



# Salesforce Commerce Cloud

**KOMOJU** Payment Gateway Integration

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# Overview

The following site architectures are supported on KOMOJU payment gateway cartridge:

## SFRA

```
bm_komoju  
int_komoju_sfra  
int_komoju_common  
app_storefront_base
```

## SiteGenesis

```
bm_komoju  
int_komoju_common  
app_komoju_controllers  
app_komoju_core  
app_storefront_controllers  
app_storefront_core
```

## System requirements

Visual Studio Code & Prophet Debugger

Node.js & npm

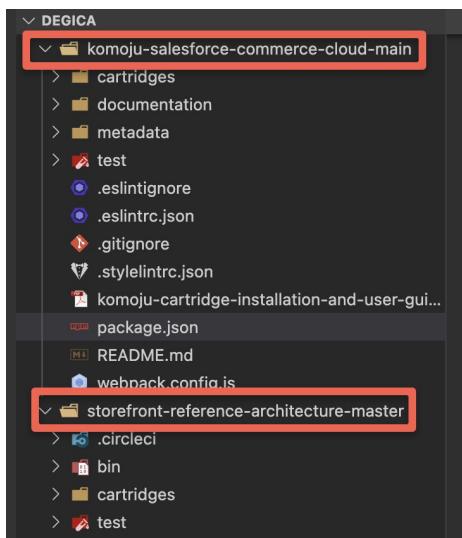
- Node.js 14.16.0 & npm 9.6.6 (or npm 6.14.18 also works) for SFRA sites compiling
- Node.js 12.21.0 & npm 6.14.18 for SiteGenesis compiling

Python 2.7 for Mac users

# Compilation

## For SFRA sites

- Get KOMOJU payment gateway cartridge's repository from [GitHub](#)
  - Get the latest [SFRA](#) base repository onto the same directory as KOMOJU payment gateway cartridge repository
- ⚠️** If it's your first time getting SFCC repositories, you might need to sign in first via <https://github.com/orgs/SalesforceCommerceCloud/sso> (see more)
- The directory where KOMOJU payment gateway cartridge source code resides should look as below: (SFRA repository is named `storefront-reference-architecture-master` here)



- Make sure your NodeJS version is **14.16.0**
- Change directory to SFRA repository

```
cd storefront-reference-architecture
node -v
# => 14.16.0
# In storefront-reference-architecture directory
npm install
```

**⚠️** Make sure the base path in your `package.json` correctly reflects the path of your SFRA repository relative to KOMOJU cartridge repository

```
"paths": {
  "base": "./storefront-reference-architecture/cartridges/app_storefront_base/"}
```

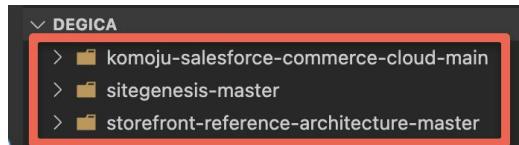
- Go back to the cartridge root directory and run the following commands

```
node -v
# => 14.16.0
npm install
npm run compile:js
npm run compile:scss
```

**⚠️** Salesforce's documentation for installing and configuring SFRA ([link](#)) for reference.

## For SiteGenesis sites

- Get the [SiteGenesis](#) base repository onto the same directory as KOMOJU cartridge repository



- Copy the `app_komoju_controllers` and `app_komoju_core` modules from KOMOJU payment gateway cartridge [repository](#), over into the same directory as `app_storefront_core` module of SiteGenesis base repository

```
# In directory of komoju-salesforce-commerce-cloud
cp -r cartridges/app_komoju_controllers ../sitegenesis
cp -r cartridges/app_komoju_core ../sitegenesis
```

- Update `sitegenesis` repository's `package.json` as follows:

```
"devDependencies": {
  // other dependencies ...
  "ecstatic": "4.1.4",
  "grunt": "^1.4.1",
}

  },
  "devDependencies": {
    "@tridnguyen/config": "^2.3.1",
    "@tridnguyen/version": "^1.0.0",
    "ampersand-model": "^6.0.2",
    "ampersand-view": "^9.0.0",
    "async": "^2.0.1",
    "babel-core": "^6.1.2",
    "babel-preset-es2015": "^6.1.2",
    "chai": "^3.4.0",
    "chalk": "^1.1.3",
    "cldr-data": "^32.0.1",
    "dwupload": "^3.8.0",
    "ecstatic": "4.1.4",
    "eslint": "^1.10.3",
    "event-stream": "^3.3.4",
    "exorcist": "^0.4.0",
    "gaze": "^1.1.1",
    "glob": "^7.0.6",
    "globalize": "^1.1.1",
    "grunt": "^1.4.1",
    "handlebars": "^4.0.4",
    "hbfsfy": "^2.4.1",
    "http-server": "^0.9.0",
  }
}
```

```
"paths": {
  "css": [
    // other app_storefront_core packages ...
    {
      "src": "app_komoju_core/cartridge/scss/default/",
      "dest": "app_komoju_core/cartridge/static/default/css/"
    }
  ],
  // js paths
}

"css": [
  {
    "src": "app_storefront_core/cartridge/scss/default/",
    "dest": "app_storefront_core/cartridge/static/default/css/"
  },
  {
    "src": "app_storefront_core/cartridge/scss/fr_FR/",
    "dest": "app_storefront_core/cartridge/static/fr_FR/css/"
  },
  {
    "src": "app_storefront_core/cartridge/scss/it_IT/",
    "dest": "app_storefront_core/cartridge/static/it_IT/css/"
  },
  {
    "src": "app_storefront_core/cartridge/scss/ja_JP/",
    "dest": "app_storefront_core/cartridge/static/ja_JP/css/"
  },
  {
    "src": "app_storefront_core/cartridge/scss/zh_CN/",
    "dest": "app_storefront_core/cartridge/static/zh_CN/css/"
  },
  {
    "src": "app_komoju_core/cartridge/scss/default/",
    "dest": "app_komoju_core/cartridge/static/default/css/"
  }
],
```

⚠ For SiteGenesis, the `app_storefront_controllers` base cartridge also needs to be modified. For this, navigate to `app_storefront_controllers/cartridge/scripts/app.js` and replace 3 (all) instances of `~` symbol with `*` (asterisk) symbol

- Run the following commands with the recommended NodeJS version of **12.21.0**

```
node -v
# => 12.21.0
npm install
npm run build
```

⚠ If you are on Apple Silicon chip (M1), you will most likely run into a `zlib: incorrect data check` error due to incompatibility with ARM. Install NodeJS v12.21.0 on `arch -x86_64` using Rosetta2, clear cache (`rm -rf ./node_modules && npm cache clean --force`) before running `npm install` again should fix it.

⚠ Python v2.x may be required for compiling `node-sass` which relies on an older version of `node-gyp` that uses python2.

# Installation

## Add cartridge paths

Update the cartridge paths of your target site with KOMOJU payment gateway cartridge paths:

- In SFCC **Business Manager**, go to **Administration > Sites > Manage Sites > Your Site > Settings**
- Prepend the following cartridge path to your current paths:
  - For **SFRA** site:  
`bm_komoju:int_komoju_sfra:int_komoju_common:app_storefront_base`
  - For **SiteGenesis** site:  
`bm_komoju:int_komoju_common:app_komoju_controllers:app_komoju_core:app_storefront_controllers:app_storefront_core`

## Import metadata archive

- In the `metadata/sites` folder of `komoju-salesforce-commerce-cloud`, change the folder name (`RefArch` by default) to be the name of your target site (`metadata/sites/RefArch` to `metadata/sites/<yoursite>`).
- Compress the folder to be a `metadata.zip`

**!** *In case you are installing the cartridge for more than 1 target site, duplicate the original folder of your site name (or RefArch by default) for each target site and rename to the name of each target site. Then compress the `metadata` folder now containing multiple site folders again.*

- In **Business Manager**, go to **Administration > Site Development > Site Import & Export**
- Upload the `metadata.zip` file using the `Local` option in the `Upload Archive` section
- After uploading, choose `metadata.zip` in the list and click **Import**



## Upload cartridges and deploy

- Upload KOMOJU payment gateway cartridge (`komoju-salesforce-commerce-cloud` and `sitegenesis` for **SiteGenesis**) via Prophet Debugger on VSCode

**!** *Don't forget to update your `dw.json` file with the correct values. Choose **Leave All Always** when prompted by Prophet Debugger for extra cartridges*

```
// dw.json
{
    "hostname": "<sandbox_name>.dx.commercecloud.salesforce.com",
    "cartridge": ["int_komoju_sfra", "int_komoju_common", "bm_komoju"],
    // or ["app_komoju_controllers", "app_komoju_core", "app_storefront_controllers",
    // "app_storefront_core", "app_storefront_pipelines"], for SiteGenesis
    "username": "<your username>",
    "version": "SFRA_AP_11_17_2022",
    "password": "<your password>"
}
```

- After uploading is completed, in SFCC **Business Manager**, go to **Administration > Site Development > Code Deployment**
- Reinitialize the active code version in which the cartridge resides. To do so, activate any other code version and then reactivate your code version in which the KOMOJU cartridges reside ([SFRA\\_AP\\_11\\_17\\_2022](#) in our example).

**!** You might need to invalidate cache for your site to have the latest changes reflected. To do so, go to **Administration > Sites > Manage Sites > <Your site> - Cache**.

## BM Module Installation

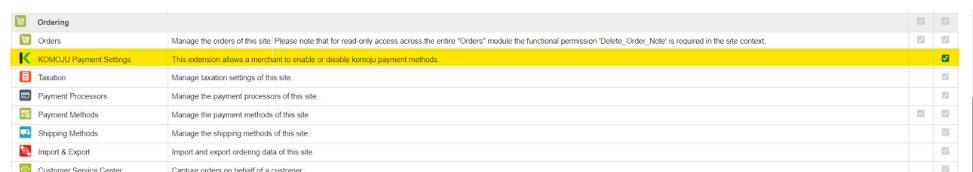
- Make sure that the cartridge paths of the business manager **and** your sites contain `bm_komoju` as shown below:
  - **Administration > Sites > Manage Sites > Manage the Business Manager site > Settings**

The screenshot shows the 'Business Manager - Settings' page under 'Administration > Sites > Manage Sites'. The 'Settings' tab is selected. In the 'Cartridges' field, the value 'bm\_komoju bm\_app\_storefront\_base' is highlighted with a yellow box.

- **Administration > Sites > Manage Sites > Your Site > Settings**

The screenshot shows the 'RefArch - Settings' page under 'Administration > Sites > Manage Sites'. The 'Settings' tab is selected. In the 'Cartridges' field, the value 'bm\_komoju int\_komoju\_sfra int\_komoju\_common.app\_storefront\_base' is highlighted with a yellow box.

- Now if you visit **Administration > Organization > Roles & Permissions > Select Role (usually Administrator role) > Business Manager Modules > (Select your site)**, you should be able to see the [KOMOJU Payment Settings](#) module. Check to enable the module, as shown below, scroll to the bottom and click **Update**



- **KOMOJU Payment Settings** should now be visible under **Merchant Tools > Ordering > KOMOJU Payment Settings**, where you can configure all settings for enabling KOMOJU payment gateway.

# Connecting with your KOMOJU Account

## Enable your supported Payment Methods

- Find your [secret key on KOMOJU](#) and in **KOMOJU Payment Settings**, update the **Secret Key** field with your secret key

**KOMOJU Secret Key**  
Find your secret key in [KOMOJU admin page](#)  
Please notice the secret key under Live model and Test model will be different.

Secret Key : `sk_test_antmsfdm64pnixwdr` [Update](#)

**⚠** You can [sign up](#) for a KOMOJU account to connect in test mode or [apply](#) to connect in live mode

- Run `updatePaymentMethod` job to enable your supported payment methods on KOMOJU on your SFCC site(s). To do so, go to **Administration > Operations > Jobs**, choose **updatePaymentMethod**

The screenshot shows the SFCC Administration interface with the 'Operations' and 'Jobs' sections selected. A blue banner at the top states 'Scheduling Of Custom Jobs Disabled' and 'Automatic time-based execution (scheduling) of custom jobs is disabled.' Below this, a table lists several jobs:

ID	Status	Last Run	Execution Scope	Resources	Priority	Enabled	Delete
RebuildURLs	-		RefArch	-		✗	✗
Reindex	-		RefArch	-		✗	✗
komojuCancelProcess	-		RefArch	-	✓	✗	✗
komojuRefundProcess	-		RefArch	-	✓	✗	✗
updatePaymentMethod	OK	2/27/2023 3:50:10 am	RefArch	-	✓	✗	✗

- The scope where you would like to run the job can also be changed to one or more target sites. To do so, navigate to the **Job Steps** section and click on the scope field:

**⚠** Whatever the site selected in the scope should also:

- Has a equivalent site folder in the [metadata](#) archive
- Has the KOMOJU secret key set up in **KOMOJU Payment Settings** module of the target site

The screenshot shows a 'Select Scope' dialog box. The 'Scope' dropdown is set to 'Specific Sites'. The list includes:

ID	Name	Status
RefArch	RefArch	online
SiteGenesis	SiteGenesis	online
Davidstore	Davidstore	online
RefArchGlobal	RefArchGlobal	online
SiteGenesisGlobal	SiteGenesisGlobal	online

Buttons at the bottom include 'Cancel' and 'Assign'.

- Click **Run Now** to run the job

The screenshot shows the SFCC Administration interface with the 'Operations' and 'Jobs' sections selected. The 'updatePaymentMethod' job is listed in the 'Schedule and History' tab. A red arrow points to the 'Run Now' button in the top right corner of the job card.

- Now all your supported payment methods should be visible to you in **KOMOJU Payment Settings**. You can enable and disable each payment method using the toggle button.

Ordering > KOMOJU Payment Settings

**Payment Methods**

\*Choose the payment methods you want to display on check out page

Method	Currency	Icon	Status
Credit Card	JPY	VISA	ON
Merpay	JPY	Pay	ON
Paidy	JPY	paidy	OFF
PayPay	JPY	PayPay	ON
Rakuten Pay	JPY	R Pay	ON
LINE Pay	JPY	LINE Pay	ON
Credit Card	USD	VISA	ON
Konbini	JPY	LAWSON FamilyMart MINISTOP Dally Seven-Eleven	ON
Bank Transfer	JPY	Bank	ON
Pay Easy	JPY	Pay	ON

**⚠ Please note that only payment methods that support **the same currency as your store's processing currency** will be available on the checkout page when enabled.**

For example, enabled Konbini payment method that supports only **JPY** will not be displayed on the checkout page if your store's products are offered in **USD**.

## Email notifications

- You can also set up notification emails for alerts of job run failures (e.g payment refund and cancellation failures) to be sent to your chosen email address. You can enable/disable this functionality with a toggle button.

Secret Key :  **Update**

**Job failure alert**

\*This email address is used to send alert for the failure of the job to synchronize cancel order to KOMOJU for payment cancel or refund was failed.

Email :  **Update**

Enable/Disable job failure alert **ON**

# Webhooks Configuration

**KOMOJU webhook authentication**  
\*Setup the same secret code on KOMOJU webhook setting page

Secret Token :  Update

**KOMOJU webhook setting**  
\*Setup following webhooks on [KOMOJU admin page](#)

payment.refunded	https://zyhe-001.dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/default/KomojuController-HandleWebHooksRefund	<span style="background-color: #009640; color: white; padding: 2px 5px;">Copy</span>
payment.captured	https://zyhe-001.dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/default/KomojuController-HandleWebHooksCaptureComplete	<span style="background-color: #009640; color: white; padding: 2px 5px;">Copy</span>
payment.cancelled	https://zyhe-001.dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/default/KomojuController-HandleWebHooksCancelled	<span style="background-color: #009640; color: white; padding: 2px 5px;">Copy</span>
payment.expired	https://zyhe-001.dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/default/KomojuController-HandleWebHooksExpired	<span style="background-color: #009640; color: white; padding: 2px 5px;">Copy</span>
payment.authorized	https://zyhe-001.dx.commercecloud.salesforce.com/on/demandware.store/Sites-RefArch-Site/default/KomojuController-HandleWebHooksPaymentAuthorized	<span style="background-color: #009640; color: white; padding: 2px 5px;">Copy</span>

- To ensure that KOMOJU payment gateway cartridge works correctly you will need to set up the necessary webhooks from KOMOJU to your SFCC site(s). To do this you will need to go to your [Webhooks page on the KOMOJU dashboard](#) and click **New Webhook**.
- The secret will be the **Secret Token** of **KOMOJU webhook authentication** in **KOMOJU Payment Settings** page. Make sure you create one webhook for each of the following events (make sure the event is ticked):

`payment.refunded`

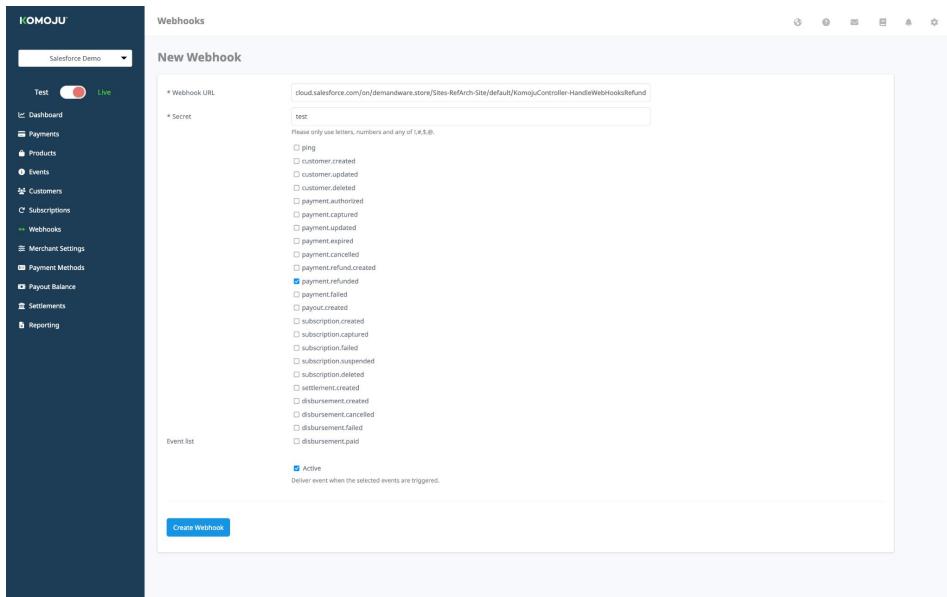
`payment.captured`

`payment.cancelled`

`payment.expired`

`payment.authorized`

- Ensure that the **Active** checkbox is also ticked and then click **Create Webhook**.



# Storefront Functionality (SFRA sites)

## Checkout Flow

- Create an order and proceed to checkout page (customer can continue as guest or create an account for future sign-in). Fill in shipping details to proceed to payment options.

The screenshot shows the Checkout page with the following sections:

- Customer:** Customer Information: test@example.com
- Shipping:** Shipping Address: Test Tester, Some Street, Some City, IN 12345, 9234567890; Shipping Method: Ground (7-10 Business Days) \$5.99
- Order Summary:** Subtotal \$20.00, Shipping \$15.99, Sales Tax \$1.80, Total \$37.79. 1 item: Worn Gold Dangle Earring, Color: Gold, In Stock.
- Payment:** Billing Address: Test Tester Some Street Some City, IN 12345, Update Address, Add New. Phone Number: 9234567890.
- Payment Methods:** Credit Card (selected), Alipay, WeChat Pay, UnionPay.

**Right Panel:** Order Summary: Subtotal \$20.00, Shipping \$15.99, Sales Tax \$1.80, Total \$37.79. 1 item: Worn Gold Dangle Earring, Color: Gold, In Stock. Payment Methods: Credit Card (selected), Alipay, WeChat Pay, UnionPay.

⚠ You can change KOMOJU payment methods section title is **Merchant Tools > Ordering > Payment Methods**. Select the language of your site in the top right dropdown. Find and edit the Name for **KOMOJU\_HOSTED\_PAGE** to your desired title. (The default is 'KOMOJU')

The screenshot shows the Payment Methods page with the following details:

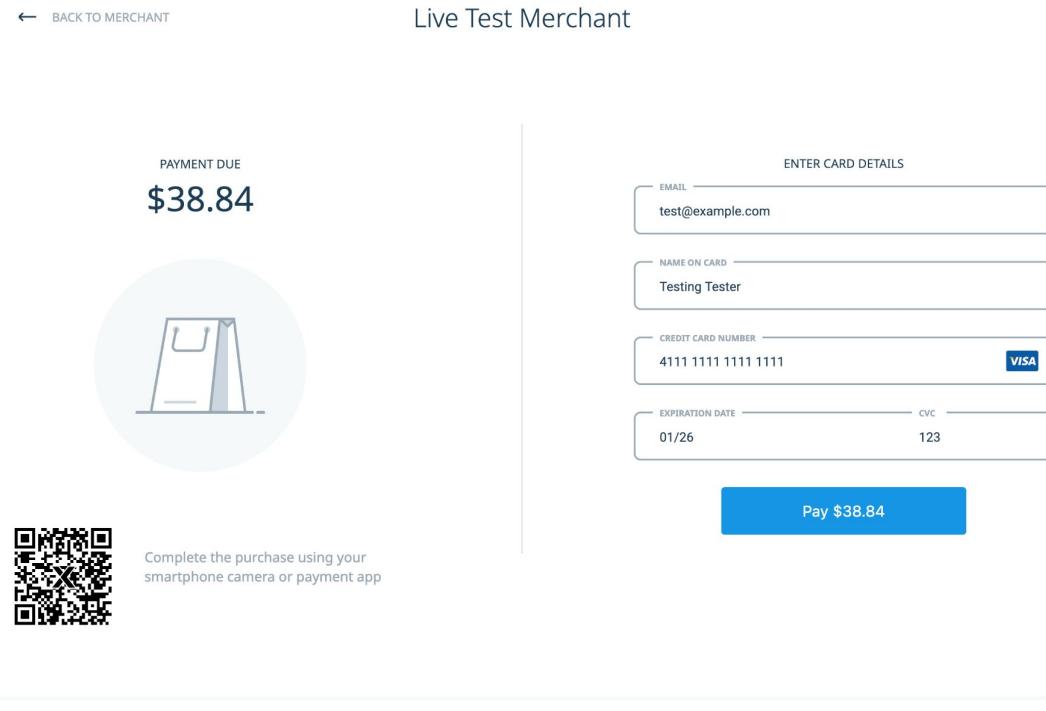
- Payment Methods:** BANK\_TRANSFER, BANK, CREDIT\_CARD, PAY\_ALIPAY, PAY\_WXPAY, GIFT\_CERTIFICATE, KOMOJU\_HOSTED\_PAGE (highlighted).
- BANK\_TRANSFER Details:** Description:
- Language Selection:** English (Default), Chinese, Chinese (Simplified), Dutch, English, English (Canada), English (United Kingdom), English (United States), French, French (Canada), French (France), German, German (Germany), Italian, Italian (Italy).

- Proceed to **Next: Place Order** to confirm the order before payment.

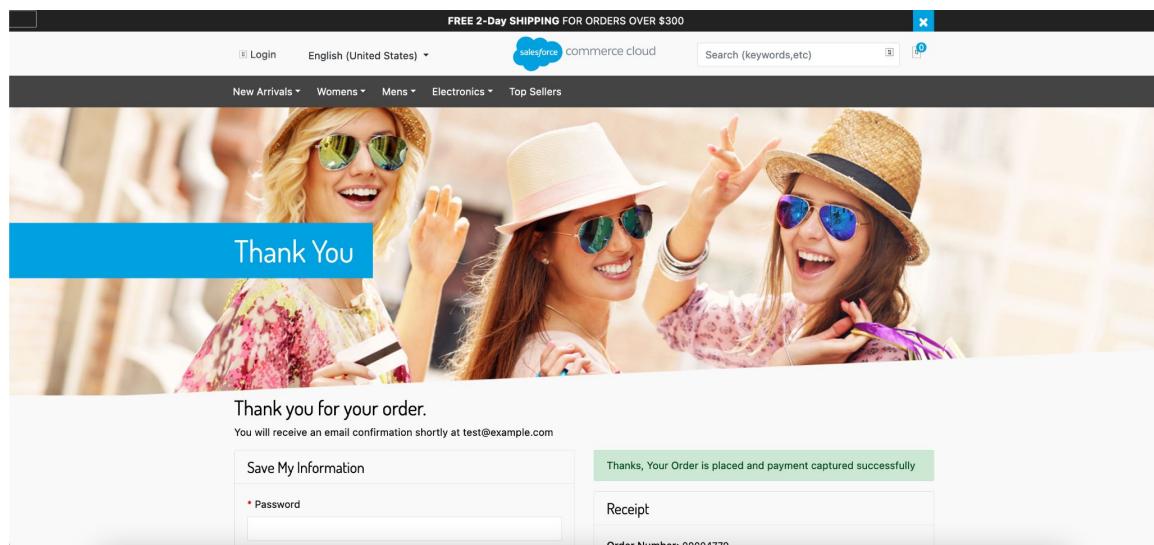
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- Order Summary:** Subtotal \$20.00, Shipping \$15.99, Sales Tax \$1.80, Total \$37.79. 1 item: Worn Gold Dangle Earring, Color: Gold, In Stock.
- Payment:** Billing Address: Test Tester, Some Street, Some City, IN 12345, test@example.com, 9234567890. Payment: Credit Card.
- Place Order:** Next: Place Order button.

- After confirming the order, the customer will then be redirected to KOMOJU hosted page



- After completing the payment, customer will be redirected back to the store's Thank You page.



**⚠** The green success message, as well as other event messages, are editable through the `komojuPayment.properties` file (in `int_komoju_sfra` for SFRA sites and `app_komoju_core` for SiteGenesis sites)

- In case the customer returns back to the store without completing the payment (abandoning the payment), an alert will be shown on the checkout page.

Order Summary	
Subtotal	\$30.00
Shipping	\$15.99
Sales Tax	\$2.30
<b>Total</b>	<b>\$48.29</b>

1 Items	
Silver Chandler Earring	\$30.00

## Viewing Payment Details

- You can view all payment-related data (status, payment ID (Order ID on KOMOJU), amount, payment method used) in the payment section of order details (**Merchant Tools > Ordering > Orders**) as shown below.

- The payment details will also be included in the invoice

KOMOJU\_HOSTED\_PAGE  
Processor: KOMOJU  
Transaction: 00004779  
Amount: \$38.84

Billing Address:  
Test Tester  
Some Street  
Some City HI 12345  
US

Transaction Status: captured  
KOMOJU Payment ID: 3obzbd27qngvpq0jdhy9y8jeq  
KOMOJU Payment Method Type: credit\_card  
Brand: visa  
KOMOJU Processing Currency: USD  
KOMOJU Processing Fee: \$ 0  
KOMOJU Exchange Rate: 1.0  
KOMOJU Exchange Amount: \$ 38.84

[Print Invoice](#)

## Invoice: 00015552

SFRA 5 Wall Street Burlington, MA 01803 USA	Order: 00004779 Date: 4/24/23 Total: \$38.84
<b>Bill To:</b>	Test Tester Some Street Some City HI 12345 United States
<b>Payment Method:</b>	KOMOJU_HOSTED_PAGE
Transaction Status: captured KOMOJU Payment ID: 3obzbd27qngvpq0jdhy9y8jeq KOMOJU Payment Method Type: credit_card Brand: visa KOMOJU Processing Currency: USD KOMOJU Exchange Rate: 1.0 KOMOJU Exchange Amount: \$ 38.84	
<b>Shipment 1</b>	
<b>Product Details</b>	<b>Qty.</b> <b>Total</b> <b>Shipping Details</b>
<u>Worn Gold Dangle Earring</u> Item Number: 013742335262M : Gold	1    \$20.00 Test Tester Some Street Some City, HI 12345 Express - \$16.99

# Locale and Currency Support

The language of the checkout page follows the site locale configuration. Currency follows the configured locale and will also apply to Revenue and Insights.

KOMOJU payment gateway cartridge currently supports 2 languages: English and Japanese. The payment method names follow the configured site locale in either `en` or `ja`.

The screenshot shows the 'Locales' configuration page under 'Site Preferences'. It lists active system locales: default, zh (Chinese), zh\_CN (Chinese (China)), nl (Dutch), en (English), en\_CA (English (Canada)), en\_GB (English (United Kingdom)), and en\_US (English (United States)). The 'Default' column indicates which locale is selected as the default site locale. In this case, 'zh' is selected as the default.

Select All	Locale ID	Name	Default
<input checked="" type="checkbox"/>	default	Default	<input type="radio"/>
<input type="checkbox"/>	zh	Chinese	<input type="radio"/>
<input checked="" type="checkbox"/>	zh_CN	Chinese (China)	<input type="radio"/>
<input type="checkbox"/>	nl	Dutch	<input type="radio"/>
<input type="checkbox"/>	en	English	<input type="radio"/>
<input type="checkbox"/>	en_CA	English (Canada)	<input type="radio"/>
<input checked="" type="checkbox"/>	en_GB	English (United Kingdom)	<input checked="" type="radio"/>
<input type="checkbox"/>	en_US	English (United States)	<input type="radio"/>

## Changing the Locale of BM

- To change the display language for the current user to Japanese, click the profile icon on top bar to go to **My Profile**. For **Preferred UI Locale**, choose **Japanese**. For **Preferred Data Locale**, choose **Japanese (Japan)** and click **Apply**

The screenshot shows the 'My Profile' settings page. Under 'Profile Attributes', the 'Preferred Data Locale' dropdown is set to 'Japanese (Japan)'. At the bottom right, there are 'Apply' and 'Reset' buttons.

- To change locale of the organization into Japanese, go to **Administration > Organization > Organization Profile**. For **Default UI Language**, choose **Japanese**. For **Default Data Language**, choose **Japanese (Japan)** then click **Apply**.

**⚠** Make sure to choose **Japanese (Japan)** (not Japanese only) in **Default Data Language** for correct full localization.

The screenshot shows the 'Organization Profile' settings page. Under 'Fields with a red asterisk (\*) are mandatory.', the 'Name' field is filled with 'Sites'. Under 'Default UI Language', the dropdown is set to 'Japanese'. Under 'Default Data Language', the dropdown is set to 'Japanese (Japan)'. At the bottom right, there are 'Apply' and 'Reset' buttons.

# Refund and Cancel a Payment

- A payment can be refunded and cancelled via either SFCC Business Manager **Orders** page in **Merchant Tools > Ordering > Orders**, or via KOMOJU's payment dashboard.
- Confirm that your webhooks (see **Webhooks Configuration**) are configured correctly to refund / cancel correctly both ways

## Via Salesforce Business Manager Orders Page

- Select the order that you would like to refund or cancel. Click **Cancel Orders**
- Run the KOMOJU processing jobs to update the payment status on KOMOJU
  - Run the **komojuRefundProcess** job to refund a **paid** (captured) payment

ID	Status	Last Run	Execution Scope	Resources	Priority	Enabled	Delete
RebuildURLs	-		?	-	0	0	0
Reindex	-		?	-	0	0	0
Stripe - Delete Custom Objects	-		RefArch	-	0	0	0
Stripe - Process Webhook Notifications	-		RefArch	-	0	0	0
komojuCancelProcess	OK	4/24/2023 12:07:07 am	RefArch	-	✓	0	0
<b>komojuRefundProcess</b>	OK	4/24/2023 12:07:07 am	RefArchGlobal	-	✓	0	0
updatePaymentMethod	OK	4/23/2023 11:29:36 pm	?	-	✓	0	0

- Run the **komojuCancelProcess** job to cancel an **authorized** or **pending** payment

ID	Status	Last Run	Execution Scope	Resources	Priority	Enabled	Delete
RebuildURLs	-		?	-	0	0	0
Reindex	-		?	-	0	0	0
Stripe - Delete Custom Objects	-		RefArch	-	0	0	0
Stripe - Process Webhook Notifications	-		RefArch	-	0	0	0
<b>komojuCancelProcess</b>	OK	4/24/2023 12:07:07 am	RefArch	-	✓	0	0
komojuRefundProcess	-		RefArchGlobal	-	✓	0	0
updatePaymentMethod	OK	4/23/2023 11:29:36 pm	?	-	✓	0	0

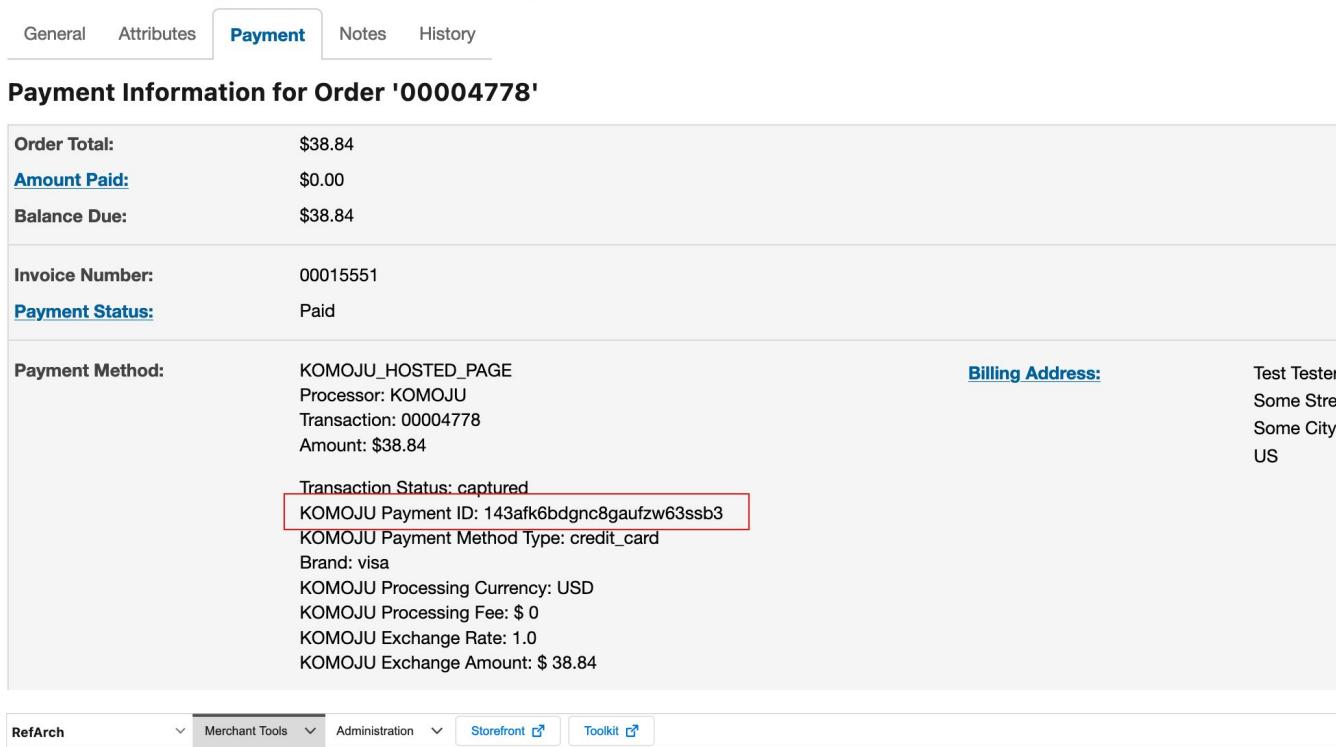
- The payment status on KOMOJU's payment dashboard and the order's payment details should be updated to refunded or cancelled respectively.

Created	Captured	Payment Method	Order ID	Status	Total
24 Apr 11:58	24 Apr 11:58	Credit Card	00004779	Refunded	US\$38.84
24 Apr 11:57	24 Apr 11:57	Credit Card	00004778	Captured	US\$38.84
24 Apr 11:55	24 Apr 11:55	Credit Card	00004777	Captured	US\$38.84

Via KOMOJU Payment Dashboard

- Search by Order ID for the payment you wish to refund or cancel
    - You can search by either the KOMOJU Payment ID or the Transaction number (also order number) that can be found in the payment details of the order

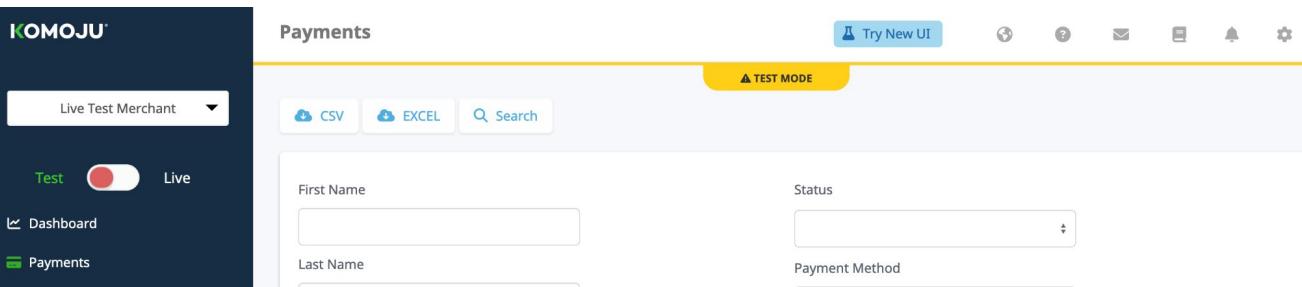
Merchant Tools > Ordering > Orders > Order: 00004778(RefArch)



You're using the new Search service.

This page allows you to search for orders by order number. Select **Advanced** to use more search options. Select **By Number** to search by providing a list of order numbers. Order numbers can be separated by either ',' or ';' or ' ' or newline. Entered text is treated as case-sensitive; substring matching isn't supported.

Order Search								Simple	Advanced	By Number
Order Number:		Find								
	Number	Order Date	Site	Created By	Registration Status	Customer	Email	Total	Status	
<input type="checkbox"/>	00004779	4/24/23 2:58:20 am Etc/UTC	RefArch	Customer	Unregistered	Test Tester	test@example.com	\$38.84	Cancelled	
<input type="checkbox"/>	00004778	4/24/23 2:57:01 am Etc/UTC	RefArch	Customer	Unregistered	Test Tester	test@example.com	\$38.84	New	
<input type="checkbox"/>	00004777	4/24/23 2:54:35 am Etc/UTC	RefArch	Customer	Unregistered	Test Tester	test@example.com	\$38.84	New	
<input type="checkbox"/>	00004776	4/24/23 2:17:05 am Etc/UTC	RefArch	Customer	Unregistered	Test Tester	test@example.com	\$37.79	Failed	



The screenshot shows the Komoju Payments interface. On the left sidebar, there's a dropdown menu set to "Live Test Merchant". Below it are several navigation links: Dashboard, Payments (which is selected and highlighted in green), Products, Events, Customers, Subscriptions, Webhooks, Merchant Settings, Payout Balance, Settlements, and Reporting. The main header "Payments" is centered above a toolbar with CSV, EXCEL, and Search buttons. A yellow button labeled "TEST MODE" is visible. The main search form contains fields for First Name, Last Name, Customer E-mail, Customer Phone #, Created At, Captured at, Status, Payment Method, Order ID (with a red arrow pointing to it), Total Amount, and Currency. A "Search" button is at the bottom right of the form.

- Click on the payment to go to the payment page. There you can find the **Refund** or **Cancel** button to refund or cancel the payment

**Screenshot 1: Payment > 00004778**

Status: CAPTURED

Details

ID: 143afk6bdgnc8gaufzw63ssb3

**Screenshot 2: Payment > 00004780**

Status: PENDING

Details

ID: eua2ff9wdeyj1owwpaezyqqb8

Customer

- Full Name: Testing Tester
- Email: test@example.cc

Customer

- Full Name: Test Tester
- Email: test@example.c
- IP Address: 123.45.67.89

- The order status will then be updated accordingly on your Business Manager Orders page and can be viewed in the payment details (except for order of **Created** status and payment of **Pending** status on KOMOJU)

Merchant Tools > Ordering > Orders > Order: 00004778(RefArch)

General Attributes **Payment** Notes History

**Payment Information for Order '00004778'**

Order Total:	\$38.84		
Amount Paid:	\$0.00		
Balance Due:	\$38.84		
Invoice Number:	00015551		
Payment Status:	Not Paid		
Payment Method:	KOMOJU_HOSTED_PAGE Processor: KOMOJU Transaction: 00004778 Amount: \$38.84	Billing Address:	Test Tester Some Street Some City HI 123 US
Transaction Status: refunded KOMOJU Payment ID: 143afk6bdgnc8gaufzw63ssb3 KOMOJU Payment Method Type: credit_card Brand: visa KOMOJU Processing Currency: USD <small>KOMOJU © 2023 All Rights Reserved</small>			

# Other Technical Specs

## BM Module - Schedule Jobs

- `updatePaymentMethod`
  - Calls the KOMOJU API to fetch available payment methods and update the custom object. The custom object will be updated according to the API response and the attribute `Available Komoju Payment Methods` will be updated with the stringified text containing payment methods and their details.



If there are already payment methods stored in the custom attribute then this job won't change the status of those payment methods. For example, if `konbini` was disabled earlier, this job won't enable `konbini`. Instead it will just store the additional payment methods received from the servers and the rest will be kept as earlier.

- `komojuCancelProcess`

Calls the KOMOJU API to cancel the orders requested for the cancellation flow

- Navigate to **Administration > Jobs > komojuCancelProcess**, click **Run Now**



- This job processes the orders that are of the order status `Cancelled` and payment status as `Not Paid` and the **komojuCancelStatus** dropdown should neither be `Cancelled` nor `Rejected`.
- If the API response returns an error then the **komojuCancelStatus** drop-down is updated to **Failed** and the reason is stored in **komojuCancelResponse**
- If the API response returns a status code as `not_cancelable` then the dropdown is updated to **Rejected**.
- If the API response is `ok` then the dropdown is updated to **Cancelled**.

**⚠️** In case there are orders that failed to be cancelled and are not retry-able, the order IDs are stored and an email containing the failed order IDs with the reasons for failure will be sent to your email that is set in **KOMOJU Payment Settings** module

KOMOJU Group

KOMOJU Order Processed:	<input type="checkbox"/>
KOMOJU Payment Method Type:	konbini
Session Url KOMOJU:	https://komoju.com/sess[REDACTED]y4jjar7c
Payment Id KOMOJU:	diju1d[REDACTED]uryh
Session Id KOMOJU:	erv9unmde[REDACTED]
KOMOJU Refund Response:	[Large Text Area]
KOMOJU Cancel Response:	
KOMOJU Refund Status:	- None -
KOMOJU Cancel Status:	- None -
KOMOJU Payment Status:	[Text Area]

- **komojuRefundProcess**

Calls the KOMOJU API to refund the orders requested for the refund flow

- Navigate to **Administration > Jobs > komojuRefundProcess**, click **Run Now**

Administration / Operations / Jobs /  
komojuRefundProcess

General	Schedule and History	Resources	Job Steps	Failure Handling	Notification	<b>Run Now</b>
Job Parameters						<b>Scopes</b>
<input type="text" value="refundOrder"/>						<input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/>

- This job processes the orders that are of the order status **Cancelled** and payment status as **Paid** and the **komojuRefundStatus** dropdown should neither be **Refunded** nor **Rejected**.
- If the API response returns an error then the **komojuRefundStatus** drop-down is updated to **Failed** and the reason is stored in **komojuRefundResponse**
- If the API response returns a status code as **not\_refundable** then the dropdown is updated to **Rejected**
- If the API responses **ok** then the **komojuRefundStatus** dropdown is updated to **Refunded**.

**⚠️** In case there are paid orders that failed to be refunded and are not retry-able, the order IDs are stored and an email containing those order IDs with the reasons for failure will be sent to your email that is set in **KOMOJU Payment Settings** module

## Version and SFRA Support Info

- The JavaScript Files are located at  
`cartridges\int_komoju_sfra\cartridge\client\default\js\`
- The file with the current version of the `int_komoju_sfra` cartridge tool cartridge is located at  
`int_komoju_sfra\cartridge\int_komoju_sfra.properties`

### KOMOJU cartridge Version Support:

- SFRA 6.0.0 and above
- SiteGenesis 105.2.1 and above

### Compatibility Mode:

Cartridge tested with Compatibility Mode 22.4.

## Operations and Maintenance

- Data Storage
  - The integration requires System Objects Extension to store partner-related information.
- Custom attributes for **Order** object:
  - **KOMOJU Session URL:** This custom attribute stores the session URL of the hosted page once a customer submits for payment
  - **UUID:** This custom attribute stores the UUID of the hosted page once a customer submits for payment
  - **KOMOJU Refund Status:** Enum of strings storing the status of the refund.
  - **KOMOJU Cancel Status:** Enum of strings that stores the cancellation status of an order.
  - **KOMOJU Refund Response:** This attribute contains the response of the refund API call in that order.
  - **KOMOJU Cancel Response:** This attribute contains the response of the cancel API call in that order.
  - **KOMOJU Order Processed:** This attribute specifies that the order has been forwarded to KOMOJU to create the transaction record.
  - **KOMOJU Payment Id:** This custom attribute on an order contains the payment UUID associated with the KOMOJU session id on a particular order.
  - **KOMOJU Payment Method Type:** It stores the payment method selected by the user, for example, Konbini, Bank transfer, etc.
  - **KOMOJU Exchange Rate:** It stores the exchange rate of the currency of the payment method selected with respect to the storefront currency.
- Custom attributes for **Basket** object
  - **KOMOJU Payment Method Type:** It stores the payment method selected by the user, for example - Konbini, Bank transfer, etc.
  - **KOMOJU Session URL:** It holds the KOMOJU session URL in the basket.
  - **UUID:** It holds the KOMOJU session UUID in the basket.

## Operations and Maintenance

- Custom attributes for **OrderPaymentInstrument** object
  - **KOMOJU Payment Method Type:** It stores the particular method selected by the customer among all KOMOJU methods (e.g. Konbini, Paypay, Merpay, etc).
  - **Prepaid Card Last Digits:** It stores the prepaid card's last 4 digits numbers.
  - **Brand:** It stores brands associated with a credit card.
  - **Store:** It contains the store selected by the customer in case of the Konbini payment method.
  - **Transaction Status:** It stores the transaction status of the payment.
  - **KOMOJU Payment Id:** It stores the payment UUID received from KOMOJU.
  - **KOMOJU Exchange Rate:** It stores the exchange rate of the currency of the payment method selected with respect to the storefront currency.
  - **KOMOJU Processing Currency:** It stores the currency in which the customer makes a payment on KOMOJU's hosted page.
  - **KOMOJU Exchange Amount:** It stores the amount converted from storefront currency to the KOMOJU payment method selected currency.
  - **KOMOJU Processing Fee:** It stores the processing fee of the payment method selected.
- Custom Objects
  - **KOMOJU Payment Methods Object Type:** This type is used to store the KOMOJU payment methods, KOMOJU secret key, the email to send failure notifications, webhook authentication code, and KOMOJU Email Locale to store the current BM Locale. All these values get updated from the BM module configured.

The screenshot shows the 'KOMOJU Custom Object Grouping' interface. At the top, there is a field labeled 'paymentMethodKey:' with a value of '1' and a note '(Integer)'. Below this, a section titled 'Available KOMOJU Payment Methods:' displays a JSON array of payment method configurations. The array includes fields like 'methodId', 'displayValue', 'enabled', 'currency', and 'methods'. Other fields visible include 'KOMOJU Secret Key' (redacted), 'KOMOJU Email' (redacted), 'Email Toggle Value' (checkbox checked), 'Webhooks Authentication Code' (redacted), and 'KOMOJU Email Locale' (set to 'ja').

```
{"c_availablePaymentMethods": [{"method1": {"id": "konbini", "displayValue": {"en": "Konbini", "ja": "\u30d5\u30a1\u30b9\u30bf", "ko": "\ud558\ud544\ud55c"}, "enabled": true, "currency": "JPY"}}, {"method2": {"id": "credit_card", "displayValue": {"en": "Credit Card", "ja": "\u30d5\u30a1\u30b7\u30e7\u30f3 \u30a4\u30d7\u30a1\u30a4", "ko": "\u30d5\ud558\ud544\ud55c"}, "enabled": false, "currency": "JPY"}}, {"method3": {"id": "bank_transfer", "displayValue": {"en": "Bank Transfer", "ja": "\u30d5\ud544\ud558 \u30a4\ud558", "ko": "\u30d5\ud544\ud558 \ud544\ud558"}, "enabled": true, "currency": "JPY"}}, {"method4": {"id": "merpay", "displayValue": {"en": "Merpay", "ja": "\u30d5\ud558\ud544\ud55c", "ko": "\u30d5\ud558\ud544\ud55c"}, "enabled": true, "currency": "JPY"}}, {"method5": {"id": "linepay", "displayValue": {"en": "LINE Pay", "ja": "\u30d5\ud544\ud558 \u30d5\ud544\ud558", "ko": "\u30d5\ud544\ud558 \u30d5\ud544\ud558"}, "enabled": true, "currency": "JPY"}}, {"method6": {"id": "paypay", "displayValue": {"en": "PayPay", "ja": "\u30d5\ud558\ud544\ud55c", "ko": "\u30d5\ud558\ud544\ud55c"}, "enabled": true, "currency": "JPY"}}, {"method7": {"id": "pay_easy", "displayValue": {"en": "Pay Easy", "ja": "\u30d5\ud558\ud544\ud55c", "ko": "\u30d5\ud558\ud544\ud55c"}, "enabled": true, "currency": "JPY"}}, {"method8": {"id": "japan_mobile", "displayValue": {"en": "Mobile (Japan)", "ja": "\u30d5\ud544\ud558 \u30a4\ud558", "ko": "\u30d5\ud544\ud558 \u30a4\ud558"}, "enabled": true, "currency": "JPY"}}, {"method9": {"id": "credit_card", "displayValue": {"en": "Credit Card", "ja": "\u30d5\u30a1\u30b7\u30e7\u30f3 \u30a4\u30d7\u30a1\u30a4", "ko": "\u30d5\ud558\ud544\ud55c"}, "enabled": false, "currency": "KRW"}}, {"method10": {"id": "kakao", "displayValue": {"en": "Kakao", "ja": "\u30d5\ud558\ud544\ud55c", "ko": "\u30d5\ud558\ud544\ud55c"}, "enabled": false, "currency": "KRW"}}], "KOMOJU Secret Key": "REDACTED", "KOMOJU Email": "REDACTED", "Email Toggle Value": true, "Webhooks Authentication Code": "REDACTED", "KOMOJU Email Locale": "ja"}
```

## HTTP Server Availability

- You can track availability and downtime by service status in the Commerce Cloud Business Manager.
- Go to **Administration > Operations > Services > service\_name**.
- **KOMOJUService**: This service is used to create a hosted page session, get the details of the session at any point of the checkout flow and cancel the session as well.
- **KOMOJUCancelAndRefundService**: This service is used to request the refund and cancel on the KOMOJU's end.
- **KOMOJUGetPaymentMethods**: This service is used to get the latest payment methods from KOMOJU servers.

## Service Errors Handling

- Service timeout
  - To configure logs, go to Administration > Operations > Custom Log > Settings. In Log Category, enter `customKomojuErrors`, choose log level as `ERROR` and click to add. Then add another category `customKomojuSourceLogger` with `INFO` log level.
  - If KOMOJU service becomes unavailable, error details can be found in the following logs
    - Error details can be found in the log with the `custom.customKomojuErrors` prefix
    - Service requests can be found in the log with the `custom.customKomojuSourceLogger` prefix

The screenshot shows the 'Custom Log Filters' section of the administration interface. It includes a warning message: 'Custom log category names can't include 'custom' as a prefix.' Below this are sections for 'Active', 'Log Category', and 'Log Level'. Under 'Active', there is a search bar 'Enter a log category...' and a dropdown 'INFO' with an 'Add' button. A table lists three categories: 'root' (WARN), 'customKomojuErrors' (ERROR), and 'customKomojuSourceLogger' (INFO). Each row has an 'Edit' icon and a trash bin icon. Below this is the 'Custom Log Targets' section, which includes fields for 'Email' (with a note about FATAL messages) and 'Log Files' (with checkboxes for FATAL, ERROR, WARN, INFO, and DEBUG). At the bottom, there is a note about 'Log Center'.

## Handle error response

Error handling for the SFRA-based integration is in `custom.customKomojuErrors`

- Detailed errors from KOMOJU can be found in custom-search errors
- All error texts are located at **Administration > Site Development > Development Setup > Log files** folder icon. You can search for `customKomojuErrors` errors.