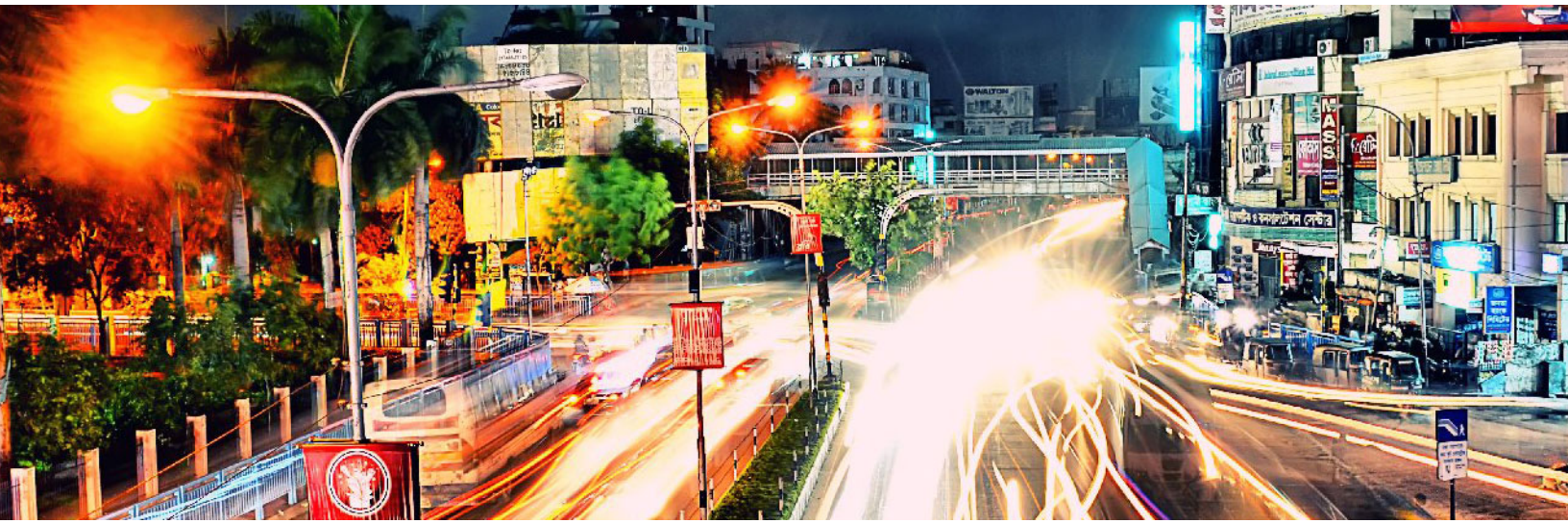
Card-Present Processing Using the Simple Order API

Supplement to *Credit Card Services Using the Simple Order API*
and
PIN Debit Processing Using the Simple Order API



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Recent Revisions to This Document

Release	Changes
August 2020	Added support for Prosa. See "Supported Processors," page 9.
July 2020	JCN Gateway: updated the requirements for the **salesSlipNumber** request field. See "General Card-Present Request Fields," page 32.
November 2019	All processors that support payment network tokens: updated link to documentation. See "Authorizations with Payment Network Tokens," page 11.
June 2019	Cybersource integrations: added support for the **comments** field. See "General Card-Present Request Fields," page 32.
May 2019	Added support for JCN Gateway. See "Supported Processors," page 9.
April 2019	This revision contains only editorial changes and no technical updates.

About This Guide

Audience and Purpose

This guide is written for application developers who want to use the Simple Order API to integrate payment card processing with card-present data into their order management system. *Credit Card Services Using the Simple Order API* provides the basic information about payment card processing. This supplement provides information about additional requirements and options for card-present transactions.

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

Information in this guide about Europay, Mastercard, and Visa (EMV) applies to payment card processing and PIN debit processing. All other information in this guide applies only to payment card processing. PIN debit processing is available only on FDC Nashville Global.

Conventions

The following special statement is used 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
Bold	■ API field names ■ API service names ■ Graphical user interface elements that you must act upon
`Screen text`	■ XML elements ■ Code examples ■ Values for API fields; for example: Set the **ccAuthService_run** field to `true`.

Related Documentation

- *Getting Started with Cybersource Advanced for the Simple Order API* (PDF | HTML) describes how to get started using the Simple Order API.
- *Credit Card Services Using the Simple Order API* (PDF | HTML) describes how to integrate payment processing services into your business.
- The Cybersource API Versions page provides information about the API versions.
- *PIN Debit Processing Using the Simple Order API* (PDF | HTML) describes how to integrate PIN debit services into your business.

Refer to the Support Center for complete technical documentation:

https://www.cybersource.com/en-us/support/technical-documentation.html

Customer Support

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

http://www.cybersource.com/support

CHAPTER 1

Introduction to Card-Present Transactions

This supplement to *Credit Card Services Using the Simple Order API* describes card-present processing.

Information in this guide about Europay, Mastercard, and Visa (EMV) applies to payment card processing and PIN debit processing. All other information in this guide applies only to payment card processing. PIN debit processing is available only on FDC Nashville Global.

Supported Processors

Card-present payment card transactions are supported for the processors shown in the following table.

Table 2 Processors That Are Supported for Card-Present Transactions

Processor	EMV	Magnetic Stripe
American Express Direct—supports card-present processing only for merchants in the U.S. who are transacting in U.S. dollars.	Yes	Yes
Chase Paymentech Solutions	Yes	Yes
Credit Mutuel-CIC	Yes	Yes
FDC Nashville Global	Yes	Yes
FDMS Nashville	No	Yes
GPN	Yes	Yes
JCN Gateway—Visa is the only card type supported on JCN Gateway for card-present transactions.	Yes	Yes
OmniPay Direct—First Data Merchant Solutions (Europe) only	Yes	Yes
Prosa	Yes	Yes
RBS WorldPay Atlanta	No	Yes

Table 2 Processors That Are Supported for Card-Present Transactions (Continued)

Processor	EMV	Magnetic Stripe
SIX	Yes	Yes
TSYS Acquiring Solutions	No	Yes
Worldpay VAP—Worldpay VAP was previously called *Litle*. Litle was purchased by Vantiv, which was then purchased by Worldpay VAP. If you have any questions, contact your account manager at Worldpay VAP.	No	Yes

Prerequisites

Before you start your implementation:

- Contact your acquirer to find out whether you are allowed to process card-present transactions.
- Find out from your acquirer and customer support whether you must have a separate Cybersource merchant ID for your card-present transactions.
- Contact customer support to have your account configured to process card-present transactions.
- Make sure that you are familiar with the Simple Order API for processing e-commerce and mail order/telephone order (MOTO) transactions as described in *Credit Card Services Using the Simple Order API*. Use the fields in this guide in addition to the fields in *Credit Card Services Using the Simple Order API*.

CHAPTER 2

Optional Features

Authorizations with Payment Network Tokens

You can request a payment card authorization with a payment network token instead of a primary account number (PAN). For information about adding this functionality to an order management system that already uses credit card services, see *Authorizations with Payment Network Tokens Using the Simple Order API*.

Cybersource Integration

Supported Processors:

- American Express Direct
- Credit Mutuel-CIC
- FDC Nashville Global
- OmniPay Direct
- SIX

Cybersource can provide the client software for your POS terminals. The client software sends the Cybersource service requests, parses the information in the Cybersource service replies, and provides information to your POS system. For details, contact your Cybersource account manager.

Dynamic Currency Conversion (DCC)

For information about dynamic currency conversion, see *Credit Card Services Using the Simple Order API*.

Europay, Mastercard, Visa (EMV)

Information in this guide about EMV applies to payment card processing and PIN debit processing. All other information in this guide applies only to payment card processing. PIN debit processing is available only on FDC Nashville Global.

Services:

- Authorization
- Authorization reversal
- Capture
- Credit
- PIN debit credit—supported only on FDC Nashville Global.
- PIN debit purchase—supported only on FDC Nashville Global.
- PIN debit reversal—supported only on FDC Nashville Global.

Processors:

- American Express Direct
- Chase Paymentech Solutions
- Credit Mutuel-CIC
- FDC Nashville Global
- GPN
- OmniPay Direct—First Data Merchant Solutions (Europe) only.
- Prosa
- SIX

Card Types for Contact EMV Transactions:

- American Express Direct
  - American Express
- Chase Paymentech Solutions
  - American Express
  - Diners Club
  - Discover
  - Mastercard
  - Visa

- Credit Mutuel-CIC
  - Cartes Bancaires
  - Maestro (International)
  - Maestro (UK Domestic)
  - Mastercard
  - Visa
  - Visa Electron
- FDC Nashville Global
  - American Express
  - China UnionPay
  - Diners Club
  - Discover
  - JCB
  - Maestro (International)
  - Mastercard
  - Visa
- GPN
  - American Express
  - Diners Club
  - Discover
  - JCB
  - Mastercard
  - Visa
- OmniPay Direct
  - Mastercard
  - Visa
- Prosa
  - American Express
  - Carnet
  - Carte Blanche
  - Diners Club
  - Discover
  - Mastercard
  - Visa

- SIX
  - China UnionPay
  - Diners Club
  - Discover
  - JCB
  - Maestro (International)
  - Maestro (UK Domestic)
  - Mastercard
  - Visa
  - Visa Electron

Card Types for Contactless EMV Transactions:

- American Express Direct
  - American Express ExpressPay
- Chase Paymentech Solutions
  - American Express ExpressPay
  - Diners Club
  - Discover
  - Mastercard PayPass
  - Visa payWave
- Credit Mutuel-CIC
  - Mastercard PayPass
  - Visa payWave
- FDC Nashville Global
  - American Express ExpressPay
  - China UnionPay
  - Diners Club
  - Discover
  - JCB
  - Mastercard PayPass
  - Visa payWave

- GPN
  - American Express ExpressPay
  - Diners Club
  - Discover
  - JCB
  - Mastercard PayPass
  - Visa payWave
- OmniPay Direct
  - Mastercard PayPass
  - Visa payWave
- Prosa
  - American Express
  - Carnet
  - Carte Blanche
  - Diners Club
  - Discover
  - Mastercard
  - Visa
- SIX
  - Mastercard PayPass
  - Visa payWave

EMV is a global standard for exchanging information between chip cards and POS terminals. A chip card is a credit or debit card with an embedded microchip. A chip card also has a magnetic stripe on the back of the card, which can be used for a back-up transaction when the card's chip cannot be read. The EMV standards define the protocols for all levels of transmission between chip cards and chip card processing devices: physical, electrical, data, and application.

Apple Pay and Google Pay

Contactless EMV for Apple Pay and Google Pay transactions is supported.

Processors:

- FDC Nashville Global
- OmniPay Direct
- SIX

Card Types:

Table 3 Supported Card Types for Contactless Apple Pay and Google Pay Transactions

Card Type	FDC Nashville Global	OmniPay Direct	SIX
American Express	Yes	No	No
Discover	Yes	No	No
Mastercard	Yes	Yes	Yes
Visa	Yes	Yes	Yes

EMV Host Validation and Device Certification

A two-step process is used for host validation and device certification for EMV. Both steps must be completed to have a fully certified EMV solution.

1 Host validation: Cybersource obtained host validation for the following processors:

- American Express Direct
- Chase Paymentech Solutions
- Credit Mutuel-CIC
- FDC Nashville Global
- GPN
- OmniPay Direct—First Data Merchant Solutions (Europe) only
- Prosa
- SIX

2 Device certification: Cybersource is working on device certification with Credit Mutuel-CIC, FDC Nashville Global, and SIX.

Before you purchase a device for use with EMV, contact your Cybersource representative.

EMV Cards and Cardholder Verification Methods (CVMs)

Table 4 Processor Support for CVMs

Processor	Chip and PIN	Chip and Online PIN	Chip and Signature
American Express Direct	Yes	Yes	Yes
Chase Paymentech Solutions	No	No	Yes
Credit Mutuel-CIC	Yes	No	Yes
FDC Nashville Global	Yes	Yes	Yes
GPN	No	No	Yes
OmniPay Direct	Yes	No	Yes
Prosa	No	No	Yes
SIX	Yes	Yes	Yes

Most chip-and-PIN cards allow a cardholder to provide a signature as a back-up option. Other EMV cards are chip-and-signature cards. For these cards, a signature is the preferred CVM, and a PIN can be used as a back-up option.

Chip-and-signature cards are more widespread in the U.S. Chip-and-PIN cards are more widespread outside the U.S.

On FDC Nashville Global, there are two different ways to decrypt PIN data:

- With the Cybersource solution, which is the default solution, Cybersource injects the terminal with a fixed key and decrypts the PIN data.
- With the third-party solution, Cybersource sends the encrypted PIN data to a third party who decrypts the PIN data and forwards it to the processor on your behalf. To enable third-party PIN data decryption for your Cybersource account, contact customer support.

EMV Transactions

When you use the Simple Order API in XML format, you must use version 1.86 or later of the XML schema to implement EMV.

EMV transactions are more secure from fraud than are magnetic stripe transactions, which require a visual inspection of the card. Chip-and-PIN cards are more secure from fraud than chip-and-signature cards. When an EMV chip card is used in a POS environment, it generates a cryptogram that changes with each transaction. This dynamic authentication provides an extra layer of security for POS transactions.

For an EMV transaction, use the fields documented in "EMV Request Fields," page 25. The following fields and values are specifically for EMV:

- Request fields: see "EMV Request Fields," page 25.
- Reply fields: see "Reply Fields," page 55.
- Values for **pos_entryMode**:
  - `contact`: Read from direct contact with chip card.
  - `contactless`: Read from a contactless interface using chip data.
  - `msd`: Read from a contactless interface using magnetic stripe data (MSD). The `msd` value is not supported on OmniPay Direct.
- Values for **pos_terminalCapability**:
  - `4`: Terminal can read chip cards.
  - `5`: Terminal can read contactless chip cards.

Mass Transit Transactions

Service:

- Authorization

Processor:

- Prosa

Card types:

- Mastercard
- Visa

The following transaction types are supported for mass transit transactions (MTTs):

- Contactless zero amount authorizations
- Contactless deferred authorizations
- Cardholder-initiated MOTO and e-commerce debt recovery
- Merchant-initiated MOTO debt recovery

For an MTT, you can capture a declined authorization when the amount is less than the regional chargeback threshold.

Create an authorization request for an MTT:

Step 1 Include the **ccAuthService_industryDatatype** field in the authorization request. Set the value for this field to `transit`.

Step 2 Include fields required for an authorization request.

Step 3 Include any of the following optional MTT request fields:

- ccAuthService_aggregatedAuthIndicator
- ccAuthService_captureDate
- ccAuthService_debtRecoveryIndicator
- ccAuthService_deferredAuthIndicator
- ccAuthService_transportationMode

For descriptions of these fields, see "General Card-Present Request Fields," page 32.

PCI P2P Encryption with Bluefin

Services:

- Authorization
- Stand-alone credit

Processors:

This feature is supported for all processors that are supported for card-present transactions. See "Supported Processors," page 9.**Device:**

- ID TECH SREDKey PCI Key Pad with Encrypted MagStripe Reader

You must use a device that meets the following requirements:

- Is provided by Bluefin Payment Systems unless otherwise agreed to by Cybersource and Bluefin
- Is injected with encryption keys for the Cybersource payment card industry (PCI) point-to-point encryption (P2PE) solution, which is powered by Bluefin

You need to have separate devices for sandbox testing and production.

Requirements

You must have a contractual relationship with Bluefin Payment Systems for PCI-validated P2PE services, which include:

- Key injection
- Decryption, which is performed by Cybersource
- Hardware

You must manage your Bluefin devices through the Bluefin P2PE Manager portal, which enables you to:

- Track device shipments
- Deploy or terminate devices
- Manage users and administrators
- View P2PE transactions
- Download and export reports for PCI compliance

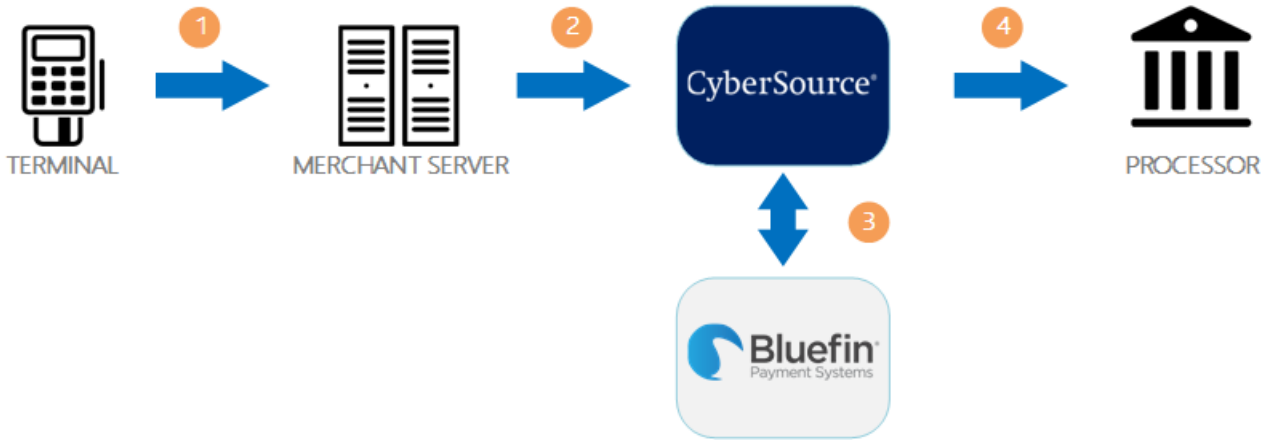
Do not use terminal configuration #3 or #5, which causes the device to prompt you for the cardholder's street address. To include the cardholder's street address in your order management system, include the API field for the billing street address in your request.

Overview

The PCI P2PE solution, which is powered by Bluefin, does the following:

- Safeguards card data at the terminal hardware level
- Reduces your PCI burden by minimizing the number of PCI audit questions to which you must respond
- Provides device life cycle management through the Bluefin P2PE Manager portal
- Supports magnetic stripe read (MSR) and manual key entry

The following diagram illustrates the steps in a transaction that uses encryption:



1. When a customer swipes a card through the Bluefin device, the device encrypts the card details at the hardware level and in accordance with PCI P2PE standards. The device sends the encrypted payload to your order management system.
2. Your order management system sends the encrypted payload to Cybersource in an authorization request or stand-alone credit request.
3. Cybersource sends the encrypted payload to Bluefin to be decrypted and parsed. Bluefin sends the decrypted data to Cybersource over a secure channel.
4. Cybersource sends the decrypted data and additional transaction information to your processor.

Creating a Request for an Authorization or Stand-Alone Credit That Uses Bluefin PCI P2PE

When using the Simple Order API in XML format, you must use version 1.132 or later of the XML schema to use Bluefin P2PE encryption.

For examples that use Bluefin PCI P2PE, see:

- Name-value pair examples: "Authorization Using Bluefin PCI P2PE," page 72
- XML examples: "Authorization Using Bluefin PCI P2PE," page 90

Step 1 Include the following fields in the request:

- encryptedPayment_data
- encryptedPayment_descriptor

These fields are described in "P2PE Request Fields," page 55.

Step 2 Include general card-present request fields in the request as needed. See "General Card-Present Request Fields," page 32.

Step 3 Follow instructions in *Credit Card Services Using the Simple Order API* for creating an authorization request or stand-alone credit request.

Most of the fields that are normally required for an authorization request or stand-alone credit request are not required for a Bluefin PCI P2PE request because the encrypted data includes most of the required data.

POS Transactions in Brazil

Services:

- Authorization
- Capture
- Credit

The **invoiceHeader_merchantDescriptorPostalCode** field is required for POS transactions in Brazil. For a description of this field, see the information about merchant descriptors in *Merchant Descriptors Using the Simple Order API*.

Relaxed Requirements for Address Data and Expiration Date

To enable relaxed requirements for address data and expiration date, contact CyberSource Customer Support to have your account configured for this feature. For details about relaxed requirements, see the Relaxed Requirements for Address Data and Expiration Date page.

APPENDIX A

API Fields

This guide is a supplement to the credit card guide and PIN debit guide. This supplement provides information about features and fields that are used in addition to the information that is in the credit card guide and PIN debit guide.

When you send a request that includes card-present data, you must include the basic fields required for every credit card or PIN debit request. For information about these basic fields, see *Credit Card Services Using the Simple Order API* and *PIN Debit Processing Using the Simple Order API*.

XML Schema Versions

For general information about the XML schema versions, see *Getting Started with Cybersource Advanced for the Simple Order API*.The following table specifies the Simple Order API version to use for each processor for clear-text card-present transactions.

Table 5 Simple Order API XML Schema Versions for Card-Present Transactions

Processor	Version for Clear Text Transactions
American Express Direct	1.138 or later
Chase Paymentech Solutions	1.25 or later
Credit Mutuel-CIC	1.151 or later
FDC Nashville Global	1.24 or later
FDMS Nashville	1.29 or later
GPN	1.26 or later
JCN Gateway	1.26 or later
OmniPay Direct	1.25 or later

Table 5 Simple Order API XML Schema Versions for Card-Present Transactions

Processor	Version for Clear Text Transactions
Prosa	1.168 or later
RBS WorldPay Atlanta	1.48 or later
SIX	1.138 or later
TSYS Acquiring Solutions	1.13 or later
Worldpay VAP—Worldpay VAP was previously called *Litle*. Litle was purchased by Vantiv, which was then purchased by Worldpay VAP. If you have any questions, contact your account manager at Worldpay VAP.	1.58 or later

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.

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 6 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

EMV Request Fields

Table 7 EMV Request Fields

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ cardholderVerification Method	Method that was used to verify the cardholder's identity. See "Europay, Mastercard, Visa (EMV)," page 12. Possible values: ■ `0`: No verification ■ `1`: Signature ■ `2`: PIN This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (R for successful EMV transactions and EMV fallback transactions)	Integer (1)
emvRequest_ cardSequenceNumber	Number assigned to a specific card when two or more cards are associated with the same primary account number. This value enables issuers to distinguish among multiple cards that are linked to the same account. This value can also act as a tracking tool when the issuer reissues cards. When this value is available, it is provided by the chip reader. When the chip reader does not provide this value, do not include this field in your request. See "Europay, Mastercard, Visa (EMV)," page 12. Information in this guide about EMV applies to payment card processing and PIN debit processing. All other information in this guide applies only to payment card processing. PIN debit processing is available only on FDC Nashville Global.	ccAuthService (O) pinDebitCreditService (O) pinDebitPurchase Service (O) The PIN debit services are supported only on FDC Nashville Global.	American Express Direct: String with numbers only (2) All other processors: String with numbers only (3)

Table 7 EMV Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
emvRequest_ combinedTags	EMV data that is transmitted from the chip card to the issuer and from the issuer to the chip card. The EMV data is in the tag-length-value format and includes chip card tags, terminal tags, and transaction detail tags. See "Europay, Mastercard, Visa (EMV)," page 12. For information about the individual tags, see the "Application Specification" section in the *EMV 4.3 Specifications*: http://emvco.com **Important** The following tags contain sensitive information and must not be included in this field: ■ 56: Track 1 equivalent data ■ 57: Track 2 equivalent data ■ 5A: Application PAN ■ 5F20: Cardholder name ■ 5F24: Application expiration date ■ 99: Transaction PIN ■ 9F0B: Cardholder name (extended) ■ 9F1F: Track 1 discretionary data ■ 9F20: Track 2 discretionary data For information about the individual tags, see the "Application Specification" section in the *EMV 4.3 Specifications*: http://emvco.com For captures, this field is required for contact EMV transactions. Otherwise, it is optional. For credits, this field is required for contact EMV stand-alone credits and contactless EMV stand-alone credits. Otherwise, it is optional. **Important** For contact EMV captures, contact EMV stand-alone credits, and contactless EMV stand-alone credits, you must include the following tags in this field. For all other types of EMV transactions, the following tags are optional. ■ 95: Terminal verification results ■ 9F10: Issuer application data ■ 9F26: Application cryptogram Information in this guide about EMV applies to payment card processing and PIN debit processing. All other information in this guide applies only to payment card processing. PIN debit processing is available only on FDC Nashville Global.	ccAuthService (O) ccAuthReversalService (O) ccCaptureService (See description) ccCreditService (See description) pinDebitCreditService (O) pinDebitPurchase Service (O) pinDebitReversal Service (O) The PIN debit services are supported only on FDC Nashville Global.	JCN Gateway: 199 bytes All other processors: String (999)

Table 7 EMV Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
	JCN Gateway The following tags must be included: ■ 4F: Application identifier ■ 84: Dedicated file name		
emvRequest_fallback	Indicates that a fallback method was used to enter payment card information into the POS terminal. When a technical problem prevents a successful exchange of information between a chip card and a chip-capable terminal: 1 Swipe the card or key the payment card information into the POS terminal. 2 Use the **pos_entryMode** field to indicate whether the information was swiped or keyed. See "Europay, Mastercard, Visa (EMV)," page 12. Possible values: ■ `true`: Fallback method was used. ■ `false` (default): Fallback method was not used. This field is supported only on American Express Direct, Chase Paymentech Solutions, FDC Nashville Global, GPN, JCN Gateway, OmniPay Direct, and SIX.	ccAuthService (O) ccCreditService (O)	String (5)

Table 7 EMV Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
emvRequest_ fallbackCondition	Reason for the EMV fallback transaction. An EMV fallback transaction occurs when an EMV transaction fails for one of these reasons: ■ Technical failure: the EMV terminal or EMV card cannot read and process chip data. ■ Empty candidate list failure: the EMV terminal does not have any applications in common with the EMV card. EMV terminals are coded to determine whether the terminal and EMV card have any applications in common. EMV terminals provide this information to you. See "Europay, Mastercard, Visa (EMV)," page 12. Possible values: ■ `1`: Transaction was initiated with information from a magnetic stripe, and the previous transaction at the EMV terminal either used information from a successful chip read or it was not a chip transaction. ■ `2`: Transaction was initiated with information from a magnetic stripe, and the previous transaction at the EMV terminal was an EMV fallback transaction because the attempted chip read was unsuccessful. This field is supported only on GPN and JCN Gateway.	ccAuthService (R with all card types for an EMV fallback transaction that occurs when an EMV transaction fails for a technical reason; otherwise, not used.) ccCaptureService (R for a forced capture with Visa for an EMV fallback transaction that occurs when an EMV transaction fails for a technical reason; otherwise, not used.) ccCreditService (R for a stand-alone credit with Visa for an EMV fallback transaction that occurs when an EMV transaction fails for a technical reason; otherwise, not used.) Do not include this field when the EMV terminal does not have any applications in common with the EMV card.	String (1)
pinDataEncryptedPIN	Encrypted PIN. The entity that injected the PIN encryption keys into the terminal creates this value. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, and only for processors that support chip and online PIN transactions as indicated in Table 4, "Processor Support for CVMs," on page 17.	ccAuthService (R for online PIN transactions)	String (16)

Table 7 EMV Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pinDataKeySerial Number	Combination of the POS terminal's unique identifier and a transaction counter that is used when decrypting the encrypted PIN. The entity that injected the PIN encryption keys into the terminal decrypts the encrypted PIN and creates this value. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, and only for processors that support chip and online PIN transactions as indicated in Table 4, "Processor Support for CVMs," on page 17.	ccAuthService (R for online PIN transactions)	String (20)
pinDataPINblock EncodingFormat	Format that is used to encode the PIN block. Possible values: ■ `0`: ISO 9564 format 0 ■ `1`: ISO 9564 format 1 ■ `2`: ISO 9564 format 2 ■ `3`: ISO 9564 format 3 This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, and only for processors that support chip and online PIN transactions as indicated in Table 4, "Processor Support for CVMs," on page 17.	ccAuthService (R for online PIN transactions)	Integer (1)

Table 7 EMV Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_environment	Operating environment. Possible values for all card types except Mastercard: ■ 0: No terminal used or unknown environment. ■ 1: On merchant premises, attended. ■ 2: On merchant premises, unattended. Examples: oil, kiosks, self-checkout, mobile telephone, personal digital assistant (PDA). ■ 3: Off merchant premises, attended. Examples: portable POS devices at trade shows, at service calls, or in taxis. ■ 4: Off merchant premises, unattended. Examples: vending machines, home computer, mobile telephone, PDA. ■ 5: On premises of cardholder, unattended. ■ 9: Unknown delivery mode. ■ S: Electronic delivery of product. Examples: music, software, or eTickets that are downloaded over the internet. ■ T: Physical delivery of product. Examples: music or software that is delivered by mail or by a courier. Possible values for Mastercard: ■ 2: On merchant premises, unattended. Examples: oil, kiosks, self-checkout. ■ 4: Off merchant premises, unattended, or cardholder terminal. Examples: vending machines. This field is supported only on American Express Direct.	ccAuthService (O)	String (1)

Clear Text Request Fields

Table 8 Clear Text Request Fields

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_trackData	Card's track 1 and 2 data. For all processors except FDMS Nashville, this value consists of one of the following: ■ Track 1 data ■ Track 2 data ■ Data for both tracks 1 and 2 For FDMS Nashville, this value consists of one of the following: ■ Track 1 data ■ Data for both tracks 1 and 2 **Example** %B4111111111111111^SMITH/JOHN ^16121019761100008680000000?;4111111111111111=16121019761186800000?	ccAuthService: ■ Processors that support EMV: R when **pos_entryMode** is `contact`, `contactless`, `msd`, or `swiped`; otherwise, not used. ■ All other processors: R when swiped; otherwise, not used.	String (119)

General Card-Present Request Fields

Table 9 General Card-Present Request Fields

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_aggregatedAuthIndicator	Flag for a mass transit transaction that indicates whether the authorization is aggregated. Possible values: ■ `true`: Aggregated ■ `false`: Not aggregated This field is supported only for mass transit transactions. See "Mass Transit Transactions," page 18.	ccAuthService (O)	String (5)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ captureDate	Date on which the customer initiated a contactless transit transaction. Format: MMDD This field is supported only for mass transit transactions. See "Mass Transit Transactions," page 18.	ccAuthService (O)	String (4)
billTo_city	Payment card billing city.	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ SIX: O ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ Worldpay VAP: O ■ All other processors: not used.	String (50)
billTo_country	Payment card billing country. Use the two-character *ISO Standard Country Codes*.	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ SIX: O ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ Worldpay VAP: O ■ All other processors: not used.	String (2)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_email	Customer's email address, including full domain name. Format: name@host.domain	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ SIX: O ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ Worldpay VAP: O ■ All other processors: not used.	String (255)
billTo_firstName	Customer's first name. Value should match value on card.	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ SIX: O ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ Worldpay VAP: O ■ All other processors: not used.	String (60)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_lastName	Customer's last name. Value should match value on card.	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ RBS WorldPay Atlanta: O ■ SIX: O ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ Worldpay VAP: O ■ All other processors: not used.	String (60)
billTo_phoneNumber	Customer's phone number. Cybersource recommends that you include the country code when order is from outside the U.S.	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ SIX: O ■ TSYS Acquiring Solutions: O ■ Worldpay VAP: O ■ All other processors: not used.	String (15)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_postalCode	Postal code for billing address. Postal code must consist of 5 to 9 digits. When the billing country is U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 When the billing country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] **Example** A1B 2C3	ccAuthService: ■ FDMS Nashville: R when keyed and the address is in the U.S. or Canada. O when keyed and the address is not in the U.S. or Canada. Not used when swiped. ■ RBS WorldPay Atlanta: when keyed, include this field for best card-present keyed rates. ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ All other processors: O.	String (10)
billTo_state	Payment card billing state or province. Use *State, Province, and Territory Codes for the United States and Canada*.	ccAuthService: ■ Chase Paymentech Solutions: O ■ Credit Mutuel-CIC: O ■ OmniPay Direct: O ■ SIX: O ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_ billPayment** is `true`. ■ Worldpay VAP: O ■ All other processors: not used.	String (2)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
billTo_street1	Payment card billing street address as it appears in the issuer's records. ***FDMS Nashville*** When the street name is numeric, it must be sent in numeric format. For example, if the address is *One First Street*, it must be sent as *1 1st Street*.	ccAuthService: ■ FDMS Nashville: R when keyed; not used when swiped. ■ TSYS Acquiring Solutions: R when keyed and **ccAuthService_billPayment** is `true`. ■ All other processors: O.	FDMS Nashville: String (20) All other processors: String (60)
billTo_street2	Used for additional address information. For example: Attention: Accounts Payable ***FDMS Nashville*** **billTo_street1** and **billTo_street2** together cannot exceed 20 characters.	ccAuthService (O)	FDMS Nashville: String (20) All other processors: String (60)
card_accountNumber	Payment card number.	ccAuthService: ■ FDMS Nashville: R. ■ All other processors: R when keyed.	FDMS Nashville: String with numbers only (19) All other processors: String with numbers only (20)
card_cardType	Three-digit value that indicates the card type. For the possible values, see Appendix D, "Card Types," on page 92.	ccAuthService (R for Carte Blanche and JCB. O for other card types.) **Important** Cybersource strongly recommends that you send the card type even when it is optional for your processor and card type. Omitting the card type can cause the transaction to be processed with the wrong card type.	String (3)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
card_cvIndicator	Indicates whether a CVN code was sent. Possible values: ■ `0` (default): CVN service not requested. Cybersource uses this default when you do not include **card_cvNumber** in the request. ■ `1` (default): CVN service requested and supported. Cybersource uses this default when you include **card_cvNumber** in the request. ■ `2`: CVN on payment card is illegible. ■ `9`: CVN not imprinted on payment card.	ccAuthService: ■ FDMS Nashville: R for American Express; otherwise, O. ■ TSYS Acquiring Solutions: O when keyed; otherwise, not used. ■ All other processors: O.	String with numbers only (1)
card_cvNumber	CVN. See CVN information in *Credit Card Services Using the Simple Order API*.	ccAuthService: ■ FDMS Nashville: R for American Express or when swiped; otherwise, O. ■ TSYS Acquiring Solutions: O when keyed; otherwise, not used. ■ All other processors: O.	String with numbers only (4)
card_expirationMonth	Two-digit month in which payment card expires. Format: MM. Possible values: `01` through `12`. Leading `0` is required.	ccAuthService: ■ FDMS Nashville: R. ■ All other processors: R when keyed.[1]	String (2)
card_expirationYear	Four-digit year in which payment card expires. Format: YYYY.	ccAuthService: ■ FDMS Nashville: R. ■ All other processors: R when keyed.[1]	String (4)
ccAuthService_ billPayment	Indicates payment for bill or payment towards existing contractual loan. For information about Visa Bill Payments and Visa Debt Repayments, see *Credit Card Services Using the Simple Order API*. Possible values: ■ `true`: Bill payment or loan payment. ■ `false` (default): Not a bill payment or loan payment.	ccAuthService (O)	String (5)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ commerceIndicator	Type of transaction. For a card-present transaction, you must set this field to `retail`.	ccAuthService (R)	String (13)
ccAuthService_run	Set to `true` to request payment card authorization.	ccAuthService (R)	String (255)
ccAuthService_ debtRecoveryIndicator	Flag for a mass transit transaction that indicates whether the purpose of the authorization is to recover debt. Possible values: ■ `true`: Debt recovery transaction ■ `false`: Not a debt recovery transaction The value for this field corresponds to the following data in the TC 33 capture file[1]: ■ Record: CP01 TCR7 ■ Position: 150-151 ■ Field: Transit Transaction Type Indicator This field is supported only for mass transit transactions. See "Mass Transit Transactions," page 18.	ccAuthService (O)	String (5)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ deferredAuthIndicator	Indicates whether the authorization request was delayed because connectivity was interrupted. Possible values: ■ `true`: Deferred authorization ■ `false` (default): Not a deferred authorization The value for this field corresponds to the following two data items in the TC 33 capture file[1]: ■ First data item: • Record: CP01 TCR0 • Position: 160-163 • Field: Message Reason Code ■ Second data item: • Record: CP01 TCR7 • Position: 150-151 • Field: Transit Transaction Type Indicator This field is supported only for mass transit transactions. See "Mass Transit Transactions," page 18.	ccAuthService (O)	String (5)
ccAuthService_ industryDatatype	Indicates whether the transaction includes mass transit transaction (MTT) data. You must set this field to `transit` in order for MTT data to be sent to the processor. When this field is not set to `transit` or is not included in the request, Cybersource does not send MTT data to the processor. This field is supported only for mass transit transactions. See "Mass Transit Transactions," page 18.	ccAuthService (R for MTT transactions)	String (7)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
ccAuthService_ transportationMode	Mode of transportation or type of transportation-related payment. Possible values: ■ `00`: Use this value for: • Debt recovery • More than one transportation mode • Unknown transportation mode ■ `01`: Urban bus ■ `02`: Interurban bus ■ `03`: Light train mass transit ■ `04`: Train ■ `05`: Commuter train ■ `06`: Water-borne vehicle ■ `07`: Toll ■ `08`: Parking ■ `09`: Taxi ■ `10`: High-speed train ■ `11`: Rural bus ■ `12`: Express commuter train ■ `13`: Paratransit ■ `14`: Self-driving vehicle ■ `15`: Coach ■ `16`: Locomotive ■ `17`: Powered motor coach ■ `18`: Trailer ■ `19`: Regional train ■ `20`: Inter-city transportation ■ `21`: Funicular train ■ `22`: Cable car This field is supported only for mass transit transactions. See "Mass Transit Transactions," page 18.	ccAuthService (O)	String (2)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
comments	Brief description or comments for the order. Cybersource does not forward this value to the processor. Instead, the value is forwarded to the Cybersource reporting software. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O)	String (255)
item_#_productCode	Type of product. This value is used to identify the product category (electronic, handling, physical, service, or shipping). The default value is `default`. For a list of valid values, see the information about product codes in *Credit Card Services Using the Simple Order API*. When this field is not set to `default` or one of the values related to shipping and/or handling, the **item_#_quantity**, **item_#_productName**, and **item_#_productSKU** fields are required. For information about items and grand totals, see *Getting Started with Cybersource Advanced for the Simple Order API*.	ccAuthService (O)	String (30)
item_#_productName	Product name.	ccAuthService (R when **item_#_productCode** is not `default` or one of the values related to shipping and/or handling.)	String (30)
item_#_productSKU	Product identifier code.	ccAuthService (R when **item_#_productCode** is not `default` or one of the values related to shipping and/or handling.)	String (15)
item_#_quantity	Default is `1`.	ccAuthService (R when **item_#_productCode** is not `default` or one of the values related to shipping and/or handling.)	Integer (10)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length

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.
	
	When you want to include **item_#_taxAmount** and also request the **taxService** service, see *Tax Calculation Service Using the Simple Order API*.
		ccAuthService (O)	String (15)

item_#_unitPrice	Per-item price of the product. You must include either this field or **purchaseTotals_grandTotalAmount** in your request. This value cannot be negative. For information about items and grand totals, see *Getting Started with Cybersource Advanced for the Simple Order API*. You can include a decimal point (.) in the value for this field, but you cannot include any other special characters. Cybersource truncates the amount to the correct number of decimal places.	ccAuthService (See description)	For GPN and JCN Gateway: String (10) All other processors: String (15)
jpo_jccaTerminalID	Unique Japan Credit Card Association (JCCA) terminal identifier that is provided by Cybersource. The difference between this field and the **pos_terminalID** field is that you can define **pos_terminalID**, but **jpo_jccaTerminalID** is defined by the JCCA and is used only in Japan. This field is supported only on JCN Gateway.	ccAuthService (O)	Integer (13)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
jpo_jis2TrackData	Japanese Industrial Standard Type 2 (JIS2) track data from the front of the card. This field is supported only on JCN Gateway.	ccAuthService (O) ccCreditService (O)	String (69)
merchandiseCode	Identifier for the merchandise. This field is supported only on the processors listed in this field description. ***American Express Direct*** Value: ▪ `1000`: Gift card ***JCN Gateway*** This value must be right justified. In Japan, this value is called a *goods code*.	ccAuthService (O)	Integer (7)
merchantID	Your Cybersource merchant ID.	ccAuthService (R)	String (30)
merchantReference Code	Merchant-generated order reference or tracking number. Cybersource recommends that you send a unique value for each transaction so that you can perform meaningful searches for the transaction. For information about tracking orders, see *Getting Started with Cybersource Advanced for the Simple Order API*. ***FDC Nashville Global*** This value must be numeric and must be less than 9 digits. When you do not send a valid value, Cybersource creates one for you. However, the value is not returned to you, so you cannot use the merchant reference number to track the order.	ccAuthService (R)	String (50)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
partnerOriginal TransactionID	Value that links the previous transaction to the current follow-on request. This value is assigned by the client software that is installed on the POS terminal, which makes it available to the terminal's software and to Cybersource. Therefore, you can use this value to reconcile transactions between Cybersource and the terminal's software. Cybersource does not forward this value to the processor. Instead, the value is forwarded to the Cybersource reporting software. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccAuthReversalService (O) ccCaptureService (O) ccCreditService (O)	String (32)
partnerSDKversion	Version of the software installed on the POS terminal. Cybersource does not forward this value to the processor. Instead, the value is forwarded to the Cybersource reporting software. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccCreditService (O)	String (32)
pos_cardPresent	Indicates whether the card is present at the time of the transaction. Possible values: ■ `N`: Card is not present. ■ `Y`: Card is present.	ccAuthService: ■ FDMS Nashville: not used. ■ All other processors: R.	String (1)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_catLevel	Type of cardholder-activated terminal. Possible values: ■ 1: Automated dispensing machine ■ 2: Self-service terminal ■ 3: Limited amount terminal ■ 4: In-flight commerce (IFC) terminal ■ 5: Radio frequency device ■ 6: Mobile acceptance terminal ■ 7: Electronic cash register ■ 8: E-commerce device at your location ■ 9: Terminal or cash register that uses a dial-up connection to connect to the transaction processing network ***Chase Paymentech Solutions*** Only values 1, 2, and 3 are supported. ***FDC Nashville Global*** Only values 7, 8, and 9 are supported. ***GPN*** Only values 6, 7, 8, and 9 are supported. ***JCN Gateway*** Only values 6, 7, 8, and 9 are supported. ***Prosa*** Values 1 through 9 are supported. ***TSYS Acquiring Solutions*** Only value 6 is supported.	ccAuthService: ■ Chase Paymentech Solutions: R when **pos_terminalID** is included in the request; otherwise, O. ■ FDC Nashville Global: O for EMV transactions; otherwise, not used. ■ GPN: R. ■ JCN Gateway: R. ■ Prosa: R. ■ TSYS Acquiring Solutions: R for transactions from mobile devices; otherwise, not used. ■ All other processors: not used.	Nonnegative integer (1)
pos_deviceID	Value created by the client software that uniquely identifies the POS device. Cybersource does not forward this value to the processor. Instead, the value is forwarded to the Cybersource reporting software. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccCreditService (O)	String (32)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_entryMode	Method of entering payment card information into the POS terminal. Possible values: ■ `contact`: Read from direct contact with chip card. ■ `contactless`: Read from a contactless interface using chip data. ■ `keyed`: Manually keyed into POS terminal. This value is not supported on OmniPay Direct. ■ `msd`: Read from a contactless interface using magnetic stripe data (MSD). This value is not supported on OmniPay Direct. ■ `swiped`: Read from payment card magnetic stripe. The `contact`, `contactless`, and `msd` values are supported only for EMV transactions. See "Europay, Mastercard, Visa (EMV)," page 12.	ccAuthService (R)	String (11)
pos_ storeAndForward Indicator	When connectivity is unavailable, the client software that is installed on the POS terminal can store a transaction in its memory and send it for authorization when connectivity is restored. Cybersource does not forward this value to the processor. Instead, the value is forwarded to the Cybersource reporting software. Possible values: ■ `true`: Transaction was stored and then forwarded. ■ `false` (default): Transaction was not stored and then forwarded. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, but is not supported for Credit Mutuel-CIC.	ccAuthService (O) ccCreditService (O)	String (5)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_terminalCapability	POS terminal's capability. Possible values: ■ 1: Terminal has a magnetic stripe reader only. ■ 2: Terminal has a magnetic stripe reader and manual entry capability. ■ 3: Terminal has manual entry capability only. ■ 4: Terminal can read chip cards. ■ 5: Terminal can read contactless chip cards; cannot use contact to read chip cards. For an EMV transaction, the value of this field must be 4 or 5. See "Europay, Mastercard, Visa (EMV)," page 12.	ccAuthService: ■ R for the following processors: • American Express Direct • Chase Paymentech Solutions • Credit Mutuel-CIC • FDC Nashville Global • FDMS Nashville • OmniPay Direct • Prosa • SIX • Worldpay VAP ■ O for the following processors: • GPN • JCN Gateway • RBS WorldPay Atlanta • TSYS Acquiring Solutions	Integer (1)
pos_ terminalCardCapture Capability	Indicates whether the terminal can capture the card. Possible values: ■ 1: Terminal can capture card. ■ 0: Terminal cannot capture card. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, but is not supported for FDC Nashville Global or SIX.	ccAuthService (O) ccCreditService (O)	String (5)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_terminalCVM capabilities_#	Complete list of cardholder verification methods (CVMs) supported by the terminal. Possible values: ■ `PIN` ■ `Signature` This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccCreditService (O)	String (15)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_terminalID	Identifier for the terminal at your retail location. You can define this value yourself, but consult the processor for requirements. ***FDC Nashville Global*** To have your account configured to support this field, contact Cybersource Customer Support. This value must be a value that FDC Nashville Global issued to you.	ccAuthService: ■ O for the following processors. When not included in the request, Cybersource uses the value in your Cybersource account. • American Express Direct • Credit Mutuel-CIC • FDC Nashville Global • Prosa • SIX ■ Chase Paymentech Solutions: O. When you include this field in the request, you must also include **pos_catLevel**. ■ FDMS Nashville: Cybersource uses the value in your Cybersource account. ■ OmniPay Direct: O ■ For the following processors, this field is not used. • GPN • JCN Gateway • RBS WorldPay Atlanta • TSYS Acquiring Solutions • Worldpay VAP	String (8)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_ terminalIDAlternate	Identifier for an alternate terminal at your retail location. You define the value for this field. This field is supported only for Mastercard transactions on FDC Nashville Global. Use the **pos_terminalID** field to identify the main terminal at your retail location. When your retail location has multiple terminals, use this **pos_ terminalIDAlternate** field to identify the terminal used for the transaction. This field is a *pass-through*, which means that Cybersource does not check the value or modify the value in any way before sending it to the processor.	ccAuthService: ■ FDC Nashville Global: O for Mastercard transactions; otherwise, not used. ■ All other processors: not used.	String (8)
pos_terminalInput Capabilities_#	Complete list of card input methods supported by the terminal. Possible values: ■ `Keyed`: Terminal can accept card data that is entered manually. ■ `Swiped`: Terminal can accept card data from a magnetic stripe reader. ■ `Contact`: Terminal can accept card data in EMV contact mode. ■ `Contactless`: Terminal can accept card data in EMV contactless mode. ■ `BarCode`: Terminal can read bar codes. ■ `QRcode`: Terminal can read QR codes. ■ `OCR`: Terminal can perform optical character recognition (OCT). This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccCreditService (O)	String (15)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_ terminalOutput Capability	Indicates whether the terminal can print or display messages. Possible values: ■ 1: Neither ■ 2: Print only ■ 3: Display only ■ 4: Print and display This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccCreditService (O)	String (1)
pos_ terminalPINcapability	Maximum PIN length that the terminal can capture. Possible values: ■ 0: No PIN capture capability ■ 1: PIN capture capability unknown ■ 4: Four characters ■ 5: Five characters ■ 6: Six characters ■ 7: Seven characters ■ 8: Eight characters ■ 9: Nine characters ■ 10: Ten characters ■ 11: Eleven characters ■ 12: Twelve characters This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, but is not supported on FDC Nashville Global.	ccAuthService (R for PIN transactions) ccCreditService (R for PIN transactions)	Integer (2)
pos_ terminalSerialNumber	Terminal serial number assigned by the hardware manufacturer. Cybersource does not forward this value to the processor. Instead, the value is forwarded to the Cybersource reporting software. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccCreditService (O)	String (32)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
pos_terminalType	Type of terminal. Possible values: ■ `21`: Attended terminal, online only ■ `22`: Attended terminal, offline with online capability ■ `23`: Attended terminal, offline only ■ `24`: Unattended terminal, online only ■ `25`: Unattended terminal, offline with online capability ■ `26`: Unattended terminal, offline only This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthService (O) ccAuthReversalService (O) ccCreditService (O)	String (2)
purchaseTotals_ currency	Currency used for order. For possible values, see *ISO Standard Currency Codes*.	ccAuthService (R)	String (5)
purchaseTotals_ grandTotalAmount	Grand total for the order. You must include either this field or **item_#_unitPrice** in your request. For information about items and grand totals, *Getting Started with Cybersource Advanced for the Simple Order API*.	ccAuthService (See description)	String (15)
salesSlipNumber	Transaction identifier that you generate. This field is supported only on JCN Gateway.	ccAuthService (R) ccCreditService (R for stand-alone credits)	Integer (5)
shipTo_city	City of shipping address.	ccAuthService (R when shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, O.)	String (50)
shipTo_country	Country of shipping address. Use the two-character *ISO Standard Country Codes*.	ccAuthService (R when shipping address information is included in the request; otherwise, O.)	String (2)
shipTo_firstName	First name of the person receiving the shipment.	ccAuthService (O)	String (60)
shipTo_lastName	Last name of the person receiving the shipment.	ccAuthService (O)	String (60)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

Table 9 General Card-Present Request Fields (Continued)

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
shipTo_postalCode	Postal code for the shipping address. The postal code must consist of 5 to 9 digits. When the shipping country is the U.S., the 9-digit postal code must follow this format: [5 digits][dash][4 digits] **Example** 12345-6789 When the shipping country is Canada, the 6-digit postal code must follow this format: [alpha][numeric][alpha][space][numeric][alpha][numeric] **Example** A1B 2C3	ccAuthService (R when shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, O.)	String (10)
shipTo_state	State or province to ship the product to. Use the *State, Province, and Territory Codes for the United States and Canada*.	ccAuthService (R when shipping address information is included in the request and shipping to the U.S. or Canada; otherwise, O.)	String (2)
shipTo_street1	First line of shipping address.	ccAuthService (R when shipping address information is included in the request; otherwise, O.)	String (60)
shipTo_street2	Second line of shipping address.	ccAuthService (O)	String (60)
transactionLocalDateTime	Date and time at your physical location. Format: YYYYMMDDhhmmss, where YYYY = year MM = month DD = day hh = hour mm = minutes ss = seconds	ccAuthService: ■ R for the following processors: • American Express Direct • Credit Mutuel-CIC • FDC Nashville Global • SIX ■ O for all other processors.	String (14)

1 This field is optional when your Cybersource account is configured for relaxed requirements for address data and expiration date. See "Relaxed Requirements for Address Data and Expiration Date," page 22. **Important** It is your responsibility to determine whether a field is required for the transaction you are requesting.

P2PE Request Fields

Table 10 P2PE Request Fields

Field	Description	Used By: Required (R) or Optional (O)	Data Type & Length
encryptedPayment_data	Encrypted Bluefin PCI P2PE payment data. Obtain the encrypted payment data from a Bluefin-supported device. See "PCI P2P Encryption with Bluefin," page 19.	ccAuthService (R for authorizations that use Bluefin PCI P2PE) ccCreditService (R for stand-alone credits that use Bluefin PCI P2PE)	String (3072)
encryptedPayment_descriptor	Format of the encrypted payment data. The value for Bluefin PCI P2PE is `Ymx1ZWZpbg==`. See "PCI P2P Encryption with Bluefin," page 19.	ccAuthService (R for authorizations that use Bluefin PCI P2PE) ccCreditService (R for stand-alone credits that use Bluefin PCI P2PE)	String (128)

Reply Fields

Table 11 Reply Fields

Field	Description	Returned By	Data Type & Length
acquirerMerchantNumber	Identifier that was assigned to you by your acquirer. This value must be printed on the receipt. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthReply ccCreditReply	String (15)
card_cardType	Three-digit value that indicates the card type. For the possible values, see Appendix D, "Card Types," on page 92. ***Cybersource Integrations*** This field is included in the reply message when the client software that is installed on the POS terminal uses the token management service (TMS) to retrieve tokenized payment details. You must contact Cybersource Customer Support to have your account enabled to receive these fields in the credit reply message. See "Cybersource Integration," page 11.	ccCreditReply	String (3)

Table 11 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
card_suffix	Last four digits of the cardholder's account number. This field is included in the reply message when the client software that is installed on the POS terminal uses the token management service (TMS) to retrieve tokenized payment details. You must contact Cybersource Customer Support to have your account enabled to receive these fields in the credit reply message. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccCreditReply	String (4)
emvReply_ combinedTags	EMV data that is transmitted from the chip card to the issuer and from the issuer to the chip card. The EMV data is in the tag-length-value format and includes chip card tags, terminal tags, and transaction detail tags. See "Europay, Mastercard, Visa (EMV)," page 12. For information about the individual tags, see the "Application Specification" section in the *EMV 4.3 Specifications*: http://emvco.com Information in this guide about EMV applies to payment card processing and PIN debit processing. All other information in this guide applies only to payment card processing. PIN debit processing is available only on FDC Nashville Global.	ccAuthReply ccAuthReversalReply pinDebitCreditReply pinDebitPurchaseReply pinDebitReversalReply The PIN debit services are supported only on FDC Nashville Global.	String (999)
encryptedPayment_ errorCode	Error code returned by Bluefin when the decryption fails. See Appendix C, "Bluefin PCI P2PE Error Codes," on page 91.	ccAuthReply ccCreditReply	String (4)
encryptedPayment_ referenceID	Unique transaction identifier returned by Bluefin. You can use this value for tracking and reporting. See "PCI P2P Encryption with Bluefin," page 19.	ccAuthReply ccCreditReply	Integer (25)
issuer_responseCode	Additional authorization code that must be printed on the receipt when returned by the processor. This value is generated by the processor and is returned only for a successful transaction. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11, but is supported only for FDC Nashville Global and SIX.	ccAuthReply ccAuthReversalReply	Integer (6)

Table 11 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
paymentAccount Reference	Visa-generated reference number that identifies a card-present transaction for which you provided one of the following: ■ Visa primary account number (PAN) ■ Visa-generated token for a PAN This reference number serves as a link to the cardholder account and to all transactions for that account.	ccAuthReply	String (32)
pos_terminalID	Terminal identifier assigned by the acquirer. This value must be printed on the receipt. This field is supported only for Cybersource integrations as described in "Cybersource Integration," page 11.	ccAuthReply ccCreditReply	String (8)
pos_ terminalIDalternate	Identifier for an alternate terminal at your retail location. You defined the value for this field in the request message. This value must be printed on the receipt. This field is supported only for Mastercard transactions on FDC Nashville Global.	ccAuthReply ccAuthReversalReply	String (8)
routing_networkLabel	Name of the network on which the transaction was routed. This field is supported only on FDC Nashville Global.	ccAuthReply	String (10)
routing_networkType	Indicates whether the transaction was routed on a credit network, a debit network, or the STAR signature debit network. Possible values: ■ `C`: Credit network ■ `D`: Debit network (without signature) ■ `S`: STAR signature debit network This field is supported only on FDC Nashville Global.	ccAuthReply	String (1)
routing_ signatureCVM Required	Indicates whether you need to obtain the cardholder's signature. Possible values: ■ `true`: You need to obtain the cardholder's signature. ■ `false`: You do not need to obtain the cardholder's signature. This field is supported only on FDC Nashville Global.	ccAuthReply	String (5)

Table 11 Reply Fields (Continued)

Field	Description	Returned By	Data Type & Length
salesSlipNumber	Transaction identifier. The difference between this field and the **receiptNumber** field is that Cybersource generates the receipt number, and you must print the receipt number on the receipt; whereas you can generate the sales slip number, and you can choose to print the sales slip number on the receipt. This field is supported only on JCN Gateway.	ccAuthReply	Integer (5)

APPENDIX B

Examples

Name-Value Pair Examples

Sale Using Swiped Track Data

Example 1 Request Message: Sale Using Swiped Track Data

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=swiped
pos_cardPresent=Y
pos_terminalCapability=2
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccCaptureService_run=true
```

Example 2 Reply Message: Sale Using Swiped Track Data

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccAuthReply_paymentNetworkTransactionID=0412MCCNYJPWY
ccAuthReply_cardCategory=J1
ccAuthReply_cardGroup=0
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=260371
```

Sale Using Keyed Data

Example 3 Request Message: Sale Using Keyed Data

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=keyed
pos_cardPresent=Y
pos_terminalCapability=2
card_accountNumber=4111111111111111
card_expirationMonth=12
card_expirationYear=2016
card_cardType=001
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccCaptureService_run=true
```

Example 4 Reply Message: Sale Using Keyed Data

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccAuthReply_paymentNetworkTransactionID=0412MCCNYJPWY
ccAuthReply_cardCategory=J1
ccAuthReply_cardGroup=0
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=260371
```

Sale Using EMV Technology with a Contact Read

American Express Direct

Example 5 Request Message: Sale on American Express Direct Using EMV Technology with a Contact Read

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=contact
pos_cardPresent=Y
pos_terminalCapability=4
pos_terminalSerialNumber=01043191
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
pos_terminalInputCapabilities_0=contact
pos_terminalInputCapabilities_1=contactless
pos_terminalInputCapabilities_2=keyed
pos_terminalInputCapabilities_3=swiped
pos_terminalCVMcapabilities_0=pin
pos_terminalCVMcapabilities_1=signature
pos_deviceID=123lkjdIOBK34981slviLI39bj
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccAuthService_cardholderVerificationMethod=2
ccCaptureService_run=true
emvRequest_combinedTags=9F330320400095050000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
partnerOriginalTransactionID=510be4aef90711e6acbc7d88388d803d
partnerSDKversion=2.18.0
```

Example 6 Reply Message: Sale on American Express Direct Using EMV Technology with a Contact Read

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=260371
emvReply_combinedTags=9F330320400095050000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
acquirerMerchantNumber=1234567890
issuer_responseCode=721100
pos_terminalID=ABCD1234
```

Credit Mutuel-CIC, FDC Nashville Global, or SIX

Example 7 Request Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contact Read

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=contact
pos_cardPresent=Y
pos_terminalCapability=4
pos_terminalSerialNumber=01043191
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
pos_terminalInputCapabilities_0=contact
pos_terminalInputCapabilities_1=contactless
pos_terminalInputCapabilities_2=keyed
pos_terminalInputCapabilities_3=swiped
pos_terminalCVMcapabilities_0=pin
pos_terminalCVMcapabilities_1=signature
pos_deviceID=123lkjdIOBK34981slviLI39bj
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccAuthService_cardholderVerificationMethod=2
ccCaptureService_run=true
emvRequest_combinedTags=9F330320400095050000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
partnerOriginalTransactionID=510be4aef90711e6acbc7d88388d803d
partnerSDKversion=2.18.0
```

Example 8 Reply Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contact Read

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=260371
emvReply_combinedTags=9F330320400095050000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
acquirerMerchantNumber=1234567890
issuer_responseCode=721100
pos_terminalID=ABCD1234
```

Dynamic Currency Conversion on FDC Nashville Global or SIX

Example 9 Request Message: Sale on FDC Nashville Global or SIX Using Dynamic Currency Conversion and EMV Technology with a Contact Read

```
merchantID=Merchant12345
merchantReferenceCode=FDE Contact Auth 1
purchaseTotals_currency=EUR
purchaseTotals_grandTotalAmount=30
purchaseTotals_foreignAmount=30
purchaseTotals_foreignCurrency=EUR
purchaseTotals_originalAmount=25.44
purchaseTotals_originalCurrency=GBP
purchaseTotals_exchangeRate=1.1789
purchaseTotals_exchangeRateTimeStamp=20170824 10:21
dcc_dccIndicator=1
pos_entryMode=contact
pos_cardPresent=Y
pos_terminalCapability=4
pos_trackData=%B4111111111111111110^SMITH/BETTY^20121200123456012**XXX*
   *****?*;4111111111111111110D20121200XXXX00000?*
pos_terminalID=99D11001
pos_deviceID=device1
pos_terminalInputCapabilities_0=swiped
pos_terminalInputCapabilities_1=contact
pos_terminalInputCapabilities_2=contactless
pos_terminalCVMcapabilities_0=signature
pos_terminalCVMcapabilities_1=pin
card_cardType=001
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccAuthService_cardholderVerificationMethod=2
partnerOriginalTransactionID=510be4aef90711e6acbc7d88388d803d
emvRequest_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
```

All Other Processors

Example 10 Request Message: Sale Using EMV Technology with a Contact Read

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=contact
pos_cardPresent=Y
pos_terminalCapability=4
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccCaptureService_run=true
emvRequest_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
```

Example 11 Reply Message: Sale Using EMV Technology with a Contact Read

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccAuthReply_paymentNetworkTransactionID=0412MCCNYJPWY
ccAuthReply_cardCategory=J1
ccAuthReply_cardGroup=0
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=260371
emvReply_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
```

Sale Using EMV Technology with a Contactless Read

American Express Direct

Example 12 Request Message: Sale on American Express Direct Using EMV Technology with a Contactless Read

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=contactless
pos_cardPresent=Y
pos_terminalCapability=5
pos_terminalSerialNumber=01043191
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
pos_terminalInputCapabilities_0=contact
pos_terminalInputCapabilities_1=contactless
pos_terminalInputCapabilities_2=keyed
pos_terminalInputCapabilities_3=swiped
pos_terminalCVMcapabilities_0=pin
pos_terminalCVMcapabilities_1=signature
pos_deviceID=123lkjdIOBK34981slviLI39bj
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccAuthService_cardholderVerificationMethod=2
ccCaptureService_run=true
emvRequest_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
partnerOriginalTransactionID=510be4aef90711e6acbc7d88388d803d
partnerSDKversion=2.18.0
```

Example 13 Reply Message: Sale on American Express Direct Using EMV Technology with a Contactless Read

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=852734
emvReply_combinedTags=9F330320400095050000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
acquirerMerchantNumber=1234567890
issuer_responseCode=721100
pos_terminalID=ABCD1234
```

Credit Mutuel-CIC, FDC Nashville Global, or SIX

Example 14 Request Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contactless Read

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=contactless
pos_cardPresent=Y
pos_terminalCapability=5
pos_terminalSerialNumber=01043191
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
pos_terminalInputCapabilities_0=contact
pos_terminalInputCapabilities_1=contactless
pos_terminalInputCapabilities_2=keyed
pos_terminalInputCapabilities_3=swiped
pos_terminalCVMcapabilities_0=pin
pos_terminalCVMcapabilities_1=signature
pos_deviceID=123lkjdIOBK34981slviLI39bj
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccAuthService_cardholderVerificationMethod=2
ccCaptureService_run=true
emvRequest_combinedTags=9F330320400095050000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
partnerOriginalTransactionID=510be4aef90711e6acbc7d88388d803d
partnerSDKversion=2.18.0
```

Example 15 Reply Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contactless Read

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=852734
emvReply_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
acquirerMerchantNumber=1234567890
issuer_responseCode=721100
pos_terminalID=ABCD1234
```

All Other Processors

Example 16 Request Message: Sale Using EMV Technology with a Contactless Read

```
merchantID=JanesPlants
merchantReferenceCode=ABC123
purchaseTotals_currency=usd
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=contactless
pos_cardPresent=Y
pos_terminalCapability=5
pos_trackData=%B4111111111111111^SMITH/BETTY^16121200123456789012**
   XXX******?*;4111111111111111=16121200XXXX00000000?*
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
ccAuthService_captureDate=0823
ccCaptureService_run=true
emvRequest_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
emvRequest_cardSequenceNumber=001
```

Example 17 Reply Message: Sale Using EMV Technology with a Contactless Read

```
merchantReferenceCode=ABC123
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=usd
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=2
ccAuthReply_processorResponse=00
ccAuthReply_reconciliationID=1094820975023470
ccAuthReply_paymentNetworkTransactionID=0412MCCNYJPWY
ccAuthReply_cardCategory=J1
ccAuthReply_cardGroup=0
ccCaptureReply_reasonCode=100
ccCaptureReply_amount=75.00
ccCaptureReply_reconciliationID=1094820975023470
receiptNumber=852734
emvReply_combinedTags=9F3303204000950500000000009F3704518823719F100
   706011103A000009F26081E1756ED0E2134E29F36020015820200009C01009F1A020
   8409A030006219F02060000000020005F2A0208409F0306000000000000
```

Authorization Using Bluefin PCI P2PE

Example 18 Request Message: Authorization Using Bluefin PCI P2PE

```
merchantID=demomerchant
merchantReferenceCode=demorefnum
purchaseTotals_currency=USD
purchaseTotals_grandTotalAmount=75.00
pos_entryMode=keyed
pos_cardPresent=Y
pos_terminalCapability=2
encryptedPayment_descriptor=Ymx1ZWZpbg==
encryptedPayment_data=02d700801f3c20008383252a363031312a2a2a2a2a2a2a2a3
03030395e46444d5320202020202020202020202020202020202020202020205e32323132
2a2a2a2a2a2a2a2a3f2a3b363031312a2a2a2a2a2a2a2a303030393d323231322a2a2a2
a2a2a2a2a3f2a7a75ad15d25217290c54b3d9d1c3868602136c68d339d52d98423391f3
e631511d548fff08b414feac9ff6c6dede8fb09bae870e4e32f6f462d6a75fa0a178c3b
d18d0d3ade21bc7a0ea687a2eef64551751e502d97cb98dc53ea55162cdfa3954313234
393238303037629949010000001a000731a8003
ccAuthService_run=true
ccAuthService_commerceIndicator=retail
```

Example 19 Reply Message: Authorization Using Bluefin PCI P2PE

```
merchantReferenceCode=demorefnum
requestID=0305782650000167905080
decision=ACCEPT
reasonCode=100
purchaseTotals_currency=USD
ccAuthReply_reasonCode=100
ccAuthReply_amount=75.00
ccAuthReply_authorizationCode=831000
ccAuthReply_avsCode=1
ccAuthReply_processorResponse=100
ccAuthReply_reconciliationID=1094820975023470
encryptedPayment_referenceID=1201609222122091013107861
```

XML Examples

Sale Using Swiped Track Data

Example 20 Request Message: Sale Using Swiped Track Data

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.86">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>swiped</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>2</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
   </ccAuthService>
   <ccCaptureService run="true"/>
</requestMessage>
```

Example 21 Reply Message: Sale Using Swiped Track Data

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.86">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
      <c:paymentNetworkTransactionID>0412MCCNYJPWY</c:paymentNetworkTransactionID>
      <c:cardCategory>J1</c:cardCategory>
      <c:cardGroup>0</c:cardGroup>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
</c:replyMessage>
```

Sale Using Keyed Data

Example 22 Request Message: Sale Using Keyed Data

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.86">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>keyed</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>2</terminalCapability>
   </pos>
   <card>
      <accountNumber>4111111111111111</accountNumber>
      <expirationMonth>12</expirationMonth>
      <expirationYear>2016</expirationYear>
      <cardType>001</cardType>
   </card>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
   </ccAuthService>
   <ccCaptureService run="true"/>
</requestMessage>
```

Example 23 Reply Message: Sale Using Keyed Data

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.86">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
      <c:paymentNetworkTransactionID>0412MCCNYJPWY</c:paymentNetworkTransactionID>
      <c:cardCategory>J1</c:cardCategory>
      <c:cardGroup>0</c:cardGroup>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
</c:replyMessage>
```

Sale Using EMV Technology with a Contact Read

American Express Direct

Example 24 Request Message: Sale on American Express Direct Using EMV Technology with a Contact Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.138">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>contact</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>4</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
      <deviceID>123lkjdIOBK34981slviLI39bj</deviceID>
      <terminalSerialNumber>01043191</terminalSerialNumber>
      <terminalInputCapabilities id="0">contact</terminalInputCapabilities>
      <terminalInputCapabilities id="1">contactless</terminalInputCapabilities>
      <terminalInputCapabilities id="2">keyed</terminalInputCapabilities>
      <terminalInputCapabilities id="3">swiped</terminalInputCapabilities>
      <terminalCVMcapabilities id="0">pin</terminalCVMcapabilities>
      <terminalCVMcapabilities id="1">signature</terminalCVMcapabilities>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
      <captureDate>0823</captureDate>
      <cardholderVerificationMethod>2</cardholderVerificationMethod>
   </ccAuthService>
   <ccCaptureService run="true"/>
   <emvRequest>
      <combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F260
         81E1756ED0E2134E29F360200158202000009C01009F1A0208409A030006219F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
   <partnerOriginalTransactionID>510be4aef90711e6acbc7d88388d803d
      </partnerOriginalTransactionID>
   <partnerSDKversion>2.18.0</partnerSDKversion>
</requestMessage>
```

Example 25 Reply Message: Sale on American Express Direct Using EMV Technology with a Contact Read

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.138">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
   <c:emvReply>
      <c:combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F2
         6081E1756ED0E2134E29F36020015820200009C01009F1A0208409A030006219F02060000000
         020005F2A0208409F0306000000000000</c:combinedTags>
   </c:emvReply>
   <c:issuer>
      <c:responseCode>721100</c:responseCode>
   </c:issuer>
   <c:pos>
      <c:terminalID>ABCD1234</c:terminalID>
   </c:pos>
   <c:acquirerMerchantNumber>1234567890</c:acquirerMerchantNumber>
</c:replyMessage>
```

Credit Mutuel-CIC, FDC Nashville Global, or SIX

Example 26 Request Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contact Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.138">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>contact</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>4</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
      <deviceID>123lkjdIOBK34981slviLI39bj</deviceID>
      <terminalSerialNumber>01043191</terminalSerialNumber>
      <terminalInputCapabilities id="0">contact</terminalInputCapabilities>
      <terminalInputCapabilities id="1">contactless</terminalInputCapabilities>
      <terminalInputCapabilities id="2">keyed</terminalInputCapabilities>
      <terminalInputCapabilities id="3">swiped</terminalInputCapabilities>
      <terminalCVMcapabilities id="0">pin</terminalCVMcapabilities>
      <terminalCVMcapabilities id="1">signature</terminalCVMcapabilities>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
      <captureDate>0823</captureDate>
      <cardholderVerificationMethod>2</cardholderVerificationMethod>
   </ccAuthService>
   <ccCaptureService run="true"/>
   <emvRequest>
      <combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F260
         81E1756ED0E2134E29F360200158202000009C01009F1A0208409A030006219F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
   <partnerOriginalTransactionID>510be4aef90711e6acbc7d88388d803d
      </partnerOriginalTransactionID>
   <partnerSDKversion>2.18.0</partnerSDKversion>
</requestMessage>
```

Example 27 Reply Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contact Read

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.138">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
   <c:emvReply>
      <c:combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F2
         6081E1756ED0E2134E29F36020015820200009C01009F1A0208409A030006219F02060000000
         020005F2A0208409F0306000000000000</c:combinedTags>
   </c:emvReply>
   <c:issuer>
      <c:responseCode>721100</c:responseCode>
   </c:issuer>
   <c:pos>
      <c:terminalID>ABCD1234</c:terminalID>
   </c:pos>
   <c:acquirerMerchantNumber>1234567890</c:acquirerMerchantNumber>
</c:replyMessage>
```

Dynamic Currency Conversion on FDC Nashville Global or SIX

Example 28 Request Message: Sale on FDC Nashville Global or SIX Using Dynamic Currency Conversion and EMV Technology with a Contact Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.138">
   <merchantID>Merchant12345</merchantID>
   <merchantReferenceCode>FDE Contact Auth 1</merchantReferenceCode>
   <purchaseTotals>
      <currency>EUR</currency>
      <grandTotalAmount>30</grandTotalAmount>
      <foreignAmount>30</foreignAmount>
      <foreignCurrency>EUR</foreignCurrency>
      <originalAmount>25.44</originalAmount>
      <originalCurrency>GBP</originalCurrency>
      <exchangeRate>1.1789</exchangeRate>
      <exchangeRateTimeStamp>20170824 10:21</exchangeRateTimeStamp>
   </purchaseTotals>
   <dcc><dccIndicator>1</dccIndicator></dcc>
   <pos>
      <entryMode>contact</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>4</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
      <terminalID>99D11001</terminalID>
      <deviceID>device1</deviceID>
      <terminalInputCapabilities id="0">swiped</pos_terminalInputCapabilities>
      <terminalInputCapabilities id="1">contact</pos_terminalInputCapabilities>
      <terminalInputCapabilities id="2">contactless</pos_terminalInputCapabilities>
      <terminalCVMcapabilities id="0">signature</pos_terminalCVMcapabilities>
      <terminalCVMcapabilities id="1">pin</pos_terminalCVMcapabilities>
   </pos>
   <card><cardType>001</cardType></card>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
      <cardholderVerificationMethod>2</cardholderVerificationMethod>
   </ccAuthService>
   <partnerOriginalTransactionID>510be4aef90711e6acbc7d88388d803d
      </partnerOriginalTransactionID>
   <emvRequest>
      <combinedTags>9F3303204000950500000000009F3704238561349F100706011103A000009F260
         88717A1A173EAA04D9F3602006582020000 9C01009F1A0208409A030006209F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
</requestMessage>
```

All Other Processors

Example 29 Request Message: Sale Using EMV Technology with a Contact Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.86">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>contact</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>4</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
   </ccAuthService>
   <ccCaptureService run="true"/>
   <emvRequest>
      <combinedTags>9F3303204000950500000000009F3704518823719F100706011103A000009F260
         81E1756ED0E2134E29F36020015820200009C01009F1A0208409A030006219F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
</requestMessage>
```

Example 30 Reply Message: Sale Using EMV Technology with a Contact Read

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.86">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
      <c:paymentNetworkTransactionID>0412MCCNYJPWY</c:paymentNetworkTransactionID>
      <c:cardCategory>J1</c:cardCategory>
      <c:cardGroup>0</c:cardGroup>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
   <c:emvReply>
      <c:combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F2
         6081E1756ED0E2134E29F36020015820200009C01009F1A0208409A030006219F02060000000
         020005F2A0208409F0306000000000000</c:combinedTags>
   </c:emvReply>
</c:replyMessage>
```

Sale Using EMV Technology with a Contactless Read

American Express Direct

Example 31 Request Message: Sale on American Express Direct Using EMV Technology with a Contactless Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.138">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>contactless</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>5</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
      <deviceID>123lkjdIOBK34981slviLI39bj</deviceID>
      <terminalSerialNumber>01043191</terminalSerialNumber>
      <terminalInputCapabilities id="0">contact</terminalInputCapabilities>
      <terminalInputCapabilities id="1">contactless</terminalInputCapabilities>
      <terminalInputCapabilities id="2">keyed</terminalInputCapabilities>
      <terminalInputCapabilities id="3">swiped</terminalInputCapabilities>
      <terminalCVMcapabilities id="0">pin</terminalCVMcapabilities>
      <terminalCVMcapabilities id="1">signature</terminalCVMcapabilities>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
      <captureDate>0823</captureDate>
      <cardholderVerificationMethod>2</cardholderVerificationMethod>
   </ccAuthService>
   <ccCaptureService run="true"/>
   <emvRequest>
      <combinedTags>9F330320400095050000000009F3704238561349F100706011103A000009F260
         88717A1A173EAA04D9F36020065820200009C01009F1A0208409A030006209F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
   <partnerOriginalTransactionID>510be4aef90711e6acbc7d88388d803d
      </partnerOriginalTransactionID>
   <partnerSDKversion>2.18.0</partnerSDKversion>
</requestMessage>
```

Example 32 Reply Message: Sale on American Express Direct Using EMV Technology with a Contactless Read

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.138">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
   <c:emvReply>
      <c:combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F2
         6081E1756ED0E2134E29F36020015820200009C01009F1A0208409A030006219F02060000000
         020005F2A0208409F0306000000000000</c:combinedTags>
   </c:emvReply>
   <c:issuer>
      <c:responseCode>721100</c:responseCode>
   </c:issuer>
   <c:pos>
      <c:terminalID>ABCD1234</c:terminalID>
   </c:pos>
   <c:acquirerMerchantNumber>1234567890</c:acquirerMerchantNumber>
</c:replyMessage>
```

Credit Mutuel-CIC, FDC Nashville Global, or SIX

Example 33 Request Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contactless Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.138">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>contactless</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>5</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
      <deviceID>123lkjdIOBK34981slviLI39bj</deviceID>
      <terminalSerialNumber>01043191</terminalSerialNumber>
      <terminalInputCapabilities id="0">contact</terminalInputCapabilities>
      <terminalInputCapabilities id="1">contactless</terminalInputCapabilities>
      <terminalInputCapabilities id="2">keyed</terminalInputCapabilities>
      <terminalInputCapabilities id="3">swiped</terminalInputCapabilities>
      <terminalCVMcapabilities id="0">pin</terminalCVMcapabilities>
      <terminalCVMcapabilities id="1">signature</terminalCVMcapabilities>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
      <captureDate>0823</captureDate>
      <cardholderVerificationMethod>2</cardholderVerificationMethod>
   </ccAuthService>
   <ccCaptureService run="true"/>
   <emvRequest>
      <combinedTags>9F33032040009505000000000009F3704238561349F100706011103A000009F260
         88717A1A173EAA04D9F3602006582020000 9C01009F1A0208409A030006209F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
   <partnerOriginalTransactionID>510be4aef90711e6acbc7d88388d803d
      </partnerOriginalTransactionID>
   <partnerSDKversion>2.18.0</partnerSDKversion>
</requestMessage>
```

Example 34 Reply Message: Sale on Credit Mutuel-CIC, FDC Nashville Global, or SIX Using EMV Technology with a Contactless Read

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.138">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
   <c:emvReply>
      <c:combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F2
         6081E1756ED0E2134E29F36020015820200009C01009F1A0208409A030006219F02060000000
         020005F2A0208409F0306000000000000</c:combinedTags>
   </c:emvReply>
   <c:issuer>
      <c:responseCode>721100</c:responseCode>
   </c:issuer>
   <c:pos>
      <c:terminalID>ABCD1234</c:terminalID>
   </c:pos>
   <c:acquirerMerchantNumber>1234567890</c:acquirerMerchantNumber>
</c:replyMessage>
```

All Other Processors

Example 35 Request Message: Sale Using EMV Technology with a Contactless Read

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.86">
   <merchantID>JanesPlants</merchantID>
   <merchantReferenceCode>ABC123</merchantReferenceCode>
   <purchaseTotals>
      <currency>usd</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>contactless</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>5</terminalCapability>
      <trackData>%B4111111111111111^SMITH/BETTY^16121200123456789012**XXX******?*;
         4111111111111111=16121200XXXX00000000?*</trackData>
   </pos>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
      <captureDate>0823</captureDate>
   </ccAuthService>
   <ccCaptureService run="true"/>
   <emvRequest>
      <combinedTags>9F3303204000950500000000009F3704238561349F100706011103A000009F260
         88717A1A173EAA04D9F36020065820200009C01009F1A0208409A030006209F0206000000002
         0005F2A0208409F0306000000000000</combinedTags>
      <cardSequenceNumber>001</cardSequenceNumber>
   </emvRequest>
</requestMessage>
```

Example 36 Reply Message: Sale Using EMV Technology with a Contactless Read

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.86">
   <c:merchantReferenceCode>ABC123</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>usd</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>2</c:avsCode>
      <c:processorResponse>00</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
      <c:paymentNetworkTransactionID>0412MCCNYJPWY</c:paymentNetworkTransactionID>
      <c:cardCategory>J1</c:cardCategory>
      <c:cardGroup>0</c:cardGroup>
   </c:ccAuthReply>
   <c:ccCaptureReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccCaptureReply>
   <c:receiptNumber>260371</c:receiptNumber>
   <c:emvReply>
      <c:combinedTags>9F330320400095050000000009F3704518823719F100706011103A000009F2
         6081E1756ED0E2134E29F360200158202000 09C01009F1A0208409A030006219F02060000000
         020005F2A0208409F0306000000000000</c:combinedTags>
   </c:emvReply>
</c:replyMessage>
```

Authorization Using Bluefin PCI P2PE

Example 37 Request Message: Authorization Using Bluefin PCI P2PE

```
<requestMessage xmlns="urn:schemas-cybersource-com:transaction-data-1.1.132">
   <merchantID>demomerchant</merchantID>
   <merchantReferenceCode>demorefnum</merchantReferenceCode>
   <purchaseTotals>
      <currency>USD</currency>
      <grandTotalAmount>75.00</grandTotalAmount>
   </purchaseTotals>
   <pos>
      <entryMode>keyed</entryMode>
      <cardPresent>Y</cardPresent>
      <terminalCapability>2</terminalCapability>
   </pos>
   <encryptedPayment>
      <descriptor>Ymx1ZWZpbg==</descriptor>
      <data>02d700801f3c20008383252a363031312a2a2a2a2a2a2a2a303030395e46444d53202020
      2020202020202020202020202020202020205e323231322a2a2a2a2a2a2a3f2a3b36303131
      2a2a2a2a2a2a2a303030393d323231322a2a2a2a2a2a2a3f2a7a75ad15d25217290c54b3d9
      d1c3868602136c68d339d52d98423391f3e631511d548fff08b414feac9ff6c6dede8fb09bae87
      0e4e32f6f462d6a75fa0a178c3bd18d0d3ade21bc7a0ea687a2eef64551751e502d97cb98dc53e
      a55162cdfa3954332343932383030376294901000001a000731a8003</data>
   </encryptedPayment>
   <ccAuthService run="true">
      <commerceIndicator>retail</commerceIndicator>
   </ccAuthService>
</requestMessage>
```

Example 38 Reply Message: Authorization Using Bluefin PCI P2PE

```
<c:replyMessage xmlns:c="urn:schemas-cybersource-com:transaction-data-1.1.132">
   <c:merchantReferenceCode>demorefnum</c:merchantReferenceCode>
   <c:requestID>0305782650000167905080</c:requestID>
   <c:decision>ACCEPT</c:decision>
   <c:reasonCode>100</c:reasonCode>
   <c:purchaseTotals>
      <c:currency>USD</c:currency>
   </c:purchaseTotals>
   <c:ccAuthReply>
      <c:reasonCode>100</c:reasonCode>
      <c:amount>75.00</c:amount>
      <c:authorizationCode>831000</c:authorizationCode>
      <c:avsCode>1</c:avsCode>
      <c:processorResponse>100</c:processorResponse>
      <c:reconciliationID>1094820975023470</c:reconciliationID>
   </c:ccAuthReply>
   <c:encryptedPayment_referenceID>1201609222122091013107861</c:encryptedPayment_
referenceID>
</c:replyMessage>
```

APPENDIX C

Bluefin PCI P2PE Error Codes

The following table describes the error codes returned by Bluefin for Bluefin PCI P2PE transactions. For information about encrypted transactions, see "PCI P2P Encryption with Bluefin," page 19. When an encryption error occurs:

- The reason code is set to `150` in the authorization or stand-alone credit reply message. This value indicates that a general system failure occurred and your authorization or stand-alone credit request was not processed.
- The value for the **encryptedPayment_errorCode** field is set to the Bluefin PCI P2PE error code.

Table 12 Bluefin PCI P2PE Error Codes

Error Code	Description
1001	Generic or unknown error code.
1101 1102 1103 1104 1105	Internal system configuration setup error
1202	Device not found or device not recognized.
1203	Device not active.
1204	Invalid firmware version.
1303	All decryptions failed.
1404	Decryption failed for some other reason.
1406	Decrypted result did not include payment card information.

APPENDIX D

Card Types

Table 13 lists the values that are supported for the **card_cardType** field in requests and replies. Even though all of these card types are supported for card-not-present transactions, many of them are not supported for card-present transactions. Contact your processor if you have questions about which card types are supported for card-present transactions.

It is strongly recommended that you include the card type field in request messages even when it is optional for your processor and card type. Omitting the card type can cause the transaction to be processed with the wrong card type.

Table 13 Card Types

Value	Card Type
001	Visa For card-present transactions on all processors except SIX, the Visa Electron card type is processed the same way that the Visa debit card is processed. Use card type value 001 for Visa Electron.
002	Mastercard, Eurocard[1]: European regional brand of Mastercard.
003	American Express
004	Discover
005	Diners Club
006	Carte Blanche[1]
007	JCB[1]
014	EnRoute[1]
021	JAL[1]
024	Maestro (UK Domestic)[1]
033	Visa Electron[1] Use this value only for SIX. For other processors, use 001 for all Visa card types.
034	Dankort[1]

1 For this card type, you must include the **card_cardType** field in your request for an authorization or a stand-alone credit.

Table 13 Card Types (Continued)

Value	Card Type
036	Cartes Bancaires[1]
037	Carta Si[1]
039	Encoded account number[1]
040	UATP[1]
042	Maestro (International)[1]
050	Hipercard[2]
051	Aura
054	Elo
062	China UnionPay
058	Carnet

1 For this card type, you must include the **card_cardType** field in your request for an authorization or a stand-alone credit.