

Stripe Integration

Version 20.2.0



Stripe Integration

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1. Summary

The Stripe LINK Cartridge facilitates integration between a Commerce Cloud Storefront and Stripe Payment Services; including Stripe Elements, Sources, Webhooks, and Alternate Payment methods. Usage of Sources via Stripe.js, ability to create charges, and optional integration with Stripe's Relay service for embedded eCommerce solutions on social channels.

Contracting with Stripe is required for live, production deployment of the cartridge. Though the cartridge can be installed and tested using a freely available Stripe test account at <https://dashboard.stripe.com>. Please contact your Stripe Implementation Consultant for help with taking your Stripe account live.

The integration encompasses the deployment of several cartridges and modification of storefront code

2. Component Overview

Functional Overview

Stripe Elements and Sources

Stripe Elements modifies the default Commerce Cloud Credit Card collection and processing by using Stripe.js, a JavaScript library, to securely tokenize credit card data. Payments are then processed using the tokenized data, not the raw credit card information.

During checkout, the cartridge will create a source for any new cards or alternate payment methods entered by customers. This data is transformed into a Stripe Source. At the point of purchase, the stored, tokenized data is used to generate a Stripe Charge. Registered Customers can manage (add, delete) reusable payment methods in their storefront-connected Stripe Account for re-use in subsequent storefront purchases.

Use Cases

Stripe.js Sources

When customers enter credit card or other payment information on the storefront, the information is tokenized via Stripe.js in a client (browser)-to-Stripe interactions. Unmasked credit card data is therefore never sent to the Commerce Cloud servers.

Stripe Charges

System will create a Stripe Charge (authorize or capture, based on Business Manager configuration) from a successfully created and submitted Basket. All Stripe Charges are created against a Stripe payment Source.

AVS Auto-Fail Transactions

Site administrators can select a variety of AVS statuses for which an Order should be auto-failed. If the Stripe Charge returns any of the selected statuses for either `address_line1_check` or `address_zip_check` the Order will be auto-failed and the Stripe Charge reversed. Note that these settings can also be managed on the Stripe Dashboard.

Supported payment methods:

- *ACH Credit Transfer*
- *Alipay*
- *Apple Pay*
- *Bancontact*
- *Cards (Visa, Mastercard, American Express, Discover, Diners Club, JCB)*
- *EPS*
- *Giropay*
- *Google Pay*
- *iDeal*
- *Przelewy24*
- *SEPA Direct Debit*
- *Sofort*

Limitations, Constraints

Stripe offers a number of standard services that are not supported by the cartridge. These include support for Subscriptions, Plans, and Coupons.

The included RELAY OCAPI configurations are included as examples only. A RELAY implementation will require additional configuration and testing along with the Stripe team.

Compatibility

Available since Commerce Cloud Platform Release 16.8, Site Genesis 103.0.0

The cartridge is available for installations on storefronts that support both Controller and SFRA SiteGenesis implemenations.

Privacy, Payment

No unmasked credit card data is stored within Commerce Cloud. The cartridge tokenizes all payment data via direct client-to-Stripe communications and obscures any sensitive credit card data before it arrives on the Commerce Cloud servers. Similarly, all credit card data that is retrieved by Commerce Cloud from the Stripe servers is also masked and/or tokenized.

3. Implementation Guide

Setup of Business Manager

The Stripe LINK Cartridge contains several cartridges that are required for full functionality. Additionally, *Controller and SFRA support is broken out into two separate cartridges, thereby facilitating the installation and use of one or the other models.*

Import all three cartridges into UX studio and associate them with a Server Connection.

Site Cartridge Assignment

1. Navigate to Administration > Sites > Manage Sites
2. Click on the Site Name for the Storefront Site that will add Stripe Functionality
3. Select the "Settings" tab
4. *For Controllers "app_stripe_controllers:app_stripe_core:int_stripe_controllers:int_stripe_core" need to be added to the cartridge path*
5. Repeat steps 2 – 4 for each Storefront Site where Stripe will be implemented

Business Manager Cartridge Assignment

1. Navigate to Administration > Sites > Manage Sites - Click on the Business Manager Site > "Manage the Business Manager site." Link
2. Add "int_stripe" to the Cartridges: path

Metadata import

1. Navigate to Administration > Site Development > Site Import & Export
2. Zip the stripe_site_template folder and import it.
3. Navigate to Merchant Tools > Ordering > Import & Export and import stripe_payment_methods.xml
4. Repeat steps 3 for each Storefront Site where Stripe will be implemented

Add New Payment Processors

There are two payment processors used in the Stripe cartridge. "STRIPE_CREDIT" is used for credit card handling while "STRIPE" is used for the asynchronous payment model (Bank transfers, GiroPay, etc).

If using Stripe credit cards, Navigate to Merchant Tools > Ordering > Payment Processors and click the "New" button. In the new window set the ID attribute to value "STRIPE_CREDIT" and click "Apply".

If using APM methods, again, click the "New" button. In the new window set the ID attribute to value "STRIPE_APM" and click "Apply". This payment method is for the non-credit card (APM methods)

Update Payment Methods

Navigate to Merchant Tools > Ordering > Payment Methods, click on the CREDIT_CARD payment method and select the STRIPE_CREDIT payment processor in dropdown under the CREDIT_CARD Details section

If using APM payment methods and/or the Payment Request Button then enable the desired payment methods as well: The STRIPE_APM_METHODS will provide the ability to include all of the supported Stripe methods. See <https://stripe.com/payments/payment-methods-guide>

To utilize the Stripe Payment Request Button, enable the "STRIPE_PAYMENT_REQUEST_BTN" payment method. See <https://stripe.com/docs/stripe-js/elements/payment-request-button>

Configuration

Update the Merchant Tools > Site Preferences > Custom Site Preferences > Stripe Configurations with Site specific values.

1. Stripe Secret API Key a. Can be obtained through the Stripe Dashboard (<https://dashboard.stripe.com/account/apikeys>)
2. Stripe Publishable API Key a. Find along with Stripe Secret API Key
3. Is this SFRA installation. Set to yes if the current site is using the Storefront Reference Architecture (SFRA)
4. Capture Funds on Stripe Charge a. Default value: true (Yes) b. Set to false (No) to instead Authorize Stripe Charges
5. Stripe Card Element CSS Style a. Enter the CSS styling that the Card element button should inherit to fit within the overall storefront styles. Style Configuration for Stripe Elements e.g, `{"base": {"fontFamily": "Arial, sans-serif", "fontSize": "14px", "color": "#C1C7CD"}, "invalid": {"color": "red" } }`
6. Stripe API URL - <https://js.stripe.com/v3/>
7. Stripe Payment Request Button Style a. For the payment request button, select the limited CSS styling that the button should display with. See <https://stripe.com/docs/stripe-js/elements/payment-requestbutton#styling-the-element>
8. ApplePay Verification String i. Enter the Apple verification string provided from the Stripe dashboard. ii. This is a one time enablement. The Stripe console will proxy the Apple Pay for Web verification String upon setup. This will need to be configured into the sandbox if the Payment Request Button will be used as a form of payment on the storefront.
9. Country Code (Stripe Payment Request Button) - Country Code e.g, US. This will be the default country code for the Payment Request Button. Customization may be needed on a multi country single site in order to dynamically pass the country code rather than the site preference (if needed). <https://stripe.com/docs/stripe-js/elements/payment-requestbutton#create-payment-request-instance>
10. Stripe Webhook Signing Secret i. Enter the webhook signing secret provided by the stripe dashboard. Stripe will sign webhook calls and pass a validation to SFCC. SFCC will validate the contents of the message via this key.
11. Stripe allowed Webhook Statuses i. Configure the allowed statuses for Webhooks to respond to (this need not be changed unless additional customizations are being made).
12. Allowed APM Methods a. Update this field, per site locale, to indicate which alternate payment methods are enabled for each locale. Enumeration of allowed Payment Methods from the Stripe API. See more here: <https://stripe.com/docs/sources> { "default": ["p24",

```
"eps", "sepa_debit", "ideal", "sofort", "bitcoin", "alipay", "bancontact", "giropay" ], "en_UK": [
  "p24", "eps" ], "de_AT": [ "sofort", "ideal" ] }
```

Stripe Dashboard

In the Stripe Dashboard (<https://dashboard.stripe.com/test/webhooks>) enable webhooks, point it to `StripeWebHook` controller and subscribe to these events:

- review.opened
- review.closed
- charge.succeeded
- charge.failed
- source.canceled
- source.failed
- source.chargeable

Edit webhook endpoint TEST DATA

Endpoint URL

`https://stripe01-tech-prtnr-na05-dw.demandware.net/on/demandware.store/Sites-SiteG`

Events to send

Select events... Clear

charge.su		X
Charge	13 events	X
charge.succeeded		X
charge.failed		X
source.canceled		X

7 events

Cancel Edit endpoint

TEST DATA

<https://stripe01-tech-prtnr-na05-dw.demandware.net/on/demandware.store...>

Send test webhook...
Disable...
Delete...

Status

Mode

Enabled

Test

Webhook details

Update details...

URL

https://stripe01-tech-prtnr-na05-dw.demandware.net/on/demandware.store/Sites-SiteGenesis-Site/default/Stripe-WebHook

Event types

review.opened
review.closed
charge.succeeded
charge.failed
source.canceled
source.failed
source.chargeable

Signing secret

Learn more about webhook signing

Click to reveal

Roll secret...

Then copy the signing secret to the 'Stripe Webhook Signing Secret' preference.

Make sure that this value is set to your Stripe account country code:

Country Code (Stripe Payment Request Button)

GB

For ApplePay to work, the file RedirectURL.js must be changed with this code:

```

if (URLRedirectMgr.getRedirectOrigin() === '/.well-known/apple-developer-merchantid-domain-association') { // Intercept the incoming path request
    app.getView().render('stripe/util/apple');
    return;
}

```

```

26  /**
27   * Gets the redirect. Renders the template for a redirect (util/redirectpermanent template). If no redirect can be found,
28   * renders an error page (util/redirecterrorutil/redirecterror template).
29   */
30  function start() {
31
32      //Stripe change BEGIN
33      if (URLRedirectMgr.getRedirectOrigin() === '/.well-known/apple-developer-merchantid-domain-association') { // Intercept the incoming path request
34          app.getView().render('stripe/util/apple');
35          return;
36      }
37      //Stripe change END
38
39      var redirect = URLRedirectMgr.getRedirect(),
40          location = redirect ? redirect.getLocation() : null;
41
42      if (!location) {
43          response.setStatus(410);
44          app.getView().render('util/redirecterror');
45      } else {
46          app.getView({
47              location: location
48          }).render('util/redirectpermanent');
49      }
50  }

```

Then go to https://dashboard.stripe.com/account/apple_pay and click on 'Add new domain' button. Enter the domain and download the verification file:

1 Provide the domain where the file will be hosted

Input the top-level domain (e.g. stripe.com) or sub-domain (e.g. shop.stripe.com) that you wish to enable Apple Pay for.

2 ↓ Download verification file...

Copy the contents of the file to 'ApplePay Verification String' custom preference:



Then click on the 'Add' button:

3 Host the verification file

You'll need to host the verification file you downloaded above at your domain in the following location:

`https://example.com/.well-known/apple-developer-merchantid-domain-association`

CancelAdd

Custom Code

The base LINK Cartridge code contains support for all credit cards supported by Stripe. Note that the list of allowed cards on the storefront is still limited by the Credit/Debit Cards list in Business Manager (Merchant Tools > Ordering > Payment Methods > Credit/Debit Cards).

Make the following updates to the Storefront Code. Examples provided are based on SiteGenesis version (103.1.11). The initial integration effort should take from ½ to 2 days, based on a SiteGenesis installation. Below are the customizations made to SiteGenesis code.

Controllers

Controller: COBilling.js

app_storefront_controllers/cartridge/controllers/COBilling.js

Add the following if statement to function initCreditCardList()

```
//Stripe change BEGIN
var stripeHelper = require('int_stripe_core').getStripeHelper();
if (stripeHelper.isStripeEnabled()) {
    applicablePaymentMethods =
stripeHelper.getStripePaymentMethods(applicablePaymentMethods, request.locale);
}
//Stripe change END
```

```
133 function initCreditCardList(cart) {
134     var paymentAmount = cart.getNonGiftCertificateAmount();
135     var countryCode;
136     var applicablePaymentMethods;
137     var applicablePaymentCards;
138     var applicableCreditCards;
139
140     countryCode = Countries.getCurrent({
141         CurrentRequest: {
142             locale: request.locale
143         }
144     }).countryCode;
145
146     applicablePaymentMethods = PaymentMgr.getApplicablePaymentMethods(customer, countryCode, paymentAmount.value);
147     applicablePaymentCards = PaymentMgr.getPaymentMethod(PaymentInstrument.METHOD_CREDIT_CARD).getApplicablePaymentCards(customer, countryCode, paymentAmount.value);
148
149     //Stripe change BEGIN
150     var stripeHelper = require('int_stripe_core').getStripeHelper();
151     if (stripeHelper.isStripeEnabled()) {
152         applicablePaymentMethods = stripeHelper.getStripePaymentMethods(applicablePaymentMethods, request.locale);
153     }
154     //Stripe change END
155
156     app.getForm('billing').object.paymentMethods.creditCard.type.setOptions(applicablePaymentCards.iterator());
157
158     applicableCreditCards = null;
159
160     if (customer.authenticated) {
161         var profile = app.getModel('Profile').get();
162         if (profile) {
163             applicableCreditCards = profile.validateWalletPaymentInstruments(countryCode, paymentAmount.getValue()).ValidPaymentInstruments;
164         }
165     }
166
167     return {
168         ApplicablePaymentMethods: applicablePaymentMethods,
169         ApplicableCreditCards: applicableCreditCards
170     };
171 }
```

Update billing() / save() function as below:

```
Transaction.wrap(function() {
    var cart = app.getModel('Cart').get();

    if (!resetPaymentForms() || !validateBilling() || !handleBillingAddress(cart)
    || // Performs validation steps, based upon the entered billing address
    // and address options.
    handlePaymentSelection(cart).error) { // Performs payment method specific
    checks, such as credit card verification.
        returnToForm(cart);
    } else {
        if (customer.authenticated &&
        app.getForm('billing').object.billingAddress.addToAddressBook.value) {

            app.getModel('Profile').get(customer.profile).addAddressToAddressBook(cart.getB
            illingAddress());
        }
    }
}
```

```

    }

    // Mark step as fulfilled
    app.getForm('billing').object.fulfilled.value = true;

    // A successful billing page will jump to the next checkout step.
    //Stripe changes BEGIN
    if (request.httpParameterMap.isParametersSubmitted('stripe_redirect_url') &&
!empty(request.httpParameterMap.stripe_redirect_url.stringValue)) {

response.redirect(request.httpParameterMap.stripe_redirect_url.stringValue);
    } else {
        require('./COsummary').Start();
    }
    //Stripe changes END
    return;
}
});

```

```

542     save: function () {
543         Transaction.wrap(function () {
544             var cart = app.getModel('Cart').get();
545
546             if (!resetPaymentForms() || !validateBilling() || !handleBillingAddress(cart) || // Performs validation steps, based upon the entered billing address
547 // and address options.
548             handlePaymentSelection(cart).error) { // Performs payment method specific checks, such as credit card verification.
549                 returnToForm(cart);
550             } else {
551
552                 if (customer.authenticated && app.getForm('billing').object.billingAddress.addToAddressBook.value) {
553                     app.getModel('Profile').get(customer.profile).addAddressToAddressBook(cart.getBillingAddress());
554                 }
555
556                 // Mark step as fulfilled
557                 app.getForm('billing').object.fulfilled.value = true;
558
559                 // A successful billing page will jump to the next checkout step.
560                 //Stripe changes BEGIN
561                 if (request.httpParameterMap.isParametersSubmitted('stripe_redirect_url') && !empty(request.httpParameterMap.stripe_redirect_url.stringValue)) {
562                     response.redirect(request.httpParameterMap.stripe_redirect_url.stringValue);
563                 } else {
564                     require('./COsummary').Start();
565                 }
566                 //Stripe changes END
567                 return;
568             }
569         });
570     },

```

Controller: COPlaceOrder.js

app_storefront_controllers/cartridge/controllers/COPlaceOrder.js

- Update start() function as below right after this line “var saveCCResult = COBilling.SaveCreditCard();” until the closing parenthesis.

```

125     // Recalculate the payments. If there is only gift certificates, make sure it covers the order total, if not
126     // back to billing page.
127     Transaction.wrap(function () {
128         if (!cart.calculatePaymentTransactionTotal()) {
129             COBilling.Start();
130             return {};
131         }
132     });
133
134     // Handle used addresses and credit cards.
135     var saveCCResult = COBilling.SaveCreditCard();
136
137     if (!saveCCResult) {
138         return {
139             error: true,
140             PlaceOrderError: new Status(Status.ERROR, 'confirm.error.technical')
141         };
142     }
143
144     // Creates a new order. This will internally ReserveInventoryForOrder and will create a new Order with status
145     // 'Created'.
146     // Stripe changes BEGIN
147     const stripeCheckoutHelper = require('int_stripe_core').getCheckoutHelper();
148     var order = stripeCheckoutHelper.createOrder(cart.object);
149     // Stripe changes END

```

Later down the method after the “else if” block for missing payment info is closed add the following code:

```
var isAPMOrder = stripeCheckoutHelper.isAPMOrder(order);
if (!isAPMOrder) {

    var stripePaymentInstrument =
stripeCheckoutHelper.getStripePaymentInstrument(order);

    if (stripePaymentInstrument &&
order.custom.stripeIsPaymentIntentInReview) {
        return {
            Order: order,
            order_created: true
        };
    } else {
        var orderPlacementStatus = order.submit(order);
        if (!orderPlacementStatus.error) {
            clearForms();
        } else {
            stripeCheckoutHelper.refundCharge(order);
        }
        return orderPlacementStatus;
    }
} else {
    const Email = app.getModel('Email');
    const Resource = require('dw/web/Resource');
    Email.sendMail({
        template: 'stripe/mail/orderreceived',
        recipient: order.getCustomerEmail(),
        subject: Resource.msg('order.ordercreceived-email.001', 'stripe',
null),
        context: {
            Order: order
        }
    });

    return {
        Order: order,
        order_created: true
    };
}
```

```

171         return {
172             error: true,
173             PlaceOrderError: new Status(Status.ERROR, 'confirm.error.technical')
174         };
175     });
176 }
177
178 // Stripe changes BEGIN
179 var isAPMOrder = stripeCheckoutHelper.isAPMOrder(order);
180 if (!isAPMOrder) {
181     var stripePaymentInstrument = stripeCheckoutHelper.getStripePaymentInstrument(order);
182
183     if (stripePaymentInstrument && order.custom.stripeIsPaymentIntentInReview) {
184         return {
185             Order: order,
186             order_created: true
187         };
188     } else {
189         var orderPlacementStatus = Order.submit(order);
190         if (!orderPlacementStatus.error) {
191             clearForms();
192         } else {
193             stripeCheckoutHelper.refundCharge(order);
194         }
195         return orderPlacementStatus;
196     }
197 } else {
198     const Email = app.getModel('Email');
199     const Resource = require('dw/web/Resource');
200     Email.sendMail({
201         template: 'stripe/mail/orderreceived',
202         recipient: order.getCustomerEmail(),
203         subject: Resource.msg('order.ordercreceived-email.001', 'stripe', null),
204         context: {
205             Order: order
206         }
207     });
208 }
209
210 return {
211     Order: order,
212     order_created: true
213 };
214 }
215 // Stripe changes END
216 }

```

Controller: COShipping.js

app_storefront_controllers/cartridge/controllers/COShipping.js

In the function start() after if (cart.getProductLineItems().size() === 0) {

Add this code:

```
require('./COBilling').Start();
```

```

92 session.forms.singleshipping.shippingAddress.shippingMethodID.value = cart.getDefaultShipment().getShippingMethodID();
93
94 // Prepares shipments.
95 homeDeliveries = prepareShipments();
96
97 Transaction.wrap(function () {
98     cart.calculate();
99 });
100
101 // Go to billing step, if we have no product line items, but only gift certificates in the basket, shipping is not required.
102 if (cart.getProductLineItems().size() === 0) {
103     //Stripe changes BEGIN
104     require('./COBilling').Start();
105     //Stripe changes END
106 } else {
107     pageMeta = require('*/cartridge/scripts/meta');
108     pageMeta.update({
109         pageTitle: Resource.msg('singleshipping.meta.pagetitle', 'checkout', 'SiteGenesis Checkout')
110     });
111     app.getView({
112         ContinueURL: URLUtils.https('COShipping-SingleShipping'),
113         Basket: cart.object,
114         HomeDeliveries: homeDeliveries
115     }).render('checkout/shipping/singleshipping');
116 }
117 }

```

In the function singleShipping() after the line session.forms.singleshipping.fulfilled.value = true;

Add this code:

```
require('./COBilling').Start();
```

```

function singleShipping() {
    var singleShippingForm = app.getForm('singleshipping');
    singleShippingForm.handleAction({
        save: function () {
            var cart = app.getModel('Cart').get();
            if (!cart) {
                // @FIXME redirect
                app.getController('Cart').Show();
                return;
            }

            handleShippingSettings(cart);

            // Attempts to save the used shipping address in the customer address book.
            if (customer.authenticated && session.forms.singleshipping.shippingAddress.addToAddressBook.value) {
                app.getModel('Profile').get(customer.profile).addAddressToAddressBook(cart.getDefaultShipment().getShippingAddress());
            }

            // Binds the store message from the user to the shipment.
            if (Site.getCurrent().getCustomPreferenceValue('enableStorePickUp')) {
                if (!app.getForm(session.forms.singleshipping.inStoreShipments.shipments).copyTo(cart.getShipments())) {
                    require('./Cart').Show();
                    return;
                }
            }

            // Mark step as fulfilled.
            session.forms.singleshipping.fulfilled.value = true;
            // @FIXME redirect
            //Stripe changes BEGIN
            require('./COBilling').Start();
            //Stripe changes END
        },
    });
}

```

Controller: PaymentInstruments.js

app_storefront_controllers/cartridge/controllers/PaymentInstruments.js

Update the list() function as below:

```

var stripeHelper = require('int_stripe_core').getStripeHelper();
var paymentInstruments;

if (stripeHelper.isStripeEnabled()) {
    var wallet = stripeHelper.getStripeWallet(customer);
    var paymentInstruments = wallet.getPaymentInstruments();
} else {
    var wallet = customer.getProfile().getWallet();
    var paymentInstruments =
wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD_CREDIT_CARD);
}

```

Which should look like this:

```

23  /**
24   * Displays a list of customer payment instruments.
25   *
26   * Gets customer payment instrument information. Clears the paymentinstruments form and adds the customer
27   * payment information to it. Updates the page metadata.
28   * Renders a list of the saved credit card payment instruments of the current
29   * customer (account/payment/paymentinstrumentlist template).
30   */
31  function list() {
32      //Stripe changes BEGIN
33      var stripeHelper = require('int_stripe_core').getStripeHelper();
34      var paymentInstruments;
35
36      if (stripeHelper.isStripeEnabled()) {
37          var wallet = stripeHelper.getStripeWallet(customer);
38          var paymentInstruments = wallet.getPaymentInstruments();
39      } else {
40          var wallet = customer.getProfile().getWallet();
41          var paymentInstruments = wallet.getPaymentInstruments(dw.order.PaymentInstrument.METHOD_CREDIT_CARD);
42      }
43      //Stripe changes END
44      var pageMeta = require('*/cartridge/scripts/meta');
45      var paymentForm = app.getForm('paymentinstruments');
46
47      paymentForm.clear();
48      paymentForm.get('creditcards.storedcards').copyFrom(paymentInstruments);
49
50      pageMeta.update(dw.content.ContentMgr.getContent('myaccount-paymentsettings'));
51
52      app.getView({
53          PaymentInstruments: paymentInstruments
54      }).render('account/payment/paymentinstrumentlist');
55  }

```

Controller: RedirectURL.js

app_storefront_controllers/cartridge/controllers/RedirectURL.js

In the function start add the following code:

```

    if (URLRedirectMgr.getRedirectOrigin() === '/.well-known/apple-developer-
merchantid-domain-association') { // Intercept the incoming path request
        app.getView().render('stripe/util/apple');
        return;
    }

```

```

26  /**
27   * Gets the redirect. Renders the template for a redirect (util/redirectpermanent template). If no redirect can be found,
28   * renders an error page (util/redirecterrorutil/redirecterror template).
29   */
30  function start() {
31
32      //Stripe change BEGIN
33      if (URLRedirectMgr.getRedirectOrigin() === '/.well-known/apple-developer-merchantid-domain-association') { // Intercept the incoming path request
34          app.getView().render('stripe/util/apple');
35          return;
36      }
37      //Stripe change END
38
39      var redirect = URLRedirectMgr.getRedirect(),
40          location = redirect ? redirect.getLocation() : null;
41
42      if (!location) {
43          response.setStatus(410);
44          app.getView().render('util/redirecterror');
45      } else {
46          app.getView({
47              Location: location
48          }).render('util/redirectpermanent');
49      }
50  }

```

External Interfaces

Stripe functionality relies heavily on external calls to the Stripe services. All external interfaces use the Service Framework to communicate with the Stripe API.

Stripe accounts are free to create and use. Most communications with Stripe services are logged and easily accessible in the Stripe Dashboard (<http://dashboard.stripe.com>). It is highly encouraged to use the Stripe Dashboard to monitor and test your integration.

The main configuration for integration of the Stripe services can be found under **Administration > Operations > Services**

There is a different service for each external call

```

stripe.http.addCard
stripe.http.authorizePayment
stripe.http.createCharge
stripe.http.createCustomer
stripe.http.deleteCard
stripe.http.fetchCustomerCards
stripe.http.fetchCustomerSources
stripe.http.refundCharge
stripe.http.retrieveCustomer
stripe.http.service
stripe.http.updateCard

```

All of these services use the same profile and the same credentials. The only thing that may be different is whether or not the communication log is enabled and the log name prefix. Here is the configuration of some of the services:

stripe.http.addCard[?]

Fields with a red asterisk (*) are mandatory. Click Apply to save the details. Click Reset to revert to the last saved state.

Name:*	<input type="text" value="stripe.http.addCard"/>
Type:	<input type="text" value="HTTP"/>
Enabled:	<input checked="" type="checkbox"/>
Service Mode:	<input type="text" value="Live"/>
Log Name Prefix:	<input type="text" value="Stripe"/>
Communication Log Enabled:	<input checked="" type="checkbox"/>
Force PRD Behavior in Non-PRD Environments:	<input type="checkbox"/>
Profile:	<input type="text" value="StripeProfile"/>
Credentials:	<input type="text" value="StripeCredentials"/>

stripe.http.authorizePayment[?]

Fields with a red asterisk (*) are mandatory. Click Apply to save the details. Click Reset to revert to the last saved state.

Name:*	<input type="text" value="stripe.http.authorizePayment"/>
Type:	<input type="text" value="HTTP"/>
Enabled:	<input checked="" type="checkbox"/>
Service Mode:	<input type="text" value="Live"/>
Log Name Prefix:	<input type="text" value="Stripe"/>
Communication Log Enabled:	<input checked="" type="checkbox"/>
Force PRD Behavior in Non-PRD Environments:	<input type="checkbox"/>
Profile:	<input type="text" value="StripeProfile"/>
Credentials:	<input type="text" value="StripeCredentials"/>

Fields with a red asterisk (*) are mandatory. Click Apply to save the details. Click Reset to revert to the last saved state.

Name:*	<input type="text" value="stripe.http.createCharge"/>
Type:	<input type="text" value="HTTP"/>
Enabled:	<input checked="" type="checkbox"/>
Service Mode:	<input type="text" value="Live"/>
Log Name Prefix:	<input type="text"/>
Communication Log Enabled:	<input type="checkbox"/>
Force PRD Behavior in Non-PRD Environments:	<input checked="" type="checkbox"/>
Profile:	<input type="text" value="StripeProfile"/>
Credentials:	<input type="text" value="StripeCredentials"/>

Firewall Requirements

No requirements

4. Testing

Once the cartridge is installed and integrated based on instructions, please try to place an order on your sandbox to test the storefront functionality.

Stripe test values can be found in the Stripe documentation (<https://stripe.com/docs/testing>). This includes a number of test Credit Cards for use in testing a wide variety of scenarios. However, the test Credit Cards only work while using your test secret and publishable API keys. Further, you cannot use real Credit Card numbers with your test API keys.

Monitoring and testing the integration against the Stripe Dashboard is highly encouraged. Aside from what Credit Card numbers can be used, Stripe functions largely the same with both test and live transactions. Once you've satisfactorily completed and tested your integration, merely change your two Stripe API keys to take your integration live.

Checkout

Step 1: Add Product into cart.

Step 2: View the cart page or expand the mini cart.

Step 3: Click on "Checkout" button.

Step 4: Checkout as Guest or login to your account.

Step 5: Fill shipping address or select shipping address from saved address and select shipping method.

Step 6: Click on "Continue to billing" button.

Step 7: Fill billing address or select billing address from saved address, fill email, phone Number and select payment method as "Credit card" and enter test data from <https://stripe.com/docs/testing> or just use the card number 4242424242424242 and any CVV and expiration.

SELECT PAYMENT METHOD • REQUIRED

☒ Credit Card

☐ iDEAL

☐ Sofort

☐ SEPA Direct Debit

☐ Alipay

☐ Bancontact

☐ EPS

☐ ACH Credit Transfer

☐ Giropay

☐ Multibanco

☐ Przelewy24

☐ WeChat Pay

Name on Card

Jotaro Kujo

VISA

4242 4242 4242 4242

12 / 2011112345


CONTINUE TO PLACE ORDER >

Step 8: Click on "Place order" button.

Step 9: You should see the confirmation page

Thank you for your order.

If you have questions about your order, we're happy to take your call (888-555-XXXX) Monday - Friday, 8AM - 8PM

 **Order Number: 00061105**

Order Placed: Jan 28, 2020

PAYMENT METHOD
Credit Card
Jotaro Kujo
Visa
*****4242
Amount: \$75.58

BILLING ADDRESS
jotaro@gmail.com Kujo
Shakedown Road 2
Alaska, AL 12345
United States
Phone: 333-333-3333

SHIPMENT NO. 1

SHIPPING STATUS:
Not Shipped
METHOD:
Ground

ITEM
Sleeveless Cow! Neck Top
ITEM NO.: 701643571291
COLOR White Multi
SIZE XL

SHIPPING TO
jotaro@gmail.com Kujo
Address one line 1
Alaska, AL 12345
United States
333-333-3333

QTY	PRICE
1	\$65.99

PAYMENT TOTAL

Subtotal	\$65.99
Shipping Ground	\$5.99
Sales Tax	\$3.60
Order Total:	\$75.58

Checkout using the Payment Request Button

Step 0: Make sure you have at least one saved address and one credit card in your browser (Chrome) and that the STRIPE_PAYMENT_REQUEST_BTN payment method is enabled in BM (Merchant Tools > Ordering > Payment Methods)

Step 1: Add Product into cart.

Step 2: View the cart page or expand mini cart.

Step 3: Click on "Checkout" button.

Step 4: Checkout as Guest or login to your account.

Step 5: Fill shipping address or select shipping address from saved address and select shipping method.

Step 6: Click on "Next: Payment" button.

Step 7: Click on "Pay now >" button

SELECT PAYMENT METHOD • REQUIRED

Pay now ➤

☒ Credit Card

☐ iDEAL

☐ Sofort

☐ SEPA Direct Debit

☐ Alipay

☐ Bancontact

☐ EPS

☐ ACH Credit Transfer

☐ Giropay

☐ Multibanco

☐ Przelewy24

☐ WeChat Pay

Name on Card

Card number

MM / YY CVC

CONTINUE TO PLACE ORDER >

Step 8: A similar dialog should appear fill in the payment information and click the "Pay" button.

Review your payment

Order summary

Order Total

USD


\$93.43

▶

Payment

Visa ••••4242

test test



▶

Contact info


Jotaro

6666666

jotaro@gmail.com

▶

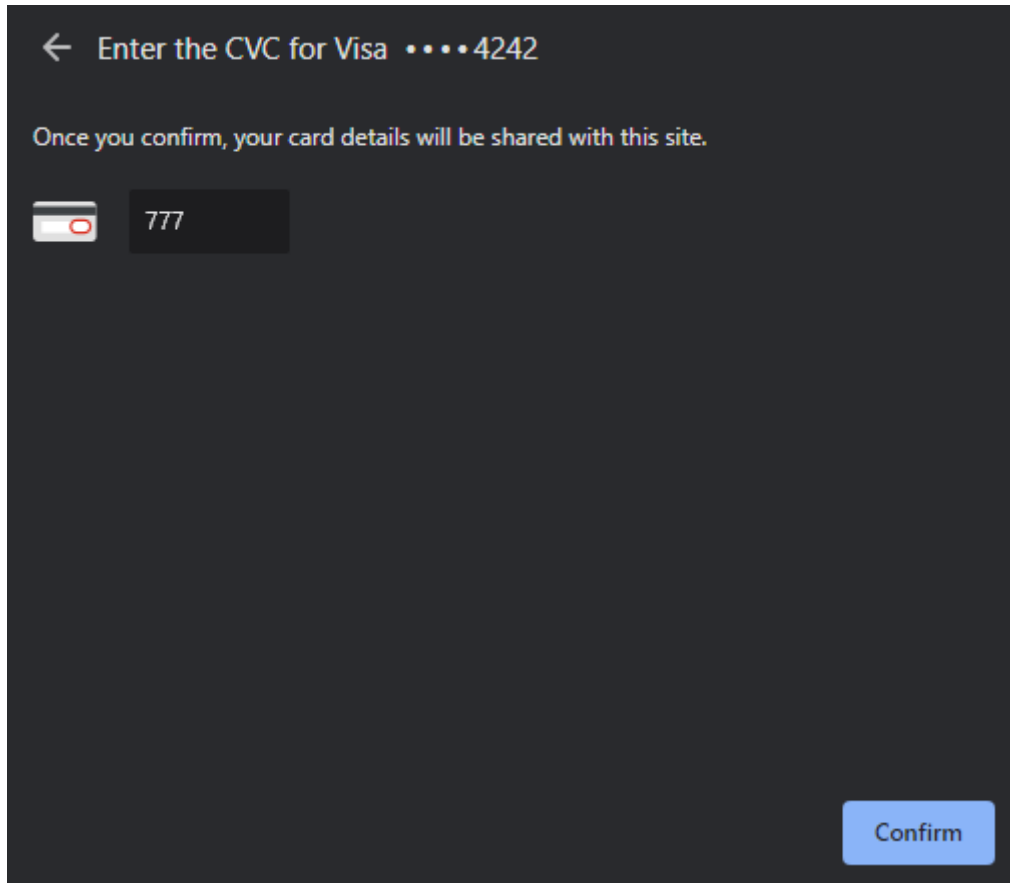
You can manage cards and addresses in [Settings](#).

 chrome

Pay

Cancel

Step 9: Enter any CVC code and click confirm



The screenshot shows a dark-themed payment interface. At the top, there is a back arrow and the text "Enter the CVC for Visa" followed by four dots and the number "4242". Below this, a message states: "Once you confirm, your card details will be shared with this site." Underneath the message is a card icon on the left and a dark rectangular box containing the number "777" on the right. In the bottom right corner, there is a blue button with the text "Confirm".

Step 10: After clicking confirm you should be redirected to the last page of the checkout. Click the "Place Order" and you should see the confirmation page

Step 11: The confirmation page should be visible

Thank you for your order.

If you have questions about your order, we're happy to take your call (888-555-XXXX) Monday - Friday, 8AM - 8PM

 Order Number: **00061107**

Order Placed: Jan 28, 2020

PAYMENT METHOD

Credit Card
test test
Visa
*****4242
Amount: \$75.58

BILLING ADDRESS

jotaro@gmail.com jotaro@gmail.com
Shaketown Road
Morioh, AL 12345
United States
Phone: 3333333333

SHIPMENT NO. 1

SHIPPING STATUS:

Not Shipped

METHOD:

Ground

ITEM

Sleeveless Cowl Neck Top

ITEM NO.: 701643571291

COLOR White Multi

SIZE XL

5. Operations, Maintenance

Data Storage

The Stripe LINK cartridge extends Commerce Cloud to store several data points.

Customer Profile: Stripe Customer ID, used to retrieve information about the customer's record in your Stripe account.

1. stripeCustomerID(string) - Store Stripe customer ID

Order/Basket Custom attributes

1. stripePaymentIntentID(String) - Store payment intent ID.
2. stripeIsPaymentIntentInReview(Boolean) - Store payment intent in review

Payment Transaction custom attributes

1. stripeChargeId(string) - Store charge id
2. stripeChargeOutcomeData(text) - Store charge outcome data
3. stripeClientSecret(string) - Store client secret
4. stripeJsonData(text) - Store webhook JSON data
5. stripeOrderNumber(number) - Store order number
6. stripeSourceCanCharge(boolean) - Store if Stripe source can be charged
7. stripeSourceId(string) - Store Stripe source ID

Payment Transaction custom attributes

1. stripeChargeId(string) - Store charge ID
2. stripeCardId(string) - Store card ID
3. stripeCustomerId(string) - Store customer ID
4. stripeDefaultCard(boolean) - Store Stripe default card
5. stripeClientSecret(string) - Store client secret
6. stripePRUsed(boolean) - Store payment request button used
7. stripeSavePaymentInstrument(boolean) - Store save payment instrument
8. stripeSourceId(string) - Store Stripe source ID

Custom Objects

In Business Manager, navigate to the Merchant Tools > Custom Objects > Custom Objects. Below custom object is there.

1. StripeWebhookNotifications

Custom Site Preferences: noted in detail above (section **Configuration**).

Availability

Please refer to the Stripe Service Level Agreement <https://stripe.com/legal> to determine specific up-times for the service. In case the service fails, there is no fail-over to allow transactions to proceed. Users will instead be provided with friendly error messaging

Failover/Recovery Process

If the Stripe service is unavailable the user will not be able to checkout.

The service availability can be tracked in SFCC using the Service Status.

Support

For defects or recommendations on improvements, please contact Stripe Support (<https://support.stripe.com>).

6. User Guide

Roles, Responsibilities

There are no recurring tasks required by the merchant. Once configurations and job schedules are set up, the functionality runs on demand.

Business Manager

Business Manager settings and configuration notes are described in detail in the Configurations section.

There are 2 jobs coming with the cartridge:

- Stripe - Delete Custom Objects
- Stripe - Process Webhook Notifications

Enable the job “Stripe - Process Webhook Notifications” for the desired site:

Site Assignments

☐

ID

Name

Status

☒

RefArch

RefArch

online

☒

RefArchGlobal

RefArchGlobal

online

☒

SiteGenesis

SiteGenesis

online

☒

SiteGenesisGlobal

SiteGenesisGlobal

online

☐

sitegenesisrefresh

SiteGenesisRefresh

online

☐

teststore

Test Store

online

Cancel

Assign

Stripe - Process Webhook Notifications ?

[General](#)

[Schedule and History](#)

[Resources](#)

[Job Steps](#)

[Failure](#)

[Job Parameters](#) 0

Scope: 4 Sites Assigned

[Process Webhook Notifications](#)

Storefront Functionality


Credit Card Tokenization

Stripe.js credit card tokenization requires the inclusion of JavaScript on the payment forms, both during Checkout > Billing as well as My Account > Saved Payment Instruments. Additionally, the credit card 'type' form fields are automatically detected and updated rather than requiring user selection.

Saved Credit Cards

When an authenticated customer selects a saved credit card on the Checkout > Billing page, they will see a list of their Stripe-saved payment Sources as radio buttons rather than the default SiteGenesis select options.

SELECT PAYMENT METHOD • REQUIRED

Pay now 

☒ Credit Card

☐ iDEAL

☐ Sofort

☐ SEPA Direct Debit

☐ Alipay

☐ Bancontact

☐ EPS

☐ ACH Credit Transfer

☐ Giropay

☐ Multibanco

☐ Przelewy24

☐ WeChat Pay

Saved cards:

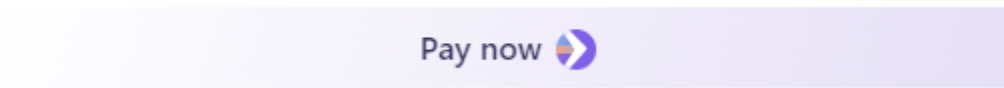
☒ *****4242 - 12/2020 - Jotaro

Add a new card

CONTINUE TO PLACE ORDER >

Payment request button

When a customer has a saved address and credit card information in their browser they see the payment request button (Pay Now). The Payment Request Button Element gives you a single integration for Apple Pay, Google Pay, Microsoft Pay, and the browser standard Payment Request API.



Customers see the button above or an Apple Pay button, depending on what their device and browser combination supports. If neither option is available, they don't see the button. Supporting Apple Pay requires [additional steps](#), but compatible devices automatically support browser-saved cards, Google Pay, and Microsoft Pay.

7. Known Issues

The LINK Cartridge has no known issues.

8. Release History

Version	Date	Changes
20.2.0	2019-02-01	Update documentation to match the new Salesforce template
18.1.0	2019-04-15	Update to use Stripe elements, sources, payment request button, webhooks and asynchronous payments
16.1.0	2019-07-30	Initial release