

Worldpay Technical Guide

Version 19.1.1

worldpay
from FIS



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1. SUMMARY

This document provides a technical overview and implementation details for each Worldpay service integrated within the SFCC platform. The Worldpay cartridges (int_worldpay, int_worldpay_sfra, int_worldpay_csc, and int_worldpay_core) extends the functionality of reference eCommerce Storefront, enabling synchronous and asynchronous access to Worldpay payment transaction services listed below.

- Payment Methods:
 - 1) Sofort
 - 2) iDeal
 - 3) Qiwi
 - 4) Alipay
 - 5) Mistercash
 - 6) Yandex
 - 7) Boleto
 - 8) Paypal
 - 9) China Union Pay
 - 10) Enets
 - 11) Giropay
 - 12) Poli
 - 13) Poli NZ
 - 14) Konbini
 - 15) Przelewy24
 - 16) CashU
 - 17) Sepa DD
 - 18) Klarna
 - 19) 3D/Non 3D Credit Cards (XML Direct with client side encryption and tokenization features)
 - 20) 3D/Non 3D Credit Cards (XML Redirect with tokenization and hosted payment pages light box/iframe feature)

Added as a part of SFRA:

 - 21) WeChat Pay
 - 22) MOTO
 - 23) Google Pay
 - 24) Apple Pay
- Order Notification Job
- Order Enquiry Job
- Order Cancel Or Refund Job for mac Issue identified orders
- Order CleanUp Batch Job
- DeleteCard Job (Deleting cards that are saved with void tokens)
- APM Look Up Service
- Multiple Merchant ID support
- Statement Narrative support
- Brazil Integration

2. Change Log

Release Version	Date	Description
release-19.1.1	July 7, 2020	Certified Release
release-19.1.0	Dec 11, 2019	Certified Release
19.2.0	August 31, 2019	<ul style="list-style-type: none"> • Best Practices • Automation Test Suite • US Domestic Acquiring (Prime Routing) • Tokenization (My Account-Add Card/Delete Card) • Stored Credential Improved Flow • 3ds2 • Security Fixes • CodeCept JS • Previous Releases Feedbacks
19.1.0	April 3, 2019	<ul style="list-style-type: none"> • Google Pay • Stored Credentials • Release 18.3.0 Feedback
18.3.0	Feb 20, 2019	<ul style="list-style-type: none"> • WeChat implementation • Alternative payment method • Merchant token • MOTO payment method
18.2.0	Jul 16, 2018	<ul style="list-style-type: none"> • Complete SFRA implementation

WorldPay Integration

3. COMPONENT OVERVIEW

3.1 Functional Overview

3.1.1 Payment Methods

All the supported Payment Methods are broadly categorized into XML DIRECT and XML REDIRECT Model based upon the manner in which they are integrated.

1.1.1.1 XML Direct Request

Merchants who collect and store their shoppers' payment details on their platform can use the XML Direct model as an effective payment-processing gateway. With this model, the merchant collects both order and payment details and then communicates the relevant payment details on a per order basis with Worldpay, for processing. The XML Direct model only allows for using a select number of online payment methods, where no consumer interaction is involved. Given the cost involved in establishing appropriate security measures, this model only applies for merchants with established high transaction volumes. Find below that list of supported Payment Methods that are XML DIRECT based.

- 1) Sofort
- 2) iDEAL
- 3) Qiwi
- 4) Alipay
- 5) Mistercash
- 6) Yandex
- 7) Boletto
- 8) Paypal
- 9) GiroPay
- 10) Poli
- 11) Poli NZ
- 12) Konbini
- 13) Przelewy24
- 14) CashU
- 15) SEPA DD
- 16) Credit Card- Direct (3D/Non 3D)
- 17) Klarna

Added as a part of SFRA:

- 18) WeChat Pay
- 19) MOTO
- 20) Google Pay
- 21) Apple Pay

1.1.1.2 XML Redirect Request

Merchants can also redirect the users to Worldpay Hosted page to collect payment details. It allows for real-time processing of payments and ensures a maximum number of up-to-date payment methods. The Hosted Payment Page service is secure, provides Worldpay with the required information to perform an active fraud risk assessment and, is the fastest way to get up and running with online payments. Find below the list of supported Payment Methods that are XML REDIRECT based

- 1) China Union Pay
- 2) Enets
- 3) Credit Card – Redirect (3D/Non 3D)
- 4) Klarna-Hosted Payment Pages

**** Refer to the Brazil Integration section for more details on Latin American Credit Cards and BOLETO.**

3.1.2 Capture Service

Capturing a payment can be done with tracking ID and without tracking ID for partial payment and full payment. A tracking ID is the shipment ID identifier that merchant should use to track the delivery of your order.

Capture Service with Tracking ID Request

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="YOUR_MERCHANT_CODE"
  version="1.4"> <modify>
  <orderModification orderCode="jsxml0000000000">
    <capture>
      <amount value="10000" currencyCode="GBP" exponent="2"
debitCreditIndicator="credit" />
      <shipping>
        <shippingInfo trackingId="AAA0000000" />
        <shippingInfo trackingId="BBB0000000" />
        <shippingInfo trackingId="XXX0000000" />
      </shipping>
    </capture>
  </orderModification>
</modify>
</paymentService>
```

Capture Service with Tracking ID Response

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <ok>
    <captureReceived orderCode="T00028020000">
      <amount value="10000" currencyCode="GBP" exponent="2"
debitCreditIndicator="credit" />
    </captureReceived>
  </ok>
</reply>
</paymentService>
```


Capture Service without Tracking ID Request

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="YOUR_MERCHANT_CODE"
  version="1.4"> <modify>
  <orderModification orderCode="jsxml0000000000">
    <capture>
      <amount value="10000" currencyCode="GBP" exponent="2"
debitCreditIndicator="credit" />
      <shipping>
        <shippingInfo trackingId="" />
      </shipping>
    </capture>
  </orderModification>
</modify>
</paymentService>
```

Capture Service without Tracking ID Response

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <ok>
    <captureReceived orderCode="T00028020000">
      <amount value="10000" currencyCode="GBP" exponent="2"
debitCreditIndicator="credit" />
    </captureReceived>
  </ok>
</reply>
</paymentService>
```

3.2 LIMITATIONS, CONSTRAINTS

This section details the limitations, constraints, and the best practice for merchants planning to integrate the Worldpay cartridge with SFCC Storefront.

- 1) At this moment, it is not possible to detect against session timeouts while the customer is entering payment details in the Worldpay forms. If there is a delay longer than the session timeout, basket contents are lost and order is placed and kept in Created state.
- 2) As the placement of the street number in addresses varies between different countries, the integration does not provide a parsing mechanism for the street number part as this would be very application-specific. To avoid future errors, the parsing of street numbers must be taken care of during the integration installation. If this step is ignored, the customer will have to supply the street number at the Worldpay payment page.

- 3) The cartridge supports both LookUp service and Multiple MID support service. However, only one of them should be enabled at a time.
- 4) At the moment, the cartridge supports only one generic message that is displayed on the Billing Page in case of a Failure response from APM's or Credit Card redirect method. This is mainly because we do not have any identifier or error code that is returned.
- 5) The web service Timeout that has been set in service profile is common across all the web service calls that we make to Worldpay be it Look up call, APM Order XML call, Authorization call etc.
- 6) Thank You page is displayed for both Successful and Pending Open Scenario; Merchant shall take care to display a message to the user on the Thank You page with a suitable disclaimer that demarcates both the scenarios.
- 7) SFCC has a default behavior to show an error message on Place Order page in case of a previously failed transaction. This can be removed by commenting/removing the code from summary.isml.

```
<div class="error-  
form">${Resource.msg(pdict.PlaceOrderError.code,'checkout',null)}</div  
>
```

- 8) The Maximum and Minimum supported amount per APM should be configured at the SFCC level in the Payment Method configuration section
- 9) Merchants shall ensure that Overnight Shipping and One Day shipping methods should not be displayed for Delayed APMs or for the ones that have KIOS payments
- 10) Merchant Shall take care of implementing the validations on the additional field that will be supported at the Merchant's site (Example: CPF filed in-case of Boleto, Swift Code/Bank Code in-case of GiroPay), while implementing Credit Card Direct the merchant should ensure that the Credit Card Form is reset in case of any error.
- 11) Cartridge shall be responsible to update the order status and export status only on receipt of following notifications/enquiry AUTHORISED, CAPTURED. Rest all other notification/enquiry status are read by the Job and Transaction history flag is updated with the notification/enquiry status value no further action is taken by the cartridge
- 12) Merchants shall take care of implementing credit card fields refresh functionality in case of user changes the card Type after filling the card information for previous selection to have better shopper experience
- 13) At the moment, it is not possible to run client side encryption for saved credit card where card number displayed as masked even client side encryption feature is turned on in merchant Worldpay account and enabled corresponding setting in Merchant site custom preference.
- 14) Merchant must ensure customer sequence number not exceeding 64 characters length and may contain alphanumeric or underscore.
- 15) Tokenization would be applicable for registered user only provided tokenization feature is turned on in merchant Worldpay account and enabled corresponding setting in Merchant site custom preference.
- 16) At this moment, it is not possible to validate mac secret identifier into response [failure /pending] URL's for all Redirect APMs and Redirect Credit Card orders.

- 17) Notification feature is restricted to only allow IP address provided by Worldpay, and corresponding setting to be configured in Merchant site custom preference.
- 18) Merchants shall take care of implementing Order Settlement and refunds.
- 19) Merchant shall take care of enable/disable site preference for user to provide CVV on billing page as security measure in tokenization service for saved cards. Also, need to enable CVV check service from Worldpay to work properly.
- 20) Merchant must ensure SFCC Service Framework configurations are setup and configured as per the contract with Worldpay on service availability.
- 21) Merchant shall take care for CVV field validation as enable/disable, CVV in BM configurations will only hide/show CVV field on billing page and no CVV validation is performed on Worldpay.
- 22) Jobs Templates can be modified as per merchant needs. These Jobs templates are prepared for reference.
- 23) The images are available in static folder for the cards. They can further be modified if required.
- 24) In case of iframe and lightbox for Airplus, Denkort and Laser card, Payment Method is displayed with message "Please contact worldpay"
- 25) Credit Card Payment method must be enabled because of some code restrictions based on the Code.
- 26) For Credit Redirect, credit card must be available in the system.
- 27) Gifts certificates are out of scopes.
- 28) There are two LINT issues in the code related to @ character.

4. IMPLEMENTATION GUIDE

4.1 SETUP

This section describes the controller structure and name of files in Worldpay cartridges.

CARTRIDGE STRUCTURE

Controllers:

Controllers are present in the "int_worldpay" cartridge.

CONTROLLER NAME	DESCRIPTION
Worldpay	Main controller that acts as the external interface.
WorldpayHelper	Helper controller that supports and performs additional tasks required to complete
CheckoutServices	Controller that supports and executes the Checkout process.
COPlaceOrder	Controller that supports and executes the Checkout process.

- package.json – initialize hook or service

Scripts:

int_worldpay_core

- common/CreateRequestHelper.js
- common/PaymentInstrumentUtils.js
- common/Utils.js
- common/WorldpayConstants.js
- common/worldPayHelper.js
- init/httpServiceInit.js
- jobs/InitiateCancelOrderJob.js
- jobs/OrderCleanUpJob.js
- jobs/OrderInquiriesUpdateJob.js
- jobs/OrderNotificationUpdatesJob.js
- jobs/WorldpayJobs.js
- lib/LibCreateRequest.js
- object/ResponseData.js
- object/WorldpayPreferences.js
- order/UpdateOrderStatus.js
- order/UpdateTransactionStatus.js
- pipelets/CheckWorldpayOrder.js
- pipelets/GenerateErrorMessageForJob.js
- pipelets/GetCreatedOrderDetails.js
- pipelets/GetPaymentCardToken.js
- pipelets/InitiateCancelOrder.js
- pipelets/ReadNotifyCustomObject.js
- pipelets/RemoveNotifyCustomObject.js
- pipelets/SaveCustomerCreditCard.js
- pipelets/SendWorldpayOrderInquiriesRequest.js
- pipelets/WriteToNotifyLog.js
- service/ServiceFacade.js
- hooks.json

int_worldpay_sfra

- hooks/payment/processor/worldpay.js
- hooks.json

Templates:

int_worldpay_core

- default/allstatusjson.isml
- default/emailtemplateforjob.isml
- default/errorjson.isml

- default/http_500.isml
- default/lateststatusjson.isml
- default/notifyResponsejson.isml
- default/worldpayredirect.isml

int_worldpay_sfra

- default/account/payment/editAddPayment.isml
- default/checkout/billing/paymentOptions/billingUserContent.isml
- default/checkout/billing/paymentOptions/creditCardContent.isml
- default/checkout/billing/paymentOptions/creditCardTab.isml
- default/checkout/billing/paymentOptions/elvContent.isml
- default/checkout/billing/paymentOptions/giropayContent.isml
- default/checkout/billing/paymentOptions/idealContent.isml
- default/checkout/billing/paymentOptions/paymentOptionsContent.isml
- default/checkout/billing/paymentOptions/paymentOptionsSummary.isml
- default/checkout/billing/paymentOptions/paymentOptionsTabs.isml
- default/checkout/billing/paymentOptions/redirectContent.isml
- default/checkout/billing/paymentOptions/redirectSummary.isml
- default/checkout/billing/paymentOptions/redirectTab.isml
- default/checkout/billing/creditCardForm.isml
- default/checkout/billing/paymentOptions.isml
- default/checkout/confirmation/confirmationEmail.isml
- default/checkout/checkout.isml
- default/checkout/worldpaysummary.isml

Properties:

int_worldpay_core

- resources/creditCard.properties
- resources/forms.properties
- resources/worldpayerror.properties
- resources/worldpay.properties

4.2 EXTERNAL INTERFACES

Current version of cartridge support integration with APM's [as per the list shared in above Sections], however below URL can be referred to know more about the other possible APM'

Supported by Worldpay.

<http://support.worldpay.com/support/kb/gg/alternativepayments/content/apmguide.htm>

4.2.1 CHINA UNION PAY

China Union Pay (also known as Union Pay or CUP) is a payment method where shoppers with Union Pay cards can make online e-commerce payments. Union Pay issue Union Pay cards in China.

Property	Description/Value
Payment Type	Debit / Credit Card payment
Countries	China
Accepted Currencies	AED, BND, BHD, CNY, GBP, EUR, USD, AUD, CAD, CHF, GEL, HKD, IDR, INR, JPY, KRW, KZT, LAK, MOP, MYR, OMR, NPR, NZD, PHP, PKR, RUB, SGD, THB, TRY, TWD, UAH, VND.
Mode	REDIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <submit>
    <order orderCode="Example_UnionPay_Order_Code">
      <description>Test order</description>
      <amount value="100" currencyCode="CNY" exponent="2" />
      <orderContent><![CDATA[ ]]></orderContent>
      <paymentMethodMask>
        <include code="ALL" />
      </paymentMethodMask>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
      </shopper>
      <statementNarrative>Merchants Statement Narrative</statementNarrative> </order>
    </submit>
  </paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="Example_UnionPay_Order_Code">
      <reference id="3015836999">https://secure-test.worldpay.com/jsp/shopper/SelectPaymentMethod.jsp?OrderKey=SAPIENTNITROECOM%5EExample_UnionPay_Order_Code</reference>
    </orderStatus>
  </reply>
</paymentService>
```

4.2.2 SOFORT

SOFORT Banking (SOFORT Überweisung) is a real-time bank transfer payment method that

shoppers based in Austria, Belgium, France, Germany and Switzerland can use to transfer funds directly to merchants from their bank accounts.

Property	Description/Value
Payment Type	Debit / Credit Card payment
Countries	Austria, Belgium , Germany and Switzerland
Acceptance Currencies	EUR (Austria, Belgium, Germany) CHF (Switzerland)
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOM" version="1.4">
  <submit>
    <order orderCode="Example_SOFORT_Banking_Order_Code_0">
      <description>Description here</description>
      <amount currencyCode="EUR" value="100" exponent="2" />
      <orderContent><![CDATA[      ]]></orderContent>
      <paymentDetails>
        <SOFORT-SSL shopperCountryCode="DE">
          <successURL>http://www.worldpay.com/?successURL</successURL>
          <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
          <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
        </SOFORT-SSL>
      </paymentDetails>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
      </shopper>
      <statementNarrative>SN12345</statementNarrative>
    </order>
  </submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="Example_SOFORT_Banking_Order_Code_0">
      <reference id="3015838844">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013339841&pay
mentMethod=SOFORT</reference>
    </orderStatus>
  </reply>
</paymentService>
```

4.2.3 ALIPAY

Alipay is a popular payment method that shoppers based in China use to make payments online.

After logging into their Alipay account, shoppers use one of the options below to complete their payment:

- eWallet
- Debit card
- Credit Card
- Bank Transfer
- Payment URL

Property	Description/Value
Payment Type	eWallet
Countries	China
Acceptance Currencies	CNY, GBP, EUR, USD, AUD, CAD, HKD, SGD.
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOM"
version="1.4"> <submit>
  <order orderCode="Example_Alipay_Order_Code_0">
    <description>Description here</description>
    <amount currencyCode="CNY" value="1000" exponent="2" />
    <orderContent><![CDATA[      ]]></orderContent>
    <paymentDetails>
      <ALIPAY-SSL shopperCountryCode="CN">
        <successURL>http://www.worldpay.com/?successURL</successURL>
        <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
        <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
      </ALIPAY-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
    <statementNarrative>MERCHANT STATEMENT
NARRATIVE</statementNarrative> </order>
  </submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
merchantCode="SAPIENTNITROECOM"> <reply>
  <orderStatus orderCode="Example_Alipay_Order_Code_0">
    <reference id="3015839286">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013340267&pay
mentMethod=ALIPAY</reference>
  </orderStatus>
</reply>
</paymentService>
```


4.2.4 YANDEX

Yandex.Money is primarily an eWallet that shoppers based in the countries in the [Payment Method Properties table](#) below use to make real-time online payments. There is an additional option available to shoppers wishing to pay by a credit or debit card linked to their Yandex.Money account.

Property	Description/Value
Payment Type	eWallet/credit and debit card
Countries	Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan
Acceptance Currencies	RUB and USD
Mode	DIRECT

Request Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order orderCode="Example_Yandex_Order_Code_0">
    <description>Description here</description>
    <amount currencyCode="RUB" value="5000" exponent="2" />
    <orderContent><![CDATA[      ]]></orderContent>
    <paymentDetails>
      <YANDEXMONEY-SSL shopperCountryCode="RU">
        <successURL>http://www.worldpay.com/?successURL</successURL>
        <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
        <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
      </YANDEXMONEY-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
  </order>
</submit>
</paymentService>

```

Response Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="Example_Yandex_Order_Code_0">
      <reference id="3015839577">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013340527&pay
mentMethod=YANDEXMONEY</reference>
    </orderStatus>
  </reply>
</paymentService>

```

4.2.5 QIWI

QIWI is a payment method that shoppers based in Russia and Kazakhstan can use to make payments. Shoppers who pay with QIWI can complete their payment using one of the following:

- Their QIWI eWallet, split into purses for different currencies
- A payment kiosk
- A credit/debit card linked to their QIWI account
- The prepay balance on the shopper's mobile phone
- A Webmoney account linked to their QIWI account

Property	Description/Value
Payment Type	eWallet / Postpay via kiosk
Countries	Russia and Kazakhstan
Acceptance Currencies	RUB and USD
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order orderCode="Example_Qiwi_Order_Code_0">
    <description>Description here</description>
    <amount currencyCode="RUB" value="5000" exponent="2" />
    <orderContent><![CDATA[          ]]></orderContent>
    <paymentDetails>
      <QIWI-SSL shopperCountryCode="RU">
        <successURL>http://www.worldpay.com/?successURL</successURL>
        <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
        <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
      </QIWI-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
    <shippingAddress>
      <address>
        <address1>Tverskaya Ulitsa 3453</address1>
        <postalCode>74564</postalCode>
        <city>Moscow</city>
        <countryCode>RU</countryCode>
        <telephoneNumber>7987654321</telephoneNumber>
      </address>
    </shippingAddress>
    <statementNarrative>MERCHANT STATEMENT
  NARRATIVE</statementNarrative> </order>
</submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <orderStatus orderCode="Example_Qiwi_Order_Code_0">
    <reference id="3015840491">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013341249&amp;pay
mentMethod=QIWI</reference>
  </orderStatus>
</reply>
</paymentService>
```

4.2.6 BOLETO

Boleto Bancário is a post-payment service that allows a shopper to pay for online services over the counter at any supporting outlet in Brazil, or through internet banking. Boleto Bancário is a popular solution for e-commerce payments in Brazil, where a significant proportion of the population does not have access to a bank account.

Property	Description/Value
Payment Type	Post-pay voucher
Countries	Brazil
Acceptance Currencies	BRL
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <submit>
    <order orderCode="Example_Boleto_Order_32">
      <description>test order</description>
      <amount value="2000" currencyCode="BRL" exponent="2" />
      <orderContent><![CDATA[]]></orderContent>
      <paymentDetails>
        <BOLETO-SSL shopperCountryCode="BR">
          <cpf>263.946.533-30</cpf>
          <successURL>http://www.worldpay.com/successURL</successURL>
          <cancelURL>http://www.worldpay.com/cancelURL</cancelURL>
          <pendingURL>http://www.worldpay.com/pendingURL</pendingURL>
        </BOLETO-SSL>
      </paymentDetails>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
      </shopper>
      <shippingAddress>
        <address>
          <firstName>Joe</firstName>
          <lastName>Bloggs</lastName>
          <address1>Rua Castilho 34</address1>
          <address2>Santo André</address2>
          <address3></address3>
          <postalCode>04642-000</postalCode>
          <city>São Paulo</city>
          <state>São Paulo</state>
          <countryCode>BR</countryCode>
```

```

        <telephoneNumber>0123456789</telephoneNumber>
    </address>
</shippingAddress>
</order>
</submit>
</paymentService>

```

Response Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="Example_Boleto_Order_32">
      <reference id="3015902434">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013397009&pay
mentMethod=BOLETO</reference>
    </orderStatus>
  </reply>
</paymentService>

```

4.2.7 MISTER CASH

Mister Cash/Ban contact is a debit card service available in Belgium. Shoppers can use this service to make real-time card payments for products and services.

Property	Description/Value
Payment Type	Debit Card payment
Countries	Belgium
Acceptance Currencies	EUR
Mode	DIRECT

Request Attribute Mapping

```

<?xml version='1.0'?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order orderCode="ORDERCODE_Mister_Cash">
    <description>Description here</description>
    <amount currencyCode="EUR" value="100" exponent="2" />
    <orderContent>Order Content Here</orderContent>
    <paymentDetails>
      <MISTERCASH-SSL shopperCountryCode="BE">
        <successURL>http://www.worldpay.com/successURL</successURL>
        <cancelURL>http://www.worldpay.com/cancelURL</cancelURL>
        <pendingURL>http://www.worldpay.com/pendingURL</pendingURL>
      </MISTERCASH-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
    <shippingAddress>
      <address>
        <firstName>Pierre</firstName>
        <lastName>Bloggs</lastName>
        <address1>Shopperstreet</address1>
        <postalCode>1234</postalCode>
        <city>Shoppercity</city>
        <countryCode>BE</countryCode>
      </address>
    </shippingAddress>
  </order>
</submit>
</paymentService>

```

Response Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="ORDERCODE_Mister_Cash">
      <reference id="3015902737">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013397287&pay
mentMethod=MISTERCASH</reference>
    </orderStatus>
  </reply>
</paymentService>

```

4.2.8 PAYPAL

PayPal is an American international e-commerce business allowing payments and money transfers to be made through the Internet. Online money transfers serve as electronic alternatives to paying with traditional paper methods, such as cheques and money orders.

Property	Description/Value
Payment Type	Debit Card payment

Countries	Belgium,All
Acceptance Currencies	GBP,USD and EUR
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.2" merchantCode="SAPIENTNITROECOM">
  <submit>
    <order orderCode="TG20071016-002">
      <description>IT Products</description>
      <amount value="8933" currencyCode="EUR" exponent="2" />
      <orderContent>The order content</orderContent>
      <paymentDetails>
        <PAYPAL-EXPRESS>
          <successURL>https://www.merchant.com/paymentProcessor.html?order=TG20 071016-
002&status=success</successURL>
          <failureURL>https://www.merchant.com/paymentProcessor.html?order=TG20071016-
002&status=failure</failureURL>
          <cancelURL>https://www.merchant.com/shoppingCart.html?order=TG2007101 6-
002</cancelURL>
        </PAYPAL-EXPRESS>
      </paymentDetails>
    </order>
  </submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="TG20071016-002">
      <reference id="3015903693">https://secure-
test.worldpay.com/jsp/simulators/shopper/PayPal_dummy_redirect.jsp?returnURL=https%3A%2F%2Fsecure-
test.worldpay.com%2Fshopper%2Fpaypal%2FdirectPayment.html%3Ftoken%3DTOKEN1412764
560062&amp;cancelURL=https%3A%2F%2Fwww.merchant.com%2FshoppingCart.html%3Forder
%3DTG20071016-
002&amp;subject=DUMMY&amp;merchant=SAPIENTNITROECOM&amp;order=TG20071016-
002&amp;amount=89.33&amp;currency=EUR&amp;description=IT Products</reference>
    </orderStatus>
  </reply>
</paymentService>
```

4.2.9 eNETS

eNETS is a popular real-time bank transfer payment method, available in Singapore. Shoppers can make payments online by logging on to their own bank account. The eNETS payment method supports major browsers and mobile platforms.

Property	Description/Value
Payment Type	Debit Card payment
Countries	Singapore
Acceptance Currencies	SGD
Mode	REDIRECT

Request Attribute Mapping

```
<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOM"
version="1.4"> <submit>
  <order orderCode="Sample_Enets_0">
    <description>Sample_Enets_9</description>
    <amount currencyCode="SGD" exponent="2" value="1" />
    <orderContent></orderContent>
    <paymentMethodMask>
      <include code="ENETS-SSL" />
    </paymentMethodMask>
    <shopper>
      <shopperEmailAddress>manav@gmail.com</shopperEmailAddress>
    </shopper>
    <shippingAddress>
      <address>
        <firstName>Manav</firstName>
        <lastName>Gulati</lastName>
        <street>test</street>
        <postalCode>10005</postalCode>
        <city>NY</city>
        <countryCode>CN</countryCode>
        <telephoneNumber>9999999999</telephoneNumber>
      </address>
    </shippingAddress>
  </order>
```



```
</submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <orderStatus orderCode="Sample_Enets_0">
    <reference id="3015959319">https://secure-
test.worldpay.com/jsp/shopper/SelectPaymentMethod.jsp?OrderKey=SAPIENTNITROECOM%5E
Sample_Enets_0</reference> </orderStatus>
  </reply>
</paymentService>
```

4.2.10 iDEAL

iDEAL is a method of payment that enables consumer to pay online through their own bank. In addition to web shops, other online organizations that are not part of the e-commerce market also offer iDEAL.

Bank Names	Bank ID's
ING	ING
ABN	ABN_AMRO
ASN	ASN
Rabobank	RABOBANK
SNS	SNS
SNS Regio	SNS_REGIO
Triodos	TRIODOS
Van Lanschot	VAN_LANSCHOT
Knab	KNAB

Property	Description/Value
Countries	Netherlands

Acceptance Currencies	EUR
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <submit>
  <order orderCode="TG20090909-123">
    <description>IT Products</description>
    <amount value="2002" currencyCode="EUR" exponent="2" />
    <orderContent>The order content</orderContent>
    <paymentDetails>
      <IDEAL-SSL shopperBankCode="ING">
        <successURL>https://www.merchant.com/success?order=1249480932689</successURL>
        <failureURL>https://www.merchant.com/failure?order=1249480932689</failureURL>
        <cancelURL>https://www.merchant.com/cancel?order=1249480932689</cancelURL>
      </IDEAL-SSL>
    </paymentDetails>
  </order>
</submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <orderStatus orderCode="TG20090909-123">
    <reference id="3015960397">https://secure-test.worldpay.com/wcc/simulator?op=IDEAL-AuthInit&trxId=126208818731246</reference>
  </orderStatus>
</reply>
</paymentService>
```

4.2.11 GiroPay

This is a popular German bank transfer payment method that shoppers can use to login to their bank account to make an online payment. Giropay payments are authorized immediately after the shopper submits their payment request. Shopper needs to enter the Bank Code value on payment page and Bank details will be sent in as a part of DIRECT XML request as **bank Code** node.

Property	Description/Value
Payment Type	Real Time Bank Transfer
Countries	Germany
Acceptance Currencies	EUR
Mode	DIRECT
Payment Method Mask	GIROPAY-SSL

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="MERCHANTCODE">
  <submit>
    <order orderCode="GiropayTestOrder">
      <description>test order</description>
      <amount value="100" currencyCode="EUR" exponent="2" />
      <orderContent><![CDATA[]]></orderContent>
      <paymentDetails>
        <GIROPAY-SSL>
          <successURL>http://www.worldpay.com/?success</successURL>
          <failureURL>http:// www.worldpay.com/?failure</failureURL>
          <cancelURL>http:// www.worldpay.com/?cancel</cancelURL>
          <bankCode>12345678</bankCode>
        </GIROPAY-SSL>
        <session shopperIPAddress="127.0.0.1" id="ssn97414780"
      /> </paymentDetails>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
        <browser>
          <acceptHeader>text/html</acceptHeader>
          <userAgentHeader>Mozilla/5.0 ...</userAgentHeader>
        </browser>
      </shopper>
    </order>
  </submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE paymentService PUBLIC "-//Worldpay//DTD Worldpay PaymentService v1//EN"
"http://dtd.worldpay.com/paymentService_v1.dtd">
<paymentService version="1.4" merchantCode="SAPIENTNITROECOMMERCEV1">

  <reply>

    <orderStatus orderCode="00004805">

      <reference id="3019678016">https://secure-
      test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3016933093&pay
      mentMethod=GIROPAY/reference>

    </orderStatus>

  </reply>

</paymentService>
```

4.2.12 Konbini

Digital Garage offers a number of payment methods that shoppers in Japan use to shop online. These include:

- Offline cash payment at a convenience store (known as Konbini). The penetration of convenience stores is very high in Japan, so this offers shoppers a very convenient way of making payments.

- Offline electronic payment at an ATM or internet banking (known as *Pay-Easy*).
- Online electronic payment by internet banking.

Since most payment options are off-line, merchants should expect the system to create a payment with `SHOPPER_REDIRECTED` status where it can remain for a number of days whilst the shopper makes their payment.

If the shopper pays immediately, the payment is in `SHOPPER_REDIRECTED` status for a short period of time and then moves to `AUTHORISED`.

Property	Description Value
Payment Type	Post-Pay Voucher/Internet banking/ATM Payment
Countries	Japan
Acceptance Currencies	JPY
Supported Languages	JP

The following table provides more detail of the available payment options:

Options	Notes	Authorization
Digital Garage (Konbini)	<p>The shopper places their order. At the end of the shopper journey the shopper views a unique payment reference, along with instructions on how to complete the payment.</p> <p>The shopper makes a note of the unique payment reference and visits their local convenience store.</p> <p>At the convenience store the shopper inputs their unique payment reference and phone number into a kiosk. The terminal prints a payment slip which the shopper takes to the store till and pays in cash.</p> <p>A number of major convenience stores participate in the Konbini scheme, including 7Eleven, Lawson, FamilyMart, Circle K Sunkus and Seicomart. Not all stores are automatically available to all merchants (please speak to your Worldpay support contact for more information).</p>	Delayed
ATM Payment	<p>The shopper places their order. At the end of the shopper journey the shopper is shown a unique payment reference, along with instructions on how to complete the payment. The shopper can either:</p> <p>Pay at an ATM which is part of the Pay-Easy payment scheme</p> <p>Pay at an ATM of another institution</p>	Delayed
Internet Banking	<p>The shopper places their order. At the end of the shopper journey the shopper is shown a unique payment reference, along with instructions on how to complete the payment. The shopper can either:</p> <p>Pay at a bank which is part of the Pay-Easy payment scheme</p> <p>Pay at a bank of another institution</p> <p>The shopper then logs into their internet banking application to complete the payment.</p>	Delayed

Request Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOMMERCEV1" version="1.4">
  <submit>
    <order orderCode="ORDERCODE">
      <description>Description here</description>
      <amount currencyCode="JPY" value="100" exponent="0" />
      <orderContent><![CDATA[          ]]></orderContent>
      <paymentDetails>
        <KONBINI-SSL shopperCountryCode="JP">
          <successURL>http://www.worldpay.com/?successURL</successURL>
          <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
          <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
        </KONBINI-SSL>
      </paymentDetails>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
      </shopper>
      <shippingAddress>
        <address>
          <firstName>Doe</firstName>
          <lastName>John</lastName>
          <address1>Main Street 3453</address1>
          <postalCode>74564</postalCode>
          <city>Tokyo</city>
          <countryCode>JP</countryCode>
          <telephoneNumber>08012534568</telephoneNumber>
        </address>
      </shippingAddress>
    </order>
  </submit>
</paymentService>

```

Response Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE paymentService PUBLIC "-//Worldpay//DTD Worldpay PaymentService v1//EN"
"http://dtd.worldpay.com/paymentService_v1.dtd">
<paymentService version="1.4" merchantCode="SAPIENTNITROECOMMERCEV1">

  <reply>

    <orderStatus orderCode="ORDERCODE">

      <reference id="3020978183">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3018125177&payment
Method=KONBINI</reference>

    </orderStatus>

  </reply>

</paymentService>

```

4.2.13 Poli

POLi is real-time bank transfer payment method that shoppers can use to make real-time payments directly from their online bank account.

To make a payment by using this method:

- On the payment page, the shopper selects the Poli payment method. The shopper is redirected to the Poli website.
- The shopper selects the bank from which the payment must be made. The shopper is redirected to the website of the bank.
- The shopper logs on to the bank and makes the payment.

Payment method properties

The properties for this payment method are described in the following table.

Property	Description/Value
Payment Type	Real-time bank transfer
Countries	Australia and New Zealand
Default Language	En
Supported Languages	En
Acceptance Currency and Preferred Currency	<ul style="list-style-type: none">• Australia: AUD• New Zealand: NZD

Request Attribute Mapping**Australia**

```
<?xml version='1.0'?>
<paymentService merchantCode="SAPIENTNITROECOMMERCEV1" version="1.4">
  <submit>
    <order orderCode="Example_Poli_order">
      <description>Description here</description>
      <amount currencyCode="AUD" value="100" exponent="2" />
      <orderContent>Order Content Here</orderContent>
      <paymentDetails>
        <POLI-SSL shopperCountryCode="AU">
          <successURL>http://www.worldpay.com/successURL</successURL>
          <cancelURL>http://www.worldpay.com/cancelURL</cancelURL>
          <pendingURL>http://www.worldpay.com/pendingURL</pendingURL>
        </POLI-SSL>
      </paymentDetails>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
      </shopper>
    </order>
  </submit>
</paymentService>
```

New Zealand

```
<?xml version='1.0'?>
<paymentService merchantCode="SAPIENTNITROECOMMERCEV1"
  version="1.4"> <submit>
  <order orderCode="Example_PoliNZ_order">
    <description>Description here</description>
    <amount currencyCode="NZD" value="100" exponent="2"
    /> <orderContent>Order Content Here</orderContent>
    <paymentDetails>
      <POLINZ-SSL shopperCountryCode="NZ">
        <successURL>http://www.worldpay.com/successURL</successURL>
        <cancelURL>http://www.worldpay.com/cancelURL</cancelURL>
        <pendingURL>http://www.worldpay.com/pendingURL</pendingURL>
      </POLINZ-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
  </order>
</submit>
</paymentService>
```

Response Attribute Mapping**Australia**

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOMMERCEV1"> <reply>
```



```

<orderStatus orderCode="Example_Poli_order">
  <reference id="3020978372">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3018125342&payment
Method=POLI</reference>
</orderStatus>
</reply>
</paymentService>

```

New Zealand

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOMMERCEV1">
  <reply>
    <orderStatus orderCode="Example_PoliNZ_order">
      <reference id="3020978547">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3018125494&payment
Method=POLINZ</reference>
    </orderStatus>
  </reply>
</paymentService>

```

4.2.14 SEPA-DD

SEPA-DD is an alternative payment method service, which provides option to make payment using IBAN or Bank account number. SEPA-DD provides normal as well recurring payment options.

Request Attribute Mapping

ONE-OFF Order

```

<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOM" version="1.4">
  <submit>
    <order orderCode="00008304">
      <description>Merchant Order Number : 00008304</description>
      <amount currencyCode="USD" exponent="2" value="11024" />
      <orderContent>Product Name Platinum V Neck Suit Dress price USD 99.00Your payment will be handled by
Worldpay Payments Services.</orderContent>
      <paymentDetails>
        <SEPA_DIRECT_DEBIT-SSL>
          <bankAccount-SEPA>
            <iban>DE93100000000012345678</iban>
            <accountHolderName>M.Mustermann</accountHolderName>
          </bankAccount-SEPA>
        </SEPA_DIRECT_DEBIT-SSL>
      </paymentDetails>
    </order>
    <shopper>
      <shopperEmailAddress>Mustermann@example.de</shopperEmailAddress>
      <session id="00008304" shopperIPAddress="14.140.116.135" />
    </shopper>
    <billingAddress>
      <address>
        <firstName>Musterman</firstName>
        <lastName>M</lastName>
        <address1>23</address1>
        <postalCode>94109</postalCode>
        <city>Berlin</city>
        <state>CA</state>
        <countryCode>DE</countryCode>
      </address>
    </billingAddress>
  </submit>
</paymentService>

```

```

        <telephoneNumber>1212121212</telephoneNumber>
      </address>
    </billingAddress>
    <mandate>
      <mandateType>ONE-OFF</mandateType>
      <mandateId>M-100038056-201832512945355</mandateId>
    </mandate>
  </order>
</submit>
</paymentService>

```

RECURRING ORDER

```

<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order orderCode="00008305">
    <description>Merchant Order Number : 00008305</description>
    <amount currencyCode="USD" exponent="2" value="14384" />
    <orderContent>Product Name Platinum V Neck Suit Dress price USD 99.00Your payment will be handled by Worldpay
    Payments Services.</orderContent>
    <paymentDetails>
      <SEPA_DIRECT_DEBIT-SSL>
        <bankAccount-SEPA>
          <iban>DE93100000000012345678</iban>
          <accountHolderName>M.Mustermann</accountHolderName>
        </bankAccount-SEPA>
      </SEPA_DIRECT_DEBIT-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>Mustermann@example.de</shopperEmailAddress>
      <session id="00008305" shopperIPAddress="14.140.116.135" />
    </shopper>
    <billingAddress>
      <address>
        <firstName>Musterman</firstName>
        <lastName>M</lastName>
        <address1>23</address1>
        <postalCode>94109</postalCode>
        <city>Berlin</city>
        <state>CA</state>
        <countryCode>DE</countryCode>
        <telephoneNumber>1212121212</telephoneNumber>
      </address>
    </billingAddress>
    <mandate>
      <mandateType>RECURRING</mandateType>
      <mandateId>M-100038056-201832512180546</mandateId>
    </mandate>
  </order>
</submit>
</paymentService>

```

4.2.15 Przelewy24

Przelewy24 is a real-time bank transfer, offline or pre-payment payment method that shoppers based in Poland can use to transfer funds directly to merchants from their bank accounts.

Payment method properties

Property	Description/Value
Payment Type	Real-time bank transfer, offline bank transfer, pre-payment
Countries	Poland
Acceptance Currencies	PLN
Settlement to Worldpay Currency	PLN
Chargebacks (Yes/No)	Yes
Supported Languages	PL (Polish), DE (German), ES (Spanish), IT (Italian) There is also an option to switch to EN (English) on the Przelewy24 payment Page.
Direct Model (Yes/No)	Yes

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOMMERCEV1" version="1.4">
  <submit>
    <order orderCode="Example_Przelewy24_Order_Code">
      <description>Description here</description>
      <amount currencyCode="PLN" value="100" exponent="2" />
      <orderContent><![CDATA[      ]]></orderContent>
      <paymentDetails>
        <PRZELEWY-SSL shopperCountryCode="PL">
          <successURL>http://www.worldpay.com/?successURL</successURL>
          <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
          <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
        </PRZELEWY-SSL>
      </paymentDetails>
      <shopper>
        <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
      </shopper>
    </order>
  </submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOMMERCEV1"> <reply>
  <orderStatus orderCode="Example_Przelewy24_Order_Code">
    <reference id="3020980234">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3018127000&amp;payment
Method=PRZELEWY</reference>
  </orderStatus>
</reply>
</paymentService>
```

4.2.16 CashU

CashU is a popular eWallet service that allows shoppers to make online payments in the Middle East, North Africa and many other countries including Russia and Canada. Shoppers can load the eWallet in a variety of ways such as Ukash voucher and cash over the counter. In some countries a CashU prepaid card and credit card are also available.

Property	Description/Value
----------	-------------------

Payment Type	eWallet
Countries	Bahrain, Canada, Egypt, Jordan, Kuwait, Lebanon, Malaysia, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, Turkey, United Arab Emirates, Israel, Russian Federation, Tanzania, Ukraine, Uruguay, Venezuela
Acceptance Currencies	USD
Mode	DIRECT
Payment Method Mask	CASHU-SSL

worldpay

Request Attribute Mapping

```
<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOMMERCEV1" version="1.4">
  <submit>
    <order orderCode="00004805">
      <description>Merchant Order No 00004805</description>
      <amount currencyCode="USD" exponent="2" value="29398" />
      <orderContent></orderContent> <paymentDetails>

        <CASHU-SSL shopperCountryCode="BH">
          <successURL>https://worldpay02-tech-prtnr-eu02- dw.demandware.net/on/demandware.store/Sites-
SiteGenesis-Site/default/Worldpay- Success?orderNo=00004805</successURL> <cancelURL>https://worldpay02-
tech-prtnr-eu02- dw.demandware.net/on/demandware.store/Sites-
SiteGenesis-Site/default/Worldpay- Cancel?orderNo=00004805&apmName=CASHU-SSL</cancelURL>
          <pendingURL>https://worldpay02-tech-prtnr-eu02- dw.demandware.net/on/demandware.store/Sites-
SiteGenesis-Site/default/Worldpay- Pending?orderNo=00004805&apmName=CASHU-SSL</pendingURL>
          </CASHU-SSL>
        </paymentDetails>
      <shopper>
        <shopperEmailAddress>usingh5@sapient.com</shopperEmailAddress>
      </shopper>
    </order>
  </submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOMMERCEV1">
  <reply>
    <orderStatus orderCode="00004805">
      <reference id="3019678016">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3016933093&pay
mentMethod=CASHU</reference>
    </orderStatus>
  </reply>
</paymentService>
```

4.2.17 KLARNA

Klarna is a 'buy now, pay later' deferred payment method that gives shoppers the chance to view and use product before they pay for it. Klarna provide three payments methods to the shopper, Pay later, Slice it and Pay now, each with further options to give maximum flexibility.

Property	Description/Value
Payment Type	Invoice, Account, Planned Payments, Pay in X months
Countries	Invoice: Austria, Finland, Germany, Netherlands, Norway, Sweden, United Kingdom Account: Finland, Germany, Norway, Sweden Planned Payments: Finland, Germany, Norway, Sweden Pay in X Month: Finland, Germany, Norway, Sweden
Acceptance Currencies	EUR,GBP,NOK,SEK
Mode	DIRECT and HPP
Payment Method Mask	KLARNA-SSL

Request Attribute Mapping Direct

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="$$MERCHANT_CODE$$"> <submit>
  <order orderCode="$$ORDER_CODE$$">
    <description>jsredirect test order</description>
    <amount value="20000" currencyCode="GBP" exponent="2"
    /> <orderContent><![CDATA[]]></orderContent>
    <paymentDetails>
      <KLARNA-SSL>
        <purchaseCountry>gb</purchaseCountry>
        <shopperLocale>en-gb</shopperLocale>
        <merchantUrls>
          <checkoutURL>http://www.companyname.co.uk</checkoutURL>
          <confirmationURL>http://www.success.com</confirmationURL>
        </merchantUrls>
      </KLARNA-SSL>
    </paymentDetails>
  </order>
</submit>
</paymentService>
```

```
<shopperEmailAddress>sp@worldpay.com</shopperEmailAddress>
</shopper>
<orderLines>
  <orderTaxAmount>4000</orderTaxAmount>
  <termsURL>http://www.terms.co.uk?test</termsURL>
  <lineItem>
    <physical />
    <reference>1</reference>
    <name>Bananas</name>
    <quantity>10</quantity>
    <quantityUnit>bag</quantityUnit>
    <unitPrice>1000</unitPrice>
    <taxRate>2500</taxRate>
    <totalAmount>10000</totalAmount>
    <totalTaxAmount>2000</totalTaxAmount>
    <totalDiscountAmount>0</totalDiscountAmount>
  </lineItem>
  <lineItem>
    <physical />
    <reference>2</reference>
    <name>Oranges</name>
    <quantity>1</quantity>
    <quantityUnit>bag</quantityUnit>
    <unitPrice>10000</unitPrice>
    <taxRate>2500</taxRate>
    <totalAmount>10000</totalAmount>
    <totalTaxAmount>2000</totalTaxAmount>
    <totalDiscountAmount>0</totalDiscountAmount>
  </lineItem>
</orderLines>
</order>
</submit>
</paymentService>
```

Response Attribute Mapping Direct

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE paymentService PUBLIC "-//WorldPay//DTD WorldPay PaymentService v1//EN"
"https://secure.worldpay.com/dtd/paymentService_v1.dtd">
<paymentService version="1.4"
merchantCode="YOUR_MERCHANT_CODE"> <reply>
<orderStatus orderCode="jsxml3857727180">
<payment>
<paymentMethod>KLARNA-SSL</paymentMethod>
<amount value="20000" currencyCode="EUR" exponent="2"
debitCreditIndicator="credit"/> <lastEvent>SHOPPER_REDIRECTED</lastEvent>
</payment>
<reference id="be76920a-0fc3-5299-996f-af7476253837">
<![CDATA[PGRpdiBpZD0ia2xhcm5hLWN0ZWNRb3V0LWNvbnRhaW5lciIgc3R5bGU9Im92ZXJmbG93LXg6IG
hpZGRlbijsiPgogICAgPHNjcmlwdCB0eXB1PSJ0ZXh0L2phdmFzY3JpcHQiPgogICAgLyogPCFbQ0RBVEFbICovCiAgI
CAgICAgKGZlbnN0aW9uKHcsayxpLGQsbixjLGwscCI7CiAgICAgICAgICAgIHdha109d1trXXx8ZnVuY3Rpb24oKXs
od1trXS5x>
```

Request Attribute Mapping Hosted Payment Pages

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="$$MERCHANT_CODE$$">
  <submit>
    <order orderCode="$$ORDER_CODE$$" installationId="$$INSTALLATION_ID$$">
      <description>jsredirect test order</description>
      <amount value="20000" currencyCode="GBP" exponent="2" />
      <orderContent><![CDATA[]]></orderContent>
      <paymentMethodMask>
        <include code="ALL" />
      </paymentMethodMask>
      <shopper>
        <shopperEmailAddress>sp@worldpay.com</shopperEmailAddress>
      </shopper>
      <shippingAddress>
        <address>
          <firstName>John</firstName>
          <lastName>Doe</lastName>
          <address1>Units 270 - 289</address1>
          <address2>The Science Park</address2>
          <address3>Milton Road</address3>
          <postalCode>CB4 0WE</postalCode>
          <city>Cambridge</city>
          <state>Cambridgeshire</state>
          <countryCode>GB</countryCode>
          <telephoneNumber>01223 123456</telephoneNumber>
        </address>
      </shippingAddress>
      <orderLines>
        <orderTaxAmount>4000</orderTaxAmount>
        <termsURL>http://www.terms.co.uk?test</termsURL>
        <lineItem>
```

```

    <physical />
    <reference>1</reference>
    <name>Bananas</name>
    <quantity>10</quantity>
    <quantityUnit>bag</quantityUnit>
    <unitPrice>1000</unitPrice>
    <taxRate>2500</taxRate>
    <totalAmount>10000</totalAmount>
    <totalTaxAmount>2000</totalTaxAmount>
    <totalDiscountAmount>0</totalDiscountAmount>
  </lineItem>
  <lineItem>
    <physical />
    <reference>2</reference>
    <name>Oranges</name>
    <quantity>1</quantity>
    <quantityUnit>bag</quantityUnit>
    <unitPrice>10000</unitPrice>
    <taxRate>2500</taxRate>
    <totalAmount>10000</totalAmount>
    <totalTaxAmount>2000</totalTaxAmount>
    <totalDiscountAmount>0</totalDiscountAmount>
  </lineItem>
</orderLines>
</order>
</submit>
</paymentService>

```

Response Attribute Mapping Mapping Hosted Payment Pages

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE paymentService PUBLIC "-//WorldPay//DTD WorldPay
PaymentService v1//EN""http://dtd.worldpay.com/paymentService_v1.dtd">
<paymentService version="1.4"
merchantCode="YOUR_MERCHANT_CODE"> <reply>
<orderStatus orderCode="jsxml340676070">
<reference id="6052026061">
https://payments.worldpay.com/app/hpp/integration/wpg/corporate?OrderKey=YOUR_MERCHANT_CODE
%5Ejsxml340676070&Ticket=00148933873090202KHvnMUxIT69nb3TvO-85Vg&source=sc5
</reference>
</orderStatus>
</reply>
</paymentService>

```


4.2.18 YANDEX

Yandex.Money is primarily an eWallet that shoppers based in the countries in the [Payment Method Properties table](#) below use to make real-time online payments. There is an additional option available to shoppers wishing to pay by a credit or debit card linked to their Yandex.Money account.

Property	Description/Value
Payment Type	eWallet/credit and debit card
Countries	Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan
Accepted Currencies	RUB and USD
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService merchantCode="SAPIENTNITROECOM"
version="1.4"> <submit>
  <order orderCode="Example_Yandex_Order_Code_0">
    <description>Description here</description>
    <amount currencyCode="RUB" value="5000" exponent="2" />
    <orderContent><![CDATA[      ]]></orderContent>
    <paymentDetails>
      <YANDEXMONEY-SSL shopperCountryCode="RU">
        <successURL>http://www.worldpay.com/?successURL</successURL>
        <cancelURL>http://www.worldpay.com/?cancelURL</cancelURL>
        <pendingURL>http://www.worldpay.com/?pendingURL</pendingURL>
      </YANDEXMONEY-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
  </order>
</submit>
</paymentService>
```

Response Attribute Mapping

```
<?xml version="1.0" encoding="UTF-8"?>
```

```

<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
    <orderStatus orderCode="Example_Yandex_Order_Code_0">
      <reference id="3015839577">https://secure-
test.worldpay.com/jsp/test/shopper/APMSTSimulator.jsp?customerRef=3013340527&pay
mentMethod=YANDEXMONEY</reference>
    </orderStatus>
  </reply>
</paymentService>

```

4.2.19 MOTO

MOTO is the mobile or telephone order, where the customer service agent placing the order for customer. In order to use moto payment your customer service center agent should have the 'Login_on_behalf', 'Login_Agent permission'.

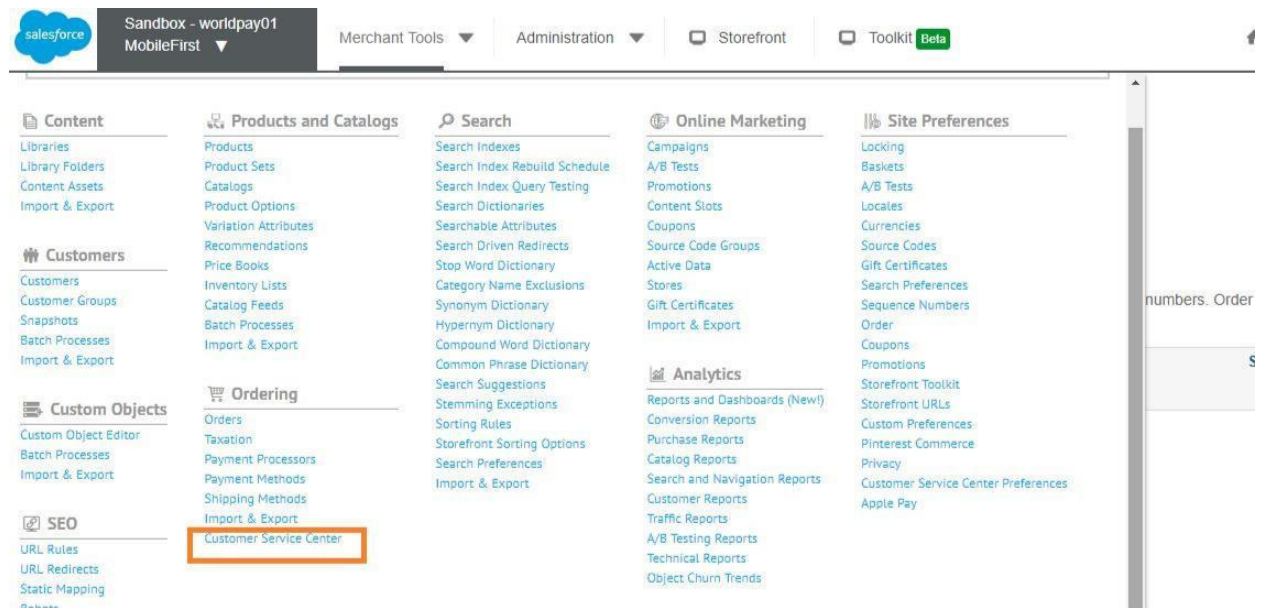
- i) Navigate to Administration > Organization > Roles and permission
- ii) Click the roles
- iii) Click functional permission
- iv) Select the site
- v) Give 'Login_on_behalf', 'Login_Agent permission'.

Moto payment can be handled in two ways

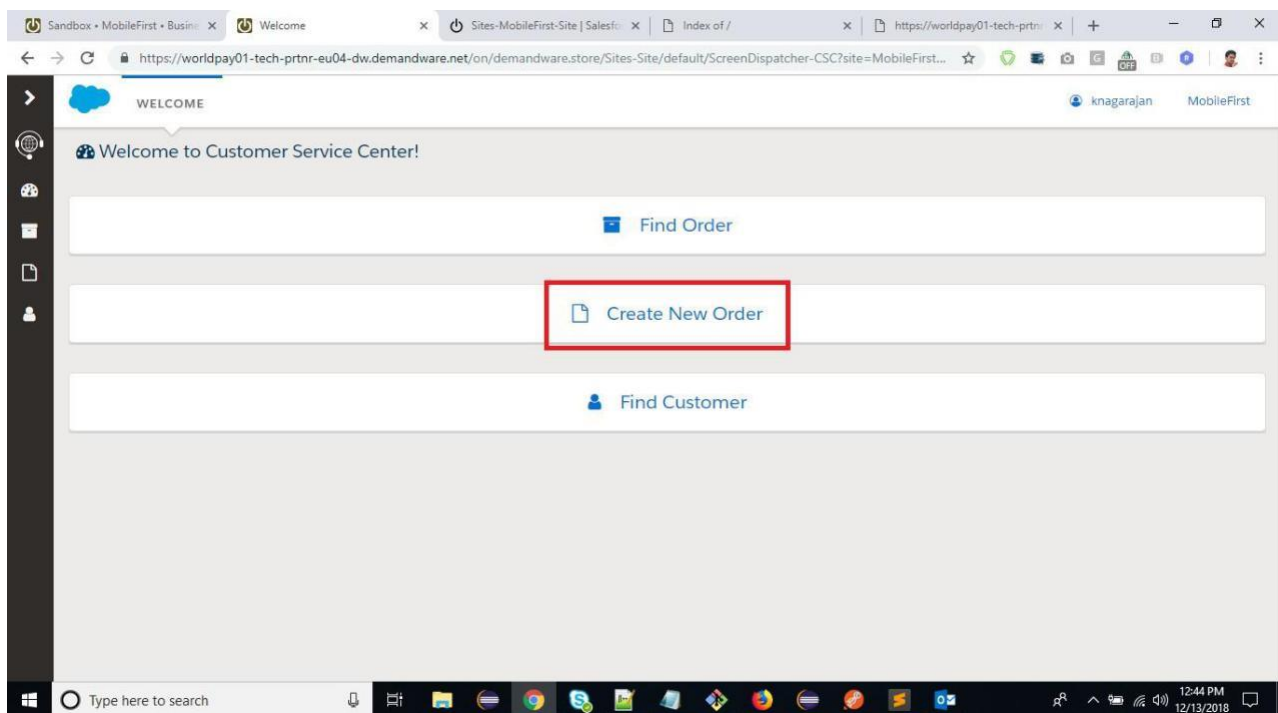
1). Customer service agent placing the order for the customer from business manager itself. In order to use this update the following settings in your business manager, just to disable the amount to be paid field in the credit card payment section.

- a) Navigate Administration > Site development > Customer service center settings
- b) Open Order payment Instrument in customizable area
- c) Update the existing condition "condition" : "data.payment_method_id===
'CREDIT_CARD'" Search for "condition" : "data.country !== 'FR'",
After that add
"meta" { "disabled" :
 true
 }
d) Since the customer service center customization works with OCAPI settings, make
sure your site have the access to 'POST /orders/{order_no}/payment_instruments' in
(Administration > Site Development > Open commerce settings).
- e) Please Refer the attached Workflow.

Screen 1

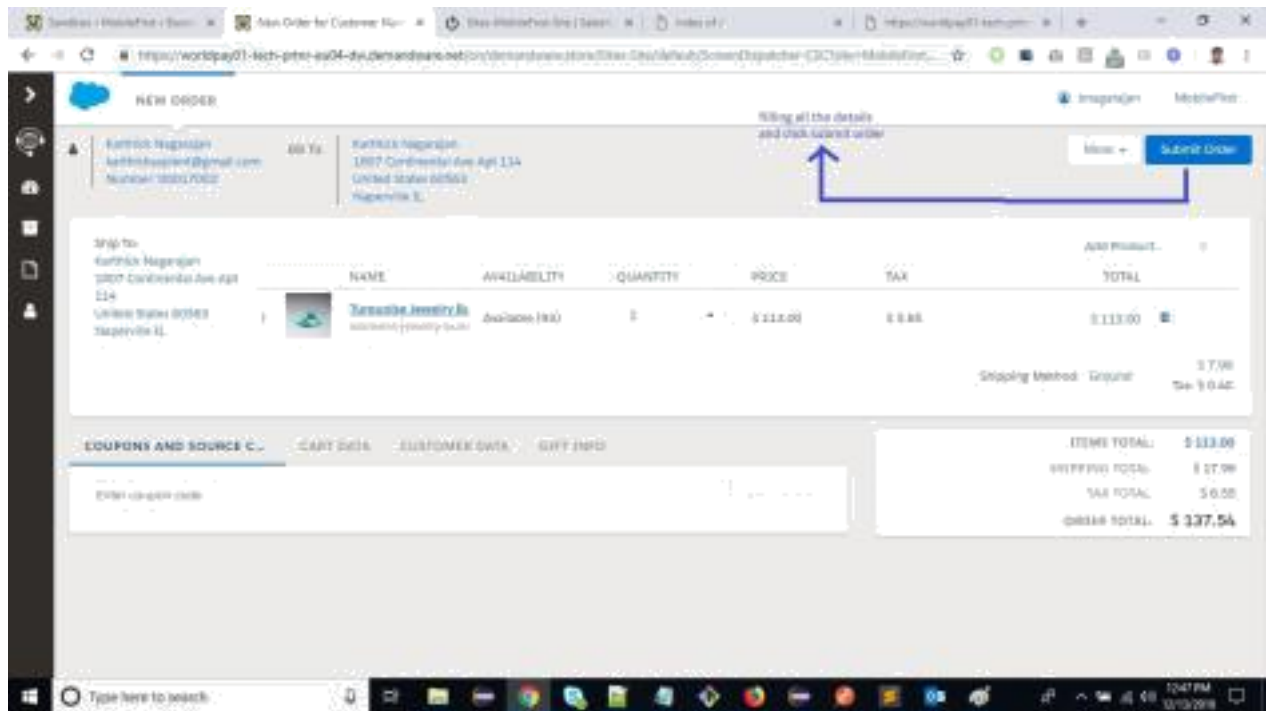


Screen 2



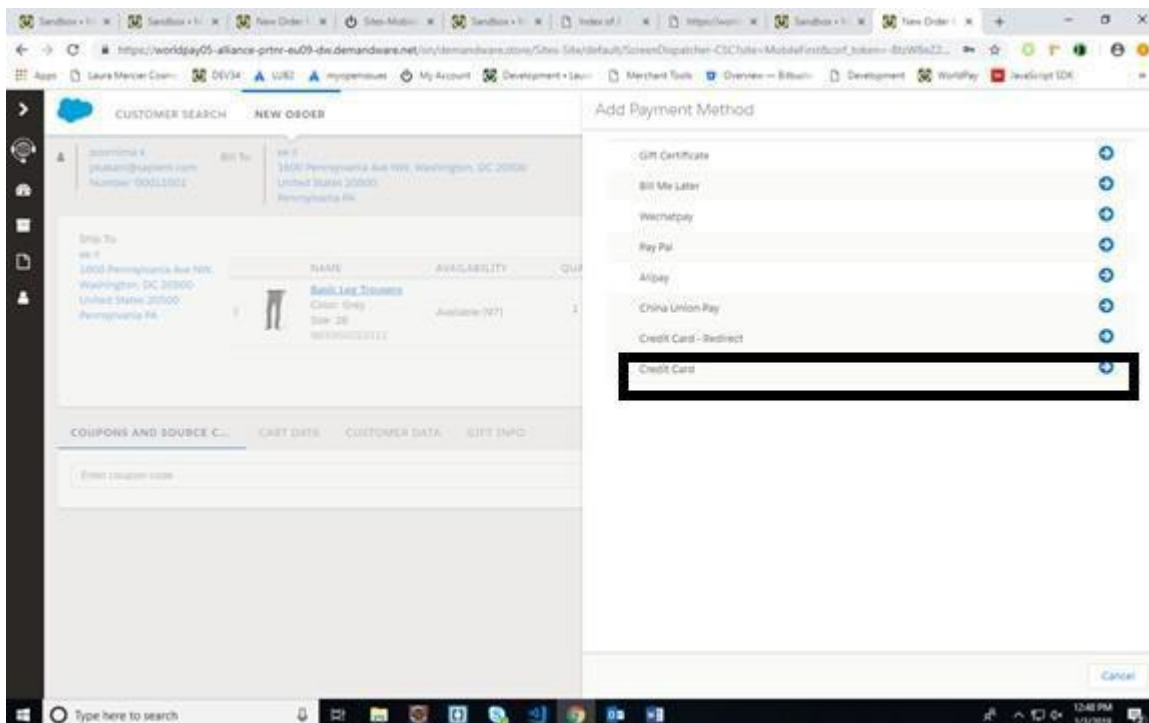
Screen 3

- Fill all the details of the customer and click submit order button



Screen 4

- Worldpay moto payment method listed in payment methods section



Screen 5

Filling all the credit card details of the customer and click save

The screenshot shows the 'NEW ORDER' page in the WorldPay system. On the left, a sidebar contains navigation icons. The main content area is divided into two sections. The top section displays customer information: 'Bills To: ee li' and 'Ship To: ee li', both with the address '1600 Pennsylvania Ave NW, Washington, DC 20500, United States 20500, Pennsylvania PA'. Below this is a table of items:

NAME	AVAILABILITY	QUA
Basic Leg Trousers Color: Grey Size: 28 883360352312	Available (97)	1

Below the table are tabs for 'COUPONS AND SOURCE C...', 'CART DATA', 'CUSTOMER DATA', and 'GIFT INFO'. The 'COUPONS AND SOURCE C...' tab is active, showing a field for 'Enter coupon code'. The right section, titled 'Add Credit Card', shows a summary of totals:

ITEMS TOTAL:	\$ 195.00
SHIPPING TOTAL:	\$ 7.99
TAX TOTAL:	\$ 10.15
ORDER TOTAL:	\$ 213.14

Below the totals is a form for adding a credit card. It includes fields for 'Amount' (213.14), 'Credit Card Holder', 'Credit Card Type' (set to Visa), 'Credit Card Number', 'Credit Card Expiration Month' and 'Year', and 'CVC'. At the bottom right of the form are 'Cancel' and 'Save' buttons.

Screen 6

- Order placed successfully for the customer

The screenshot shows a web browser window with multiple tabs. The active tab displays the WorldPay storefront at the URL: https://worldpay05-alliance-prtnr-eu09-dw.demandware.net/on/demandware.store/Sites-Site/default/ScreenDispatcher-CSC?site=MobileFirst&csrf_token=-BtzW8eZ2.... The page shows an order summary for Order No. 01105021, created on 1/3/2019 at 12:52 pm. The order status is NEW, and the payment method is CREDIT_CARD (JCB) for a total of \$213.14. A green success message at the top states: "Success Order has been placed." Below this, the shipping address is listed as 1600 Pennsylvania Ave NW, Washington, DC 20500, United States 20500, Pennsylvania PA. The shipping method is Ground. The order summary table shows one item: "Basic Leg Trousers" (Color: Grey, Size: 28) with a quantity of 1, priced at \$195.00. The total order amount is \$213.14, including shipping and tax.

NAME	AVAILABILITY	QUANTITY	PRICE	TAX	TOTAL
Basic Leg Trousers Color: Grey Size: 28 883360352312	Available (96)	1	\$ 195.00	\$ 9.75	\$ 195.00

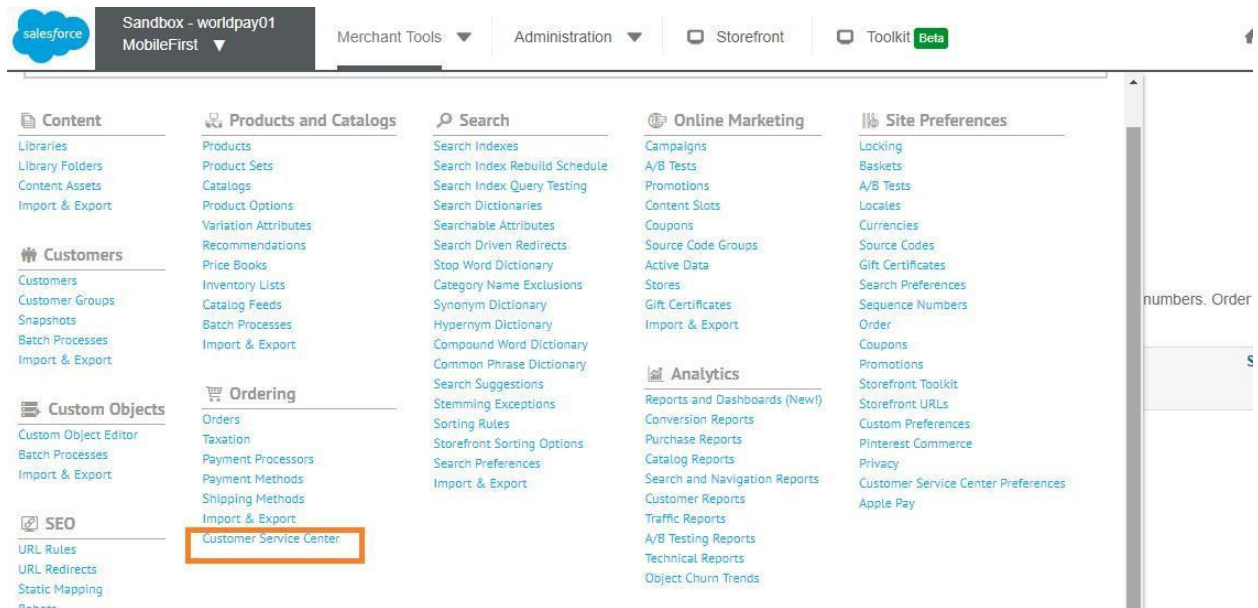
Shipping Method: Ground
Tax: \$ 0.40

ITEMS TOTAL: \$ 195.00
SHIPPING TOTAL: \$ 7.99
TAX TOTAL: \$ 10.15
ORDER TOTAL: \$ 213.14

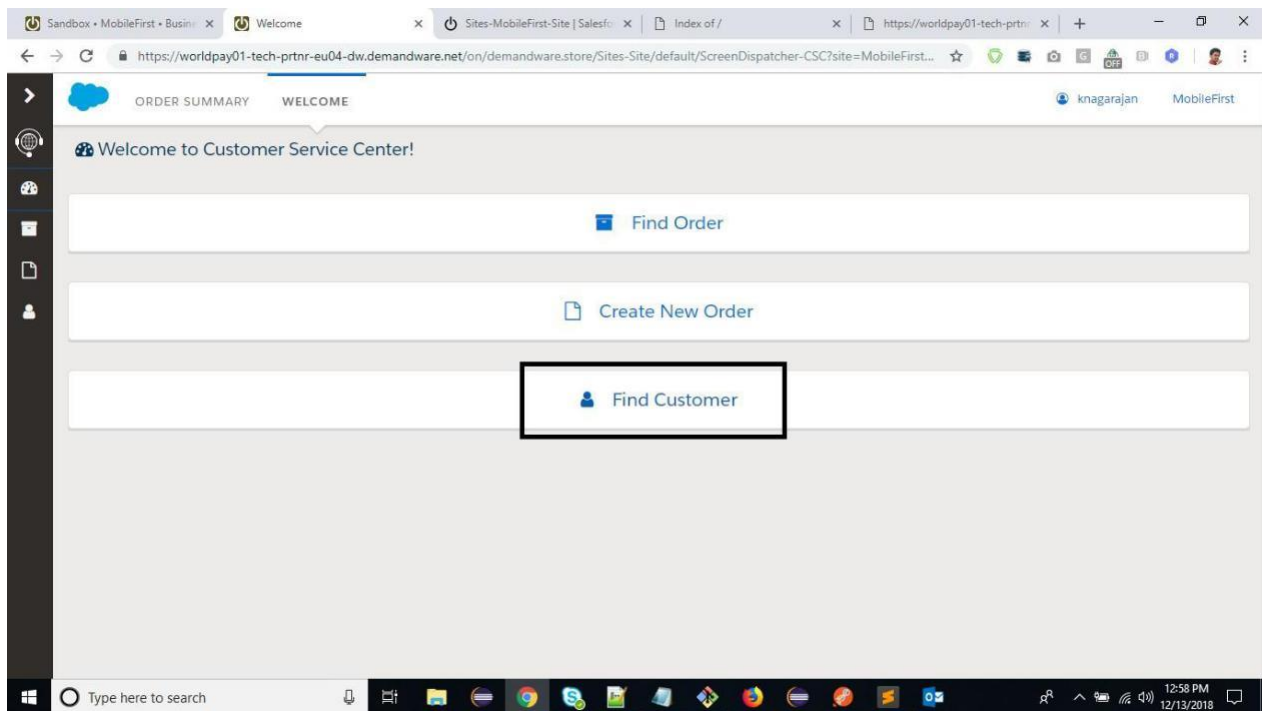
2). Customer service agent placing the order for the customer from storefront. Refer the attached workflow.

In order to enable storefront button in customer center, update your storefront hostname and storefront path in (Merchant tools > site preferences > custom preferences)

Screen 1

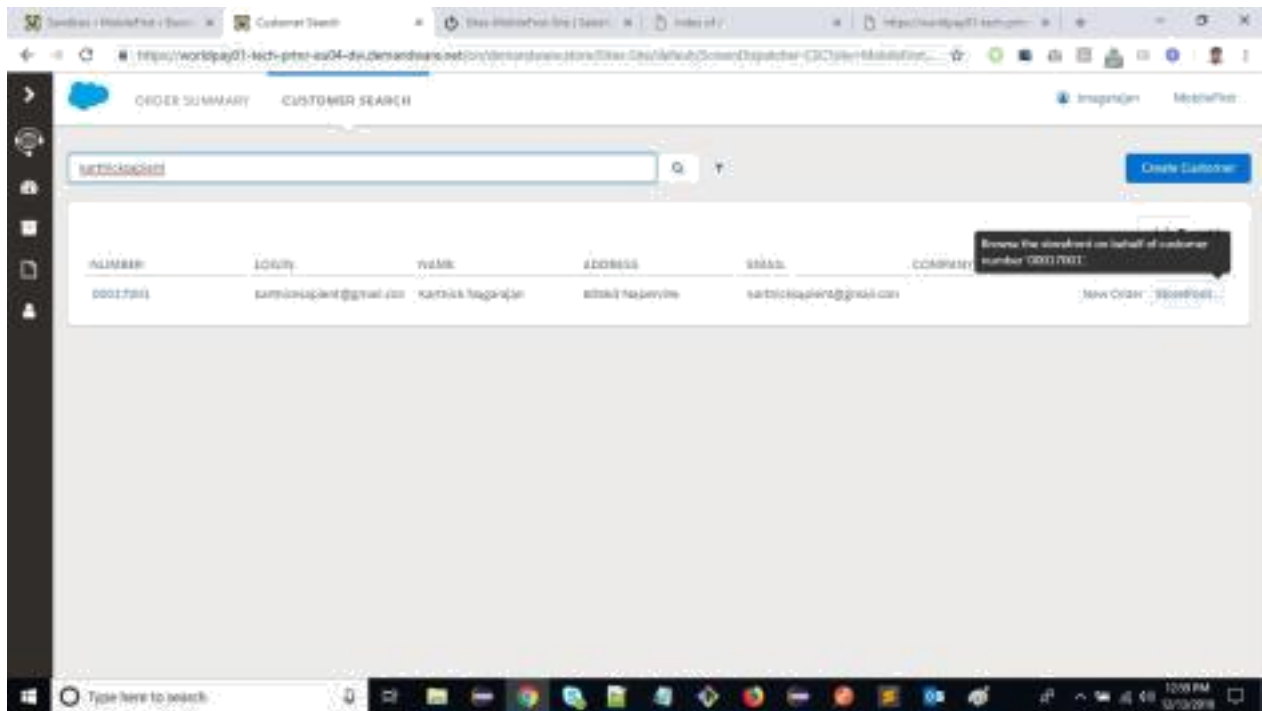


Screen 2



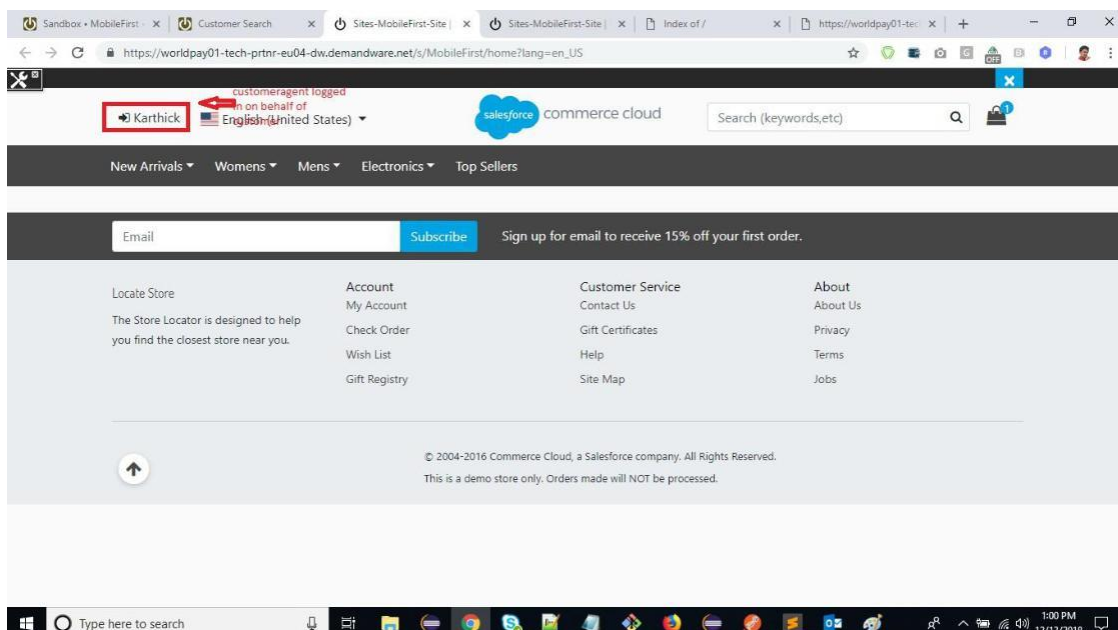
Screen 3

- Search the customer and click storefront



Screen 4

- Customer agent logged in on behalf of customer; here in the storefront checkout page they cannot see the moto as separate payment method. They can normally use credit card payment methods the request will go as moto order



Request and Response will be same as the credit card payment method, only the additional part in the xml is '<dynamicInteractionType type="MOTO"/>'

Request

```
<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order orderCode="T00048284">
    <description>Merchant Order Number :
    T00048284</description> <amount currencyCode="USD"
    exponent="2" value="3149" /> <orderContent></orderContent>
  <paymentDetails>
    <ECMC-SSL>
      <cardNumber>5555555555554444</cardNumber>
      <expiryDate>
        <date month="4" year="2021" />
      </expiryDate>
      <cardHolderName>KARTHICK NAGARAJ</cardHolderName>
      <cardAddress>
        <address>
          <firstName>Karthick</firstName>
          <lastName>Nagarajan</lastName>
          <address1>1807 Continental Ave Apt 114</address1>
          <address2 />
          <postalCode>60563</postalCode>
          <city>Naperville</city>
          <state>IL</state>
          <countryCode>US</countryCode>
          <telephoneNumber>123456789</telephoneNumber>
        </address>
      </cardAddress>
    </ECMC-SSL>
    <session id="T00048284" shopperIPAddress="125.16.91.5" />
  </paymentDetails>
  <shopper>
    <shopperEmailAddress>karthicksapient@gmail.com</shopperEmailAddress>
    <browser>
      <acceptHeader>*/*</acceptHeader>
      <userAgentHeader>Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
      Gecko) Chrome/70.0.3538.110 Safari/537.36</userAgentHeader>
    </browser>
  </shopper>
  <shippingAddress>
    <address>
      <firstName>Karthick</firstName>
      <lastName>Nagarajan</lastName>
      <address1>1807 Continental Ave Apt 114</address1>
      <address2 />
      <postalCode>60563</postalCode>
      <city>Naperville</city>
      <state>IL</state>
      <countryCode>US</countryCode>
      <telephoneNumber>2343422234</telephoneNumber>
    </address>
  </shippingAddress>
  <dynamicInteractionType type="MOTO" />
</order>
```

```
</submit>
</paymentService>
```

Response

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <orderStatus orderCode="T00048284">
    <payment>
      <paymentMethod>ECMC-SSL</paymentMethod>
      <paymentMethodDetail>
        <card number="5555*****4444" hash="0x65bb11198e83d0f98592df932a1bd5a979fc7c25"
          type="creditcard"> <expiryDate>
            <date month="04" year="2021" />
          </expiryDate>
        </card>
      </paymentMethodDetail>
      <amount value="3149" currencyCode="USD" exponent="2" debitCreditIndicator="credit" />
      <lastEvent>AUTHORISED</lastEvent>
      <AuthorisationId id="237758" />
      <CVCResultCode description="B" />
      <AVSResultCode description="E" />
      <cardHolderName><![CDATA[KARTHICK NAGARAJ]]></cardHolderName>
      <issuerCountryCode>N/A</issuerCountryCode>
      <balance accountType="IN_PROCESS_AUTHORISED">
        <amount value="3149" currencyCode="USD" exponent="2" debitCreditIndicator="credit"
          /> </balance>
      <riskScore value="-5" />
    </payment>
  </orderStatus>
</reply>
</paymentService>
```

4.2.20 WECHATPAY

WeChat Pay is a eWallet payment method, incorporated into the WeChat app. It is one of the most popular payment methods in China; with over 600 million active users, WeChat Pay is available to shoppers who hold a Chinese domestic bank account. When adding a bank card

(Credit or debit) to their WeChat wallet, shoppers must also provide their Chinese ID (resident identity card), name and phone number. These details are verified in real-time with their bank and must match exactly for successful verification. Without successful verification, shoppers will not be able to use WeChat Pay for online purchases.

WeChat Pay is available in 10 currencies but shoppers will always have their wallet debited in CNY. WeChat Pay will perform any currency conversion immediately and show the CNY amount throughout the shopper journey. The exchange rate is obtained from their partner settlement banks (China Construction Bank or China CITIC Bank) at 10am each day (02:00 UTC), which is shown to the shopper on the payment success page.

Shoppers can link multiple bankcards to their wallet. They can opt to fund their payment from their wallet, provided they have a sufficient balance, or directly from their linked cards at time of payment.

- eWallet

Property	Description/Value
Payment Type	eWallet
Countries	China
Acceptance Currencies	CNY
Mode	DIRECT

Request Attribute Mapping

```
<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order installationId="1029012" orderCode="01154011">
    <description>Merchant Order Number :
    01154011</description> <amount currencyCode="USD"
    exponent="2" value="7349" /> <orderContent></orderContent>
    <paymentDetails>
      <WECHATPAY-SSL />
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>admin@gmail.com</shopperEmailAddress>
      <browser deviceType="0" />
    </shopper>
  </order>
</submit>
</paymentService>
```


Response Attribute Mapping

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOM"> <reply>
  <orderStatus orderCode="01154011">
    <payment>
      <paymentMethod>WECHATPAY- SSL</paymentMethod>
      <amount value="7349" currencyCode="USD" exponent="2" debitCreditIndicator="credit"
      /> <lastEvent>SENT_FOR_AUTHORISATION</lastEvent> <riskScore value="- 1" />

    </payment>
    <qrCode><![CDATA[!VBORw0KGgoAAAANSUgAAAQAAAAEAAQAAAAAB0CZX
LAAABVUIEQVR42u2YMa6DMAyGjRg6cgSokqORo/UoOQJjBoTr3w6tHgU9qVssZ2ia8i21jf0B8T+L
AggggAAcKE9dy8CVKDFvehzcAfr9uez04EILb4/3j74A+efzEldWSlk3RMUrwCyAnHwD+1gnybpfwK
oaeZ6B35V958DRowAgDrdNrG+gLbkylDQCdWSOgdorFrVRK2qv9LtAsCVkvI+okfJVpFudghgopKIg
8RBt3fWPQHaijUcknW5a+tUTprkB9CJA+BekzoHiDBqUNUyeIkuOXE/oCxSa+mW2p8PY8kF8CgGp
hJWzHBlsqXJnkAttaj4PZqEyhud8DhCrh5LSougWaDH39Y50vp7Rw4nrtRzilirHDg7BGzi4C2K5Fmr+q
/0+gLS2cUG62UcXADmvqzue61JnQNW1dBASK9l3R/QepTZktrEye19APFaPoAAAagjZ+AFYnmzdD
a9DAAAAAASUVORK5CYII=]]></qrCode>
  </orderStatus>
</reply>
</paymentService>

```

Ground (7-10 Business Days)	\$5.99
Billing Address: s s sss sss, AK 12345 admin@gmail.com 7878778787	
Payment: Payment By Wechatpay Amount \$73.49	
	
<ul style="list-style-type: none"> • Please complete your payment using the above QR code for successful order completion • Do not Press Back, Refresh or Close button in browser • Please note, order may get failed if payment is not completed successfully using the QR code 	

NOTE: The order is automatically authorized after 15 seconds in the test environment.

For the Production environment, user needs to scan the QR code at their end from the WeChat payment app to complete the order authorization. You can refer the screenshot attached above.

4.2.21 Google Pay

Update the site preferences named, Google Pay Merchant ID and Google Pay Environment, for google pay integration. For Test environment, Google Pay environment will be TEST, and a merchant ID will be given by worldpay for both the Instances (TEST & PRODUCTION).

Here is an example of the payload within <PAYWITHGOOGLE-SSL>:

```
<PAYWITHGOOGLE-SSL>
  <protocolVersion>ECv1</protocolVersion>
  <signature>TJVA95OrM7E2cBab30RMHrHDcEfxjoYZgeFONFh7HgQ</signature>
  <signedMessage>{"encryptedMessage":"qrnk5KIV1syX8xuaJYpjAxjvTmAfh4ar
rxK+5wT4XNsn+K/21QC5KyNyXVnaZsfz+FjYeZcZyTDsAXMGp01u9Psq3wp/9aJJyZ9PS9
+G2sVJ+sympSvIHhPYxfcFLyDxcU7J2ZUIU2o7ZAsHkc9eUL0zqcjTfRxxyladBQmP3m
jy7OtIZbXodSr5vZZqKrRm0MqmPo/ISYor0gPmv+I+wRdLmCugdhBrg6mFGMuMBtnIjdtO
Z+o4iSl4NqYo4BnI1py4GXG78FPHAlqU9Im+a9V6CtOsVG1eiLCn616fl8WorvPU46bDL7
UApF/+vRF6lJviV9Ie9pUJHejO5Z17GPTfBuxO8ZAPWqcPY\u003d","ephemeralPubli
cKey":"BJ8xDzqkngvLUZcOAKqgkYpwGIHi2TzOXO6ZDJpKHPJCnJZ5WZOTO0HtNrTiOgi
Vc2gdZQ+TWmcy2Y1KnNsAGpg\u003d","tag":"5t5pipJgyhxJUg9XcymYcdcKmtBxQ71
VvF2uhnempbs\u003d"}</signedMessage>
</PAYWITHGOOGLE-SSL>
```

The order Request can be found inline. The Response is standard xml response

Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <submit>
  <order orderCode="YOUR_ORDER_CODE" shopperLanguageCode="en">
    <description>GOOGLE_PAY_TEST_ORDER</description>
    <amount value="100" currencyCode="GBP" exponent="2" />
    <orderContent><![CDATA[]]></orderContent>
    <paymentDetails>
      <PAYWITHGOOGLE-SSL>
        <protocolVersion>AAAAAA...</protocolVersion>
        <signature>AAAAAA...</signature>
        <signedMessage>AAAAAA...</signedMessage>
      </PAYWITHGOOGLE-SSL>
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>shopper@worldpay.com</shopperEmailAddress>
    </shopper>
  </order>
</submit>
</paymentService>
```

4.2.21 Stored Credentials

A stored credential is Visa or MasterCard information (such as a card number) stored by a merchant or its agent, a Payment Facilitator (PF) or a Staged Digital Wallet Operator (SDWO) to process future transactions.

Where to include the stored Credentials element:

To indicate that you are storing payment details, include `<storedCredentials>` with the usage value of "FIRST" in your authorization request:

```
<storedCredentials usage="FIRST"/>
</paymentDetails>
```

Store the transaction Identifier from the response

In the response, you get a `<transactionIdentifier>` (a child of `<schemeResponse>`), as shown below. This must be stored and (where applicable) supplied with subsequent use of these card details.

Note: The `<transactionIdentifier>` may contain up to 56 characters, and may include spaces, even at the beginning or end. Preserve all of these characters.

```
<schemeResponse>
  <transactionIdentifier>1234567890</transactionIdentifier>
</schemeResponse>
```

Note: There are two ways to use stored credentials, depending on whether the cardholder or merchant initiates a transaction.

CARDHOLDER initiates:

If the cardholder initiates a transaction with their stored details, you must include `<storedCredentials>` with the usage value of "USED":

```
<storedCredentials usage="USED">
</storedCredentials>
</paymentDetails>
```

MERCHANT initiates:

If the merchant initiates a transaction with the stored details (such as with a recurring payment), you must include:

- 1) <storedCredentials> with:
 - a) the usage value of "USED", and
 - b) the appropriate merchantInitiatedReason
- 2) <schemeTransactionIdentifier>, which is the <transactionIdentifier> from either:

Note: The Merchant initiated reasons can be INSTALMENT, RECURRING, UNSCHEDULED

To change the type of reason we have to change it from the code base in the following files:

- a) The types are mentioned in the properties file, named worldpay.properties

```
1. worldpay.storedcred.mi.INS
   TALMENT= INSTALMENT
   worldpay.storedcred.mi.REC
   URRING= RECURRING
   worldpay.storedcred.mi.UNS
   CHEDULED =
   UNSCHEDULED
```

- b) To change its type we have to change in file named

LibCreateRequest.js Find this code:

- a.

```
if (!headerObj.createdBy.equals(MerchantConstants.SUBSCRIPTIONING)
    || session.isUserAuthenticated())
```
- b.

```
    /merchant-intro.html
        i. 

```
storedCredentials = new XML("<storedCredentials usage='USED'
merchantInitiatedReason=' ' +
Resource.msg('worldpay.storedcred.mi.UNSCHEDULED', 'worldpay',
null) + 'UNSCHEDULED' + session.getId() + 'merchant-intro.html'
"
```


```



In this part of code change inside Resource.msg.

- *For e.g., for installment + Resource.msg('worldpay.storedcred.mi. INSTALMENT, 'worldpay', null) And so on,*

- a) The "FIRST" response message
- b) The previous "USED" response message

```
<storedCredentials usage="USED" merchantInitiatedReason="UNSCHEDULED">  
<schemeTransactionIdentifier>1234567890</schemeTransactionIdentifier> <!-- <transactionIdentifier> response from FIRST or USED  
request-->  
  
</storedCredentials>  
</paymentDetails>
```

REQUEST:

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <submit>
  <order orderCode="YOUR_ORDER_CODE">
    <description>YOUR DESCRIPTION</description>
    <amount currencyCode="GBP" exponent="2" value="5000" />
    <paymentDetails>
      <CARD-SSL>
        <cardNumber>4444333322221111</cardNumber>
        <expiryDate>
          <date month="01" year="2020" />
        </expiryDate>
        <cardHolderName>A Shopper</cardHolderName>
        <cardAddress>
          <address>
            <address1>47A</address1>
            <address2>Queensbridge Road</address2>
            <address3>Suburbia</address3>
            <postalCode>CB94BQ</postalCode>
            <city>Cambridge</city>
            <state>Cambridgeshire</state>
            <countryCode>GB</countryCode>
          </address>
        </cardAddress>
      </CARD-SSL>
      <storedCredentials usage="FIRST" />
      <!--Indicates that you are storing credentials-->
      <session shopperIPAddress="123.123.123.123" id="0215ui8ib1" />
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>ashopper@myprovider.com</shopperEmailAddress>
      <browser>
        <acceptHeader>text/html</acceptHeader>
        <userAgentHeader>Mozilla/5.0 ...</userAgentHeader>
      </browser>
    </shopper>
  </order>
</submit>
</paymentService>
```

RESPONSE:

The response includes the <schemeResponse> parameter, within which you get the <transactionIdentifier>. Where required, use the value returned in <transactionIdentifier> as the <schemeTransactionIdentifier> in your request to use credentials:

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="ExampleCode1"> <reply>
  <orderStatus orderCode="ExampleOrder1">
    <payment>
      <paymentMethod>VISA-SSL</paymentMethod>
      <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
      <lastEvent>AUTHORISED</lastEvent>
      <AuthorisationId id="666" />
      <balance accountType="IN_PROCESS_AUTHORISED">
        <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
      </balance>
    </payment>
  </orderStatus>
</reply>
</paymentService>
```

```

</balance>
<cardNumber>4444*****1111</cardNumber>
<riskScore value="0" />
<schemeResponse>
  <transactionIdentifier>20005060720116005061</transactionIdentifier>
  <!--Store this for later use-->
</schemeResponse>
</payment>
</orderStatus>
</reply>
</paymentService>

```

‘USED’ Request:

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <submit>
  <order orderCode="YOUR_ORDER_CODE">
    <description>YOUR DESCRIPTION</description>
    <amount currencyCode="GBP" exponent="2" value="5000" />
    <paymentDetails>
      <CARD-SSL>
        <cardNumber>4444333322221111</cardNumber>
        <expiryDate>
          <date month="01" year="2020" />
        </expiryDate>
        <cardHolderName>A Shopper</cardHolderName>
        <cardAddress>
          <address>
            <address1>47A</address1>
            <address2>Queensbridge Road</address2>
            <address3>Suburbia</address3>
            <postalCode>CB94BQ</postalCode>
            <city>Cambridge</city>
            <state>Cambridgeshire</state>
            <countryCode>GB</countryCode>
          </address>
        </cardAddress>
      </CARD-SSL>
      <storedCredentials usage="USED" merchantInitiatedReason="UNSCHEDULED">
        <schemeTransactionIdentifier>20005060720116005061</schemeTransactionIdentifier> <!--
        - Only include this if it's a merchant-initiated transaction-->
      </storedCredentials>
      <session shopperIPAddress="123.123.123.123" id="0215ui8ib1" />
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>ashopper@myprovider.com</shopperEmailAddress>
      <browser>
        <acceptHeader>text/html</acceptHeader>
        <userAgentHeader>Mozilla/5.0 ...</userAgentHeader>
      </browser>
    </shopper>
  </order>
</submit>
</paymentService>

```

Response to 'used' request:

In transactions, you receive another <transactionIdentifier>. We are using the first time received transaction Identifier value.

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="MYMERCHANT">
  <reply>
    <orderStatus orderCode="ExampleOrder1">
      <!--The orderCode you supplied in the order-->
      <payment>
        <paymentMethod>VISA-SSL</paymentMethod>
        <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
        <lastEvent>AUTHORISED</lastEvent>
        <AuthorisationId id="666" />
        <balance accountType="IN_PROCESS_AUTHORISED">
          <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
        </balance>
        <cardNumber>4444*****1111</cardNumber>
        <riskScore value="0" />
        <schemeResponse>
          <transactionIdentifier>94443862893748229682</transactionIdentifier>
        </schemeResponse>
      </payment>
    </orderStatus>
  </reply>
</paymentService>
```

4.2.22 TOKENIZATION

Tokenization is the replacement of sensitive credit card data with a unique identifier (the token) that cannot be mathematically reversed.

- ☐ Choose [shopper](#) tokens if you **only** intend to use tokens for your eCommerce channel
- ☐ Choose [merchant](#) tokens if you intend to share tokens between your eCommerce and your Point of Sale (POS) channels (using Worldpay Total as your Omni-channel solution)

SHOPPER TOKEN:

Create a shopper token with a payment request.

<createToken> is the instruction to create a token for the card used. **<createToken>** must contain **<authenticatedShopperID>** - a reference that uniquely identifies each shopper so that you can associate their payment tokens with them.

Request :

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="MYMERCHANT">
  <submit>
    <order orderCode="T0211010">
      <description>20 red roses from the MyMerchant
      webshop.</description> <amount currencyCode="GBP" exponent="2"
      value="5000" /> <paymentDetails>
        <VISA-SSL>
          <cardNumber>4444443333322221111</cardNumber>
          <expiryDate>
            <date month="01" year="2020" />
          </expiryDate>
          <cardHolderName>J. Shopper</cardHolderName>
          <cvc>123</cvc>
          <cardAddress>
            <address>
              <address1>47A</address1>
              <address2>Queensbridge Road</address2>
              <address3>Suburbia</address3>
              <postalCode>CB94BQ</postalCode>
              <city>Cambridge</city>
              <state>Cambridgeshire</state>
              <countryCode>GB</countryCode>
              <telephoneNumber>0122312345</telephoneNumber>
            </address>
          </cardAddress>
        </VISA-SSL>
        <session shopperIPAddress="123.123.123.123" id="0215ui8ib1"
      /> </paymentDetails>
      <shopper>
        <shopperEmailAddress>jshopper@myprovider.int</shopperEmailAddress>
        <authenticatedShopperID>UniqueshopperID</authenticatedShopperID> <!--
        -Mandatory for shopper tokens, don't send for merchant tokens-->
        <browser>
          <acceptHeader>text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8</acceptHeader>
          <userAgentHeader>Mozilla/5.0 (Windows; U; Windows NT 5.1;en-GB; rv:1.9.1.5) Gecko/20091102 Firefox/3.5.5
          (.NET CLR 3.5.30729)</userAgentHeader>
        </browser>
      </shopper>
      <createToken tokenScope="shopper">
        <tokenEventReference>TOK7854321</tokenEventReference>
        <tokenReason>ClothesDepartment</tokenReason>
      </createToken>
    </order>
  </submit>
</paymentService>

```

Response:

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="MYMERCHANT">
  <reply>
    <orderStatus orderCode="T0211010">
      <payment>
        <paymentMethod>VISA-SSL</paymentMethod>
        <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
      </payment>
    </orderStatus>
  </reply>
</paymentService>

```

```

<lastEvent>AUTHORISED</lastEvent>
<CVCResultCode description="UNKNOWN" />
<AVSResultCode description="UNKNOWN" />
<balance accountType="IN_PROCESS_AUTHORISED">
  <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
</balance>
<cardNumber>4444*****1111</cardNumber>
<riskScore value="4" />
</payment>
<token>
  <authenticatedShopperID>UniqueshopperID</authenticatedShopperID>
  <tokenEventReference>TOK7854321</tokenEventReference>
  <!-- The event reference from your current submission-->
  <tokenReason>ClothesDepartment</tokenReason>
  <tokenDetails tokenEvent="NEW">
    <paymentTokenID>9902019934757792074</paymentTokenID>
    <paymentTokenExpiry>
      <date dayOfMonth="3" month="03" year="2019" />
    </paymentTokenExpiry>
    <tokenEventReference>TOK7854321</tokenEventReference>
    <!-- The event reference from the initial token creation-->
    <tokenReason>ClothesDepartment</tokenReason>
  </tokenDetails>
</paymentInstrument>
  <cardDetails>
    <expiryDate>
      <date month="03" year="2019" />
    </expiryDate>
    <cardHolderName>J.Shopper</cardHolderName>
    <cardAddress>
      <address>
        <lastName>Shopper</lastName>
        <address1>47A</address1>
        <address2>Queensbridge Road</address2>
        <address3>Suburbia</address3>
        <state>Cambridge</state>
        <countryCode>GB</countryCode>
        <telephoneNumber>0122312345</telephoneNumber>
      </address>
    </cardAddress>
    <derived>
      <cardBrand>VISA</cardBrand>
      <cardSubBrand>VISA_CREDIT</cardSubBrand>
      <issuerCountryCode>N/A</issuerCountryCode>
      <obfuscatedPAN>4444*****1111</obfuscatedPAN>
    </derived>
  </cardDetails>
</paymentInstrument>
</token>
</orderStatus>
</reply>
</paymentService>

```

ZERO Order value Authorization Request

```
<?xml version="1.0"?>
<paymentService merchantCode="SAPIENTNITROECOM"
  version="1.4"> <submit>
  <order orderCode="1557396491905">
    <description>Merchant Order Number :
    1557396491905</description> <amount currencyCode="USD"
    exponent="2" value="0" /> <paymentDetails>
      <ECMC-SSL>
        <cardNumber>5555555555554444</cardNumber>
        <expiryDate>
          <date month="4" year="2022" />
        </expiryDate>
        <cardHolderName>Master</cardHolderName>
      </ECMC-SSL>
      <storedCredentials usage="FIRST" />
    </paymentDetails>
    <shopper>
      <authenticatedShopperID>00009001</authenticatedShopperID>
      <browser>
        <acceptHeader />
        <userAgentHeader />
      </browser>
    </shopper>
    <createToken tokenScope="shopper">
      <tokenEventReference>1557396491905</tokenEventReference>
      <tokenReason>1557396491905</tokenReason>
    </createToken>
  </order>
</submit>
</paymentService>
```

ZERO Order Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="SAPIENTNITROECOM">
  <reply>
    <orderStatus orderCode="1557396491905">
      <payment>
        <paymentMethod>ECMC-SSL</paymentMethod>
        <paymentMethodDetail>
          <card number="5555*****4444" hash="0x65bb11198e83d0f98592df932a1bd5a979fc7c25" type="creditcard">
            <expiryDate>
              <date month="04" year="2022" />
            </expiryDate>
          </card>
        </paymentMethodDetail>
        <amount value="0" currencyCode="USD" exponent="2" debitCreditIndicator="credit" />
        <lastEvent>AUTHORISED</lastEvent>
        <AuthorisationId id="640020" />
        <CVCResultCode description="B" />
        <AVSResultCode description="H" />
        <cardHolderName><![CDATA[Master]]></cardHolderName>
        <issuerCountryCode>N/A</issuerCountryCode>
        <riskScore value="0" />
        <schemeResponse>
          <transactionIdentifier>000000000000020005060720116005060</transactionIdentifier>
        </schemeResponse>
      </payment>
    </orderStatus>
  </reply>
</paymentService>
```

```

<token>
  <authenticatedShopperID>00009001</authenticatedShopperID>
  <tokenEventReference>1557396491905</tokenEventReference>
  <tokenReason>1557396491905</tokenReason>
  <tokenDetails tokenEvent="NEW">
    <paymentTokenID>K5Z6F7E3B6F6L8R</paymentTokenID>
    <paymentTokenExpiry>
      <date dayOfMonth="16" month="05" year="2019" hour="10" minute="08" second="12" />
    </paymentTokenExpiry>
    <tokenEventReference>1557396491905</tokenEventReference>
    <tokenReason>1557396491905</tokenReason>
  </tokenDetails>
  <paymentInstrument>
    <cardDetails>
      <expiryDate>
        <date month="04" year="2022" />
      </expiryDate>
      <cardHolderName><![CDATA[Master]]></cardHolderName>
      <derived>
        <cardBrand>ECMC</cardBrand>
        <cardSubBrand>ECMC_CREDIT</cardSubBrand>
        <issuerCountryCode>N/A</issuerCountryCode>
        <obfuscatedPAN>5555*****4444</obfuscatedPAN>
      </derived>
    </cardDetails>
  </paymentInstrument>
</token>
</orderStatus>
</reply>
</paymentService>

```

MERCHANT TOKEN:

Create a merchant token with a payment request

<createToken> is the instruction to create a token for the card used. <createToken> must contain tokenScope="merchant" - an attribute of <createToken> which states that the token will be a merchant token.

The response to a Hosted order with a create token request is exactly the same as a standard Hosted response

Request:

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="MYMERCHANT">
  <submit>
    <order orderCode="TS211010">
      <description>20 red roses from the MyMerchant
store.</description> <amount value="5000" currencyCode="GBP"
exponent="2" /> <paymentDetails>
        <VISA-SSL>
          <cardNumber>4444333322221111</cardNumber>
          <expiryDate>
            <date month="06" year="2019" />
          </expiryDate>
          <cardHolderName>J. Shopper</cardHolderName>
          <cvc>123</cvc>

```



```

    </VISA-SSL>
  </paymentDetails>
  <createToken tokenScope="merchant"> <!--mandatory for merchant
    tokens-->
    <tokenEventReference>TOK7854321</tokenEventReference>
    <tokenReason>ClothesDepartment</tokenReason>
  </createToken>
</order>
</submit>
</paymentService>

```

Response :

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="MYMERCHANT"> <reply>
  <orderStatus orderCode="TS211010">
    <payment>
      <paymentMethod>VISA-SSL</paymentMethod>
      <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
      <lastEvent>AUTHORISED</lastEvent>
      <CVCResultCode description="UNKNOWN" />
      <AVSResultCode description="UNKNOWN" />
      <balance accountType="IN_PROCESS_AUTHORISED">
        <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
      </balance>
      <cardNumber>4444*****1111</cardNumber>
      <riskScore value="4" />
    </payment>
    <token>
      <tokenEventReference>TOK7854321</tokenEventReference>
      <!--The event reference from your current submission-->
      <tokenReason>ClothesDepartment</tokenReason>
      <tokenDetails tokenEvent="NEW">
        <paymentTokenID>9902019934757792074</paymentTokenID>
        <paymentTokenExpiry>
          <date dayOfMonth="3" month="03" year="2019" />
        </paymentTokenExpiry>
        <tokenEventReference>TOK7854321</tokenEventReference>
        <!--The event reference from the initial token creation-->
        <tokenReason>ClothesDepartment</tokenReason>
      </tokenDetails>
    </token>
  </orderStatus>
</reply>
</paymentService>

```

4.2.23 3DS2

3D Secure 2 allows businesses and their payment provider to send more data elements on each transaction to the cardholder's bank. Worldpay have a relationship with Cardinal Commerce whereby your website integrates to Cardinal Commerce's 3DS2 authentication service for Device Data Collection and challenge flows. Worldpay manages the rest of the process.

Device Data Collection

- Create a JSON Web Token (JWT) on your server that is passed to the browser. When the shopper has entered a card number, start the Device Data Collection (DDC).
- Include a hidden DDC iframe, with the DDC JWT and the shopper's card number, on your page.
- Post the form to Cardinal Commerce's DDC endpoint.
- You receive a notification (on the shopper's browser) that DDC is complete. DDC returns a JavaScript message event, containing a SessionId.

Initial Payment Request

- Use the SessionId and submit as dfReferenceId in your XML payment request.
- An authentication request is submitted to Cardinal Commerce to determine if a challenge is required. The possible outcomes are:
 - Frictionless Flow - An authorization is attempted (Proceed to Step 2 in Second Payment Request).
 - Challenge Required - Proceed to 3DS2 Challenge

3DS2 Challenge

- Extract the data from the challenge response.
- Create a challenge JWT on your server that is passed to the browser. Include a returnUrl and the specified values returned in the XML challenge response.
- Include a challenge iframe, with the challenge JWT and the optional merchant data (MD), on your page.
- Automatically submit this form to the Cardinal Commerce endpoint.
- The shopper completes the challenge in the iframe and is redirected to the returnUrl.

Second Payment Request

- Submit a second XML request, including the session id and machine cookie.
- If authentication is successful, Worldpay attempts authorization.

Initial XML Payment Request

Create the XML authorization request. Add the following two elements to your XML

- additional3DSData (Mandatory)
- riskData (Recommended to increase chances of a frictionless flow)

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="YOUR_MERCHANT_CODE"> <!--
-Enter your own merchant code-->
<submit>
  <order orderCode="YOUR_ORDER_CODE">
    <!--Enter a unique order code each time-->
    <description>YOUR DESCRIPTION</description>
    <amount value="2000" currencyCode="EUR" exponent="2" />
    <orderContent><![CDATA[]]></orderContent>
    <paymentDetails>
      <CARD-SSL>
        <cardNumber>4444333322221111</cardNumber>
        <expiryDate>
          <date month="01" year="2020" />
        </expiryDate>
        <cardHolderName>3DS_V2_CHALLENGE_IDENTIFIED</cardHolderName>
        <cvc>123</cvc>
        <cardAddress>
          <address>
            <address1>Worldpay</address1>
            <address2>270-289 The Science Park</address2>
            <address3>Milton Road</address3>
            <postalCode>CB4 0WE</postalCode>
            <city>Cambridge</city>
            <countryCode>GB</countryCode>
          </address>
        </cardAddress>
      </CARD-SSL>
      <session shopperIPAddress="127.0.0.1" id="SESSION_ID"
      /> <!--Session id must be unique for each order-->
    </paymentDetails>
    <shopper>
      <shopperEmailAddress>jshopper@myprovider.com</shopperEmailAddress>
      <browser>
        <acceptHeader>text/html</acceptHeader>
        <userAgentHeader>Mozilla/5.0 ...</userAgentHeader>
      </browser>
    </shopper>
    <!-- Optional Risk Data -->
    <riskData>
      <authenticationRiskData authenticationMethod="localAccount">
        <authenticationTimestamp>
          <date second="01" minute="02" hour="03" dayOfMonth="01" month="06" year="2019"
          /> </authenticationTimestamp>
        </authenticationRiskData>
```

```

    <shopperAccountRiskData transactionsAttemptedLastDay="1" transactionsAttemptedLastYear="100"
purchasesCompletedLastSixMonths="50" addCardAttemptsLastDay="1" previousSuspiciousActivity="true"
shippingNameMatchesAccountName="true" shopperAccountAgeIndicator="lessThanThirtyDays"
shopperAccountChangeIndicator="lessThanThirtyDays" shopperAccountPasswordChangeIndicator="noChange"
shopperAccountShippingAddressUsageIndicator="thisTransaction"
shopperAccountPaymentAccountIndicator="lessThanThirtyDays">
    <shopperAccountCreationDate>
        <date dayOfMonth="01" month="02" year="2003" />
    </shopperAccountCreationDate>
    <shopperAccountModificationDate>
        <date dayOfMonth="02" month="03" year="2004" />
    </shopperAccountModificationDate>
    <shopperAccountPasswordChangeDate>
        <date dayOfMonth="03" month="04" year="2005" />
    </shopperAccountPasswordChangeDate>
    <shopperAccountShippingAddressFirstUseDate>
        <date dayOfMonth="04" month="05" year="2006" />
    </shopperAccountShippingAddressFirstUseDate>
    <shopperAccountPaymentAccountFirstUseDate>
        <date dayOfMonth="05" month="06" year="2007" />
    </shopperAccountPaymentAccountFirstUseDate>
</shopperAccountRiskData>
    <transactionRiskData shippingMethod="shipToBillingAddress" deliveryTimeframe="overnightShipping"
deliveryEmailAddress="sp@worldpay.com" reorderingPreviousPurchases="true" preOrderPurchase="false" giftCardCount="1">
    <transactionRiskDataGiftCardAmount>
        <amount value="1" currencyCode="EUR" exponent="2" />
    </transactionRiskDataGiftCardAmount>
    <transactionRiskDataPreOrderDate>
        <date dayOfMonth="06" month="07" year="2008" />
    </transactionRiskDataPreOrderDate>
</transactionRiskData>
</riskData>
    <!-- Additional 3DS data that you must provide to us -->
    <additional3DSData dfReferenceId="1f1154b7-620d-4654-801b-893b5bb22db1"
challengeWindowSize="390x400" challengePreference="challengeMandated" />
</order>
</submit>
</paymentService>

```

We pass the information to Cardinal Commerce, who matches the DDC to the payment request using the dfReferenceId value. This information is sent to the issuer who will then establish whether the payment requires additional authentication (i.e. a challenge) or not.

The response to your authorization request will be either a normal authorization response, which ends the payment flow, or a 3DS challenge response.

3DS Challenge

If the issuer decides that the payment requires additional authentication, they signal to Worldpay that a challenge is required. You will receive a response from us to redirect the shopper to a challenge page. The 3DS related information is inside the threeDSChallengeDetails element.

Example response with payload:

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <reply>
  <orderStatus orderCode="YOUR_ORDER_CODE">
    <challengeRequired>
      <threeDSChallengeDetails>
        <threeDSVersion>2.1.0</threeDSVersion>
        <transactionId3DS>rUT8fLKDviHXr8aUn3I1</transactionId3DS>
        <acsURL><![CDATA[www.worldpay.com]]></acsURL>
        <payload>P.25de9db33221a55eedc6ac352b927a8c3a08d747643c592dd8f8ab7d3...</payload>
      </threeDSChallengeDetails>
    </challengeRequired>
  </orderStatus>
</reply>
</paymentService>
```

Redirect to 3DS2 Challenge

As the redirect to challenge will be another Cardinal Commerce page, you must create a challenge JWT on your server that is passed to the browser.

Request Challenge Page

Create an iframe with an automatic form post to <https://secure-test.worldpay.com/shopper/3ds/challenge.html> (Test Environment), and to <https://secure.worldpay.com/shopper/3ds/challenge.html> (Production environment)

Second XML Payment Request

Use this request for the returnUrl to trigger the second XML Payment Request

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <submit>
  <order orderCode="YOUR_ORDER_CODE">
    <!--The order code from the first message-->
    <info3DSecure>
      <completedAuthentication />
    </info3DSecure>
    <session id="SESSION_ID" />
    <!--The session id in the first message-->
  </order>
</submit>
</paymentService>
```

Authorization Response

This is received because either the first authorization request was authenticated without a challenge (frictionless flow), or a challenge has been completed by the shopper.

The XML response from Worldpay confirms the result for the authorization.

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4" merchantCode="YOUR_MERCHANT_CODE"> <!--
  -The merchantCode you supplied in the order-->
  <reply>
    <orderStatus orderCode="YOUR_ORDER_CODE">
      <!--The orderCode you supplied in the order-->
      <payment>
        <paymentMethod>VISA-SSL</paymentMethod>
        <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit"
        /> <lastEvent>AUTHORISED</lastEvent>
        <AuthorisationId id="123" />
        <balance accountType="IN_PROCESS_AUTHORISED">
          <amount value="5000" currencyCode="GBP" exponent="2" debitCreditIndicator="credit" />
        </balance>
        <cardNumber>4444**1111</cardNumber>
        <riskScore value="0" />
      </payment>
      <ThreeDSecureResult description="Cardholder authenticated" />
    </orderStatus>
  </reply>
</paymentService>
```

4.2.24 US DOMESTIC (Prime Routing)

PRIME ROUTING:

Prerequisites:

To use this service you must meet the following prerequisites:

- The service must be enabled on your account
- You must use the Direct XML API
- You must process transactions as sales

With the sales request, worldpay will automatically capture the funds from the shopper once the request has been authorized. For example, if you are a company that offers a digital product, be it a game or a video that is immediately downloaded once the customer has paid for it, you will want to know straight away that the customer has been charged for the item. There are two options for submitting Sale payments:

- You send a Sale API request
- Sale is set as the default on your US account

Sale request

The only difference between a sales and a standard Direct XML request is that you need to include the action attribute set to SALE within the <paymentDetails> element. Here is an example authorization request:

BM CONFIGURATION: *Go to the business manager > Merchant Tools > Site Preferences > Custom Preferences > Worldpay > Enable Sales request (yes)*

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <submit>
  <order orderCode="YOUR_ORDER_CODE">
    <description>YOUR DESCRIPTION</description>
    <amount value="2000" currencyCode="EUR" exponent="2" />
    <orderContent><![CDATA[]]></orderContent>
    <paymentDetails action="SALE">
      <CARD-SSL>
        <cardNumber>4444333322221111</cardNumber>
        <expiryDate>
          <date month="01" year="2020" />
        </expiryDate>
        <cardHolderName>J. Shopper</cardHolderName>
        <cardAddress>
          <address>
            <address1>900 Chelmsford Street</address1>
            <postalCode>01851</postalCode>
            <city>Lowell</city>
            <state>MA</state>
            <countryCode>US</countryCode>
          </address>
        </cardAddress>
      </CARD-SSL>
      <session shopperIPAddress="123.123.123.123" id="0215ui8ib1" />
    </paymentDetails>
  </order>
  <shopper>
    <shopperEmailAddress>shopper email address</shopperEmailAddress>
    <browser>
      <acceptHeader>text/html</acceptHeader>
    </browser>
  </shopper>
</submit>
</paymentService>
```

```

    <userAgentHeader>Mozilla/5.0 ...</userAgentHeader>
  </browser>
</shopper>
</order>
</submit>
</paymentService>

```

Sale response

The response is the same as a standard Direct XML response with a <lastEvent> of AUTHORISED. This will be followed shortly by a ‘CAPTURED’ notification (if enabled).

Note: In secure-test, the <lastEvent> is ‘CAPTURED’.

Void

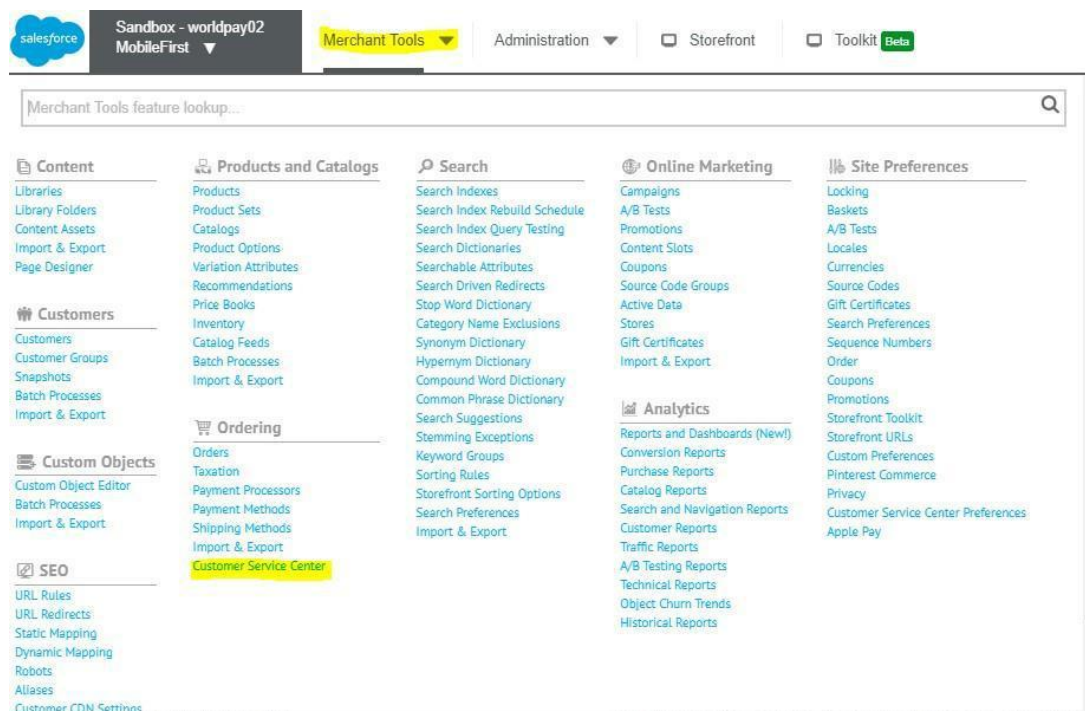
In some cases, you may wish to void a sale request. This is done with an order modification. This must be done within the same US business day as the sale request, else it will fail. If it does fail, you will need to submit a refund request.

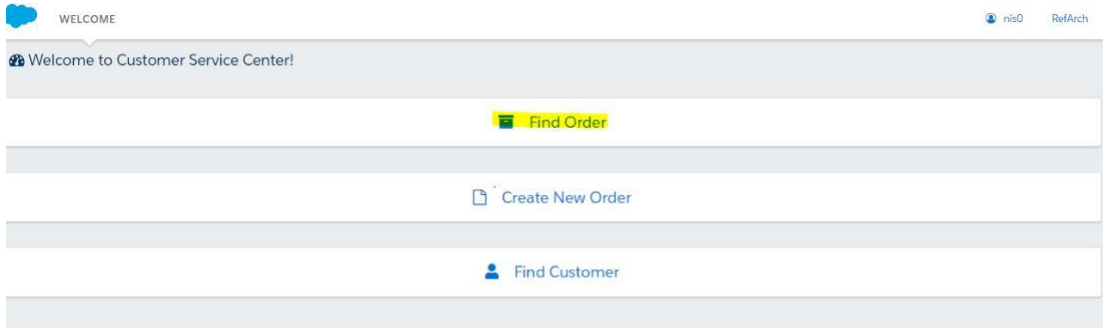
How to void sale from the Business manager:

Note: The configuration and setup is explained in the installation guide for

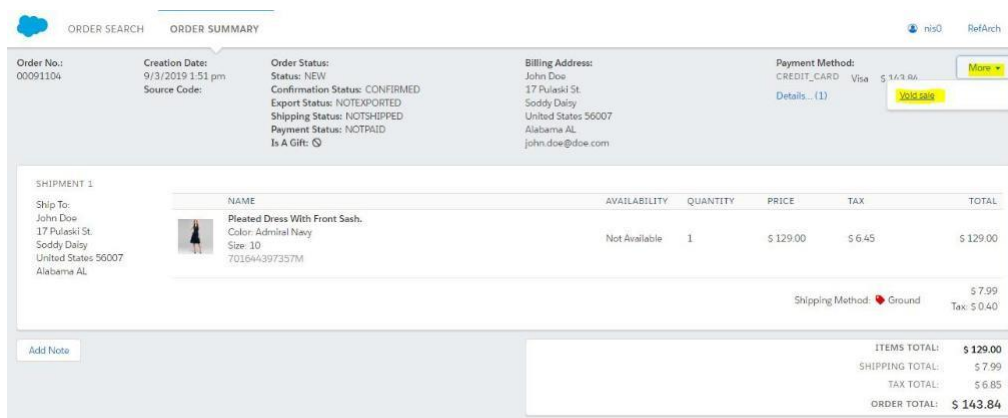
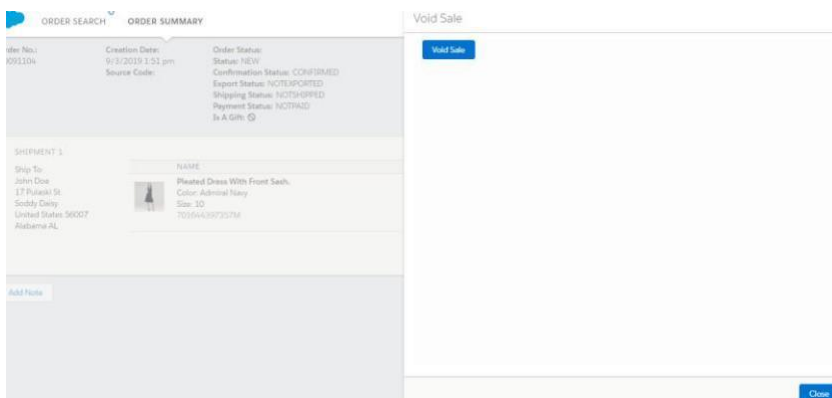
SFRA.

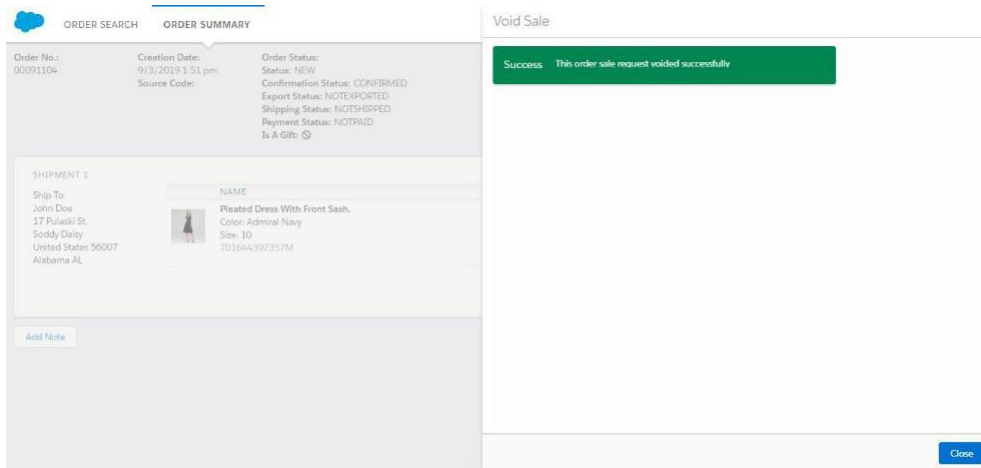
Go to **Merchant Tools > Ordering > Customer Service Center**



Find the order to void:

Click on the order. The next window will have the order details (Snippet inline). Click on more option to see void sale feature.

**Click On void sale button**

Order is voided successfully**Void request**

To submit a void modification, include <voidSale/> in your modification request.

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <modify>
  <orderModification orderCode="YOUR_ORDER_CODE">
    <voidSale />
  </orderModification>
</modify>
</paymentService>
```

Void response

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <reply>
  <ok>
    <voidReceived ordercode="YOUR_ORDER_CODE" />
  </ok>
</reply>
</paymentService>
```

Void notification

Once the void request has been processed a notification will sent.

```
<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="YOUR_MERCHANT_CODE"> <notify>
  <orderStatusEvent orderCode="YOUR_ORDER_CODE">
```

```
<payment>
  <paymentMethod>ECMC-SSL</paymentMethod>
  <amount value="1000" currencyCode="EUR" exponent="2" debitCreditIndicator="credit"
  /> <lastEvent>VOIDED</lastEvent>
</payment>
<journal journalType="VOIDED">
  <bookingDate>
    <date dayOfMonth="01" month="01" year="2020" />
  </bookingDate>
  <accountTx accountType="IN_PROCESS_CAPTURED" batchId="1">
    <amount value="1000" currencyCode="EUR" exponent="2" debitCreditIndicator="debit"
    /> </accountTx>
  </journal>
</orderStatusEvent>
</notify>
</paymentService>
```

Advanced Prime Routing

Advanced Prime Routing allows you to:

- Receive the debit network used to process the payment
- Specify your preferred debit networks
- Specify your routing preference

Routing preference

You can optionally provide a routing preference to specify how a particular transaction should be routed:

- pinlessDebitOnly - Route the transaction only through the PINless Debit networks
- signatureOnly - Route the transaction only through the signature networks
- regular - Use standard routing

Debit networks

The following table shows the debit network names used with preferred debit network and Receive debit network along with the supported transaction types.

Network	Recurring	eCommerce
Accel	✓	✓
AFFN	✓	✓
CU24	✓	✗
Jeanie	✓	✗
NYCE	✓	✓
Pulse	✓	✓
Shazam	✓	✓
Star SouthEast	✓	✓
Star West	✓	✓
Star NorthEast	✓	✓

Errors

All errors related to Prime Routing are reported under error code 10.

Error code	Description
10	Merchant is not enabled for prime routing
10	Invalid network Name: value supplied
10	Invalid routing Preference: value supplied
10	preferred Networks can have up to 12 networkName elements

4.2.25 Apple Pay

Example XML request

```
<paymentService merchantCode="SAPIENTNITROECOMMERCEV1"
version="1.4"> <submit>
  <order orderCode="ZZKV00000020044" shopperLanguageCode="en">
    <description>ApplePay Order : ZZKV00000020044</description>
    <amount currencyCode="USD" exponent="2" value="5983"/>
    <orderContent>ZZKV00000020044</orderContent> <paymentDetails>

    <APPLEPAY-SSL>
      <header>

<ephemeralPublicKey>MFkwEwYHKoZIzj0CAQYIKoZIzj0DAQcDQGAEEL8bGzUp//0YVwATWr8PrRbCVleUzV49r5ZltIM0d0
MTmaBNwCRnVXuUNAH7Y1hjX7QeS2BJSNi4aAMZ6DUfDcw==</ephemeralPublicKey>
      <publicKeyHash>Fan1MNQEytVzD0iDB6lKsaq6flNRACEwVdysCnLg02Y=</publicKeyHash>
      <transactionId>fd31f74576c5c31b82d0ca46d43c04663be8da02d59121f8b346a3b4d14fa8e8</transactionId>
    </header>

<signature>MIAGCSqGSIb3DQEHAqCAMIACAQExDzANBglghkgBZQMEAgEFADCABgkqhkiG9w0BBwEAAKCAMIID5jC
CA4ugAwIBAgIIaGD2mdnMpw8wCgYIKoZIzj0EAwIweJEUcWwGA1UEAwWIQXBwbGUgQXBwbGljYXRpb24gSW50ZWdy
YXRpb24gQ0EgLSBHMzEmMCQGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkF
wcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UE
AwwfZWNjLXNtcC1icm9rZXItc2lnb1VQZQtU0FOREJPWDEUMBIGA1UECwwLaU9TIFN5c3RlbXMxEzARBgNVBAoMCkF
wcGxIIEluYy4xCzAJBgNVBAYTAiVTMFkwEwYHKoZIzj0CAQYIKoZIzj0DAQcDQGAEgjD9q8Oc914gLFDZm0US5jfiqQHdb
LPgsc1LUmeY+M9OvegaJajChkwz3c6OKpbC9q+hkwNFxOh6RCbOIRsSlaoCAhEwggINMEUGCCsGAQUFBwEBBDkwNzA1
BggrBgEFBQcwAYYpaHR0cDovL29jc3AuYXBwbGUuY29tL29jc3AwNC1hcHBsZWFPY2EzMDIwHQYDVR0OBByEFAIkM
Aua7u1GMZekplopnkjXghxFMawGA1UdEwEB/wQCMAAwHwYDVR0jBBgwFoAUI/JJxE+T5O8n5sT2KGw/orv9LkswggEdBg
NVHSAEggEUMIIBEDCCAQwGCSqGSIb3Y2QFATCB/jCBwwYIKwYBBQUHAgIwgbYMGbNSZWxpYW5jZSBvbiB0aGlzIG
NlcnRpZmljYXRlIGJ5IGFueSBwYXJ0eSBhc3N1bWVzIGFjY2VwdGFuY2Ugb2YgdGhlIHROzW4gYXBwbGljYjYwZSBzdGFu
ZGFyZCB0ZXJtcyBhbmQgY29uZGl0aW9ucyBvZiB1c2UsIGNlcnRpZmljYXRlIHBBvbGljEjE2MDYwMzE4MjY0MFoXDTIxMDYw
MjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIxMDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2Vyd
GlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIEluYy4xCzAJBgNVBAYTAiVTMB4XDTE2MDYwMzE4MjY0MFoXDTIx
MDYwMjE4MjY0MFowYjEoMCYGA1UECwwdQXBwbGUgQ2VydGlmaWNhdGlvbiBBdXRob3JpdHkxExARBgNVBAoMCkFwcGxIIElu
Yy4xCzAJBgNVBAY
```

```

<data>IJxhMYnNof4pjVhgweXSuiflwyq9SR7QbrSRE1iHSax0mnSyRGI1/K7ZUAN0pZmGET8g+UGvg8kavbZw+aByOQ5/284jv
YoEj0E5hJy13+FyeNjKOC1wE5sWfTXtUdHse+sNrdCAcosrdupGQrV+aBDGCLAtcd2rqepbp98u8bZVKB2jJBwHgzbqWV1y
dGgaflevHEKwE7AU8IrjW8/PHvGtss9YscWV9am3HMOxgeB0EodyG7nj6l0b0Yt8P4eA2DIQnJMOZ6K2vQrOIk1HIUjEtLEbMq
YV7xCm/h9klD2d5/1sKR/Kkwq5z8GaN1EMYXbpvcVwni14pcJaiV0WRR4Zv86vR4tWsWSpHz5cIryd5/ZUHD6cwODkefSWY
Suzy+Fk6rIG0vpO054rxcqNqr5puLF88fyw3VAuCIEs=</data>
  </APPLEPAY-SSL>
</paymentDetails>
<shopper>
  <shopperEmailAddress>appuserapple12@gmail.com</shopperEmailAddress>
</shopper>
</order>
</submit>
</paymentService>

```

Example XML Response

```

<?xml version="1.0" encoding="UTF-8"?>
<paymentService version="1.4"
  merchantCode="SAPIENTNITROECOMMERCEV1"> <reply>
  <orderStatus orderCode="ZZKV00000020044">
    <payment>
      <paymentMethod>VISA_CREDIT-SSL</paymentMethod>
      <paymentMethodDetail>
        <card number="4761*****2123" type="creditcard">
          <expiryDate>
            <date month="12" year="2023" />
          </expiryDate>
        </card>
      </paymentMethodDetail>
      <amount value="5983" currencyCode="USD" exponent="2" debitCreditIndicator="credit" />
      <lastEvent>AUTHORISED</lastEvent>
      <AuthorisationId id="987292" />
      <CVCResultCode description="NOT SUPPLIED BY SHOPPER" />
      <AVSResultCode description="NOT SUPPLIED BY SHOPPER" />
      <AAVAddressResultCode description="UNKNOWN" />
      <AAVPostcodeResultCode description="UNKNOWN" />
      <AAVCardholderNameResultCode description="UNKNOWN" />
      <AAVTelephoneResultCode description="UNKNOWN" />
      <AAVEmailResultCode description="UNKNOWN" />
      <issuerCountryCode>GB</issuerCountryCode>
      <balance accountType="IN_PROCESS_AUTHORISED">
        <amount value="5983" currencyCode="USD" exponent="2" debitCreditIndicator="credit"
        /> </balance>
        <riskScore value="0" />
      </payment>
    </orderStatus>
  </reply>
</paymentService>

```

5. PRODUCTION SETUP

5.1 PRODUCTION SERVICE SETUP

Steps for setting up the production service in business manager

1. In business manager navigate to “Administration > Operations > Services”
2. Click on “Credentials” Tab
3. Create new credentials by providing the merchant code, production URL, username and password
4. Now, navigate to “Merchant Tools > Site Preferences > Custom Preferences”
5. Inside “Worldpay” group “Merchant Code for Worldpay” as created in step 3. Also modify the other desired preferences on need basis
 - a) Worldpay Client Side Encryption Public Key
 - b) Worldpay MAC Secret Code
 - c) Worldpay Merchant Number
 - d) Worldpay Installation Id
6. In case if for separate merchant to be used at APM level, then service detail modification to be done in “Merchant Tools > Ordering > Payment Methods”

6. OPERATIONS, MAINTENANCE

6.1 DATA STORAGE

6.1.1 Order Level Attributes

Some additional attributes are defined and stored in Order object. These are the custom attributes and will be sent as a part of Order XML, so that Order Management System can use the same for further processing.

Sr. No.	Additional Custom Fields	Attribute Id	Description
1	Refusal/Decline Code	declineCode	This field capture the value of declined code from Worldpay response.
2	Risk Score	riskScore	This field capture the string sends by for Risk management or Risk Guardian.
3	Authorization ID	authID	This field captures the value of Authorization ID for Authorized Request.

4	Masked Card Number	cardNumer	This field captures the masked card number from Worldpay response.
5	CVC Result Code	cvcResultCode	This field capture CVV status code from response
6	AVS Result Code	avsResultCode	This field capture AVS status code from response
7	Transaction Status	transactionStatus	This field maintains the history of Order status. This is Array, so whenever order status will be changed transaction status will be updated by order notification.
8	AAV Postcode Result Code	aaVPostcodeResultCode	This field will be populate from Authorization response of AMEX card
9	AAV Address Result Code	aaVAddressResultCode	This field will be populate from Authorization response of AMEX card
10	Issuer Response	issuerResponse	Response from Issuer After 3D verification
11	AAV Email Result Code	aaVEmailResultCode	Email Result Code
12	AAV Telephone Result Code	aaVTelephoneResultCode	Telephone Result Code
13	SEPA Mandate ID	mandateID	Mandate ID created for SEPA transaction
14	Worldpay Last Event	WorldpayLastEvent	Last Event occurred on order at Worldpay

15	Worldpay MAC Missing	worldpayMACMissingVal	True when Mac error received in redirect Credit Card or APM response URL
16	AAV Cardholder Name Result Code	aaVCardholderNameResultCode	Card Holder Name Result Code

6.1.2 Order Payment Instrument Attributes

Apart from capturing the Order Attributes, we also capture some Order Payment Instrument attributes. These are specific to the Payment Method and are captured in <payment> tag.

Sr. No.	Additional Custom Fields	Attribute Id
1	Bank	bank
2	Installments	installments Note: Please contact Worldpay for further information on the max number of installments.
3	CPF	cpf
4	BankCode	bankCode
5	Worldpay Merchant ID	Merchant Hex Code whose order is placed
6	Worldpay Token Requested	Token requested value where selected for cards

6.1.3 Order Notification Custom Object

The attributes for custom Object '**OrderNotifyUpdates**' are defined in the below table. A new custom Object is created each time a notification is received with all these attributes and the custom object will be retained until the time it is deleted by the Notification job.

Sr. No.	Additional Custom Fields	Attribute Id
1	Order No	orderNo
2	Xml String	xmlString
3	Custom Object ID	ID

4	Time Stamp	timeStamp
---	------------	-----------

6.2 AVAILABILITY

<EXPECTED AVAILABILITY / UPTIME OF ANY EXTERNAL SERVICE, INTERFACES>

<FALLBACK SOLUTION, BEHAVIOR IF EXTERNAL SERVICES ARE NOT AVAILABLE, IMPACT ON CUSTOMER STOREFRONT>

<ANY EXISTING UTILITIES THAT HELP TO DETECT AVAILABILITY/ UPTIME OF EXTERNAL SERVICE, E.G. WEBSERVICE CALL, GOMEZ PING>

<ESTIMATED PERFORMANCE METRICS FOR PEAK BUSINESS HOURS IF AVAILABLE>

<NOTIFICATION PROCESS IF EXTERNAL SERVICES, INTERFACES ARE NOT RESPONDING, E.G. HOTLINE / SUPPORT PHONE NUMBER>

6.3 SUPPORT

Worldpay to add content here

Name	Email	Support Type
Lochan Sim	Lochan.Sim@worldpay.com	Primary
Rhuta Patel	Rhuta.Patel@worldpay.com	Secondary
Jonathan Berry	jonathan.berry@worldpay.com	Secondary

7. USER GUIDE

7.1 ROLES, RESPONSIBILITIES

Typically, the backend developer does most of the integration works. We expect that the person doing this integration is familiar with the web service, xml processing and has hands on experience with the SFCC platform

7.2 BUSINESS MANAGER

NA [As changes required for storefront has been already covered under setup section]

7.3 STOREFRONT FUNCTIONALITY

NA [As changes required for storefront has been already covered under setup section]

1. KNOWN ISSUES

- Worldpay Notify URL and Worldpay notifyupdate URL are exposed as public; there is no security check available like MAC security check. As there is, no such data sent from Worldpay to validate. To provide some level of security we have applied IP level validated to the URL. Merchants must ensure that they have applied proper security on these URL's.

2. RELEASE HISTORY

Release Version	Date	Description
release-19.1.1	July 7,2020	Certified Release
release-19.1.0	Dec 11, 2019	Certified Release
19.2.0	August 31, 2019	<ul style="list-style-type: none">• Best Practices• Automation Test Suite• US Domestic Acquiring (Prime Routing)• Tokenization (My Account-Add Card/Delete Card)• Stored Credential Improved Flow• 3ds2• Security Fixes• CodeCept JS• Previous Releases Feedbacks
19.1.0	April 3, 2019	<ul style="list-style-type: none">• Google Pay• Stored Credentials• Release 18.3.0 Feedback
18.3.0	Feb 20, 2019	<ul style="list-style-type: none">• WeChat implementation• Alternative payment method• Merchant token• MOTO payment method
18.2.0	Jul 16, 2018	<ul style="list-style-type: none">• Complete SFRA implementation

WorldPay Integration

APPENDIX A: APM/Card mapping keys

Supported Cards Mapping table:

Card Name	Key Value	Test card number
Airplus	AIRPLUS-SSL	122000000000003
American Express	AMEX-SSL	34343434343434
Dankort	DANKORT-SSL	5019717010103742
Diners	DINERS-SSL	36700102000000
Discover card	DISCOVER-SSL	6011000400000000
JCB	JCB-SSL	3528000700000000
Laser	LASER-SSL	630495060000000000 630490017740292441
Maestro	MAESTRO-SSL	6759649826438453, 6799990100000000019
MasterCard	ECMC-SSL	5555555555554444, 5454545454545454
Visa	VISA-SSL	4444333322221111, 49118300000000

Supported Payment Method Mapping table:

Payment Method Name	Key Value
Konbini	KONBINI-SSL
Poli	POLI-SSL
Poli NZ	POLINZ-SSL
Przelewy24	PRZELEWY-SSL
SEPA-DD	ELV-SSL
Alipay	ALIPAY-SSL
Boleto	BOLETO-SSL
CashU	CASHU-SSL
Credit Card – Direct	CREDIT_CARD
Credit Card – Redirect	Worldpay
China Union Pay	CHINAUNIONPAY-SSL
ENETS	ENETS-SSL
Giropay	GIROPAY-SSL
IDEAL	IDEAL-SSL
Mistercash	MISTERCASH-SSL
Paypal	PAYPAL-EXPRESS
Sofort	SOFORT-SSL
QIWI	QIWI-SSL
Yandex	YANDEXMONEY-SSL

APPENDIX B: IDEAL Bank List

Bank Name	Bank Code
ABN	ABN_AMRO
ASN	ASN
ING	ING
Knab	KNAB
Rabobank	RABOBANK
SNS	SNS
SNS Regio	SNS_REGIO
Triodos	TRIODOS
Van Lanschot	VAN_LANSCHOT

APPENDIX C: Error Codes and Error Messages for Transaction Notification

Master Error Code	Error Message
111	XML Parse error has occurred
112	XML Corrupted, Could not find Order No.
113	XML in Custom Object Corrupted
114	Error occurred while deleting Custom Object
115	Error occurred while reading status history from Order Object
116	Error occurred while Updating Order Object
117	Error occurred while reading Custom Object
118	No Transaction History Available
119	Last status Not available as No Transaction History is Available
120	Wrong Order Number

APPENDIX D: Order Notification and SFCC Order status mapping

Order Notifications Received From Worldpay	Changes in Order object in Business Manager
AUTHORISED	Order Status: NEW Payment Status: no change Export Status: READY FOR EXPORT Confirmation Status : CONFIRMED
CANCELLED	Order Status: FAILED/CANCELLED Payment Status: NOT PAID Export Status: NOT EXPORTED Confirmation Status : NOT CONFIRMED
CAPTURED	Order Status: COMPLETED Payment Status: PAID Export Status: no change Confirmation Status : no change
SENT_FOR_REFUND	Order Status: no change Payment Status: no change Export Status: no change Confirmation Status : no change
REFUSED	Order Status: FAILED Payment Status: NOT PAID Export Status: NOT EXPORTED Confirmation Status : NOT CONFIRMED
SETTLED	Order Status: no change Payment Status: no change Export Status: no change Confirmation Status : no change
INFORMATION_REQUESTED	Order Status: no change Payment Status: no change Export Status: no change Confirmation Status : no change
CHARGED_BACK	Order Status: no change Payment Status: no change Export Status: no change Confirmation Status : no change
EXPIRED	Order Status: FAILED Payment Status: NOT PAID Export Status: NOT EXPORTED Confirmation Status : NOT CONFIRMED

APPENDIX E: Error Codes and Error Messages

Master Error Code	Error Message
worldpay.error.code1	Internal error has occurred, please choose a different Payment Method or try again later.
worldpay.error.code2	Parse error has occurred, please choose a different Payment Method or try again later.
worldpay.error.code3	Invalid amount error, please choose a different Payment Method or try again later.
worldpay.error.code4	Security error, please choose a different Payment Method or try Again later.
worldpay.error.code5	Invalid request, please choose a different Payment Method or try again later.
worldpay.error.code6	Please choose a different Payment Method or try again later.
worldpay.error.code7	Payment details in the order element are incorrect, please choose a different Payment Method or try again later.
worldpay.error.code8	Submission error , please choose a different Payment Method or Try again later.
worldpay.error.generalerror	Please choose a different Payment Method or try again later.
worldpay.error.cancelerror	Your transaction has been cancelled.

APPENDIX F: Enabling and disabling worldpay integration

1. Go to Merchant tools > Ordering > Payment Methods
2. Disable all the worldpay specific payment methods
3. Also cross check one by one for the type of processor, the payment method is using (To check it, click on any of the payment method let us say, CREDIT_CARD, and see the Payment Processor). If it is worldpay, change it to some other-desired processor (e.g. For CREDIT_CARD, BASIC_CREDIT).
4. Enable the payment methods we want to use with the type of processor.
5. To enable it again change the processor type to worldpay.
6. Go to Merchant Tools> Site Preferences > custom Preferences > worldpay and disable 'Enable Apm look up service'.

APPENDIX G: FAILURE & ERROR

Whenever we are receiving any error or failure that may be because of the service failure, or service down, or because of the request response errors, we are alerting errors in the front end with proper errors that will stop the transaction flow.

Scenario examples:

Service Response = null {Service does not exist}

Service Response = error {Service exists but the response contains error}

Service Response = error code {Service exists but the response contains

error} **what we are showing on frontend:**

worldpay.error.code0 = this payment service is temporarily unavailable, please choose a different Payment Method or contact shop administrator.

Whenever we are receiving errorcode0 from worldpay, we are mapping it with this message and showing in the front end. All the errors are configured in the properties file (worldpayerror.properties)