

# China Payment Processing

Using the Simple Order API  
or the SCMP API

June 2018

**CyberSource<sup>®</sup>**  
the power of payment

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# Recent Revisions to This Document

Release	Changes
June 2018	<p>Added supported currencies. See <a href="#">"Supported Currencies," page 15.</a></p> <p>Deleted information about unfunded and funded transaction reports.</p> <p>Added <a href="#">"Numbered Elements," page 42.</a></p>
July 2016	This revision contains only editorial changes and no technical updates.
December 2014	<p>Updated the following API fields:</p> <ul style="list-style-type: none"> <li>▪ <b>purchaseTotals_grandTotalAmount.</b> See <a href="#">Table 7, page 43.</a></li> <li>▪ <b>item_#_unitPrice.</b> See <a href="#">Table 7, page 43</a> and <a href="#">Table 9, page 50.</a></li> <li>▪ <b>grand_total_amount.</b> See <a href="#">Table 12, page 55.</a></li> <li>▪ <b>offerN: amount.</b> See <a href="#">Table 12, page 55</a> and <a href="#">Table 14, page 61.</a></li> </ul>
November 2012	<p>Updated the following API fields:</p> <ul style="list-style-type: none"> <li>▪ <b>chinaRefundService_chinaPaymentRequestToken.</b> See <a href="#">Table 9, page 50.</a></li> <li>▪ <b>china_payment_request_token.</b> See <a href="#">Table 14, page 61.</a></li> </ul>
January 2011	Added information about PayEase Cash on Order. See <a href="#">"Cash on Order," page 8.</a>
September 2010	<p>In the POST operation examples, changed the character encoding from gb2312 to gbk:</p> <ul style="list-style-type: none"> <li>▪ <b>Simple Order API</b>—"Sending the Form Data to the Processor," page 21.</li> <li>▪ <b>SCMP API</b>—"Sending the Form Data to the Processor," page 26.</li> <li>▪ <b>Testing</b>—"Using the Simulator," page 38.</li> </ul>

# PayEase China Processing

## Overview of Payment Processing

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### Credit Cards, China Bank Transfers, and China eWallet

Credit card, China bank transfer, and China eWallet processing occurs as follows:

- 1 You host a payment selection page on your web site.
- 2 The customer selects a payment method and enters the payment information.
- 3 You forward the payment information to CyberSource as a China payment request.
- 4 CyberSource sends you a reply message that includes PayEase verification values and a fully formatted PayEase payment request.
- 5 You redirect the customer's browser to PayEase and send the fully formatted payment request to PayEase.
- 6 PayEase redirects the customer's browser to the customer's financial institution where the customer logs in and approves the payment.
- 7 The financial institution sends the customer's payment information to PayEase.
- 8 PayEase redirects the customer's browser to you along with a response indicator.
- 9 You verify the response message from PayEase by using verification values from CyberSource and PayEase.
- 10 During the business day, PayEase periodically sends CyberSource payment status.
- 11 At the end of the business day, CyberSource queries PayEase for transaction information for incomplete orders.
- 12 You monitor the progress of the transaction in CyberSource reports and in the Business Center.

For detailed information about these steps, see:

- Simple Order API—"Processing Payments in China," page 20.
- SCMP API—"Processing Payments in China," page 25.

## Cash on Order

As shown in [Figure 1, page 9](#), cash on order transactions occur as follows:

- 1 You host a payment selection page on your web site.
- 2 The customer selects the cash on order payment method and enters the payment information.
- 3 You forward the payment information to CyberSource as a China payment request.
- 4 CyberSource sends you a reply message that includes PayEase verification values and a fully formatted PayEase payment request.
- 5 You redirect the customer's browser to PayEase and send the fully formatted payment request to PayEase.
- 6 PayEase launches a GUI that enables the customer to verify that the address entered on your payment page is the location from which the cash will be retrieved.
- 7 If the address is not correct, PayEase redirects the customer's browser to you. Otherwise, this process continues.
- 8 PayEase evaluates the customer's postal code by comparing it to a list of postal codes for which cash on order is supported.

If the customer's postal code does not qualify for cash on order, PayEase displays an apology to the customer and redirects the customer's browser back to you so that they can choose a different payment method. Otherwise, this process continues.

- 1 In the PayEase GUI, the customer chooses either cash or Chinese Debit Card as the payment method and indicates an appointment date and time.
- 2 PayEase redirects the customer's browser to you along with a response indicator. The transaction status is Pending.
- 3 You verify the response message from PayEase by using verification values from CyberSource and PayEase.
- 4 You suspend the order while you wait for notification of payment.
- 5 A courier picks up the cash at the appointed time.
- 6 The courier transfers the money to PayEase.

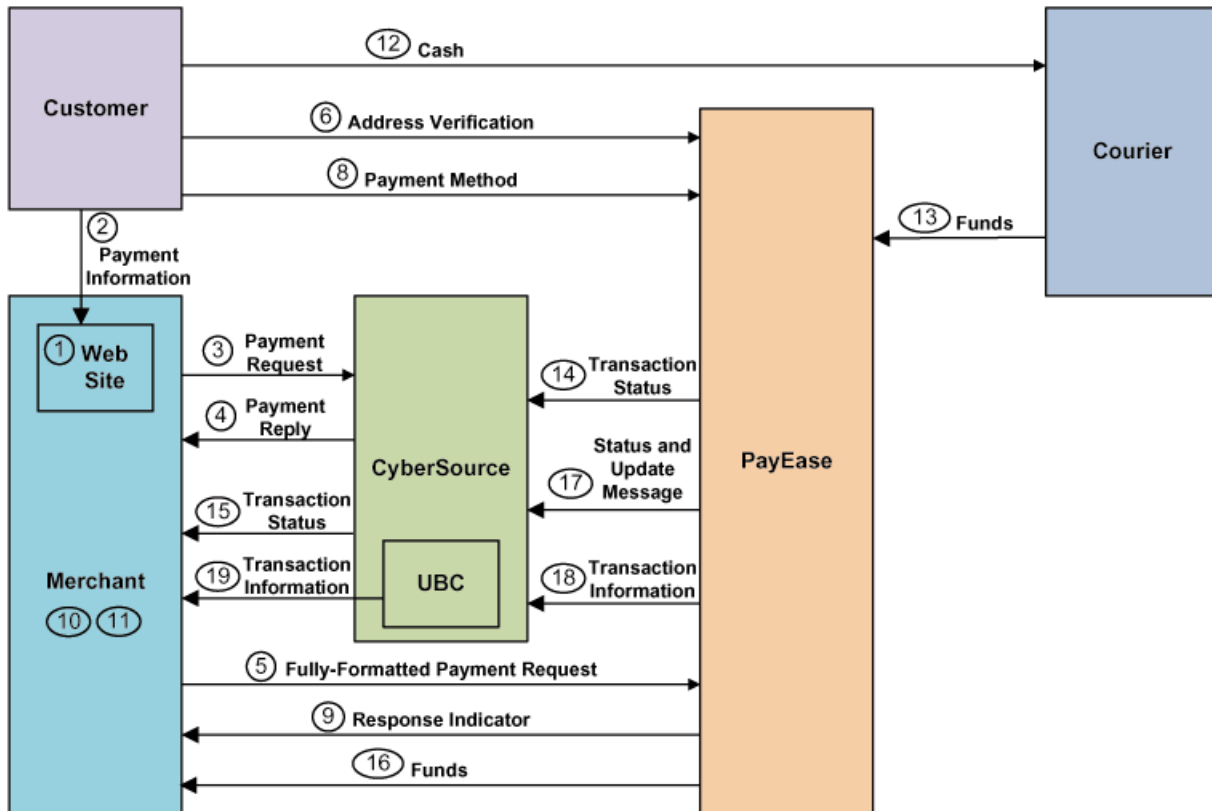


- 7 PayEase sends a transaction status of Paid to CyberSource.
- 8 CyberSource indicates the transaction status as Settled.
- 9 You query CyberSource daily for changes in status for all pending cash on order transactions. When the transaction status is Settled, you proceed with the order.
- 10 PayEase transfers the funds to your account.
- 11 During the business day, PayEase periodically sends CyberSource payment status; and CyberSource updates the transaction status in the Business Center.
- 12 At the end of the business day, CyberSource queries PayEase for transaction information for incomplete orders.
- 13 You monitor the progress of the transaction in CyberSource reports and in the Business Center.

For detailed information about these steps, see:

- Simple Order API—["Processing Payments in China," page 20](#)
- SCMP API—["Processing Payments in China," page 25](#)

Figure 1 Information Flow for Cash on Order—Method 2



## Overview of Refund Processing

---

PayEase China Processing supports only follow-on refunds; it does not support stand-alone refunds. A follow-on refund is a refund that corresponds to a specific payment. You can request:

- A full refund
- A partial refund
- Multiple partial refunds

However, some financial institutions do not support all of these types of refunds. Each financial institution has its own refund requirements and restrictions. Contact PayEase for this information.

Before a refund can be processed, the corresponding payment must be settled, which means that funds are reserved for future distribution to you. The ways to request a refund are:

- Through the API with a request message
- Through the Business Center

When you request a refund, CyberSource always accepts the request without checking for errors in the values. PayEase determines whether requests contain errors. You receive no immediate indication when something is wrong with a request; therefore, to ascertain whether requests contain errors, you must monitor reports in the Business Center.

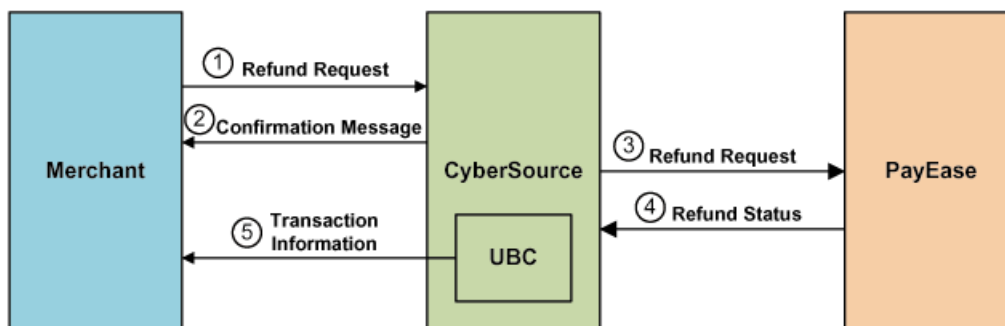
As shown in the [Figure 2](#), the refund process occurs as follows:

- 1 You send the refund information to CyberSource as a China refund request.
- 2 CyberSource returns a confirmation message that the refund request has been received. The refund request is validated only for proper format in real time. At the end of the business day, the refund request is matched to the payment. If the refund request cannot be matched, CyberSource posts the error in the Transaction Exception Detail Report, which is described in ["Reports," page 17](#).
- 3 If the refund request is valid, CyberSource sends the refund request to PayEase.
- 4 PayEase sends the refund status information to CyberSource.
- 5 You monitor the progress of the transaction in CyberSource reports and in the Business Center.

For detailed information about these steps, see:

- Simple Order API—["Processing a China Refund," page 23](#).
- SCMP API—["Processing a China Refund," page 29](#).

**Figure 2 Information Flow for Refund Processing**



## Terminology

PayEase China Processing supports the following payment methods and payment types. The following table shows the correspondence between the two sets of values.

**Table 1 Payment Methods and Payment Types**

Payment Method	Payment Type	Description
American Express	Credit card	International credit card
JCB	Credit card	International credit card
Mastercard	Credit card	International credit card
Visa	Credit card	International credit card
China bank transfer	Bank transfer	Chinese bank cards
Cash on order	Bank transfer	PayEase cash on order
China eWallet	Bank transfer	PayEase eWallet

PayEase China Processing supports numerous payment modes. For a list of PayEase bank names, see [Banks Supported by PayEase](#). Contact PayEase for the mapping of the supported payment system names to the PayEase payment mode values. Ask for the report titled *Banks & Payment Channels Supported by PayEase Payment Platform*.

The following table describes additional terminology for PayEase China Processing.

**Table 2 Terminology for PayEase China Processing**

Term	Description
Funding	Action performed by the processor to transfer value for transactions to your bank account.
Payment	PayEase uses this term for <i>settlement</i> .
Settlement	Financial institution's commitment to you that a particular payment event reserved funds for future distribution to you.
Wire or Wire Transfer	A method of funds transfer that PayEase uses to refer to the funding event.

# Requirements

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## Business Requirements

You must have:

- License to do business in China.
- License to sell goods and services over the Internet.
- Chinese bank account.
- Business relationship with PayEase—while you are establishing your business relationship with PayEase, you must submit an initial sheet to them. As a result, PayEase will provide you with your PayEase merchant ID and an operator number for the person at PayEase who will handle your refunds.
- Public key—while you are establishing your business relationship with PayEase, you must ask them for the public key. You will use this public key to verify the PayEase payment response.

## Web Site Requirements

### Payment selection page

All payment methods are optional. You decide which payment methods to support. Your payment selection page must include all the payment methods that you support. The following table describes these payment methods.

**Table 3 Payment Methods**

Payment Method	Description
Cash on order	Include this payment method if you support it.
China bank transfer	Include the names of all payment modes that you support.
China eWallet	Include this payment method if you support it.
Credit card	<p>The credit cards are optional: You decide which credit cards to support. Your payment selection page must include all the credit cards that you support.</p> <p>You can support these card types with or without payer authentication:</p> <ul style="list-style-type: none"> <li>■ Visa</li> <li>■ Mastercard</li> <li>■ JCB</li> </ul> <p>You can support this card type without payer authentication:</p> <ul style="list-style-type: none"> <li>■ American Express</li> </ul>

### Technical connection to the customer

When you redirect the customer's browser to PayEase, you need to maintain a close technical connection to the customer to ensure transaction continuity. This is especially important in the event of unexpected actions resulting from the Internet or customer behavior. To accomplish this, you need to use IFrame technology or open multiple browser windows. We recommend that you use IFrame technology, which creates a content area on a web page; the content area can receive content from various sources including PayEase and other financial institutions. If you cannot use IFrame technology, program your web site to open additional browser windows as necessary.

## Technical Requirements

You must:

- Contact CyberSource Customer Support to configure your CyberSource account to use PayEase China Processing. You must provide your PayEase merchant ID, which you obtained while establishing your business relationship with PayEase as described in "Business Requirements," page 13.
- Install a client. See [Getting Started with CyberSource Advanced](#).

## Limitations

The only service that can be called with the China payment service is Decision Manager. No services can be called with the China refund service.

## Supported Currencies

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Table 4 identifies the supported currencies:

**Table 4 Supported Currencies**

Currency	Code
Chinese yuan renminbi	CNY
Hong Kong dollar	HKD
United States dollar	USD

## Payer Authentication

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PayEase supports these types of payer authentication in China:

- JCB J/Secure
- Mastercard SecureCode
- Verified by Visa

You have these choices:

- Always opt in for payer authentication for the supported card types.
- Always opt out for payer authentication for the supported card types.
- Determine whether to opt in or opt out for each separate transaction.

For more information, see the [Payer Authentication Implementation Guide](#).

## Decision Manager

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Decision Manager behaves uniquely for PayEase China Processing. For other processors, Decision Manager is called when the authorization service is called, and then the Decision Manager results are used to determine whether or not to call the capture service. For PayEase China Processing, the authorization and capture services do not exist; they have been replaced with the payment service. As a result:

- The Decision Manager results are returned to you with the payment results.
- If a transaction is rejected by Decision Manager, the reply message from CyberSource does not include the China payment reply fields that are required for sending the payment request to PayEase. The omission of these fields prevents you from requesting a payment for a rejected transaction.
- If Decision Manager determines that a transaction requires review and is subsequently rejected, CyberSource automatically issues a refund request to reimburse the customer.

## Obtaining Information About Your Transactions

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You can obtain information about your PayEase China Processing transactions from several sources:

- Reply messages that are sent in response to your service requests.
- Reports that you can view in and download from the Business Center.
- Query results that you can request using the POST method.
- Transaction details that you can view in the Business Center.

## Reply Messages

After you send a request message for a PayEase China Processing service, CyberSource responds with a reply message that contains the status of your request. Any errors in your request are indicated in the reply message. Additional status information is specific to each service.



## Reports



### Note

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Chinese characters can be included in reports. For you to read these characters, your system must be capable of processing UTF-8.

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Reports that include your PayEase China Processing transactions are available through the Business Center or for download in CSV or XML formats. See the [Reporting Developer's Guide](#) for more information. The following daily CyberSource reports include information about your PayEase China Processing transactions:

### Payment Submission Detail Report

Lists your transactions that were sent to the processor during the previous processing day. The report includes transactions for all payment types that you are processing with CyberSource. To view this report, you must subscribe to it in the Business Center.

### Payment Events Report

Lists payment events that occurred after a transaction was sent to the processor and that occurred within the reporting period for the report. All PayEase China Processing transactions previously submitted to the processor, and thus previously reported in the Payment Submission Detail Report, are reported in the Payment Events Report as updates to the status are received from PayEase. The report also includes chargebacks. The transaction status is reported in the **event\_type** column. A payment status reported as *successful* is equivalent to *settled*, which means that you can expect to be funded for the transaction. To view this report, you must subscribe to it in the Business Center.

### Transaction Exception Detail Report

Provides details about transactions that were flagged by CyberSource or the processor because of errors in your request. Errors reported by the processor are included in both the Payment Events Report and the Transaction Exception Detail Report. You are automatically subscribed to this report.

## Query Results



### Note

---

Chinese characters can be included in query results. For you to read these characters, your system must be capable of processing UTF-8.

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Version 1.2 of the Single Transaction Query is supported for PayEase China Processing. It is described in the [Reporting Developer Guide](#). The query indicates the status of the PayEase China Processing transaction within the transaction lifetime. The query results include:

- Summary information about your PayEase China Processing transactions.
- Detailed information about Decision Manager.

## Transaction Details

You can view the details of all your transactions, including your PayEase China Processing transactions, in the Business Center. You can search for transactions by date, application type, consumer name, and other transaction identifiers.

## Chargebacks

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For PayEase China Processing, banks become involved in resolving disputes only for international credit cards. In such cases:

- The standard chargeback policies are followed as governed by American Express, JCB, Mastercard International, and Visa International.
- PayEase notifies you about these chargebacks; they appear in the Payment Events Report.

For all other forms of payment, you and the customer must reach agreement about reimbursements for problems with products and services.

## API Versions for the XML Schema

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For general information about the API versions, see [Getting Started with CyberSource Advanced](#). The following table shows which Simple Order API version to use for the China payment methods.

Payment Method	Simple Order API Version
Credit cards and bank transfers	1.34 or later
Cash on order	1.45 or later

## Order Tracking

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For general information about order tracking, see [Getting Started with CyberSource Advanced](#).

## Reconciliation ID and Transaction Reference Number

In reply messages for the China payment service, the reconciliation ID or transaction reference number is returned in these fields:

- Simple Order API—**chinaPaymentReply\_reconciliationID**
- SCMP API—**china\_payment\_trans\_ref\_no**

## Request IDs

In the reply messages for all CyberSource services, the request ID is returned in these fields:

- Simple Order API—**requestID**
- SCMP API—**request\_id**

In request messages for the China refund service, the request ID is sent in these fields:

- Simple Order API—**chinaRefundService\_chinaPaymentRequestID**
- SCMP API—**china\_payment\_request\_id**

# Requesting Services Using the Simple Order API

## Processing Payments in China

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This section provides detailed information about processing payments in China. For a simpler overview, see ["Credit Cards, China Bank Transfers, and China eWallet," page 7](#).

## Sending a Payment Request to CyberSource

### To request a payment:

---

**Step 1** Create a request message that includes the required fields for the `chinaPaymentService` service.

["Payment Request Fields," page 43](#), describes the required and optional fields to include in the request.

**Step 2** Send the message to CyberSource.

In response, CyberSource sends you a payment reply message with the fields described in ["Payment Reply Fields," page 47](#).

---

## Sending the Form Data to the Processor

The payment reply message from CyberSource includes the **chinaPaymentReply\_formData** field. The form data is fully formatted text that you must send to the processor. In the form data, the GBK character set is used.

### To send the form data:

---

#### Step 1

 Decode the form data.

An example of code you can use to decode the form data:

---

```
String clear_data = new
String(com.cybersource.security.util.Base64.base64decode(encoded_
data), "UTF-8");
```

---

where:

- `encoded_data` is a `java.lang.String` object that contains the `form_data` response field value.
- The `Base64` class is in the SCMP client library.

#### Step 2

 Send the decoded form data to the processor.

An example of a POST operation you can use to send the form data to the processor:

---

```
<HTML>
  <meta http-equiv='Content-Type' content='text/html; charset=gbk'>
  <BODY onload='document.forms[0].submit();'>
    <Include the decoded form data here... >
  </BODY>
</HTML>
```

---

The POST operation sends the form data to the URL that is included in the form data.

The processor responds by sending you a payment response message with the fields described in [Appendix E, "PayEase Response Fields,"](#) on page 67.

---

## Verifying the Response from the Processor

Use an MD5 algorithm to verify the PayEase response.



### Note

The MD in MD5 stands for *Message Digest*. An MD5 algorithm can be used with any data, and it always produces a string of the same size. This string is called a *digest*. When a public/private key pair is used to create a digest for a given text, the digest is called a *signature*. The recipient of the text can authenticate the text by using the signature, the MD5 digest of the text, and the public half of the key pair.

### To verify a response from the processor:

- Step 1** Use the **v\_pstatus** field value from the PayEase response to determine which CyberSource verification value to use. For example:

```
String verify;

if ("1".equals(v_pstatus)) verify = chinaPaymentReply_verifyInProgress;

else if ("20".equals(v_pstatus)) verify = chinaPaymentReply_
verifySuccess;

else if ("30".equals(v_pstatus)) verify = chinaPaymentReply_
verifyFailure;

else throw IllegalArgumentException("invalid v_pstatus value");
```

- Step 2** Create an MD5 object. For example:

```
RSA_MD5 md5 = new RSA_MD5();
```

- Step 3** Invoke the MD5 object's `publicVerifyMD5` method with the following values:

- Public key—you obtained this value from PayEase when you were establishing your business relationship with PayEase as described in ["Business Requirements," page 13](#).
- Signature—this is the **v\_sign** field value from the PayEase response.
- CyberSource verification value—this is the value that was selected in [Step 1](#) and is the text from which the digest will be created.

For example:

```
int verify_result = md5.publicVerifyMD5(payeasePublicKey,
v_sign, verify);
```

**Example Verifying the Response from the Processor**


---

```
String verify;

if ("1".equals(v_pstatus)) verify = chinaPaymentReply_verifyInProgress;

else if ("20".equals(v_pstatus)) verify = chinaPaymentReply_
    verifySuccess;

else if ("30".equals(v_pstatus)) verify = chinaPaymentReply_
    verifyFailure;

else throw IllegalArgumentException("invalid v_pstatus value");

RSA_MD5 md5 = new RSA_MD5();

int verify_result = md5.publicVerifyMD5(payeasePublicKey,v_sign, verify);
```

---

## Tracking the Transaction

Track the transaction as described in ["Obtaining Information About Your Transactions," page 16](#).

## Processing a China Refund

This section provides detailed information about processing a China refund using the Simple Order API. For a simpler overview, see ["Overview of Refund Processing," page 10](#).

PayEase China Processing supports only follow-on refunds; it does not support stand-alone refunds. A follow-on refund is a refund that corresponds to a specific payment. You can request:

- A full refund
- A partial refund
- Multiple partial refunds

However, some financial institutions do not support all of these types of refunds. Each financial institution has its own refund requirements and restrictions. Contact PayEase for this information.

Before a refund can be processed, the corresponding payment must be settled, which means that funds have been reserved for future distribution to you. The ways to request a refund are:

- Through the API with a request message
- Through the Business Center

When you request a refund, CyberSource always accepts the request without checking for errors in the values. PayEase determines whether requests contain errors. You receive no immediate indication when something is wrong with a request; therefore, to ascertain whether requests contain errors, you must monitor reports on the Business Center.

### To process a China refund:

---

- Step 1** Create a request message that includes the required fields for the **chinaRefundService**. "Refund Request Fields," page 50, describes the required and optional fields to include in the request.
- Step 2** Send the message to CyberSource.
- CyberSource responds with a refund reply message containing the fields described in "Refund Reply Fields," page 52.
- Step 3** Track the transaction as described in "Obtaining Information About Your Transactions," page 16.
-



# Requesting Services Using the SCMP API

## Processing Payments in China

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This section provides detailed information about processing a China payment. For a simpler overview, see ["Credit Cards, China Bank Transfers, and China eWallet," page 7](#).

## Sending a Payment Request to CyberSource

### To request a payment:

---

**Step 1** Create a request message that includes the required fields for the `ics_china_payment` service.

["Payment Request Fields," page 55](#), describes the required and optional fields to include in the request.

**Step 2** Send the message to CyberSource.

CyberSource responds with a payment reply message containing the fields described in ["Payment Reply Fields," page 59](#).

---

## Sending the Form Data to the Processor

The payment reply message from CyberSource includes the **china\_payment\_form\_data** field. The form data is fully formatted text that you must send to the processor. In the form data, the GBK character set is used.

### To send the form data:

---

#### Step 1

 Decode the form data.

An example of code you can use to decode the form data:

---

```
String clear_data = new
String(com.cybersource.security.util.Base64.base64decode(encoded_
data), "UTF-8");
```

---

where:

- `encoded_data` is a `java.lang.String` object that contains the `form_data` response field value.
- The `Base64` class is in the SCMP client library.

#### Step 2

 Send the decoded form data to the processor.

An example of a POST operation you can use to send the form data to the processor:

---

```
<HTML>
  <meta http-equiv='Content-Type' content='text/html; charset=gbk'>
  <BODY onload='document.forms[0].submit();'>
    <Include the decoded form data here... >
  </BODY>
</HTML>
```

---

The POST operation sends the form data to the URL that is included in the form data.

The processor responds by sending you a payment response message with the fields described in [Appendix E, "PayEase Response Fields,"](#) on page 67.

---

## Verifying the Response from the Processor

Use an MD5 algorithm to verify the PayEase response.



**Note**

The MD in MD5 stands for *Message Digest*. An MD5 algorithm can be used with any data and it always produces a string of the same size. This string is called a *digest*. When a public/private key pair is used to create a digest for a given text, the digest is called a *signature*. The recipient of the text can authenticate the text by using the signature, the MD5 digest of the text, and the public half of the key pair.

### To verify a response from the processor:

- Step 1** Use the **v\_pstatus** field value from the PayEase response to determine which CyberSource verification value to use. For example:

```
String verify;

if ("1".equals(v_pstatus)) verify = chinaPaymentReply_verifyInProgress;

else if ("20".equals(v_pstatus)) verify = chinaPaymentReply_
verifySuccess;

else if ("30".equals(v_pstatus)) verify = chinaPaymentReply_
verifyFailure;

else throw IllegalArgumentException("invalid v_pstatus value");
```

- Step 2** Create an MD5 object. For example:

```
RSA_MD5 md5 = new RSA_MD5();
```

**Step 3** Invoke the MD5 object's `publicVerifyMD5` method with the following values:

- Public key—you obtained this value from PayEase when you were establishing your business relationship with PayEase as described in ["Business Requirements," page 13](#).
- Signature—this is the `v_sign` field value from the PayEase response.
- CyberSource verification value—this is the value that you selected in [Step 1](#) and is the text from which the digest will be created.

For example:

---

```
int verify_result = md5.publicVerifyMD5(payeasePublicKey,
v_sign, verify);
```

---

### Example Verifying the Response from the Processor

---

```
String verify;

if ("1".equals(v_pstatus)) verify = chinaPaymentReply_verifyInProgress;

else if ("20".equals(v_pstatus)) verify = chinaPaymentReply_
verifySuccess;

else if ("30".equals(v_pstatus)) verify = chinaPaymentReply_
verifyFailure;

else throw IllegalArgumentException("invalid v_pstatus value");

RSA_MD5 md5 = new RSA_MD5();

int verify_result = md5.publicVerifyMD5(payeasePublicKey,v_sign, verify);
```

---

## Tracking the Transaction

Track the transaction as described in ["Obtaining Information About Your Transactions," page 16](#).

## Processing a China Refund

---

This section provides detailed information about processing a China refund using the SCMP API. For a simpler overview, see ["Overview of Refund Processing," page 10](#).

PayEase China Processing supports only follow-on refunds; it does not support stand-alone refunds. A follow-on refund is a refund that corresponds to a specific payment. You can request:

- A full refund
- A partial refund
- Multiple partial refunds

However, some financial institutions do not support all of these types of refunds. Each financial institution has its own refund requirements and restrictions. Contact PayEase for this information.

Before a refund can be processed, the corresponding payment must be settled, which means that funds have been reserved for future distribution to you. The ways to request a refund are:

- Through the API with a request message
- Through the Business Center

When you request a refund, CyberSource always accepts the request without checking for errors in the values. PayEase determines whether requests contain errors. You receive no immediate indication when something is wrong with a request; therefore, to ascertain whether requests contain errors, you must monitor reports on the Business Center.

### To process a China refund:

---

- Step 1** Create a request message that includes the required fields for the `ics_china_refund` service.

["Refund Request Fields," page 61](#), describes the required and optional fields to include in the request.

- Step 2** Send the message to CyberSource.

CyberSource responds with a refund reply message containing the fields described in ["Refund Reply Fields," page 63](#).

- Step 3** Track the transaction as described in ["Obtaining Information About Your Transactions," page 16](#).
-

# Simple Order API Examples

## Name-Value Pair Examples

---

### Payment Examples

#### Example 1 Payment Request

---

```
merchantID=nwtest1
merchantReferenceCode=1231231
billTo_lastName=smith
purchaseTotals_currency=usd
chinaPaymentService_run=true
chinaPaymentService_paymentMode=13
chinaPaymentService_returnURL=http://development.cybersource.com
item_0_unitPrice=1.11
```

---

#### Example 2 Payment Reply

---

```
requestID=1999344622160011017746
requestToken=Ahj3LwKPsYnr832sLPhItQMmDBwwYsWF9i2cNL7No0bMmTFswYMWLBi3btGxgopU7cOGTSA+
99Jhk2xxRx8qJo6DQAAA5hFj
merchantReferenceCode=1231231
purchaseTotals_currency=usd
reasonCode=100
decision=ACCEPT
chinaPaymentReply_amount=1.11
chinaPaymentReply_reasonCode=100
chinaPaymentReply_reconciliationID=20080110_1684_344622160011017746
chinaPaymentReply_verifyInProgress=20080110_1684_34462216001101774611.111
chinaPaymentReply_verifySuccess=20080110_1684_344622160011017746201.111
chinaPaymentReply_verifyFailure=20080110_1684_344622160011017746301.111
chinaPaymentReply_formData=PGZvcM0gBmFtZT0iZm9ybSIgbWV0aG9kPSJwb3N0
IiBhY3Rpb249Imh0dHA6Ly9tdnFzMDA0LmN5YmVyc291cmNlLmNvbTo4MTI0L3BheWVhc2VzaW11bGF0b3Ivc
2VydmlldC9NZXJjagFudFNlcnZsZXQiPjxpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfbWlkIiB2YWx1ZT
0iMTY4NCI+PGLuchV0IHR5cGU9ImhpZGRlbiIgbmFtZT0id19vaWQiIHZhbHVlPSIyMDA4MDExMTY4NCI+PGL
uchV0IHR5cGU9ImhpZGRlbiIgbmFtZT0id19yY3ZuYW11IiB2YWx1ZT0i
c2lpdGgiPjxpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfcmluZG91IHR5cGU9ImhpZGRlbiIgbmFtZT0id
19yY3ZuYW11IiB2YWx1ZT0iMTY4NCI+PGLuchV0IHR5cGU9ImhpZGRlbiIgbmFtZT0id19hbW9
1bnQiIHZhbHVlPSIxLj
```

---

## Refund Examples

### Example 3 Refund Request

---

```
chinaRefundService_run=true
chinaRefundService_chinaPaymentRequestID=1999344622160011017746
chinaRefundService_
chinaPaymentRequestToken=Ahj3LwKPsYnr832sLPhItQMmDBwwY
sWF9i2cNL7No0bMmTFswYMwLbi3btGxgopU7cOGTSA+99Jhk2xxRx8qJo6DQAAA5hFj
chinaRefundService_refundReason=Shoes don't fit
merchantID=nwtest1
item_0_unitPrice=1.11
purchaseTotals_currency=usd
merchantReferenceCode=1231231
```

---

### Example 4 Refund Reply

---

```
chinaRefundReply_amount=1.11
decision=ACCEPT
chinaRefundReply_reasonCode=100
requestID=1999956783830011017746
purchaseTotals_currency=usd
requestToken=Ahj3LwKPsavnSqxCA+hItQMmDBwwYsW7No0bMmTFswYMwLbi3btGxgopU7c
OHfSA+99Khk2xxRx8qJo6jQAAA8hFv
reasonCode=100
merchantReferenceCode=1231231
```

---

## XML Examples

---

### Payment Examples

#### Example 5 Payment Request

---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.34">
  <merchantID>nwtest1</merchantID>
  <merchantReferenceCode>12345667</merchantReferenceCode>
  <billTo>
    <lastName>smith</lastName>
  </billTo>
  <purchaseTotals>
    <currency>usd</currency>
    <grandTotalAmount>1.00</grandTotalAmount>
  </purchaseTotals>
  <chinaPaymentService run="true">
    <paymentMode>1</paymentMode>
    <returnURL>http://localhost/</returnURL>
  </chinaPaymentService>
</requestMessage>
```

---



**Example 6 Payment Reply**


---

```

<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.34">
  <c:merchantReferenceCode>12345667</c:merchantReferenceCode>
  <c:requestID>1999322626690011017746</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestToken>Ahj3LwKPsYizYG/sGshItQMmDBwwYsWF9i2cNL7NkybMmzZywYMWLB
    i3btGxgopU7cOGHSA+R9Jhk2xxRx8qJo6AQAAA9gGD</c:requestToken>
  <c:purchaseTotals>
    <c:currency>usd</c:currency>
  </c:purchaseTotals>
  <c:chinaPaymentReply>
    <c:reasonCode>100</c:reasonCode>
    <c:amount>1.00</c:amount>
    <c:reconciliationID>20080110_1684_322626690011017746</c:reconciliationID>
    <c:verifyInProgress>20080110_1684_32262669001101774611.001</c:verifyInProgress>
    <c:verifySuccess>20080110_1684_322626690011017746201.001</c:verifySuccess>
    <c:verifyFailure>20080110_1684_322626690011017746301.001</c:verifyFailure>
    <c:formData>PGZvcM0gBmFtZT0iZm9yYSIgbWV0aG9kPSJwb3N0IiBhY3Rpb249Imh0dHA6Ly9td
nFzMdA0LmN5YmVyc291cmNlLmNvbTo4MTI0L3BheWVhc2VzaW11bGF0b3Ivc2VydmlldC9NZXJjaGFudF
NlcnZsZXQiPjxpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfbWlkIiB2YWx1ZT0iMTY4NCI+PglucHV
0IHR5cGU9ImhpZGRlbiIgbmFtZT0idl9vaWQiIHZhbHVlPSIyMDA4MDExMF8xNjg0XzMyMjYyNjY5MDAx
MTAxNzc0NiI+PglucHV0IHR5cGU9ImhpZGRlbiIgbmFtZT0idl9yY3ZuYW11IiB2YWx1ZT0ic21pdGgiP
jxpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfcM2YWRkciIgdMfSdWU9IjE2ODQIPjxpbmBldCB0eX
BlPSJoaWRkZW4iIG5hbWU9InZfcM2dGVsIiB2YWx1ZT0iMTY4NCI+PglucHV0IHR5cGU9ImhpZGRlbiI
gbmFtZT0idl9yY3Zwb3N0IiB2YWx1ZT0iMTY4NCI+PglucHV0IHR5cGU9ImhpZGRlbiIgbmFtZT0idl9h
bW91bnQiIHZhbHVlPSIxLjAwIj48aW5wdXQgdHlwZT0iaG1kZGVuIiBuYW11PSJ2X3ltZCIgdMfSdWU9I
jIwMDgwMTEwIj48aW5wdXQgdHlwZT0iaG1kZGVuIiBuYW11PSJ2X29yZGVyc3RhdHVzIiB2YWx1ZT0iMS
I+PglucHV0IHR5cGU9ImhpZGRlbiIgbmFtZT0idl9vcMlcm5hbWU9IHZhbHVlPSJzbWl0aCI+PglucHV
0IHR5cGU9ImhpZGRlbiIgbmFtZT0idl9tb25leXR5cGU9IHZhbHVlPSIxIj48aW5wdXQgdHlwZT0iaG1k
ZGVuIiBuYW11PSJ2X3VyY3IgdMfSdWU9Imh0dHA6Ly9hLmIuY29tLyI+PglucHV0IHR5cGU9ImhpZGRlb
iIgbmFtZT0idl9tZDVpbmZvIiB2YWx1ZT0iNTM2MmJlMzg0ZmZmOWM5YWQ5ZGFiZmY5ZWl2MTdlMDEiPj
xpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfcG1vZGU9IHZhbHVlPSIxIj48L2ZvcM0+
</c:formData>
  </c:chinaPaymentReply>
</replyMessage>

```

---

## Refund Examples

### Example 7 Refund Request

---

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.37">
  <merchantID>pttest</merchantID>
  <merchantReferenceCode>12345667</merchantReferenceCode>
  <billTo>
    <lastName>smith</lastName>
  </billTo>
  <purchaseTotals>
    <currency>usd</currency>
    <grandTotalAmount>1.00</grandTotalAmount>
  </purchaseTotals>
  <chinaRefundService run="true">
    <chinaPaymentRequestID>1999322626690011017746</chinaPaymentRequestID>
    <refundReason>Shoes don't fit</refundReason>
    <chinaPaymentRequestToken>Ahj3LwKPsYizYG/
sGshItQMmDBwwYsWF9i2cNL7NkybMm
    zZywYMWLBi3btGxgopU7cOGHSA+R9Jhk2xxRx8qJo6AQAAA9gGD
    </chinaPaymentRequestToken>
  </chinaRefundService>
</requestMessage>
```

---

### Example 8 Refund Reply

---

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.37">
  <c:merchantReferenceCode>12345667</c:merchantReferenceCode>
  <c:requestID>1999332455690011017746</c:requestID>
  <c:decision>ACCEPT</c:decision>
  <c:reasonCode>100</c:reasonCode>
  <c:requestToken>Ahj3LwKPsYk/DiGCGAhItQMmDBwwYsWF9i2cNL7NkybMmzZywYMWLBi3bt
GxgopU7cOGLSA+R9Jhk2xxRx8qJo6gQAAA8gFv</c:requestToken>
  <c:purchaseTotals>
    <c:currency>usd</c:currency>
  </c:purchaseTotals>
  <c:chinaRefundReply>
    <c:reasonCode>100</c:reasonCode>
    <c:amount>1.00</c:amount>
  </c:chinaRefundReply>
</c:replyMessage>
```

---

# SCMP API Examples

## Payment Examples

---

### Example 9 Payment Request

---

```
bill_state=CA
customer_lastname=Doe
bill_city=Mountain View
bill_country=US
bill_zip=94043-1307
merchant_id=nwtest1
ics_applications=ics_china_payment
currency=usd
customer_firstname=James
bill_address1=1295 Charleston Road
return_url=http://localhost/
merchant_ref_number=3355779921
payment_mode=1
customer_phone=650-965-6000
customer_email=james.doe@example.com
offer0=amount:1.00
```

---

**Example 10 Payment Reply**


---

```

china_payment_rcode=1
request_
token=Ahj3LwKPsXpPAZvMpTBwtQMmDBwwYsWF9i2cNL7BszZtmTFuwYt2TBm0YN2xg
    msPE+LW9ID5H0mGTLl3/H3jGsAQ0xr/
currency=usd
request_id=1999063362170172034076
china_payment_rmsg=china payment service was successful
china_payment_verify_in_process=20080110_1684_06336217017203407611.001
china_payment_verify_success=20080110_1684_063362170172034076201.001
china_payment_verify_failure=20080110_1684_063362170172034076301.001
china_payment_amount=1.00
china_payment_trans_ref_no=20080110_1684_063362170172034076
ics_rmsg=Request was processed successfully.
china_payment_form_data=PGZvcm0gbmFtZT0iZm9ybSIgbWV0aG9kPSJwb3N0IiBhY
3Rpb249Imh0dHA6Ly9wYXkuYmVqaW5nLmNvbS5jbi9jdXN0b211ci9nYi9wYXlfYmFuay5q
c3AiPjxpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfbWlkIiB2YWxlZT0iMTY4NCI+PGL
ucHV0IHR5cGU9ImhpPGZvcm0gbmFtZT0iZm9ybSIgbWV0aG9kPSJwb3N0IiBhY3Rpb24bWV
0aG9kPSJwb3N0IiBhY3Rpb24bWV0aG9kPSJwb3N0IiBhY3Rpb24bWV0aG9kPSJwb3N0IiBh
Y3Rpb24bWV0aG9kPSJwb3N0IiBhY3Rpb24Ih0dHA6Ly9wYXkuYmVqaW5nLmNvbS5jbi9jdX
N0b211ci9nYi9wYXlfYmFuay5qc3AiPjxpbmBldCB0eXB1PSJoaWRkZW4iIG5hbWU9InZfb
WlkIiB2YWxlZT0iMTY4NCI+PGLucHV0IHR5cGU9ImhpPjwvZm9ybT4=
ics_rflag=SOK
china_payment_rflag=SOK
merchant_ref_number=3355779921
ics_rcode=1

```

---

## Refund Examples

---

### Example 11 Refund Request

---

```
china_payment_request_id=1999063362170172034076
ics_applications=ics_china_refund
china_payment_request_
token=Ahj3LwKPsXpPAZvMpTBwtQMmDBwwYsWF9i2cNL7BszZtmTF
    uwYt2TBm0YN2xgmsPE+LW9ID5H0mGTLl3/H3jGsAQ0xr/
merchant_ref_number=23984987
merchant_id=pttest
refund_reason=Shoes do not fit
offer0=amount:1.00
```

---

### Example 12 Refund Reply

---

```
china_refund_amount=1.00
ics_rcode=1
ics_rmsg=Request was processed successfully.
request_id=1999065385780172034076
china_refund_rmsg=china refund service was successful
china_refund_rflag=SOK
currency=USD
request_
token=Ahj3LwKPsXprw3V5gEBwtQMmDBwwYsWF9i2cNL7BszZtmTFuwYt2TBm0YN2x
    gmsPE+LXNID5H0mGTSRHwohySAYE6wJn
ics_rflag=SOK
merchant_ref_number=23984987
china_refund_rcode=1
```

---

# Testing Your Implementation

## Using the Simulator

---

### To send a payment request to CyberSource:

---

- Step 1** Create a request message that includes the required fields for the payment service:
- Simple Order API—"Payment Request Fields," page 43, describes the required and optional fields to include in the request.
  - SCMP API—"Payment Request Fields," page 55, describes the required and optional fields to include in the request.

- Step 2** Send the message to CyberSource.

CyberSource responds with a payment reply message that includes the form data:

- Simple Order API—"Payment Reply Fields," page 47, describes the "Payment Reply Fields," page 47 fields in the reply. The form data is in the **chinaPaymentReply\_formData** field.
- SCMP API—"Payment Reply Fields," page 47, describes the fields in the reply. The form data is in the **china\_payment\_form\_data** field.

- Step 3** Send the form data to the simulator. In the form data, the GBK character set is used.

**Step 4** Decode the form data.

An example of code you can use to decode the form data:

---

```
String clear_data = new
String(com.cybersource.security.util.Base64.base64decode(encoded_
data), "UTF-8");
```

---

where:

- `encoded_data` is a `java.lang.String` object that contains the `form_data` response field value.
- The `Base64` class is in the SCMP client library.

**Step 5** Send the decoded form data to the simulator.

An example of a POST operation you can use to send the form data to the processor:

---

```
<HTML>
  <meta http-equiv='Content-Type' content='text/html; charset=gbk'>
  <BODY onload='document.forms[0].submit();'>
    <Include the decoded form data here... >
  </BODY>
</HTML>
```

---

The POST operation sends the form data to the URL that is included in the form data.

The simulator responds by sending you a payment response message that contains the fields described in [Appendix E, "PayEase Response Fields," on page 67](#).

The simulator redirects you to a scenario-selection page that lists an account number for each scenario.

**Step 6** Select a scenario.

Click the account number that corresponds to the scenario you want to run. The scenarios are described in ["Simulator Scenarios," page 40](#).

The simulator runs the scenario as described in [Table 5, page 40](#) and sends you a simulated PayEase response.

**Step 7** Check the scenario results.

The Business Center receives periodic updates for the simulated transactions. You can retrieve information about the transactions in reports, query results, and transaction details as described in ["Obtaining Information About Your Transactions," page 16](#).

---

## Simulator Scenarios

The “Payment Status” column lists the **v\_pstatus** value that is in the simulated PayEase response.

**Table 5 Simulator Scenarios**

Scenario Number	Account Number	Payment Processing	Refund Processing	Payment Status (v_pstatus)
1	XX-000	A transaction failure is simulated.	A transaction failure is simulated.	(none)
2	XX-001	A settled payment transaction is simulated.	A successful refund is simulated.	20 (success)
3	XX-002	An unsettled payment is simulated.	An unsubmitted refund is simulated.	1 (in process)
4	XX-003	Refusal of payment by the financial institution is simulated.	An unsubmitted refund is simulated.	30 (failure)
5	XX-007	A chargeback is simulated. The payment is settled but not funded.	An un-submitted refund is simulated.	20 (success)
6	XX-101	A settled and funded payment is simulated.	A normal refund is simulated.	20 (success)
7	XX-107	A chargeback is simulated. The payment will be settled and funded.	An unsubmitted refund is simulated.	20 (success)
8	XX-041	A settled payment is simulated.	A pending refund is simulated.	20 (success)
9	XX-141	A settled and funded payment is simulated.	A pending refund is simulated.	20 (success)
10	XX-061	A settled payment is simulated.	A rejected refund is simulated.	20 (success)
11	XX-161	A settled and funded payment is simulated.	A rejected refund is simulated.	20 (success)



# Simple Order API Fields

## Formatting Restrictions

---

Unless otherwise noted, all of the field names listed are case sensitive, and the fields accept special characters such as @, #, and %.

**Note**

The values of the **item\_#\_** fields must not contain carets (^) or colons (:) because these characters are reserved for use by CyberSource services. The values of all request fields must not contain new lines or carriage returns. However, they can contain embedded spaces and any other printable characters. All leading and trailing spaces will be removed.

---

## Data Types

---

For more information about these data types, see the [World Wide Web Consortium \(W3C\) XML Schema Part 2: Data Types specification](#).

**Table 6** Data Types for the Simple Order API

Data Type	Description
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}.
String	Sequence of letters, numbers, spaces, and special characters, such as @ and #.

## Numbered Elements

---

The CyberSource XML schema includes several numbered elements. You can include these complex elements more than once in a request. For example, if a customer order includes more than one item, you must include multiple `<item>` elements in your request. Each item is numbered, starting with 0. The XML schema uses an `id` attribute in the item's opening tag to indicate the number. For example:

```
<item id="0">
```

For the name-value pair field names, this tag is represented as **item\_0**. In this portion of the field name, the underscore before the number does not indicate hierarchy in the XML schema. The item fields are generically referred to as **item\_#\_<element name>** in the documentation.

Below is an example of the numbered `<item>` element and the corresponding name-value pair field names. If you are using SOAP, the client contains a corresponding `Item` class.

### Example 13 Numbered XML Schema Element Names and Name-Value Pair Field Names

XML Schema Element Names	Corresponding Name-Value Pair Field Names
<pre>&lt;item id="0"&gt;   &lt;unitPrice&gt;   &lt;quantity&gt; &lt;/item&gt;</pre>	<pre>item_0_unitPrice item_0_quantity</pre>
<pre>&lt;item id="1"&gt;   &lt;unitPrice&gt;   &lt;quantity&gt; &lt;/item&gt;</pre>	<pre>item_1_unitPrice item_1_quantity</pre>



#### Important

When a request is in XML format and includes an `<item>` element, the element must include an `id` attribute. For example: `<item id="0">`.

## Payment Request Fields

**Table 7** Payment Request Fields for the Simple Order API

Field Name	Description	Required / Optional	Data Type & Length
billTo_city	Billing city as it appears in the financial institution's records.	Optional.	String (50)
billTo_country	Billing country as it appears in the financial institution's records. Use the two-character <a href="#">country codes</a> .	Optional.	String (2)
billTo_email	Customer's email address, including the full domain name. Example: <a href="mailto:jdoe@example.com">jdoe@example.com</a>	Optional.	String (255)
billTo_firstName	Customer's entire name or first name. This value should be the same as the one that appears in the financial institution's records. <b>Note</b> A name must be provided. You can do one of the following: <ul style="list-style-type: none"> <li>Provide the entire name in the first-name field.</li> <li>Provide the entire name in the last-name field.</li> <li>Provide the first name in the first-name field and the last name in the last-name field.</li> </ul>	Optional if the customer's first and last name are combined as a single value in the last-name field; otherwise, required by the processor.	String (60)
billTo_lastName	Customer's entire name or last name. This value should be the same as the one that appears in the financial institution's records. <b>Note</b> A name must be provided. You can do one of the following: <ul style="list-style-type: none"> <li>Provide the entire name in the first-name field.</li> <li>Provide the entire name in the last-name field.</li> <li>Provide the first name in the first-name field and the last name in the last-name field.</li> </ul>	Optional if the customer's first and last name are combined as a single value in the first-name field; otherwise, required by the processor.	String (60)

\* If one shipping field is included, they all must be included, except **shipTo\_street2**, which is always optional.

Table 7 Payment Request Fields for the Simple Order API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
billTo_postalCode	<p>Postal code for the billing address. If the billing country is not the U.S. or Canada, any string up to 9 characters is accepted.</p> <p>If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example: 12345-6789</p> <p>If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] Example: A1B 2C3</p>	Optional.	String (9)
billTo_street1	Billing street address as it appears in the financial institution's records.	Optional.	String (60)
billTo_street2	Additional address information.	Optional.	String (60)
chinaPaymentService_paymentMode	Payment Mode. Contact PayEase for the mapping of the supported payment system names to the PayEase payment mode values. Ask for the report titled <i>Banks &amp; Payment Channels Supported by PayEase Payment Platform</i> .	Required by the processor.	Integer (3)
chinaPaymentService_returnURL	<p>URL that will be used to return the customer to your web site after the transaction. Do not include parameters at the end of the URL.</p> <p>Example of correct URL:</p> <p><code>http://example.com/checkout.jsp</code></p> <p>Example of incorrect URL:</p> <p><code>http://example.com/checkout.jsp?orderId=12345</code></p>	Required by the processor.	String (512)
chinaPaymentService_run	<p>Whether to include <b>chinaPaymentService</b> in your request. Possible values:</p> <ul style="list-style-type: none"> <li>■ <code>true</code>: include the service in your request.</li> <li>■ <code>false</code> (default): do not include the service in your request.</li> </ul>	Required for CyberSource front-end processing; not used by the processor.	String (5)

\* If one shipping field is included, they all must be included, except **shipTo\_street2**, which is always optional.

Table 7 Payment Request Fields for the Simple Order API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
item_#_unitPrice	<p>Per-item price of the product. You must include either this field or <b>purchaseTotals_grandTotalAmount</b> in your request. The maximum amount is 50000.00.</p> <p>This value cannot be negative. You can include a decimal point (.) in this field, but you cannot include any other special characters. The amount is truncated at the request level to the correct number of decimal places.</p>	Required by the processor if <b>purchaseTotals_grandTotalAmount</b> is not in the request.	Decimal (15)
merchantID	Your CyberSource merchant ID. Use the same <b>merchantID</b> for evaluation, testing, and production. Your CyberSource merchant ID must correspond to only one PayEase merchant ID. Likewise, your PayEase merchant ID must correspond to only one CyberSource merchant ID.	Required for CyberSource front-end processing; not used by the processor.	String (30)
merchantReferenceCode	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 on the Business Center and in CyberSource reports. For more information about tracking orders, see <a href="#">Getting Started with CyberSource Advanced</a> .	Required for CyberSource front-end processing; not used by the processor.	String (50)
purchaseTotals_currency	<p>Currency used for the order. Possible values:</p> <ul style="list-style-type: none"> <li>■ CNY (RMB)</li> <li>■ USD: USD can be used only for international cards and only for products and services that are priced in USD.</li> </ul> <p>CyberSource verifies that the value is either CNY or USD and that it is active in your CyberSource merchant configuration.</p>	Required by the processor.	String (5)
purchaseTotals_grandTotalAmount	Grand total for the order. You must include either this field or <b>item_0_unitPrice</b> . The maximum amount is 50000.00.	Required by the processor if there are no offer lines in the request.	Decimal (15)

\* If one shipping field is included, they all must be included, except **shipTo\_street2**, which is always optional.

Table 7 Payment Request Fields for the Simple Order API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
shipTo_city	City of the shipping address.	If any shipping information is in the request and if the shipping country is the U.S. or Canada, this field is required for CyberSource front-end processing.*	String (50)
shipTo_country	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (2)
shipTo_firstName	Entire name or first name of the recipient.	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (60)
shipTo_lastName	Last name of the recipient.	Optional if the recipient's first name and last name are combined as a single value in the ship-to first-name field; otherwise, required for CyberSource front-end processing if any shipping information is in the request.*	String (60)
shipTo_phone	Phone number for the shipping address.  Include the country code.	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (20)

\* If one shipping field is included, they all must be included, except **shipTo\_street2**, which is always optional.

**Table 7 Payment Request Fields for the Simple Order API (Continued)**

Field Name	Description	Required / Optional	Data Type & Length
shipTo_postalCode	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p><b>Example</b> 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric]</p> <p><b>Example</b> A1B 2C3</p> <p>If the shipping country is not the U.S. or Canada, any string up to 9 characters is accepted.</p>	If any shipping information is in the request and if the shipping country is the U.S. or Canada, this field is required for CyberSource front-end processing.*	String (9)
shipTo_street1	First line of the shipping address.	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (60)
shipTo_street2	Second line of the shipping address.	Optional.	String (60)

\* If one shipping field is included, they all must be included, except **shipTo\_street2**, which is always optional.

## Payment Reply Fields

**Table 8 Payment Reply Fields for the Simple Order API**

Field Name	Description	Data Type & Length
chinaPaymentReply_amount	Total amount of the payment.	Decimal (15)
chinaPaymentReply_formData	Fully formatted text that you must send to the processor to request the payment transaction. See <a href="#">"Sending the Form Data to the Processor,"</a> page 21.	String (2000)
chinaPaymentReply_reasonCode	Numeric value corresponding to the result of the China payment request. See <a href="#">Appendix C, "Simple Order API Reason Codes,"</a> on page 65. For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (5)

Table 8 Payment Reply Fields for the Simple Order API (Continued)

Field Name	Description	Data Type & Length
chinaPaymentReply_reconciliationID	Value that identifies the transaction in the processor's system. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (60)
chinaPaymentReply_requestDateTime	Time of the payment request in GMT. Format: YYYY-MM-DDThh:mm:ssZ Example: 2007-08-11T22:47:57Z is August 11, 2007, at 10:47:57 P.M. The T separates the date and the time. The Z indicates UTC, which is the same as GMT.	String (20)
chinaPaymentReply_verifyFailure	Verification value for a request that failed. Use this value to verify the response message from the processor. See <a href="#">"Verifying the Response from the Processor," page 22</a> .	String (82)
chinaPaymentReply_verifyInProgress	Verification value for a request that is in process. Use this value to verify the response message from the processor. See <a href="#">"Verifying the Response from the Processor," page 22</a> .	String (82)
chinaPaymentReply_verifySuccess	Verification value for a request that succeeded. Use this value to verify the response message from the processor. See <a href="#">"Verifying the Response from the Processor," page 22</a> .	String (82)
decision	Summarizes the result of the overall request. Possible values: <ul style="list-style-type: none"> <li>■ ACCEPT</li> <li>■ ERROR</li> <li>■ REJECT</li> <li>■ REVIEW—returned only if you use CyberSource Decision Manager.</li> </ul> For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (6)
invalidField_0...N	Fields in the request that contained invalid data. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. For more information about missing and invalid fields, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (100)
merchantReferenceCode	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 contain corrupted characters. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)



**Table 8 Payment Reply Fields for the Simple Order API (Continued)**

Field Name	Description	Data Type & Length
missingField_0....N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. For more information about missing and invalid fields, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (100)
purchaseTotals_currency	Currency used for the order. Possible values: <ul style="list-style-type: none"> <li>■ CNY (RMB)</li> <li>■ USD</li> </ul>	String (5)
reasonCode	Numeric value corresponding to the result of the overall request. See <a href="#">Appendix C, "Simple Order API Reason Codes," on page 65</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (5)
requestID	Identifier for the request generated by the software client. For more information about request IDs, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (26)
requestToken	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.  For more information about follow-on services, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (256)

## Refund Request Fields

**Table 9** Refund Request Fields for the Simple Order API

Field Name	Description	Required / Optional	Data Type & Length
chinaRefundService_ chinaPaymentRequestID	The <b>requestID</b> field returned from a previous request for <b>chinaPaymentService</b> . Creates a follow-on refund by linking the refund to the previous payment. For more information about request IDs, see <a href="#">Getting Started with CyberSource Advanced</a> .	Required for CyberSource front-end processing; not used by the processor.	String (26)
chinaRefundService_ chinaPaymentRequest Token	The <b>requestToken</b> value returned from a previous request for <b>chinaPaymentService</b> .  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	Required for CyberSource front-end processing; not used by the processor.	String (256)
chinaRefundService_ refundReason	Reason for the refund. Free-text explanation of why the refund is being processed. Banks prefer that the explanation be in Chinese so that bank employees can understand it easily.	Required by the processor.	String (80)
chinaRefundService_run	Whether to include <b>chinaRefundService</b> in your request. Possible values: <ul style="list-style-type: none"> <li>■ <b>true</b>: include the service in your request.</li> <li>■ <b>false</b> (default): do not include the service in your request.</li> </ul>	Required for CyberSource front-end processing; not used by the processor.	String (5)
item_#_unitPrice	Per-item price of the product. You must include either this field or <b>purchaseTotals_grandTotalAmount</b> in your request. The maximum amount is 50000.00.  This value cannot be negative. You can include a decimal point (.) in this field, but you cannot include any other special characters. The amount will be truncated at the request level to the correct number of decimal places.	Required by the processor if <b>purchaseTotals_grandTotalAmount</b> is not in the request.	Decimal (15)

Table 9 Refund Request Fields for the Simple Order API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
merchantID	Your CyberSource merchant ID. Use the same <b>merchantID</b> field for evaluation, testing, and production. Your CyberSource merchant ID field must correspond to only one PayEase merchant ID. Likewise, your PayEase merchant ID must correspond to only one CyberSource merchant ID.	Required for CyberSource front-end processing; not used by the processor.	String (30)
merchantReferenceCode	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 on the Business Center and in CyberSource reports. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	Required for CyberSource front-end processing; not used by the processor.	String (50)
purchaseTotals_grandTotalAmount	Grand total for the order. You must include either this field or <b>item_0_unitPrice</b> . The maximum amount is 50000.00.	Required by the processor if there are no offer lines in the request.	Decimal (15)

## Refund Reply Fields

**Table 10 Refund Reply Fields for the Simple Order API**

Field Name	Description	Data Type & Length
chinaRefundReply_amount	Total amount of the refund.	Decimal (15)
chinaRefundReply_reasonCode	Numeric value corresponding to the result of the China refund request. See <a href="#">Appendix C, "Simple Order API Reason Codes," on page 65</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (5)
chinaRefundReply_requestDateTime	Time of the refund request in GMT. Format: YYYY-MM-DDThh:mm:ssZ Example: 2007-08-11T22:47:57Z is August 11, 2007, at 10:47:57 P.M. The T separates the date and the time. The z indicates UTC, which is the same as GMT.	String (20)
decision	Summarizes the result of the overall request. Possible values: <ul style="list-style-type: none"> <li>■ ACCEPT</li> <li>■ ERROR</li> <li>■ REJECT</li> </ul> For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (6)
invalidField_0...N	Fields in the request that contained invalid data. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. For more information about missing and invalid fields, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (100)
merchantReferenceCode	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 contain corrupted characters. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)
missingField_0....N	Required fields that were missing from the request. These reply fields are included as an aid to software developers only. No attempt should be made to use these fields for end user interaction. For more information about missing and invalid fields, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (100)
purchaseTotals_currency	Currency used for the order. Possible values: <ul style="list-style-type: none"> <li>■ CNY (RMB)</li> <li>■ USD</li> </ul>	String (5)

**Table 10 Refund Reply Fields for the Simple Order API (Continued)**

<b>Field Name</b>	<b>Description</b>	<b>Data Type &amp; Length</b>
reasonCode	Numeric value corresponding to the result of the overall request. See <a href="#">Appendix C, "Simple Order API Reason Codes," on page 65</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (5)
requestID	Identifier for the request generated by the software client.	String (26)
requestToken	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.	String (256)

# SCMP API Fields

## Formatting Restrictions

Unless otherwise noted, all of the fields listed are order and case insensitive, and the fields accept special characters, such as @, #, and %.

Request-level and offer-level field names and values must not contain carets (^) or colons (:). However, they can contain embedded spaces and any other printable characters. If you use more than one consecutive space, the extra spaces are removed.

## Data Types

**Table 11 Data Types for the SCMP API**

Data Type	Description
Date and time	The format is YYYY-MM-DDThhmmssZ. For example, 2007-08-11T224757Z is equal to August 11, 2007, at 10:47:57 P.M. The T separates the date and the time. The Z indicates Coordinated Universal Time (UTC), which is also known as Greenwich Mean Time.
Decimal	Number that includes a decimal point. Examples: 23.45, - 0.1, 4.0, 90809.0468.
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}.
Non-negative integer	Whole number greater than or equal to zero {0, 1, 2, 3, ...}.
Positive integer	Whole number greater than zero {1, 2, 3, ...}.
String	Sequence of letters, numbers, spaces, and special characters, such as @ and #.

## Payment Request Fields

**Table 12 Payment Request Fields for the SCMP API**

Field Name	Description	Required / Optional	Data Type & Length
bill_address1	Billing street address as it appears in the financial institution's records.	Optional.	String (60)
bill_address2	Additional address information.	Optional.	String (60)
bill_city	Billing city as it appears in the financial institution's records.	Optional.	String (50)
bill_country	Billing country as it appears in the financial institution's records. Use the two-character <a href="#">country codes</a> .	Optional.	String (2)
bill_zip	Postal code for the billing address. If the billing country is not the U.S. or Canada, any string up to 9 characters is accepted.  If the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] Example: 12345-6789  If the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space] [numeric][alpha][numeric] Example: A1B 2C3	Optional.	String (9)
currency	Currency used for the order. Possible values: <ul style="list-style-type: none"> <li>■ CNY (RMB)</li> <li>■ USD: USD can be used only for international cards and only for products and services that are priced in USD</li> </ul> CyberSource verifies that the value is either CNY or USD and that it is active in your CyberSource merchant configuration.	Required by the processor.	String (5)
customer_email	Customer's email address, including the full domain name. Example: <a href="mailto:jdoe@example.com">jdoe@example.com</a>	Optional.	String (255)

\* If one shipping field is included, they all must be included, except ship\_to\_address2 which is always optional.

Table 12 Payment Request Fields for the SCMP API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
customer_firstname	<p>Customer's entire name or first name. This value should be the same as the one that appears in the financial institution's records.</p> <p><b>Note</b> A name must be provided. You can do one of the following:</p> <ul style="list-style-type: none"> <li>■ Provide the entire name in the first-name field.</li> <li>■ Provide the entire name in the last-name field.</li> <li>■ Provide the first name in the first-name field and the last name in the last-name field.</li> </ul>	Optional if the customer's first and last name are combined as a single value in the last-name field; otherwise, required by the processor.	String (60)
customer_lastname	<p>Customer's entire name or last name. This value should be the same as the one that appears in the financial institution's records.</p> <p><b>Note</b> A name must be provided. You can do one of the following:</p> <ul style="list-style-type: none"> <li>■ Provide the entire name in the first-name field.</li> <li>■ Provide the entire name in the last-name field.</li> <li>■ Provide the first name in the first-name field and the last name in the last-name field.</li> </ul>	Optional if the customer's first and last name are combined as a single value in the first-name field; otherwise, required by the processor.	String (60)
grand_total_amount	Grand total for the order. You must include either this field or <b>offer0</b> and the offer-level field <b>amount</b> . The maximum amount is 50000.00.	Required by the processor if there are no offer lines in the request.	Decimal (15)
ics_applications	Service to process for the request. For a payment request, this value should be <b>ics_china_payment</b> .	Required for CyberSource front-end processing; not used by the processor.	String (255)
merchant_id	Your CyberSource merchant ID. Use the same <b>merchant_id</b> field for evaluation, testing, and production. Your CyberSource merchant ID must correspond to only one PayEase merchant ID. Likewise, your PayEase merchant ID must correspond to only one CyberSource merchant ID.	Required for CyberSource front-end processing; not used by the processor.	String (30)

\* If one shipping field is included, they all must be included, except ship\_to\_address2 which is always optional.



Table 12 Payment Request Fields for the SCMP API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
merchant_ref_number	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 on the Business Center and in CyberSource reports. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	Required for CyberSource front-end processing; not used by the processor.	String (50)
offerN: amount	Per-item price of the product. You must include either <b>offer0</b> and this field, or the request-level field <b>grand_total_amount</b> in your request. The maximum amount is 50000.00.  This value cannot be negative. You can include a decimal point (.) in this field, but you cannot include any other special characters. The amount is truncated at the request level to the correct number of decimal places.	Required by the processor if <b>grand_total_amount</b> is not in the request.	Decimal (15)
payment_mode	Payment Mode. Contact PayEase for the mapping of the supported payment system names to the PayEase payment mode values. Ask for the report titled <i>Banks &amp; Payment Channels Supported by PayEase Payment Platform</i> .	Required by the processor.	Integer (3)
return_url	URL that is used to return the customer to your Web site after the transaction. Do not include parameters at the end of the URL. Example of correct URL:  <code>http://example.com/checkout.jsp</code>  Example of incorrect URL:  <code>http://example.com/checkout.jsp?orderId=12345</code>	Required by the processor.	String (512)
ship_to_address1	First line of the shipping address.	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (60)
ship_to_address2	Second line of the shipping address.	Optional.	String (60)

\* If one shipping field is included, they all must be included, except ship\_to\_address2 which is always optional.

Table 12 Payment Request Fields for the SCMP API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
ship_to_city	City of the shipping address.	If any shipping information is in the request and if the shipping country is the U.S. or Canada, this field is required for CyberSource front-end processing.*	String (50)
ship_to_country	Country of the shipping address. Use the two-character <i>ISO Standard Country Codes</i> .	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (2)
ship_to_firstname	Entire name or first name of the recipient.	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (60)
ship_to_lastname	Last name of the recipient.	Optional if the recipient's first name and last name are combined as a single value in the ship-to first-name field; otherwise, required for CyberSource front-end processing if any shipping information is in the request.*	String (60)
ship_to_phone	Phone number for the shipping address.  Include the country code.	If any shipping information is in the request, this field is required for CyberSource front-end processing.*	String (20)

\* If one shipping field is included, they all must be included, except ship\_to\_address2 which is always optional.

Table 12 Payment Request Fields for the SCMP API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
ship_to_zip	<p>Postal code for the shipping address. The postal code must consist of 5 to 9 digits.</p> <p>When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits]</p> <p><b>Example</b> 12345-6789</p> <p>When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric]</p> <p><b>Example</b> A1B 2C3</p> <p>If the shipping country is not the U.S. or Canada, any string up to 9 characters is accepted.</p>	If any shipping information is in the request and if the shipping country is the U.S. or Canada, this field is required for CyberSource front-end processing.*	String (9)

\* If one shipping field is included, they all must be included, except ship\_to\_address2 which is always optional.

## Payment Reply Fields

Table 13 Payment Reply Fields for the SCMP API

Field Name	Description	Data Type & Length
china_payment_amount	Total amount of the payment.	Decimal (15)
china_payment_form_data	Fully formatted text that you must send to the processor to request the payment transaction. Do not modify this data in any way. See <a href="#">"Sending the Form Data to the Processor," page 26</a> .	String (2000)
china_payment_rcode	<p>One-digit code that indicates whether the <b>ics_china_payment</b> request was successful. Possible values:</p> <ul style="list-style-type: none"> <li>■ -1 : An error occurred.</li> <li>■ 0 : The request was declined.</li> <li>■ 1 : The request was successful.</li> </ul> <p>For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a>.</p>	Integer (1)
china_payment_request_time	<p>Time of the payment request in GMT. Format: YYYY-MM-DDThhmmssZ</p> <p>Example: 2007-08-11T224757Z is August 11, 2007, at 10:47:57 P.M. The T separates the date and the time. The Z indicates UTC, which is the same as GMT.</p>	Date and time (20)

Table 13 Payment Reply Fields for the SCMP API (Continued)

Field Name	Description	Data Type & Length
china_payment_rflag	One-word description of the result of the <b>ics_china_payment</b> request. See <a href="#">Appendix D, "SCMP API Reply Flags," on page 66</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)
china_payment_rmsg	Message that explains the reply flag <b>china_payment_rflag</b> . Do not display this message to the customer and do not use this field to write an error handler. For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (255)
china_payment_trans_ref_no	Value that identifies the transaction in the processor's system. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (60)
china_payment_verify_failure	Verification value for a request that failed. Use this value to verify the response message from the processor. See <a href="#">"Verifying the Response from the Processor," page 27</a> .	String (82)
china_payment_verify_in_process	Verification value for a request that is in process. Use this value to verify the response message from the processor. See <a href="#">"Verifying the Response from the Processor," page 27</a> .	String (82)
china_payment_verify_success	Verification value for a request that succeeded. Use this value to verify the response message from the processor. See <a href="#">"Verifying the Response from the Processor," page 27</a> .	String (82)
currency	Currency used for the order. Possible values: <ul style="list-style-type: none"> <li>■ CNY (RMB)</li> <li>■ USD</li> </ul>	String (5)
ics_rcode	One-digit code that indicates whether the entire request was successful. Possible values: <ul style="list-style-type: none"> <li>■ -1 : An error occurred.</li> <li>■ 0 : The request was declined.</li> <li>■ 1 : The request was successful.</li> </ul> For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (1)
ics_rflag	One-word description of the result of the entire request. See <a href="#">Appendix D, "SCMP API Reply Flags," on page 66</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)
ics_rmsg	Message that explains the reply flag <b>ics_rflag</b> . Do not display this message to the customer and do not use this field to write an error handler. For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (255)

Table 13 Payment Reply Fields for the SCMP API (Continued)

Field Name	Description	Data Type & Length
merchant_ref_number	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 contain corrupted characters. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)
request_id	Identifier for the request generated by the software client. For more information about request IDs, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (26)
request_token	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.	String (256)

## Refund Request Fields

Table 14 Refund Request Fields for the SCMP API

Field Name	Description	Required / Optional	Data Type & Length
china_payment_request_id	The <b>request_id</b> returned from a previous request for <b>ics_china_payment</b> . Creates a follow-on refund by linking the refund to the previous payment. For more information about request IDs, see <a href="#">Getting Started with CyberSource Advanced</a> .	Required for CyberSource front-end processing; not used by the processor.	String (26)
china_payment_request_token	The <b>request_token</b> value returned from a previous request for <b>ics_china_payment</b> .  The field is an encoded string that contains no confidential information, such as an account number or card verification number. The string can contain a maximum of 256 characters.	Required for CyberSource front-end processing; not used by the processor.	String (256)
grand_total_amount	Grand total for the order. You must include either this field or <b>offer0</b> and the offer-level field amount. The maximum amount is 50000.00.	Required by the processor if there are no offer lines in the request.	Decimal (15)

Table 14 Refund Request Fields for the SCMP API (Continued)

Field Name	Description	Required / Optional	Data Type & Length
ics_applications	Service to process for the request. For a refund request, this value should be <b>ics_china_refund</b> .	Required for CyberSource front-end processing; not used by the processor.	String (255)
merchant_id	Your CyberSource merchant ID. Use the same <b>merchant_id</b> field for evaluation, testing, and production. Your CyberSource merchant ID field must correspond to only one PayEase merchant ID. Likewise, your PayEase merchant ID must correspond to only one CyberSource merchant ID.	Required for CyberSource front-end processing; not used by the processor.	String (30)
merchant_ref_number	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 on the Business Center and in CyberSource reports. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	Required for CyberSource front-end processing; not used by the processor.	String (50)
offerN: amount	Per-item price of the product. You must include either <b>offer0</b> and this field, or the request-level field <b>grand_total_amount</b> in your request. The maximum amount is 50000.00.  This value cannot be negative. You can include a decimal point (.) in this field, but you cannot include any other special characters. The amount is truncated at the request level to the correct number of decimal places.	Required by the processor if <b>grand_total_amount</b> is not in the request	Decimal (15)
refund_reason	Reason for the refund. Free-text explanation of why the refund is being processed. Banks prefer that the explanation be in Chinese so that bank employees can understand it easily.	Required by the processor.	String (80)

## Refund Reply Fields

**Table 15 Refund Reply Fields for the SCMP API**

Field Name	Description	Data Type & Length
china_refund_amount	Total amount of the refund.	Decimal (15)
china_refund_rcode	One-digit code that indicates whether the <b>ics_china_refund</b> request was successful. Possible values: <ul style="list-style-type: none"> <li>■ -1 : An error occurred.</li> <li>■ 0 : The request was declined.</li> <li>■ 1 : The request was successful.</li> </ul> For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (1)
china_refund_request_time	Time of the refund request in GMT. Format: YYYY-MM-DDThhmmssZ Example: 2007-08-11T224757Z is August 11, 2007, at 10:47:57 P.M. The T separates the date and the time. The Z indicates UTC, which is the same as GMT.	Date and time (20)
china_refund_rflag	One-word description of the result of the <b>ics_china_refund</b> request. See <a href="#">Appendix D, "SCMP API Reply Flags," on page 66</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)
china_refund_rmsg	Message that explains the reply flag <b>china_refund_rflag</b> . Do not display this message to the customer and do not use this field to write an error handler. For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (255)
currency	Currency used for the order. Possible values: <ul style="list-style-type: none"> <li>■ CNY (RMB)</li> <li>■ USD</li> </ul>	String (5)
ics_rcode	One-digit code that indicates whether the entire request was successful. Possible values: <ul style="list-style-type: none"> <li>■ -1 : An error occurred.</li> <li>■ 0 : The request was declined.</li> <li>■ 1 : The request was successful.</li> </ul> For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	Integer (1)
ics_rflag	One-word description of the result of the entire request. See <a href="#">Appendix D, "SCMP API Reply Flags," on page 66</a> . For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)

Table 15 Refund Reply Fields for the SCMP API (Continued)

Field Name	Description	Data Type & Length
ics_rmsg	Message that explains the reply flag <b>ics_rflag</b> . Do not display this message to the customer and do not use this field to write an error handler. For more information about handling replies, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (255)
merchant_ref_number	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 contain corrupted characters. For more information about order tracking, see <a href="#">Getting Started with CyberSource Advanced</a> .	String (50)
request_id	Identifier for the request generated by the software client.	String (26)
request_token	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.	String (256)



# Simple Order API Reason Codes

The following table describes the reason codes that can be returned by the Simple Order API for the PayEase China Processing services. See [Getting Started with CyberSource Advanced](#) for a discussion of replies, decisions, and reason codes.



**Important**

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

- You need to 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 use the **decision** field to obtain the result if it receives a reason code that it does not recognize.

**Table 16 Reason Codes for the Simple Order API**

Reason Code	Description
102	One or more fields in the request contain invalid data. Examine the reply fields <b>invalidField_0...N</b> to see which fields are invalid. Resend the request with the correct information. For more information about missing and invalid fields, see <a href="#">Getting Started with CyberSource Advanced</a> .
101	The request is missing one or more required fields. Examine the reply fields <b>missingField_0...N</b> to see which fields are missing. Resend the request with the complete information. For more information about missing and invalid fields, see <a href="#">Getting Started with CyberSource Advanced</a> .
150	System error. You must design your transaction management system to include a way to correctly handle CyberSource system errors. Depending on which payment processor is handling the transaction, the error might indicate a valid CyberSource system error, or it might indicate a processor rejection because of some type of invalid data. In either case, CyberSource recommends that you do not design your system to endlessly try to resend a transaction when a system error occurs. See the documentation for the CyberSource client (SDK), that you are using for important information about how to handle system errors and retries.
100	Transaction was successful.

# SCMP API Reply Flags

The following table describes the reply flags that the SCMP API can return for the PayEase China Processing services. See [Getting Started with CyberSource Advanced](#) for a discussion of replies and reply flags.



### Important

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

- You need to 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 reply codes and reply flags without problems.
- Your error handler should use the **ics\_rcode** field to determine the result if it receives a reply flag that it does not recognize.

**Table 17 Reply Flags for the SCMP API**

Reply Flag	Description
DINVALIDDATA	One or more fields in the request contain invalid data. Resend the request with the correct information.
DMISSINGFIELD	The request is missing one or more required fields. Resend the request with the complete information.
ESYSTEM	System error. You must design your transaction management system to include a way to correctly handle CyberSource system errors. Depending on which payment processor is handling the transaction, the error might indicate a valid CyberSource system error, or it might indicate a processor rejection because of some type of invalid data. In either case, CyberSource recommends that you do not design your system to endlessly try to resend a transaction when a system error occurs. See the documentation for the CyberSource client (SDK), that you are using for important information about how to handle system errors and retries.
SOK	Transaction was successful.

# PayEase Response Fields

The following table describes the fields that PayEase sends to you after you send the form data to PayEase.

**Table 18 Fields in the Payment Response from PayEase**

Field Name	Description	Data Type & Length
v_amount	Total amount of the payment.	Numeric (9)
v_md5info	Fingerprint data. For internal processor use only.	String (32)
v_md5money	Fingerprint data. For internal processor use only.	String (16)
v_moneytype	Currency. Possible values: <ul style="list-style-type: none"> <li>■ 0: CNY (RMB)</li> <li>■ 1: USD</li> </ul>	Numeric (1)
v_oid	Order ID. This value is the same as one of the values included in the payment reply message from CyberSource: <ul style="list-style-type: none"> <li>■ For the Simple Order API: <b>chinaPaymentReply_reconciliationID</b></li> <li>■ For the SCMP API: <b>china_payment_trans_ref_no</b></li> </ul>	Numeric (60)
v_pmode	Payment method. Bank name and/or bank number, usually in Chinese.	String (40)
v_pstatus	Payment status. Possible values: <ul style="list-style-type: none"> <li>■ 1: order is in process.</li> <li>■ 20: payment was successful.</li> <li>■ 30: payment failed.</li> </ul> <p>All transactions except American Express transactions are processed online. For these online transactions, the only possible <b>v_pstatus</b> field values are 20 and 30.</p> <p>Only American Express transactions are batched. A <b>v_pstatus</b> value of 1 indicates that the American Express transaction is waiting to be processed.</p>	Numeric (2)

Table 18 Fields in the Payment Response from PayEase (Continued)

Field Name	Description	Data Type & Length
v_pstring	<p>Payment string. Description of the payment status. Possible values:</p> <ul style="list-style-type: none"> <li>■ <code>submitted</code>: order is in process (<code>v_pstatus</code> = 1).</li> <li>■ <code>payment successful</code>: payment was successful (<code>v_pstatus</code> = 20).</li> <li>■ A string describing the reason for the payment failure: payment failed (<code>v_pstatus</code> = 30).</li> </ul>	String (800)
v_sign	<p>Verification value. Use this value to verify the response message from the processor:</p> <ul style="list-style-type: none"> <li>■ For the Simple Order API: see <a href="#">"Verifying the Response from the Processor," page 22.</a></li> <li>■ For the SCMP API: see <a href="#">"Verifying the Response from the Processor," page 27.</a></li> </ul>	String (256)
v_url	Return URL. Value that you included in your original payment request to CyberSource.	String (512)

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