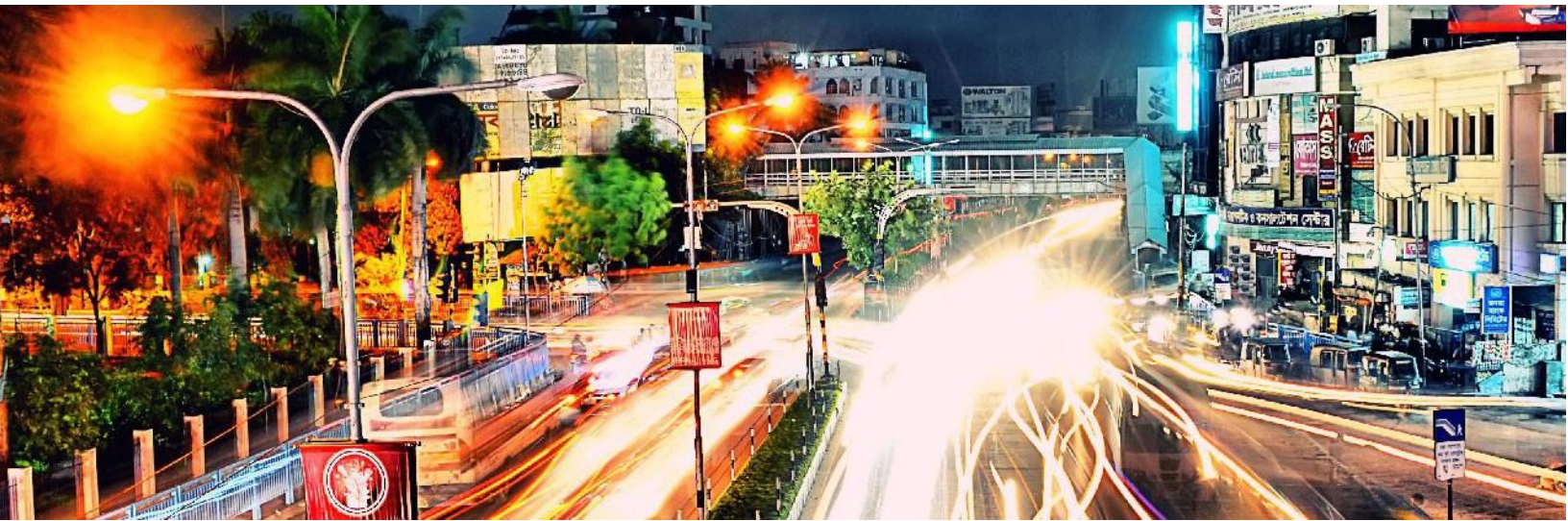# Cybersource

Cybersource Storefront Reference Architecture

Cybersource Contact Information

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

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

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

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Release: Feb 2021
Version: 21.1.0

Table of Contents

1. Introduction

- **Description:** Cybersource, a Visa solution, is the only global, modular payment management platform built on secure Visa infrastructure with the payment reach and fraud insights of a massive $500B+ global processing network. You can find out more about what Cybersource does here.
- **Categories:** Payment Processing, Fraud Detection, Address Validation, Tax Computation
- **Version:** 21.1.0
- **Compatibility:** This version of the Cybersource cartridge is not compatible with versions of SFRA higher than Release 5.1.0. This version can be found on the Master branch of the SFRA repository at commit 91c054354ce7c721222a5c7c7df6aecd84b6356e [91c0543] on November 17, 2020. This version is compatible with Salesforce B2C Commerce 19.10 release.

Contact

- Lindsey Rodgers: SFCC@cybersource.com

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2. CyberSource SFRA Cartridge Architecture
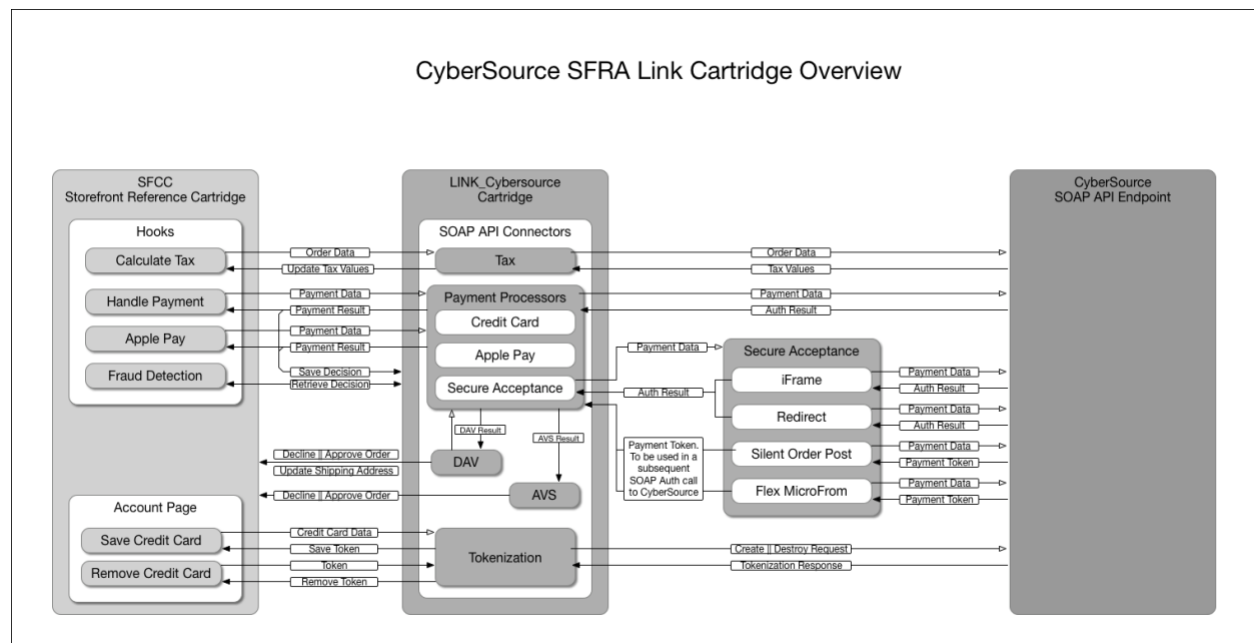
3. Install the Cartridge and Setup Workspace

Step 1: Install the Cartridge

1. Cybersource's Storefront Reference Architecture Cartridge can be installed from Salesforce Commerce Cloud's marketplace link.

Step 2: Setup workspace

1. Create a folder "CyberSource" in your workspace and place the cartridge (**int_cybersource_sfra**) downloaded from Marketplace.

2. If you have a different project set-up, you will need to open the file **'/package.json'** and modify the paths.base value to point to your **'app_storefront_base'** cartridge. This path is used by the JS and SCSS build scripts.

3. If using VSCode, install the extension Prophet Debugger link or any other SFCC extension and include below in dw.json ().

```json
{
    "hostname": "your-sandbox-hostname.demandware.net",
    "username": "yourlogin",
    "password": "yourpwd",
    "version": "version_to_upload_to",
    "cartridge": [
                "int_cybersource_sfra",
                "app_storefront_base",
                "modules"
    ]
}
```

NOTE: If you are using different IDE, refer respective developer guide to setup the workspace.

Step 3: Build and Upload the code

Prerequisite: Install node under "Cybersource" folder.

Install sgmf-scripts and copy-webpack-plugin
```
Install sgmf-scripts with following command
npm install sgmf-scripts && npm install copy-webpack-plugin
```

Compile the Code
```
Compile JS and SCSS with following command
npm run compile:js && npm run compile:scss
```

Upload the code

Upload the code to Salesforce Commerce Cloud instance

```
npm run uploadCartridge
```

4. Configure the Cartridge

Prerequisite

If you are new to Cybersource, and would like to start using Cybersource Cartridge quickly, begin by signing up for a Sandbox Account.

You will also need to create an API Key and API Shared Secret Key that you can use to authenticate requests to our sandbox server. Follow same steps to generate Production key and shared secret.

Step 1: Setup Cartridge Path

To set up the cartridge path:

1. In the Business Manager, go to **Administration > Sites > Manage Sites > [yourSite] > Settings**

2. For the Cartridges, enter **int_cybersource_sfra:app_storefront_base** and select **Apply**

Step 2: Upload metadata

Cybersource cartridge installed from Market place comes with metadata to import.

1. Go to **Cybersource/metadata/sfra_meta/sites/** folder.

2. Rename **yourSiteID** folder name with your site ID in Business Manager (this can be found by looking up **Administration->Sites->Manage Sites**)

3. Zip **sfra_metadata** folder.

4. Go to **Administration->Site Development->Site Import & Export** and upload **sfra_meta.zip** file.

5. Import the uploaded zip file.

On successful import, it creates following metadata:

- Site Preferences (Cybersource, Cybersource_SecureAcceptance, Cybersource_Paypal, Cybersource_GooglePay, Cybersource_Klarna, Cybersource_VisaCheckout, Cybersource_BankTransfer, Cybersource_PayerAuthentication, Cybersource_WeChat, Cybersource_Tokenization, Cybersource_DecisionManager, Cybersource_TaxConfiguration, Cybersource_DeliveryAddressVerification, Cybersource_DeviceFingerprint, Cybersource_Alipay)

- Service (cybersource.conversiondetailreport, cybersource.soap.transactionprocessor.generic, cybersource.http.flextoken)

- Payment Processor (KLARNA_CREDIT, CYBERSOURCE_ALIPAY, BANK_TRANSFER, CYBERSOURCE_WECHAT)

- Payment Method

- Job (CyberSource: Decision Manager Order Update)

Cybersource Core (Required)

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/Core.xml"** in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource Core** and set values for the following parameters:

Field	Description
Enable Cybersource Cartridge	Enable or disable Cybersource Cartridge. If disabled none of the Cybersource services are invoked
Cybersource Merchant ID	Cybersource Merchant ID
CyberSource Merchant Key	Cybersource SOAP Key. Follow the link for directions.
CyberSource Endpoint	Select Test(Test) or Production(Production)
CyberSource Developer ID	Unique identifier generated by Cybersource for System Integrator

Services (Required)

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/Payment-Services.xml"** in Business Manager (**Administration > Operations > Import & Export**).

Step 2: Go to **Administration > Operations > Services**

Step 3: Make sure service with name **cybersource.soap.transactionprocessor.generic** exist.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/sites/yourSiteID/payment-processors.xml"** in Business Manager (**Merchant Tools > Ordering > Import & Export**).

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5. Configure the Payment method

Payment Methods

1. Credit Card Authorization
   1.1. Secure Acceptance Hosted Checkout – iFrame
   1.2. Secure Acceptance Redirect
   1.3. Secure Acceptance Checkout API
   1.4. Secure Acceptance Flex MicroForm
   1.5. Direct Cybersource SOAP API
2. Apple Pay
3. PayPal
4. Google Pay
5. Visa SRC
6. Bank Transfer
7. Alipay
8. Klarna
9. WeChat Pay

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1. Credit Card Authorization

Overview

The CC Auth service is integrated via the SFRA OOTB dynamically generated app.payment.processor.cybersource_credit hook. The cybersource_credit hook is registered in the hooks.json file with script ./cartridge/scripts/hooks/payment/processor/cybersource_credit. This script acts as a wrapper to the core CyberSource Authorization code. Behind this wrapper, an API request is constructed, sent to CS, and the response parsed. In the case of a successful authorization (response code 100), the hook returns a JSON object without an error. All other response codes received result in an error being present in the return object, triggering the storefront to display an error message, and not create the order. Actions taken when making the Authorization call are as follows:

1. Creates CyberSource authorization request using ship-to, bill-to, credit card data, and purchase total data from the current basket.
2. If authorize Payer is configured, then make the authorize payer request. If not, ignore and continue with the authorization request.
3. Create a credit card authorization request.
4. If DAV is enabled, set up DAV business rules, as needed.
5. Set up AVS if enabled.
6. Make the service call to CyberSource via the SOAP API.
7. If Delivery Address Verification is enabled, then: a. Capture pertinent DAV result information & DAV Reason Code. Update shipping address if a suggestion was returned and the 'CS DAV Update Shipping Address With DAV Suggestion' site preference is enabled. b. If DAV fails and DAV On Failure is set to 'REJECT', then exit immediately with rejection response
8. If DAV On Failure is set to 'APPROVE' and the DAV Reason Code is a fail code (not 100), then: a. Exit immediately with declined or review response, as merchant defines
9. Capture pertinent AVS information.
10. Capture Fraud response in a session variable to be handled later.
11. Validate authorization reason code and set corresponding values, based on Auth response code.

Implementation

Cybersource Cartridge supports the following ways of processing Credit Card a. Secure Acceptance Hosted Checkout – iFrame b. Secure Acceptance Redirect c. Secure Acceptance Checkout API d. Secure Acceptance Flex MicroForm e. Direct Cybersource Payment API

Prerequsite

In the Business Manager, go to **Merchant Tools > Ordering > Payment Methods** and select **CREDIT_CARD**. And in **CREDIT_CARD details**, double check if **Payment Processor** = **"CYBERSOURCE_CREDIT"**

1.1. To Setup Secure Acceptance Hosted Checkout – iFrame
Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_SecureAcceptance.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_SecureAcceptance** and set values for the parameter:

Field	Description	Value to Set
CsSAType	Secure Acceptance Type	SA_IFRAME
SA_Iframe_ProfileID	Secure Acceptance Iframe Profile ID	
SA_Iframe_SecretKey	Secure Acceptance Iframe secret key	
SA_Iframe_AccessKey	Secure Acceptance Iframe Access Key	
CsSAIframetFormAction	CyberSource secure acceptance Iframe form action	
CsSAOverrideBillingAddress	CyberSource Secure Acceptance Override Billing Address	
CsSAOverrideShippingAddress	CyberSource Secure Acceptance Override Shipping Address	
CsCvnDeclineFlags	CyberSource Ignore CVN Result (CVN)	

1.2. To Setup Secure Acceptance Redirect

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/Cybersource_SecureAcceptance.xml"** in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_SecureAcceptance** and set values for the parameter:

Field	Description	Value to Set
CsSAType	Secure Acceptance Type	SA_REDIRECT
SA_Redirect_ProfileID	Secure Acceptance Redirect Profile ID.	
SA_Redirect_SecretKey	Secure Acceptance Redirect Secret Key.	
SA_Redirect_AccessKey	Secure Acceptance Redirect Access Key.	
CsSARedirectFormAction	CyberSource secure acceptance redirect form action.	
CsSAOverrideBillingAddress	CyberSource Secure Acceptance Override Billing Address.	
CsSAOverrideShippingAddress	CyberSource Secure Acceptance Override Shipping Address.	
CsCvnDeclineFlags	CyberSource Ignore CVN Result (CVN).	

1.3. To Setup Secure Acceptance Checkout API

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/Cybersource_SecureAcceptance.xml"** in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_SecureAcceptance** and set values for the parameter:

Field	Description	Value to Set
CsSAType	Secure Acceptance Type	SA_SILENTPOST
SA_Silent_ProfileID	Secure Acceptance Silent Post Profile ID.	
SA_Silent_SecretKey	Secure Acceptance Silent Post Secret Key.	
SA_Silent_AccessKey	Secure Acceptance Silent Post Access Key.	
Secure_Acceptance_Token_Create_Endpoint	Secure_Acceptance_Token_Create_Endpoint.	
Secure_Acceptance_Token_Update_Endpoint	Secure_Acceptance_Token_Update_Endpoint.	
CsSAOverrideBillingAddress	CyberSource Secure Acceptance Override Billing Address.	
CsSAOverrideShippingAddress	CyberSource Secure Acceptance Override Shipping Address.	
CsCvnDeclineFlags	CyberSource Ignore CVN Result (CVN).	

1.4. To Setup Secure Acceptance Flex MicroForm

Prerequisites: You will also need to create an API Key and API Shared Secret Key that you can use to authenticate requests to our sandbox. Follow same steps to generate Production key and shared secret.

Step 1: In Business Manager, go to Administration > Customization > Services and click on the 'cybersourceflextoken' Credentials. Ensure the appropriate URL is set for the environment you are configuring. - Test: https://apitest.cybersource.com/flex/v1/keys - Production: https://api.cybersource.com/flex/v1/keys

Step 2: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/Cybersource_SecureAcceptance.xml"** in Business Manager (**Administration > Site Development > Import & Export**)

Step 3: Go to **Merchant Tools > Custom Preferences > Cybersource_SecureAcceptance** and set values for the parameter:

Field	Description	Value to Set
CsSAType	Secure Acceptance Type	SA_FLEX
SA_Flex_HostName	Test: apitest.cybersource.com Production: api.cybersource.com	
SA_Flex_KeyID	Flex Microform Key ID. Follow link to generate keys.	
SA_Flex_SharedSecret	Flex Microform Shared Secret	

Step 4: Navigate to '**Administration > Global Preferences > Locales**' and ensure the local 'en_US' is present. If not present, create a new local with the following information:

- Language Code: en
- Country Code: US
- XML Code: en-US
- ISO-3 Language: eng
- ISO-3 Country: USA
- Fallback Locale: English(en)

Once present, select the 'en_US' local, and navigate to the 'Regional Settings' tab. In the 'Long Date Pattern' field, enter the sting: EEE, dd MMM yyyy HH:mm:ss z

1.5. To Setup Direct Cybersource SOAP API

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/Cybersource_SecureAcceptance.xml"** in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_SecureAcceptance** and set values for the parameter:

Field	Description	Value to Set
CsSAType	Secure Acceptance Type	**None**

Payer Authentication (3D Secure)

Prerequisite

- Please contact your Cybersource Representative to sign up and receive your Payer Authentication credentials.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/meta/PayerAuthentication.xml"** in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_PayerAuthentication** and set values for the following parameters:

Field	Description
CS PA Merchant ID	Payer Auth merchant ID
CS PA Save Proof.xml	To enable/disable saving of proof.xml in order object
CS PA Save ParesStatus	Default False. Save ParesStatus received as response from Pa Authenticate request and send it as param in ccAuth request call. This field should be enabled after verifying cybersource merchant account settings
CruiseApiKey	A shared secret value between the merchant and Cardinal. This value should never be exposed to the public.
CruiseApiIdentifier	GUID used to identify the specific API Key
CruiseMerchantName	Merchant Name
CruiseOrgUnitId	GUID to identify the merchant organization within Cardinal systems
CardinalCruiseApiPath	Songbird.js script API path. Refer the section *CDN* in this link to get API path.

Step 3: On the same page, select 'Credit/Debit cards' and check the payer authentication checkbox on any credit card types you want to support Payer Authentication.

Upgrade to 3DS2.0

If you are currently using CYBS cartridge and would like to upgrade to 3DS2.0, please refer doc
CyberSource Storefront Reference Architecture LINK Cartridge 3DS2.docx under cartridge
documentation folder.

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2.   Apple Pay

Step 1: Create a merchant identifier in Apple Portal:

A merchant identifier uniquely identifies you to Apple Pay as a merchant who is able to accept
payments. You can use the same merchant identifier for multiple native and web apps. It never
expires.

1. Go to Apple portal: https://help.apple.com/developer-
   account/#/devb2e62b839?sub=dev103e030bb
2. In Certificates, Identifiers & Profiles, select Identifiers from the sidebar, then click the
   Add button (+) in the upper-left corner.
3. Select Merchant IDs, then click Continue.
4. Enter the merchant description and identifier name, then click Continue.
5. Review the settings, then click Register.

Step 2: Enrolling in Apple Pay in Cybersource

To enroll in Apple Pay:

1. Log in to the Business Center:
   - Test: link
   - Live: link
2. On the left navigation pane, click the **Payment Configuration** icon.
3. Click **Digital Payment Solutions**. The Digital Payments page appears.
4. Click **Configure**. The Apple Pay Registration panel opens.
5. Enter your Apple Merchant ID. (Created in Step 1.4)
6. Click **Generate New CSR**.
7. To download your CSR, click the **Download** icon next to the key.
8. Follow your browser's instructions to save and open the file.

Step 3: Complete the enrollment process by submitting your CSR to Apple

Create a payment processing certificate: A payment processing certificate is associated with
your merchant identifier and used to encrypt payment information. The payment processing
certificate expires every 25 months. If the certificate is revoked, you can recreate it.

1. In Certificates, Identifiers & Profiles, select Identifiers from the sidebar.
2. Under Identifiers, select Merchant IDs using the filter in the top-right.

3. On the right, select your merchant identifier. Note: If a banner appears at the top of the page saying that you need to accept an agreement, click the Review Agreement button, and follow the instructions before continuing.
4. Under Apple Pay Payment Processing Certificate, click Create Certificate.
5. Click Choose File.
6. In the dialog that appears, select the CSR file downloaded from Step 2.7, then click Choose.
7. Click Continue.

Step 4: Configure Apple Pay in SFCC Business Manager

Business Manager Configuration

1. Go to: "Merchant Tools > Site Preferences > Apple pay
2. Check "Apple Pay Enabled?"
3. Fill in the "Onboarding" form:
   - Ensure "Apple Merchant ID" and "Apple Merchant Name" match settings in your Apple account
   - Ensure all other fields match your supported Cybersource settings
4. Fill in the "Storefront Injection" form:
   - Selects where Apple Pay buttons should be displayed on your site.
5. Fill in "Payment Integration" form:
   - Leave all form fields blank
   - Ensure "Use Basic Authorization" is checked
6. Click "Submit"

Step 5: Domain Registration in SFCC Business Manager

1. Go to: **"Merchant Tools > Site Preferences > Apple Pay**
2. Under **Domain Registration** section
   a. Click on **Register Apple Sandbox** under Apple Sandbox section for registering SFCC to Apple Sandbox account.
   b. Click on **Register Apple Production** under Apple Production section for registering SFCC to Apple Production account.

Step 6: Payment Processor

1. In the Business Manager, go to **Merchant Tools > Ordering > Payment Methods** and select **DW_APPLE_PAY**. And in **DW_APPLE_PAY details**, double check if **Payment Processor** = **"CYBERSOURCE_CREDIT"**

3. PayPal

Implementation

Cybersource Cartridge supports the following for PayPal: a. PayPal Express b. PayPal Credit c. PayPal Billing Agreement

Prerequisite

Prior to development phase, there are a generic set of configurations that a development team needs to account for. These configurations include:

1. PayPal developer account

2. PayPal sandbox account Screenshot of the detailed set of configurations for #1 &

   #2

Step-by-step guide

1. Register for a PayPal developer account.
2. Login at https://developer.paypal.com with your "normal" developer email (ex. *mitaylor@cybersource.com*).
3. Click on "Accounts" under "Sandbox" to ensure you have at least one of both business and personal sandbox accounts.
   a. Format is *email-buyer@domain.com* and *email-facilitator@domain.com*
   b. Ex. *mitaylor-buyer@cybersource.com* (sandbox consumer account) and *mitaylor-facilitator@cybersource.com* (sandbox business account).
   c. If you don't have those, create them using the "Create Account" link in the top right corner of the page:

Sandbox Accounts

[Create Account]

Questions? Check out the **Testing Guide**. Non-US developers should read our **FAQ**.

To link your sandbox account to your developer account, **log in with PayPal** and provide your sandbox account credentials.

Total records: 3

	Email Address	Type	Country	Date Created	
☐	▸ mitaylor-buyer@cybersource.com	PERSONAL	US	03 May 2017	
☐	▸ mitaylor_buyer@cybersource.com	PERSONAL	US	26 Jul 2013	
☐	▸ mitaylor-facilitator@cybersource.com	BUSINESS-Pro	US	26 Jul 2013	

(Delete)

4. Click "My Apps & Credentials" under "Dashboard".
5. Scroll to the "REST API Apps" section.
6. Click "Create App".
7. Give it whatever name you want, making sure to link it to your business account:

Application Details

App Name

CYBS-UAT-Test1

3. Linking developer and sandbox account. On creating a PayPal developer account, get in touch with the CyberSource team, share the developer account details and get the developers' details configured on CyberSource (BackOffice Configuration tool). Share the following keys with Cybersource:

- ClientID (**paypalgateway_client_key**) - Follow this [link](#) to generate.
- Secret (**paypalgateway_secret_phrase**) - Follow this [link](#) to generate.
- Merchant Account ID (**paypalgateway_mid**) – Follow this [link](#) to generate.
- Merchant email (**paypalgateway_merchant_email)** - Follow this [link](#) to generate.

a. To setup PayPal Express

Step 1: Upload Cybersource metadata in Business Manager. If not follow ["Step 2: Upload metadata"](#) or import "**metadata/sfra_meta/meta/Cybersource_Paypal.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Paypal** and set values for the parameter:

Field	*Description*
CsEnableExpressPaypal	Effectively enables or disables the PayPal Express checkout.
Paypal Order Type	The type of authorization to follow for PayPal orders. Select STANDARD for Authorize & Capture or select CUSTOM for just Authorize

b. To setup PayPal Credit

Step 1: Upload Cybersource metadata in Business Manager. If not follow ["Step 2: Upload metadata"](#) or import "**metadata/sfra_meta/meta/Cybersource_Paypal.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Paypal** and set values for the parameter:

Field	*Description*
Paypal Order Type	The type of authorization to follow for PayPal orders. Select STANDARD for Authorize & Capture or select CUSTOM for just Authorize

b. To setup PayPal Billing Agreement

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Paypal.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Paypal** and set values for the parameter:

Field	Description
Billing Agreement	Effectively enables or disables the PayPal Billing Agreement.
Paypal Order Type	The type of authorization to follow for PayPal orders. Select STANDARD for Authorize & Capture or select CUSTOM for just Authorize

4. Google Pay

Prerequisite:

Before proceeding to BM configuration, a Merchant Account needs to be created with Google. Please follow the link to create the merchant account with google.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_GooglePay.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_GooglePay** and set values for the parameter:

Field	Description
enableGooglePay	Enable or Disable Google Pay Service
googlePayMerchantID	Cybersource Merchant account ID
googlePaygatewayMerchantId	Matching setting on Google Account

5. Visa Checkout

Prerequisite:

1. To complete the checkout process successfully create Visa Checkout profile ([link](#)) on CyberSource business center console under 'Account Management > Digital Payment Solutions > Profiles > Enable Visa Checkout'.
2. Click profile tab and add profile, configure all the mandatory settings, also use API Key from Setting Tab.
3. Create Secret key from **'Account Management > Client Integration Management > Payment Configuration > Key Management'**. Click Generate key and select shared secret.

Step 1: Upload Cybersource metadata in Business Manager. If not follow [“Step 2: Upload metadata”](#) or import "**metadata/sfra_meta/meta/Cybersource_VisaCheckout.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_VisaCheckout** and set values for the parameter:

FIeld	Description
cybVisaSdkJsLibrary	Sandbox: https://sandbox-assets.secure.checkout.visa.com/checkout-widget/resources/js/integration/v1/sdk.js LIVE: https://assets.secure.checkout.visa.com/checkout-widget/resources/js/integration/v1/sdk.js
cybVisaTellMeMoreLinkActive	Indicate whether Tell Me More Link to be displayed with VISA button true (default) false
cybVisaButtonColor	The color of the Visa Checkout button. standard or neutral.
cybVisaButtonSize	The size of the Visa Checkout button
cybVisaButtonHeight	The height of the Visa Checkout button in pixels.
cybVisaButtonImgUrl	Sandbox: https://sandbox.secure.checkout.visa.com/wallet-services-web/xo/button.png LIVE: https://secure.checkout.visa.com/wallet-services-web/xo/button.png
cybVisaCardBrands	Brands associated with card art to be displayed
cybVisaButtonWidth	The width of the Visa Checkout button in pixels.

cybVisaThreeDSSuppressChallenge	Whether a Verified by Visa (VbV) consumer authentication prompt is suppressed for this transaction. If true, VbV authentication is performed only when it is possible to do so without the consumer prompt. true - Do not display a consumer prompt false - Allow a consumer prompt
cybVisaExternalProfileId	Profile created externally by a merchant whom Visa Checkout uses to populate settings
cybVisaSecretKey	The secret key specified VISA Checkout account profile
cybVisaAPIKey	The Visa Checkout account API key specified in cyberSource business center
cybVisaThreeDSActive	Whether Verified by Visa (VbV) is active for this transaction. If Verified by Visa is configured, you can use threeDSActive to deactivate it for the transaction; otherwise, VbV will be active if it has been configured
cybVisaButtonOnCart	CyberSource Visa Button display on minicart and cart

6. Bank Transfer

Bank Transfer supports 5 types of Payment methods –

- SOFORT
- BANCONTACT
- IDEAL
- GIROPAY
- EPS

Bank Transfer Service Support by Country

Payment Method	Country	Services
Bancontact	Belgium	Sale Check Status Refund
EPS	Austria	Sale Check Status
giropay	Germany	Sale Check Status

iDEAL	Netherlands	Options Sale Check Status Refund
Sofort	Austria Belgium Germany Italy Netherlands Spain	Sale Check Status Refund

Bank transfer supports 4 different services:

- **Option Service:** This service is valid only for iDEAL transactions. The options service (apOptionsService) retrieves a list of bank option IDs and bank names which you can display to the customer on your web site
- **Sale Service:** The sale service (apSaleService) returns the redirect URL for customer's bank. The customer is directed to the URL to confirm their payment details.
- **Check Status Service:** The check status service returns the latest status of a transaction. It is a follow-on request that uses the request ID value returned from the sale service request. The request ID value links the check status request to the payment transaction
- **Refund Service:** The refund service request (apRefundService) is a follow-on request that uses the request ID value returned from the sale request. The request ID value links the refund transaction to the original payment transaction

Bank Transfer functionality is specific to PMs with sale and check status service.
SFRA makes the call to CyberSource Sale service to authorize the purchase amount. A secondary call is made to check a Status service to determine result of the authorization, and the subsequent Order creation or failure.

Implementation

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_BankTransfer.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_BankTransfer** and set values for the parameter:

Field	*Description*

Merchant Descriptor Postal Code(merchantDescriptorPostalCode)	Merchant Descriptor Postal Code
Merchant Descriptor(merchantDescriptor)	Merchant Descriptor
Merchant Descriptor Contact(merchantDescriptorContact)	Merchant Descriptor Contact
Merchant Descriptor State(merchantDescriptorState)	Merchant Descriptor State
Merchant Descriptor Street(merchantDescriptorStreet)	Merchant Descriptor Street
Merchant Descriptor City(merchantDescriptorCity)	Merchant Descriptor City
Merchant Descriptor Country(merchantDescriptorCountry)	Merchant Descriptor Country

Step 3: Go to **Merchant Tools > Ordering > Payments Methods > Bank_Transfer** and set values for the parameter:

FIeld	Description
isBicEnabled	Attribute to check if BIC field is required for EPS and GIROPAY to display on billing page
isSupportedBankListRequired	Attribute to check if bank list is required for IDEAL to display on billing page

7. Alipay

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Alipay.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Alipay** and set values for the parameter:

Field	Description
apPaymentType	Alipay Payment Type for Domestic as well as International Payment
apTestReconciliationID	Test Reconciliation ID for Alipay

Step 3: Under **'Merchant Tools > Ordering > Payment Methods**' Make sure the 'ALIPAY' payment method is enabled and configured to use the 'CYBERSOURCE_ALIPAY' payment processor.

8. Klarna

Different countries and specific currencies could be configured to run Klarna with different Merchant Id/Key specific to different sites. Functional flows would be similar on different sites.

Step 1: Merchant Id/Key could be configured at **Merchant Tools -> Ordering -> Payment Methods -> Klarna**. In this release, Klarna has been supported for US, UK and Germany with different sites and corresponding Merchant Ids/Key.

Step 2: On the Payment Methods page, Select the locale (language) you want to set up, then select the Klarne payment method.

Step 3: Enter the merchantID and merchantKey field in CyberSource Credentials section of payment method. If you leave these empty, the service will fall back to the values you entered in the CS core site preferences.

Step 4: Select the appropriate bill-to language setting under the 'Klarna' custom attribute group.

Step 5: Upload Cybersource metadata in Business Manager. If not follow "Step 6: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Klarna.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Klarna** and set values for the parameter:

Field	*Description*
Klarna Decision Manager Required	Enable or Disable Decision Manager
Klarna JS API Path	Klarna JS API Library Path

9. WeChat Pay

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_WeChat.xml**" in Business Manager (**Administration > Site Development > Import & Export**).

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_WeChat** and set values for the parameter:

FIeld	Description
Test Reconciliation ID for WeChat Pay	Sets the status of the AP SALE such as settled, pending, abandoned, or failed
WeChatPayTransactionTimeout	Transaction Timeout for QR Code in WeChat Pay in seconds
CheckStatusServiceInterval	Interval in seconds before checking status of AP sale
NumofCheckStatusCalls	Max number of calls to check status for each AP sale

6. Configure Features (OPTIONAL)

1. Tax Calculation

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_TaxConfiguration.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_TaxConfiguration** and set values for the parameter:

Field	Description

CS Tax Calculation Enabled	Enable or disable CyberSource tax service
CS Tax Calculation Nexus States List	List of states to charge tax in
CS Tax Calculation No Nexus States List	List of States to not charge tax in
CS Tax Calculation Default Product Tax Code	Default tax code used when tax code is not set on a product
CS Tax Calculation Purchase Order Acceptance City	Purchase order acceptance state code
CS Tax Calculation Purchase Order Acceptance Zip Code	Purchase order acceptance zip code
CS Tax Calculation Purchase Order Acceptance Country Code	Purchase order acceptance country code
CS Tax Calculation Purchase Order Origin City	Purchase order origin city
CS Tax Calculation Purchase Order Origin StateCode	Purchase order origin state code
CS Tax Calculation Purchase Order Origin ZipCode	Purchase order origin zip code
CS Tax Calculation Purchase Order Origin Country Code	Purchase order origin country code
CS Tax Calculation ShipFrom City	Ship from city
CS Tax Calculation ShipFrom StateCode	Ship from state code
CS Tax Calculation ShipFrom ZipCode	Ship from zip code

CS Tax Calculation ShipFrom Country Code	Ship from country code

2. Delivery Address Verification

Step 1: To enable this service, Go to **Merchant Tools > Custom Preferences > CyberSource: Core** and set the 'CS DAV Delivery Address Verification Enabled' preference to 'Yes'.

Step 2: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import
"**metadata/sfra_meta/meta/Cybersource_DeliveryAddressVerification.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 3: Go to **Merchant Tools > Custom Preferences > Cybersource_DeliveryAddressVerification** and set values for the parameter:

Field	Description
CS DAV Delivery Address Verification Enabled	Enable or disable the DAV service.
CS DAV Update Shipping Address With DAV Suggestion	Update the shipping address with the CS suggestion, if found.
CS DAV On Failure	Accept or Reject the order if DAV fails.

3. Address Verification Service (AVS)

Assuming you have implemented the Credit Card Authorization service, you are ready to use the AVS service.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import
"**metadata/sfra_meta/meta/Cybersource_DeliveryAddressVerification.xml**" in Business Manager (Administration > Site Development > Import & Export)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_DeliveryAddressVerification** and set values for the parameter:

FIeld	Description

Field	Description
CS AVS Ignore AVS Result	Effectively enables or disables the AVS service
CS AVS Decline Flags	Leave empty to follow CS default decline flag strategy Enter flags separated by commas to overwrite the default flag rules

4. Device FingerPrint

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_DeviceFingerprint.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_DeviceFingerprint** and set values for the parameter:

Field	*Description*
CS Device Fingerprint Enabled	Enable or Disable the Device Fingerprint Service
CS Device Fingerprint Organization ID	Device Fingerprint Organization ID
CS Device Fingerprint ThreatMetrix URL	URL pointing to JS that generates and retrieves the fingerprint
CS Device Fingerprint Time To Live	Time, in milliseconds between generating a new fingerprint for any given customer session

5. Decision Manager
Refer to this link to learn about Cybersource's Decision Manager.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_DecisionManager.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_DecisionManager** and set values for the parameter:

Field	*Description*

CS Decision Manager Enabled	Enable or Disable Decision Manager

Step 3: SFRA storefront versions 3.2.0 or lower contain a hook that interfere with this service. While the hook manager has been updated in later versions of SFRA to prevent this, the CS cartridge is not yet compatible with those storefront versions. As suggested by SFCC, manual removal of the following hook from SFRA is required for this integration to function properly.

Remove

```
{
"name": "app.fraud.detection",
"script": "./cartridge/scripts/hooks/fraudDetection"
}
```

From app_storefront_base/hooks.json

Step 4: To enable **Decision Manager Order Update Job**: Decision Manager Order Update Job uses a REST API to retrieve order decisions from Cybersource and update the order confirmation status in SFCC.

To Integrate this job into your site, follow the below steps:

Step 4.1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import **"metadata/sfra_meta/jobs.xml"** in Business Manager (**Administration > Operations > Import & Export**)

Step 4.2: Navigate to '**Administration > Operations > Job**'. Select the Job '**CyberSource: Decision Manager Order Update**'.

Step 4.3: Select the "Job Steps" tab. Select the Sites you want the Job to run on, from the 'Scope' button.

Step 4.4: Select "UpdateOrderStatus" and update the following "custom parameters".

Field	*Description*
MerchantId	CS Merchant ID for the account to get Decisions from
SAFlexKeyID	Key ID. Work with CS to generate this value or Follow link to generate keys.
SAFlexSharedSecret	Shared secret. Work with CS to generate this value or Follow link to generate secret.

Step 4.5: Navigate to the 'Schedule and History' tab and configure the frequency you would like the job to run.

Step 4.6: Ensure the 'Enabled' check box is selected.

Step 4.7: Go to **Merchant Tools > Custom Preferences** set values for the parameter:

Field	*Site Pref Group*	*Description*
CS Decision Manager OrderUpdate Lookback time	Cybersource: Core	Number of hours the job will look back for new decisions. CS does not support lookbacks over 24 hours. Do not set above 24
Secure Acceptance Flex Host Name	Cybersource: Secure Acceptance	Host Name. CS can provide this value

Step 4.8: When moving to a production environment, the URL for the API call needs to be updated. This can be done in:
Administration > Operations > Services > Service Credentials > ConversionDetailReport – Details

6. Payment Tokenization

Refer to this link to learn about Cybersource's Token Management service.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Tokenization.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Tokenization** and set values for the parameter:

Field	*Description*
CS Tokenization Enabled	Enable or Disable the Tokenization Service
LimitSavedCardRate	Limit number of credit card save attempts
SavedCardLimitFrame	Limit of card count in a certain time period

SavedCardLimitTimeFrame   Number of hours that saved credit card attempts are counted

7. Subscription Token Creation

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Tokenization.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > Cybersource_Tokenization** and set values for the parameter:

Field	*Description*
CS Subscription Tokens Enabled	Enable or Disable the option to generate subscription tokens

8. Capture Service

Note: This section covers Capture service only for Credit Cards.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Core.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > CyberSource_Core** and Enter CyberSource Merchant ID, CyberSource Merchant Key values.

Step 3: The interface you will use to make capture requests is in the form of a single function: CCCaptureRequest(requestID, merchantRefCode, paymentType, purchaseTotal, currency) This function can be found in the script 'scripts/facade/CardFacade.ds'. A working example of how to use this function can be found in the CYBServicesTesting-CaptureService controller. You will first get an instance of the CardFacade object, and make the call as follows:

```
var CardFacade = require('~/cartridge/scripts/facade/CardFacade');
var serviceResponse = CardFacade.CCCaptureRequest(requestID, merchantRefCode, paymentType, paymentTotal, currency);
```

The resulting serviceResponse object will contain the full response object generated by the request. The contents of this object will determine your logic in handling errors and successes. For detailed explanations of all possible fields and values, reference the Official CyberSource documentation for the CCCapture Service.

Step 4: Enter Capture Request Parameters:

Field	Description
requestID	Transaction ID obtained from the initial Authorization
merchantRefCode	SFCC Order Number
paymentType	Payment Type used for the Authorization
purchaseTotal	Order Total
currency	Currency code (ex. 'USD')

9. Auth Reversal Service

Note: This section covers Reversal service only for Credit Cards.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Core.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > CyberSource_Core** and Enter CyberSource Merchant ID, CyberSource Merchant Key values.

Step 3: The interface you will use to make auth reversal requests is in the form of a single function:
CCAuthReversalService(requestID, merchantRefCode, paymentType, currency, amount)
This function can be found in the script 'scripts/facade/CardFacade.ds'. A working example of how to use this function can be found in the CYBServicesTesting-CCAuthReversalService controller. You will first get an instance of the CardFacade object, and make the call as follows:

```
var CardFacade = require('~/cartridge/scripts/facade/CardFacade');
var serviceResponse = CardFacade.CCAuthReversalService (requestID, merchantRefCode,
paymentType, currency, amount);
```

The resulting serviceResponse object will contain the full response object generated by the request. The contents of this object will determine your logic in handling errors and successes. For detailed explanations of all possible fields and values, reference the Official CyberSource documentation for the CCAuthReversal Service.

Step 4: Enter Authorization Reversal Request Parameter:

Field	Description
requestID	Transaction ID obtained from the initial Authorization
merchantRefCode	SFCC Order Number
paymentType	Payment Type used for the Authorization
amount	Order Total
currency	Currency code (ex. 'USD')

10. Credit Service

Note: This section covers Credit service only for Credit Cards.

Step 1: Upload Cybersource metadata in Business Manager. If not follow "Step 2: Upload metadata" or import "**metadata/sfra_meta/meta/Cybersource_Core.xml**" in Business Manager (**Administration > Site Development > Import & Export**)

Step 2: Go to **Merchant Tools > Custom Preferences > CyberSource_Core** and Enter CyberSource Merchant ID, CyberSource Merchant Key values.

Step 3: The interface you will use to make credit requests is in the form of a single function: CCCreditRequest(requestID, merchantRefCode, paymentType, purchaseTotal, currency) This function can be found in the script 'scripts/facade/CardFacade.ds'. A working example of how to use this function can be found in the CYBServicesTesting-CreditService controller. You will first get an instance of the CardFacade object, and make the call as follows:

```
var CardFacade = require('~/cartridge/scripts/facade/CardFacade');
var serviceResponse = CardFacade.CCCreditRequest(requestID, merchantRefCode,
paymentType, paymentTotal, currency);
```
The resulting serviceResponse object will contain the full response object generated by the request. The contents of this object will determine your logic in handling errors and successes. For detailed explanations of all possible fields and values, reference the Official CyberSource documentation for the CCCredit Service.

Step 4: Enter Credit Request Parameters:

Parameter Name	Description
requestID	Transaction ID obtained from the initial Authorization
merchantRefCode	SFCC Order Number
paymentType	Payment Type used for the Authorization
purchaseTotal	Order Total
Currency	Currency code (ex. 'USD')

11. Request Customizations

Step 1: To customize request objects, register the hook 'app.cybersource.modifyrequest' in your cartridges 'hooks.json' file. An example would look like this, replacing the script path with your own script:

```
{
"name": "app.cybersource.modifyrequest",
"script": "./cartridge/scripts/hooks/modifyRequestExample"
}
```

You can copy the 'scripts/hooks/modifyRequestExample' script from this cartridge into your own to use as a template for extending and modifying service request objects. Note, every hook must return a valid request object for the given service. It is recommended that you reference the CybserSource documentation for details on the exact nature of any fields you wish to customize or add.

Step 2: The following hooks are available for you to define in this file:
Modify Request hooks

Hook Name	Service Request to modify
CCAuth	Credit Card Authorization
PayerAuthEnroll	Payer Authentication Enrollment

PayerAuthValidation	Payer Authentication Validation
AuthReversal	Credit Card Authorization Reversal
Capture	Credit Card Capture
Credit	Credit Card Credit/Refund
Tax	Tax Calculation

12. Failover/Recovery Process

Visa has dedicated data centers in Virginia and Colorado. There are no single points of failure. Visa Data Centers implement redundant, dual-powered equipment, multiple data and power feeds, and fault tolerance at all levels with 99.995% uptime. In case of any failover, please open support case @ https://support.cybersource.com.

Disable Cartridge

Step 1: In the Business Manager, go to **Merchant Tools > Custom Preferences > Cybersource Core** and set values for the following parameters:

Field	Description	Value to Set
Enable Cybersource Cartridge	Enable or disable Cybersource Cartridge. If disabled none of the Cybersource services are invoked	**No**

Step 2: In the Business Manager, go to **Merchant Tools > Ordering > Payment Methods** and select **CREDIT_CARD**. And in **CREDIT_CARD details**, change processor **Payment Processor** = **"BASIC_CREDIT"**

13. Supported Locales

Out of box cartridge supports most of the locales like English (United States), English (United Kingdom), French (FRANCE), English (Austria), German (GERMANY), Dutch (NETHERLANDS) and more.

7. Test and Go Live

Test your integration, and configure your live account, so you can start processing live transactions.

Test your integration

Before you start accepting payments, test your integration in Test sandbox:

> The sandbox simulates the live payment gateway. The sandbox never processes an actual payment. We do not submit sandbox transactions to financial institutions for processing. The sandbox environment is completely separate from the live production environment, and it requires separate credentials. If you use your production credentials in the sandbox or vice versa, you get a 401 HTTP error.

Sign up for a [sandbox account](#) if you have not yet.

Use our test card numbers to make test payments: > The following test credit card numbers work only in the sandbox. If no expiration date is provided, use any expiration date after today's date. If the card verification code is required and is not provided, use any 3-digit combination for Visa, Mastercard, Discover, Diners Club and JCB; use a 4-digit combination for American Express.

Test Card Brand	Number	CVV	Expires
Visa	4111 1111 1111 1111		
Visa	4622 9431 2701 3705	838	12/22
Visa	4622 9431 2701 3713	043	12/22
Visa	4622 9431 2701 3721	258	12/22
Visa	4622 9431 2701 3739	942	12/22
Visa	4622 9431 2701 3747	370	12/22
MasterCard	2222 4200 0000 1113		
	2222 6300 0000 1125		
	5555 5555 5555 4444		
American Express	3782 8224 6310 005		
Discover	6011 1111 1111 1117		
JCB	3566 1111 1111 1113		
Maestro (International)	5033 9619 8909 17		
	5868 2416 0825 5333 38		

Maestro (UK Domestic)	6759 4111 0000 0008
	6759 5600 4500 5727 054
	5641 8211 1116 6669
UATP	1354 1234 5678 911

Register SFCC sandbox to Apple Sandbox Account.

1. Go to: **"Merchant Tools > Site Preferences > Apple pay**
2. Under **Domain Registration** section
   a. Click on **Register Apple Sandbox** under Apple Sandbox section for registering SFCC to Apple Sandbox account.

To manage your evaluation account, log in to the [Test Business Center](#) and do the following: - View test transactions. - Access administrator users and access privileges. - Create roles with predefined access permissions. - View reports.

> **Important** Cybersource recommends that you submit all banking information and required integration services in advance of going live. Doing so will speed up your merchant account configuration.

Configure your live account

Once you have the credentials for the live environment:

1. Configure cartridge using your live account settings.

2. Test your integration.

8. Release Notes

Version 21.1.0 (Feb 15, 2021)

- Provide an option to enable/disable cartridge via business manager configuration.
- Upgrade the cartridge to support SFRA v5.1.0
- We improved the metadata import process, now merchants can easily import all the metadata in a single go without having to import individual files.
- We improved the grouping of Site Preferences. All the related configurations can be found in the appropriate grouping.
- Storefront's order confirmation email will now be sent to the storefront's registered email rather than to PayPal's registered email.
- We made Payer authentication's site preference optional if you are not using PA. (GitHub issue#44)
- We improved the quality of the code by linting.
- We removed hard coding of environment variable for Google Pay. (GitHub issue#53)
- We removed hard coding of host URL from Decision manager job. (GitHub issue#49)
- We fixed the javascript method in songbird.isml. (GitHub issue#47)
- We removed server.replace from the cartridge. (GitHub issue#45)
- We improved the documentation of the cartridge.

Version 19.5.3 (Dec 30, 2020)

- Support 3ds for French Processor
- Remove flash code from Device fingerprint

Version 19.5.2 (Dec 04, 2020)

- Fix order token issue for SA_Redirect. (GitHub issue#57)
- Fix skip_decision_manager flag issue for SA_Silent Order Post (GitHub issue#46)

Version 19.5.1 (Nov 11, 2020)

- Improved security on accessing and modifying sensitive fulfillment-related actions on an order (e.g., order acceptance, canceling etc.).
- Add billing address to pa_enroll and pa_validate.
- Fix 3DS issues

Version 19.5.0 (May 20, 2020)

- Add WeChat Pay payment method.

Version 19.4.1 (March 17, 2020)

- Rate Limiting added to the My Accounts page, so a Merchant can determine the number of cards that can be edited or added.
- Update CyberSource WSDL to support Apache CXF v3 upgrade.

Version 19.4.0 (Feb 25, 2020)

- Updated cartridge to make it compatible with 4.3.0 version of SFRA.
- Bug fix on silent Post Payment method.
- Change reference code from "test" to unique ID in subscription creation and deletion call.
- Bug fix on JCB and Dinner club card processing.
- Minor fixes on Tax calculation that uses CyberSource tax services.
- Improved error handling on SA Flex and SA iframe.
- Bug fixes on PayPal button logo in Germany locale.
- Restructured cartridge folder to adhere to Salesforce's new standards.

Version 19.3.4 (Nov 14, 2019)

- Supports Klarna payment and replace Conversion Detail Report to REST API

Version 19.3.2 (Sept 13, 2019)

- Bug fix on basic credit transactions to work as when Cardinal Cruise/Payer Auth is not configured

Version 19.3.1 (Sept 10, 2019)

- 3DS Documentation update

Version 19.3.0 (July 26, 2019)

- Update 3DS to version 2.0 utilizing Cardinal Cruise.

Version 19.1.1 (June 06, 2019)

- PayPal will now utilize the 'CyberSource Endpoint' site preference.
- Update to accommodate hitting the back button during SA redirect checkout.
- Added details to documentation.

Version 19.1.0 (Feb 08, 2019)

- Adds PayPal and PayPal Express Integrations
- Security patch to Test suite in Controllers Cartridge.
- Update to SA Flex date generation to require an en_US local.
- Fix to SA Flex payment response data being saved properly.

Version 18.1.2 (Jan 09, 2019)

- Update documentation with SFRA compatibility note.
- Remove public facing endpoints that can finalize an Order.
- Fix to SA SilentPost not processing Orders with Fraud status of 'Review'
- Ensure all Orders with Fraud decisions of 'Review' are placed in a 'Not Confirmed' state.

- Utilize CS endpoint preference to set Test or Production url endpoints.
- Always Send Date to Flex Token API in US English format.

Version 18.1.1 (Nov 06, 2018)

- Adds hooks to customize request objects.
- Separates subscription creation option to use a new site preference.
- Adds Facade for 'Credit Card Credit' Service.
- Adds Facade for 'Credit Card Capture Service.
- Adds Facade for 'Credit Card Auth Reversal' Service.

Version 18.1.0 (Oct 25, 2018)

- Initial SFRA release.