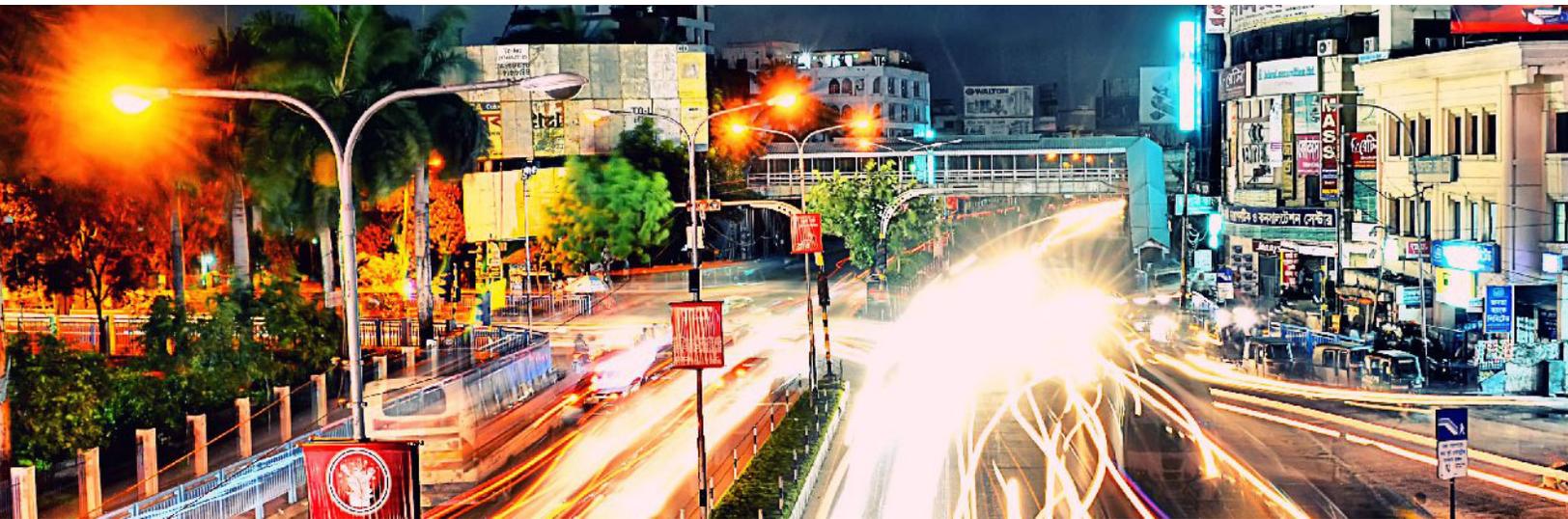# Electronic Check Services

User Guide

cybersource
A Visa Solution

Cybersource Contact Information

For general information about our company, products, and services, go to http://www.cybersource.com.

For sales questions about any Cybersource service, email sales@cybersource.com or call 650-432-7350 or 888-330-2300 (toll free in the United States).

For support information about any Cybersource service, visit the Support Center:
http://www.cybersource.com/support

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Revision: December 2020

Contents

Recent Revisions to This Document

Release	Changes
December 2020	Removed support for Canadian dollars and Canadian accounts.
	Wells Fargo ACH: updated the check_secCode field.
June 2020	Updated the following services throughout this document:
	■ *Payment Tokenization* to *Token Management Service*
	■ *PayPal Services* to *PayPal Express Checkout*
November 2019	This revision contains only editorial changes and no technical updates.
February 2019	Wells Fargo ACH: removed support for merchant-generated transaction identifiers.
July 2018	Added "Numbered Elements," page 45.
	TeleCheck: updated link to TeleCheck document in Step 2 of "Legal Compliance Text," page 12.
October 2016	Updated information about payment authorization for a debit. See "Internet Check Acceptance Authorization—Full Debit," page 12.
	Wells Fargo ACH: updated the data type and length for the **invoiceHeader_ merchantDescriptorAlternate** field. See "Request Fields," page 46.

About This Guide

Audience

This guide is written for application developers who want to use the Cybersource Simple Order API to integrate electronic check processing into their order management system.

Implementing the Cybersource electronic check services requires software development skills. You must write code that uses the API request and reply fields to integrate the electronic check services into your existing order management system.

Purpose

This guide describes tasks you must complete to integrate the electronic check services into your existing order management system.

Conventions

The following special statements are used in this document:

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

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

The following text conventions are used in this document:

Table 1   Text Conventions

Convention	Meaning
boldface	Boldface type indicates API field names, API service names, and graphical user interface elements that you must act upon.
`monospace`	Monospace type indicates URLs, code in examples, or possible values for API fields.

Related Documentation

- *Getting Started with CyberSource Essentials* describes how to get started using the Simple Order API. (PDF | HTML)

- The *Business Center Reporting User Guide* describes how to download reports (PDF | HTML)

- The *Secure Acceptance Checkout API Integration Guide* describes how to create a customized Secure Acceptance checkout. (PDF | HTML)

- The *Secure Acceptance Hosted Checkout Integration Guide* describes how to create a Secure Acceptance hosted checkout. (PDF | HTML)

Introduction to Electronic Check Services

Payment Processors

To use the Cybersource Electronic Check Services, you must register with one of these processors:

- Chase Paymentech Solutions
- Cybersource ACH Service
- RBS WorldPay Atlanta
- TeleCheck

Chase Paymentech Solutions

Supports U.S. Dollars (USD) for U.S. bank accounts.

Chase Paymentech Solutions provides you with unique identification numbers for your account. You must provide these identification numbers to your Cybersource Sales Representative.

Chase Paymentech Solutions acts as both a processor and a merchant bank, which is a bank that offers accounts for businesses that accept credit card or electronic check payments. If you choose Chase Paymentech Solutions as your processor, you must also open a check-enabled merchant bank account with them. However, you can set up the account to deposit the electronic check funds you receive directly into your primary account at another bank.

Cybersource ACH Service

Supports U.S. Dollars (USD) for U.S. bank accounts.

If Cybersource ACH Service is your processor, you must have a treasury relationship with one of the following originating depository financial institutions (ODFIs):

- Bank of America
- Wells Fargo

Cybersource ACH Solutions provides you with unique identification numbers for your account. You must provide these identification numbers to your Cybersource sales representative.

RBS WorldPay Atlanta

Supports U.S. Dollars (USD) for U.S. bank accounts.

RBS WorldPay Atlanta provides you with unique identification numbers for your account. You must provide these identification numbers to your Cybersource sales representative.

TeleCheck

Supports U.S. Dollars (USD) for U.S. bank accounts.

TeleCheck provides you with unique identification numbers for your account. You must provide these identification numbers to your Cybersource sales representative.

If TeleCheck is your processor, you do not need to open a check-enabled merchant bank account. TeleCheck can deposit funds directly into your existing bank account.

Legal Compliance Text

Internet Check Acceptance Authorization—Full Debit

To process electronic checks:

Step 1 On your web site, add a link to the table of current state returned check fees: http://www.firstdata.com/support/telecheck_returned_check/returned_check_fees.htm. Because this table is updated regularly, Cybersource recommends that you link directly to it. You can display the state fees table in a pop-up window, a full browser window, or directly on the checkout page.

Step 2 If TeleCheck is your processor, you must display a terms and conditions statement for electronic checks as part of the checkout process. For specific instructions, see pages 8 and 9 in the *TeleCheck Activation Guide*.

Step 3 At the end of the checkout process on your web site, display a consent statement for the check authorization that your customer *must accept* before submitting the order. The authorization consent statement must:

- Be readily identifiable as an authorization.

- Clearly and conspicuously state its terms, including the transfer amount and the effective date of the transfer, as specified in the following language examples.

- Include the routing number and bank account number to be debited, as specified in the following language examples.

Example 1   Language for a Payment Authorization for a Debit

Today, being `[date]`, I, `[insert consumer's name]`, by entering my routing and account number above and clicking "Authorize," I authorize my payment in the amount indicated above to be processed as an electronic funds transfer (EFT) or draft drawn from my checking or savings account as indicated above and, if necessary, to have my account electronically credited to correct erroneous debits. I understand that my payment will be processed within 1-2 banking days. If the payment returns unpaid, I authorize you or your service provider to collect the payment and my state's return item fee and, if applicable, costs, by EFT(s) or draft(s) drawn from my account. **<u>Click here to view your state's returned item fee and, if applicable, costs.</u>** I understand that this authorization will remain in full force and effect until I notify you that I wish to revoke it by calling `[insert phone #]` and allow you reasonable opportunity to act on my notice.

PLEASE PRINT A COPY OF THIS PAGE FOR YOUR RECORDS. ALTERNATIVELY, CONTACT US AT `[(XXX) XXX-XXXX]` **TO LEARN HOW YOU CAN OBTAIN A COPY.**

Internet Check Acceptance Authorization—Recurring Payments

Example 2   Language for a Payment Authorization for Recurring Payments

Today, being [date], by entering my routing and account number above and clicking "Authorize," I authorize my payments [insert information on payments – amounts, dates, and/or frequency of debits] to be processed as electronic funds transfers (EFT) or drafts drawn from my checking or savings account as indicated above and, if necessary, electronic credits to my account to correct erroneous debits. I understand that my payment will process within 1-2 banking days. If any of my payments return unpaid, I authorize you or your service provider to collect the returned payment and my state's return item fee for each such payment by EFT(s) or draft(s) drawn from my account. **Click here to view your state's returned item fee and, if applicable, costs.** I understand that this authorization will remain in full force and effect until I notify you that I wish to revoke it by calling [insert phone number] and allowed you reasonable opportunity to act on my notice.

PLEASE PRINT A COPY OF THIS PAGE FOR YOUR RECORDS. ALTERNATIVELY, CONTACT US AT [(XXX) XXX-XXXX] **TO LEARN HOW YOU CAN OBTAIN A COPY.**

Checks by Phone Authorization—Full Debit

At the end of the checkout process, the consent text must be read to the customer, and you must either audio record the customer's authorization or send a written notification of the authorization and the transaction to the customer prior to settlement of the transaction. The consent text for the customer to accept prior to submitting the payment authorization is as follows:

Example 3   Language for a Payment Authorization over the Telephone

---

Today, `[insert today's date]`, I'd like to confirm that you, `[insert first and last name of consumer]`, are authorizing a one-time payment in the amount of `[insert amount]` to be processed as an electronic funds transfer or draft drawn from your `[specify checking or savings]` account identified as routing number `[insert routing number]` and account number `[insert bank account number]` and, if necessary, electronic credits to your account to correct erroneous debits.

Your payment will be processed within 1-2 banking days. Do you authorize your account to be debited or credited as described on or after `[insert date]`? **(If consumer answers "Yes", continue. If consumer answers "No", stop the authorization process)**.

If your payment returns unpaid, do you authorize `[insert company's name]` or its service provider to collect the payment and your state's return item fee and, if applicable, any costs in the amount of `[insert state returned item fee and applicable costs]` by electronic funds transfer(s) or draft(s) drawn from your account? **(If consumer answers "Yes", continue. If consumer answers "No", stop the authorization process)**.

You may call `[insert company's customer service phone number]` during `[insert company's customer service hours of operation]` with any questions.

Do you understand that you will have until the end of this phone call to revoke this authorization by telling me you wish to revoke it? (**If consumer answers "Yes", continue. If consumer answers "No", stop the authorization process**).

Based on the terms and conditions we have discussed, and the disclosures made to you, do you agree to and authorize the payment? **(If consumer answers "Yes", continue. If consumer answers "No", stop the authorization process)**.

Determining Whether a Check Has Cleared

You can use the Processor Events Report to keep track of your electronic check debits and identify problems that occur with funds transfers. The report is available daily and includes information from the past 24 hours that the processor has provided about your transactions, such as the clearing of a check or the denial of a check due to insufficient funds. The following table describes the event types that indicate that a check has probably cleared.

⚠️ Due to the nature of electronic check processing, Cybersource does not guarantee that a check has truly cleared.

Table 2   Event Types Related to Determining Whether a Check Has Cleared

Processor	Event Type
Chase Paymentech Solutions	The Processor Events Report does not indicate that a check has cleared; it shows only problems that occur with funds transfers.
	Important If you use Chase Paymentech Solutions, you must contact them and request that they send their electronic check declines file to Cybersource. Then contact Cybersource Sales with your Chase Paymentech Solutions MA number so that your Cybersource account can be configured appropriately.
Cybersource ACH Service	The event type listed in the Processor Events Report is "Payment" when the ODFI receives a debit request.
	■ *Bank of America ACH:* to see an event type of "Completed" when the check clears, contact Customer Support to have your account configured. Cybersource does not recommend using this event type because it is not a reliable indication that a check has cleared.
	■ *Wells Fargo ACH:* after receiving the debit request, the ODFI waits for three days, and if the bank does not inform them of any problems with the funds transfer, they consider the check cleared. The event type listed in the report is "Completed" when the check clears. Cybersource does not guarantee that the check has truly cleared.
TeleCheck	The event type listed in the Processor Events Report is "Payment" when a check clears.

Order Tracking

See *Getting Started with CyberSource Essentials* for information about order tracking. This section provides the names of the API fields that are used for order tracking for the electronic check services.

Request IDs

For all Cybersource services, the request ID is returned in the reply messages in **requestID**. The following table lists the field names for the request IDs in request messages.

Table 3   Field Names for Request IDs in Request Messages

Service	Request ID Field
Electronic check credit	ecCreditService_debitRequestID
Electronic check debit	ecDebitService_debitRequestID
Void	voidService_voidRequestID

Reconciliation IDs

The following table lists the field names for the reconciliation IDs, which are returned in the reply messages.

Table 4   Field Names for Reconciliation IDs

Service	Reconciliation ID Field Name
Electronic check debit	ecDebitReply_reconciliationID
Electronic check credit	ecCreditReply_reconciliationID

Check Reference Numbers

The information in this section applies to all processors except Wells Fargo ACH. For Wells Fargo ACH, Cybersource generates a unique transaction identifier.

The check reference number is a value you can send in a request to track transactions through to the processor for reconciliation. If you do not include this field in your request, Cybersource generates a unique value for you and returns it in the reply message.

The following table lists the field names for the check reference numbers in request and reply messages.

Table 5   Field Names for Check Reference Numbers

Service	Check Reference Number Field Name in Requests	Check Reference Number Field Name in Replies[1]
Electronic check debit	ecDebitService_ referenceNumber	ecDebitReply_reconciliationID
Electronic check credit	ecCreditService_ referenceNumber	ecCreditReply_reconciliationID

1   The reply fields for the check reference numbers are the same as the reconciliation ID fields.

Processor Transaction Identifiers

The information in this section applies to all processors except Wells Fargo ACH. For Wells Fargo ACH, Cybersource generates a unique transaction identifier.

The processor transaction identifier is a value assigned by the processor that you can use for reconciliation. The following table lists the field names for the processor transaction identifiers, which are returned in the reply messages.

Table 6   Field Names for Processor Transaction Identifiers

Service	Processor Transaction Identifier Field Name
Electronic check debit[1]	ecDebitReply_processorTransactionID
Electronic check credit[2]	ecCreditReply_processorTransactionID

1   Not supported for Chase Paymentech Solutions.
2   Not supported for Chase Paymentech Solutions and TeleCheck.

Electronic Check Processing

Electronic Check Debits

Requesting a Debit

To request an electronic check debit, set the **ecDebitService_run** field to `true`. When you request a debit, do not request any of the following services at the same time:

- Any credit card services: **ccAuthService**, **ccAuthReversalService**, **ccCaptureService**, **ccCreditService**. For information about these services, see *Credit Card Services User Guide*.

- Electronic check credit: **ecCreditService**. For information about this service, see "Electronic Check Credits," page 26.

- PayPal payment or credit: **payPalPaymentService**, **payPalCreditService**. For information about these services, see the *PayPal Express Checkout Services Using the Simple Order API*.

Handling Customer Account Information

Merchant-Provided Data

Service:

- Debit

Processors:

- Chase Paymentech Solutions
- Cybersource ACH Service
- RBS WorldPay Atlanta
- TeleCheck

Merchant-provided data handling requires you to collect the customer's account information and provide it in your service request. The required fields are:

- check_accountNumber
- check_accountType
- check_bankTransitNumber

You must modify your web site to collect the account information. Retain the account information for future transactions, such as credits.

Customers might not know how to use their printed checks to find the bank routing number and the bank account number. Consider using a graphic like this on your web site:

Example 4   Check Showing Routing Number and Account Number

The following events occur when you request a debit:

1   Your customer places an order.

2   You request an electronic check debit.

3   In your request, you provide the customer's account information.

4   Cybersource sends the customer's account information and other information about the transaction to the check processor.

5   The payment processor validates the information and performs basic fraud screening.

    The processor does not contact the customer's bank to verify the existence of the customer's account; it makes sure that only the information provided by the customer is reasonable and that the account is not a known source of fraud.

    Depending on which processor you use, if there are problems with the account that prevent the transaction from being completed, the processor might charge you a returned check fee.

6   The payment processor sends a reply to Cybersource indicating whether or not the debit will be processed.

7   Cybersource sends a reply to you.

8   You display an appropriate message to your customer.

9   The processor sends the request for clearing.

Notifications of Change (NOCs)

Services:
- Credit
- Debit

Processors:
- Cybersource ACH Service
- RBS WorldPay Atlanta

A Notification of Change (NOC) is a notice from a customer's bank indicating that an electronic check transaction included incorrect customer or payment information. The customer's bank:

1   Corrects the information.

2   Posts the transaction to the customer's bank account.

3   Notifies you that payment information needs to be updated.

Each NOC includes a code that specifies what needs to be changed. You are responsible for taking the appropriate action when you receive a NOC.

You must correct all applicable records before submitting additional electronic check transactions for the customer. If you are using the Token Management Service or Recurring Billing, you must update the information in your tokens, subscriptions, or customer profiles.

Cybersource maintains a database of all NOC entries. Repeated attempts to resubmit an uncorrected transaction could result in a fine and possible sanctions from the National Automated Clearing House Association (NACHA).

To get information about the NOCs for your transactions:

Step 1 Create a PGP key pair as described in *Creating and Using Security Keys*.

Step 2 Log in to the Business Center and view the NOC Report, which is available under Transaction Reports.

You can also talk to your bank about getting a report that includes NOCs. NOC codes are described in Appendix E, "NOC Codes," on page 70.

Optional Features for Debits

For information about optional features such as subscriptions and deferred payments, see "Optional Features," page 33.

Debit Request Fields

For detailed descriptions of these fields, see "Request Fields," page 46.

On TeleCheck, request field values must not contain ampersands (&).

- billTo_city
- billTo_company
- billTo_companyTaxID
- billTo_country
- billTo_driversLicenseNumber
- billTo_driversLicenseState
- billTo_email
- billTo_firstName
- billTo_ipAddress
- billTo_lastName
- billTo_phoneNumber
- billTo_postalCode
- billTo_state
- billTo_street1
- billTo_street2
- check_accountEncoderID

- check_accountNumber
- check_accountType
- check_bankTransitNumber
- check_checkNumber
- check_secCode
- ecDebitService_commerceIndicator
- ecDebitService_debitRequestID
- ecDebitService_paymentInfo
- ecDebitService_paymentMode
- ecDebitService_referenceNumber
- ecDebitService_run
- ecDebitService_settlementMethod
- ecDebitService_verificationLevel
- invoiceHeader_merchantDescriptor
- item_#_productCode
- item_#_productName
- item_#_productSKU
- item_#_quantity
- item_#_taxAmount
- item_#_unitPrice
- linkToRequest
- merchantID
- merchantReferenceCode
- purchaseTotals_currency
- purchaseTotals_grandTotalAmount
- recurringSubscriptionInfo_subscriptionID

Verification and Validation

⚠️ Even if an account passes validation and verification tests, the transaction can be rejected at the time of settlement. The bank from which the check is drawn does not participate in the verification or validation process. Therefore, an account can pass the verification and validation tests and the transaction can still be rejected if there are not sufficient funds in the account or if the bank account number is invalid.

The following table indicates the types of verification and validation supported for each processor.

Table 7   Types of Verification and Validation

Payment Processor	Validation	ACH Verification	Guarantees	Paymentech Verification
Chase Paymentech Solutions	Yes	No	No	Yes
Cybersource ACH Services	No	Yes	No	No
TeleCheck	Yes	No	Yes	No
RBS	No	Yes	No	No

Validation

Service:

■   Debit

Processors:

■   Chase Paymentech Solutions

■   TeleCheck

📝 For the Cybersource ACH Service, validation is included in the ACH verification functionality, which happens automatically when you call the debit or credit services.

Chase Paymentech Solutions and TeleCheck

⚠️ For the TeleCheck service, contact Cybersource Customer Support for information about validation.

Validation consists of format tests, bank routing number tests, and a comparison with the check processing partner's internal negative file. Set **ecDebitService_verificationLevel** to 1 to request validation with your debit request.

ACH Verification

Services:

■ Credit

■ Debit

Processors:

■ Cybersource ACH Service

■ RBS WorldPay Atlanta

ACH verification is performed automatically for all debit and credit requests for the Cybersource ACH Service and RBS WorldPay Atlanta. ACH verification:

1 Validates the format and structure of the customer's bank account number. If the account number needs to be corrected, and if a corrected account number is available, Cybersource returns the corrected account number to you in one of these fields:

■ ecDebitReply_correctedAccountNumber

■ ecCreditReply_correctedAccountNumber

2 Verifies that the customer's routing number is a valid routing number and valid for electronic transactions. If the routing number needs to be corrected, and if a corrected routing number is available, Cybersource returns the corrected routing number to you in one of these fields:

■ ecDebitReply_correctedRoutingNumber

■ ecCreditReply_correctedRoutingNumber

📝 If a corrected account number or corrected routing number is returned to you, you can use the value to update the information in your system. You do not need to update the information for the current transaction because Cybersource already updated the information before sending the transaction request to your bank.

3   Returns verification codes to you whether or not the account number or routing number was corrected. These verification codes indicate the results of the ACH verification. One of these verification codes is a mapped value and is returned in one of these fields:

- ecDebitReply_verificationCode
- ecCreditReply_verificationCode

The other verification code is a raw value and is returned in one of these fields:

- ecDebitReply_verificationCodeRaw
- ecCreditReply_verificationCodeRaw

The verification codes have enumerated values that are described in .

Guarantees

Service:

- Debit

Processor:

- TeleCheck

> Contact TeleCheck for information about check guarantees.

Paymentech Verification

Service:

- Debit

Processor:

- Chase Paymentech Solutions

> If you use the Paymentech verification feature, the Fair Credit Reporting Act (FCRA) requires that you notify your customer when an electronic check transaction is declined as a result of the verification process.

Paymentech verification compares the transaction information with an external negative file to identify accounts that have a history of bad checks or that were closed for cause. Set **ecDebitService_verificationLevel** to 2 to request Paymentech verification with your debit request.

Electronic Check Credits

Requesting a Credit

To request an electronic check credit, set the **ecCreditService_run** field to `true`. When you request a credit, do not request any of the following services at the same time:

- Any credit card services: **ccAuthService**, **ccAuthReversalService**, **ccCaptureService**, **ccCreditService**. For information about these services, see *Credit Card Services User Guide*.

- Electronic check debit: **ecDebitService**. For information about this service, see "Electronic Check Debits," page 18.

- PayPal payment or credit: **payPalPaymentService**, **payPalCreditService**. For information about these services, s*ee PayPal Express Checkout Services Using the Simple Order API.*

Follow-On Credits and Stand-Alone Credits

There are two kinds of credits:

- Follow-on—all processors support this feature. Send the credit request with the request ID from the debit reply. Cybersource uses this value to retrieve all customer billing and account information that you sent with the debit so that you do not have to send it again with the credit.

- Stand-alone—all processors except TeleCheck support this feature. You need to include all customer billing and account information because Cybersource does not retrieve anything from the database.

⚠️   Cybersource stores the debit information for 60 days, so you must process follow-on credits within 60 days of the debit request. If the 60 days have passed or if you are not sure if the 60 days have passed, use a stand-alone credit and provide all customer billing and account information.

Deciding Which Kind of Credit to Request

- All processors except TeleCheck**:** if you are sending the credit request within 60 days of the debit request, send a follow-on credit so that you are not required to provide all customer information. If you are sending the credit request more than 60 days after the debit request, send a stand-alone credit.

- TeleCheck**:** you must send the credit request within 60 days of the debit request. The credit request must be a follow-on credit, which means you do not need to provide all customer information. Cybersource retrieves all required information from the database, including the identifier that the processor uses to link the credit to the debit. By linking the credit to the debit, the processor can prohibit a credit amount that exceeds the debit amount.

Follow-On Credits

A follow-on credit uses the request ID from a previous **ecDebitService** request to link the credit to the debit. Send the request ID value in the **ecCreditService_debitRequestID** field. Cybersource uses this value to look up the customer's billing and account information from the original debit; you are not required to include this field in the **ecCreditService** request.

A follow-on credit must be for a debit request that included a payment; **ecDebitService_paymentMode**=0 or 2. A follow-on credit cannot be for a debit request in which **ecDebitService_paymentMode**=1.

If you combine a request for a follow-on credit with a request for another service, you must provide the customer's billing and account information.

Stand-Alone Credits

A stand-alone credit does not link the credit to a previous debit request. Do not send the **ecCreditService_debitRequestID** field in the credit request; the request must include the fields for the customer's billing and account information.

ACH Verification

Services:

- Credit
- Debit

Processors:

- Cybersource ACH Service
- RBS WorldPay Atlanta

ACH verification is performed automatically for all debit and credit requests for the Cybersource ACH Service and RBS WorldPay Atlanta. ACH verification:

1 Validates the format and structure of the customer's bank account number. If the account number needs to be corrected, and if a corrected account number is available, Cybersource returns the corrected account number to you in one of these fields:

- ecDebitReply_correctedAccountNumber
- ecCreditReply_correctedAccountNumber

2 Verifies that the customer's routing number is a valid routing number and valid for electronic transactions. If the routing number needs to be corrected, and if a corrected routing number is available, Cybersource returns the corrected routing number to you in one of these fields:

- ecDebitReply_correctedRoutingNumber
- ecCreditReply_correctedRoutingNumber

> If a corrected account number or corrected routing number is returned to you, you can use the value to update the information in your system. You do not need to update the information for the current transaction because Cybersource already updated the information before sending the transaction request to your bank.

3 Returns verification codes to you whether or not the account number or routing number was corrected. These verification codes indicate the results of the ACH verification. One of these verification codes is a mapped value and is returned in one of these fields:

- ecDebitReply_verificationCode
- ecCreditReply_verificationCode

The other verification code is a raw value and is returned in one of these fields:

- ecDebitReply_verificationCodeRaw
- ecCreditReply_verificationCodeRaw

The verification codes have enumerated values that are described in Table 13, "Reply Fields," on page 59.

Notifications of Change (NOCs)

Services:

■   Credit

■   Debit

Processors:

■   Cybersource ACH Service

■   RBS WorldPay Atlanta

A Notification of Change (NOC) is a notice from a customer's bank indicating that an electronic check transaction included incorrect customer or payment information. The customer's bank:

1   Corrects the information.

2   Posts the transaction to the customer's bank account.

3   Notifies you that payment information needs to be updated.

Each NOC includes a code that specifies what needs to be changed. You are responsible for taking the appropriate action when you receive a NOC.

You must correct all applicable records before submitting additional electronic check transactions for the customer. If you are using the Token Management Service or Recurring Billing, you must update the information in your tokens, subscriptions, or customer profiles.

> Cybersource maintains a database of all NOC entries. Repeated attempts to resubmit an uncorrected transaction could result in a fine and possible sanctions from the National Automated Clearing House Association (NACHA).

To get information about NOCs for your transactions:

Step 1   Create a PGP key pair as described in *Creating and Using Security Keys*.

Step 2   Log in to the Business Center and view the NOC Report, which is available under Transaction Reports.

You can also talk to your bank about getting a report that includes NOCs. NOC codes are described in Appendix E, "NOC Codes," on page 70.

Optional Features for Credits

For information about optional features such as merchant descriptors and multiple partial credits, see Chapter 3, "Optional Features," on page 33.

Credit Request Fields

The fields listed below are used to request an electronic check credit. For detailed descriptions of these fields, see "Request Fields," page 46.

On TeleCheck, request field values must not contain ampersands (&).

- billTo_city
- billTo_country
- billTo_dateOfBirth
- billTo_email
- billTo_firstName
- billTo_ipAddress
- billTo_lastName
- billTo_phoneNumber
- billTo_postalCode
- billTo_state
- billTo_street1
- billTo_street2
- check_accountNumber
- check_accountType
- check_bankTransitNumber
- check_checkNumber
- check_paymentInfo
- check_secCode
- ecCreditService_commerceIndicator
- ecCreditService_debitRequestID
- ecCreditService_partialPaymentID
- ecCreditService_referenceNumber
- ecCreditService_run
- ecCreditService_settlementMethod
- ecDebitService_debitRequestID

- ecDebitService_partialPaymentID
- invoiceHeader_merchantDescriptor
- item_#_productCode
- item_#_productName
- item_#_productSKU
- item_#_quantity
- item_#_taxAmount
- item_#_unitPrice
- merchantID
- merchantReferenceCode
- purchaseTotals_currency
- purchaseTotals_grandTotalAmount
- recurringSubscriptionInfo_subscriptionID

Authentication

Processor:

- RBS WorldPay Atlanta

The authentication service is an optional service you can request for RBS WorldPay Atlanta.

To request an electronic check authentication, set the **ecAuthenticateService_run** field to `true`. The following fields are required when requesting this service:

- billTo_city
- billTo_country
- billTo_firstName
- billTo_lastName
- billTo_postalCode—5 digits
- billTo_state
- billTo_street1
- ecAuthenticateService_run
- merchantID
- merchantReferenceCode

For more information about these fields, see "API Fields," page 44.

The authentication service:

- Validates customer information such as name, address, and date of birth and returns information to you in the **ecAuthenticateReply_checkpointSummary** field.

- Provides you with consumer fraud information to help protect you against fraudulent transactions. Information is returned to you in the **ecAuthenticateReply_fraudShieldIndicators** field.

For more information, see:
- Appendix F, "Check Point Summary Codes," on page 72
- Appendix G, "Fraud Shield Indicator Codes," on page 82

Voids

A void cancels an electronic check debit or credit request that you have submitted to Cybersource. A transaction can be voided only if Cybersource has not already submitted the debit or credit information to your processor. Cybersource usually submits transaction information to your processor each day, so the period for successfully performing a void is relatively short. Cybersource declines your void request if the debit or credit information was already sent to the processor. You cannot undo a void, and you cannot perform a follow-on credit for a debit that has been voided.

Requesting a Void

To request a void for an electronic check debit or credit, set the **voidService_run** field to `true`. When you request a void, do not request any other services at the same time.

A void is a follow-on transaction that uses the request ID returned from a previous **ecDebitService** or **ecCreditService** request to link the void to the debit or credit. Send the request ID value in the **voidService_voidRequestID** field. Cybersource uses this value to look up the customer's billing and account information from the original debit or credit, which means that you are not required to include this field in the **voidService** request.

The fields listed below are used to request a void. For detailed descriptions of these fields, see "Request Fields," page 46.
- merchantID
- merchantReferenceCode
- voidService_run
- voidService_voidRequestID

Optional Features

Corporate Checks

Set **check_accountType** to X to indicate that the check is a corporate check.

Service:

- Debit

Processors:

- Chase Paymentech Solutions
- Cybersource ACH Service
- RBS WorldPay Atlanta
- TeleCheck

To process corporate checks with TeleCheck, include one of these fields in your debit request:

- billTo_driversLicenseNumber and billTo_driversLicenseState
- billTo_companyTaxID

Deferred and Partial Payments

Services:

- Debit
- Credit

Processors:

- Chase Paymentech Solutions—debit only.
- TeleCheck

Definitions:

- *Deferred payment*—if there is a delay between the time you take the order and the time you ship the product, you need to defer your payment request.

- *Partial payment*—if a customer orders multiple products but you ship them separately on different dates, you need to perform multiple partial payments as you ship the products.

Chase Paymentech Solutions

To request a deferred or partial payment:

Step 1 For the first debit request, set **ecDebitService_paymentMode** to 1 to indicate that the debit uses deferred payment and full payment. If you do not, partial payments will occur later. The default value of 0 indicates a normal debit with immediate payment.

Step 2 When you are ready to process a payment, whether it is for the full amount or a partial amount, send another debit request with **ecDebitService_paymentMode** set to 2 to indicate that you are triggering a payment.

Step 3 Repeat Step 2 for each partial payment for the order.

TeleCheck

To request a deferred or partial payment:

Step 1 For the first debit request, set the value of the **ecDebitService_paymentMode** field to 1 to indicate that the debit uses deferred payment and full payment. If you do not, partial payments will occur later. The default value of 0 indicates a normal debit with immediate payment. Including the **ecDebitService_referenceNumber** field in the request is optional.

Step 2 When you are ready to process a payment, whether it is for the full amount or a partial amount, send another debit request and do the following:

- Set the value of the **ecDebitService_paymentMode** field to 2 to indicate that you are triggering a payment.

- Set the value of the **ecDebitService_debitRequestID** field to the same value as the **ecDebitService_debitRequestID** field that you received from the original debit request in Step 1.

Step 3 Repeat Step 2 for each partial payment for the order.

Step 4   For a credit request, set the value of the **ecCreditService_debitRequestID** field to the value contained in the **ecDebitService_debitRequestID** field that you received from the debit request in Step 2. This value is used to complete the follow-on capture of the initial request.

Merchant Descriptors

Services:
- Debit
- Credit

Processor:
- Chase Paymentech Solutions
- Cybersource ACH Service
- RBS WorldPay Atlanta

You can provide a merchant descriptor that will be displayed on the customer's bank account statement. The descriptor includes your company's name and a description of the product or service that was purchased.

The merchant descriptor field overrides the corresponding value in your Cybersource account. If you do not include this field in the request, Cybersource uses the company name from your merchant account.

Before sending a merchant descriptor with a debit or credit request, check with your processor to find out if you need to register your merchant descriptor information with them.

The **invoiceHeader_merchantDescriptor** field requires a particular format:

- Characters 1-15: name of your company. If the name is fewer than 15 characters, use spaces to fill in the full 15 characters. If the name is more than 15 characters, provide only the first 15 characters of the name.

- Characters 16-25: description of the product or service.

If you use more than one consecutive space, extra spaces will be removed.

Multiple Partial Credits

Service:

■ Credit

Processors:

■ RBS WorldPay Atlanta

■ TeleCheck

When you perform multiple partial credits:

■ The amount of each individual credit cannot exceed the debit amount.

■ The total amount of all the credits cannot exceed the debit amount.

In your follow-on credit request, use the ID returned in the **ecDebitService_ debitRequestID** field. Do not use the **ecCreditService_debitRequestID** from a previous partial credit. For each partial credit, set the **ecCreditService_partialPaymentID** field to a value of your choice that is unique within the scope of the order. The processor uses the payment IDs to identify the credits that are related to an order.

If you performed partial payments for this order, you specified a unique value for the **ecDebitService_partialPaymentID** field for each payment. You cannot reuse any of those values for the order's partial credits. For example, if you used 1 and 2 for the partial payments, you must use different values, such as 3 and 4, for the partial credits.

Non-Sufficient Funds (NSF) Service

Service:

■ Debit

Processor:

■ Cybersource ACH Service

A non-sufficient funds (NSF) return occurs when the customer's bank account does not have sufficient funds to cover a specific electronic check transaction. Cybersource does not automatically resubmit charges returned from a customer's bank due to NSF. You can resubmit transactions returned as NSF one or two additional times for a total of three submissions. Continued attempts after this point may result in a fine and possible sanctions from the National Automated Clearing House Association (NACHA).

Contact your ODFI to enable the NSF service at your bank.

Token Management Service

Services:

■   Debit

■   Credit

Processors:

■   Chase Paymentech Solutions

■   Cybersource ACH Service

■   RBS WorldPay Atlanta

■   TeleCheck

Token Management Service (TMS) replaces Payment Tokenization. TMS enables you to:

■   Tokenize customers' sensitive personal information.

■   Eliminate payment data from your order management system to ensure that it is not compromised during a security breach.

When you use TMS, you can process a debit or credit by using information that is associated with a customer token. The customer token is used to reference customer information in the database. Instead of providing all the information that is normally required for a transaction, you only need to provide the following values:

■   Merchant ID

■   Merchant reference code

■   Amount of the payment or credit

■   Subscription ID

You can override most of the information associated with the customer token by including the relevant API fields in the debit or credit request. For example, you could provide a different billing or shipping address in the request. You cannot override the account number.

For complete information about TMS, see *Token Management Service Using the Simple Order API.*

Recurring Billing

Services:

- Debit

- Credit

Processors:

- Chase Paymentech Solutions

- Cybersource ACH Service

    - Recurring debits and credits for telephone-initiated orders are supported. The **check_secCode** must be `TEL` for personal accounts and `CCD` for corporate accounts.

- RBS WorldPay Atlanta

- TeleCheck

If you are using Recurring Billing, you can process a debit or credit by using information that is stored in a subscription. Cybersource uses the subscription ID to reference the subscription information in the Cybersource database. Instead of providing all the information that is normally required for a transaction, you need to provide only the following values:

- Merchant ID

- Merchant reference code

- Amount of the payment or credit

- Subscription ID

You can override most of the information stored in the subscription by including the relevant API fields in the debit or credit request. For example, you could provide a different billing or shipping address in the request. You cannot override the account number.

For complete information about Recurring Billing, see *Recurring Billing Using the Simple Order API.*

Settlement Delivery Methods

Services:

■ Debit

■ Credit

Processor:

■ Chase Paymentech Solutions

You must specify a default method for delivering settlements to and receiving them from the customer's bank. For debits, you can use the **ecDebitService_settlementMethod** field to override the default method for a single transaction. For credits, you can use the **ecCreditService_settlementMethod** field to override the default method for a single transaction.

The following delivery methods are available:

■ Automated Clearing House (ACH) for U.S. accounts:

   The transaction is deposited through the ACH. If the check fails the validation or verification process, the transaction is rejected.

■ Facsimile draft:

   The transaction is deposited as a facsimile draft. Use this method when the issuing bank is not an ACH member.

■ Best possible:

   The transaction is deposited through the ACH system unless the customer's bank is not an ACH participant, in which case, a facsimile draft is created and deposited on your behalf.

Testing Electronic Check Services

Requirements for Testing

 Before you can test, you must contact Sales to activate Electronic Check Services and configure your account for electronic check testing. You must also contact your processor to set up your processor account.

- Use your regular merchant ID to perform testing.
- Use the test server ics2wstesta.ic3.com.
- Use a real city and state, as well as the correct postal code for that city and state.
- Use a real combination for the area code and telephone number.
- Use a non-existent account and domain name for the customer's email address. For example: random@example.com.

Testing Chase Paymentech Solutions Transactions

Successful Transactions

Use the data in the following table to simulate successful debits and credits for Chase Paymentech Solutions.

Table 8   Test Data for Chase Paymentech Solutions Debits and Credits

Field	Test Values	Required / Optional
check_accountNumber	■ `4100` ■ `4101` ■ `4102` ■ `4103`	Required
check_accountType	■ `C` ■ `S` ■ `X`	Required
check_ bankTransitNumber	■ `121042882` ■ `121107882` ■ `071923284` ■ `122101191`	Required
ecDebitService_ settlementMethod	■ `A` ■ `B` ■ `F`	Optional
ecDebitService_ verificationLevel	■ `1` ■ `2`	Optional

Testing Chase Paymentech Solutions Declines

For Chase Paymentech Solutions, you can simulate electronic check declines using specific bank account numbers for debits. For a list of these values and the expected results, see *Using the Test Simulator*.

Testing Cybersource ACH Service Transactions

Use the data in the following table to simulate ACH verification by requesting a debit for the Cybersource ACH Service. As an alternative, you can simulate ACH verification by requesting a credit: the reply fields will be for the credit service instead of the debit service.

Table 9   ACH Verification Test Data

Type of Field	Triggers		Reply Fields			
	Account Number	Routing Number	Mapped ACH Verification Code	Raw ACH Verification Code	Corrected Account Number	Corrected Routing Number
Field Name	check_ accountNumber	check_ bankTransit Number	ecDebitReply _verification Code	ecDebitReply _verification CodeRaw	ecDebitReply _corrected Account Number	ecDebitReply _corrected Routing Number
	12345678	112200439	00	1	—	—
	0011111111111	011000028	01	2	00111111	—
	1231231230	231385154	00	3		—
	123123123	231385154	00	4	—	—
	00111111	011201762	02	5	—	011201830
	001234567895	011400039	03	6	1234567895	011401533
	01111111	011301073	02	7	—	211070175
	1231231230	011001742	02	8	—	011000138
	1231231230	231382704	04	9[1]	—	—
	12345678	115101438	04	10[1]	—	—

1   See the following table for the reply values for this error.

Table 10   ACH Verification Error Reply Values

Raw ACH Verification Code	Error Reply Values
9	**decision**=REJECT
	reasonCode=388
10	**decision**=REJECT
	reasonCode=388

Testing RBS WorldPay Atlanta

See *Using the Test Simulator.*

Testing TeleCheck

See *Using the Test Simulator.*

Going Live

You must go live with Cybersource before you start submitting production transactions. When you go live, your account is updated so that you can send transactions to the Cybersource production server. If you have not already done so, provide your banking information to Cybersource so that your processor can deposit funds to your merchant bank account. For information about going live, see *Getting Started with CyberSource Essentials*.

API Fields

Formatting Restrictions

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

> The values of the **item_#_** fields must not contain carets (^) or colons (:) because these characters are reserved for use by the Cybersource services.
>
> Values for request-level and item-level fields must not contain new lines or carriage returns. However, they can contain embedded spaces and any other printable characters. Cybersource removes all leading and trailing spaces.
>
> *TeleCheck*
> Request fields must not contain ampersands (&).

Data Type Definitions

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

Table 11   Data Type Definitions

Data Type	Description
Date and time	Format is YYYY-MM-DDThh:mm:ssZ, where: ■ T separates the date and the time ■ Z indicates Coordinated Universal Time (UTC), also known as Greenwich Mean Time (GMT) **Example** 2020-01-11T22:47:57Z equals January 11, 2020, at 22:47:57 (10:47:57 p.m.).
Integer	Whole number {..., -3, -2, -1, 0, 1, 2, 3, ...}
String	Sequence of letters, numbers, spaces, and special characters

Numbered Elements

The Cybersource XML schema includes several numbered elements. You can include these complex elements more than once in a request. For example, when 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">
```

As a name-value pair field name, this tag is called `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 the Simple Object Access Protocol (SOAP), the client contains a corresponding `Item` class.

**Example 5   Numbered XML Schema Element Names and
                          Name-Value Pair Field Names**

XML Schema Element Names	Corresponding Name-Value Pair Field Names

`<item id="0">`
  `<unitPrice>`
  `<quantity>`
`</item>`
	`item_0_unitPrice`
	`item_0_quantity`

`<item id="1">`
  `<unitPrice>`
  `<quantity>`
`</item>`
	`item_1_unitPrice`
	`item_1_quantity`

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

Request Fields

> If you are using TMS or Recurring Billing and you include a subscription ID in your request, many of the fields in the following table that are normally required for a debit or credit become optional. See "Token Management Service," page 37, and "Recurring Billing," page 38.

Table 12   Request Fields

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_city	City in the billing address.	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	TeleCheck: String (30) All other processors: String (50)
billTo_company	Name of the customer's company.	ecDebitService (Optional for TeleCheck and Wells Fargo ACH. Not used for any other processor.)	TeleCheck: String (60) Wells Fargo ACH: String (40)
billTo_companyTaxID	Company's tax identifier. **TeleCheck** Contact your TeleCheck representative to find out whether this field is required or optional. **All Other Processors** Not used.	ecDebitService (See the field description.)	String with numbers only (9)
billTo_country	Country in the billing address. Use the two-character *ISO Standard Country Codes*.	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	String (2)
billTo_dateOfBirth	Date of birth of the customer. Format: YYYY-MM-DD or YYYYMMDD	ecAuthenticateService (Optional for RBS WorldPay Atlanta. Not used by any other processor.)	String (10)

---

1   Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_ driversLicenseNumber	Driver's license number of the customer. ***TeleCheck*** Contact your TeleCheck representative to find out whether this field is required or optional. If you include this field in your request, you must also include **billTo_ driversLicenseState.** ***All Other Processors*** Not used.	ecDebitService (See the field description.)	String (30)
billTo_ driversLicenseState	State or province where the customer's driver's license was issued. Use the two-character *State, Province, and Territory Codes for the United States and Canada*. ***TeleCheck*** Contact your TeleCheck representative to find out whether this field is required or optional. ***All Other Processors*** Not used.	ecDebitService (See the field description.)	String (2)
billTo_email	Customer's email address, including the full domain name. Format: name@host.domain	ecCreditService (R)[1] ecDebitService (R)	String (255)
billTo_firstName	Customer's first name. If the first name is unavailable or inapplicable, such as for a corporate account, enter a dummy value such as NA.	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	TeleCheck: String (50) All other processors: String (60)
billTo_ipAddress	IP address for the customer. **Example** 10.1.27.63. For debits: ***Chase Paymentech Solutions*** Optional. ***TeleCheck*** It is recommended that you use this field when **check_secCode** is WEB. ***All Other Processors*** Not used.	ecCreditService (O) ecDebitService (See the field description.)	String (15)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_lastName	Customer's last name. If the transaction is for a corporate account, use this field for the company name.	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	TeleCheck: String (50) All other processors: String (60)
billTo_phoneNumber	Customer's phone number. Format for TeleCheck: NNNNNNNNNN	ecCreditService (Required for RBS WorldPay Atlanta. Optional for all other processors.) ecDebitService (Required for Cybersource ACH Service and TeleCheck. Not used by any other processor.)	TeleCheck: String (10) All other processors: String (15)
billTo_postalCode	Postal code for the billing address. The postal code must consist of 5 to 9 digits. When the billing country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	RBS WorldPay Atlanta: String (5) All other processors: String (10)
billTo_state	State in the billing address. Use the two-character *State, Province, and Territory Codes for the United States and Canada*.	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	String (2)
billTo_street1	First line of the billing street address.	ecAuthenticateService (R) ecCreditService (R)[1] ecDebitService (R)	TeleCheck: String (50) All other processors: String (60)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12 Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_street2	Second line of the billing street address. Used for additional address information. **Example** Attention: Accounts Payable	ecCreditService (For RBS WorldPay Atlanta: required for stand-alone credits, optional for follow-on credits. Optional for all other processors.) ecDebitService (Not used by RBS WorldPay Atlanta. Optional for all other processors.)	TeleCheck: String (50) All other processors: String (60)
businessRules_ declineAVSFlags	List of AVS flags that cause the request to be declined for AVS reasons. Use a space to separate the flags in the list. **Important** Make sure that you include the value N in the list if you want to receive declines for the AVS code N.	ecDebitService (Optional for Chase Paymentech Solutions. Not used for any other processor.)	String (255)
check_accountNumber	Account number.	ecCreditService (R)[1] ecDebitService (R)	String with numbers only (17)
check_accountType	Account type. Possible values: ■ C: Checking. ■ G: General ledger. This value is supported only on Wells Fargo ACH. ■ S: Savings. ■ X: Corporate checking.	ecCreditService (R)[1] ecDebitService (R)	String (1)
check_authenicateID	Authentication ID of the check. If this field is submitted, the value must be numeric or an error is returned.	ecDebitService (Optional for RBS WorldPay Atlanta. Not used for any other processors.)	String (32)
check_ bankTransitNumber	Bank routing number. This is also called the *transit number*.	ecCreditService (R)[1] ecDebitService (R)	String with numbers only (9)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
check_checkNumber	Check number. ***Chase Paymentech Solutions*** Optional. ***Cybersource ACH Service*** Not used. ***RBS WorldPay Atlanta*** Optional on debits. Required on credits. ***TeleCheck*** Strongly recommended on debit requests. Optional on credits.	ecCreditService (See the field description.) ecDebitService (See the field description.)	String with numbers only (8)
check_imageReference Number	Image reference number associated with the check. You cannot include any special characters.	Used only by Paymentech for ARC and POP SEC codes.	String (32)
check_paymentInfo	Additional payment information on the customer's statement.	ecCreditService (Required for RBS WorldPay Atlanta. Not used for any other processors.)	String (80)
check_secCode	Authorization method used for the transaction. See "SEC Codes," page 85. ***TeleCheck*** Accepts only the following values: ■ PPD ■ TEL ■ WEB	ecCreditService ecDebitService Required for TeleCheck, RBS WorldPay Atlanta, and Wells Fargo ACH. Optional for all other processors.	String (3)
check_terminalCity	City in which the terminal is located. If more than four alphanumeric characters are submitted, the transaction will be declined. You cannot include any special characters.	ecCreditService ecDebitService Optional but strongly recommended if your processor is Paymentech and you include **check_secCode** with a value of POP.	String (4)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12 Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
check_terminalState	State in which the terminal is located. If more than two alphanumeric characters are submitted, the transaction will be declined. You cannot include any special characters.	ecCreditService ecDebitService Optional but strongly recommended if your processor is Paymentech and you include **check_secCode** with a value of POP.	String (2)
ecAuthenticateService_run	Set this field to true to include **ecAuthenticateService** in your request.	ecAuthenticateService (R)	String (5)
ecAuthenticateService_referenceNumber	Merchant-generated order number or transaction identifier.	ecAuthenticateService (Optional for RBS WorldPay Atlanta. Not used by any other processor.)	String (100)
ecCreditService_commerceIndicator	Type of transaction. Possible values: ■ internet (default): e-commerce order placed using a Web site. ■ moto: Mail order or telephone order. ■ recurring: Recurring transaction. ***Chase Paymentech Solutions*** Not used. ***Cybersource ACH Services*** Optional. ***RBS WorldPay Atlanta*** Required for stand-alone credits. Optional for follow-on credits. ***TeleCheck*** Optional.	ecCreditService (See the field description.)	String (13)
ecCreditService_debitRequestID	The request ID for the debit that is being credited. Used only for multiple partial credits. See "Follow-On Credits and Stand-Alone Credits," page 26.	ecCreditService (Required for follow-on credits. Not used for stand-alone credits.)	String (26)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ecCreditService_ effectiveDate	Effective date for the transaction. The effective date must be within 45 days of the current day. If you do not include this value, Cybersource sets the effective date to the next business day. Format: MMDDYYYY Supported only for the Cybersource ACH Service.	ecCreditService (O)	String (8)
ecCreditService_ partialPaymentID	Identifier for a partial credit. The value for each credit request must be unique within the scope of the order. See "Multiple Partial Credits," page 36.	ecCreditService (Optional for RBS WorldPay Atlanta. Not used for any other processor.)	String (25)
ecCreditService_ referenceNumber	Check reference number. Identifier used for tracking a request through to the payment processor for reconciliation. If you do not provide this value, Cybersource generates a unique value and returns it to you in the **ecCreditReply_ reconciliationID** field. For more information about tracking orders, see "Order Tracking," page 16, and *Getting Started with CyberSource Essentials*. ***Requirements*** Bank of America ACH: Optional. Chase Paymentech Solutions: Optional. RBS WorldPay Atlanta: Required for stand-alone credits. Optional for follow-on credits. TeleCheck: Required for stand-alone credits. Optional for follow-on credits. Wells Fargo ACH: Cybersource generates a unique transaction identifier.	ecCreditService (See the field description.)	TeleCheck: String (50) All other processors: String (60)
ecCreditService_run	Set this field to `true` to include **ecCreditService** in your request.	ecCreditService (R)	String (5)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ecCreditService_ settlementMethod	Method used for settlement. Possible values: ■ `A`: Automated Clearing House (default for credits). ■ `F`: Facsimile draft. ■ `B`: Best possible (default if the field has not already been configured for your merchant ID). See "Settlement Delivery Methods," page 39.	ecCreditService (Optional for Chase Paymentech Solutions and RBS WorldPay Atlanta. Not used for any other processor.)	String (1)
ecDebitService_ commerceIndicator	Type of transaction. Possible values: ■ `internet` (default): e-commerce order placed using a web site. ■ `moto`: Mail order or telephone order. ■ `recurring`: Recurring transaction.	ecDebitService (Not used for Chase Paymentech Solutions. Optional for all other processors.)	String (13)
ecDebitService_ debitRequestID	The request ID for debit requests. See "Deferred and Partial Payments," page 33. Use for deferred and partial payments.	ecDebitService (Supported only for Chase Paymentech Solutions and TeleCheck.)	String (26)
ecDebitService_ effectiveDate	Effective date for the transaction. The effective date must be within 45 days of the current day. If you do not include this value, Cybersource sets the effective date to the next business day. Format: MMDDYYYY Supported only for the Cybersource ACH Service.	ecDebitService (O)	String (8)
ecDebitService_ partialPaymentID	Identifier for a partial payment. The value for each debit request must be unique within the scope of the order. See "Multiple Partial Credits," page 36.	ecDebitService (Optional for RBS WorldPay Atlanta. Not used by any other processor.)	String (25)
ecDebitService_ paymentInfo	Payment related information. This information is included on the customer's statement.	ecDebitService (Required for RBS WorldPay Atlanta. Not used by any other processor.)	Alpha numeric (80)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ecDebitService_ paymentMode	Flag that indicates whether to process the payment. Use with deferred payments. See "Deferred and Partial Payments," page 33. Possible values: ■ `0`: Standard debit with immediate payment (default). ■ `1`: Indicates that this is a deferred payment and that you will send a debit request with **ecDebitService_ paymentMode**=`2` in the future. ■ `2`: Indicates notification to initiate payment. ***Chase Paymentech Solutions and TeleCheck*** Use for deferred and partial payments. ***Cybersource ACH Service*** Not used. ***RBS WorldPay Atlanta*** Not used.	ecDebitService (See the field description.)	Integer (1)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ecDebitService_ referenceNumber	Check reference number. Identifier used for tracking a request through to the payment processor for reconciliation. If you do not provide this value, Cybersource generates a unique value and returns it to you in the **ecDebitReply_ reconciliationID** field. For more information about tracking orders, see "Order Tracking," page 16, and *Getting Started with CyberSource Essentials*. ***Requirements*** Bank of America ACH: Optional. Chase Paymentech Solutions: Optional. RBS WorldPay Atlanta: Optional. TeleCheck: For deferred payments, set this field to the value you received in the **ecDebitService_debitRequestID** field in the reply message for the associated debit. See "Deferred and Partial Payments," page 33. Wells Fargo ACH: Cybersource generates a unique transaction identifier.	ecDebitService (See the field description.)	TeleCheck: String (50) All other processors: String (60)
ecDebitService_run	Set this field to `true` to include **ecDebitService** in your request.	ecDebitService (R)	String (5)
ecDebitService_ settlementMethod	Method used for settlement. Possible values: ■ `A`: Automated Clearing House (default for credits). ■ `F`: Facsimile draft. ■ `B`: Best possible (default if the field has not already been configured for your merchant ID). See "Settlement Delivery Methods," page 39.	ecDebitService (Optional for Chase Paymentech Solutions. Not used by any other processor.)	String (1)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ecDebitService_ verificationLevel	Level of fraud screening. Possible values: ■ 1: Validation—default if the field has not already been configured for your merchant ID. ■ 2: Verification. For a description of this feature and a list of supported processors, see "Verification and Validation," page 23.	ecDebitService (Optional for Chase Paymentech Solutions and TeleCheck. Not used by any other processor.)	Integer (1)
invoiceHeader_ merchantDescriptor	Merchant description that appears on the customer's bank statement. This field overrides the corresponding value in your Cybersource account. If you do not include this field in the request, Cybersource uses the company name from your merchant account. For a description of this feature, a list of supported processors, and special formatting requirements, see "Merchant Descriptors," page 35.	ecCreditService (O) ecDebitService (O)	String (25)
invoiceHeader_ merchantDescriptor Alternate	Alternate information for your business. This API field overrides the company entry description value in your Cybersource account. This value might be displayed on the customer's account statement. When you do not include this value in your debit or credit request, Cybersource uses the company entry description from your Cybersource account.	ecCreditService ecDebitService (Optional for Wells Fargo ACH. Not used by any other processor.)	String with numbers, letters, and spaces only (10)
item_#_productCode	Type of product. This value is used to determine the category that the product is in: electronic, handling, physical, service, or shipping. The default value is default. See Appendix C, "Product Codes," on page 67 for a list of valid values. See "Numbered Elements," page 45.	ecCreditService (O) ecDebitService (Not used by RBS WorldPay Atlanta. Optional for any other processor.)	String (255)
item_#_productName	Name of the product. See "Numbered Elements," page 45.	ecCreditService (O) ecDebitService (Not used for RBS WorldPay Atlanta. Optional for all other processors.)	TeleCheck: String (20) All other processors: String (30)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12 Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_productSKU	Product's identifier code. See "Numbered Elements," page 45.	ecCreditService (O) ecDebitService (Not used for RBS WorldPay Atlanta. Optional for all other processor.)	String (255)
item_#_quantity	Quantity of the product being purchased. The default value is `1`. Required if **item_#_productCode** is not `default` or one of the values related to shipping and/or handling. See "Numbered Elements," page 45. Not used by RBS WorldPay Atlanta.	ecCreditService (O) ecDebitService (See the field description.)	Integer (10)

item_#_taxAmount	Total tax to apply to the product. This value cannot be negative. The tax amount and the unit price must be in the same currency.
	
	The tax amount field is additive. The following example uses a two-exponent currency such as USD:
	
	1 You include the following items in your request:
	
	`item_0_unitPrice=10.00`
	`item_0_quantity=1`
	`item_0_taxAmount=0.80`
	`item_1_unitPrice=20.00`
	`item_1_quantity=1`
	`item_1_taxAmount=1.60`
	
	2 The total amount authorized is 32.40, not 30.00 with 2.40 of tax included.
	
	See "Numbered Elements," page 45.
		ecCreditService (O)
		
		ecDebitService (Not used for RBS WorldPay Atlanta. Optional for all other processors.)
			String (15)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
item_#_unitPrice	Per-item price of the product. 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. See "Numbered Elements," page 45. ***RBS WorldPay Atlanta*** Not used. ***All Other Processors*** You must include either this field or **purchaseTotals_grandTotalAmount** in your request.	ecCreditService (See the field description.) ecDebitService (See the field description.)	String (15)
linkToRequest	Value that links the current request to a previous transaction.	ecDebitService (O)	String (26)
merchantID	Your merchant ID. Use the same merchant ID for evaluation, testing, and production.	Required for all services	String (30)
merchantReference Code	Merchant-generated order reference or tracking number. For more information about tracking orders, see *Getting Started with CyberSource Essentials*.	Required for all services.	String (50)
purchaseTotals_currency	Currency used for the order. Possible value: - `USD`: U.S. dollars	ecCreditService (R)[1] ecDebitService (R)	String (5)
purchaseTotals_ grandTotalAmount	Grand total for the order. For more information about using items or a grand total, see *Getting Started with CyberSource Essentials*. ***RBS WorldPay Atlanta*** Required for debits and credits. ***All Other Processors*** You must include either this field or **item_ #_unitPrice** in your request for Cybersource ACH, Chase, and TeleCheck.	ecCreditService (See the field description.) ecDebitService (See the field description.)	String (15)

1 Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Table 12   Request Fields (Continued)

Field Name	Description	Used By: Required (R) or Optional (O)	Data Type & Length
recurringSubscription Info_subscriptionID	If you are using TMS or Recurring Billing and you include this value in your request, many of the fields that are normally required for a debit or credit become optional. See "Token Management Service," page 37, and "Recurring Billing," page 38.	ecCreditService (O)[1] ecDebitService (O)	String (26)
voidService_run	Set this field to `true` to include **voidService** in your request.	voidService (R)	String (5)
voidService_ voidRequestID	The request ID of the debit or credit that you want to void.	voidService (R)	String (26)

1   Required for RBS WorldPay Atlanta for both stand-alone and follow-on credits. Required only for stand-alone credits for all other processors.

Reply Fields

Table 13   Reply Fields

Field Name	Description	Returned By	Data Type & Length
decision	Summarizes the result of the overall request. The field can contain one of the following values: ▪ `ACCEPT` ▪ `ERROR` ▪ `REJECT`	All Electronic Check Services	String (6)
ecAuthenticateReply_ checkpointSummary	Information about the parameters sent in the authenticate message, which is described in "Check Point Summary Codes," page 72.	ecAuthenticateReply	String (600)
ecAuthenticateReply_ fraudShieldIndicators	Information about the fraud checks performed, which is described in "Fraud Shield Indicator Codes," page 82.	ecAuthenticateReply	String (300)
ecAuthenticateReply_ processorResponse	Result code returned by the payment processor.	ecAuthenticateReply	String (6)
ecAuthenticateReply_ reasonCode	Numeric value corresponding to the result of the overall request. See "Reason Codes," page 68, for a list of possible values.	ecAuthenticateReply	Integer (5)

Table 13   Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
ecAuthenticateReply_ reconciliationID	Reference number you use to reconcile Cybersource reports with processor reports. For more information about tracking orders, see *Getting Started with CyberSource Essentials*.	ecAuthenticateReply	String (60)
ecAuthenticateReply_ requestDateTime	Date and time when the service was requested.	ecAuthenticateReply	String (20)
ecCreditReply_amount	Total amount submitted to the payment processor.	ecCreditReply	String (15)
ecCreditReply_ correctedAccount Number	Corrected account number from the ACH verification service, which is described in "ACH Verification," page 28.	ecCreditReply	String (17)
ecCreditReply_ correctedRouting Number	Corrected routing number from the ACH verification service, which is described in "ACH Verification," page 28.	ecCreditReply	String (9)
ecCreditReply_ ownerMerchantID	Merchant ID that was used to create the subscription or token for which the service was requested. See subscription information in *Recurring Billing Using the Simple Order API for CyberSource Essentials*. See token information in .	ecCreditReply	String (30)
ecCreditReply_ processorResponse	Result code returned by the payment processor.	ecCreditReply	String (6)
ecCreditReply_ processorTransactionID	Transaction identifier or tracking ID returned by the payment processor. For more information about tracking orders, see *Getting Started with CyberSource Essentials*. **Wells Fargo ACH** The value for this field is the same as the value for **ecCreditService_referenceNumber**.	ecCreditReply	String (87)
ecCreditReply_ reasonCode	A numeric value corresponding to the result of the credit request. See "Reason Codes," page 68, for a list of possible values.	ecCreditReply	Integer (5)

Table 13   Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
ecCreditReply_ reconciliationID	Reference number for the transaction. ***Wells Fargo ACH*** Cybersource generates a unique transaction identifier. ***All Other Processors*** For some processors, you can use this value to reconcile your Cybersource reports with your processor reports. For more information about tracking orders, see *Getting Started with CyberSource Essentials*.	ecCreditReply	String (60)
ecCreditReply_ requestDateTime	Date and time when the service was requested.	ecCreditReply	String (20)
ecCreditReply_ settlementMethod	Method used to settle the credit. Possible values: ■ `A`: Automated Clearing House ■ `B`: Best possible ■ `F`: Facsimile	ecCreditReply	String (1)
ecCreditReply_ verificationCode	Indicates the results from the ACH verification service, which is described in "ACH Verification," page 28. For the possible values, see Appendix H, "Verification Codes," on page 83.	ecCreditReply	String (2)
ecCreditReply_ verificationCodeRaw	Raw results from the ACH verification service, which is described in "ACH Verification," page 28. For the possible values, see Appendix H, "Verification Codes," on page 83.	ecCreditReply	String (2)
ecDebitReply_amount	Total amount submitted to the payment processor.	ecDebitReply	String (15)
ecDebitReply_ correctedAccount Number	Corrected account number from the ACH verification service, which is described in "ACH Verification," page 24.	ecDebitReply	String (17)
ecDebitReply_ correctedRouting Number	Corrected routing number from the ACH verification service, which is described in "ACH Verification," page 24.	ecDebitReply	String (9)
ecDebitReply_ ownerMerchantID	Merchant ID that was used to create the subscription or customer profile for which the service was requested. See subscription information in *Recurring Billing Using the Simple Order API for CyberSource Essentials*. See token information in .	ecDebitReply	String (30)

Table 13   Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
ecDebitReply_ processorResponse	Result code returned by the payment processor.	ecDebitReply	String (6)
ecDebitReply_ processorTransactionID	Transaction identifier or tracking ID returned by the payment processor. For more information about tracking orders, see *Getting Started with CyberSource Essentials*. ***Wells Fargo ACH*** The value for this field is the same as the value for **ecDebitService_referenceNumber**.	ecDebitReply	String (87)
ecDebitReply_ reasonCode	A numeric value corresponding to the result of the debit request. See "Reason Codes," page 68, for a list of possible values.	ecDebitReply	Integer (5)
ecDebitReply_ reconciliationID	Reference number for the transaction. ***Wells Fargo ACH*** Cybersource generates a unique transaction identifier. ***All Other Processors*** For some processors, you can use this value to reconcile your Cybersource reports with your processor reports. For more information about tracking orders, see *Getting Started with CyberSource Essentials*.	ecDebitReply	String (60)
ecDebitReply_ requestDateTime	Date and time when the service was requested.	ecDebitReply	String (20)
ecDebitReply_ settlementMethod	Method used to settle the debit. Possible values: ■ A: Automated Clearing House ■ B: Best possible ■ F: Facsimile	ecDebitReply	String (1)
ecDebitReply_ verificationCode	Results from the ACH verification service, which is described in "ACH Verification," page 24. For the possible values, see Appendix H, "Verification Codes," on page 83.	ecDebitReply	String (2)
ecDebitReply_ verificationCodeRaw	Raw results from the ACH verification service, which is described in "ACH Verification," page 24. For the possible values, see Appendix H, "Verification Codes," on page 83.	ecDebitReply	String (2)
ecDebitService_ debitRequestID	The request ID for debit or credit requests. See "Deferred and Partial Payments," page 33, or "Follow-On Credits and Stand-Alone Credits," page 26.	ecDebitReply	String (26)

Table 13   Reply Fields (Continued)

Field Name	Description	Returned By	Data Type & Length
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 *Getting Started with CyberSource Essentials*.	All Electronic Check Services	String (100)
merchantReference Code	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.	All Electronic Check Services	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 *Getting Started with CyberSource Essentials*.	All Electronic Check Services	String (100)
purchaseTotals_ currency	Currency used for the order. Possible value: ■ USD: U.S. dollars	ecCreditReply ecDebitReply	String (5)
reasonCode	Numeric value corresponding to the result of the overall request. See "Reason Codes," page 68, for a list of possible values.	All Electronic Check Services	Integer (5)
requestID	Identifier for the request.	All Electronic Check Services	String (26)
voidReply_amount	Total amount of the void.	voidReply	Decimal (15)
voidReply_currency	Currency used for the order. Possible value: ■ USD: U.S. dollars	voidReply	String (5)
voidReply_reasonCode	Numeric value corresponding to the result of the void request. See "Reason Codes," page 68, for a list of possible values.	voidReply	Integer (5)
voidReply_ requestDateTime	Date and time when the service was requested.	voidReply	String (20)

Examples

Name-Value Pair Examples

Example 6   Electronic Check Debit Request

```
ecDebitService_run=true
merchantID=infodev
merchantReferenceCode=15363553D21528F
billTo_firstName=John
billTo_lastName=Doe
billTo_street1=900 Metro Center Blvd.
billTo_city=Foster City
billTo_state=CA
billTo_postalCode=94404
billTo_country=US
billTo_phoneNumber=650-432-7350
billTo_email=jdoe@example.com
item_0_unitPrice=100.00
purchaseTotals_currency=USD
check_accountNumber=4100
check_accountType=c
check_bankTransitNumber=071923284
```

Example 7   Electronic Check Debit Reply

```
requestID=9980055975450167905139
merchantReferenceCode=15363553D21528F
decision=ACCEPT
reasonCode=100
ecDebitReply_reasonCode=100
ecDebitReply_settlementMethod=A
ecDebitReply_requestDateTime=2003-05-16T23:48:09Z
ecDebitReply_amount=100.00
ecDebitReply_verificationLevel=1
ecDebitReply_reconciliationID=02RYXSPGCQH60NWA
ecDebitReply_processorResponse=123456
```

XML Examples

Example 8   Electronic Check Debit Request

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data 1.23">
    <merchantID>infodev</merchantID>
    <merchantReferenceCode>15363553D21528F</merchantReferenceCode>
    <billTo>
        <firstName>John</firstName>
        <lastName>Doe</lastName>
        <street1>900 Metro Center Blvd.</street1>
        <city>Foster City</city>
        <state>CA</state>
        <postalCode>94404</postalCode>
        <country>US</country>
        <phoneNumber>650-432-7350</phoneNumber>
        <email>jdoe@example.com</email>
    </billTo>
    <item id="0">
        <unitPrice>100.00</unitPrice>
    </item>
    <purchaseTotals>
        <currency>USD</currency>
    </purchaseTotals>
    <check>
        <accountNumber>4100</accountNumber>
        <accountType>c</accountType>
        <bankTransitNumber>071923284</bankTransitNumber>
    </check>
    <ecDebitService run="true"/>
</requestMessage>
```

Example 9   Electronic Check Debit Reply

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.23">
   <c:merchantReferenceCode>15363553D21528F</c:merchantReferenceCode>
   <c:requestID>9980055975450167905139</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>USD</c:currency>
   </c:purchaseTotals>
   <c:ecDebitReply>
      <c:reasonCode>100</c:reasonCode>
      <c:settlementMethod>A</c:settlementMethod>
      <c:requestDateTime>2003-05-16T23:48:09Z</c:requestDateTime>
      <c:amount>100.00</c:amount>
      <c:verificationLevel>1</c:verificationLevel>
      <c:reconciliationID>02RYXSPGCQH60NWA</c:reconciliationID>
      <c:processorResponse>123456</c:processorResponse>
   </c:ecDebitReply>
</c:replyMessage>
```

Product Codes

The following table lists the values that you can use for the product code. Use the **item_#_ productCode** request field to specify the product code.

Table 14   Product Codes

Product Code	Definition
adult_content	Adult content.
coupon	Coupon applied to the entire order.
default	Default value for the product code. Cybersource uses `default` when a request message does not include a value for the product code.
electronic_good	Electronic product other than software.
electronic_software	Software distributed electronically rather than on disks or other media.
gift_certificate	Gift certificate.
handling_only	Fee that you charge your customer to cover your administrative selling costs.
service	Service that you perform for your customer.
shipping_and_handling	The shipping portion is the charge for shipping the product to your customer. The handling portion is the fee you charge your customer to cover your administrative selling costs.
shipping_only	Charge for transporting tangible personal property from your location to your customer. You must maintain documentation that clearly establishes the location where the title to the property passed from you to your customer.
subscription	Subscription to a web site or other content.

Reason Codes

The following table lists the Electronic Check Services reason codes returned by the Simple Order API. See the information about handling replies in *Getting Started with CyberSource Essentials*.

📝 Cybersource reserves the right to add new reason codes at any time. If your error handler receives a reason code that it does not recognize, it should use the **decision** field to determine the result.

Table 15   Reason Codes

Reason Code	Description
100	Successful transaction.
101	The request is missing one or more required fields.
	Possible action: See the reply fields **missingField_0...N** for which fields are missing. Resend the request with the complete information. See the information about missing and invalid fields in *Getting Started with CyberSource Essentials*.
102	One or more fields in the request contains invalid data.
	Possible action: See the reply fields **invalidField_0...N** for which fields are invalid. Resend the request with the correct information. See the information about missing and invalid fields in *Getting Started with CyberSource Essentials*.
150	Error: General system failure.
	See the documentation for your client for information about handling retries in the case of system errors.
151	Error: The request was received, but there was a server timeout. This error does not include timeouts between the client and the server.
	Possible Action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center. See the documentation for your client for information about handling retries in the case of system errors.
152	Error: The request was received but there was a service timeout.
	Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center. See the documentation for your client for information about handling retries in the case of system errors.

Table 15   Reason Codes (Continued)

Reason Code	Description
220	The processor declined the request based on a general issue with the customer's account.
	Possible action: Request a different form of payment.
221	The customer matched an entry on the processor's negative file.
	Possible action: Review the order and contact the payment processor.
222	The customer's bank account is frozen.
	Possible action: Review the order or request a different form of payment.
223	The customer's payment or credit has been declined because there is an existing duplicate check, the original transaction was not approved, or a valid authorization could not be located.
	Possible action: Review the order and contact the payment processor.
233	The processor declined the request based on an issue with the request itself.
	Possible action: Request a different form of payment.
234	There is a problem with your merchant configuration.
	Possible action: Do not resend the request. Contact Customer Support to correct the configuration problem.
235	The processor declined the request due to the requested amount exceeding the authorized amount.
	Possible action: Review the order and contact the payment processor.
236	Processor failure.
	Possible action: Wait a few minutes and resend the request.
241	The request ID is invalid for the follow-on request.
	Possible action: Verify the request ID is valid and resend the request.
246	The debit or credit is not voidable because the debit or credit information has already been submitted to your processor. Or, you requested a void for a type of transaction that cannot be voided.
	Possible action: No action required.
247	You requested a credit for a debit that was previously voided.
	Possible action: No action required.
250	Error: The request was received, but it timed out at the payment processor.
	Possible action: To avoid duplicating the transaction, do not resend the request until you have reviewed the transaction status in the Business Center.
388	Error: The routing number did not pass verification as described in "ACH Verification," page 24.
	Possible action: (1) Ask your customer to contact their bank to get an ACH routing number. (2) Ask your customer to provide the routing number and account number for a different bank account if they have one. (3) Request a different form of payment.

NOC Codes

For more information, see "Notifications of Change (NOCs)," page 20.

Table 16   NOC Codes

Code	Reason	Description	Required Action
C01	Incorrect account number	The customer's bank account number is incorrect.	Correct all applicable records before submitting additional electronic check transactions for the customer.
C02	Incorrect routing number	The bank's routing number is incorrect.	Correct all applicable records before submitting additional electronic check transactions for the customer.
C03	Incorrect routing number and incorrect account number	The bank's routing number and the customer's bank account number are incorrect.	Correct all applicable records before submitting additional electronic check transactions for the customer.
C04	Incorrect customer name	The customer name associated with the bank account is incorrect.	Correct all applicable records before submitting additional electronic check transactions for the customer.
C05	Incorrect transaction code	The transaction was submitted to a specific type of account but includes a conflicting account type code (checking / savings).	Correct all applicable records before submitting additional electronic check transactions for the customer.
C06	Incorrect account number and incorrect transaction code	The customer's bank account number is incorrect and the transaction was submitted to a specific type of account but includes a conflicting account type code (checking / savings).	Correct all applicable records before submitting additional electronic check transactions for the customer.

Table 16   NOC Codes (Continued)

Code	Reason	Description	Required Action
C07	Incorrect routing number, incorrect account number, and incorrect transaction code	The bank's routing number and the customer's bank account number are incorrect. Additionally, the transaction was submitted to a specific type of account but includes a conflicting account type code (checking / savings).	Correct all applicable records before submitting additional electronic check transactions for the customer.

Check Point Summary Codes

The check point summary is returned in **ecAuthenticateReply_checkpointSummary** in the authenticate reply message. The check point summary provides information about the parameters sent in the authenticate request message. If no parameters are sent, no information is returned. The following tables describe the codes returned in the check point summary. For more information, see "Authentication," page 31.

Primary Result Codes

Table 17   Primary Result Codes

Code	Description
00	Data found for search request
02	Receive error
03	Link to load balancing failed
04	Converse allocation error
05	System busy
06	SYSID error
08	Term error
12	No search criteria specified, request ignored
13	Response level must be F, B, or blank
15	Match to full name only—PLC NS list
16	Match to last name and first initial—PLC NS list
17	Internal error—contact Help Desk
18	Internal error—contact Help Desk
25	System busy—try again later
50	Transaction timed out—contact Help Desk if problem persists
51	Poll error—contact Help Desk
52	Receive error—contact Help Desk
53	Create error—contact Help Desk
54	Connect error—contact Help Desk

Table 17   Primary Result Codes (Continued)

Code	Description
55	Send error—contact Help Desk
56	Link error—contact Help Desk
57	EBCDIC to ASCII convert failed—contact Help Desk
58	ASCII to EBCDIC convert failed—contact Help Desk
59	Response exceeds storage—contact Help Desk
63	Storage error during data parsing—contact Help Desk
64	Response data format invalid—contact Help Desk
65	Unable to allocate connection
66	System ID error
67	Connect/converse error
68	Checkpoint server dropped socket
69	Profile not on database
70	System change transaction fail (internal)
71	Name required but missing
72	Address required but missing
75	Audit number required but missing
77	Invalid audit number
78	Audit entry not a Checkpoint 2.0 request
79	Audit file not loaded
80	Server not available to process request
81	Error connecting to database

Address Result Codes

The address result code (**AddrCode**) identifies the results found based on the address submitted.

Table 18   Address Result Codes

Code	Description
A	Address ambiguous
B	Match to business name—residential address
BB	Match to business name—business address
BM	Match to business name—mixed-use address
E	Matching records exceed maximum defined on profile

Table 18   Address Result Codes (Continued)

Code	Description
H	House number not found on street
I	Incomplete or blank address
IV	Invalid address
N	No match to name—residential address
NA	Data not available
NB	No match to name—business address
NM	No match to name—mixed-use address
NP	Test not in profile
NS	Standardization database has expired—contact Help
R	Road name—city/ZIP mismatch
S	Match to last name—residential address
SB	Match to last name—business address
SM	Match to last name—mixed-use address
SX	Standardization database has expired—contact Help
T	City/state mismatch
U	Address unverifiable—not in database
UR	Address residential—name match unavailable
Y	Match to full name—residential address
YB	Match to full name—business address
YM	Match to full name—mixed-use address
Z	City/state—ZIP mismatch
00	Unknown message code—contact Help Desk

Phone Codes

The phone code (**PhnCode**) identifies the results found based on the phone number submitted in the authenticate message.

Table 19   Phone Codes

Code	Value
A	Match to address only—residential phone
AB	Match to address only—business phone
AM	Match to address only—mixed-use phone
B	Match to business name and address—residential phone

Table 19   Phone Codes (Continued)

Code	Value
BB	Match to business name and address—business phone
BM	Match to business name and address—mixed-use phone
C	Probable cellular phone
D	Match to business name—residential address
DB	Match to business name—business address
DM	Match to business name—mixed-use phone
E	Matching records exceed maximum defined on profile
F	Match to full name only—residential phone
FB	Match to full name only—business phone
FM	Match to full name only—mixed-use phone
H	Match to last name and address—residential phone
HB	Match to last name and address—business phone
HM	Match to last name and address—mixed-use phone
I	Phone is incorrect length
IA	Invalid area code
M	Phone missing (search information not received)
MA	Match to header data
N	No match to name or address—residential phone
NA	Data not available
NB	No match to name or address—business phone
NM	No match to name or address—mixed-use phone
NP	Test not in profile
P	Probable pager
S	Match to last name only—residential phone
SB	Match to last name only—business phone
SM	Match to last name only—mixed-use phone
U	Phone unverifiable—not in database
X	Prefix—ZIP mismatch
Y	Match to full name and address—residential phone
YB	Match to full name and address—business phone
YM	Match to full name and address—mixed-use phone
00	Unknown message code—contact Help Desk

Address Type Codes

The address type code (**AddrTypeCode**) identifies the results found based on the address submitted.

Table 20   Address Type Codes

Code	Value
C	Single company
E	Test error
EB	Seasonal—business
EM	Seasonal—multi-family dwelling
EX	Seasonal—mixed use
M	Multi-family dwelling
N	No information available
NA	Data not available
NP	Test not in profile
O	Office building
P	Post office box

Change of Address Codes

The change of address code (**COACode**) identifies the results found for a change of address check.

Table 21   Change of Address Codes

Code	Value
C	Change of address information found
N	No change of address information found
NA	Data not available
NP	Test not in profile
U	Test not available
YA	A high risk business was identified at this address
00	Unknown message code—contact Help Desk

Social Security Number Codes

The Social Security Number code (**SSNCode**) identifies the results found to verify the Social Security Number submitted.

Table 22   Social Security Number Codes

Code	Value
A	Match to address only
D	Deceased—unable to verify name
DN	Deceased—no match to name
DS	Deceased—match to last name
DY	Deceased—match to full name
E	Matching records exceed maximum defined on profile
F	SSN format is invalid
FF	Match to first name and address—match performed using SSN finder
FY	Match to full name and address—match performed using SSN finder
I	SSN is incorrect length
M	SSN is missing
N	No match to name or address
NA	Data not available
NI	SSN not issued
NP	Test not in profile
NV	Header search not available in NV due to state law
P	Match to previous address only
S	Match to last name only
SA	Match to last name and address
V	Valid SSN—SSN not found
Y	Match to full name only
YA	Match to full name and address—match performed using SSN
YB	Match to full name and address—match performed using name and address
Z	SSN found—no last name entered
00	Unknown message code—contact Help Desk

Address Unit Mismatch Codes

The address unit mismatch code (**AddrUnitMismatchCode**) identifies the expected unit for the address.

Table 23   Address Unit Mismatch Codes

Code	Value
EU	Unit number is extra—not expected at this address
MU	Unit number is missing—expected at this address
WU	Unit number wrong—unit number does not match unit number at this address

Phone Unit Mismatch Codes

The phone unit mismatch code (**PhnUnitMismatchCode**) identifies the expected unit for the address associated with the phone number.

Table 24   Phone Unit Mismatch Codes

Code	Value
EU	Unit number is extra—not expected at this address
MU	Unit number is missing—expected at this address
WU	Unit number wrong—unit number does not match unit number at this address

Driver's License Result Codes

The driver's license result code (**DLResultCode**) identifies the results found based on the driver's licences information submitted.

Table 25   Driver's License Result Codes

Code	Value
A	Match to address only
I	DL state and number format invalid
M	Driver license number not submitted on inquiry
N	No match to name or address
NA	Data not available for this state
NI	Input DL state and number not on file
NP	Test not in profile

Table 25   Driver's License Result Codes (Continued)

Code	Value
S	Match to last name only
SA	Match to last name and address
V	Valid DL state and number—name match not available
Y	Match to full name only

Date of Birth Match Codes

The date of birth match code (**DateOfBirthMatch**) identifies the results found based on the date of birth information submitted.

Table 26   Date of Birth Match Codes

Code	Value
1	Match
2	Partial match
3	No match
4	Not on file
5	SSN not on file; search cannot be done
6	DOB not provided on search request
7	Invalid DOB format

High Risk Address Codes

The high risk address code (**HighRiskAddrCode**) identifies any high risk address information that is associated with the address information submitted.

Table 27   High Risk Address Codes

Parameter	Value
N	No address high risk information found
NP	Test not in profile
YA	A high risk business was identified at this address

High Risk Phone Codes

The high risk phone code (**HighRiskPhnCode**) identifies any high risk phone number information that is associated with the phone number information submitted.

Table 28   High Risk Phone Codes

Code	Values
N	No address high risk information found
NP	Test not in profile
YA	A high risk business was identified at this address

OFAC Validation Results Codes

The OFAC validation results code (**OFACValidationResult**) identifies whether the information submitted in the request is on the OFAC list and specifies which pieces of information are present on the OFAC list if there is a match.

Table 29   OFAC Validation Results Codes

Code	Value
1	No match
2	Match to full name only
3	Match to SSN only
4	Match to name and SSN
5	Match to name and DOB
6	Match to name and YOB
7	Match to SSN and DOB
8	Match to SSN and YOB
9	Match to name, SSN, and DOB
10	Match to name, SSN, and YOB
11	Match to company name only
12	Match to company address only
13	Match to company name and address
14	Match to last name and first name
15	Match to full name only—PLC NS list
16	Match to last name and first initial—PLC NS list

Address Residential Match Codes

The address residential match code is a number (0000 through 9999) that identifies the number of residential records that matched the address given during address verification.

Address Business Match Codes

The address business match code is a number (0000 through 9999) that identifies the number of business records that matched the address given during address verification.

Phone Number Residential Match Codes

The phone number residential match code is a number (0000 through 9999) that identifies the number of residential records that matched the phone number given during address verification.

Phone Number Business Match Codes

The phone number business match code is a number (0000 through 9999) that identifies the number of business records that matched the phone number given during address verification.

Fraud Shield Indicator Codes

The fraud shield indicators are returned in **ecAuthenticateReply_fraudShieldIndicators** in the authenticate reply message. The fraud shield indicators provide consumer fraud information. This information is used to protect you against fraudulent transactions. However, no fraud check is perfect, and fraudulent activity is always possible. The following table describes the codes returned in the fraud shield indicator value. For more information, see "Authentication," page 31.

Table 30   Fraud Shield Indicator Codes

Code	Description
FS01	Inquiry/online current address conflict
FS02	Inquiry address first reported within 90 days
FS03	Inquiry current address not on file
FS04	Input SSN not issued as of MM/YY
FS05	Input SSN recorded as deceased
FS06	Inquiry age newer than SSN issue date
FS10	INQ: type of high risk address
FS11	INQ: non-residential address
FS13	High probability SSN belongs to another person
FS14	Input SSN invalid
FS15	INQ: address reported cautious
FS16	FILE: type of high risk address
FS17	FILE: non-residential address
FS18	FILE: reported cautious
FS21	Telephone number inconsistent with address
FS25	Best on file SSN recorded as deceased
FS26	Best on file SSN not issued as of MM/YY
FS27	SSN reported more frequently for another

Verification Codes

Verification codes indicate the results of ACH verification and are returned in the following fields. For a description of ACH verification for debits, see "ACH Verification," page 24. For a description of ACH verification for credits, see "ACH Verification," page 28.

Table 31   Reply Fields for Verification Codes

Service	Mapped Value	Raw Value
ecDebitService	ecDebitReply_ verificationCode	ecDebitReply_ verificationCodeRaw
ecCreditService	ecCreditReply_ verificationCode	ecCreditReply_ verificationCodeRaw

Mapped Verification Codes

Table 32   Mapped Verification Codes

Code	Description
00	Success: account number and routing number are OK.
01	Success: account number was corrected; routing number is OK.
02	Success: routing number was corrected; account number is OK.
03	Success: account number and routing number were corrected.
04	Declined: routing number did not pass verification.
98	Unavailable: unable to perform ACH verification.
99	Invalid: response from ACH verification is invalid.

Raw Verification Codes

Table 33   **Raw Verification Codes**

Code	Description
1	Accepted: routing number is valid. Account number is valid.
2	Accepted: routing number is valid. Account number is invalid; use corrected account number.
3	Accepted: routing number is valid. Account number is valid.
4	Accepted: routing number is valid. Account number structure not recognized; account may be valid.
5	Accepted: routing number is not usable for ACH; use corrected routing number. Account number is valid.
6	Accepted: routing number is not usable for ACH; use corrected routing number. Account number is invalid; use corrected account number.
7	Accepted: routing number is not usable for ACH; use corrected routing number. Account number is valid.
8	Accepted: routing number is not usable for ACH; use corrected routing number. Account number structure not recognized; account may be valid.
9	Declined: routing number is not usable for ACH; no corrected routing number available.
10	Declined: routing number not found.
11	Declined: invalid routing number.

SEC Codes

The **check_secCode** field specifies the authorization method for the transaction. Possible values:

- `ARC:` account receivable conversion—supports the conversion of checks received via U.S. mail into a merchant's unattended lock box. This value is used only by Paymentech. Contact your Paymentech representative to ensure that your address city field has been set up.

- `CCD:` corporate cash disbursement—a charge or credit against a business checking account. You can use one-time or recurring CCD transactions to transfer funds to or from a corporate entity. A standing authorization is required for recurring transactions. For Cybersource ACH Service, CCD is the default for **ecCreditService** if no value is set for **check_secCode.**

- `POP:` point of purchase conversion—supports single entry debits used at the point of purchase. This value is used only by Paymentech. Contact your Paymentech representative to ensure that your address city field has been set up. If you submit **check_secCode** with a value of `POP`, we strongly recommend that you also submit **check_terminalCity** and **checkTerminal_State**. If you submit **check_terminalCity** and **checkTerminal_State** in a transaction and you wish to perform a follow-on transaction, you must resubmit them with the follow-on transaction. For more information, see .

- `PPD:` prearranged payment and deposit entry—a charge or credit against a personal checking or savings account. You can originate a PPD entry only when the payment and deposit terms between you and the customer are prearranged. A written authorization from the customer is required for one-time transactions, and a written standing authorization is required for recurring transactions. For Cybersource ACH Service, PPD is the default for **ecDebitService** if no value is set for **check_secCode.**

- `TEL:` telephone-initiated entry—a one-time charge against a personal checking or savings account. You can originate a TEL entry only when there is a business relationship between you and the customer or when the customer initiates a telephone call to you. For a TEL entry, you must obtain a payment authorization from the customer over the telephone. Only the Cybersource ACH processor supports recurring telephone-initiated debits and credits. For Cybersource ACH Service, if the E-commerce Indicator for the Virtual Terminal is MOTO, the value of **check_secCode** will default to TEL.

- `WEB:` internet-initiated entry—a charge against a personal checking or savings account. You can originate a one-time or recurring WEB entry when the customer initiates the transaction over the Internet. For a WEB entry, you must obtain payment authorization from the customer over the Internet. For Cybersource ACH Service, if the e-commerce indicator for the Virtual Terminal is not set to MOTO, then the value of **check_secCode** will default to WEB.