service that you are implementing contains the list and description of the reason codes that can be returned for that service.</p> |
| <b>ics_rmsg</b> and <b>&lt;service&gt;_rmsg</b> <p>This field gives more information about why you received the particular rflag.</p>                                                                                                                                                                                                                                                                                                          | <p>No corresponding field returned in the Simple Order API, although you can see the information in the transaction details screen on the <a href="#">Business Center</a>.</p>                                                                                                                                                                                                                                              |

## Request-Level Fields

**Table 2 Request-Level Fields**

| SCMP API                         | SO API                                                                                                   |
|----------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>account_encoder_id</b>        | <b>check_accountEncoderID</b> (for electronic checks)<br><b>card_accountEncoderID</b> (for credit cards) |
| <b>airline_agent_code</b>        | <b>airlineData_agentCode</b>                                                                             |
| <b>airline_agent_name</b>        | <b>airlineData_agentName</b>                                                                             |
| <b>airline_booking_reference</b> | <b>airlineData_bookingReference</b>                                                                      |
| <b>airline_carrier_name</b>      | <b>airlineData_carrierName</b>                                                                           |

Table 2 Request-Level Fields (Continued)

| SCMP API                              | SO API                                   |
|---------------------------------------|------------------------------------------|
| airline_charge_details                | airlineData_chargeDetails                |
| airline_check_digit                   | airlineData_checkDigit                   |
| airline_customer_code                 | airlineData_customerCode                 |
| airline_document_number               | airlineData_documentNumber               |
| airline_document_number_of_parts      | airlineData_documentNumberOfParts        |
| airline_document_type                 | airlineData_documentType                 |
| airline_extended_payment_code         | airlineData_extendedPaymentCode          |
| airline_invoice_number                | airlineData_invoiceNumber                |
| airline_leg#_carrier_code             | airlineData_leg_#_carrierCode            |
| airline_leg#_class                    | airlineData_leg_#_class                  |
| airline_leg#_depart_tax               | airlineData_leg_#_departTax              |
| airline_leg#_destination              | airlineData_leg_#_destination            |
| airline_leg#_fare_basis               | airlineData_leg_#_fareBasis              |
| airline_leg#_flight_number            | airlineData_leg_#_flightNumber           |
| airline_leg#_leg_departure_date       | airlineData_leg_#_departureDate          |
| airline_leg#_originating_airport_code | airlineData_leg_#_originatingAirportCode |
| airline_leg#_stopover_code            | airlineData_leg_#_stopoverCode           |
| airline_passenger_name                | airlineData_passengerName                |
| airline_restricted_ticket_indicator   | airlineData_restrictedTicketIndicator    |
| airline_ticket_issuer_city            | airlineData_ticketIssuerCity             |
| airline_ticket_issuer_code            | airlineData_ticketIssuerCode             |
| airline_ticket_issuer_country         | airlineData_ticketIssuerCountry          |
| airline_ticket_issuer_name            | airlineData_ticketIssuerName             |
| airline_ticket_issuer_postal_code     | airlineData_ticketIssuerPostalCode       |
| airline_ticket_issuer_state           | airlineData_ticketIssuerState            |
| airline_ticket_number                 | airlineData_ticketNumber                 |
| airline_transaction_type              | airlineData_transactionType              |
| alternate_tax_amount                  | otherTax_alternateTaxAmount              |
| alternate_tax_amount_indicator        | otherTax_alternateTaxIndicator           |
| alternate_tax_id                      | otherTax_alternateTaxID                  |
| amexdata_taa1                         | invoiceHeader_amexDataTAA1               |
| amexdata_taa2                         | invoiceHeader_amexDataTAA2               |
| amexdata_taa3                         | invoiceHeader_amexDataTAA3               |
| amexdata_taa4                         | invoiceHeader_amexDataTAA4               |



Table 2 Request-Level Fields (Continued)

| SCMP API                   | SO API                                                                                                                                        |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| auth_code                  | ccAuthService_verbalAuthCode (for credit card authorization)<br>ccCaptureService_verbalAuthCode (for credit card capture)                     |
| auth_request_id            | ccCaptureService_authRequestID (for credit card capture)<br>ccAuthReversalService_authRequestID (for credit card full authorization reversal) |
| auth_type                  | ccAuthService_authType (for credit card authorization)<br>ccCaptureService_authType (for credit card capture)                                 |
| authorization_id           | directDebitService_authorizationID                                                                                                            |
| avs                        | afsService_avsCode                                                                                                                            |
| avs_level                  | ccAuthService_avsLevel                                                                                                                        |
| bank_account_name          | fundTransfer_accountName                                                                                                                      |
| bank_account_number        | fundTransfer_accountNumber                                                                                                                    |
| bank_address               | bankInfo_address                                                                                                                              |
| bank_city                  | bankInfo_city                                                                                                                                 |
| bank_code                  | bankInfo_bankCode                                                                                                                             |
| bank_country               | bankInfo_country                                                                                                                              |
| bank_name                  | bankInfo_name                                                                                                                                 |
| bank_sortcode              | bankInfo_sortCode                                                                                                                             |
| bank_swiftcode             | bankInfo_swiftCode                                                                                                                            |
| bank_transfer_request_id   | bankTransferRefundService_bankTransferRequestID                                                                                               |
| bank_transfer_trans_ref_no | bankTransferRefundService_reconciliationID                                                                                                    |
| batch_id                   | batch_batchID                                                                                                                                 |
| batch_record_id            | batch_recordID                                                                                                                                |
| bill_address1              | billTo_street1                                                                                                                                |
| bill_address2              | billTo_street2                                                                                                                                |
| bill_address3              | billTo_street3                                                                                                                                |
| bill_address4              | billTo_street4                                                                                                                                |
| bill_city                  | billTo_city                                                                                                                                   |
| bill_company_tax_id        | billTo_companyTaxID                                                                                                                           |
| bill_country               | billTo_country                                                                                                                                |
| bill_county                | billTo_county                                                                                                                                 |

Table 2 Request-Level Fields (Continued)

| SCMP API                            | SO API                                                                                                            |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| bill_payment                        | ccAuthService_billPayment (for credit card authorization)<br>ccCreditService_billPayment (for credit card credit) |
| bill_request_id                     | ccCreditService_captureRequestID                                                                                  |
| bill_state                          | billTo_state                                                                                                      |
| bill_zip                            | billTo_postalCode                                                                                                 |
| bml_customer_billing_address_change | bml_customerBillingAddressChange                                                                                  |
| bml_customer_email_change           | bml_customerEmailChange                                                                                           |
| bml_customer_has_checking_account   | bml_customerHasCheckingAccount                                                                                    |
| bml_customer_has_savings_account    | bml_customerHasSavingsAccount                                                                                     |
| bml_customer_password_change        | bml_customerPasswordChange                                                                                        |
| bml_customer_phone_change           | bml_customerPhoneChange                                                                                           |
| bml_customer_registration_date      | bml_customerRegistrationDate                                                                                      |
| bml_customer_type_flag              | bml_customerTypeFlag                                                                                              |
| bml_gross_household_income          | bml_grossHouseholdIncome                                                                                          |
| bml_household_income_currency       | bml_householdIncomeCurrency                                                                                       |
| bml_item_category                   | bml_itemCategory                                                                                                  |
| bml_merchant_promotion_code         | bml_merchantPromotionCode                                                                                         |
| bml_preapprovalNumber               | bml_preapprovalNumber                                                                                             |
| bml_product_delivery_type_indicator | bml_productDeliveryTypeIndicator                                                                                  |
| bml_residence_status                | bml_residenceStatus                                                                                               |
| bml_tc_version                      | bml_tcVersion                                                                                                     |
| bml_years_at_current_residence      | bml_yearsAtCurrentResidence                                                                                       |
| bml_years_with_current_employer     | bml_yearsWithCurrentEmployer                                                                                      |
| branch_check_digit                  | fundTransfer_bankCheckDigit                                                                                       |
| branch_code                         | bankInfo_branchCode                                                                                               |
| button_type                         | paypalButtonCreateService_buttonType                                                                              |
| buyer_registration                  | taxService_buyerRegistration                                                                                      |
| card_present                        | pos_cardPresent                                                                                                   |
| card_type                           | card_cardType                                                                                                     |
| cat_level                           | pos_catLevel                                                                                                      |
| cavv                                | ccAuthService_cavv                                                                                                |
| cc_bin                              | card_bin                                                                                                          |

Table 2 Request-Level Fields (Continued)

| SCMP API                  | SO API                                        |
|---------------------------|-----------------------------------------------|
| comments                  | comments                                      |
| company_name              | billTo_company                                |
| cost_center               | invoiceHeader_costCenter                      |
| currency                  | purchaseTotals_currency                       |
| customer_account_id       | billTo_customerID                             |
| customer_cc_cv_indicator  | card_cvIndicator                              |
| customer_cc_cv_number     | card_cvNumber                                 |
| customer_cc_expmo         | card_expirationMonth                          |
| customer_cc_expyr         | card_expirationYear                           |
| customer_cc_issue_number  | card_issueNumber                              |
| customer_cc_number        | card_accountNumber                            |
| customer_cc_startmo       | card_startMonth                               |
| customer_cc_startyr       | card_startYear                                |
| customer_cookies_accepted | billTo_httpBrowserCookiesAccepted             |
| customer_email            | billTo_email                                  |
| customer_firstname        | billTo_firstName                              |
| customer_gift_wrap        | invoiceHeader_isGift                          |
| customer_hostname         | billTo_hostname                               |
| customer_ipaddress        | billTo_ipAddress                              |
| customer_lastname         | billTo_lastName                               |
| customer_phone            | billTo_phoneNumber                            |
| customer_phone_type       | bml_billToPhoneType                           |
| customer_pin              | card_pin                                      |
| customer_ssn              | billTo_ssn                                    |
| cv_result                 | afsService_cvCode                             |
| date_collect              | directDebitService_dateCollect                |
| date_of_birth             | billTo_dateOfBirth                            |
| decision_manager_enabled  | decisionManager_enabled                       |
| decision_manager_profile  | decisionManager_profile                       |
| decline_avs_flags         | businessRules_declineAVSFlags                 |
| direct_debit_request_id   | directDebitRefundService_directDebitRequestID |
| direct_debit_text         | directDebitService_directDebitText            |
| direct_debit_trans_ref_no | directDebitRefundService_reconciliationID     |
| direct_debit_type         | directDebitService_directDebitType            |
| disable_avs               | afsService_disableAVSScoring                  |

Table 2 Request-Level Fields (Continued)

| SCMP API               | SO API                                                                                                                                                                                            |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| domain                 | billTo_domainName                                                                                                                                                                                 |
| driver_license_no      | billTo_driversLicenseNumber                                                                                                                                                                       |
| driver_license_state   | billTo_driversLicenseState                                                                                                                                                                        |
| duty_amount            | purchaseTotals_dutyAmount                                                                                                                                                                         |
| e_commerce_indicator   | ccAuthService_commerceIndicator (for credit card authorization)<br>ccCreditService_commerceIndicator (for credit card credit)<br>pinlessDebitService_commerceIndicator (for PIN-less debit cards) |
| eci_raw                | ccAuthService_eciRaw                                                                                                                                                                              |
| eCP_account_no         | check_accountNumber                                                                                                                                                                               |
| eCP_account_type       | check_accountType                                                                                                                                                                                 |
| eCP_check_no           | check_checkNumber                                                                                                                                                                                 |
| eCP_debit_request_id   | ecCreditService_debitRequestID                                                                                                                                                                    |
| eCP_payment_key        | ecDebitService_transactionToken (for electronic check debit)<br>ecCreditService_transactionToken (for electronic check credit)                                                                    |
| eCP_payment_mode       | ecDebitService_paymentMode                                                                                                                                                                        |
| eCP_rdfi               | check_bankTransitNumber                                                                                                                                                                           |
| eCP_ref_no             | ecDebitService_referenceNumber (for electronic check debit)<br>ecCreditService_referenceNumber (for electronic check credit)                                                                      |
| eCP_settlement_method  | ecDebitService_settlementMethod (for electronic check debit)<br>ecCreditService_settlementMethod (for electronic check credit)                                                                    |
| eCP_verification_level | ecDebitService_verificationLevel                                                                                                                                                                  |
| employer_address1      | bml_employerStreet1                                                                                                                                                                               |
| employer_address2      | bml_employerStreet2                                                                                                                                                                               |
| employer_city          | bml_employerCity                                                                                                                                                                                  |
| employer_company_name  | bml_employerCompanyName                                                                                                                                                                           |
| employer_country       | bml_employerCountry                                                                                                                                                                               |
| employer_phone         | bml_employerPhoneNumber                                                                                                                                                                           |
| employer_phone_type    | bml_employerPhoneType                                                                                                                                                                             |
| employer_state         | bml_employerState                                                                                                                                                                                 |

Table 2 Request-Level Fields (Continued)

| SCMP API                    | SO API                                                                                                                   |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| employer_zip                | bml_employerPostalCode                                                                                                   |
| export_address_operator     | exportService_addressOperator                                                                                            |
| export_address_weight       | exportService_addressWeight                                                                                              |
| export_company_weight       | exportService_companyWeight                                                                                              |
| export_name_weight          | exportService_nameWeight                                                                                                 |
| freight_amount              | purchaseTotals_freightAmount                                                                                             |
| fxrates_funding_currency    | fundingTotals_currency                                                                                                   |
| fxrates_quote_id            | ccAuthService_fxQuoteID                                                                                                  |
| gecc_line1...7              | gecc_line_0...6                                                                                                          |
| gecc_plan_number            | gecc_planNumber                                                                                                          |
| gecc_promotion_end_date     | gecc_promotionEndDate                                                                                                    |
| gecc_promotion_plan         | gecc_promotionPlan                                                                                                       |
| gecc_sale_type              | gecc_saleType                                                                                                            |
| gecc_sequence_number        | gecc_sequenceNumber                                                                                                      |
| grand_total_amount          | purchaseTotals_grandTotalAmount                                                                                          |
| http_browser_email          | billTo_httpBrowserEmail                                                                                                  |
| http_browser_type           | billTo_httpBrowserType                                                                                                   |
| ics_applications            | <serviceName>_run                                                                                                        |
| ignore_avs                  | businessRules_ignoreAVSResult                                                                                            |
| ignore_bad_cv               | businessRules_ignoreCVResult                                                                                             |
| ignore_dav_result           | businessRules_ignoreDAVResult                                                                                            |
| ignore_export_result        | businessRules_ignoreExportResult                                                                                         |
| ignore_validate_result      | businessRules_ignoreValidateResult                                                                                       |
| industry_datatype           | ccCaptureService_industryDatatype (for credit card capture)<br>ccCreditService_industryDatatype (for credit card credit) |
| invoice_date                | invoiceHeader_invoiceDate                                                                                                |
| local_tax                   | otherTax_localTaxAmount                                                                                                  |
| local_tax_indicator         | otherTax_localTaxIndicator                                                                                               |
| merchant_defined_data1      | merchantDefinedData_field1                                                                                               |
| merchant_defined_data2      | merchantDefinedData_field2                                                                                               |
| merchant_defined_data3      | merchantDefinedData_field3                                                                                               |
| merchant_defined_data4      | merchantDefinedData_field4                                                                                               |
| merchant_descriptor         | invoiceHeader_merchantDescriptor                                                                                         |
| merchant_descriptor_contact | invoiceHeader_merchantDescriptorContact                                                                                  |

Table 2 Request-Level Fields (Continued)

| SCMP API                         | SO API                                                                                                                                                                                                                                                                 |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| merchant_id                      | merchantID                                                                                                                                                                                                                                                             |
| merchant_ref_number              | merchantReferenceCode                                                                                                                                                                                                                                                  |
| merchant_vat_registration_number | invoiceHeader_<br>merchantVATRegistrationNumber                                                                                                                                                                                                                        |
| middleman_registration           | taxService_middlemanRegistration                                                                                                                                                                                                                                       |
| national_tax                     | otherTax_nationalTaxAmount                                                                                                                                                                                                                                             |
| national_tax_indicator           | otherTax_nationalTaxIndicator                                                                                                                                                                                                                                          |
| nexus                            | taxService_nexus                                                                                                                                                                                                                                                       |
| no_nexus                         | taxService_noNexus                                                                                                                                                                                                                                                     |
| order_acceptance_city            | taxService_orderAcceptanceCity                                                                                                                                                                                                                                         |
| order_acceptance_country         | taxService_orderAcceptanceCountry                                                                                                                                                                                                                                      |
| order_acceptance_county          | taxService_orderAcceptanceCounty                                                                                                                                                                                                                                       |
| order_acceptance_state           | taxService_orderAcceptanceState                                                                                                                                                                                                                                        |
| order_acceptance_zip             | taxService_orderAcceptancePostalCode                                                                                                                                                                                                                                   |
| order_discount_amount            | purchaseTotals_discountAmount                                                                                                                                                                                                                                          |
| order_origin_city                | taxService_orderOriginCity                                                                                                                                                                                                                                             |
| order_origin_country             | taxService_orderOriginCountry                                                                                                                                                                                                                                          |
| order_origin_county              | taxService_orderOriginCounty                                                                                                                                                                                                                                           |
| order_origin_state               | taxService_orderOriginState                                                                                                                                                                                                                                            |
| order_origin_zip                 | taxService_orderOriginPostalCode                                                                                                                                                                                                                                       |
| pa_http_accept                   | payerAuthEnrollService_httpAccept                                                                                                                                                                                                                                      |
| pa_http_user_agent               | payerAuthEnrollService_httpUserAgent                                                                                                                                                                                                                                   |
| pa_merchant_name                 | payerAuthEnrollService_merchantName                                                                                                                                                                                                                                    |
| pa_merchant_url                  | payerAuthEnrollService_merchantURL                                                                                                                                                                                                                                     |
| pa_purchase_description          | payerAuthEnrollService_purchaseDescription                                                                                                                                                                                                                             |
| pa_purchase_time                 | payerAuthEnrollService_purchaseTime                                                                                                                                                                                                                                    |
| pa_signedpares                   | payerAuthValidateService_signedPAREs                                                                                                                                                                                                                                   |
| partial_payment_id               | ccCaptureService_partialPaymentID (for credit<br>card capture)<br>ccCreditService_partialPaymentID (for credit card<br>credit)<br>ecDebitService_partialPaymentID (for electronic<br>check debit)<br>ecCreditService_partialPaymentID (for electronic<br>check credit) |
| payment_method                   | subscription_paymentMethod                                                                                                                                                                                                                                             |

Table 2 Request-Level Fields (Continued)

| SCMP API                            | SO API                                                                                                                                               |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| payment_request_id                  | paySubscriptionCreateService_paymentRequestID                                                                                                        |
| payment_type                        | invoiceHeader_tenderType                                                                                                                             |
| paypal_mp_id                        | paypalPreapprovedPaymentService_mpID (for PayPal preapproved payment)<br>paypalPreapprovedUpdateService_mpID (for PayPal preapproved payment update) |
| paypal_payment_request_id           | paypalCreditService_payPalPaymentRequestID                                                                                                           |
| pos_condition_code                  | pos_conditionCode                                                                                                                                    |
| pos_entry_mode                      | pos_entryMode                                                                                                                                        |
| pos_transaction_security            | pos_transactionSecurity                                                                                                                              |
| purchaser_code                      | invoiceHeader_purchaserCode                                                                                                                          |
| purchaser_order_date                | invoiceHeader_purchaserOrderDate                                                                                                                     |
| purchaser_vat_registration_number   | invoiceHeader_purchaserVATRegistrationNumber                                                                                                         |
| purchasing_level                    | ccCaptureService_purchasingLevel (for credit card capture)<br>ccCreditService_purchasingLevel (for credit card credit)                               |
| record_id                           | riskUpdateService_recordID                                                                                                                           |
| record_name                         | riskUpdateService_recordName                                                                                                                         |
| recurring_approval_required         | recurringSubscriptionInfo_approvalRequired                                                                                                           |
| recurring_automatic_renew           | recurringSubscriptionInfo_automaticRenew                                                                                                             |
| recurring_frequency                 | recurringSubscriptionInfo_frequency                                                                                                                  |
| recurring_number_of_payments        | recurringSubscriptionInfo_numberOfPayments                                                                                                           |
| recurring_number_of_payments_to_add | recurringSubscriptionInfo_numberOfPaymentsToAdd                                                                                                      |
| recurring_payment_amount            | recurringSubscriptionInfo_amount                                                                                                                     |
| recurring_payment_event_action      | paySubscriptionEventUpdateService_action                                                                                                             |
| recurring_payment_event_amount      | recurringSubscriptionInfo_event_amount                                                                                                               |
| recurring_payment_event_approved_by | recurringSubscriptionInfo_event_approvedBy                                                                                                           |
| recurring_payment_event_number      | recurringSubscriptionInfo_event_number                                                                                                               |
| recurring_start_date                | recurringSubscriptionInfo_startDate                                                                                                                  |
| returns_accepted                    | invoiceHeader_returnsAccepted                                                                                                                        |
| seller_registration                 | taxService_sellerRegistration                                                                                                                        |
| ship_from_city                      | shipFrom_city                                                                                                                                        |

Table 2 Request-Level Fields (Continued)

| SCMP API                 | SO API                                   |
|--------------------------|------------------------------------------|
| ship_from_country        | shipFrom_country                         |
| ship_from_county         | shipFrom_county                          |
| ship_from_state          | shipFrom_state                           |
| ship_from_zip            | shipFrom_postalCode                      |
| ship_to_address1         | shipTo_street1                           |
| ship_to_address2         | shipTo_street2                           |
| ship_to_address3         | shipTo_street3                           |
| ship_to_address4         | shipTo_street4                           |
| ship_to_city             | shipTo_city                              |
| ship_to_country          | shipTo_country                           |
| ship_to_county           | shipTo_county                            |
| ship_to_email            | shipTo_email                             |
| ship_to_firstname        | shipTo_firstName                         |
| ship_to_lastname         | shipTo_lastName                          |
| ship_to_phone            | shipTo_phoneNumber                       |
| ship_to_phone_type       | bml_shipToPhoneType                      |
| ship_to_state            | shipTo_state                             |
| ship_to_zip              | shipTo_postalCode                        |
| shipping_method          | shipTo_shippingMethod                    |
| subscription_end_date    | recurringSubscriptionInfo_endDate        |
| subscription_id          | recurringSubscriptionInfo_subscriptionID |
| subscription_status      | recurringSubscriptionInfo_status         |
| subscription_title       | subscription_title                       |
| summary_commodity_code   | invoiceHeader_summaryCommodityCode       |
| supplier_order_reference | invoiceHeader_supplierOrderReference     |
| tax_indicator            | invoiceHeader_taxable                    |
| terminal_capability      | pos_terminalCapability                   |
| terminal_id              | pos_terminalID                           |
| terminal_location        | pos_terminalLocation                     |
| terminal_type            | pos_terminalType                         |
| total_funding_amount     | fundingTotals_grandTotalAmount           |
| total_tax_amount         | purchaseTotals_taxAmount                 |
| track_data               | pos_trackData                            |
| transaction_type         | directDebitService_transactionType       |
| ucaf_authentication_data | ucaf_authenticationData                  |



Table 2 Request-Level Fields (Continued)

| SCMP API                  | SO API                                  |
|---------------------------|-----------------------------------------|
| ucaf_collection_indicator | ucaf_collectionIndicator                |
| user_po                   | invoiceHeader_userPO                    |
| vat_invoice_ref_number    | invoiceHeader_vatInvoiceReferenceNumber |
| vat_tax_amount            | otherTax_vatTaxAmount                   |
| vat_tax_rate              | otherTax_vatTaxRate                     |
| void_request_id           | voidService_voidRequestID               |
| xid                       | ccAuthService_xid                       |

## Offer-Level Fields

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Table 3 Offer-Level Fields

| SCMP API                 | SO API                        |
|--------------------------|-------------------------------|
| alternate_tax_id         | item_#_alternateTaxID         |
| amount                   | item_#_unitPrice              |
| buyer_registration       | item_#_buyerRegistration      |
| city_override_amount     | item_#_cityOverrideAmount     |
| city_override_rate       | item_#_cityOverrideRate       |
| commodity_code           | item_#_commodityCode          |
| country_override_amount  | item_#_countryOverrideAmount  |
| country_override_rate    | item_#_countryOverrideRate    |
| county_override_amount   | item_#_countyOverrideAmount   |
| county_override_rate     | item_#_countyOverrideRate     |
| discount_amount          | item_#_discountAmount         |
| discount_indicator       | item_#_discountIndicator      |
| discount_rate            | item_#_discountRate           |
| district_override_amount | item_#_districtOverrideAmount |
| district_override_rate   | item_#_districtOverrideRate   |
| export                   | item_#_export                 |
| gross_net_indicator      | item_#_grossNetIndicator      |
| merchant_product_sku     | item_#_productSKU             |
| middleman_registration   | item_#_middlemanRegistration  |
| national_tax             | item_#_nationalTax            |

Table 3 Offer-Level Fields (Continued)

| SCMP API                 | SO API                                                                                                                                                                        |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| no_export                | item_#_noExport                                                                                                                                                               |
| order_acceptance_city    | item_#_orderAcceptanceCity                                                                                                                                                    |
| order_acceptance_country | item_#_orderAcceptanceCountry                                                                                                                                                 |
| order_acceptance_county  | item_#_orderAcceptanceCounty                                                                                                                                                  |
| order_acceptance_state   | item_#_orderAcceptanceState                                                                                                                                                   |
| order_acceptance_zip     | item_#_orderAcceptancePostalCode                                                                                                                                              |
| order_origin_city        | item_#_orderOriginCity                                                                                                                                                        |
| order_origin_country     | item_#_orderOriginCountry                                                                                                                                                     |
| order_origin_county      | item_#_orderOriginCounty                                                                                                                                                      |
| order_origin_state       | item_#_orderOriginState                                                                                                                                                       |
| order_origin_zip         | item_#_orderOriginPostalCode                                                                                                                                                  |
| point_of_title_transfer  | item_#_pointOfTitleTransfer                                                                                                                                                   |
| product_code             | item_#_productCode                                                                                                                                                            |
| product_name             | item_#_productName                                                                                                                                                            |
| product_risk             | item_#_productRisk                                                                                                                                                            |
| quantity                 | item_#_quantity                                                                                                                                                               |
| score_category_time      | item_#_timeCategory                                                                                                                                                           |
| score_category_gift      | item_#_giftCategory                                                                                                                                                           |
| score_host_hedge         | item_#_hostHedge                                                                                                                                                              |
| score_threshold          | <b>businessRules_scoreThreshold</b> (score_threshold is an offer-level field in the SCMP API; <b>businessRules_scoreThreshold</b> is a request field in the Simple Order API) |
| score_time_hedge         | item_#_timeHedge                                                                                                                                                              |
| score_velocity_hedge     | item_#_velocityHedge                                                                                                                                                          |
| seller_registration      | item_#_sellerRegistration                                                                                                                                                     |
| ship_from_city           | item_#_shipFromCity                                                                                                                                                           |
| ship_from_country        | item_#_shipFromCountry                                                                                                                                                        |
| ship_from_county         | item_#_shipFromCounty                                                                                                                                                         |
| ship_from_state          | item_#_shipFromState                                                                                                                                                          |
| ship_from_zip            | item_#_shipFromPostalCode                                                                                                                                                     |
| state_override_amount    | item_#_stateOverrideAmount                                                                                                                                                    |
| state_override_rate      | item_#_stateOverrideRate                                                                                                                                                      |
| tax_amount               | item_#_taxAmount                                                                                                                                                              |
| tax_rate                 | item_#_taxRate                                                                                                                                                                |
| tax_type_applied         | item_#_taxTypeApplied                                                                                                                                                         |

Table 3 Offer-Level Fields (Continued)

| SCMP API        | SO API               |
|-----------------|----------------------|
| total_amount    | item_#_totalAmount   |
| unit_of_measure | item_#_unitOfMeasure |
| vat_rate        | item_#_vatRate       |

## Reply Fields

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Table 4 Reply Fields

| SCMP API                      | SO API                                |
|-------------------------------|---------------------------------------|
| auth_auth_amount              | ccAuthReply_amount                    |
| auth_auth_avs                 | ccAuthReply_avsCode                   |
| auth_auth_code                | ccAuthReply_authorizationCode         |
| auth_auth_record              | ccAuthReply_authRecord                |
| auth_auth_response            | ccAuthReply_processorResponse         |
| auth_auth_time                | ccAuthReply_authorizedDateTime        |
| auth_avs_raw                  | ccAuthReply_avsCodeRaw                |
| auth_customer_cc_number       | ccAuthReply_bmlAccountNumber          |
| auth_cv_result                | ccAuthReply_cvCode                    |
| auth_cv_result_raw            | ccAuthReply_cvCodeRaw                 |
| auth_factor_code              | ccAuthReply_authFactorCode            |
| auth_fxrates_funding_currency | ccAuthReply_fundingTotals_currency    |
| auth_fxrates_quote_exp        | ccAuthReply_fxQuoteExpirationDateTime |
| auth_fxrates_quote_id         | ccAuthReply_fxQuoteID                 |
| auth_fxrates_quote_rate       | ccAuthReply_fxQuoteRate               |
| auth_fxrates_quote_type       | ccAuthReply_fxQuoteType               |
| auth_rcode                    | N/A                                   |
| auth_reversal_amount          | ccAuthReversalReply_amount            |
| auth_reversal_auth_code       | ccAuthReversalReply_authorizationCode |
| auth_reversal_auth_response   | ccAuthReversalReply_processorResponse |
| auth_reversal_rcode           | N/A                                   |
| auth_reversal_request_time    | ccAuthReversalReply_requestDateTime   |
| auth_reversal_rflag           | N/A                                   |
| auth_reversal_rmsg            | N/A                                   |

Table 4 Reply Fields (Continued)

| SCMP API                           | SO API                                     |
|------------------------------------|--------------------------------------------|
| auth_rflag                         | N/A                                        |
| auth_rmsg                          | N/A                                        |
| auth_total_funding_amount          | ccAuthReply_fundingTotals_grandTotalAmount |
| auth_trans_ref_no                  | ccAuthReply_reconciliationID               |
| bank_transfer_account_holder       | bankTransferReply_accountHolder            |
| bank_transfer_account_number       | bankTransferReply_accountNumber            |
| bank_transfer_amount               | bankTransferReply_amount                   |
| bank_transfer_bank_city            | bankTransferReply_bankCity                 |
| bank_transfer_bank_country         | bankTransferReply_bankCountry              |
| bank_transfer_bank_name            | bankTransferReply_bankName                 |
| bank_transfer_payment_reference    | bankTransferReply_paymentReference         |
| bank_transfer_rcode                | N/A                                        |
| bank_transfer_refund_amount        | bankTransferRefundReply_amount             |
| bank_transfer_refund_rcode         | N/A                                        |
| bank_transfer_refund_response_code | bankTransferRefundReply_processorResponse  |
| bank_transfer_refund_rflag         | N/A                                        |
| bank_transfer_refund_rmsg          | N/A                                        |
| bank_transfer_refund_time          | bankTransferRefundReply_requestDateTime    |
| bank_transfer_refund_trans_ref_no  | bankTransferRefundReply_reconciliationID   |
| bank_transfer_response_code        | bankTransferReply_processorResponse        |
| bank_transfer_rflag                | N/A                                        |
| bank_transfer_rmsg                 | N/A                                        |
| bank_transfer_special_id           | bankTransferReply_bankSpecialID            |
| bank_transfer_swiftcode            | bankTransferReply_bankSwiftCode            |
| bank_transfer_time                 | bankTransferReply_requestDateTime          |
| bank_transfer_trans_ref_no         | bankTransferReply_reconciliationID         |
| bill_bill_amount                   | ccCaptureReply_amount                      |
| bill_bill_request_time             | ccCaptureReply_requestDateTime             |
| bill_enhanced_data_enabled         | ccCaptureReply_enhancedDataEnabled         |
| bill_fxrates_funding_currency      | ccCaptureReply_fundingTotals_currency      |
| bill_fxrates_quote_exp             | ccCaptureReply_fxQuoteExpirationDateTime   |
| bill_fxrates_quote_id              | ccCaptureReply_fxQuoteID                   |
| bill_fxrates_quote_rate            | ccCaptureReply_fxQuoteRate                 |
| bill_fxrates_quote_type            | ccCaptureReply_fxQuoteType                 |

Table 4 Reply Fields (Continued)

| SCMP API                         | SO API                                        |
|----------------------------------|-----------------------------------------------|
| bill_purchasing_level3_enabled   | ccCaptureReply_purchasingLevel3Enabled        |
| bill_rcode                       | N/A                                           |
| bill_rflag                       | N/A                                           |
| bill_rmsg                        | N/A                                           |
| bill_total_funding_amount        | ccCaptureReply_fundingTotals_grandTotalAmount |
| bill_trans_ref_no                | ccCaptureReply_reconciliationID               |
| credit_credit_amount             | ccCreditReply_amount                          |
| credit_credit_request_time       | ccCreditReply_requestDateTime                 |
| credit_enhanced_data_enabled     | ccCreditReply_enhancedDataEnabled             |
| credit_purchasing_level3_enabled | ccCreditReply_purchasingLevel3Enabled         |
| credit_rcode                     | N/A                                           |
| credit_rflag                     | N/A                                           |
| credit_rmsg                      | N/A                                           |
| credit_trans_ref_no              | ccCreditReply_reconciliationID                |
| currency                         | purchaseTotals_currency                       |
| dav_address_type                 | davReply_addressType                          |
| dav_apt_info                     | davReply_apartmentInfo                        |
| dav_bar_code                     | davReply_barCode                              |
| dav_bar_code_chkdigit            | davReply_barCodeCheckDigit                    |
| dav_ca_error_info                | davReply_caErrorInfo                          |
| dav_ca_info                      | davReply_caInfo                               |
| dav_careof                       | davReply_careOf                               |
| dav_city_info                    | davReply_cityInfo                             |
| dav_country_info                 | davReply_countyInfo                           |
| dav_directional_info             | davReply_directionalInfo                      |
| dav_intl_error_info              | davReply_intlErrorInfo                        |
| dav_intl_info                    | davReply_intlInfo                             |
| dav_lvr_info                     | davReply_lvrInfo                              |
| dav_match_score                  | davReply_matchScore                           |
| dav_overall_info                 | davReply_overallInfo                          |
| dav_rcode                        | N/A                                           |
| dav_rflag                        | N/A                                           |
| dav_rmsg                         | N/A                                           |
| dav_standard_address             | davReply_standardizedAddress1                 |

Table 4 Reply Fields (Continued)

| SCMP API                                  | SO API                                                                      |
|-------------------------------------------|-----------------------------------------------------------------------------|
| dav_standard_address_noapt                | davReply_standardizedAddressNoApt                                           |
| dav_standard_address2                     | davReply_standardizedAddress2                                               |
| dav_standard_address3                     | davReply_standardizedAddress3                                               |
| dav_standard_address4                     | davReply_standardizedAddress4                                               |
| dav_standard_city                         | davReply_standardizedCity                                                   |
| dav_standard_country                      | davReply_standardizedCountry                                                |
| dav_standard_county                       | davReply_standardizedCounty                                                 |
| dav_standard_csz                          | davReply_standardizedCSP                                                    |
| dav_standard_iso_country                  | davReply_standardizedISOCountry                                             |
| dav_standard_state                        | davReply_standardizedState                                                  |
| dav_standard_zip                          | davReply_standardizedPostalCode                                             |
| dav_state_info                            | davReply_stateInfo                                                          |
| dav_street_info                           | davReply_streetInfo                                                         |
| dav_suffix_info                           | davReply_suffixInfo                                                         |
| dav_us_error_info                         | davReply_usErrorInfo                                                        |
| dav_us_info                               | davReply_usInfo                                                             |
| dav_zip_info                              | davReply_postalCodeInfo                                                     |
| decision_active_profile                   | decisionReply_activeProfileReply_name                                       |
| decision_active_profile_destination_queue | decisionReply_activeProfileReply_destinationQueue                           |
| decision_active_profile_rule_#_decision   | decisionReply_activeProfileReply_rulesTriggered_ruleResultItem_#_decision   |
| decision_active_profile_rule_#_evaluation | decisionReply_activeProfileReply_rulesTriggered_ruleResultItem_#_evaluation |
| decision_active_profile_rule_#_id         | decisionReply_activeProfileReply_rulesTriggered_ruleResultItem_#_ruleID     |
| decision_active_profile_rule_#_name       | decisionReply_activeProfileReply_rulesTriggered_ruleResultItem_#_name       |
| decision_active_profile_selector_rule     | decisionReply_activeProfileReply_selectedBy                                 |
| direct_debit_refund_response_code         | directDebitRefundReply_processorResponse                                    |
| direct_debit_amount                       | directDebitReply_amount                                                     |
| direct_debit_rcode                        | N/A                                                                         |
| direct_debit_rcode                        | directDebitReply_reasonCode                                                 |
| direct_debit_refund_amount                | directDebitRefundReply_amount                                               |

Table 4 Reply Fields (Continued)

| SCMP API                         | SO API                                  |
|----------------------------------|-----------------------------------------|
| direct_debit_refund_rcode        | N/A                                     |
| direct_debit_refund_rflag        | N/A                                     |
| direct_debit_refund_rmsg         | N/A                                     |
| direct_debit_refund_time         | directDebitRefundReply_requestDateTime  |
| direct_debit_refund_trans_ref_no | directDebitRefundReply_reconciliationID |
| direct_debit_response_code       | directDebitReply_processorResponse      |
| direct_debit_rflag               | N/A                                     |
| direct_debit_rmsg                | N/A                                     |
| direct_debit_time                | directDebitReply_requestDateTime        |
| direct_debit_trans_ref_no        | directDebitReply_reconciliationID       |
| direct_debit_validate_rcode      | N/A                                     |
| direct_debit_validate_rflag      | N/A                                     |
| direct_debit_validate_rmsg       | N/A                                     |
| ecp_credit_processor_trans_id    | ecCreditReply_processorTransactionID    |
| ecp_credit_rcode                 | N/A                                     |
| ecp_credit_ref_no                | ecCreditReply_reconciliationID          |
| ecp_credit_result_code           | ecCreditReply_processorResponse         |
| ecp_credit_rflag                 | N/A                                     |
| ecp_credit_rmsg                  | N/A                                     |
| ecp_credit_settlement_method     | ecCreditReply_settlementMethod          |
| ecp_credit_submit_time           | ecCreditReply_requestDateTime           |
| ecp_credit_total_amount          | ecCreditReply_amount                    |
| ecp_debit_avs                    | ecDebitReply_avsCode                    |
| ecp_debit_avs_raw                | ecDebitReply_avsCodeRaw                 |
| ecp_debit_processor_trans_id     | ecDebitReply_processorTransactionID     |
| ecp_debit_rcode                  | N/A                                     |
| ecp_debit_ref_no                 | ecDebitReply_reconciliationID           |
| ecp_debit_result_code            | ecDebitReply_processorResponse          |
| ecp_debit_rflag                  | N/A                                     |
| ecp_debit_rmsg                   | N/A                                     |
| ecp_debit_settlement_method      | ecDebitReply_settlementMethod           |
| ecp_debit_submit_time            | ecDebitReply_requestDateTime            |
| ecp_debit_total_amount           | ecDebitReply_amount                     |
| ecp_debit_verification_level     | ecDebitReply_verificationLevel          |
| export_ip_country_confidence     | exportReply_ipCountryConfidence         |

Table 4 Reply Fields (Continued)

| SCMP API                  | SO API                                  |
|---------------------------|-----------------------------------------|
| export_match1_address1    | deniedPartiesMatch_0_address_0          |
| export_match1_address2    | deniedPartiesMatch_0_address_1          |
| export_match1_address3    | deniedPartiesMatch_0_address_2          |
| export_match1_list        | deniedPartiesMatch_0_list               |
| export_match1_name1       | deniedPartiesMatch_0_name_0             |
| export_match1_name2       | deniedPartiesMatch_0_name_1             |
| export_match2_address1    | deniedPartiesMatch_1_address_0          |
| export_match2_address2    | deniedPartiesMatch_1_address_1          |
| export_match2_address3    | deniedPartiesMatch_1_address_2          |
| export_match2_list        | deniedPartiesMatch_1_list               |
| export_match2_name1       | deniedPartiesMatch_1_name_0             |
| export_match2_name2       | deniedPartiesMatch_1_name_1             |
| export_match3_address1    | deniedPartiesMatch_2_address_0          |
| export_match3_address2    | deniedPartiesMatch_2_address_1          |
| export_match3_address3    | deniedPartiesMatch_2_address_2          |
| export_match3_list        | deniedPartiesMatch_2_list               |
| export_match3_name1       | deniedPartiesMatch_2_name_0             |
| export_match3_name2       | deniedPartiesMatch_2_name_1             |
| export_rcode              | N/A                                     |
| export_rflag              | N/A                                     |
| export_rmsg               | N/A                                     |
| fxrates_currency#         | fxRatesReply_quote_#_currency           |
| fxrates_funding_currency# | fxRatesReply_quote_#_fundingCurrency    |
| fxrates_quote_date#       | fxRatesReply_quote_#_receivedDateTime   |
| fxrates_quote_exp#        | fxRatesReply_quote_#_expirationDateTime |
| fxrates_quote_id#         | fxRatesReply_quote_#_id                 |
| fxrates_quote_rate#       | fxRatesReply_quote_#_rate               |
| fxrates_quote_type#       | fxRatesReply_quote_#_type               |
| fxrates_rcode             | N/A                                     |
| fxrates_rflag             | N/A                                     |
| fxrates_rmsg              | N/A                                     |
| ics_rcode                 | N/A                                     |
| ics_rflag                 | N/A                                     |
| ics_rmsg                  | N/A                                     |
| merchant_ref_number       | merchantReferenceCode                   |



Table 4 Reply Fields (Continued)

| SCMP API                                    | SO API                                             |
|---------------------------------------------|----------------------------------------------------|
| pa_enroll_acs_url                           | payerAuthEnrollReply_acsURL                        |
| pa_enroll_e_commerce_indicator              | payerAuthEnrollReply_commerceIndicator             |
| pa_enroll_pareq                             | payerAuthEnrollReply_paReq                         |
| pa_enroll_proofxml                          | payerAuthEnrollReply_proofXML                      |
| pa_enroll_proxypan                          | payerAuthEnrollReply_proxyPAN                      |
| pa_enroll_rcode                             | N/A                                                |
| pa_enroll_rflag                             | N/A                                                |
| pa_enroll_rmsg                              | N/A                                                |
| pa_enroll_ucaf_collection_indicator         | payerAuthEnrollReply_ucafCollectionIndicator       |
| pa_enroll_xid                               | payerAuthEnrollReply_xid                           |
| pa_validate_authentication_result           | payerAuthValidateReply_authenticationResult        |
| pa_validate_authentication_status_msg       | payerAuthValidateReply_authenticationStatusMessage |
| pa_validate_cavv                            | payerAuthValidateReply_cavv                        |
| pa_validate_e_commerce_indicator            | payerAuthValidateReply_commerceIndicator           |
| pa_validate_eci                             | payerAuthValidateReply_eci                         |
| pa_validate_eci_raw                         | payerAuthValidateReply_eciRaw                      |
| pa_validate_rcode                           | N/A                                                |
| pa_validate_rflag                           | N/A                                                |
| pa_validate_rmsg                            | N/A                                                |
| pa_validate_xid                             | payerAuthValidateReply_xid                         |
| pay_subscription_create_rcode               | N/A                                                |
| pay_subscription_create_rflag               | N/A                                                |
| pay_subscription_create_rmsg                | N/A                                                |
| pay_subscription_create_subscription_id     | paySubscriptionCreateReply_subscriptionID          |
| pay_subscription_retrieve_approval_required | paySubscriptionRetrieveReply_approvalRequired      |
| pay_subscription_retrieve_automatic_renew   | paySubscriptionRetrieveReply_automaticRenew        |
| pay_subscription_retrieve_bill_address1     | paySubscriptionRetrieveReply_street1               |
| pay_subscription_retrieve_bill_address2     | paySubscriptionRetrieveReply_street2               |
| pay_subscription_retrieve_bill_city         | paySubscriptionRetrieveReply_city                  |
| pay_subscription_retrieve_bill_country      | paySubscriptionRetrieveReply_country               |

Table 4 Reply Fields (Continued)

| SCMP API                                           | SO API                                              |
|----------------------------------------------------|-----------------------------------------------------|
| pay_subscription_retrieve_bill_state               | paySubscriptionRetrieveReply_state                  |
| pay_subscription_retrieve_bill_zip                 | paySubscriptionRetrieveReply_postalCode             |
| pay_subscription_retrieve_card_type                | paySubscriptionRetrieveReply_cardType               |
| pay_subscription_retrieve_comments                 | paySubscriptionRetrieveReply_comments               |
| pay_subscription_retrieve_company_name             | paySubscriptionRetrieveReply_companyName            |
| pay_subscription_retrieve_currency                 | paySubscriptionRetrieveReply_currency               |
| pay_subscription_retrieve_customer_account_id      | paySubscriptionRetrieveReply_customerAccountID      |
| pay_subscription_retrieve_customer_cc_expmo        | paySubscriptionRetrieveReply_cardExpirationMonth    |
| pay_subscription_retrieve_customer_cc_expyr        | paySubscriptionRetrieveReply_cardExpirationYear     |
| pay_subscription_retrieve_customer_cc_issue_number | paySubscriptionRetrieveReply_cardIssueNumber        |
| pay_subscription_retrieve_customer_cc_number       | paySubscriptionRetrieveReply_cardAccountnumber      |
| pay_subscription_retrieve_customer_cc_startmo      | paySubscriptionRetrieveReply_cardStartMonth         |
| pay_subscription_retrieve_customer_cc_startyr      | paySubscriptionRetrieveReply_cardStartYear          |
| pay_subscription_retrieve_customer_email           | paySubscriptionRetrieveReply_email                  |
| pay_subscription_retrieve_customer_firstname       | paySubscriptionRetrieveReply_firstname              |
| pay_subscription_retrieve_customer_lastname        | paySubscriptionRetrieveReply_lastname               |
| pay_subscription_retrieve_customer_phone           | paySubscriptionRetrieveReply_phoneNumber            |
| pay_subscription_retrieve_ecp_account_no           | paySubscriptionRetrieveReply_checkAccountNumber     |
| pay_subscription_retrieve_ecp_account_no           | paySubscriptionRetrieveReply_checkAccountType       |
| pay_subscription_retrieve_ecp_rdfi                 | paySubscriptionRetrieveReply_checkBankTransitNumber |
| pay_subscription_retrieve_end_date                 | paySubscriptionRetrieveReply_endDate                |
| pay_subscription_retrieve_frequency                | paySubscriptionRetrieveReply_frequency              |
| pay_subscription_retrieve_merchant_ref_number      | paySubscriptionRetrieveReply_merchantReferenceCode  |

Table 4 Reply Fields (Continued)

| SCMP API                                   | SO API                                         |
|--------------------------------------------|------------------------------------------------|
| pay_subscription_retrieve_payment_method   | paySubscriptionRetrieveReply_paymentMethod     |
| pay_subscription_retrieve_payments_left    | paySubscriptionRetrieveReply_paymentsRemaining |
| pay_subscription_retrieve_rcode            | N/A                                            |
| pay_subscription_retrieve_recurring_amount | paySubscriptionRetrieveReply_recurringAmount   |
| pay_subscription_retrieve_rflag            | N/A                                            |
| pay_subscription_retrieve_rmsg             | N/A                                            |
| pay_subscription_retrieve_setup_amount     | paySubscriptionRetrieveReply_setupAmount       |
| pay_subscription_retrieve_start_date       | paySubscriptionRetrieveReply_startDate         |
| pay_subscription_retrieve_status           | paySubscriptionRetrieveReply_status            |
| pay_subscription_retrieve_subscription_id  | paySubscriptionRetrieveReply_subscriptionID    |
| pay_subscription_retrieve_title            | paySubscriptionRetrieveReply_title             |
| pay_subscription_retrieve_total_payments   | paySubscriptionRetrieveReply_totalPayments     |
| pay_subscription_update_rcode              | paySubscriptionUpdateReply_reasonCode          |
| pay_subscription_update_subscription_id    | paySubscriptionUpdateReply_subscriptionID      |
| paypal_button_create_button_type           | paypalButtonCreateReply_buttonType             |
| paypal_button_create_encrypted_form_data   | paypalButtonCreateReply_encryptedFormData      |
| paypal_button_create_rcode                 | N/A                                            |
| paypal_button_create_rflag                 | N/A                                            |
| paypal_button_create_rmsg                  | N/A                                            |
| paypal_button_create_time                  | paypalButtonCreateReply_requestDateTime        |
| paypal_button_create_trans_ref_no          | paypalButtonCreateReply_reconciliationID       |
| paypal_button_create_unencrypted_form_data | paypalButtonCreateReply_unencryptedFormData    |
| paypal_credit_amount                       | paypalCreditReply_amount                       |
| paypal_credit_rcode                        | N/A                                            |
| paypal_credit_response_code                | paypalCreditReply_processorResponse            |
| paypal_credit_rflag                        | N/A                                            |
| paypal_credit_rmsg                         | N/A                                            |
| paypal_credit_time                         | paypalCreditReply_requestDateTime              |
| paypal_credit_trans_ref_no                 | paypalCreditReply_reconciliationID             |

Table 4 Reply Fields (Continued)

| SCMP API                                        | SO API                                           |
|-------------------------------------------------|--------------------------------------------------|
| paypal_preapproved_payment_desc                 | payPalPreapprovedPaymentReply_desc               |
| paypal_preapproved_payment_exchange_rate        | payPalPreapprovedPaymentReply_exchangeRate       |
| paypal_preapproved_payment_fee_amount           | payPalPreapprovedPaymentReply_feeAmount          |
| paypal_preapproved_payment_mp_max               | payPalPreapprovedPaymentReply_mpMax              |
| paypal_preapproved_payment_mp_status            | payPalPreapprovedPaymentReply_mpStatus           |
| paypal_preapproved_payment_payer                | payPalPreapprovedPaymentReply_payer              |
| paypal_preapproved_payment_payer_business       | payPalPreapprovedPaymentReply_payerBusiness      |
| paypal_preapproved_payment_payer_country        | payPalPreapprovedPaymentReply_payerCountry       |
| paypal_preapproved_payment_payer_id             | payPalPreapprovedPaymentReply_payerID            |
| paypal_preapproved_payment_payer_name           | payPalPreapprovedPaymentReply_payerName          |
| paypal_preapproved_payment_payer_status         | payPalPreapprovedPaymentReply_payerStatus        |
| paypal_preapproved_payment_payment_date         | payPalPreapprovedPaymentReply_paymentDate        |
| paypal_preapproved_payment_payment_gross_amount | payPalPreapprovedPaymentReply_paymentGrossAmount |
| paypal_preapproved_payment_payment_source_id    | payPalPreapprovedPaymentReply_paymentSourceID    |
| paypal_preapproved_payment_payment_status       | payPalPreapprovedPaymentReply_paymentStatus      |
| paypal_preapproved_payment_payment_type         | payPalPreapprovedPaymentReply_paymentType        |
| paypal_preapproved_payment_pending_reason       | payPalPreapprovedPaymentReply_pendingReason      |
| paypal_preapproved_payment_rcode                | N/A                                              |
| paypal_preapproved_payment_rflag                | N/A                                              |
| paypal_preapproved_payment_rmsg                 | N/A                                              |
| paypal_preapproved_payment_settle_amount        | payPalPreapprovedPaymentReply_settleAmount       |
| paypal_preapproved_payment_tax_amount           | payPalPreapprovedPaymentReply_taxAmount          |

Table 4 Reply Fields (Continued)

| SCMP API                                    | SO API                                         |
|---------------------------------------------|------------------------------------------------|
| paypal_preapproved_payment_time             | payPalPreapprovedPaymentReply_requestDateTime  |
| paypal_preapproved_payment_trans_ref_no     | payPalPreapprovedPaymentReply_reconciliationID |
| paypal_preapproved_payment_transaction_id   | payPalPreapprovedPaymentReply_transactionID    |
| paypal_preapproved_payment_transaction_type | payPalPreapprovedPaymentReply_transactionType  |
| paypal_preapproved_update_desc              | payPalPreapprovedUpdateReply_desc              |
| paypal_preapproved_update_mp_max            | payPalPreapprovedUpdateReply_mpMax             |
| paypal_preapproved_update_mp_status         | payPalPreapprovedUpdateReply_mpStatus          |
| paypal_preapproved_update_payer             | payPalPreapprovedUpdateReply_payer             |
| paypal_preapproved_update_payer_business    | payPalPreapprovedUpdateReply_payerBusiness     |
| paypal_preapproved_update_payer_country     | payPalPreapprovedUpdateReply_payerCountry      |
| paypal_preapproved_update_payer_id          | payPalPreapprovedUpdateReply_payerID           |
| paypal_preapproved_update_payer_name        | payPalPreapprovedUpdateReply_payerName         |
| paypal_preapproved_update_payer_status      | payPalPreapprovedUpdateReply_payerStatus       |
| paypal_preapproved_update_payment_source_id | payPalPreapprovedUpdateReply_paymentSourceID   |
| paypal_preapproved_update_rcode             | N/A                                            |
| paypal_preapproved_update_rflag             | N/A                                            |
| paypal_preapproved_update_rmsg              | N/A                                            |
| paypal_preapproved_update_time              | payPalPreapprovedUpdateReply_requestDateTime   |
| paypal_preapproved_update_trans_ref_no      | payPalPreapprovedUpdateReply_reconciliationID  |
| pinless_debit_amount                        | pinlessDebitReply_amount                       |
| pinless_debit_auth_code                     | pinlessDebitReply_authorizationCode            |
| pinless_debit_processor_response            | pinlessDebitReply_processorResponse            |
| pinless_debit_rcode                         | N/A                                            |
| pinless_debit_receipt_number                | pinlessDebitReply_receiptNumber                |
| pinless_debit_rflag                         | N/A                                            |

Table 4 Reply Fields (Continued)

| SCMP API                      | SO API                                    |
|-------------------------------|-------------------------------------------|
| pinless_debit_rmsg            | N/A                                       |
| pinless_debit_time            | pinlessDebitReply_requestDateTime         |
| pinless_debit_trans_ref_no    | pinlessDebitReply_reconciliationID        |
| pinless_debit_validate_rcode  | N/A                                       |
| pinless_debit_validate_rflag  | N/A                                       |
| pinless_debit_validate_rmsg   | N/A                                       |
| pinless_debit_validate_status | pinlessDebitValidateReply_status          |
| pinless_debit_validate_time   | pinlessDebitValidateReply_requestDateTime |
| request_id                    | requestID                                 |
| score_address_info            | afsReply_addressInfoCode                  |
| score_factors                 | afsReply_afsFactorCode                    |
| score_host_severity           | afsReply_hostSeverity                     |
| score_hotlist_info            | afsReply_hotlistInfoCode                  |
| score_internet_info           | afsReply_internetInfoCode                 |
| score_phone_info              | afsReply_phoneInfoCode                    |
| score_rcode                   | N/A                                       |
| score_rflag                   | N/A                                       |
| score_rmsg                    | N/A                                       |
| score_score_result            | afsReply_afsResult                        |
| score_suspicious_info         | afsReply_suspiciousInfoCode               |
| score_time_local              | afsReply_consumerLocalTime                |
| score_velocity_info           | afsReply_velocityInfoCode                 |
| tax_city_name                 | taxReply_city                             |
| tax_city_tax#                 | taxReply_item_#_cityTaxAmount             |
| tax_county_name               | taxReply_county                           |
| tax_county_tax#               | taxReply_item_#_countyTaxAmount           |
| tax_district_tax#             | taxReply_item_#_districtTaxAmount         |
| tax_rcode                     | N/A                                       |
| tax_rflag                     | N/A                                       |
| tax_rmsg                      | N/A                                       |
| tax_state_name                | taxReply_state                            |
| tax_state_tax#                | taxReply_item_#_stateTaxAmount            |
| tax_tax_amount#               | taxReply_item_#_totalTaxAmount            |
| tax_total_city_tax            | taxReply_totalCityTaxAmount               |
| tax_total_county_tax          | taxReply_totalCountyTaxAmount             |

Table 4 Reply Fields (Continued)

| SCMP API                  | SO API                                         |
|---------------------------|------------------------------------------------|
| tax_total_district_tax    | taxReply_totalDistrictTaxAmount                |
| tax_total_grand           | taxReply_grandTotalTaxAmount                   |
| tax_total_state_tax       | taxReply_totalStateTaxAmount                   |
| tax_total_tax             | taxReply_totalTaxAmount                        |
| tax_zip                   | taxReply_postalCode                            |
| ucaf_authentication_data  | payerAuthValidateReply_ucafAuthenticationData  |
| ucaf_collection_indicator | payerAuthValidateReply_ucafCollectionIndicator |
| void_rcode                | N/A                                            |
| void_rflag                | N/A                                            |
| void_rmsg                 | N/A                                            |
| void_void_amount          | voidReply_amount                               |
| void_void_currency        | voidReply_currency                             |
| void_void_request_time    | voidReply_requestDateTime                      |

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