# Paidy payment processing SFRA

Version<22.1.1>



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## 1. Summary

This implementation guide supports Store Front Reference Architecture (SFRA 6.1.0). Compatibility Mode up to 22.7 is supported.

Cartridges allow a Commerce Cloud store to make use of Paidy payments.

The developer must follow this text to install the cartridges and set them up on the online sto re.

Because Paidy allows for creating test payments by making use of a test API key, the user can t est the settings before switching over to a live environment. For details on data needed for te sting, see 4-1. Before beginning a test.

A cartridges must be implemented in order to begin using Paidy payments.

• "int\_paidy\_sfra" is the core cartridge that enables use of Paidy payments on the store. \*Other cartridges are used on SiteGenesis based cartridges.

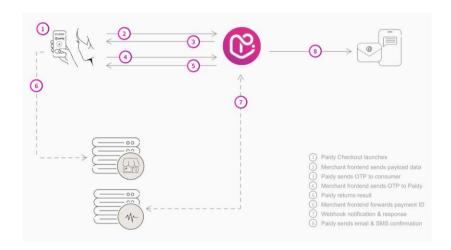
## 2. Component summary

### 2-1. Features overview

The process flow for Paidy is explained in the diagram below.

Paidy cartridges correspond to point 1-6 in this workflow.

In step 1-6, the results of authentication with Paidy are saved on the site.



## 2-2. Restrictions and limitations

- Only a "creation" process is in place for payment. Capture, Refund, Update, and Close must be implemented by the merchant.
- For first-time subscription payments, Commerce Cloud runs a creation process.

  Subsequent payments must be configured at the merchant, but the payment process can be implemented by executing the functions found in the Paidy cartridge.
- Subscription payments are designed to only work when the user is logged in.
- Confirm notifications from the Webhook on OMS; if the payment process results are incorrect, you can choose to set the order status to shippable in SFCC, or cancel the payment on Paidy. For details, please see <u>5</u>. Webhook usage examples.
- This cartridge can only be used on Japanese language sites. (language: Japanese; currency: JP Y)

### 2-3. Use cases

## 2-3-1. Standard payments

Paidy Checkout launches when a user clicks a payment purchase button on a site.

Consumers enter the requisite information and make a Paidy payment.

If the payment is successful, the process transitions to the product purchase confirmation screen.

#### - Payment flow

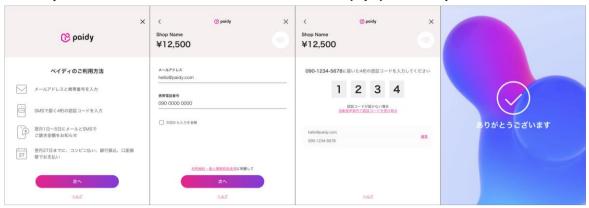
Select Paidy standard payments when selecting a payment method when checking out and proceed to confirming the order.



The Paidy Checkout popup appears.



The requisite information is filled in and Paidy payment is processed.



If the payment succeeds, the order is complete.



Order data created on Commerce Cloud



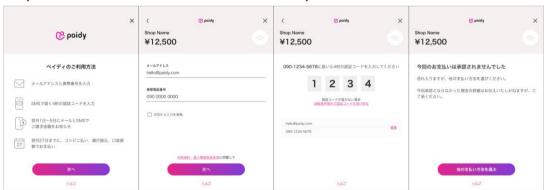


Payment data created on Paidy



If the payment fails, Paidy Checkout displays a payment error message and order failure data is created on Commerce Cloud.

Payment data will not be created on Paidy.



\*Note that if the top-right X button is clicked on the popup, order failure data is created. Payment data will not be created on Paidy.

Order data created on Commerce Cloud (order failure)



## 2-3-2. Subscription payments

Only usable by logged in users.

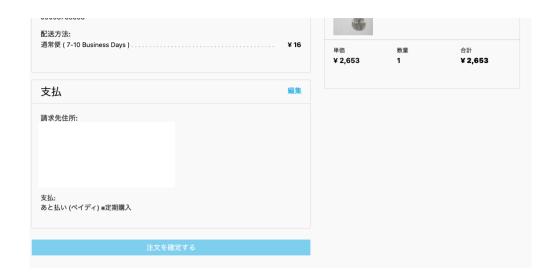
When clicking on the order confirmation button, Paidy Checkout launches. Consumers enter the requisite information and authenticate with Paidy. If the authentication completes correctly, a token is issued and is assigned to the order.

#### - Payment flow

Select Paidy subscription payments when selecting a payment method when checking out and proceed to confirming the order.



An order confirmation screen is displayed and the order is confirmed.



The Paidy Checkout popup appears.



Enter the requisite information on Paidy Checkout and a token is issued.

\*If the popup is closed during the process by the user clicking the X button on the top right, the popup will no longer display, but a token can be reissued and the payment processed.



After issuing a token, the process moves to payment processing. If the payment succeeds, we transition to the order confirmation screen.



Order data created on Commerce Cloud

全般 属性 支払 メモ 履歴



Payment data created on Paidy



If payment fails, a payment error will be displayed on the order confirmation page and order failure data is created on Commerce Cloud.

Payment data will not be created on Paidy.



Order data created on Commerce Cloud (order failure)



## 2-4. Privacy when paying

Paidy payment authentication requires entering a telephone number and e-mail address, but the se are not saved on Commerce Cloud.

However, information entered upon registration and shipment and billing details are saved on C ommerce Cloud.

## 3. Implementation guide

## 3-1. Uploading cartridges (UX Studio)

The cartridge is uploaded to Commerce Cloud.

- int\_paidy
- int\_paidy\_sfra

The cartridge is for Store Front Reference Architecture (SFRA).

\*If your website is based SiteGenesis, please refer to SiteGenesis implementation guide.

Use Commerce Cloud UX-studio to upload the int\_paidy and int\_paidy\_sfra cartridges to Commerce Cloud.

## 3-2. BusinessManager setup

Paidy payment settings are configured on the Commerce Cloud management screen (Business Manager).

### 3-2-1. Cartridge assignment

A Paidy cartridge is assigned to the site.

Management > Sites > Site Management > Sites Under Management: Settings

# RefArch - 設定

**適用**をクリックして詳細を保存します。前回保存された状態に戻すには、**リセット**をクリックします。

インスタンスタイプ: Sandbox (サンドボックス)/Development (開発) ✔		
廃止予定。HTTP と HTTPS のホスト名の構成では、サイトのエイリアス構成の新しい機能を使用することをお薦めします ("SEO > エイリアス構成")。 ? 定する HTTP/HTTPS ホスト名の値は、エイリアス構成でホスト名が定義されていない場合に、古い設定スタイルをサポートする目的でのみ使用されま <sup>。</sup>		
HTTP ホスト名:		
HTTPS ホスト名:		
インスタンスタイプ: すべて		
カートリッジ:	int_paidy_sfra:int_paidy:app_storefront_base	
有効なカートリッジのパス:	int_paidy_sfra int_paidy app_storefront_base plugin_apple_pay plugin_facebook plugin_payments plugin_pinterest_commerce plugin_web_payments bc_content core	

int\_paidy\_sfra:int\_paidy:merchant cartridge

### 3-2-2. Importing metadata

Meta\_data\_22.1.0.zip is provided in the package.

By importing this zip file, you can add services, add payment methods / payment processors, change system objects and custom objects to use Paidy payment. Details will be described later.

Administration > Site Development > Site Import & Export Click [Choose File].



Select meta\_data\_22.1.0.zip in the package and click the [Upload] button.



After uploading the zip file, check meta\_data\_22.1.0.zip and click [Import].

選択	名前 ▲	場所	削除可能?	ファイルサイズ	最終更新日時
	instance/meta_data_22.1.0.zip	ローカル	はい	3,48 KB	6/10/22 2:49:15 AM
0	SiteGenesis デモサイト				
0	Storefront Reference Architecture デモサイト				
					インポート 削除

#### Click [OK].



-Configuration when importing service metadata

Describes the service configuration when importing metadata.

Note that for services added after import

Please do not change the information described.

< Service Credentials >
Name : paidy.http.payment
URL : https://api.paidy.com

< Service Profiles >
Name : paidy.api.prof

< Services >

Name: paidy.api.payment

Type: HTTP

Enabled: check on Service Mode: Live

Profile: paidy.api.prof

Credentials: paidy. http. payment

· Payment method · Configuration when importing payment processor metadata

Describes the payment method and payment processor configuration when metadata is imported.

As a point of caution, for payment methods and payment processors added after import

Please do not change the information described.

<Payment Processors > ID : PAIDY\_STANDARD

<Payment Processors >
ID : PAIDY\_SUBSCRIPTION

< Payment Methods >
ID : PAIDY\_STANDARD

Name: あと払い(ペイディ)

Enabled: Yes

< Payment Methods >

ID : PAIDY\_ SUBSCRIPTION

Name: あと払い(ペイディ)) ※定期購入

Enabled: Yes

- Object layout for metadata importing

Here we include instructions on the layout of objects when importing metadata.

One word of caution is that system and custom objects added after importing should not be modified.

<0rder>

Management > Site Development > System Object Types> Order - Attribute Definitions System objects: Order is an object that corresponds to order data

Order is given the below definitions as custom attributes.

paidyPaymentId: saves the ID issued when making a Paidy payment.

paidyToken: saves the token value used when using subscription payments.

すべて選択	ID	名前
	paidyPaymentlo	1
	paidyToken	

#### <Site Preferences>

Management > Site Development > System Object Types > Site Preferences > Attribute Definitions System object: Site Preferences is an object that corresponds to site settings.

The below is defined as a custom attribute in Site Preferences.

paidy\_api\_key: public key data used to connect to the Paidy API.

This can be confirmed on the Paidy merchant management screen.

For a test, save the public key used for testing purposes.

paidy\_enabled: Set to use or not use Paidy cartridges.

If turn it off, paidy payments will not be available as a payment method.

paidy\_logo\_url: the URL of a logo image to be displayed on the Paidy Checkout application.

If nothing is set, the Paidy logo will be shown.

paidy secret key: secret key data used to connect to the Paidy API.

This can be confirmed on the Paidy merchant management screen.

When testing, save the secret key used for testing purposes.

- Paidy merchant management screen (details found in section 4-1-1)

本番用APIキー	
パブリックキー	pk_live_
シークレットキー	sk_live_
テスト用APIキー	
テスト用APIキー パブリックキー	pk_test_

paidy\_service\_name: key data used to call the information for communicating with Paidy as regis tered in BM.

This is fixed to paidy.api.payment.

paidy\_store\_name: the shop name displayed on Paidy Checkout application headers, MyPaidy, and the merchant dashboard.

paidy\_token\_description (optional): specifies descriptions of tokens defined by the merchant.

<u>paidy api key</u>
<u>paidy enabled</u>
paidy logo url
<u>paidy secret key</u>
paidy service name
<u>paidy store name</u>
paidy token description

#### <Customer Profile>

Management > Site Development > System Object Types > Customer Profile > Attribute Definitions System object: Customer Profile is an object relating to customer data.

The below is defined as a custom attribute on the Customer Profile. paidyToken: token data used for subscription payments. Saved when issuing a token.

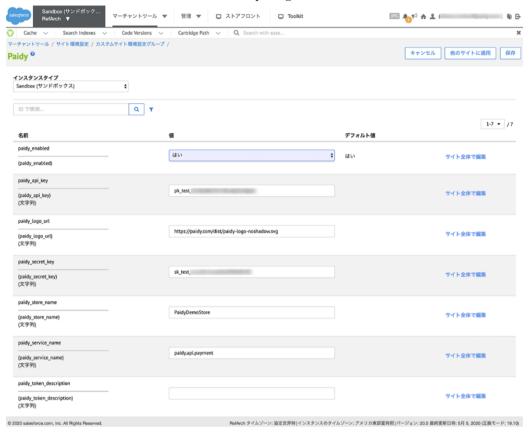


### <Custom site environment settings>

Merchant Tools > Site Environment Settings > Custom Site Environment Settings Group Once metadata is successfully imported, a group with the Paidy ID will be created in the custom environment settings group.



Clicking Paidy displays configuration screens for each value. Enter the requisite information a nd click the Save button at the top right.



## 3-3. Modifying cartridges on the merchant

## 3-3-1. Add payment method

In order to display Paidy by payment method, write it in the template of the payment page.

By writing this script, you can:

- · Selection tab added to payment methods
- The explanation for consumers is displayed when Paidy payment is selected
- Tthe type of Paidy payment selected by the payment method is displayed on the order confirm ation screen when selecting Paidy payment.

To embed a template, modify the following file.

• [app\_storefront\_base]/cartridge/templates/default/checkout/billing/paymentOptions/paymentOptionsTabs.isml

```
<isif condition="$ {paymentOption. ID === 'PAIDY_SUBSCRIPTION' } ">
    <isinclude template="checkout/billing/paymentOptions/paidySubscriptionTab" />
</isif>
kisloop items="${pdict.order.billing.payment.applicablePaymentMethods}" var="paymentOption";
    <isif condition="${paymentOption.ID === 'CREDIT_CARD'}">
       <isinclude template="checkout/billing/paymentOptions/creditCardTab" />
    <isif condition="${paymentOption.ID === 'PAIDY STANDARD'}">
       <isinclude template="checkout/billing/paymentOptions/paidyStandardTab" />
    </isif>
    <isif condition="${paymentOption.ID === 'PAIDY SUBSCRIPTION'}">
       <isinclude template="checkout/billing/paymentOptions/paidySubscriptionTab" />
 /isloop>
    *電話番号 📋
                                  😘 paidy
                                                           🖰 paidy
            CREDIT
                  欲しいものは今すぐ、
• [app_storefront_base]/cartridge/templates/default/checkout/billing/paymentOptions/paymentOpti
onsContent.isml
Add the below after </isif>.
<isif condition="${paymentOption. ID === 'PAIDY_STANDARD'}">
    <isinclude template="checkout/billing/paymentOptions/paidyStandardContent" />
</isif>
<isif condition="$ {paymentOption. ID === 'PAIDY_SUBSCRIPTION'}">
    <isinclude template="checkout/billing/paymentOptions/paidySubscriptionContent" />
</isif>
isloop items="${pdict.order.billing.payment.applicablePaymentMethods}" var="paymentOption">
   <isif condition="${paymentOption.ID === 'CREDIT_CARD'}">
       <isinclude template="checkout/billing/paymentOptions/creditCardContent" />
   <isif condition="${paymentOption.ID === 'PAIDY_STANDARD'}">
       <isinclude template="checkout/billing/paymentOptions/paidyStandardContent" />
   </isif>
   <isif condition="${paymentOption.ID === 'PAIDY SUBSCRIPTION'}">
       <isinclude template="checkout/billing/paymentOptions/paidySubscriptionContent" />
    </isif>
(/isloop>
```



• [app\_storefront\_base]/cartridge/templates/default/checkout/billing/paymentOptions/paymentOpti onsSummary.isml Add the below after </isif> and </div>. (omission) <isif condition="\${payment.paymentMethod === 'CREDIT\_CARD'}"> <isinclude template="checkout/billing/payment0ptions/creditCardSummary" /> </isif> <isif condition="\${payment.paymentMethod === 'PAIDY\_STANDARD'}"> <isinclude template="checkout/billing/paymentOptions/paidyStandardSummary" /> </isif> <isif condition="\${payment.paymentMethod === 'PAIDY\_SUBSCRIPTION'}"> <isinclude template="checkout/billing/paymentOptions/paidySubscriptionSummary" /> </isif> </isloop> </div> <div class="payment-details-summary paidy-standard" style="display: none;"> <isinclude template="checkout/billing/paymentOptions/paidyStandardSummary" /> </div> <div class="payment-details-summary paidy-subscription" style="display: none;"> <isinclude template="checkout/billing/paymentOptions/paidySubscriptionSummary" /> </div>

```
class= payment-details >
    <isloop items="${pdict.order.billing.payment.selectedPaymentInstruments}" var="payment"</pre>
        <isif condition="${payment.paymentMethod === 'CREDIT CARD'}">
           <isinclude template="checkout/billing/paymentOptions/creditCardSummary" />
        </isif>
        <isif condition="${payment.paymentMethod === 'PAIDY STANDARD'}">
           <isinclude template="checkout/billing/paymentOptions/paidyStandardSummary" />
        </isif>
        <isif condition="${payment.paymentMethod === 'PAIDY SUBSCRIPTION'}">
           <isinclude template="checkout/billing/paymentOptions/paidySubscriptionSummary" /</pre>
        </isif>
    </15loop>
  /div>
<div class="payment-details-summary paidy-standard" style="display: none;">
    <isinclude template="checkout/billing/paymentOptions/paidyStandardSummary" />
</div>
<div class="payment-details-summary paidy-subscription" style="display: none;">
    <isinclude template="checkout/billing/paymentOptions/paidySubscriptionSummary" />
</div>
   支払
                                                              編集
   請求先住所:
   支払:
   あと払い (ペイディ)
                            注文を確定する
• [app_storefront_base]/cartridge/scripts/checkout/checkoutHelpers.js
Add the below function.
/**
 * Selected payment instrument
 * Oparam (dw. order. Order) order - The order object to be placed
 * @returns {string | null} selected payment instrument
 */
function selectedPaymentInstrument(order) {
    if (order.billing.payment && order.billing.payment.selectedPaymentInstruments
        && order. billing. payment. selectedPaymentInstruments. length > 0) {
        return order. billing. payment. selectedPaymentInstruments[0]. paymentMethod;
    } else {
```

```
return null;
(omission)
    setGift: setGift.
     selectedPaymentInstrument: selectedPaymentInstrument
};
 728<del>0</del> /** J
 729 | * Selected payment instrument↓
      * @param {dw.order.Order} order - The order object to be placed↓
* @returns {string|null} selected payment instrument↓
 732
  733⊖function selectedPaymentInstrument(order) {↓
 734
          if (order.billing.payment && order.billing.payment.selectedPaymentInstruments↓
 735
736
               && order.billing.payment.selectedPaymentInstruments.length > 0) {
               return order.billing.payment.selectedPaymentInstruments[0].paymentMethod;
          } else {
 737
  738
               return null:
 739
 740
741
      } ↓
 742
      module.exports = {
 743
744
           getFirstNonDefaultShipmentWithProductLineItems: getFirstNonDefaultShipmentWithProductLineItems,
           ensureNoEmptyShipments: ensureNoEmptyShipments,
 745
746
          getProductLineItem: getProductLineItem,↓
isShippingAddressInitialized: isShippingAddressInitialized,↓
 747
           prepareCustomerForm: prepareCustomerForm,
 748
749
           prepareShippingForm: prepareShippingForm,
          prepareBillingForm: prepareBillingForm,
 750
751
          copyCustomerAddressToShipment: copyCustomerAddressToShipment,↓
           copyCustomerAddressToBilling: copyCustomerAddressToBilling,
  752
           copyShippingAddressToShipment: copyShippingAddressToShipment,
 753
754
           copyBillingAddressToBasket: copyBillingAddressToBasket,
           validateFields: validateFields,
 755
756
          validateCustomerForm: validateCustomerForm,
validateShippingForm: validateShippingForm,
  757
           validateBillingForm: validateBillingForm,
 758
759
           validatePayment: validatePayment,
          validateCreditCard: validateCreditCard,
 760
           calculatePaymentTransaction: calculatePaymentTransaction, ↓
  761
           recalculateBasket: recalculateBasket,
  762
           handlePayments: handlePayments,
  763
          createOrder: createOrder,
 764
          placeOrder: placeOrder,
           savePaymentInstrumentToWallet: savePaymentInstrumentToWallet,
 765
  766
           getRenderedPaymentInstruments: getRenderedPaymentInstruments,
           sendConfirmationEmail: sendConfirmationEmail,
 767
  768
           ensureValidShipments: ensureValidShipments,
 769
          setGift: setGift, ↓
selectedPaymentInstrument: selectedPaymentInstrument ↓
 770
• [app storefront base]/cartridge/templates/default/checkout/billing/paymentOptions.isml
Add the below the first line of the file (after div. form-nav) and attribute in div. form-nav
<isscript>
     <isset name="paymentMethod" value="${require('*/cartridge/scripts/checkout/checkoutHelpers</pre>
'). selectedPaymentInstrument(pdict.order)}" scope="page"/>
</isscript>
<div class="form-nav billing-nav payment-information"</pre>
    data-payment-method-id="CREDIT CARD"
```

```
data-selected-payment-method="$ {paymentMethod}"
      data-is-new-payment="${pdict.customer.registeredUser && pdict.customer.customerPaymentInstr
uments.length? false: true}"
         et name="paymentMethod" value="${require('*/cartridge/scripts/checkout/checkoutHelpers').selectedPaymentInstrument(pdict.order)}" scope="page"
class= form-nav billing-nav payment-information ↓
<u>data-payment-method-id="GRFDIT CARD" |</u>
data-selected-payment-method="${paymentMethod}" |
data-is-new-payment="${pdict.customer.registeredUser && pdict.customer.customerPaymentInstruments.length ? false : true}"↓
        </div>!
<div>!
<div class="credit-card-selection-new">↓
<div class="tab-content">↓
<div class="tab-content">↓
            <isinclude template="checkout/billing/paymentOptions/paymentOptionsContent" /> \
3-3-2. CheckoutJS installation
In order to process payment, the Checkout JS script is embedded in the payment page template.
Including this script will call Paidy Checkout.
```

To embed the template, modify the following file.

```
• [app_storefront_base]/cartridge/templates/default/common/layout/checkout.isml
Add the below after <head>
<!DOCTYPE html>
<html lang="en">
    <head>
       <script type="text/javascript" src="https://apps.paidy.com/"></script>
       <!--[if gt IE 9]><!-->
   K!DOCTYPE html>↓
Khtml lang="en">↓
   <head>.
      Kscript type="text/javascript" src="https://apps.paidy.com/"></script>|
```

## 3-3-3. Added paidy js loading

<!--[if gt IE 9]><!-->.

```
Add the payid js required for the payment process below.
```

```
• [app_storefront_base]/cartridge/templates/default/checkout/checkout.isml
Add the below after assets.addJs('/js/checkout.js');
<isscript>
   var assets = require('*/cartridge/scripts/assets.js');
   assets.addJs('/js/checkout.js');
   assets.addJs('/js/paidy.js');
   assets.addCss('/css/checkout/checkout.css');
```

Kisinclude sf-toolkit="off" template="/common/scripts" />.

```
</isscript>
Kisdecorate template="common/layout/checkout">↓
    <!-- Load Static Assets -->↓
    <isscript>↓
       var assets = require('*/cartridge/scripts/assets.js');↓
assets.addJs('/is/checkout.js');↓
assets.addJs('/js/paidy.js');↓
       assets.addUss('/css/checkout/checkout.css'); |
    </isscript>
3-3-4. Add attribute on order confirmation button
Define the information required for the payment process as the attribute of the settlement conf
irmation button.
• [app storefront base]/cartridge/templates/default/checkout/checkout.isml
Add the below in button. place-order
<button class="btn btn-primary btn-block place-order" data-action="${URLUtils.url('CheckoutServ</pre>
ices-PlaceOrder')}"
    data-get-paidy-standard-config="${URLUtils.url('PaidyStandard-GetPaidyConfig')}"
    data-paidy-standard-fail-order="$ {URLUtils.url('PaidyStandard-FailOrder')}"
    data-paidy-standard-place-order="$ {URLUtils.url('PaidyStandard-PlaceOrder')} "
    data-get-paidy-subscription-config="$ {URLUtils.url('PaidySubscription-GetPaidyConfig')}"
    data-paidy-subscription-set-token="$ {URLUtils.url('PaidySubscription-SetPaidyToken')}"
type="submit" name="submit" value="place-order">$ {Resource.msg('button.place.order', 'checkout
', null)}
</button>
          <button class="btn btn-primary btn-block submit-payment" type="submit" name="submit" value="submit-payment">
             ${Resource.msg('button.next.place.order', 'checkout', null)}
          </button>
          <button class="btn btn-primary btn-block place-order" data-action="${URLUtils.url('CheckoutServices-PlaceOrder')}</pre>
```

## 3-3-5. CheckoutServices. js modifications

Select Paidy as the payment method, and do not process credit card payment in Ajax processing when transitioning to the order confirmation screen.

• [app\_storefront\_base]/cartridge/controllers/CheckoutServices.js
Add the below.

```
server.post(
       'SubmitPayment',
       server. middleware. https.
       csrfProtection.validateAjaxRequest,
       function (req, res, next) {
(omission)
               var validationHelpers = require('*/cartridge/scripts/helpers/basketValidationHelpers');
               var cartHelpers = require('*/cartridge/scripts/cart/cartHelpers');
               var paidyHelpers = require('*/cartridge/scripts/paidy/paidyHelpers');
              var currentBasket = BasketMgr.getCurrentBasket();
(omission)
              paidyHelpers.resetPaymentForms(currentBasket);
              var billingAddress = currentBasket.billingAddress;
               var billingForm = server.forms.getForm('billing');
       * Handle Ajax payment (and billing) form submit \downarrow */\downarrow
 43
44
      server.post(
           'SubmitPayment', ↓
server.middleware.https,
 45
46
47
48
           csrfProtection.validateAjaxRequest, ↓
function (req, res, next) {↓
                     n (req, res, next) {↓
PaymentManager = require('dw/order/PaymentMgr');↓
HookManager = require('dw/system/HookMgr');↓
Resource = require('dw/web/Resource');↓
COHelpers = require('*/cartridge/scripts/checkout/checkoutHelpers');↓
 49
50
51
52
                    var validationHelpers = require('*/cartridge/scripts/helpers/basketValidationHelpers');
var cartHelpers = require('*/cartridge/scripts/cart/cartHelpers');
var paidyHelpers = require('*/cartridge/scripts/paidy/paidyHelpers');
142
143
                    var currentBasket = BasketMgr.getCurrentBasket();↓
var validatedProducts = validationHelpers.validateProducts(currentBasket);↓
 45
 48
49
                    var billingData = res.getViewData(); |
                    if (!currentBasket || validatedProducts.error) {↓
    delete billingData.paymentInformation; ↓
 52
53
                         res.json({ | error: true, | cartError: true, | fieldErrors: [], | serverErrors: [],
                              redirectUrl: URLUtils.url('Cart-Show').toString()
                         1):
                    paidyHelpers.resetPaymentForms(currentBasket);
163
                                            = currentBasket.billingAddress;
                    var
var
                                        = server.forms.getForm('billing');
dID = billingData.paymentMethod.value:
```

```
var BasketMgr = require('dw/order/BasketMgr');
(omission)
       var addressHelpers = require('*/cartridge/scripts/helpers/addressHelpers');
       var paidyHelpers = require('*/cartridge/scripts/paidy/paidyHelpers');
       var currentBasket = BasketMgr.getCurrentBasket();
(omission)
   if (handlePaymentResult.error) {
      res. json({
           error: true,
           errorMessage: Resource.msg('error.technical', 'checkout', null)
      });
       return next();
   }
   if (paidyHelpers.isPaidyStandard(currentBasket.paymentInstrument.paymentMethod)) {
        var responseJson = require('*/cartridge/scripts/paidy/standard/authorize')
            .getConfirmationPaidyJSON(currentBasket.paymentInstrument.paymentMethod, order.get
Customer(), order);
        res. json (response Json);
        return next();
    } else if (paidyHelpers.isPaidySubscription(currentBasket.paymentInstrument.paymentMetho
d)){
        var paidySubscriptionAuthorize = require(
            '*/cartridge/scripts/paidy/subscription/authorize')
            . Authorize (order, req. querystring. paidyToken);
        if (paidySubscriptionAuthorize.error) {
            Transaction.wrap(function () { OrderMgr.failOrder(order); });
            res. json({
                error: true,
                errorMessage: Resource.msg('error.technical', 'checkout', null)
            });
            return next();
        }
    var fraudDetectionStatus = hooksHelper('app. fraud. detection', 'fraudDetection', currentBask
et, require('*/cartridge/scripts/hooks/fraudDetection').fraudDetection);
```

```
| server.post('PlaceOrder', server.middleware.https, function (req, res, next) { | var BasketMgr = require('dw/order/BasketMgr'); | var OrderMgr = require('dw/order/OrderMgr'); | var Resource = require('dw/web/Resource'); | var Transaction = require('dw/system/Transaction'); | var URLUtils = require('dw/web/URLUtils'); | var basketCalculationHelpers = require('*/cartridge/scripts/helpers/basketCalculationHelpers'); | var booksHelper = require('*/cartridge/scripts/helpers/hooks'); | var contents = require('*/cartridge/scripts/helpers/basketValidationHelpers'); | var validationHelpers = require('*/cartridge/scripts/helpers/basketValidationHelpers'); | var addressHelpers = require('*/cartridge/scripts/helpers/addressHelpers'); | var paidyHelpers = require('*/cartridge/scripts/helpers/addressHelpers'); | var currentBasket = BasketMgr.getCurrentBasket(); | var currentBasket(); |
```

(中略)

```
errorMessage: Resource.msg('error.technical', 'checkout', null) ↓
            });
             return next();
686
        if (paidyHelpers.isPaidyNormal(currentBasket.paymentInstrument.paymentMethod)) {↓
687
             var responseJson = require(
                                         '*/cartridge/scripts/paidy/normal/authorize
                 .getConfirmationPaidyJSON(currentBasket.paymentInstrument.paymentMethod, order.getCustomer(), order);↓
688
689
             res.json(responseJson);
690
691
        } else if (paidyHelpers.isPaidyRegular(currentBasket.paymentInstrument.paymentMethod)) { ↓
             var paidyRegularAuthorize = require('*/cartridge/scripts/paidy/regular/authorize')↓
692
693
                 .Authorize(order, req.querystring.paidyToken);↓
694
             if (paidyRegularAuthorize.error)
695
                 Transaction.wrap(function () { OrderMgr.failOrder(order); });↓
696
697
                 res.json({
                     error: true.
698
                     errorMessage: Resource.msg('error.technical', 'checkout', null) ↓
699
700
701
                 return next();↓
            } ↓
        } ↓
702
703
             fraudDetectionStatus =
                                    hooksHelper(
        if (fraudDetectionStatus.status ===
```

```
updateBundleProducts: updateBundleProducts,
    removePaymentInstruments: removePaymentInstruments
};
* Deletes multiple payment instruments.
 * Otransactional
 * @alias module:models/CartModel~CartModel/removePaymentInstruments |
 * @param {dw.order.Basket} basket - the target Basket object |
 * ®param {dw.util.Collection} paymentInstruments - The payment instruments to remove.↓
function removePaymentInstruments(currentBasket, paymentInstruments) { ↓
    collections.forEach(paymentInstruments, function(item) { ↓
      currentBasket.removePaymentInstrument(item);
} ↓
module.exports = {
    addLineItem: addLineItem,
    addProductToCart: addProductToCart,
    checkBundledProductCanBeAdded: checkBundledProductCanBeAdded,
    ensureAllShipmentsHaveMethods: ensureAllShipmentsHaveMethods,
    getQtyAlreadyInCart: getQtyAlreadyInCart,
    getNewBonusDiscountLineItem: getNewBonusDiscountLineItem,↓
getExistingProductLineItemInCart: getExistingProductLineItemInCart,↓
    getExistingProductLineItemsInCart: getExistingProductLineItemsInCart,↓
    getMatchingProducts: getMatchingProducts,
al|Bund|eItemsSame: al|Bund|eItemsSame,↓
    hasSameOptions: hasSameOptions, |
BONUS_PRODUCTS_PAGE_SIZE: BONUS_PRODUCTS_PAGE_SIZE, |
    updateBundleProducts: updateBundleProducts,
    removePaymentInstruments: removePaymentInstruments
}; ↓
3-3-6. Add payment method to email template
Add a payment method to the email sent when payment is completed.
• [app_storefront_base]/cartridge/templates/default/checkout/confirmation/confirmationEmail.ism
Add the below after </isif> in isloop of Payment information
(omission)
                             <span>${Resource.msg('msg.card.type.ending', 'confirmation', null)} ${p
ayment.expirationMonth}/${payment.expirationYear}</span>
                        </div>
                   </isif>
                   <isif condition="${payment.paymentMethod === 'PAIDY_STANDARD'}">
                        <isinclude template="checkout/billing/payment0ptions/paidyStandardSummary"</pre>
/>
                   </isif>
                   <isif condition="${payment.paymentMethod === 'PAIDY SUBSCRIPTION'}">
                        <isinclude template="checkout/billing/paymentOptions/paidySubscriptionSumm")</pre>
ary"/>
                   </isif>
```

```
</isloop>
</div>
</div>
```

```
<isloop items="${pdict.order.billing.payment.selectedPaymentInstruments}" var="payment">
   <isif condition="${payment.paymentMethod === 'CREDIT_CARD'}">
           <span>${Resource.msg('msg.payment.type.credit', 'confirmation', null)}
               ${payment.type}</span>
       </div>
       <div>
           ${payment.maskedCreditCardNumber}
       </div>
           <pan>${Resource.msg('msg.card.type.ending', 'confirmation', null)} ${payment.expirationMonth}/${payment
   </isif>
   <isif condition="${payment.paymentMethod === 'PAIDY STANDARD'}">
       <isinclude template="checkout/billing/paymentOptions/paidyStandardSummary" />
   </isif>
   <isif condition="${payment.paymentMethod === 'PAIDY_SUBSCRIPTION'}">
       <isinclude template="checkout/billing/paymentOptions/paidySubscriptionSummary" />
/isloop>
```

### 3-4. Advice

- Notes on use of subscription purchases

If you followed the steps to add a payment method as indicated in section 3-3-1, by default, you will have two separate entries — standard payments and subscription payments.



If there are means to detect whether subscription payments have been selected when transitionin g to the payment selection screen, CSS or other means can be used to restrict the display to on ly show 「あと払い(ペイディ)」.

- Notes on tokens

int\_paidy\_sfra does not use PaidyToken for customer information. Tokens can be checked via order data.

Merchant Tools > Order > Order > Order Numbers: Attribute

PaidyPayments	
paidyToken:	
paidyPaymentId:	

- Order confirmation e-mails for subscription purchases int\_paidy\_sfra cartridge is designed such that order confirmation e-mails are sent in the same manner as standard e-mails even for subscription purchases. To customize the e-mail sent, you c an modify the int\_paidy\_sfra cartridge.
- Error message when a subscription payment is rejected Please refer to the following wording for the message when a subscription payment is rejected.

今回の決済は承認されませんでした

申し訳ございませんが、オンラインショップが提供する他の支払方法をご利用ください。

なお、審査結果の詳細につきましては開示できませんのであらかじめご了承ください。

Paidyに関するお問い合わせ

0120-971-918

\_\_\_\_\_

## 4. Cartridge deployment testing at merchant

## 4-1. Before beginning a test

## 4-1-1. Paidy merchant dashboard screen

- Confirming the test API key

Check the public and secret keys used for the test API; these will be entered into the custom s ite environment settings screen.

本番用APIキー	
パブリックキー	pk_live_
シークレットキー	sk_live_
テスト用APIキー	
パブリックキー	pk_test_

## 4-1-2. Commerce Cloud Business Manager

#### - API key settings

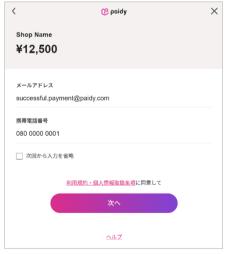
From the above settings screen, enter the test API keys you found for paidy\_api\_key and paidy \_secret\_key in section 4-1-1. Paidy merchant dashboard screen.

名前	值	デフ
paidy_api_key	pk_test_	 
paidy_logo_url		
paidy_secret_key	sk_test_	 
paidy_store_name		
paidy_service_name		
paidy_token_description		

## 4-2. PaidyCheckout test data

-mail address and phone number

E-mail address and telephone usable for test cases



Test cases	mail address	phone number
Success	successful.payment@p	080-0000-0001
	aidy.com	
Failure	rejected.payment@pai	
	dy.com	

\*Note that the e-mail address and phone number for the above me mber data and shipping and billing address can differ.

#### -Authentication number



Enter 8888

## 4-3. Browser compatibility

This cartridge supports the following OSes and browsers.

0 11		
Device - OS	Browser	
PC - Windows	Edge: latest version	
	Chrome: latest version	
	FireFox: latest version	
PC - MacOS	Chrome: latest version	
	Safari: latest version	
Smartphone - iOS	iPhone (latest version of iOS) Safari	
	iPhone (latest version of iOS) Chrome	
Smartphone - Android	Android4.4 and later, Chrome	

## 4-4. Test cases

Test cases to run after configuring the cartridge are listed below.

## 4-4-1. Paidy standard payments

Standard payment is tested using a guest and a member.

- 1. Successful order as guest
- If not logging in and selecting a payment method for Paidy standard payments, the PaidyChecko ut popup appears. Entering a successful e-mail address and phone number will display the product purchase confirmation screen.
- The Commerce Cloud order number created on the Paidy merchant site should be displayed as a t ransaction  ${\tt ID}$
- The order status for the corresponding order number on Business Manager on Commerce Cloud wil 1 be new

#### 2. Order success as member

- After logging in, when selecting a payment method for Paidy standard payments, the PaidyCheck out popup appears. Entering a successful e-mail address and phone number will display the product purchase confirmation screen.
- The Commerce Cloud order number created on the Paidy merchant site should be displayed as a transaction ID
- The order status for the corresponding order number on Business Manager on Commerce Cloud wil 1 be new

#### 3. Failed order as guest

- If not logging in and selecting a payment method for Paidy standard payments, the PaidyChecko ut popup appears. Entering a failing e-mail address and phone number will display an error mess age.
- The order status for the corresponding order number on Business Manager on Commerce Cloud wil 1 have failed

#### 4. Order failure as member

- After logging in, when selecting a payment method for Paidy standard payments, the PaidyCheck out popup appears. Entering a failing e-mail address and phone number will display an error mes sage.
- The order status for the corresponding order number on Business Manager on Commerce Cloud wil 1 have failed

### 4-4-2. Paidy subscription payments

Test as a member.

#### 1. Success as a member

- When logging in as a member and selecting a payment method for Paidy subscription payments, the Confirm Order button is clicked and the PaidyCheckout popup appears. Entering a successful email address and phone number and proceeding to processing the payment will display a product purchase confirmation screen
- The Commerce Cloud order number created on the Paidy merchant site should be displayed as a t ransaction ID
- The order status for the corresponding order number on Business Manager on Commerce Cloud wil 1 be new

#### 2. Failure as a member

- When selecting a payment method for Paidy subscription payments and clicking the Confirm Orde r button, the PaidyCheckout popup appears. Entering a failing e-mail address and phone number a nd proceeding to processing the payment will display an error message

- The order status for the corresponding order number on Business Manager on Commerce Cloud wil 1 have failed

## 5. Webhook usage examples

## 5-1. Webhook usage

Paidy payments run credit holds for a purchase by means of communication directly between a con sumer and Paidy over JavaScript. Therefore, one limitation of the system is that if the consume r bounces or the connection is cut, the e-commerce site may fail to obtain the results of payme nt confirmation and the stale payment data will remain on Paidy.

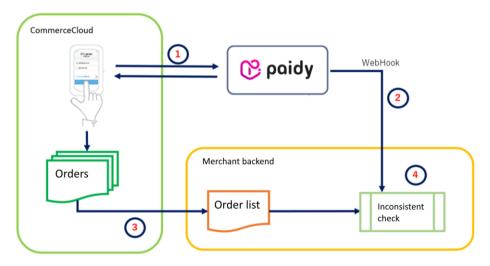
In the event of an inconsistency like the above, there are two problems.

- 1. The shop loses the opportunity to complete the order.
- 2. If the order does not have to be completed, the consumer has a credit hold placed against the eir Paidy account.

To accommodate these cases, a Webhook is provided.

The merchant can use the Webhook to detect inconsistent payments.

## 5-2. Detecting inconsistent payments



#### 1. Payment

Payment is made via Commerce Cloud using Paidy. A callback from Paidy's payment results returns one of the three order statuses below.

- Payment success: New Outputted to the order list. Payment possible status
- Payment failure: Failed Not outputted to the order list. Payment not possible status
- Processing: Created Not outputted to the order list. When in a payment not possible status, updating the payment transitions to a payable status.

#### 2. Webhook

Setting Webhook endpoints on the merchant backend allows for receiving notifications from Pai dy of payment completion.

#### 3. Order list

A list of successful orders processed through batch processing on Commerce Cloud is sent as a n xml file to the merchant's backend.

4. Inconsistent payment check processing

Checks for payments where Webhook data (2) is found, but no payment data (3) exists on Commer ce Cloud.

## 5-3. Handling inconsistencies

Inconsistent payments that have been detected can be handled as follows, allowing for resolving the above issues.

## 5-3-1. Processing example 1

In this solution, a list of inconsistent/invalid payments is outputted and can be checked by the merchant.

After a check is performed, the necessary steps are taken (approving or cancelling payment).

#### 1. Establishing payment

Use the Order function on Business Manager on Commerce Cloud to update the status.

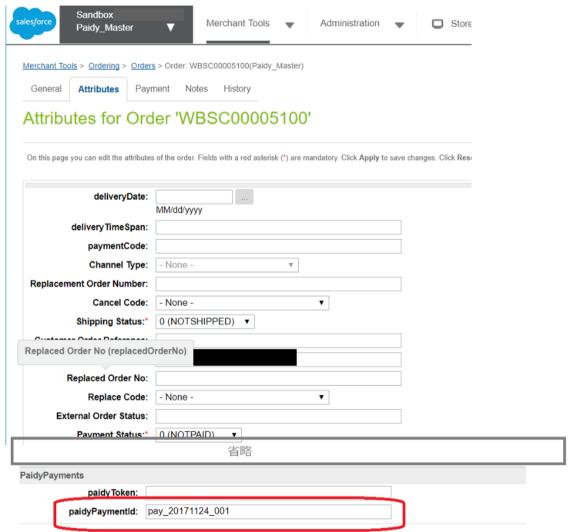
- General tab			
Merchant Tools > Ordering > Orders >	Order: WBSC00005100(Paidy_Master)		
General Attributes Paymen	t Notes History		
Details for Order 'V	VBSC00005100'		
Information:	Contains 1 line item to 1 shipping location The total price is ¥14,506.00.		
Date Received:	11/24/17 6:27:23 am Etc/UTC		
Site:	Paidy_Master		
Created By:	Customer		
Customer:			
Customer No.:	00033017		
IP Address:	n/a		
Email:			
Phone:			
Order Status:	Open	Confirmation Status:	Confirmed
Shipping Status:	Not Shipped	Export Status:	Ready for Export

The status of the above three points is changed per below

Order Status: Created→Open

Confirmation Status: Not Confirm→Confirmed Export Status: Not Exported→Ready for Export

#### · Attribute tab



Set the paidyPaymentID that arrived via the Webhook for paidyPaymentId

\*In order to e-mail an order confirmation e-mail as you would with StoreFront, it must be cus tomized, as the format differs (see below).

- Order confirmation e-mail (concept)
  - ■SiteGenesis StoreFront e-mail (normally used e-mail)



■E-mails sent from SendMail button on bottom of General tab on BusinessManager > Orders

#### SiteGenesis

Demo SiteGenesis 5 Wall Street Burlington, MA 01803 SiteGenesis Phone: +1.888.553.9216

#### Order Confirmation: Order Number: WBSC00005101 - Thank you for your order!

This email confirms we received your order at <u>SiteGenesis</u>. We will email your shipping confirmation with your tracking number when your items have been shipped. Your order will generally be shipped within 24 hours after we've received it. You can check your order's status on your account pages at <u>SiteGenesis</u>

#### Thank you for shopping with us!

Please print and save a copy for reference.

Please review the order below and verify that everything is correct.

PLEASE NOTE: Since we begin processing your order shortly after you submit it on our web site, if any changes are necessary you MUST contact us via PHONE ONLY, at +1.888.553.9216

#### HIPMENT 1

PRODUCT DETAILS	QTY.	TOTAL	SHIPPING DETAILS
Samsung Series 6 22" LCD High Definition Television Item Number:samsung-In22a650 全品セール中	1	¥ 66,318 ¥ - 33,159	

PAYMENT METHOD	AMOUNT
Payment Total	¥ 36,351

#### 2. Cancelling payments

Displaying the transaction in question on the Paidy merchant management screen and Canceling it (do not capture and close).



## 5-3-2. Processing example 2

In this example, the system makes a determination and automatically cancels inconsistent payments.

If, after referencing the order data and Webhook data on Commerce Cloud, the payment does not c omplete on Commerce Cloud, and authorization data is found only on Paidy, the close API is requested and the payment is closed.

https://paidy.com/docs/jp/payments.html#close

## 5-4. Webhook settings

In order to receive notifications from Paidy on the backend, the Webhook URL must be saved to the Paidy merchant management screen settings.

URL: https://merchant.paidy.com

You can enable these settings for a live environment by setting the merchant's live backend UR L in the Webhooks: Live API Key and Old Version API Access Key sections.

In order to check connectivity with test payments before configuring the live environment, set the merchant's backend test URL in Webhooks: Test API Key.

#### Paidy merchant management screen



## 6. What to do when the service is down

· what happens when the service is down

If you select Paidy payment, you will get an error screen or the pop-up will stop working.

·what the merchant should do to fix it

To get started, please contact Paidy Technical Support.

Paidy Technical Support

Mail: tech-support@paidy.com

TEL: 03-5545-5099 (weekdays 10:00-18:00)

If it takes a time to recover, please set the enable flag for paidy\_enabled to "גֿיאייל (No)" in the Custom Preferences.



# 7. Revision history

Version	Date	Revisions	
1. 1. 0	2019/12/06	First edition	
20. 1. 0	2020/01/15	3-2-2. Importing metadata -Modify 「meta_data_19.1.0.zi p」 to 「meta_data_20.1.0.zip」	
20. 1. 0	2020/4/5	-SFRAのバージョン情報を追記。 -Business Managerの互換モードを記載。 -Add Version of SFRA and Compatibility Mode -Add 6. What to do when the service is down	
21. 1. 0	2021/6/21	-Update 1. Cartridges version update -Update 4. SFRA support version update -Update 16-17. int_paidy post script -Update 18. Import meta file name update Deleted description related to SiteGenesis and common meta file -Update 25. Corrected the description of function felected Payment Instrument - Update 31. Embedded code fix -Removed 35. Deleted the desc	

22. 1. 0	2022/6/21	p.1 update version in cover
		all pages  Modified normal payment ID an dsubscription ID, as follows.  - normal -> standard  - regular -> subscription
		p. 4 updated supported store Front Reference Architecture and co mpatibility mode version
		p.17 update import meta file name
		p. 37 4-3. Removed IE11 from Browse r compatibility
22. 1. 1	2022/11/24	All pages The following modifications w ere made due to the change in the name of Paidy standard an d subscription payment servic e.
		●standard payment あと払い(ペイディ) ●subscription payment あと払い(ペイディ)※定期購 入 ●支払方法説明
		<ul><li>・クレジットカード、事前登録不要。</li><li>・メールアドレスと携帯番号だけで、今すぐお買い物。</li><li>・1か月に何度お買い物しても、お支払いは翌月まとめて1回で0 K。</li></ul>
		・1か月に何度お買い物してお支払いは翌月まとめて1回

	コンビニ払い・銀行振込・口座 振替で。 ペイディについて詳しくはこち ら。
	Capture was changed to reflec t the above changes.