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Recent Revisions to This Document

<table>
<thead>
<tr>
<th>Release</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2020</td>
<td>Changed payment network tokenization to authorizations with payment network tokens throughout this document. Updated the requirements. See &quot;Requirements,&quot; page 8. Updated the purchaseTotals_grandTotalAmount request field length. See purchaseTotals_grandTotalAmount, page 15.</td>
</tr>
<tr>
<td>May 2019</td>
<td>This revision contains only editorial changes and no technical updates.</td>
</tr>
<tr>
<td>December 2017</td>
<td>This revision contains only editorial changes and no technical updates.</td>
</tr>
<tr>
<td>March 2016</td>
<td>Initial release.</td>
</tr>
</tbody>
</table>
About This Guide

Audience and Purpose

This document is written for merchants who want to enable customers to use Chase Pay to pay for in-app transactions. This document provides an overview of integrating Chase Pay and CyberSource services into an order management system and describes how to request the CyberSource API to process authorizations and recurring payments.

Conventions

Important Statements

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

Text and Command Conventions

<table>
<thead>
<tr>
<th>Convention</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>bold</td>
<td>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.</td>
</tr>
<tr>
<td>screen text</td>
<td>XML elements. Code examples and samples. Text that you enter in an API environment; for example: Set the ics_applications field to ics_auth.</td>
</tr>
</tbody>
</table>
Related Documents

CyberSource Documents:
- Getting Started with CyberSource Advanced for the Simple Order API (PDF | HTML)
- Simple Order API and SOAP Toolkit API Documentation and Downloads page
- Credit Card Services Using the Simple Order API (PDF | HTML)
- Authorizations with Payment Network Tokens Using the Simple Order API (PDF | HTML)

Chase Pay documents on the Chase Paymentech developer center:
- Chase Pay Service Specification
- Chase Pay Companion Guide

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:
http://www.cybersource.com/support
Chapter 1

Introduction

Chase Pay

Chase Pay enables registered Chase customers to use credit cards that are stored in their digital wallet as payment methods when making purchases using their mobile device.

Chase Pay requires the customer to enter only a username and password to pay for goods. It eliminates the need to enter account, shipping, and billing information. The customer logs in to their Chase Pay account and chooses the card with which to pay.

To process Chase Pay transactions:

**Step 1** Integrate the Chase Pay lightbox (iFrame).

**Step 2** Request the Chase Pay API to retrieve the payment network token, the expiration date, the cryptogram, and other payment data associated with the transaction. See "Authorizations with Payment Network Tokens," page 8.

**Step 3** Request the CyberSource authorization service and include the payment network token, the expiration date, the cryptogram, and other payment data associated with the transaction.

This method is best if your business has a fraud management solution or a records management system that requires payment data relating to transactions.
Authorizations with Payment Network Tokens

Authorizations with payment network tokens enable you to request a payment transaction with a payment network token instead of a primary account number (PAN).

For in-app transactions, authorizations with payment network tokens use some of the CyberSource payer authentication request fields. This approach simplifies your implementation if your order management system already uses payer authentication. See Authorizations with Payment Network Tokens Using the Simple Order API (PDF | HTML).

Requirements

You must:

- Create a CyberSource merchant evaluation account, if you do not have one already: https://www.cybersource.com/register/
- Have a merchant account with Chase Paymentech Solutions. Chase Pay is supported only on Chase Paymentech Solutions.
- Install the CyberSource Simple Order API client.

Supported Card Type

CyberSource supports the Visa card type for Chase Pay transactions.

How Chase Pay Works

1. You choose the Chase Pay button. A JavaScript tag embedded within the checkout page renders the button.
2. The browser sends a POST request for the purchase selection to the merchant web server.
3. Your (merchant) web server begins a MerchantSession request to the Chase Pay Services.
4. Chase Pay Services returns a Digital Session ID to the merchant web server, and it is used in all subsequent request messages.
5 Your web server returns the Digital Session ID to the browser, which sends a POST request to the Chase Pay site including the Digital Session ID.

6 The Digital Session ID is validated against the open session.

7 A lightbox is returned and displayed to the customer. The customer authenticates using their Chase Pay credentials, which initiates a session with their Chase Pay wallet.

8 The customer confirms their payment options and shipping preferences, and the lightbox closes. The browser sends a POST request to your web server, which includes the resulting Digital Session ID.

9 Your web server initiates a GetCheckoutData request to the Chase Pay Services and includes the Digital Session ID. The GetCheckoutData request retrieves the customer’s payment and address information.

10 Chase Pay Services returns the requested data to your web server, including:
   - Digital primary account number (DPAN).
   - Cryptogram (authentication verification value).
   - ECI (transaction type).
   - Address information (optional).

11 Your web server formats and displays the payment confirmation page and displays it to the customer. The customer reviews and confirms their final payment details using the credentials and the address information that is displayed.

12 The browser sends a POST request to your web server.

13 Instead of including all of the normally required fields for an authorization request, you should include the following fields:
   - card_accountNumber
   - ccAuthService_cavv and ccAuthService_xid—set to the cryptogram (authentication verification value).
   - paymentNetworkToken_transactionType

14 CyberSource processes the authorization, and the response is sent back to you. It is displayed to the customer, confirming the purchase.
CHAPTER 2

Requesting the CyberSource Service

Authorization Service

Your payment processor can include API reply fields that are not documented in this guide. See Credit Card Services Using the Simple Order API for detailed descriptions of any additional API reply fields.

See "Request Fields," page 14, and "Reply Fields," page 16, for detailed descriptions of each API.

To request an authorization using a Visa card:

**Step 1** Set the `card_accountNumber` field to the payment network token value.

**Step 2** Set the `card_expirationMonth` and `card_expirationYear` fields to the payment network token expiration date fields.

**Step 3** Set the `ccAuthService_cavv` field to the 3D Secure cryptogram of the payment network token.

For a 40-byte cryptogram, split the cryptogram into two 20-byte binary values (block A and block B). Send the first 20-byte value (block A) in the cardholder authentication verification value (CAVV) field. Send the second 20-byte value (block B) in the transaction ID (XID) field.

**Step 4** Set the `ccAuthService_xid` field to the 3D Secure cryptogram of the payment network token.

**Step 5** Set the `paymentNetworkToken_transactionType` field to 1.

**Step 6** Set the `ccAuthService_commerceIndicator` field to internet.

**Step 7** Set the `paymentSolution` field to 007.
Example 1  Authorization Request

```xml
:requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.121">
 <merchantID>demmerchant</merchantID>
 <merchantReferenceCode>demorefnum</merchantReferenceCode>
 <purchaseTotals>
  <currency>USD</currency>
  <grandTotalAmount>5.00</grandTotalAmount>
 </purchaseTotals>
 <card>
  <accountNumber>4650100000000839</accountNumber>
  <expirationMonth>12</expirationMonth>
  <expirationYear>2020</expirationYear>
  <cardType>001</cardType>
 </card>
 <ccAuthService run="true">
  <cavv>ABCDEFabcdefABCDEFabcdef0987654321234567</cavv>
  <commerceIndicator>internet</commerceIndicator>
  <xid>ABCDEFabcdefABCDEFabcdef0987654321234567</xid>
 </ccAuthService>
 <paymentNetworkToken>
  <transactionType>1</transactionType>
  <requestorID>1234567890</requestorID>
 </paymentNetworkToken>
 <paymentSolution>007</paymentSolution>
</requestMessage>
```

Example 2  Authorization Response

```xml
<replyMessage>
 <c:requestID>4465840340765000001541</c:requestID>
 <c:decision>ACCEPT</c:decision>
 <c:reasonCode>100</c:reasonCode>
 <c:requestToken>Ahj/7wSR5C/41cd2fdAKakGLadfg5535r/ghx3%90AoBj3u</c:requestToken>
 <c:purchaseTotals>
  <c:currency>USD</c:currency>
 </c:purchaseTotals>
 <c:ccAuthReply>
  <c:reasonCode>100</c:reasonCode>
  <c:amount>5.00</c:amount>
  <c:authorizationCode>888888</c:authorizationCode>
  <c:avsCode>X</c:avsCode>
  <c:avsCodeRaw>I1</c:avsCodeRaw>
  <c:authorizedDateTime>2015-11-03T20:53:54Z</c:authorizedDateTime>
  <c:processorResponse>100</c:processorResponse>
  <c:reconciliationID>11267051CGJSMQDC</c:reconciliationID>
 </c:ccAuthReply>
</replyMessage>

Recurring Payments

The recurring payments feature is described in Credit Card Services Using the Simple Order API (PDF | HTML).
Data Type Definitions

For more information about these data types, see the World Wide Web Consortium (W3C) XML Schema Part 2: Datatypes Second Edition.

Table 1  Data Type Definitions

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date and time</td>
<td>Format is YYYY-MM-DDTh:mm:ssZ, where:</td>
</tr>
<tr>
<td></td>
<td>■ T separates the date and the time</td>
</tr>
<tr>
<td></td>
<td>■ Z indicates Coordinated Universal Time (UTC), also known as Greenwich</td>
</tr>
<tr>
<td></td>
<td>Mean Time (GMT)</td>
</tr>
<tr>
<td>Integer</td>
<td>Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}</td>
</tr>
<tr>
<td>String</td>
<td>Sequence of letters, numbers, spaces, and special characters</td>
</tr>
</tbody>
</table>

Request Fields

Unless otherwise noted, all field names are case sensitive and all fields accept special characters such as @, #, and %. 
### Table 2  Request Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Used By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>card_accountNumber</td>
<td>The payment network token value. Populate this field with the decrypted DPAN value.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>card_cardType</td>
<td>Type of card to authorize. Value: 001 for Visa</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>card_cvNumber</td>
<td>CVN.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>card_expirationMonth</td>
<td>Two-digit month in which the payment network token expires. Format: MM. Possible values: 01 through 12.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>card_expirationYear</td>
<td>Four-digit year in which the payment network token expires. Format: YYYY.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>ccAuthService_cavv</td>
<td>Cryptogram for payment network token transactions. The value for this field must be 28-character base64 or 40-character hex binary.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>ccAuthService_commerceIndicator</td>
<td>For a payment network token transaction. Value: internet for the Visa card type</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>ccAuthService_run</td>
<td>Whether to include ccAuthService in your request. Possible values: true: Include the service in your request. false (default): Do not include the service in your request.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>ccAuthService_xid</td>
<td>Cryptogram for payment network token transactions. The value for this field must be 28-character base64 or 40-character hex binary.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>merchantID</td>
<td>Your CyberSource merchant ID. Use the same merchant ID for evaluation, testing, and production.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td>Merchant-generated order reference or tracking number. CyberSource recommends that you send a unique value for each transaction so that you can perform meaningful searches for the transaction. For information about tracking orders, see Getting Started with CyberSource Advanced for the Simple Order API.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
<td>Used By: Required (R) or Optional (O)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>paymentNetworkToken_</td>
<td>Type of transaction that provided the token data. This value does not specify the token service provider; it specifies the entity that provided you with information about the token.</td>
<td></td>
</tr>
<tr>
<td>transactionType</td>
<td></td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td></td>
<td>Set the value for this field to 1.</td>
<td></td>
</tr>
<tr>
<td>paymentNetworkToken_</td>
<td>Value that identifies your business and indicates that the cardholder’s account number is tokenized. This value is assigned by the token service provider and is unique within the token service provider’s database.</td>
<td></td>
</tr>
<tr>
<td>requestorID</td>
<td></td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>paymentSolution</td>
<td>Identifies Chase Pay as the payment solution that is being used for the transaction:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set the value for this field to 007.</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td></td>
<td>Note  This unique ID differentiates digital solution transactions within the CyberSource platform for reporting purposes.</td>
<td></td>
</tr>
<tr>
<td>purchaseTotals_currency</td>
<td>Currency used for the order: Value: USD</td>
<td>ccAuthService (R)</td>
</tr>
<tr>
<td>purchaseTotals_grandTotalAmount</td>
<td>Grand total for the transaction. This value cannot be negative. You can include a decimal point (.), but you cannot include any other special characters. CyberSource truncates the amount to the correct number of decimal places.</td>
<td>ccAuthService (R)</td>
</tr>
</tbody>
</table>
Appendix A  API Fields

Reply Fields

Because CyberSource can add reply fields and reason codes at any time:

- You must parse the reply data according to the names of the fields instead of the field order in the reply. For more information about parsing reply fields, see the documentation for your client.
- Your error handler should be able to process new reason codes without problems.
- Your error handler should use the decision field to determine the result if it receives a reply flag that it does not recognize.

Your payment processor can include API reply fields that are not documented in this guide. See Credit Card Services Using the Simple Order API for detailed descriptions of additional API reply fields.

Table 3  Reply Fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_amount</td>
<td>Amount that was authorized.</td>
<td>ccAuthReply</td>
<td>String (15)</td>
</tr>
<tr>
<td>ccAuthReply_authorizationCode</td>
<td>Authorization code. Returned only when the processor returns this value.</td>
<td>ccAuthReply</td>
<td>String (7)</td>
</tr>
<tr>
<td>ccAuthReply_authorizedDateTime</td>
<td>Time of authorization.</td>
<td>ccAuthReply</td>
<td>Date and time (20)</td>
</tr>
<tr>
<td>ccAuthReply_avsCode</td>
<td>AVS results. See Credit Card Services Using the Simple Order API for a detailed list of AVS codes.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_avsCodeRaw</td>
<td>AVS result code sent directly from the processor. Returned only when the processor returns this value.</td>
<td>ccAuthReply</td>
<td>String (10)</td>
</tr>
<tr>
<td>ccAuthReply_cvCode</td>
<td>CVN result code. See Credit Card Services Using the Simple Order API for a detailed list of CVN codes.</td>
<td>ccAuthReply</td>
<td>String (1)</td>
</tr>
<tr>
<td>ccAuthReply_cvCodeRaw</td>
<td>CVN result code sent directly from the processor. Returned only when the processor returns this value.</td>
<td>ccAuthReply</td>
<td>String (10)</td>
</tr>
<tr>
<td>ccAuthReply_processorResponse</td>
<td>For most processors, this is the error message sent directly from the bank. Returned only when the processor returns this value.</td>
<td>ccAuthReply</td>
<td>String (10)</td>
</tr>
<tr>
<td>ccAuthReply_reasonCode</td>
<td>Numeric value corresponding to the result of the credit card authorization request. See Credit Card Services Using the Simple Order API for a detailed list of reason codes.</td>
<td>ccAuthReply</td>
<td>Integer (5)</td>
</tr>
</tbody>
</table>
### Table 3  Reply Fields (Continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Returned By</th>
<th>Data Type &amp; Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccAuthReply_reconciliationID</td>
<td>Reference number for the transaction. This value is not returned for all processors.</td>
<td>ccAuthReply</td>
<td>String (60)</td>
</tr>
<tr>
<td>decision</td>
<td>Summarizes the result of the overall request. Possible values:</td>
<td>ccAuthReply</td>
<td>String (6)</td>
</tr>
<tr>
<td></td>
<td>▪ ACCEPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ ERROR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ REJECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ REVIEW: Returned only when you use CyberSource Decision Manager.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>invalidField_0...N</td>
<td>Fields in the request that contained invalid data. For information about missing or invalid fields, see Getting Started with CyberSource Advanced for the Simple Order API.</td>
<td>ccAuthReply</td>
<td>String (100)</td>
</tr>
<tr>
<td>merchantReferenceCode</td>
<td>Order reference or tracking number that you provided in the request. If you included multi-byte characters in this field in the request, the returned value might include corrupted characters.</td>
<td>ccAuthReply</td>
<td>String (50)</td>
</tr>
<tr>
<td>missingField_0...N</td>
<td>Required fields that were missing from the request. For information about missing or invalid fields, see Getting Started with CyberSource Advanced for the Simple Order API.</td>
<td>ccAuthReply</td>
<td>String (100)</td>
</tr>
<tr>
<td>purchaseTotals_currency</td>
<td>Currency used for the order. For the possible values, see the ISO Standard Currency Codes.</td>
<td>ccAuthReply</td>
<td>String (5)</td>
</tr>
<tr>
<td>reasonCode</td>
<td>Numeric value corresponding to the result of the overall request. See Credit Card Services Using the Simple Order API for a detailed list of reason codes.</td>
<td>ccAuthReply</td>
<td>Integer (5)</td>
</tr>
<tr>
<td>requestID</td>
<td>Identifier for the request.</td>
<td>ccAuthReply</td>
<td>String (26)</td>
</tr>
<tr>
<td>requestToken</td>
<td>Request token data created by CyberSource for each reply. The field is an encoded string that contains no confidential information such as an account or card verification number. The string can contain a maximum of 256 characters.</td>
<td>ccAuthReply</td>
<td>String (256)</td>
</tr>
</tbody>
</table>