Google Pay

Simple Order API Streamline





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Revision

Version: 23.02

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Recent Revisions to This Document

23.02

Updated the Google Pay authorizations required fields list. See *Required Fields for a Google Pay Authorization* on page 13.

Added follow-on transaction support to the Google Pay authorization section. See *Google Pay Authorizations* on page 13.

23.01

This revision contains only editorial changes and no technical updates.

22.02

This revision contains only editorial changes and no technical updates.

22.01

Added Diners Club and Discover as supported card types for Barclays. See *Supported Processors*.

21.06

Bug update. Document erroneously said the GPN processor allows split-shipments.

21.05

Changed the name of the merchantURL field to merchantDomainName.

About This Guide

This section describes how to use this guide and where to find further information.

Audience and Purpose

This document is written for merchants who want to enable customers to use Google Pay to pay for in-app purchases. This document provides an overview of integrating the Google API and describes how to request the Cybersource API to process an authorization.

This document describes the Google Pay service and the Cybersource API. You must request the Google API to receive the customer's encrypted payment data before requesting the Cybersource API to process the transaction.

Conventions

The following special statements are used in this document:



Important

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

Related Documentation

For further technical documentation, visit the Cybersource Technical Documentation Portal:

https://docs.cybersource.com/en/index.html

Customer Support

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

http://www.cybersource.com/support

Introduction

You can use the Cybersource platform to process and manage Google Pay transactions.

Google Pay Overview

Google Pay is a simple, secure in-app mobile and Web payment solution. You can choose Cybersource to process Google Pay transactions through all e-commerce channels. You can simplify your payment processing by allowing Cybersource to decrypt the payment data for you during processing.

This method integrates simply and enables you to process transactions without seeing the payment network token and transaction data.

- 1. Using the Google API, request the customer's encrypted payment data.
- 2. Using the Cybersource API, construct and submit the authorization request, and include the encrypted payment data from the Google Pay callback.
- 3. Cybersource decrypts the encrypted payment data to create the payment network token and processes the authorization request.

Payment Network Tokens

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

The payment network token is included in the customer's encrypted payment data, which is returned by the payment processor.

For information about authorizations with payment network tokens, see the *Authorizations with Payment Network Tokens Guide*.

Prerequisite Requirements

Before using Google Pay, you must have:

- · A Cybersource merchant evaluation account.
 - To register, go to: https://www.cybersource.com/register/
- A merchant evaluation account with a supported processor. See Supported Processors on page 7.
- A Google developer account.
- Google Pay APIs embedded into your application or website. For details about integrating Google Pay, see the Google Pay API documentation.

Supported Processors

Processor	Card Types	Optional Features
Streamline	Mastercard Visa	Recurring Payments

How Google Pay Works

The following figure describes the Google Pay workflow:



- 1. The customer chooses the Google Pay button. Using the Google API, your system initiates the Google Pay request identifying Cybersource as your payment gateway, passing your Cybersource merchant ID as the gateway merchant ID.
- 2. The customer confirms the payment. The Google API contacts Google Pay services to retrieve the consumer's payment parameters.
- 3. If the customer's selected payment credentials are tokenized, or you are tokenizing new payment credentials, the Google Pay service contacts the appropriate payment network to retrieve the appropriate cryptogram.
- 4. The payment network returns the appropriate token and cryptogram to the Google Pay service.
- 5. Google creates encrypted payment data using the gateway-specific key that is supplied in the Wallet request and includes it in the Google API response.
- 6. The Google Pay callback returns the encrypted payment data.
- 7. Your system prepares the Google Pay response information for submission to the Cybersource service.
- 8. a. Cybersource sends the authorization request to the acquirer.
 - b. The acquirer processes the request from Cybersource and creates the payment network authorization request.
 - c. The payment network processes the request from the acquirer and creates the issuer authorization request.
 - d. The issuer processes the request from the payment network. The issuer looks up the payment information and returns an approved or declined authorization message to the payment network.
 - e. The payment network returns the authorization response to the acquirer.
 - f. The acquirer returns the authorization response to Cybersource.
- 9. Cybersource returns the authorization response to your system.
- 10. Your system returns the authorization response to the payment application.
- 11. The payment application displays the confirmation or decline message to the customer.
 - a. The acquirer submits the settlement request to the issuer for funds.
 - b. The issuer supplies the funds to the acquirer for the authorized transactions.

Additional Services

These additional services can be used with Google Pay.

Follow-on Services

After the authorization is requested, you can request follow-on services to complete the transaction. For more information on these services, see *Follow-on Services*.

Authorized Reversal

An authorized reversal is a follow-on service that uses the request ID returned from the previous authorization. An authorization reversal releases the hold

that the authorization placed on the customer's credit card funds. Use this service to reverse an unnecessary or undesired authorization.

Capture A capture is a follow-on service that uses

the request ID returned from the previous authorization. The request ID links the capture to the authorization. This service transfers funds from the customer's

account to your bank and usually takes two

to four days to complete.

Sale A sale is a bundled authorization and

capture. Request the authorization and capture services at the same time. Cybersource processes the capture

immediately.

Follow-on Transactions

After the payment transaction is complete, additional follow-on transactions can be made as Merchant-Initiated Transactions (MITs).

For more information on how to process MITs, see *Merchant-Initiated Transactions*. MITs include:

- Delayed Authorizations
- Incremental Transactions
- · Installment Payments
- No-Show Transactions
- Reauthorizations
- Recurring Transactions
- Resubmissions
- Unscheduled Transactions

Formatting Encrypted Payment Data

This section shows you how to format encrypted payment data using these procedures:

- Configuring Google Pay
- Formatting Payment Blobs

Configuring Google Pay

You must provide your Cybersource merchant ID to Google in order to ensure proper encryption of the Google Pay payload and authenticity of the request.

For a Google Pay tutorial, see Google Pay for Payments.

Set the gateway and gateway merchant ID to the appropriate indicators. The following code examples show how to configure the **PaymentMethodTokenizationParameters** object using Cybersource as the gateway.

Example: Java Code

```
.setPaymentMethodTokenizationType(WalletConstants.PAYMENT_METHOD_TOKENIZATION_TYPE_PAYMENT_GATEWAY)
    .addParameter("gateway", "")
    .addParameter("gatewayMerchantId", "[yourCybersourceMID]")
```

Example: JavaScript Code

```
tokenizationType: 'PAYMENT_GATEWAY',
   parameters: {
    gateway: 'cybersource',
    gatewayMerchantId: '[yourCybersourceMID]'
```

Formatting Payment Blobs



) Important

This section is only applicable if you are using the Cybersource decryption method.

To prepare the google payload for submission to Cybersource, you must extract the token data element from the Google Pay payload and encode the token data element using Base64.

These samples can be used to Base64-encode payment responses:

JavaScript

```
let token = paymentData.paymentMethodData.tokenizationDta.token;
console.log(token);
var enc=window.btoa(token);
```

Android with Java

This sample uses the Android Studio Base64 utility.

public static <outputString> encodeToString (byte[] <inputToken>, int DEFAULT)

Apple iPhone with Swift 3

This sample requires the Foundation utility.

```
extension String {
  func base64Encoded() -> <outputString>
    if let data = self.dat(using:.utf8) {
      return data.base64EncodedString()
    }
    return nil
}
```

Examples of Google Pay Responses

Decrypted Google Pay Response

```
{"signature":"MEUCIQDhTxhHqwY8pXB9hpYxaSK5jFgsqpG2E1rX77QXssK8tAIgUBvYYAI/bnBS8T/Tfxnm2AF981Mv5y0pHyGexM5dMJk\u003d";"protocolVersion":"ECv1";" signedMessage":"{\"encryptedMessage\":\" odyUGGA7B+blletYcJbS43AQUFQJpWEFCN4UuUExQ5LX0\/XcLwKE1XcB95nMnmPO91M2KGp13FYsL768ccCzAjBGLYF+fugcJTcvkrUhcNSyXr7hwf12BEsrweqJM6I7Vs51frPAukRJeLDQG4FxmTLW49QyP8vIZC+tz2c+Z3zozzI5oB9jE8fA2dolFa13Cu6gXqdKH\/IHRh7UniLUuTy+0G5FQV2pwST2uBSNNkZhb8WYJDHbxBjz0UebVP+ObmT5cc8AKU5dgHRdfr4GKpEZ4EBzB90 BPxLqYHpopriJ61bFgFVsQQ6\/8HBqQ7ImIMH5y7G8p8qAFkWnB78ZcL0Fh5BjXojkxGoFp2gjAsrhhttHAFbe3WQBuPkwJu09\/
```

6\/MyJpCSrpMHFouF\/dj@SYjQ+xI@97lCHZec7jQrAhISLWZ9DZkuMvGKPWpu@CKn2XqTXQ=\
",\"ephemeralPublicKey\":\
"MFkwEwYHKoZIzj@CAQYIKoZIzj@DAQcDQgAEnn4yjy@N6x1XO8\/8j7\/
4jvmLJCYAqgXLwP1FhjuTgIM9oCtPijZfI9so2QEOs2ZnVp3D@dl3JYIDVe+396KkAQ==\
",\"tag\":\"DRp cc+YQ33RNgsTcxztnJbMJnirbU5DW3dStjfhFiwc=\"}"}

Base64-Encoded Google Pay Response

eyJzaWduYXR1cmUiOiJNRVVDSVFEaFR4aEhxd1k4cFhCOWhwWXhhU@s1akZnc3FwRzJ FMXJYNzdRWHNzSzh@QUlnVUJ2WVlBSS9ibkJTOFQvVGZ4bm@yQUY5ODFNdjV5MHBIeU dleE01ZE1Ka1x1MDAzZCIsInByb3RvY29sVmVyc2lvbiI6IkVDdjEiLCJzaWduZWRNZ XNzYWdlIjoie1wiZW5jcnlwdGVkTWVzc2FnZVwiOlwib2R5VUdHQTdCK2JsbGV0WWNK Y1M0M0FRVUZRSnBXRUZDTjRVdVVFeFE1TFgwXC9YY0x3S0VsWGNCOTVuTW5tUE85bE0 yS0dwMTNGWXNMNzY4Y2NDekFqQkdMWUYrZnVnY0pUY3Zrc1VoY05TeVhyN2h3ZjEyQk VzcndlcUpNNkk3VnM1bGZyUEF1a1JKZUxEUUc0RnhtVExXND1ReVA4dklaQyt0ejJjK 1ozem96ekk1b0I5akU4ZkEyZG9sRmExM0N1NmdYcWRLSFwvSUhSaDdVbm1MVXVUeSsw RzVGUVYvcHdTVDJ1Q1NOTmtaaGI4V11KREhieEJgejBVZWJWUCtPYm1UNWNjOEFLVTV kZ0hSZGZyNEdLcEVaNEVCekI5MEJQeExxWUhwb3ByaUo2bGJGZ0ZWc1FRNlwvOEhCcV E3SW1JTUg1eTdHOHA4cUFGa1duQjc4WmNMMEZoNUJqWG9qa3hHb@ZwMmdqQXNyaGh@d EhBRmJlM1dRQnVQa3dKdTA5XC82XC9NeUpwQ1NycE1IRm91RlwvZGowU11qUSt4STA5 N2xDSFp1YzdqUXJBaE1TTFdaOURaa3VNdkdLUFdwdTBDS24yWHFUWFE9XCIsXCJ1cGh lbWVyYWxQdWJsaWNLZXlcIjpcIk1Ga3dFd11IS29aSXpqMENBUV1JS29aSXpqMERBUW NEUWdBRW5uNH1qeTBONnhsWE84XC84ajdcLzRqdm1MSkNZQXFnWEx3UDFGaGp1VGdJT TlvQ3RQaWpaZkk5c28yUUVPczJab1ZwM0QwZGwzS11JRFZ1KzM5NktrQVE9PVwiLFwi dGFnXCI6XCJEUnBjYytZUTMzUk5nc1RjeHp0bkpiTUpuaXJiVTVEVzNkU3RqZmhGaXd jPVwifSJ9

Google Pay Authorizations

This section shows you how to make a successful authorization request. After you send the request, check the response messages to make sure that the request was successful. A value of ACCEPT for the **decision** field indicates success. For information about response codes, see *Reason Codes for the Simple Order API*.

Follow-on Transactions

After the initial transaction is complete, additional follow-on transactions can be made as Merchant-Initiated Transactions (MITs).

For more information on how to process MITs, see *Merchant-Initiated Transactions*.

Endpoint

Set the ccAuthService_run field to true.

Send the request to https://ics2ws.ic3.com/commerce/1.x/transactionProcessor.

Required Fields for a Google Pay Authorization

Include these required fields to request a successful authorization.

billTo_city

billTo_country

billTo_email

billTo_firstName

billTo_lastName

billTo_postalCode

billTo_state

billTo_street1

ccAuthService_run Set this field value to true.

encryptedPayment_data

Set this field value to the string value generated from the full wallet response.

merchantID

merchantReferenceCode

paymentSolution Set this field value to 012.

purchaseTotals_currency

purchaseTotals_grandTotalAmount

Related Information

API Field Reference for the Simple Order API

Simple Order Example: Google Pay Authorization

Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.121">
  <merchantID>demomerchant/merchantID>
  <merchantReferenceCode>demorefnum/merchantReferenceCode>
  <billTo>
    <firstName>James</firstName>
    <lastName>Smith</lastName>
    <street1>1295 Charleston Road</street1>
    <city>Test City</city>
    <state>CA</state>
    <postalCode>99999</postalCode>
    <country>US</country>
    <email>demo@example.com</email>
  </billTo>
  <purchaseTotals>
    <currency>USD</currency>
    <grandTotalAmount>5.00/grandTotalAmount>
  </purchaseTotals>
  <encryptedPayment>
    <data>ABCDEFabcdefABCDEFabcdef0987654321234567</data>
  </encryptedPayment>
  <ccAuthService run="true"/>
 <paymentSolution>012</paymentSolution>
</requestMessage>
```

Response for a Successful Request

```
<replyMessage>
```

```
<merchantReferenceCode>demorefnum</merchantReferenceCode>
  <requestID>44658403407650000001541</requestID>
  <decision>ACCEPT</decision>
  <reasonCode>100</reasonCode>
  <requestToken>Ahj/7wSR5C/4Icd2fdAKakGLadfg5535r/ghx3Z90AoBj3u</requestToken>
  <purchaseTotals>
    <currency>USD</currency>
  </purchaseTotals>
  <ccAuthReply>
    <reasonCode>100</reasonCode>
    <amount>5.00</amount>
    <authorizationCode>888888</authorizationCode>
    <avsCode>X</avsCode>
    <avsCodeRaw>I1</avsCodeRaw>
    <authorizedDateTime>2015-11-03T20:53:54Z</authorizedDateTime>
    <reconciliationID>11267051CGJSMQDC</reconciliationID>
  </ccAuthReply>
  <token>
    <prefix>294672</prefix>
    <suffix>4397</suffix>
    <expirationMonth>08</expirationMonth>
    <expirationYear>2021</expirationYear>
  </token>
</replyMessage>
```

Follow-on Services

This section provides information about and procedures for requesting these follow-on services:

- Authorization Reversal: A follow-on service that uses the request ID returned from the previous authorization. An authorization reversal releases the hold that the authorization placed on the customer's credit card funds. Use this service to reverse an unnecessary or undesired authorization.
- Capture: A follow-on service that uses the request ID returned from the previous authorization. The request ID links the capture to the authorization. This service transfers funds from the customer's account to your bank and usually takes two to four days to complete.
- Sale: A sale is a bundled authorization and capture. Request the authorization and capture services at the same time. Cybersource processes the capture immediately.

Capture

This section describes how to capture an authorized transaction.

Endpoint

Set the ccCaptureService_run field to true.

Send the request to https://ics2ws.ic3.com/commerce/1.x/transactionProcessor.

Required Fields for Capturing an Authorization

Use these required fields for capturing an authorization.

ccCaptureService_authRequestID ccCaptureService_run merchantID

merchantReferenceCode

Set to merchant_ref_number value used in corresponding authorization request.

purchaseTotals_currency purchaseTotals_grandTotalAmount

Related Information

API Field Reference for the Simple Order API

Simple Order Example: Capturing an Authorization

Request

ccCaptureService_authRequestID=6629978499572480812782 ccCaptureService_run=true merchantID=npr_paymentech merchantReferenceCode=TC42703-1 purchaseTotals_grandTotalAmount=100.00

Response for a Successful Request

ccCaptureReply_amount=100.00 ccCaptureReply_requestDateTime=2022-09-12T173947Z decision=ACCEPT merchantReferenceCode=TC42703-1 purchaseTotals_currency=USD requestID=6630043878211258349460

Sales

This section shows you how to process a sale transaction.

A sale transaction combines an authorization and a capture into a single transaction.

Endpoint

Set the **ccAuthService_run** field to true, and the **ccCaptureService_run** field to true. Send the request to https://ics2ws.ic3.com/commerce/1.x/transactionProcessor.

Required Fields for Processing a Sale

Use these required fields for processing a sale.

billTo_city
billTo_country
billTo_email

billTo_firstName

billTo_lastName

billTo_postalCode

billTo_state

billTo_street1

card_accountNumber

card_cardType

card_expirationMonth

card_expirationYear

ccAuthService_run

ccAuthService_commerceIndicator

ccCaptureService_run

Set this field to true.

Set this field to true.

merchantID

purchaseTotals_currency

 $purchase Totals_grand Total Amount\\$

Related Information

API Field Reference for the Simple Order API

Simple Order Example: Processing a Sale

Request

ccAuthService_run=true ccCaptureService_run=true merchantID=Napa Valley Vacations merchantReferenceCode=482046C3A7E94F5 billTo_firstName=John billTo_lastName=Doe billTo_street1=1295 Charleston Rd. billTo_city=Mountain View billTo_state=CA billTo_postalCode=94043 billTo_country=US billTo_phoneNumber=650-965-6000 billTo_email=jdoe@example.com item_0_unitPrice=49.95 item_0_quantity=1 purchaseTotals_currency=USD card_expirationMonth=12 card_expirationYear=2015

card_cardType=001

Response for a Successful Request

Most processors do not return all of the fields shown in this example.

requestID=0305782650000167905080 decision=ACCEPT reasonCode=100 merchantReferenceCode=482046C3A7E94F5 purchaseTotals_currency=USD ccAuthReply_reconciliationID=ABCDE12345FGHIJ67890 ccAuthReply_cardCategory=F^ ccAuthReply_cardGroup=0 ccAuthReply_reasonCode=100 ccAuthReply_amount=49.95 ccAuthReply_accountBalance=50.05 ccAuthReply_authorizationCode=123456 ccAuthReply_avsCode=Y ccAuthReply_avsCodeRaw=YYY ccAuthReply_processorResponse=A ccAuthReply_paymentNetworkTransactionID=3312345 ccCaptureReply_amount=49.95 ccCaptureReply_reasonCode=100 ccCaptureReply_reconciliationID=1094820975023470

Follow-on Transactions

After the payment transaction is complete, additional follow-on transactions can be made as Merchant-Initiated Transactions (MITs).

For more information on how to process MITs, see *Merchant-Initiated Transactions*. MITs include:

- · Delayed Authorizations
- Incremental Transactions
- Installment Payments
- No-Show Transactions
- Reauthorizations
- · Recurring Transactions
- Resubmissions
- Unscheduled Transactions