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JPMC ORBITAL PAYMENT CONNECTOR

Salesforce B2C Implementation Guide

Contents

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INTRODUCTION

JPMC Orbital product integrates JP Morgan Chase’s Orbital API with Salesforce Commerce Cloud. The cartridge is self-contained – it does not interfere with other cartridges and can be integrated into any project. The installation is done in Salesforce Commerce Cloud Business Manager via the cartridge path. The cartridge requires adding custom attributes to the Custom Business Manager Module and modifying the payment methods in the Salesforce Commerce Cloud Business Manager. The cartridge is compatible with Salesforce's Order Management System. Linking B2C with Salesforce's OMS requires enabling by Salesforce Support.

SUPPORTED OPERATIONS AND FEATURES

JPMC Orbital allows a Salesforce Commerce Cloud merchant to use Orbital API as payment processor. Merchant can process their payments or/and manually capture, refund, incremental authorization, reverse them in Salesforce Commerce Cloud's Business Manager/Customer Service Center.

The cartridge features the following:

- **Salesforce Commerce Cloud's Checkout Flow**
  - **This flow is intended to be used by all customers.**
    - Pay with Card
    - Pay with Electronic Check
    - Pay with Digital Wallets
- **Customer Service Center**
  - **Merchant can control the payments via this module. Merchant can do the following actions to specific authorized order**
    - Capture
    - Partial Capture
    - Refund
    - Reversal
    - Incremental Authorization
- **Salesforce Commerce Cloud's My Account**
  - **This flow is intended to be used by registered customers for managing their saved payments**
  - **Orbital Profile**
    - Add Payment Credit Card
    - Add Payment Electronic Check
    - Add Payment Digital Wallets
  - **Safetech Token**
    - Add Payment Card
    - Add Payment Digital Wallets

Supported payment methods are;

- Payment Cards
  - Visa
  - Master Card
  - American Express
  - Discover
  - Diners
  - Discover Diners
  - JCB - Japan Credit Bureau

- Electronic Check
- Digital Wallets
    - Apple Pay
    - Google Pay
    - Visa Checkout

COMPONENT OVERVIEW

LIMITATIONS, CONSTRAINTS

To simplify installation of patches and upgrades, it is recommended to use separate cartridges for customizations whenever possible.

The cartridge does not mandate or enforce a specific Content Security Policy as it is intended to be an integral part of the codebase it is integrated in. It is the responsibility of the merchant to choose an appropriate Content Security Policy that works correctly with their aggregate codebase.

JPMC ORBITAL CARTRIDGE IMPLEMENTATION GUIDE

SETUP OF BUSINESS MANAGER

In order to successfully build the JPMC Orbital code you'll need a copy of SFRA which can be downloaded from the official Salesforce repository:

https://github.com/SalesforceCommerceCloud/storefront-reference-architecture version 6.3.0

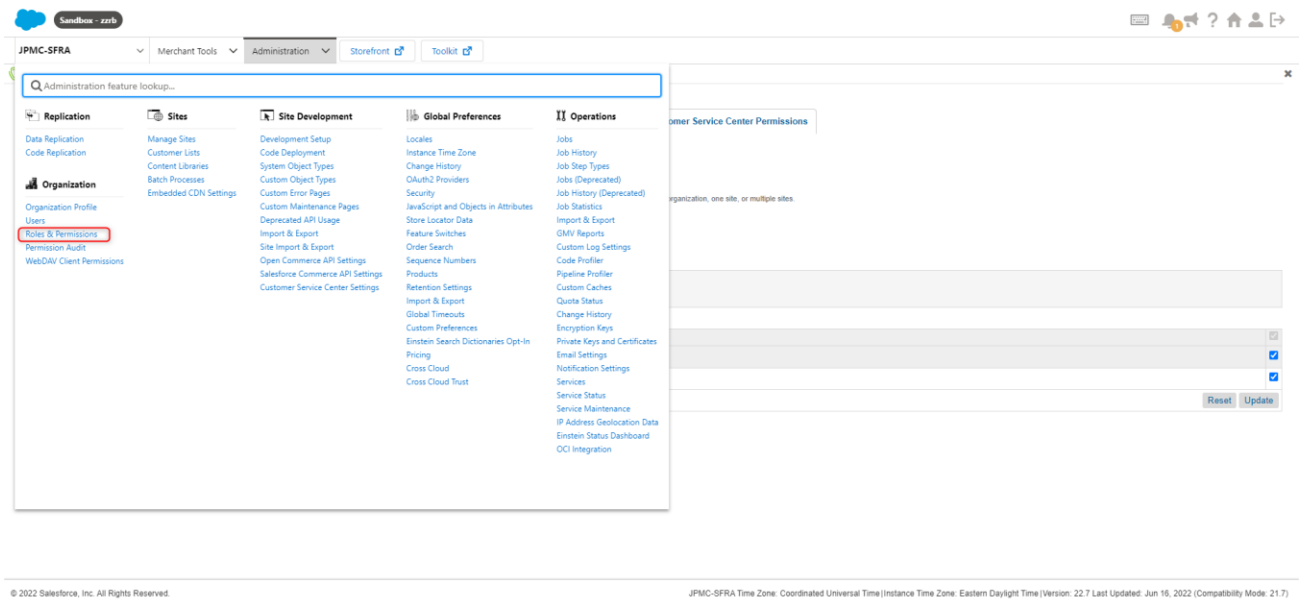
Inside package JSON file in the root of the JPMC Orbital cartridge, the base cartridge's path should be defined correctly.

```
62  "paths": {
63    "BaseCartridge": "../storefront-reference-architecture/cartridges/app_storefront_base/"
64  },
```

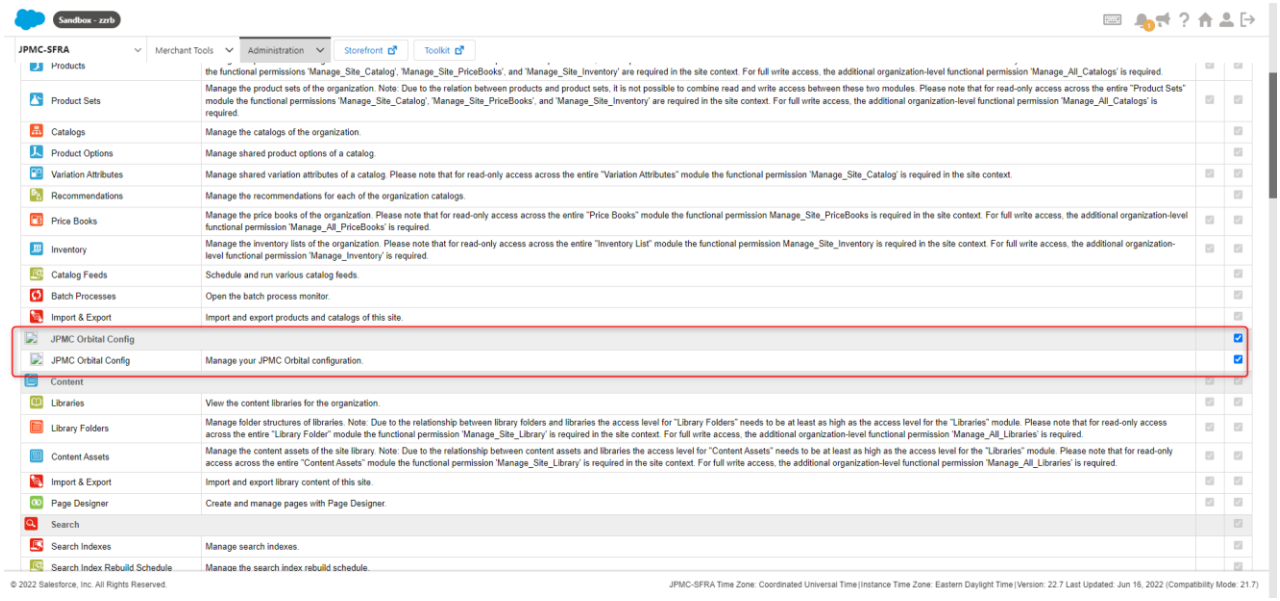
After unpacking the SFRA package execute npm install or yarn install from a console running in the SFRA folder.

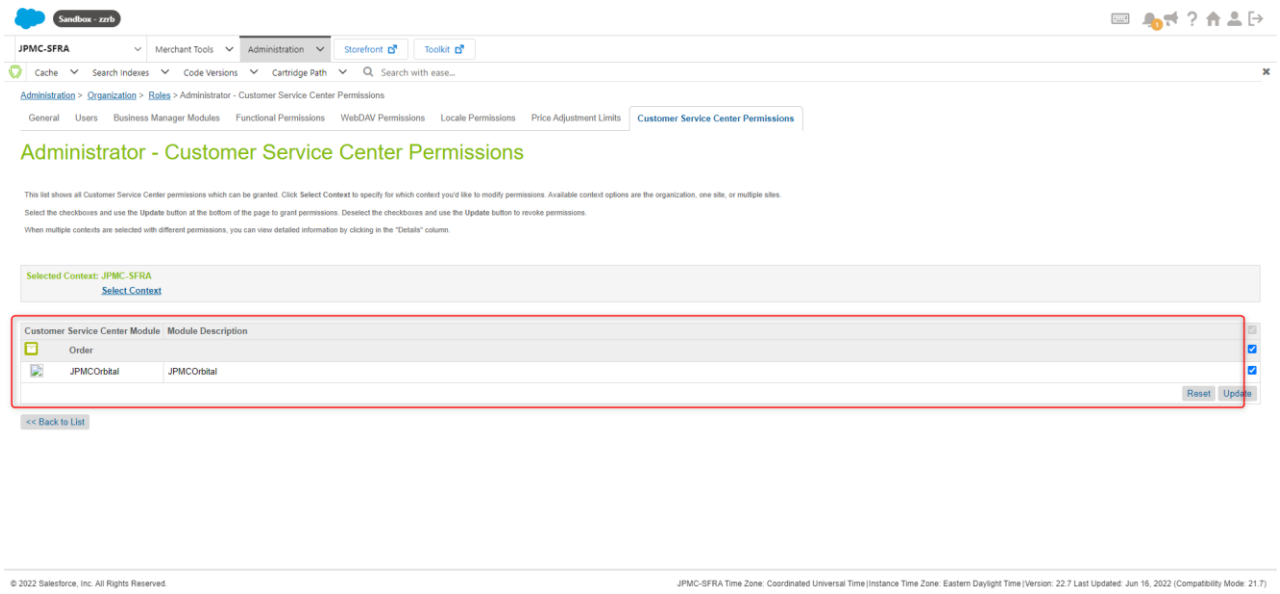
After successfully executing the install command execute the npm run build or yarn run build to compile the storefront code. After the build is successful, all cartridges including the SFRA and "bm_jpmcOrbital", "int_jpmcOrbital_sfra" and "jpmcOrbital_sfra_changes" should be uploaded to the instance.

The Business Manager Module should have access for specific users in order to use it.



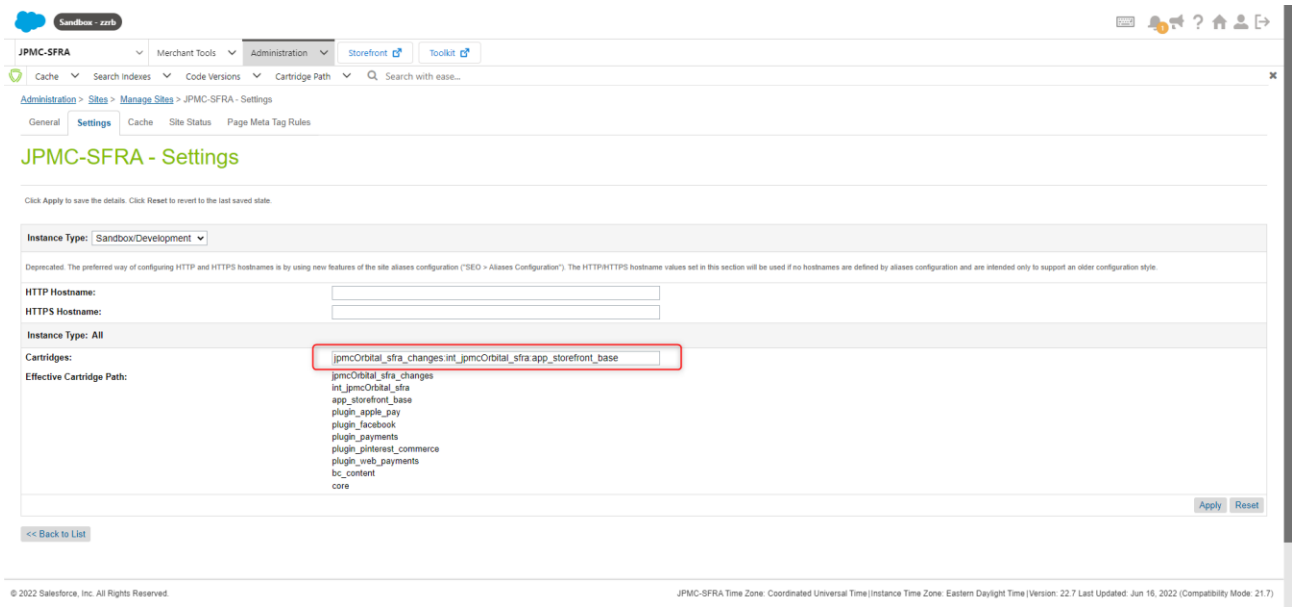
Select the user and then the site you wish to make the changes to and update it by the update button. It will apply to the tabs Business Manager Modules and Customer Service Center.





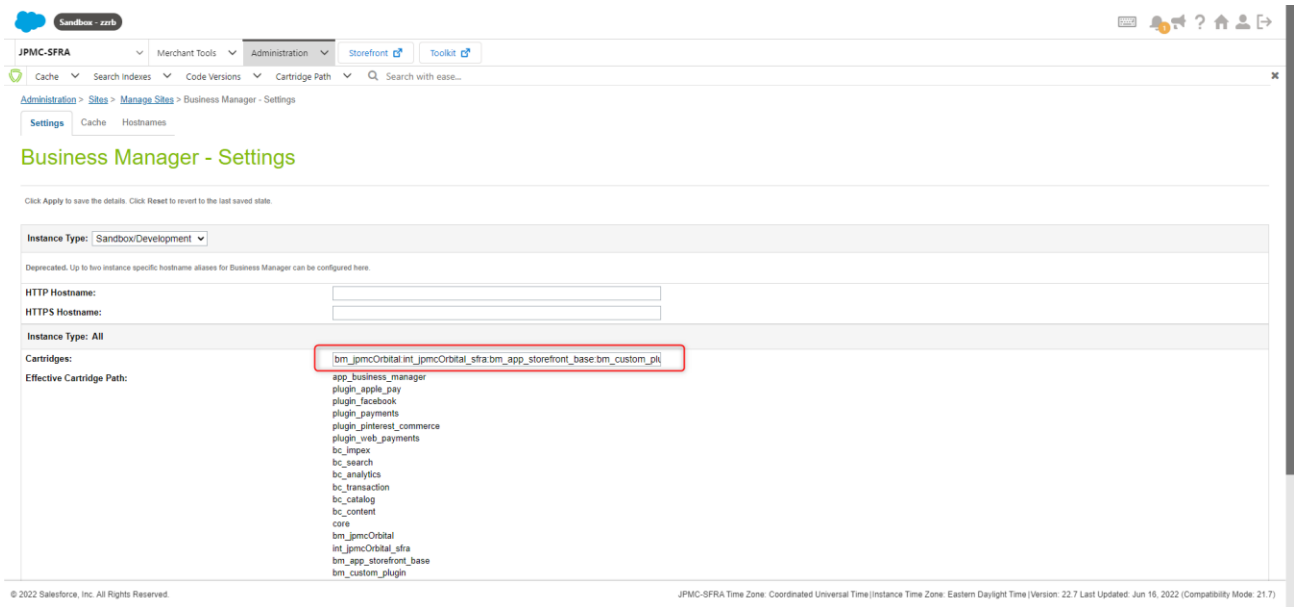
Site Cartridge path should be configured with the following under the Administration, Manage Sites, Settings tab in the Business Manager:

jpmcOrbital_sfra_changes:int_jpmcOrbital_sfra:app_storefront_base

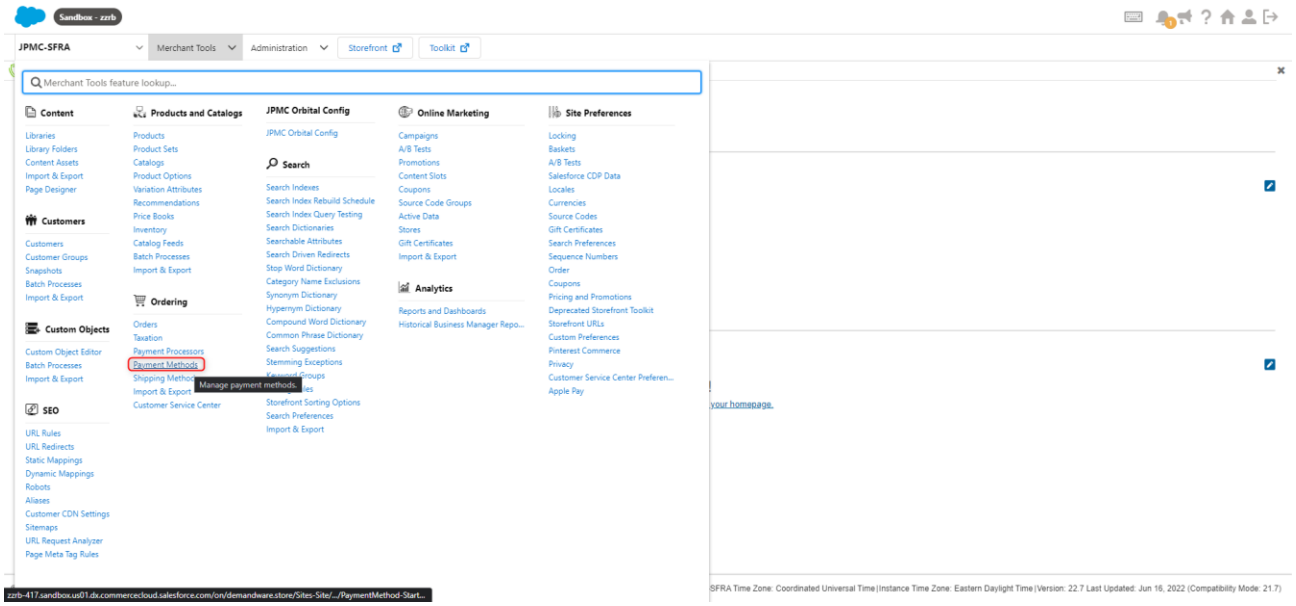


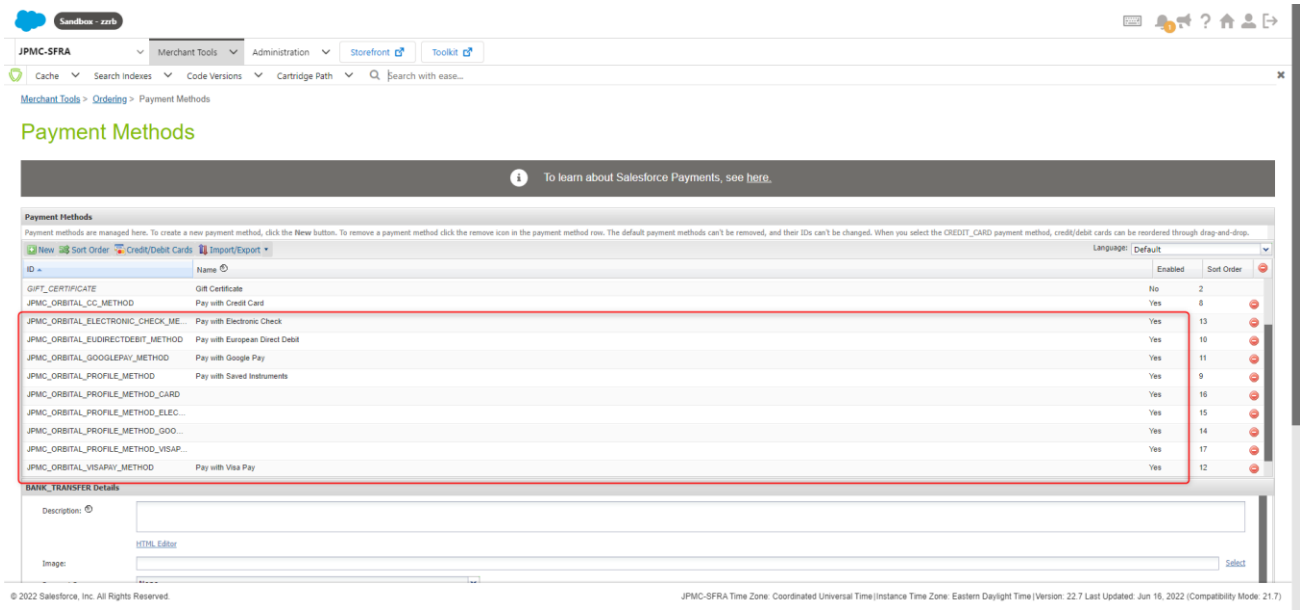
And the Business manager site needs to have the following cartridge path under the manage sites, manage Business site:

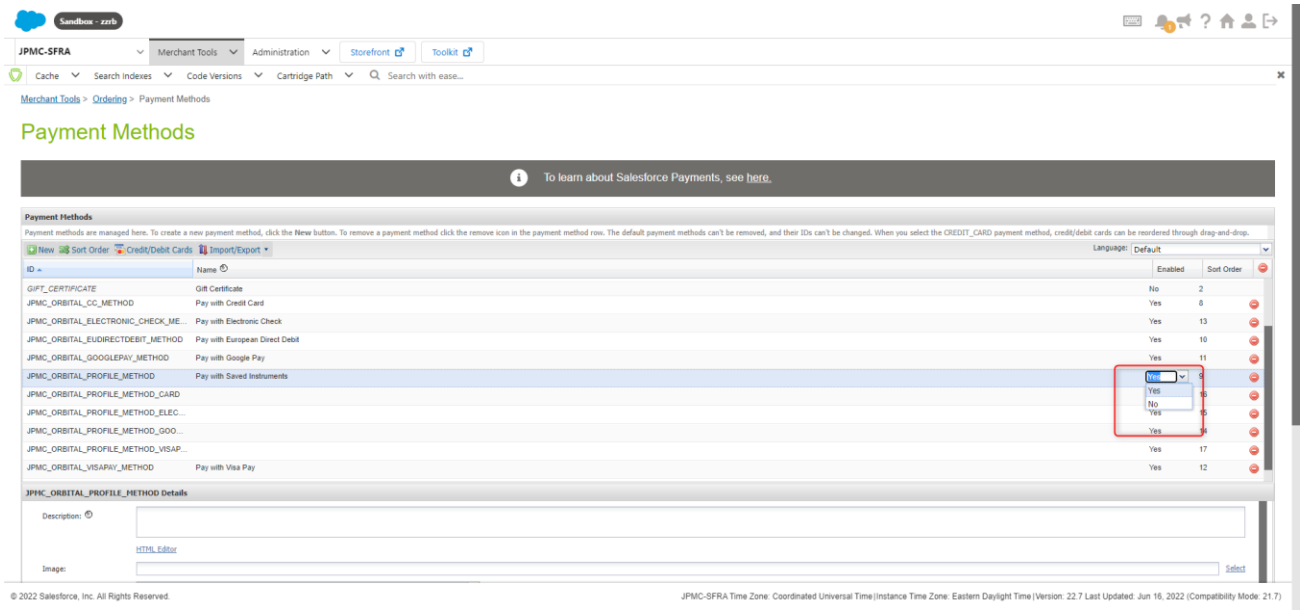
bm_jpmcOrbital:int_jpmcOrbital_sfra:bm_app_storefront_base



Payment methods should be enabled in the Business Manager's Order->Payment Methods section.



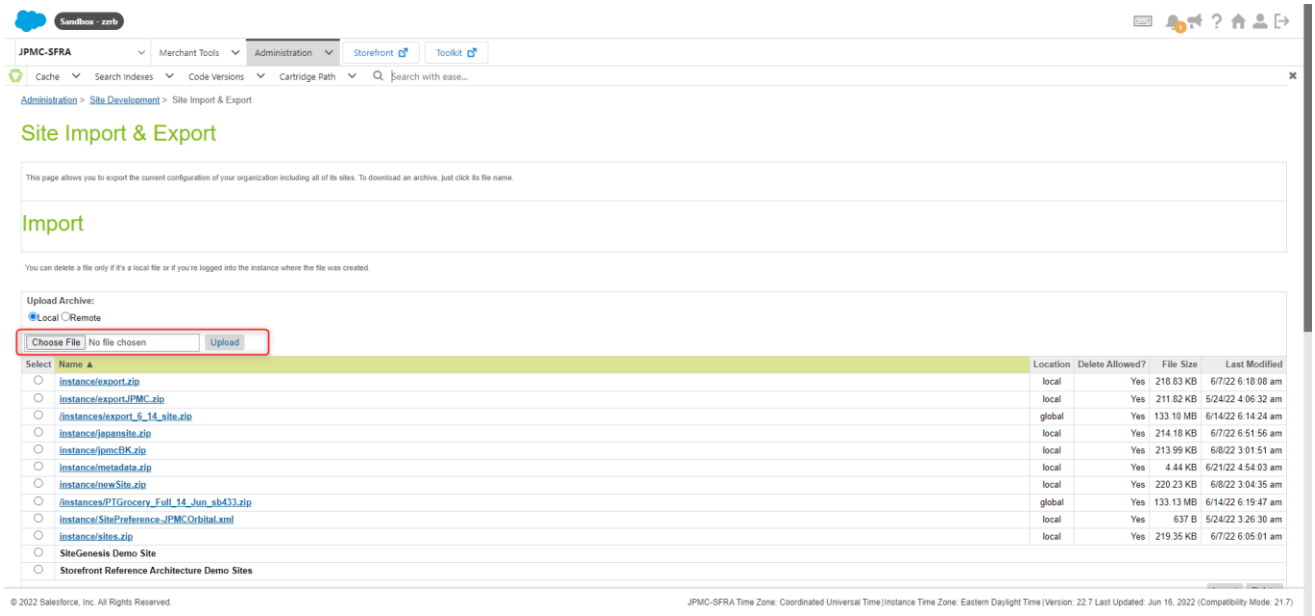




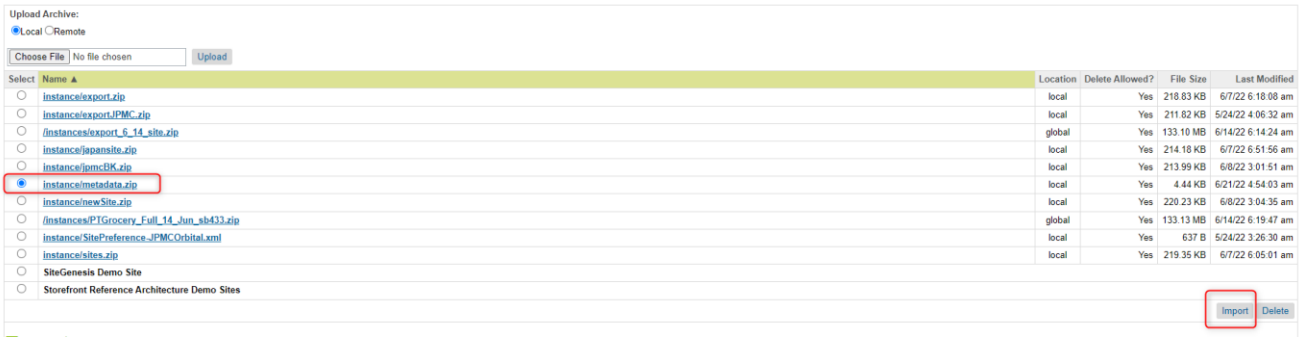
CONFIGURATION

In order to use JPMC Orbital, metadata should be uploaded to Salesforce Commerce Cloud's Business Manager and configured correctly in there.

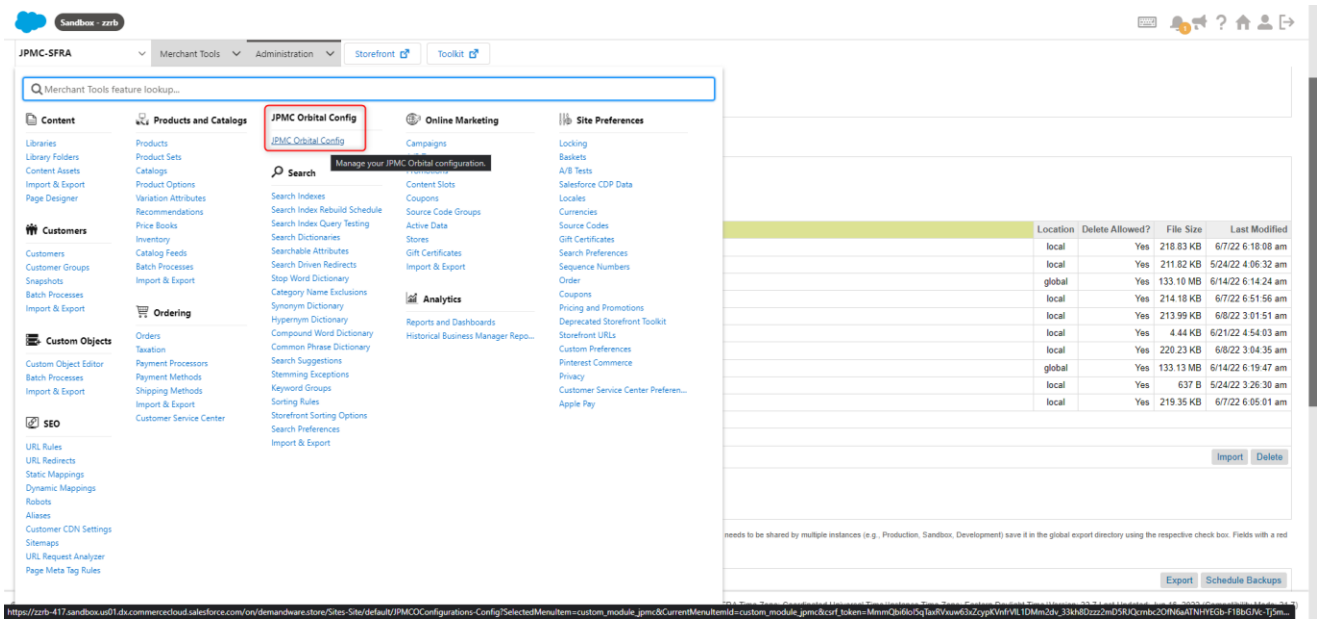
The first step is to zip the site metadata. Then go to Administration > Site Development > Site Import & Export



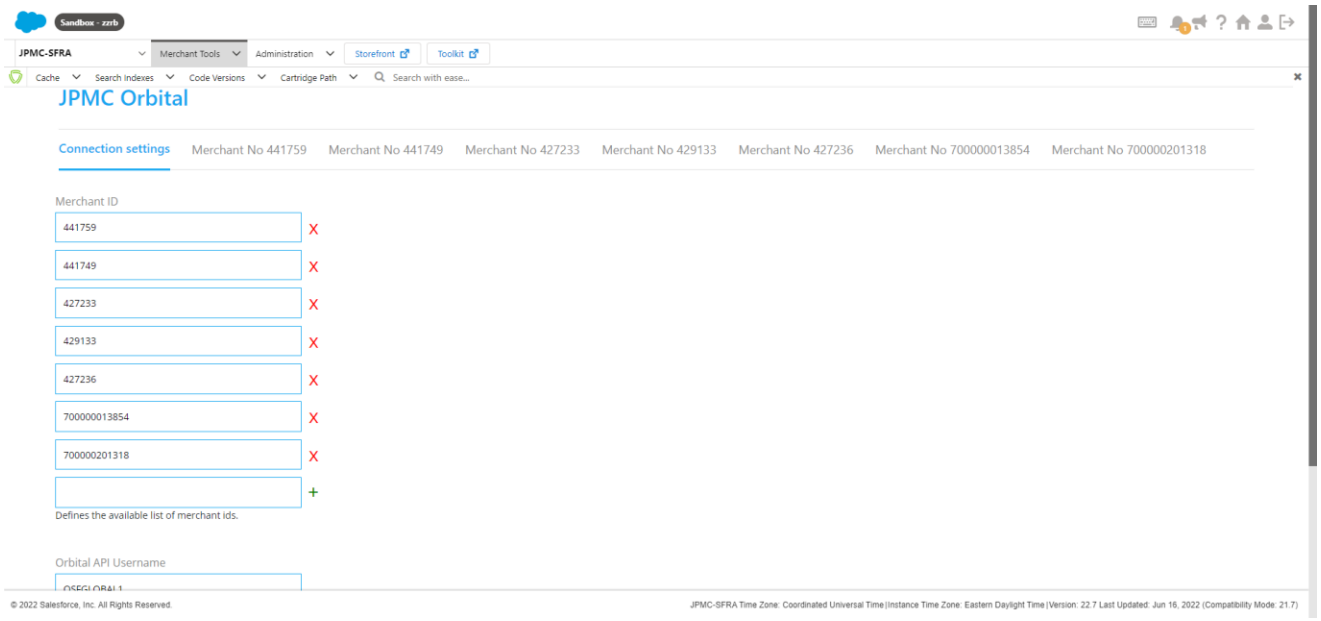
Upload the file and select it and import it to the same page. This will apply all the necessary setups in order to use the cartridge.

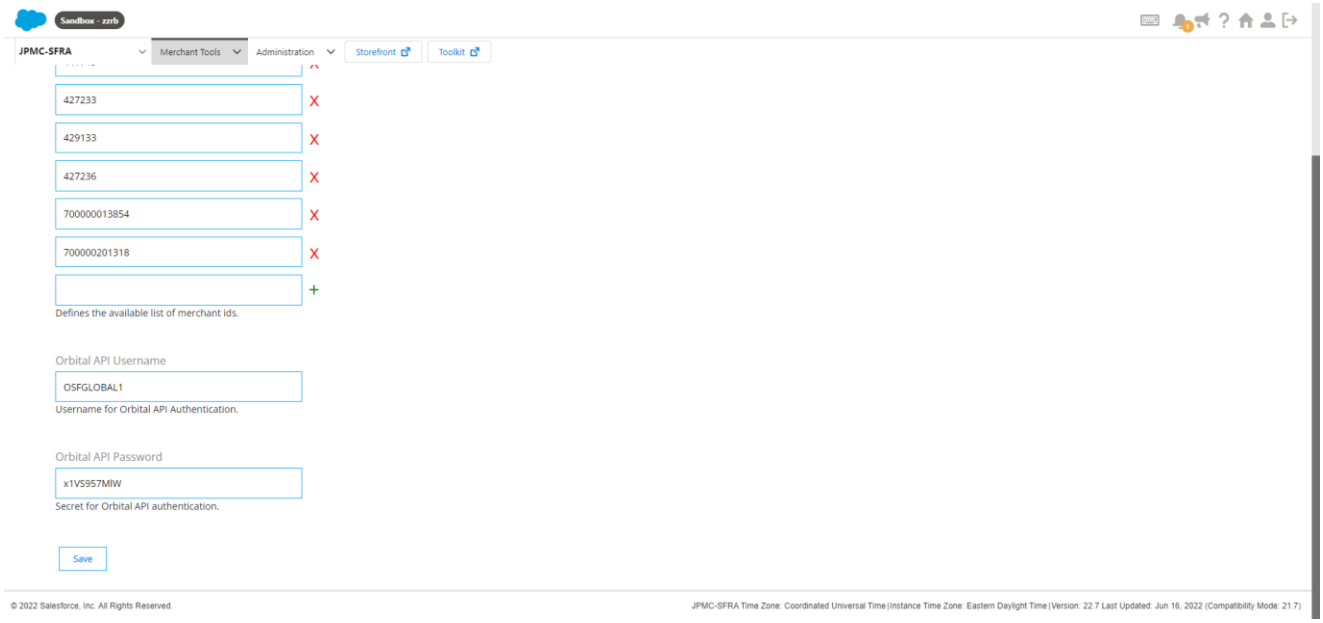


For the merchant specific configurations, JPMC Orbital BM Module should be used, under the Merchant Tools -> JPMC Orbital Config.



In this module, you need to provide your Orbital API Username and Password, with your merchantIDs.

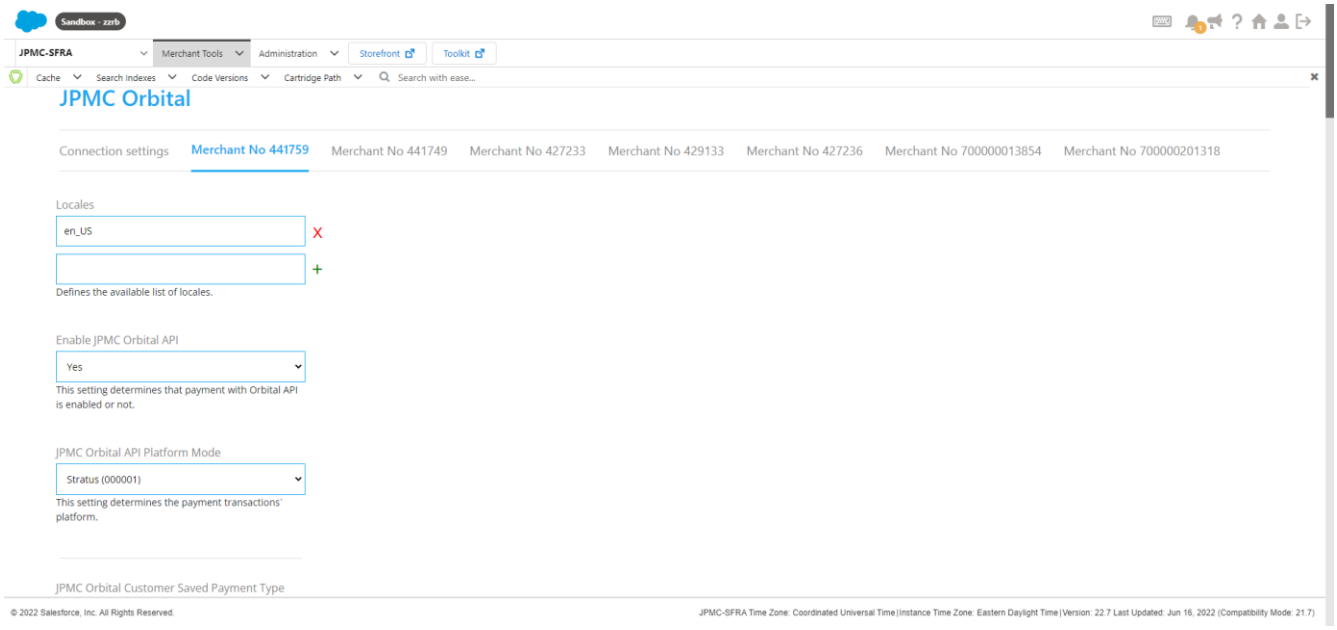




Configurations can be set per Merchant ID. After adding the merchantID proceed with save button and you can see that merchant ID as a tab on top. In this tab you'll find various configurations for respective services.

- Locales
  - Defines the available list of locales. You can define more than one locale. (e.g., en_US)
- Enable JPMC Orbital API
  - This setting determines whether payment with Orbital API is enabled or not.
- JPMC Orbital API Platform Mode
  - This setting determines the payment transactions` platform. You can select between Stratus or Tandem from the dropdown menu.
- JPMC Orbital Customer Saved Payment Type
  - This setting determines the type of customer saved payment. You can select between Orbital Profile or Safetech Token from the dropdown menu.
- JPMC Orbital Safetech Page Encryption Enabled
  - This setting determines if the information will be encrypted or not. **This feature can only be enabled if "JPMC Orbital Customer Saved Payment Type" is set to "Safetech Token"**
- JPMC Orbital Safetech Page Encryption Configuration
  - This setting determines the stage of Safetech Page Encryption. You can select between Testing or Live from the dropdown menu.
- JPMC Orbital Safetech Page Encryption Configuration Subscription ID
  - This setting determines the subscription ID.
- JPMC Orbital Incremental Authorization Support Enabled
  - This setting determines whether incremental authorization support is enabled or not. **This feature can only be enabled if "JPMC Orbital API Platform Mod" is set to " Stratus"**
- JPMC Orbital Payment Mode of Profile Payment
  - This setting determines if a sale transaction should be performed (Authorization + capture) for profile payments or just authorization. You can switch between them in the dropdown menu.
- JPMC Orbital Payment Mode of Card Payment
  - This setting determines if a sale transaction should be performed (Authorization + capture) for profile payments or just authorization. You can switch between them in the dropdown menu.
- JPMC Orbital Payment Mode of Electronic Check Payment
  - This setting determines if a sale transaction should be performed (Authorization + capture) for profile payments or just authorization. You can switch between them in the dropdown menu. **This feature only has an effect if "JPMC Orbital API Platform Mod" is set to " Stratus" as ECP is unavailable on "Tandem"**
- JPMC Orbital Google Pay Enabled
  - This setting determines if Google Pay will be enabled or not.
- JPMC Orbital Payment Mode of Google Pay Payment
  - This setting determines if a sale transaction should be performed (Authorization + capture) for card payments or just authorization.
- JPMC Orbital Google Pay Configurations Allowed Card Networks

  - Defines the available list of allowed card networks. Ex: AMEX, DISCOVER, INTERAC, JCB, MASTERCARD, MIR, VISA
- JPMC Orbital Google Pay Merchant ID
  - This setting determines the merchant ID.
- JPMC Orbital Google Pay Merchant Name
  - This setting determines the merchant's name.
- JPMC Orbital Google Pay Merchant Environment
  - This setting determines the merchant environment.
- JPMC Orbital Visa Checkout Enabled
  - This setting determines if Visa Checkout will be enabled or not.
- JPMC Orbital Payment Mode of Visa Checkout Payment
  - This setting determines if a sale transaction should be performed (Authorization + capture) for card payments or just authorization.
- JPMC Orbital Visa Checkout API Key
  - This setting determines the API key.
- JPMC Orbital Apple Pay Enabled
  - This setting determines if Apple Pay will be enabled or not.
- JPMC Orbital Payment Mode of Apple Pay Payment
  - This setting determines if a sale transaction should be performed (Authorization + capture) for card payments or just authorization.
- JPMC Orbital Apple Pay API Key
  - This setting determines the API key.
- JPMC Orbital AVS Enabled
  - This setting determines if JPMC Orbital AVS is enabled or not.
- JPMC Orbital AVS Unaccepted Status Codes
  - Defines the available list of unaccepted status codes for AVS. More than one choice can be added to the list.
- JPMC Orbital Update Profile Enabled
  - This setting determines if a customer profile created as part of a Payments should be eligible for Account Updater. **This feature only has an effect if " JPMC Orbital Customer Saved Payment Type" is set to "Profile"**



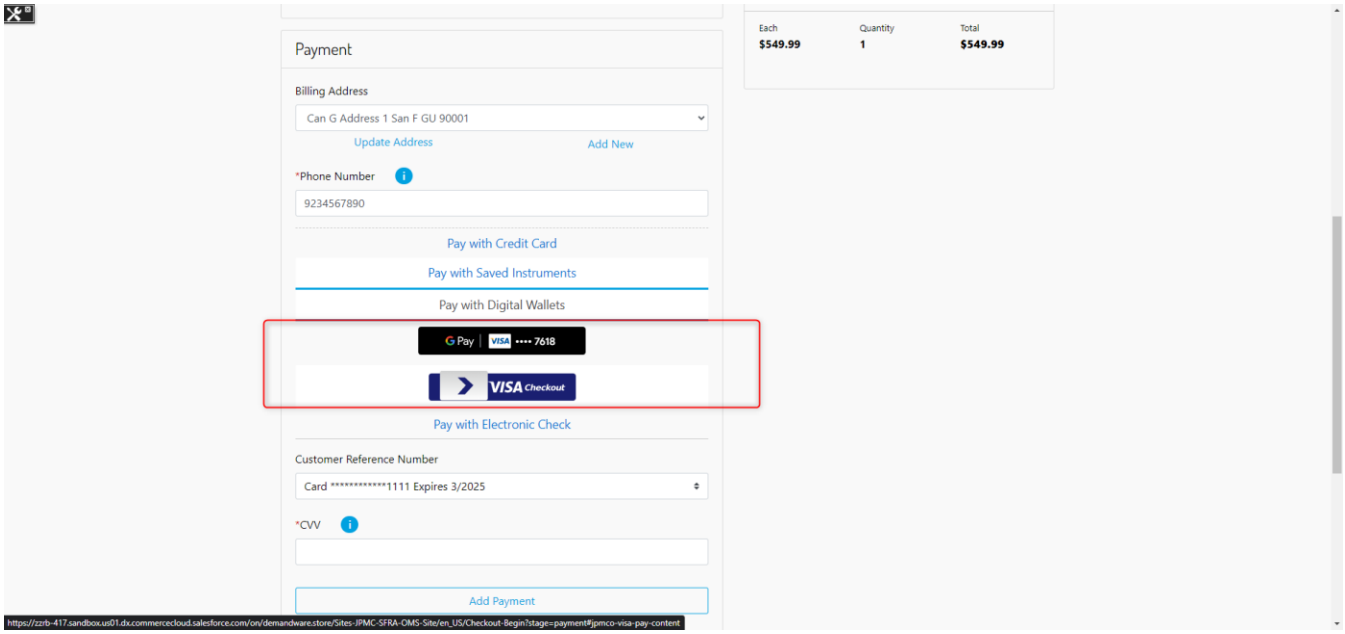
CUSTOM CODE

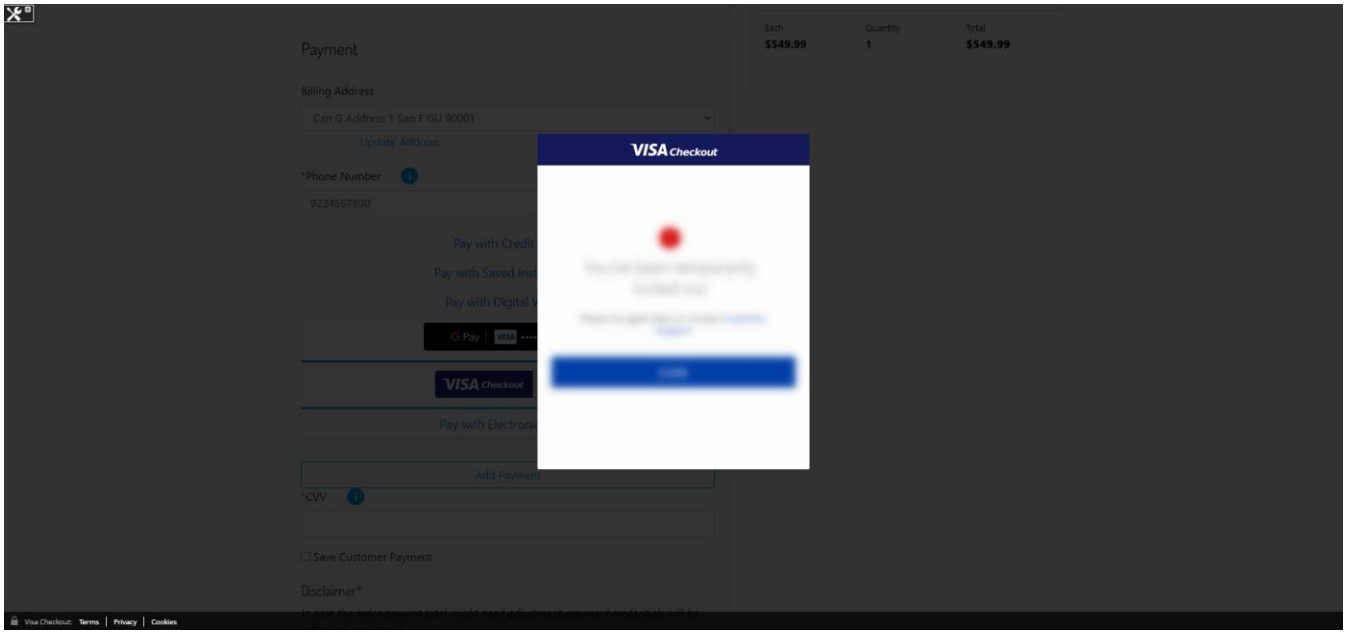
"jpmcOrbital_sfra_changes" cartridge contains the changes from the base cartridge and that can merge the changes into their own storefront cartridge.

To simplify installation of patches and upgrades, it is recommended to use separate cartridges for customizations and avoid modifying the bm_jpmcOrbital and int_jpmcOrbital_sfra whenever possible.

EXTERNAL INTERFACES

In order to use digital wallets, their respective services are used together with Orbital API.





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FIREWALL REQUIREMENTS

JPMC Orbital has no special firewall requirements.

SALESFORCE ORDER MANAGEMENT SYSTEM INTEGRATION

CONFIGURATION

The cartridge is compatible with Salesforce's Order Management System. Linking B2C with Salesforce's OMS requires enabling by Salesforce Support.

To ensure the compatibility between the B2C cartridge and Salesforce's Order Management System, the payment method name of the Visa Checkout is "VISA_CHECKOUT".
If compatibility with Salesforce's Order Management System is not required, we recommend making the following changes to ensure that the naming convention expected for B2C payment cartridges is followed for the Visa Checkout payment method:

1. Key: "JPMCOrbitalConstants.JPMC_ORBITAL_VISA_CHECKOUT_METHOD" and value: JPMC_ORBITAL_VISA_CHECKOUT_METHOD

2. Key: "JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD_VISA_CHECKOUT" and value: JPMC_ORBITAL_PROFILE_METHOD_VISA_CHECKOUT

This modification is to be made on constants file under the cartridge/scripts/helpers folder. Please see the screenshot below.

```
// Paymet methods types
JPMCOrbitalConstants.JPMC_ORBITAL_CC_METHOD = 'JPMC_ORBITAL_CC_METHOD';
JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD = 'JPMC_ORBITAL_PROFILE_METHOD';
JPMCOrbitalConstants.JPMC_ORBITAL_EUDIRECTDEBIT_METHOD = 'JPMC_ORBITAL_EUDIRECTDEBIT_METHOD';
JPMCOrbitalConstants.JPMC_ORBITAL_GOOGLEPAY_METHOD = 'JPMC_ORBITAL_GOOGLEPAY_METHOD';
JPMCOrbitalConstants.JPMC_ORBITAL_APPLEPAY_METHOD = 'JPMC_ORBITAL_APPLEPAY_METHOD';
JPMCOrbitalConstants.JPMC_ORBITAL_ELECTRONIC_CHECK_METHOD = 'JPMC_ORBITAL_ELECTRONIC_CHECK_METHOD';
JPMCOrbitalConstants.JPMC_ORBITAL_VISA_CHECKOUT_METHOD = 'VISA_CHECKOUT';
JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD_GOOGLE_PAY = 'JPMC_ORBITAL_PROFILE_METHOD_GOOGLE_PAY';
JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD_APPLE_PAY = 'JPMC_ORBITAL_PROFILE_METHOD_APPLE_PAY';
JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD_ELECTRONIC_CHECK = 'JPMC_ORBITAL_PROFILE_METHOD_ELECTRONIC_CHECK';
JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD_CARD = 'JPMC_ORBITAL_PROFILE_METHOD_CARD';
JPMCOrbitalConstants.JPMC_ORBITAL_PROFILE_METHOD_VISA_CHECKOUT = 'VISA_CHECKOUT';
JPMCOrbitalConstants.CREDIT_CARD = 'CREDIT_CARD';
JPMCOrbitalConstants.GIFT_CERTIFICATE = 'GIFT_CERTIFICATE';
```

TESTING

TEST CONFIGURATION FLOW

In order to run the unit test the following actions are needed:

- execute yarn install or npm install (if it was not already done)
- execute yarn run test or npm run test

In order to run the integration tests the following actions are needed:

- execute yarn install or npm install (if it was not already done)
- execute yarn test:integration --baseUrl {{yourDomainUrl}} or npm run test:integration --baseUrl {{yourDomainUrl}}

JPMC ORBITAL CARTRIDGE MODULES

MODULES OVERVIEW

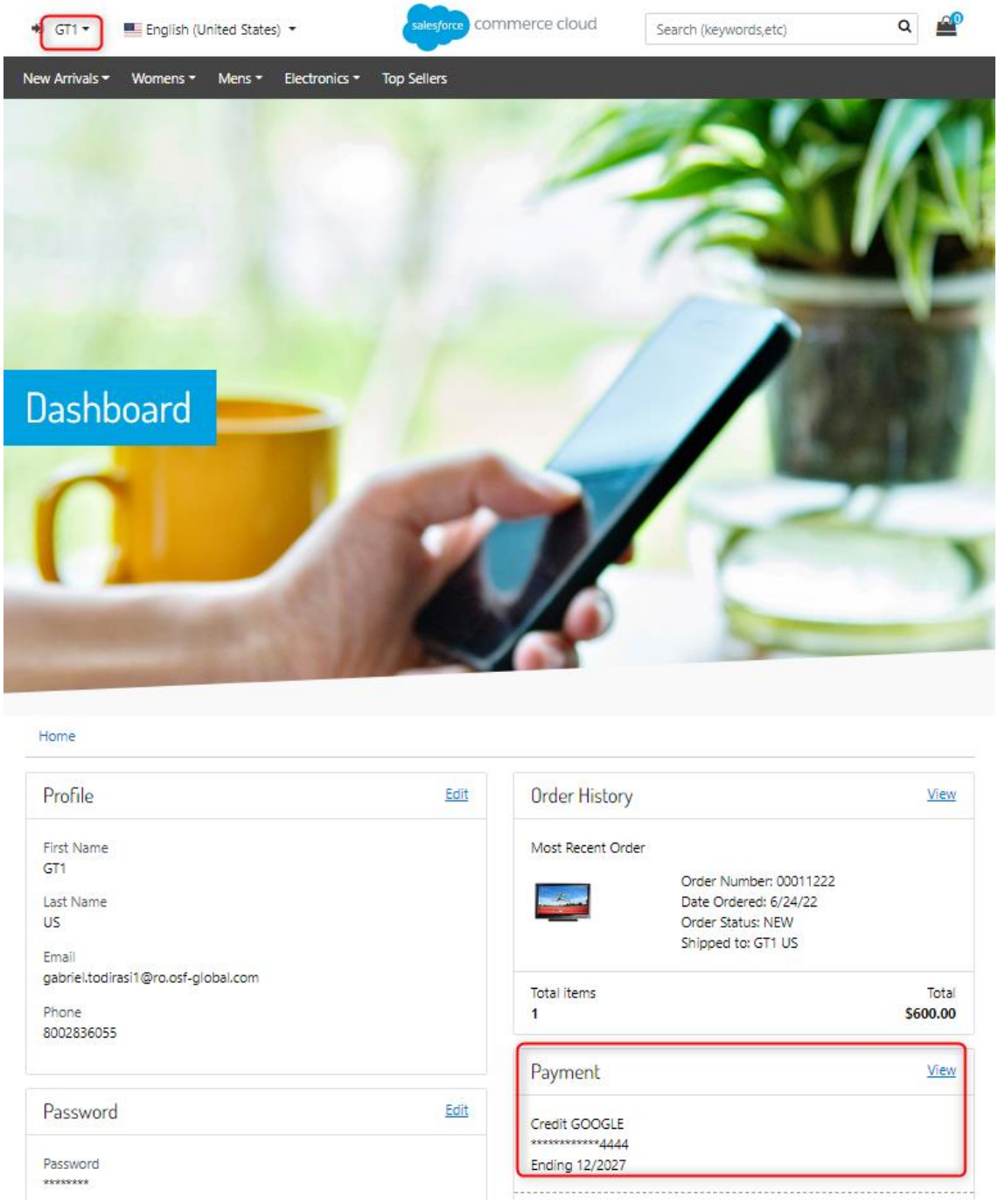
Modules are grouped into two:

- storefront - which is the merchant's online store
- business manager - which is the administration console of Salesforce Commerce Cloud.

STOREFRONT

A customer can place orders as a guest or registered. Registered customer can save his JPMC payment methods on SFRA's default My Account page, located on the Storefront site, under the profile section *(Homepage > Payment).*

ADD PAYMENTS



Customer can add a payment method, update a payment method and delete a payment method.

Home / My Account

GT1 US Update

Electronic Check
******1156

GT1 US Update

Credit VI
**********4113
Ending 3/2025

GT1 US Update

Credit GOOGLE
**********1111
Ending 12/2027

GT1 US

Credit APPLE
**********6010
Ending 9/2022

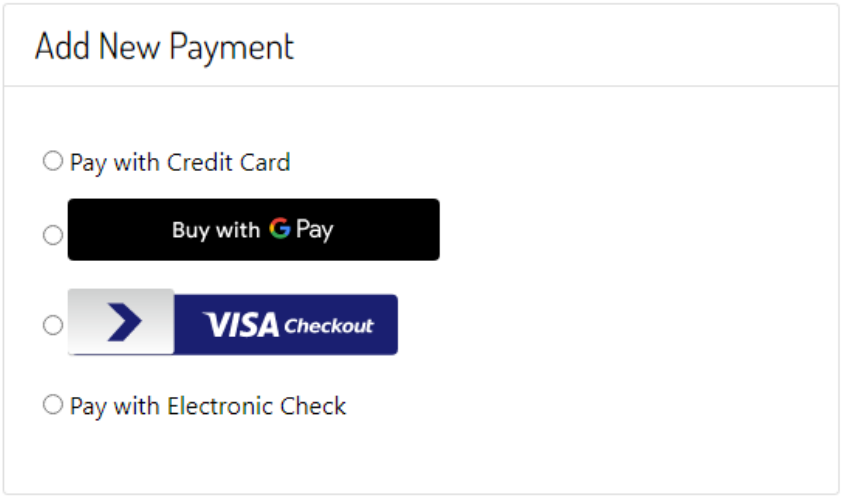
GT1 US Update

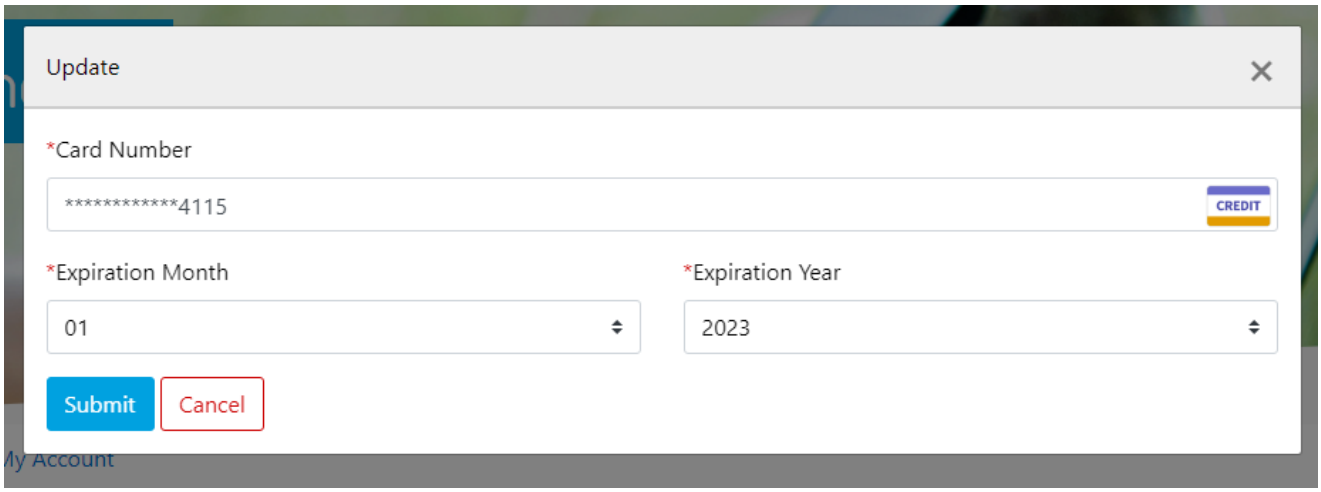
Credit VISA CHECKOUT
**********1111
Ending 2/2025

Back to My Account

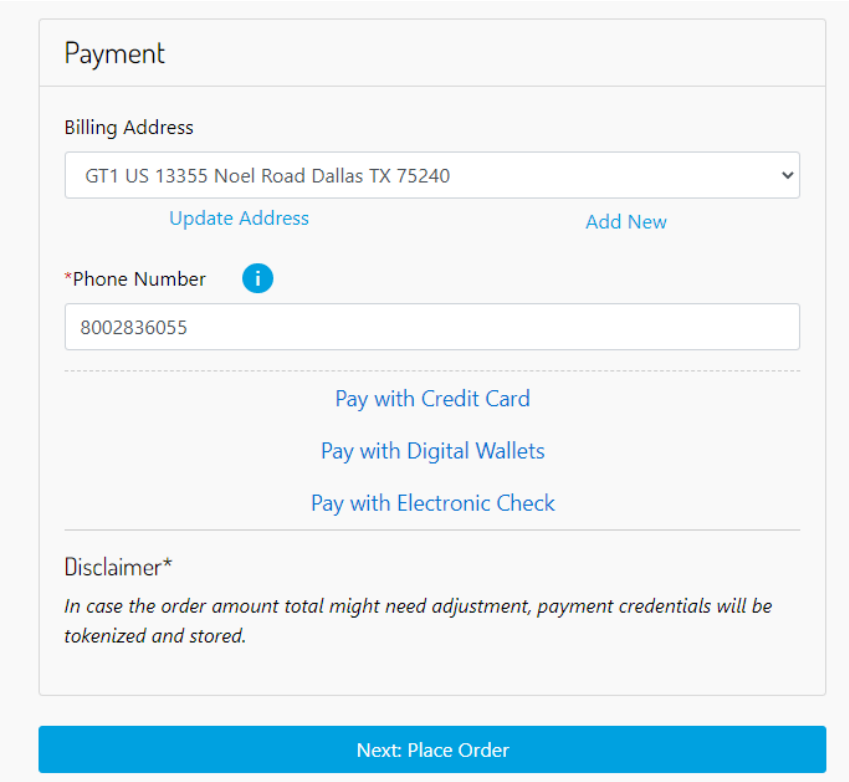
Add New

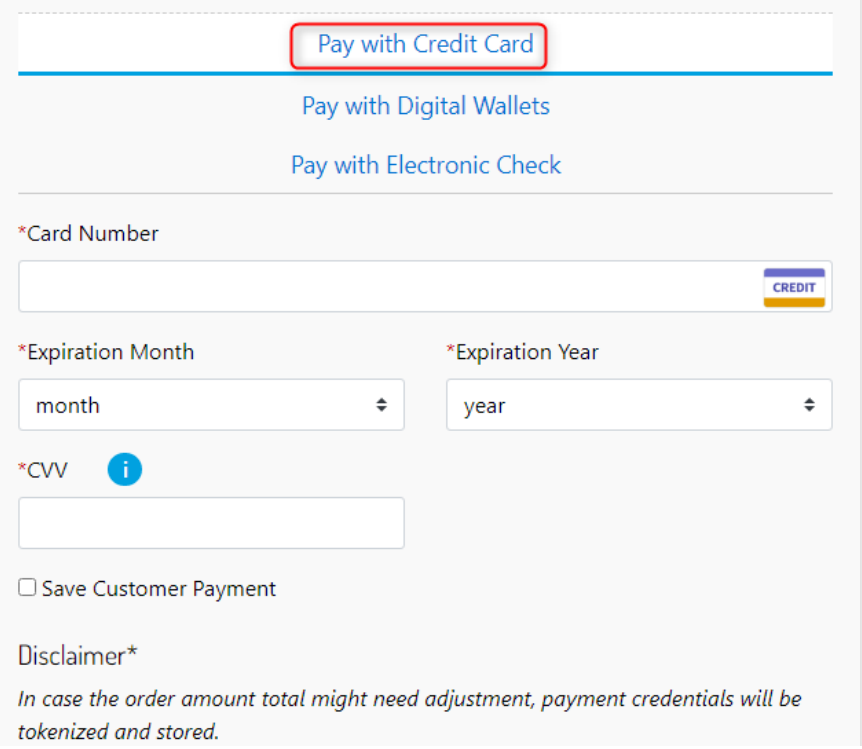
Home / My Account / Payments

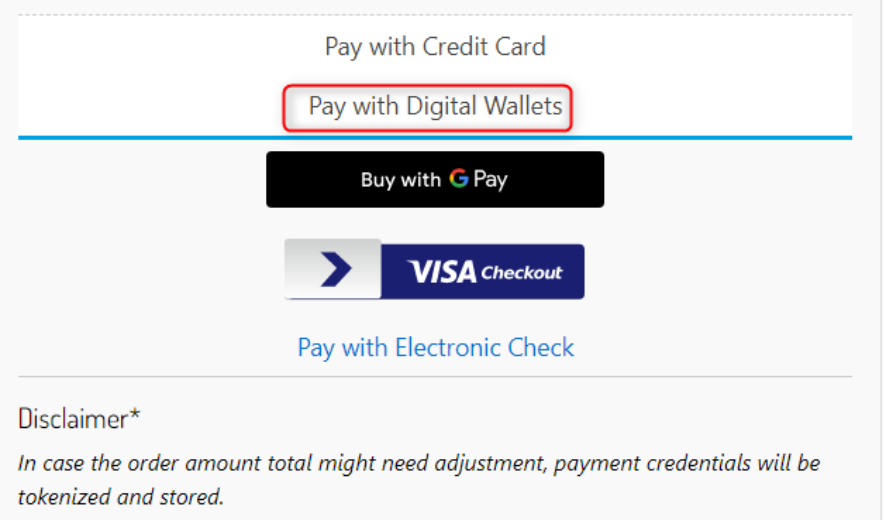


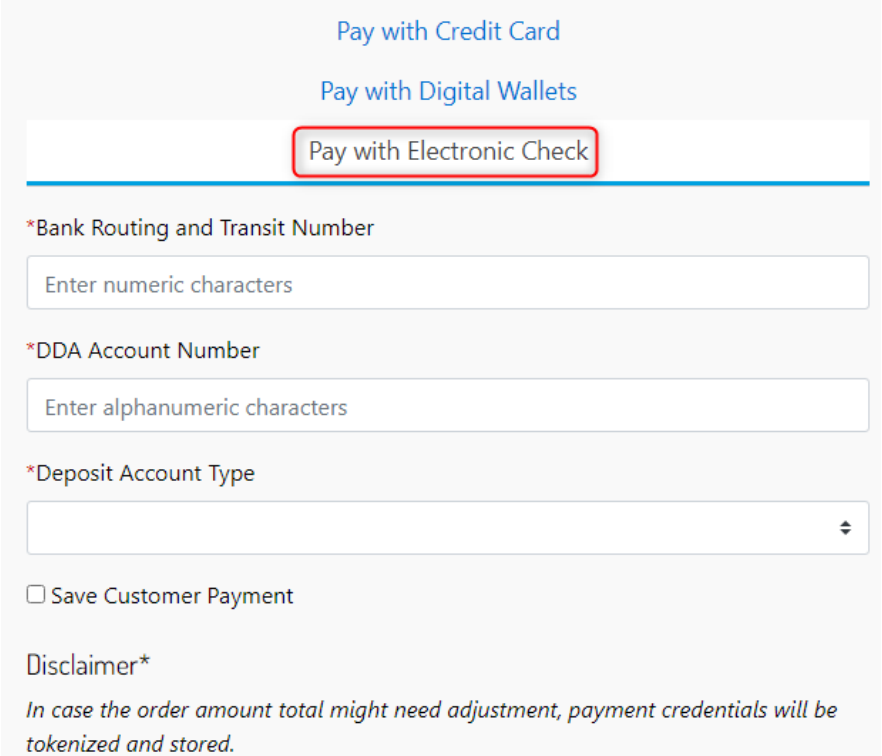


A registered customer can add payment methods during the checkout.

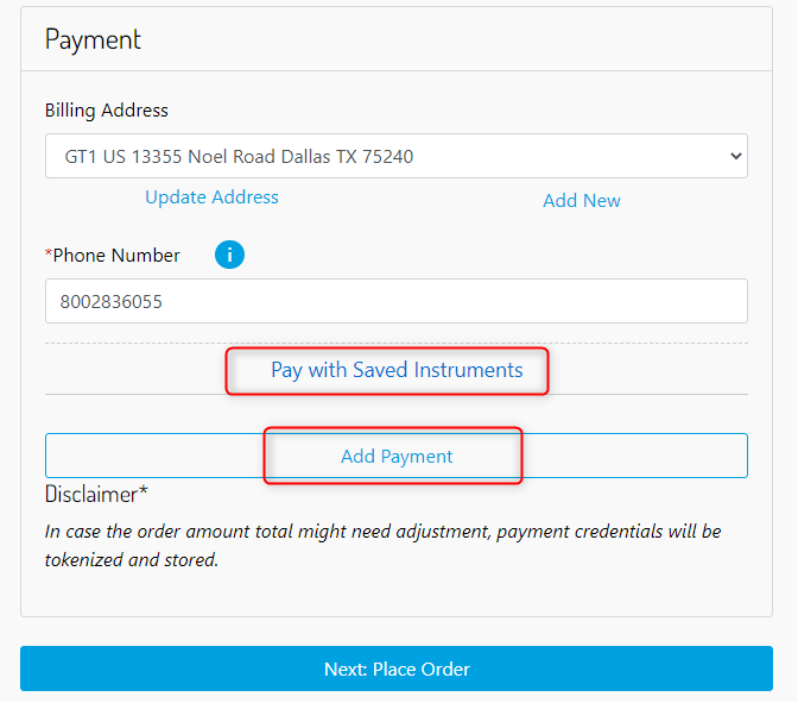


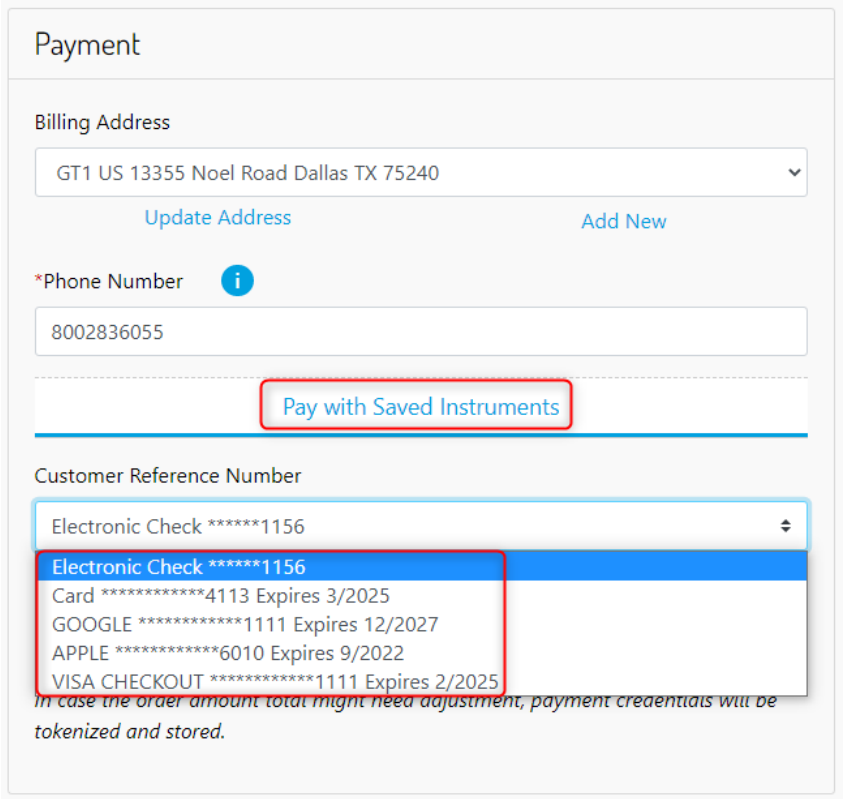






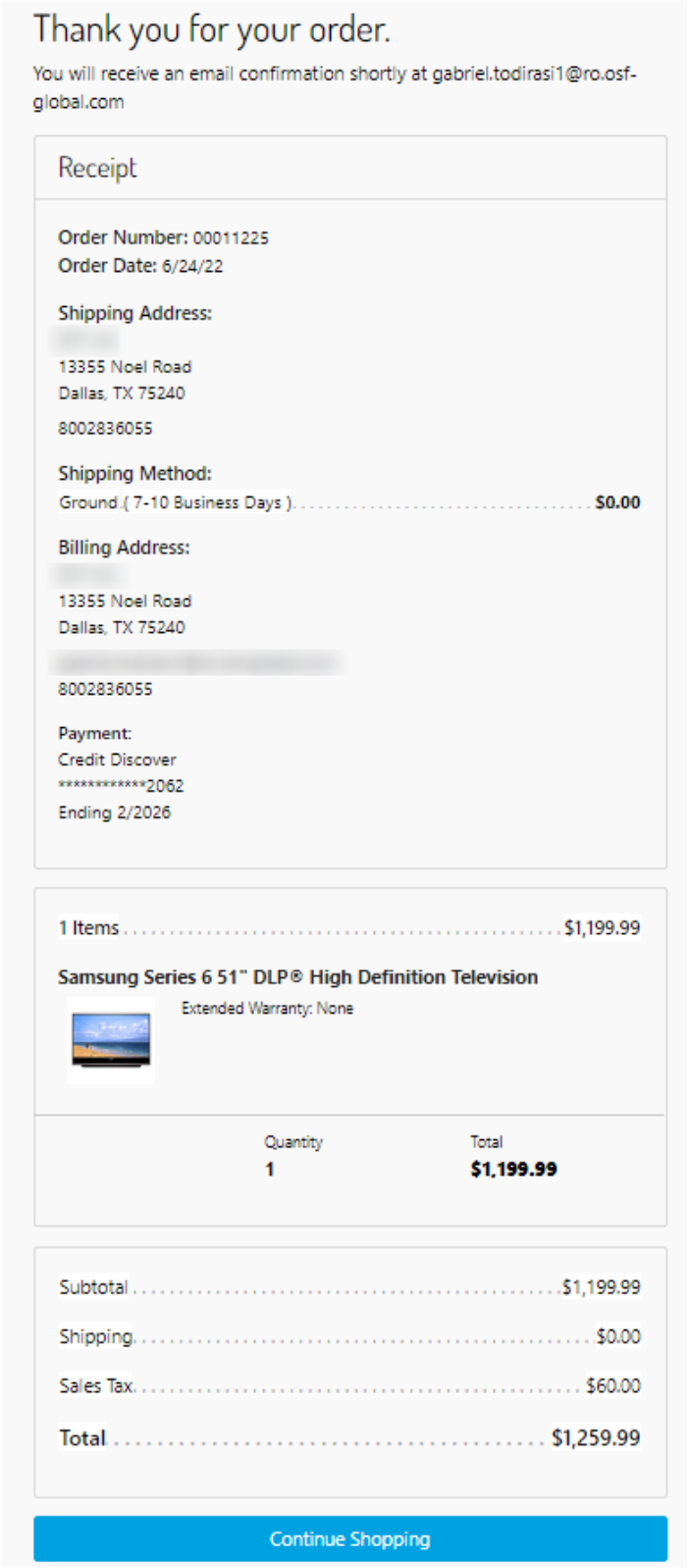
For a registered customer, new payment methods can be saved during the checkout process as well by selecting **Save Customer Payment** checkbox. Also, for a registered customer that already has a payment method saved before starting the checkout, the **Pay with Saved Instruments** option is displayed on ***Payment step page*****.**





Electronic Check *payment is only available for* ***Stratus*** *platform.*

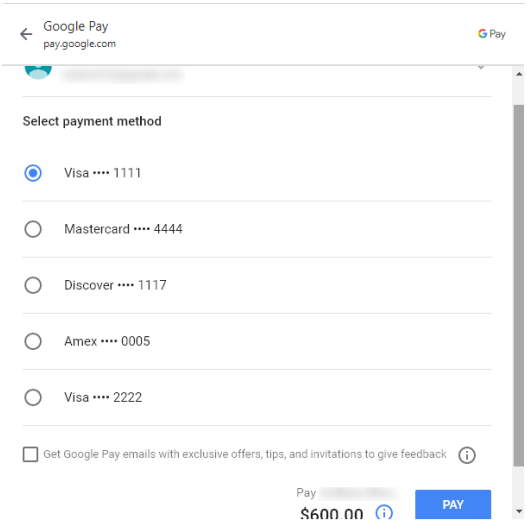
After the customer selects a payment method, he can continue to place the order.



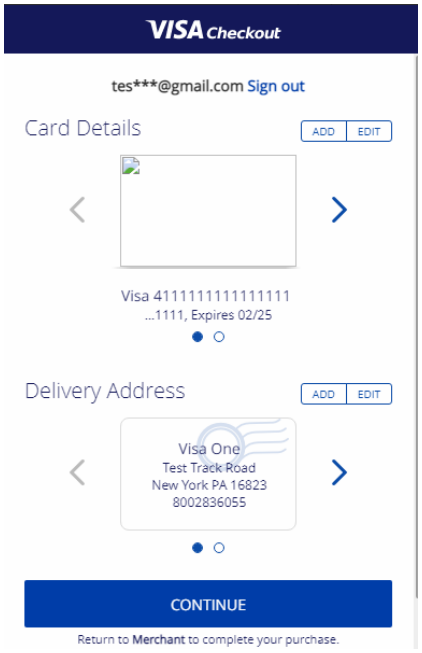
ADD DIGITAL WALLETS PAYMENTS

The following Digital Wallets are available to be saved from Profile or during the Checkout and used to place an order:

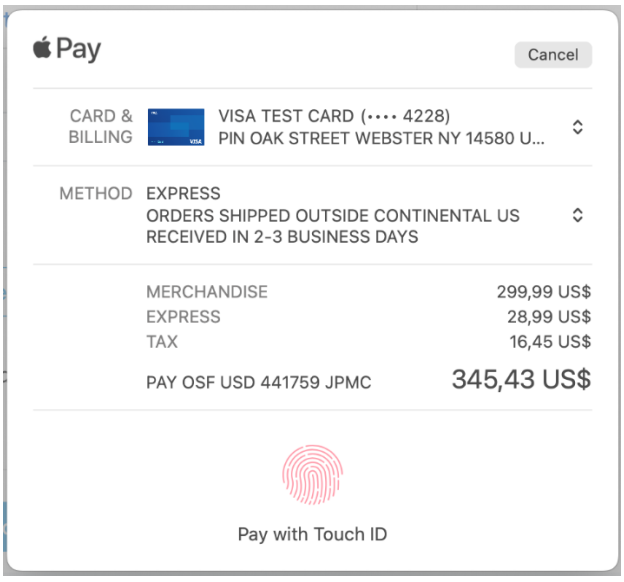
Google Pay



Visa Checkout

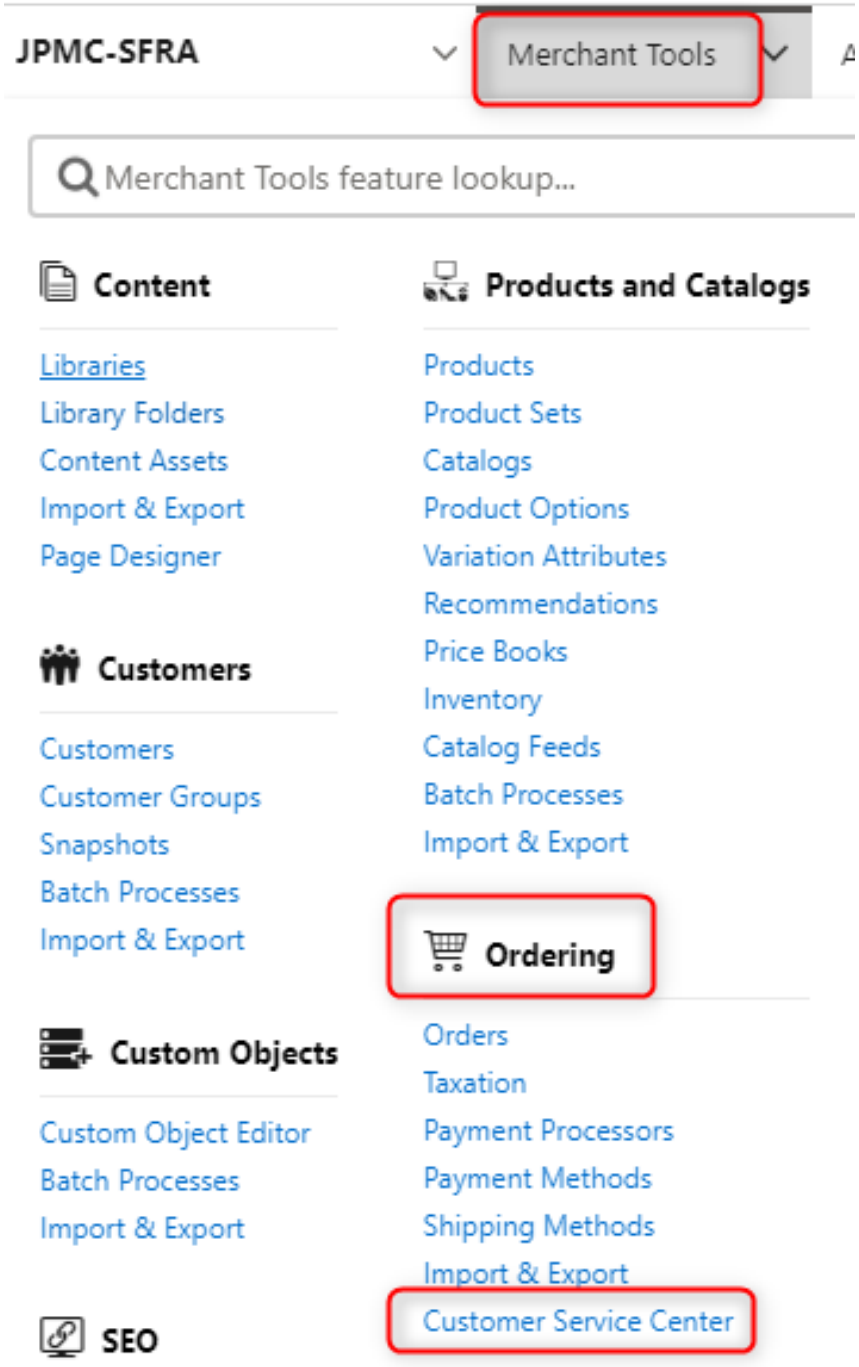


Apple Pay

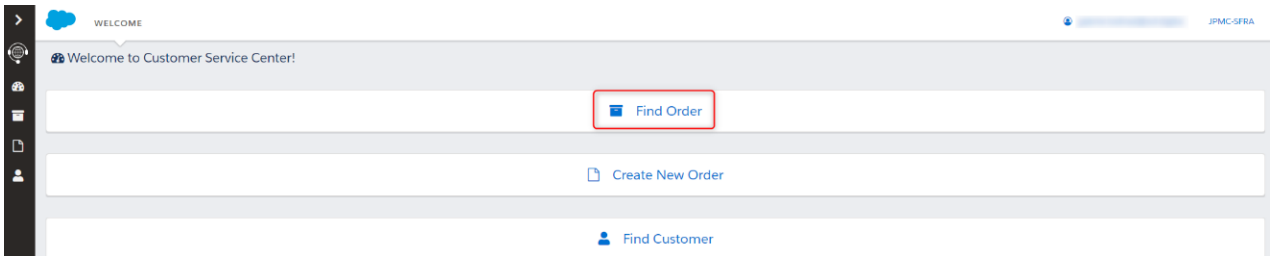


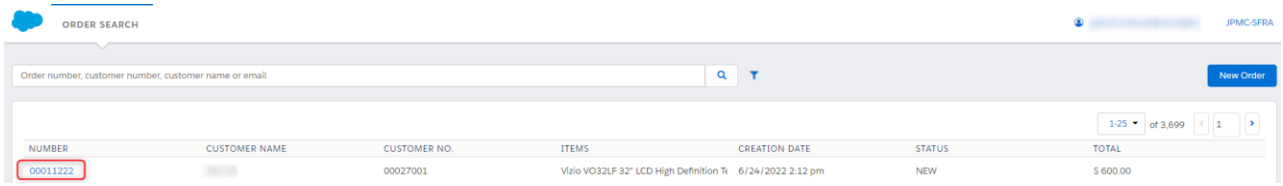
BUSINESS MANAGER – CUSTOMER SERVICE CENTER

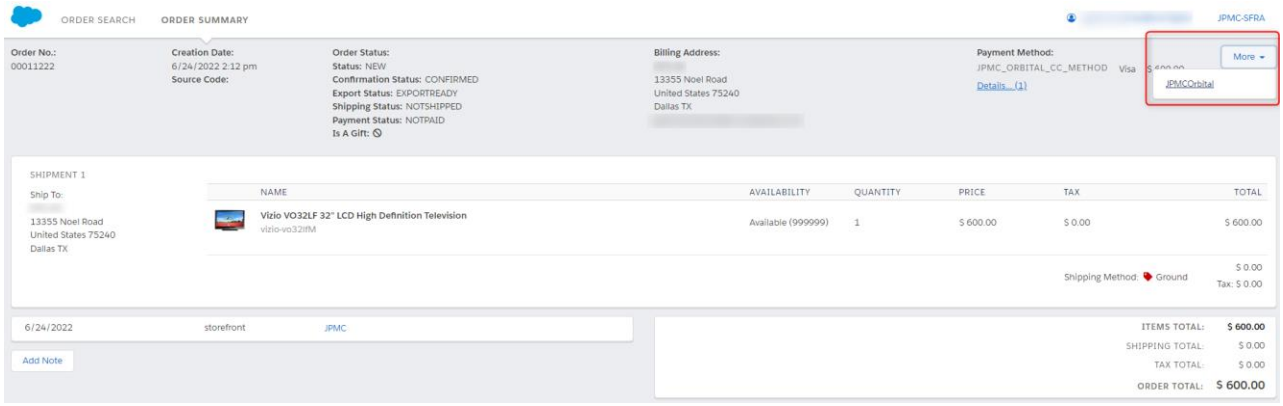
Merchant can do manual actions on orders with **Customer Service Center (CSC)** from **BM > Merchant Tools > Ordering > Customer Service Center**.



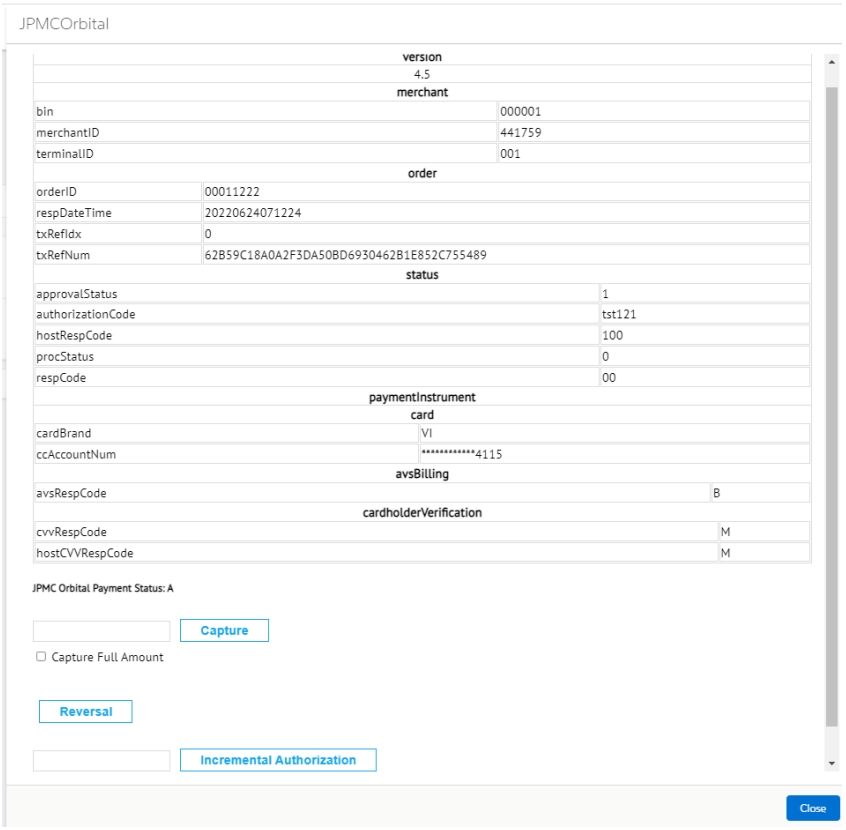
The merchant needs to search for the order.

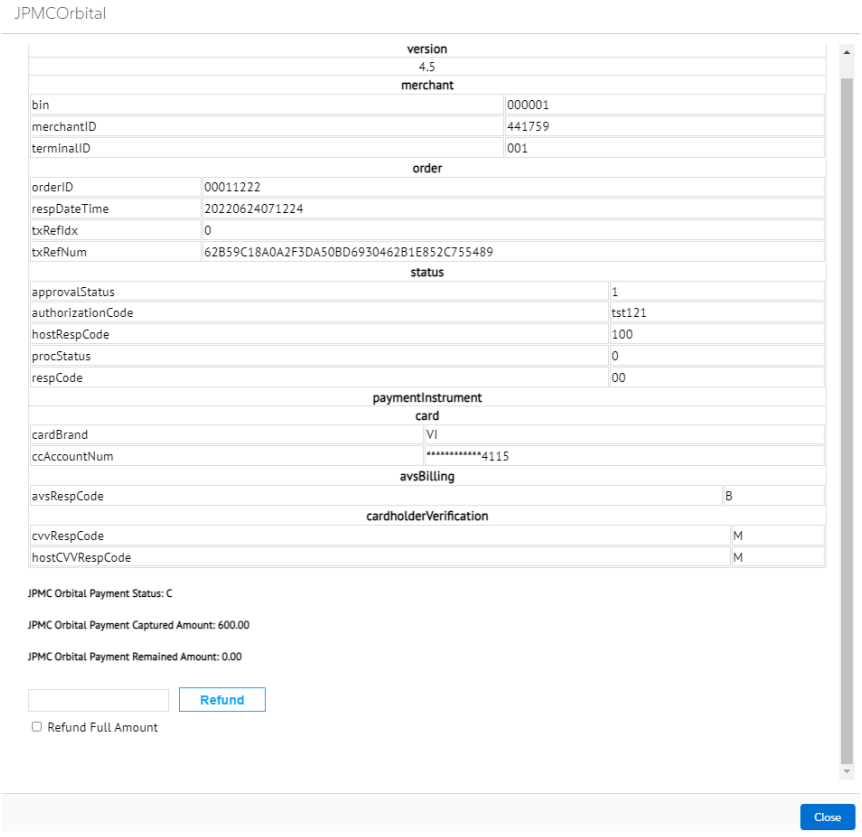






On the CSC, the merchant can do the following actions: ***capture, partial capture, reversal, incremental, refund, partial refund***, based upon the order's status. ***Incremental Authorization and Partial Capture/Refund are not available for orders paid with Electronic Check. Incremental Authorization is not available for orders paid for with Discover cards. Incremental Authorization is not available on the Tandem platform***





JPMCOrbital

version	
4.5	
merchant	
bin	000001
merchantID	441759
terminalID	001
order	
orderID	00011240
respDateTime	20220624083725
txRefIdx	2
txRefNum	62B5B0058D8B67F39A8DFAFBBD0DF643C54454BA
status	
approvalStatus	1
authorizationCode	tst369
hostRespCode	100
procStatus	0
respCode	00
paymentInstrument	
card	
cardBrand	VI
ccAccountNum	**********4115
avsBilling	
avsRespCode	3
cardholderVerification	
cvvRespCode	
hostCVVRespCode	

JPMC Orbital Payment Status: RF

JPMC Orbital Payment Incremented Amount: 10.00

JPMC Orbital Payment Captured Amount: 610.00

JPMC Orbital Payment Refunded Amount: 610.00

JPMC Orbital Payment Remained Amount: 0.00

Close

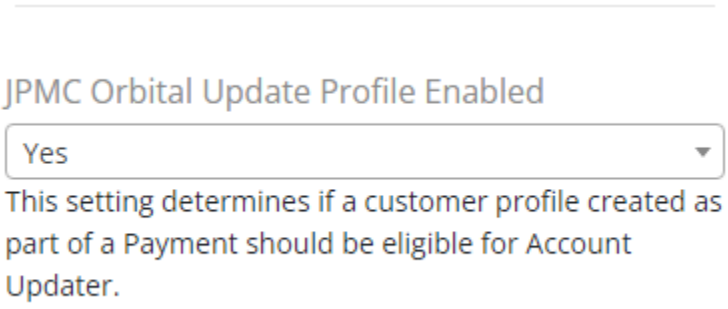
$0 (ZERO DOLLAR) AUTHORIZATION

Zero dollar authorization is used to validate that payment information is correct by contacting the issuer without performing any transaction upon the payment instrument.

After getting the data from storefront, form processor hook will be called for validating the provided data from Checkout.js controller. Based upon the payment method, $0 authorization will be performed during this phase. After validating returns with no errors, required object from respective model will be created inside the payment hook which called from CheckoutServices.js. Inside that hook, payment will be performed.

ACCOUNT UPDATER

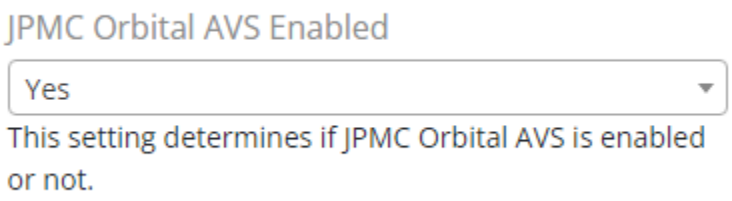
A fully managed Account Updater for Profiles is available to merchants using customer profiles. The functionality is specifically designed to update merchant or chain level profiles housed on the gateway utilizing the Account Updater process. Account Updater works with both Stratus and Tandem. Account Updater allows updating customer profiles on the gateway. If Account Updater is enabled, the “accountUpdaterEligibility” attribute is added as "Y" (Yes) to the request sent to the Orbital API, indicating that the account is eligible for update. JPMC Orbital Update Profile Enabled option on JPMC Orbital Config on BM must be selected as “Yes”.



ADDRESS VERIFICATION SERVICE (AVS)

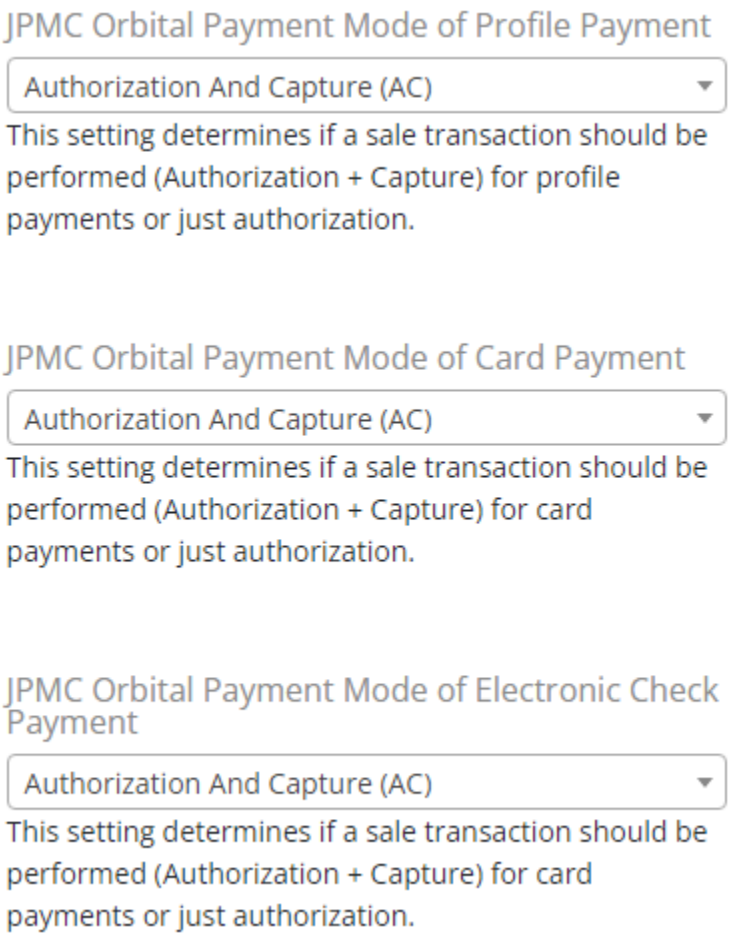
AVS is a mechanism that provides authentication with the user's address information.

Each payment method in scope should be working with AVS excluding Electronic Check. If AVS is enabled, your address information is also sent to the Orbital API during transactions and used for authentication later in the system. To enable AVS, JPMC Orbital AVS Enabled must be set to "Yes" on JPMC Orbital Config in BM.



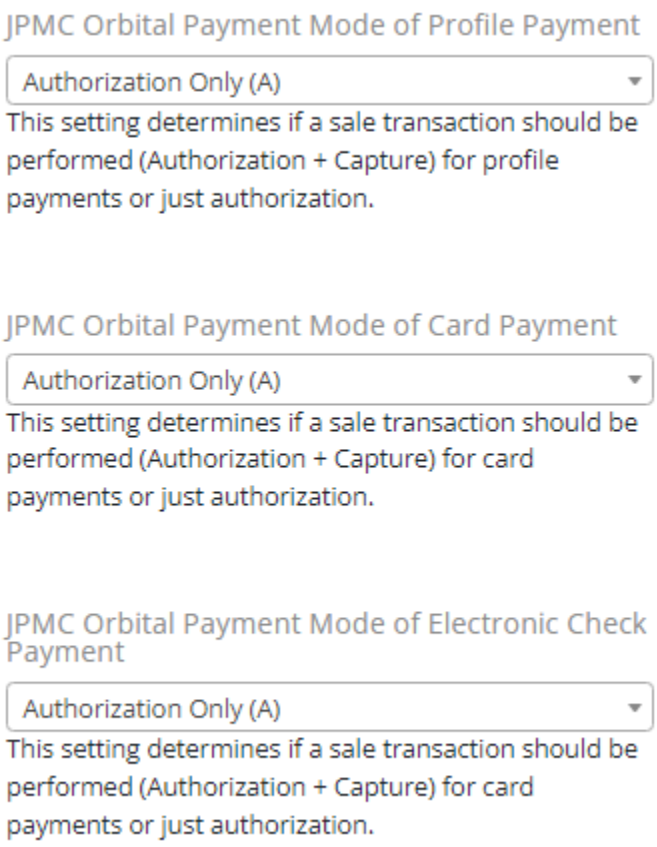
AUTHORIZATION & CAPTURE (SALE)

This transaction type validates and withdraws funds from the designated Deposit Account upon settlement. If Authorization and Capture is selected during the payment process, the transType attribute is sent as "AC" in the payment request, and if the transaction is approved, the payment is authorized and the payment amount is captured. In order to use Authorization And Capture , payment mode Authorization And Capture (AC) must be selected for the desired payment method by going to the JPMC Orbital Config section in BM.



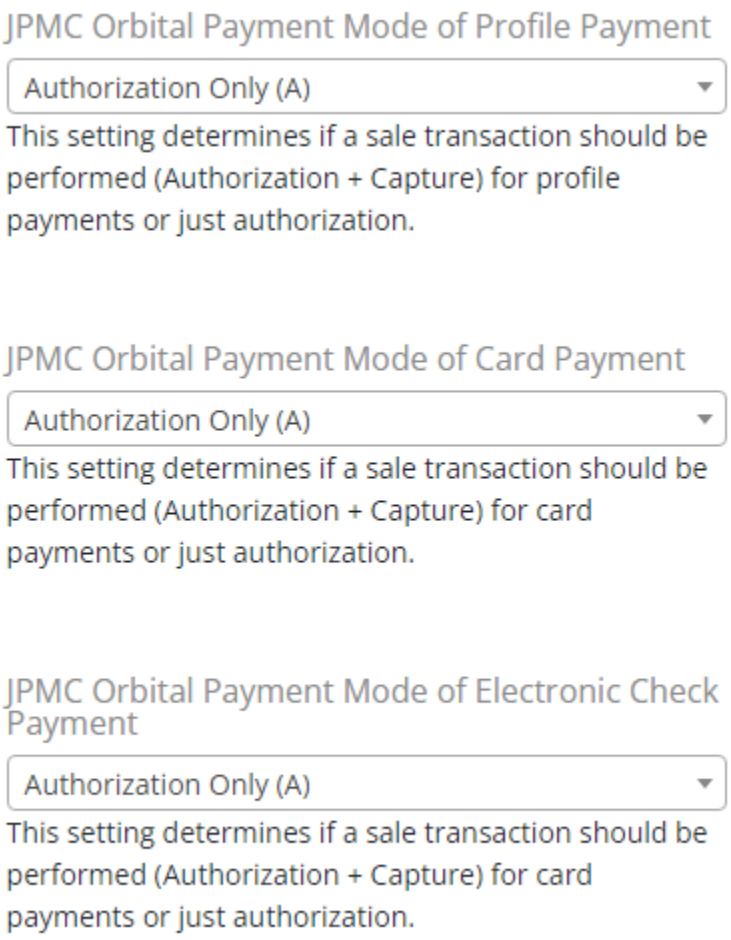
AUTHORIZATION ONLY

This transaction type is used to place a hold on a payment method to reserve funds now but only capture them after your business completes the service. When a payment is authorized, the bank guarantees the amount and holds it on the customer's card for certain days depending on the card brands. If the payment is not captured within the time window specified by the card brands, the authorization is cancelled, and the funds are released. If Authorization Only is selected during the payment process, the transType attribute is sent as "A" in the payment request, and if the transaction is approved, the payment is authorized and the amount should be captured manually by the merchant. In order to use Authorization Only, payment mode Authorization Only (A) must be selected for the desired payment method by going to the JPMC Orbital Config section in BM.



CAPTURE ONLY

This transaction type withdraws funds from the designated Deposit Account without validating first. Validation occurs at the settlement. Capture Only is a transaction that can only be performed via CSC, and the Authorization Only transaction must be performed beforehand. There is a Capture button in the CSC for the Capture Only process. Orders placed with Authorization Only via Storefront can be accessed via CSC and the amount held can be captured. For the Capture Only feature, the payment mode must be selected as Authorization Only on BM JPMC Orbital Config, and a transaction must be executed with this option.



CIT / MIT

In addition to cardholder-initiated transactions, there is a significant segment of transactions where a merchant, Payment Facilitator (PF) or Staged Digital Wallet Operator (SDWO) uses a cardholder's payment credentials (i.e., account details) that were previously stored for future purchases. A stored credential is information (including, but not limited to, an account number or payment token) that is stored by a merchant or its agent, a payment facilitator, or a staged digital wallet operator to process future transactions. With the introduction of the Stored Credential and Merchant Initiated Transaction Framework, data is presented with authorizations and transactions to identify stored credentials and indicate cardholder consent was obtained. Within these frameworks, transactions are presented as either a Cardholder Initiated Transaction (CIT) or Merchant Initiated Transaction (MIT). To properly process a transaction within the Framework, merchant needs to identify an authorization as a CIT or MIT. The response data includes the Transaction ID (TXID)/Network Reference ID (NRID), a value created by the Payment Brand at the time of authorization. Merchant should be able to receive the Transaction IDs / Network Reference IDs. In addition, merchant storage of these TXIDs/NRIDs is required for future use to supply to JPMorgan when completing a MIT authorization message. The Transaction ID/Network Reference ID generated at the time of a CIT is provided with a subsequent corresponding MIT; this TXID/NRID will "link" the CIT and MIT together. For MIT transaction, the MIT message type and the TXID/NRID is required.

Message Type	Transaction Submission	Customer or Merchant Initiated
CSTO (CIT Stored Credential)	Initial Transaction	Customer Initiated
CREC (CIT Recurring)	Initial Transaction	Customer Initiated
CINS (CIT Installment)	Initial Transaction	Customer Initiated
CGEN (CIT General)	Initial Transaction	Customer Initiated
CEST (CIT Estimated)	Initial Transaction	Customer Initiated

CUSE (CIT Unscheduled Credential on File)	Subsequent Transaction	Customer Initiated
SKIP (bypass framework)	Standalone Transaction	Customer Initiated
MUSE (MIT Unscheduled Credential on File)	Subsequent Transaction	Merchant Initiated
MREC (MT Recurring)	Subsequent Transaction	Merchant Initiated
MINS (MIT Installment)	Subsequent Transaction	Merchant Initiated
MRSB (MIT Resubmission)	Subsequent Transaction	Merchant Initiated
MRAU (MIT Reauthorization)	Subsequent Transaction	Merchant Initiated
MINC (MIT Incremental)	Subsequent Transaction	Merchant Initiated

CUSTOMER PROFILE MANAGEMENT

Customer Profile Management allows customers to log in, enter their information, save it and use it again later. The payment methods saved in the My Account section are also stored on the Orbital Gateway, and if they are updated or deleted, the same actions are taken on the Orbital Gateway. Customer Profile Management works on both Tandem and Stratus platforms with Orbital Profile and Safetech Token. Customer Profile Management uses SFCC's “Profile” class to store and manage information to be used in Orbital Gateway transactions. SFCC's “PaymentInstrument” class, on the other hand, stores information such as “ccAccountNum” or “customerRefNum” returned after customers send their payment information to the Orbital API, allowing payment without re-entering the information later. After the user enters the address information and credentials in My Account or Checkout, Customer Profile Management saves it with SFCC's Profile class and allows it to be used in later payments. It sends the payment information to the Orbital API first and stores the ccAccountNum or customerRefNum, expiration date and card brand information, which enables the profile to be reused, and allows payment by entering only the CVV information in later payments.

Home

Profile

Edit

First Name
John

Last Name
Doe

Email
johndoe@gmail.com

Phone
5555555555

Password

Edit

Password
****

Address Book

View

Default Address

San Francisco
John Doe
Ocean Beach
San Francisco, CA 12345
55555555555

Add New

Order History

View

Most Recent Order

Order Number: 00002207
Date Ordered: 8/2/22
Order Status: OPEN
Shipped to: Eren Erol

Total items
1

Total
$103.95

Payment

View

Credit EC
******1156

Add New

DUPLICATE AUTHORIZATION CHECK

Duplicate Authorization Check (Retry Logic) is a function available to reprocess transactions when an unknown result occurs on a JSON request. The Orbital Gateway uses the client generated Retry Trace Number to determine the uniqueness of a transaction by recognizing subsequent retries of the same request. Each payment method in scope should be working with Duplicate Authorization Check. If the transaction is not completed for some reason, there won't be a new transaction or a duplicate transaction. Transactions have Retry Trace Numbers and that allows Orbital API to reprocess the same transaction if an unknow result occurred in the first try. Retry Trace Number is sent during the request during payment or transactions made at CSC. When an unexpected result is encountered and the process is repeated, the transaction is processed again using the same Retry Trace Number.

INCREMENTAL AUTHORIZATION

Incremental Authorizations allow a merchant to increase the total amount authorized when additional products or services are added to an original order. This feature is available as part of the CIT/MIT framework with the MIT Type codes, CEST and MINC. Incremental Authorization is supported for Visa, ChaseNet, Mastercard and IM card brands. Incremental Authorizations allow a merchant to increase the total amount authorized when additional products or services are added to an original order. This feature is available as part of the CIT/MIT framework with the MIT Type codes, CEST and MINC.

Cardholder Initiated Transaction

For initial/estimated authorizations, the following fields are populated in a New Order Request during checkout.

- *MITMsgType* = CEST (CIT Estimated)
- *MessageType* = A (Authorization request)
- *Amount* = (implied decimal amount for initial authorization)

Merchant Initiated Incremental Authorization

For an incremental authorization, the following fields are populated in a New Order Request with the amount to be incremented in CSC. A unique reference number will be returned in the TxRefNum response element.

- *MITMsgType* = MINC (MIT Incremental)
- *TxRefNum* = TxRefNum received after the initial CEST
- *MessageType* = A (Note: sending "AC" for Authorization and Capture will not allow subsequent incremental authorizations; send for final increment)
- *Amount* = (implied decimal amount to be incremented)

Incremental Authorization option on JPMC Orbital Config on BM must be selected as "Yes".

INDUSTRY TYPE INDICATOR

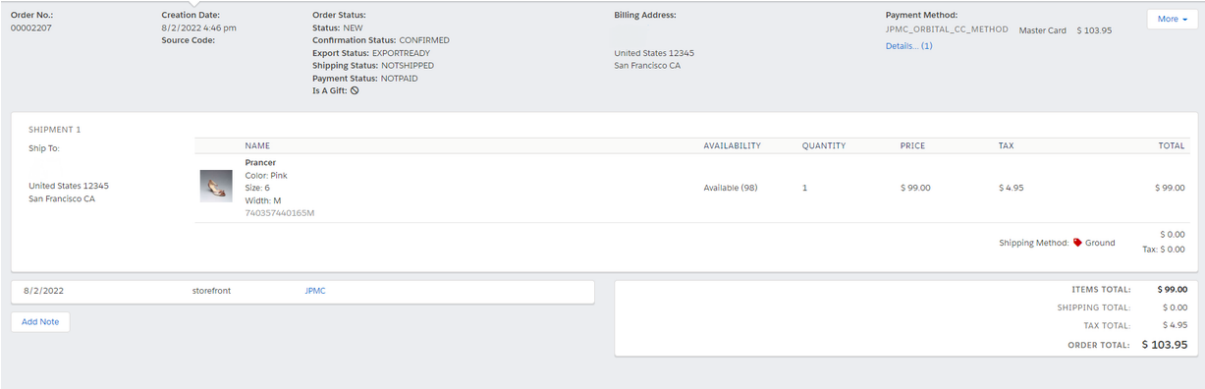
Industry Type Indicator is an attribute that specifies which industry type the transactions are for. Each payment method in scope should be working with Industry Type Indicator. Except for recurring payments, all transactions are of the E-Commerce industry type. Therefore, the “industryType” attribute is sent as "EC" within the order object in requests for all transactions.

MULTI CURRENCY SETTLEMENT

Multi-Currency Settlement allows to make transactions on different locales and with different currencies. There are 50 different currencies in scope. Multi-Currency Settlement enables transactions with different currencies by sending currency codes in the transaction inside the order object. Multi-Currency Settlement takes the currency used from the session and sends it in the "currencyCode" attribute of the order object of the desired transaction.

ORDERID / CUSTOM DEFINED DATA

OrderID / Custom Defined Data allows to track and manage orders created by the user. Order ID is created by SFCC and works with all transactions. OrderID / Custom Defined Data is using the SFCC's defined Order class and creates orders based on the information used on the checkout. Every order has a unique order number and these numbers are used in transactions. These orders also enable order-related transactions to be made over the CSC and order information can be viewed via BM.



PAGE ENCRYPTION

Safetech Page Encryption allows Card-Not-Present merchants to encrypt consumer-entered card data during the consumer's browser session or mobile application using a one-time encryption key. It provides protection by encrypting payment data using Page-Integrated Encryption (PIE) fields. Page Encryption can only be used on the Stratus platform while the Safetech Token is active. Works with all payment methods except Electronic Check. If a payment method is added while Page Encryption is active, the encrypted card number is tokenized with Safetech Token and the returned token is used. If card information is entered during checkout, the card number entered with Safetech Token is tokenized. In both cases, the payment is made by sending the PIE fields and the tokenized card number during the payment. To enable Page Encryption, in JPMC Orbital Config in BM: Platform Mode must be selected as "Stratus (000001)", then Customer Saved Payment Type must be selected as "Safetech Token" and finally Safetech Page Encryption Enabled should be selected as "Yes". To use Page Encryption Safetech Page Encryption Configuration should be selected as "Live" and Safetech Page Encryption Configuration Subscription ID must be entered.

JPMC Orbital API Platform Mode

Stratus (000001)

This setting determines the payment transactions` platform.

JPMC Orbital Customer Saved Payment Type

Safetech Token

This setting determines the type of customer saved payment.

JPMC Orbital Safetech Page Encryption Enabled

Yes

This setting determines if the information will be encrypted or not.

JPMC Orbital Safetech Page Encryption Configuration

Live

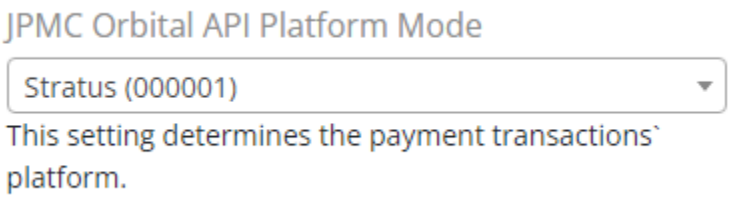
This setting determines the stage of Safetech Page Encryption.

JPMC Orbital Safetech Page Encryption Configuration Subscription ID

This setting determines the subscription ID.

PLATFORM MODE INDICATOR (STRATUS & TANDEM)

Merchant Services maintains two proprietary Authorization and Settlement platforms Tandem and the Stratus platform. Each platform has unique processing features, and because Orbital supports both, the features available to merchants are based on the platform they are set up on. While the Stratus platform supports all payment methods, Tandem does not support Electronic Check. The Merchant Services Orbital Gateway operates on the basis that a merchant initially instructs the Gateway to perform an operation on the merchant's behalf. Assuming that the initial operation is successful, the Gateway returns information that the merchant uses for all subsequent operations on the transaction. The Gateway manages the transaction state on behalf of the merchant. The merchant moves the transaction between the various possible states using the messages and fields defined in this document. According to the platform selection, available transactions appear on the storefront and the Customer Service Center (CSC), and each transaction is made according to the platform mode. In order to choose a platform, merchants must go to JPMC Orbital Config in BM and select JPMC Orbital API Platform Mode as Stratus or Tandem.

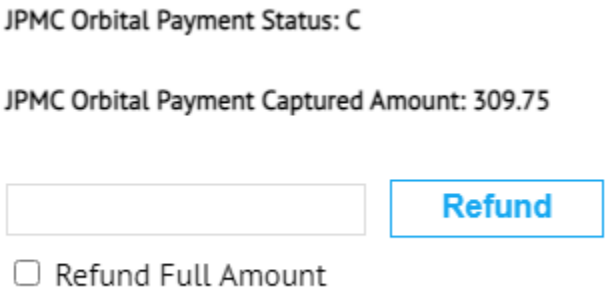


RECURRING PAYMENTS

Recurring Payments allows merchants to make recurring payments. Recurring payments are MITs, at the payments endpoint for these transactions: industryType attribute must be sent as "RC" and the mitMsgType attribute must be sent as "MREC" in the request. The "makeRecurringPaymentCall" function can be used to make recurring payments. This function uses the payment service and sends a request to the payments endpoint on the Orbital API and evaluates the incoming responses. To use recurring payment "makeRecurringPaymentCall" function should be implemented in a way that merchants can use.

REFUNDS

The refund transaction type is used to generate a refund for a purchase. With the refund button on the CSC and the input field next to it, a refund can be made in the amount specified, not exceeding the original price. Or by selecting Refund Full Amount checkbox, the entire captured amount can be refunded. Clicking the button sends a request to the refund endpoint on the Orbital Gateway.



REVERSAL / VOIDS

Reversal/void is used to reverse or void unsettled authorized transactions. After this transaction is completed, the transaction will be locked. Authorization Reversals for Stratus and Tandem is supported by: Visa, Mastercard, Discover, Discover Diners and International Maestro. Amex Authorization Reversals are only supported for Tandem.

Merchants have two options for processing an authorization reversal:

Submitting the Online Reversal Indicator (onlineReversalInd) in the Reversal message. A value of N or NULL indicates that a void is being requested. A value of Y extends the void request to also include the authorization reversal. A value of F extends the void request to also include authorization reversal for suspected fraud. In the event a message contains the Online Reversal Indicator and the authorization reversal does not succeed, the transaction will remain in its prior open state.

Setting a flag on the Administrative menu in Virtual Terminal to submit the indicator on behalf of the merchant. When a Reversal request is received, the Orbital Gateway attempts an authorization reversal wherever applicable. In the event the original authorization does not meet the requirements for an authorization reversal or an error occurs while attempting an authorization reversal, the Orbital Gateway performs a void instead.

CSC has a reversal button for “A” type payments. Unsettled authorizations are reversed when the merchant clicks the button.

The following requirements must be met to perform a void:

• Transaction must not have been settled.

• Transaction Reference Number of the original request must be provided. If the Transaction Reference Number is not known, merchants can submit the Retry Trace Number of the original request within the reversalRetryNumber element.

• Full or a partial amount can be submitted. A void for a partial amount creates a split of the original transaction into two components. A voided transaction in the amount of the partial void request and the remainder of the previous transaction in the same state the full amount was previously in (Authorized or Capture).

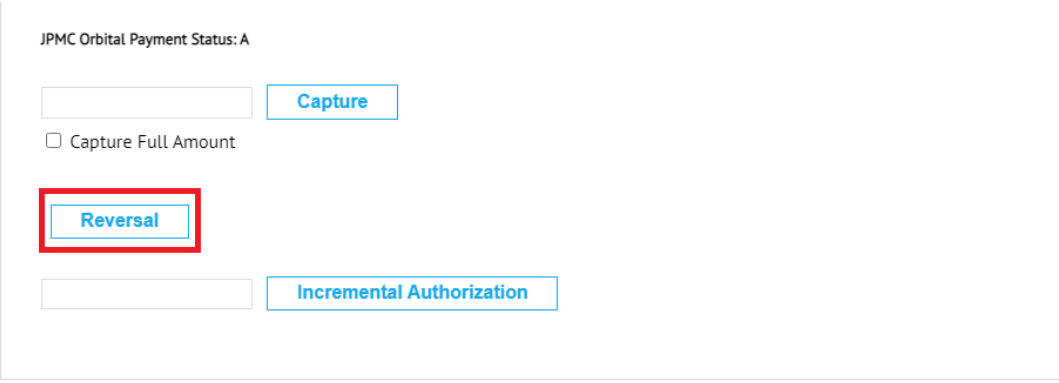
The following authorization reversal requirements are in addition to (or override) the void requirements:

• Original authorization must have been obtained through Merchant Services, or the transaction will decline. • Original authorization cannot be greater than 72 hours old.

• Reversal must be for full amount that was received in the authorization.

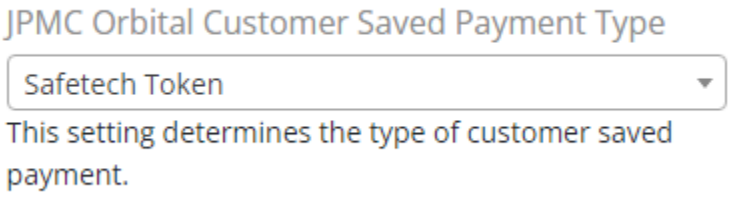
− Authorization Reversals for Stratus and Tandem is supported by: Visa, Mastercard, Discover, Discover Diners and International Maestro.

− Amex Authorization Reversals are only supported for Tandem.



TOKENIZATION / SAFETECH TOKENS

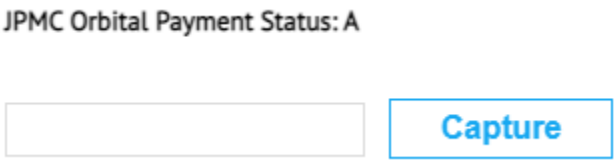
This capability allows merchants to avoid storing and transmitting data that could be targeted by hackers by protecting payment account information in transit and at rest. Each payment method in scope should be working with Safetech Tokenization excluding Electronic Check. Chase Safetech Tokenization replaces payment data (card information) stored in the merchant's system with an acquirer token. When payment is made with Safetech Token, a tokenization request is sent to the token endpoint in the Orbital API with credit card information. If the request is approved, the ccAccountNum, that is, the tokenized card number is returned. Then, a payment request is sent to the payments endpoint using ccAccountNum. To enable Safetech Tokenization, the Safetech Token option must be selected in the Customer Saved Payment Type section of the JPMC Orbital Config in BM.



SPLIT SHIPMENTS

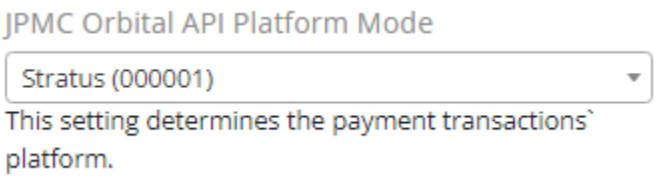
A partial capture splits an order into multiple shipments, and partially captures an amount with each shipment. Each payment method in scope should be working with split shipment. But for non-saved payment methods, split shipment can be made only when incremental authorization is enabled. Partial Capture is an available transaction for payment methods saved after Authorization Only transactions or for all payment methods with Authorization Only when incremental authorization is active, and it can be done by entering the desired amounts into the input next to the capture button on the CSC and clicking the Capture button. As a result of this process, each capture request is sent to the capture endpoint and if the transaction is approved, the original authorization is reversed and the remaining amount is authorized again.

Note: Multiple captures are made through the original authorization on Visa cards. Reversal and reauthorization are not done.



CARD TYPE INDICATOR

Card Type Indicators are enhanced authorization data elements available to the Stratus merchants. When Card Type Indicators (CTI) are requested, Card brands return additional card-related data that helps merchants make better payment decisions. Each payment method in scope should be working with Card Type Indicators excluding Electronic Check. Card Type Indicator only works on Stratus platform. During payment, the cardIndicators attribute is sent to the request as "Y" in the additionalAuthInfo object for payment methods other than Electronic Check on the Stratus platform. To enable Card Type Indicator, Platform Type must be selected as "Stratus (000001)" in JPMC Orbital Config in BM.



GLOSSARY

SFCC	Salesforce Commerce Cloud
BM	SFCC's Business Manager
Retry Trace	It ensures that transactions can be tracked and transactions that cannot be completed due to an error are processed again with "Retry Logic".
Stratus and Tandem	Stratus and Tandem are the two platform mods of the Orbital Gateway.
AVS	Address Verification Service of Orbital API
AC	Authorization and Capture
A	Authorization Only
CSC	Customer Service Center
CIT	Cardholder Initiated Transaction
MIT	Merchant Initiated Transaction

TXID	Transaction ID
ccAccountNum / customerRefNum	The customer number or token on the Orbital Gateway, which enables transactions with a profile or token in other transactions.
Retry Trace Number	Retry Trace Number is used to track transactions and prevent duplications.
Retry Logic	The name of the system that Duplicate Authorization Check uses within the Orbital Gateway
EC	E-Commerce
BIN 000001	Stratus Platform
BIN 000002	Tandem Platform
ccAccountNum	The tokenized card number
Partial Capture / Multiple Capture	Different names of the split shipment