



Hyperwallet Mirakl Connector
Solution Guide
Version 4.2

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Terms & acronyms

Project term	Mirakl term	Hyperwallet term	Description
HMC			Hyperwallet Mirakl Connector
Business Account	Professional account	Business Payee/User	A company selling products on the marketplace
Business Stakeholder	Business contact/ Ultimate beneficial owner/Director	Business stakeholder	An individual that is connected to a Shop. The details of these individuals must be captured as part of the KYC data. Each Business Stakeholder will be KYC'd as part of the Payee Verification process
Individual account	Standard account	Individual Payee/User	An individual selling products on the marketplace.
Invoice	Accounting document, Payment file	Payment, Payment request	The automatically generated accounting document used for calculating the payout to the seller and operator at the end of a billing cycle in Mirakl. Support for other types of accounting documents in Mirakl (e.g. credit notes) is currently on the product roadmap.
KYC	KYC	Payee verification	Process to verify the identity of individual account holder or business stakeholder (for business accounts) by retrieving data and documents and assessing their suitability.
Operator	Operator	Organisation	Marketplace owner/operator providing the platform for sellers to sell products and services. Establishes rules for the marketplace operation and sets up all the relevant configurations (countries, languages, currencies, fees, security settings etc.).
Seller	Seller / Shop	Payee / User	An individual or business entity selling products and services via the marketplace.
Payout	Payment	Payment	Paying Mirakl accounting documents (i.e. invoices) via HMC to corresponding payees in Hyperwallet.
Multi-program hierarchy		Multiple Programs Level 2 & 3 program hierarchy	Functionality to support use cases for more complex payout structure where the operator payout can be directed to different child programs. For more information, please refer to Hyperwallet documentation: docs.hyperwallet.com/content/program-hierarchy/v1/multiple-programs .

Introduction

This document is for the use of PayPal/Hyperwallet integration teams and their customers. It describes the core features of the Hyperwallet Mirakl Connector and how to operate it together with the Mirakl and Hyperwallet platforms. This document supplements, but does not replace, the official Hyperwallet and Mirakl platform documentation or any other solution guidance provided by Hyperwallet and Mirakl.

1 Solution Overview

The **Hyperwallet Mirakl Connector (HMC)** is a drop-in service that mediates between a Mirakl marketplace solution and the Hyperwallet payout platform. It implements the common integration points between Mirakl and Hyperwallet, saving new operators significant effort on setting up their marketplace system. The HMC is designed specifically to support the widest range of marketplace use cases and PSP combinations, and should enable a functional Mirakl-Hyperwallet integration with little to no extra technical work needed.

This document is kept up to date with the latest version of the HMC solution.

For detailed technical setup and deployment instructions, please also consult the README file that is distributed with the HMC source code, located in the public GitHub repository at:

<https://github.com/paypal/mirakl-hyperwallet-connector>

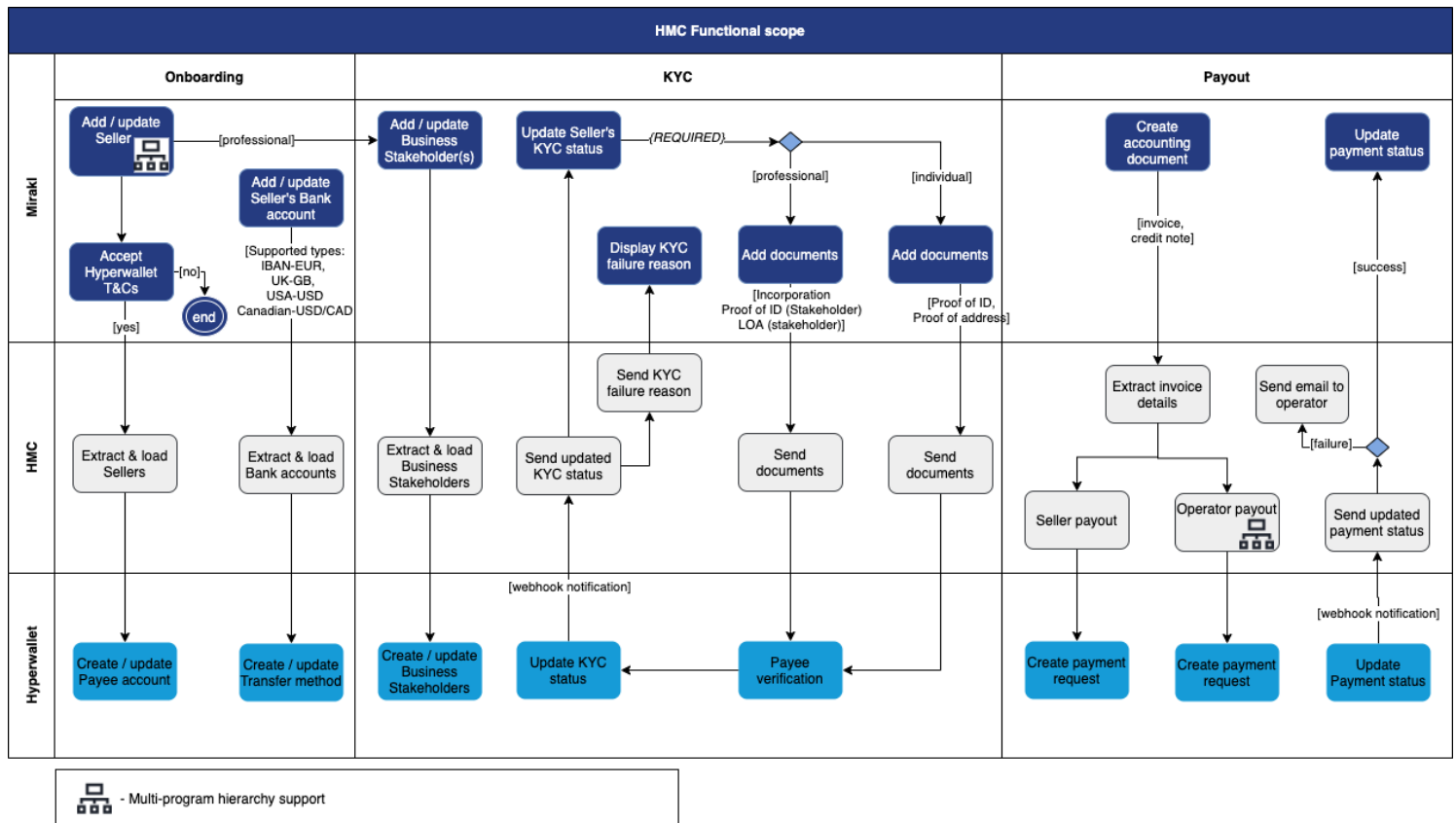
Pay-in provider compatibility

HMC facilitates payout to Sellers and Operators irrespective of the source of funds and in “pay-in agnostic” way. This means that HMC

- Can work with Braintree-Mirakl pay-in connectors and function as part of the overall PayPal ecosystem for pay-in and payout services; or
- Can be integrated with any pay-in PSP and work alongside it to provide the payout services.

1.1 Functional Scope

The HMC encompasses a number of features that are described in the below section.



1.2 Features

Feature	Connector->Mirakl Actions	Connector->Hyperwallet Actions
1. Onboarding		
Create payee account for Individual Hyperwallet User	<ul style="list-style-type: none"> Retrieve shop details from Mirakl for newly onboarded sellers trading as individuals. Obtains all shops added to operator marketplace since the previous extract. Mirakl shop record updated with generated Hyperwallet User token (Additional Mirakl custom field). Assign the shop to a relevant level within the operator program hierarchy (e.g. if the operator works through separate legal entities in different jurisdictions). 	<ul style="list-style-type: none"> Create a new User in Hyperwallet with type of INDIVIDUAL One Hyperwallet User created for each newly onboarded Individual seller obtained from Mirakl. The shop will be assigned to the corresponding operator program within the merchant program hierarchy in Hyperwallet.

Create payee account for Business Hyperwallet User	<ul style="list-style-type: none"> Retrieve shop details from Mirakl for newly onboarded sellers trading as businesses. Obtains all shops added to operator marketplace since the previous extract. Mirakl shop record updated with generated Hyperwallet User token (Additional Mirakl custom field). Assign the shop to a relevant level within the operator program hierarchy (e.g. if the operator works through separate legal entities in different jurisdictions). 	<ul style="list-style-type: none"> Create a new User in Hyperwallet with type of BUSINESS. One Hyperwallet User created for each newly onboarded Business seller obtained from Mirakl. The shop will be assigned to the corresponding operator program within the merchant program hierarchy in Hyperwallet.
Accept Hyperwallet T&Cs	<ul style="list-style-type: none"> Only retrieve shops that accepted the Hyperwallet T&Cs. 	<ul style="list-style-type: none"> Only shops that have accepted Hyperwallet T&Cs will be sent to Hyperwallet. Rejecting the T&Cs means the shop will not be eligible for any of the Hyperwallet features including payout.
Update existing Hyperwallet Users	<ul style="list-style-type: none"> Retrieve the details of all existing shops in Mirakl that have been updated since the last extract. Custom field containing the Hyperwallet User token indicates the Shop already exists in Hyperwallet. 	<ul style="list-style-type: none"> Update the existing Hyperwallet User with all shop data retrieved from Mirakl. The user token will be used to update the relevant Payee record in Hyperwallet.
Create Bank account	<ul style="list-style-type: none"> Retrieve bank account details for newly onboarded sellers. The following Mirakl bank account types are supported in HMC 1.0: <ul style="list-style-type: none"> IBAN (EUR, CHF); U.S. ABA (USD); CANADIAN (CAD, USD); United Kingdom account (GBP). Mirakl shop record updated with generated Hyperwallet bank account token (Additional Mirakl custom field). Note: There is not separate payment method in Mirakl for UK bank accounts, hence this cannot be implemented at this stage. 	<ul style="list-style-type: none"> Bank account (i.e. Transfer Method) created after the User account is successfully created for the seller in Hyperwallet. A single bank account created for the existing Hyperwallet User account. Bank Account is the only transfer method supported in HMC.
Update Bank account details (PUT)	<ul style="list-style-type: none"> Retrieve the details of bank accounts that have been updated since the last extract. Custom field containing the Hyperwallet TRM token indicates the bank account for the shop already exists in Hyperwallet. 	<ul style="list-style-type: none"> Update the existing bank accounts with new details from Mirakl using PUT method, i.e. update existing Transfer method.
Configurable seller data extract frequency	<ul style="list-style-type: none"> Operator can configure the frequency of the shop details/bank account retrieval from Mirakl. 	<ul style="list-style-type: none"> Process to extract shop data from Mirakl is triggered based on configured frequency

2. KYC		
Create/update Business Stakeholders (Business sellers only)	<ul style="list-style-type: none"> Up to 5 Business Stakeholders can be created as part of the shop record in Mirakl; Define stakeholder role (Director, UBO, Senior Managing official) and complete the extended set of stakeholder details in Mirakl; Connector retrieves stakeholder details on a scheduled basis; Update Business Stakeholder with a Hyperwallet token that will uniquely identify the stakeholder in Hyperwallet. 	<ul style="list-style-type: none"> Send Business Stakeholder details to Hyperwallet for verification; Receive Hyperwallet Business Stakeholder token that will be a unique ID of the stakeholder.
Add documents - Individual seller	<ul style="list-style-type: none"> Upload <i>Proof of identity</i> and <i>Proof of address</i> documents in Mirakl; Connector extracts these documents on scheduled basis for sending the to Hyperwallet. 	<ul style="list-style-type: none"> Send documents to Hyperwallet for verification
Add documents - Business seller	<ul style="list-style-type: none"> Upload the following documents: <ul style="list-style-type: none"> <i>Proof of Business</i> (Certificate of incorporation; <i>Proof of identity</i> of Business Stakeholders; <i>Letter of Authorisation</i> in specific circumstances (Business contact is NOT a Director); Connector extracts these documents on scheduled basis for sending the to Hyperwallet. 	<ul style="list-style-type: none"> Send documents to Hyperwallet for verification
KYC status updates	<ul style="list-style-type: none"> Update Mirakl with KYC status changes received from Hyperwallet via HMC. KYC status is displayed as part of the shop record in Mirakl 	<ul style="list-style-type: none"> Receive a notification of changes in KYC status as part of the payee verification process. This will be received by the Connector via a webhook and sent through to Mirakl.
KYC failure reasons	<ul style="list-style-type: none"> Send a predefined failure reasons based on the KYC status received. Failure reason is displayed as part of the shop record in Mirakl 	<ul style="list-style-type: none"> Receive KYC status update from Hyperwallet
3. Payout		
Payout to sellers	<ul style="list-style-type: none"> Retrieve details of all seller invoices generated since the last extract. Retrieves invoices generated by the Mirakl operator billing cycle, or manual credit notes, that are eligible for payout and: <ul style="list-style-type: none"> have not yet been paid; are not in draft state. 	<ul style="list-style-type: none"> Create a payment request for paying out the seller based on the details of the invoice. All seller payouts are from a single operator funding account. Seller payouts made to the seller bank account stored in Hyperwallet

Payout to Operator	<ul style="list-style-type: none"> Retrieve details of the operator commission and subscription fee amounts due for each seller invoice. Operators can configure whether to turn off this automated payout process. 	<ul style="list-style-type: none"> Create a new operator payout request to payout the individual commission and subscription fee amounts due to the operator for each seller invoice If operator chooses to turn off the automated payout, their commission and subscription will not be processed/paid and will remain in the main funding account in Hyperwallet. Send the corresponding program tokens based on which entity/level of merchant hierarchy the seller belongs to. Payout will be directed to the corresponding operator bank account associated with the relevant merchant program in Hyperwallet.
Payout status updates	<ul style="list-style-type: none"> Send a failure notification to the operator by email in case of a payout failure (seller payout or operator payout). 	<ul style="list-style-type: none"> Payout status will be received by HMC via a webhook.
4. Technical enablement		
API failure and error alerts	<ul style="list-style-type: none"> Send email alerts to the operator in case of any API failures or other errors occur (e.g. mandatory data missing, timeout, authentication failures). 	

1.3 HMC release history

v1.0 (December 2020)

Category	Features
Onboarding	<ul style="list-style-type: none">▪ Create and update payee account (Individual, Business payees)▪ Create and update payee bank accounts▪ Accept Hyperwallet T&Cs
KYC	<ul style="list-style-type: none">▪ KYC status updates
Payout	<ul style="list-style-type: none">▪ Payout to Sellers (IBAN, US ABA, Canadian)▪ Payout to Operator▪ Payout status updates
Technical enablement	<ul style="list-style-type: none">▪ API failure and error alerts

v2.0 (May 2021)

Category	Features
Programs	<ul style="list-style-type: none">▪ Support for Multi-Program Hierarchies
Security	<ul style="list-style-type: none">▪ Support for Payload Encryption (Layer7)
KYC	<ul style="list-style-type: none">▪ Create and update Business Stakeholders▪ Add KYC documents▪ KYC failure reasons
Payout	<ul style="list-style-type: none">▪ Payout in GBP to UK bank accounts

v3.0 (June 2021)

Category	Features
Payout	<ul style="list-style-type: none">▪ Support for paying out manual credit notes

v3.1 (July 2021)

Category	Features
KYC	<ul style="list-style-type: none">▪ Technical refinements to how the connector processes KYC jobs
Technical enablement	<ul style="list-style-type: none">▪ Provides a Postman collection in the repository, to ease the testing/deployment process

v4.0 (August 2021)

Category	Features
Technical enablement	<ul style="list-style-type: none"> ▪ Introduced a .env file for use in the Docker deployment process, and for optionally collecting configuration values ▪ Migration of remaining user-configurable values to Environment Variables, away from being contained in module-specific property files (Note: requires specific upgrade tasks, see notes in the repository) ▪ Extensive revision of the solution README to provide more specific & detailed guidance

v4.1 & v.4.2 (September 2021)

Category	Features
KYC Improvements	<ul style="list-style-type: none"> ▪ Remove Seller-level documents if they are rejected in the Hyperwallet platform ▪ Process eID verification notifications on Business Stakeholders
Technical enablement	<ul style="list-style-type: none"> ▪ Update the example Postman file with latest HMC endpoints

2 Operator onboarding

2.1 Overview

Onboarding of Marketplace Operators on to the Hyperwallet program(s) will be handled differently than seller onboarding. Operators do not usually exist in Mirakl or Hyperwallet as account entities.

The operator details required for participation in the Hyperwallet program will be provided by the PayPal team as part of the onboarding process and configured in the HMC properties. This includes program tokens that will be used to identify the operator on the Hyperwallet platform to enable operator payouts for orders made on the marketplace.

The configuration instructions in the README include the environment variables for setting the necessary program tokens. The default setup conforms to a Single-level program hierarchy structure in Hyperwallet.

Refer to section 2.3 below regarding the multi-program hierarchy structure set up.

For further details regarding setting up Operators in Hyperwallet and defining the required program hierarchy please refer to Hyperwallet documentation that will be provided to you by the PayPal team as part of the onboarding process.

2.2 Webhook Processing

HMC supports receiving and processing event notifications sent by Hyperwallet via webhook. This is accomplished using a built-in webhook listener that handles all supported webhook notification types and works with both basic authentication and payload encryption. The supported webhook notification types are specified in the various feature-related sections in this document.

During the operator onboarding process, the Hyperwallet team will enable webhook notifications by registering the webhook listener endpoint URL.

The endpoint for the webhook listener is on the path: `/webhooks/notifications`. This path is used by default, and no properties or configuration are used for enabling or setting up the webhook listener.

The endpoint must be accessible from Hyperwallet IP ranges specified in the official documentation page <https://docs.hyperwallet.com/content/webhooks/v1/integration>

For example, if the HMC is deployed to the URL: `https://hmc.example.com`, then the full webhook listener URL will be: <https://hmc.example.com/webhooks/notifications>.

2.3 Multi-program hierarchy

In certain scenarios a Marketplace Operator may wish to support use cases for more complex payout structure where the operator payout can be directed to different child programs. This may depend on a number of factors including payee types, organisational structure, funding needs and regional distinctions.

The appropriate setup should be defined in collaboration with the PayPal team as part of the onboarding process. For more information about supporting multiple programs in Hyperwallet please refer to Hyperwallet documentation: docs.hyperwallet.com/content/program-hierarchy/v1/multiple-programs.

When a multi-program hierarchy structure is defined in Hyperwallet for the Operator this will need to be reflected in HMC and Mirakl as described below.

HMC configs for multi-program hierarchy:

The properties described in the above section should be updated to include multiple Issuing Store tokens. See “Multiple Issuing Store configurations” section of the README file that is distributed with the connector source code.

Mirakl settings for multi-program hierarchy:

The “*Hyperwallet Program*” custom field in Mirakl should be updated to allow selecting the relevant program that a Seller shop will belong to. This will be done by extending the single-value list under this field to include the multiple programs defined as part of the operator program structure in Hyperwallet.

For example, if a Marketplace Operator *Greenfield* has been set up with several programs to support regional markets (e.g. UK, Europe, USA) this single value list should be extended to include the following values that will represent different child programs under the parent merchant program:

- Greenfield - UK;
- Greenfield - Europe;
- Greenfield - USA.

When creating a new Seller shop the Operator should select which program the Seller should be linked to by selecting the relevant Hyperwallet Program from the above single-value list. This can only be done by the Operator as the Hyperwallet Program field is hidden and not displayed to the Sellers as part of the Store details in Mirakl.

Note: it is possible to change Hyperwallet Program when updating the Seller details in the future. However, you will only be able to change to another operator child program at the same level of hierarchy and under the same parent merchant program as described in the Hyperwallet documentation (see *programToken* field under the Update User section:

docs.hyperwallet.com/content/api/v4/resources/users/update). Please contact your Hyperwallet account representatives for any questions about setting up and managing multi-program hierarchy.

Bank accounts

It is possible to configure bank accounts for the operator child programs (e.g. Greenfield - UK, Greenfield - USA). This is defined as part of the Operator onboarding program with the PayPal team.

Once the hierarchy structure is defined the appropriate TRM tokens will need to be added to the connector properties as described in “Multiple Issuing Store configurations” section.

For further details how to configure this please see the “Multiple Issuing Store configurations” section of the README file that is distributed with the connector source code.

3 Seller onboarding

3.1 Overview

Sellers are trading entities that sell products and services via their online shops on a Mirakl marketplace managed by a marketplace Operator. A Seller can represent an individual, if trading as a person, or a business entity, if trading as a company. For the purpose of this guide Sellers are equivalent to Mirakl shops/stores.

For sellers that create multiple shops in Mirakl for selling with multiple currencies, each shop must be treated as a new entity. Each shop has its own account holder and needs to be onboarded separately.

Seller information is managed in the Mirakl marketplace, which is the source of all Seller data, including the details used for KYC and Payout. Each Seller must have a corresponding user account and bank account in Hyperwallet in order to receive payments from the Mirakl marketplace Operator.

The following section describes onboarding of Sellers from Mirakl to Hyperwallet via the HMC. This includes creation and update of Seller accounts and their corresponding bank accounts through a set of automated synchronisation jobs performed by the HMC at regular configurable intervals.

Onboarding of marketplace Operators and the payee verification process for Operators are not part of the current HMC scope and are not covered by this document. For these and other out-of-scope topics, Hyperwallet will provide a parallel solution to the marketplace Operators.

3.2 Create/Update Seller

▪ 3.2.1 Overview

HMC provides two jobs to perform creation of new sellers and update of existing sellers:

- *Professional sellers extract* - extracts all business sellers from Mirakl; and
- *Individual sellers extract* - extracts all individual sellers from Mirakl.▪

These are implemented as two separate jobs because the data model and behaviours in Mirakl & Hyperwallet are different between individual sellers and business sellers.

These jobs are scheduled to run on a configurable frequency. Refer to section 3.2.4 [Timed Job Frequency](#) below for further information about configuring the timed jobs.

In the Contact Details section in the Mirakl seller page, the “Professional” boolean attribute is used to determine the seller type.

Upon successful creation of a seller’s user account in Hyperwallet:

- The user account can be found under the Account listing screen in Hyperwallet.
- The user account token will be stored under the corresponding seller’s shop record in Mirakl - see section 7.5.1 [Seller/Store Custom Fields](#)
 - **Note:** this field can only be viewed by the marketplace Operator and will be hidden for Sellers.

T&C Acceptance

The HMC will only create Hyperwallet payee accounts for new sellers when the sellers have accepted the Hyperwallet Terms & Conditions in Mirakl. If T&Cs are not accepted the rest of this guide does not apply. Acceptance is confirmed by setting the “Hyperwallet Ts & Cs and Privacy Policy consent” custom field to “Yes”.

3.2.2 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	(GET) S20	help.mirakl.net/help/api-doc/operator/mmp.html#S20
Hyperwallet	(POST) Create User	docs.hyperwallet.com/content/api/v4/resources/users/create
Hyperwallet	(PUT) Update User	docs.hyperwallet.com/content/api/v4/resources/users/{user-token}

3.2.3 Data Requirements

Countries & Currencies

Refer to 3.3 [Create/Update Seller Bank Account](#) below regarding supported bank account types.

Data mapping

The following data is used by the HMC when replicating seller accounts from Mirakl into Hyperwallet.

All fields are required except where explicitly stated.

Hyperwallet field	Mirakl field	Notes	Mirakl Custom field Type
Individual seller			
clientId	shopId - autogenerated when creating a shop in Mirakl		
profileType	Leave “Professional” field in Mirakl unchecked for an Individual seller type.		
firstName	firstName: contact_informations.civility + contact_informations.firstname		
middleName		Not required	
lastName	lastName		
dateOfBirth		Custom field	Date
countryOfBirth		Custom field	Text
countryOfNationality		Custom field	Text

gender		Not required	
phoneNumber	contact_informations.phone		
mobilePhone	contact_informations.phone_secondary		
email	contact_informations.email		
governmentId		Custom field	Text
governmentIdType		Custom field	Single Value list (PASSPORT/NATIONAL_ID_CARD)
passportId		Custom field	Text
driversLicenseId		Custom field	Text
employerId		Custom field	Text
addressLine1	contact_informations.street1		
addressLine2	contact_informations.street2		
city	contact_informations.city		
stateProvince	contact_informations.state (Only 2 letter code for US)		
country	contact_informations.country		
postalCode	contact_informations.postalCode		
language		Not required	
businessType		Custom field	Single Value List (CORPORATION/PRIVATE_COMPANY/PARTNERSHIP/NOT_FOR_PROFIT_ORGANIZATION/GOVERNMENT_ENTITY/PUBLIC_COMPANY)
programToken		Value stored within connector	
businessName	shopName		
Business Seller - Additional fields for Business Seller type			
profileType	Select Professional field in Mirakl to denote a Business Seller type.		
businessRegistrationId	pro_details.identification_number		

businessRegistrationStateProvince	contact_informations.state (Only 2 letter code for US)		
businessRegistrationCountry	businessRegistrationCountry		
businessOperatingNames	pro_details.corporate_name		

3.2.4 Timed Job Frequency

The frequency for the Individual and Professional Seller Extract jobs is configurable. By default, these jobs are scheduled to run at midnight (00.00) daily. The frequency can be changed if required, using the following Environment Variables (see README for further details such as format and default value):

- PAYPAL_HYPERWALLET_EXTRACT_SELLERS_CRON_EXPRESSION
- PAYPAL_HYPERWALLET_EXTRACT_PROFESSIONAL_SELLERS_CRON_EXPRESSION

Please note, defining a very high frequency (e.g. every few minutes) may not deliver much benefit, as Seller records are not expected to be created/updated that often by the Operator. However, it will most likely impact performance. We suggest defining the frequency to once a day, if possible.

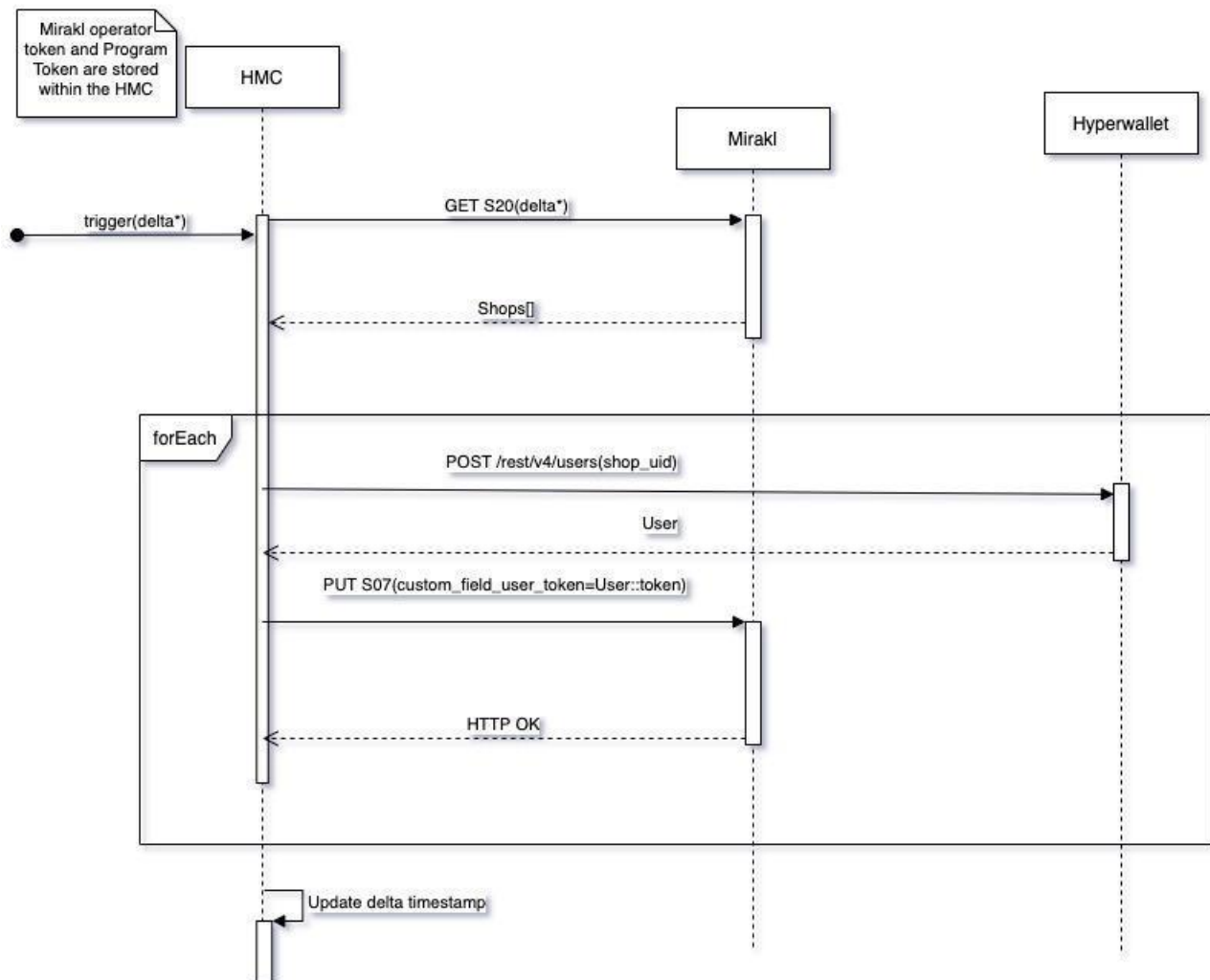
3.2.5 Technical Flow

Create/update Seller on Hyperwallet - sequence diagram

This diagram describes the high-level interaction between Mirakl and Hyperwallet through Hyperwallet Mirakl Connector (HMC) for the creation of a new user on Hyperwallet

version 2

Last Update: Tue Dec 17 2020



3.3 Create/Update Seller Bank Account

3.3.1 Overview

The following bank account schemes and currencies from Mirakl are currently supported:

- IBAN (EUR, CHF)
- U.S. ABA (USD)
- CANADIAN (USD, CAD)
- United Kingdom account (GBP)

Additional schemes and currencies are planned to be released in the future when prioritised for implementation.

The following HMC job performs creation and update of seller bank accounts:

- *Bank accounts extract*

Upon successful creation of a bank account in Hyperwallet:

- The bank account details can be found in the corresponding user account record in Hyperwallet, under “View - Consumer Account” > “Transfer” tab;
- The bank account token (TRM) will be stored under the corresponding seller’s shop record in Miracle - see “Hyperwallet Additional Custom Fields” section. **Note:** this field can only be viewed by the marketplace Operator and will be hidden for Sellers.

3.3.2 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	(GET) S20	help.mirakl.net/help/api-doc/operator/mmp.html#S20
Hyperwallet	(POST) Create Bank Account	docs.hyperwallet.com/content/api/v4/resources/bank-accounts/create

3.3.3 Data Requirements

Supported payment methods (bank account types)

Each supported payment method consists of a predefined set of attributes.

Attempting to use different countries or currencies than those listed here will likely result in a failure when records are synchronised into Hyperwallet during the Seller Extract job or during Payout payment creation. Please check the logs if you encounter any unexpected errors or missing data (see [section 7](#) for logging & the log file location).

Data mapping

The following data will be entered when creating Seller’s bank accounts in Mirakl and replicating it into Hyperwallet via HMC. All fields are required except where explicitly stated.

Hyperwallet field	Mirakl field	Notes
"profileType":	"BUSINESS" or "INDIVIDUAL", based on "Professional" attribute	
"transferMethodCountry":	Seller Country from contact details (using 2 char ISO code as per HW API spec)	
"transferMethodCurrency":	currency_iso_codefield from S20 API	
"type":	N/A	Fixed value "BANK_ACCOUNT" - will be automatically added to the feed by HMC
"businessName":	"Company name" field under Seller Contact Details	
"country":	"Country" field under Seller contact details	
"addressLine1":	"Address" field under Seller Contact details	
"addressLine2"	"Address (continued)" field under Seller Contact details. This is optional and should be passed if this data exists.	
"city":	"City" field under Seller Contact details	
"bankAccountRelationship": "OWN_COMPANY"	N/A	This field will not be sent.
IBAN Payment method		
"bankId":	BIC	
"bankAccountId"	IBAN	
U.S. ABA Payment method		
branchId"	Routing number (ABA).	
bankAccountId	Bank account number	
bankAccountPurpose	N/A	Fixed value "CHECKING" - will be automatically added to the feed by HMC

3.3.4 Timed Job Frequency

As with Seller extract jobs, this job is scheduled to run at certain configurable frequency, by default at 00.30 AM.

The frequency of the Bank account extract job is configured by the following Environment Variable (see README for further details such as format and default value):

- PAYPAL_HYPERWALLET_BANK_ACCOUNT_EXTRACT_CRON_EXPRESSION

Please note, defining a very high frequency (e.g. every minute) may not deliver much benefit, as Seller records are not expected to be created/updated that often by the Operator. However, it will most likely impact performance. We suggest defining the frequency no higher than once a day, if possible.

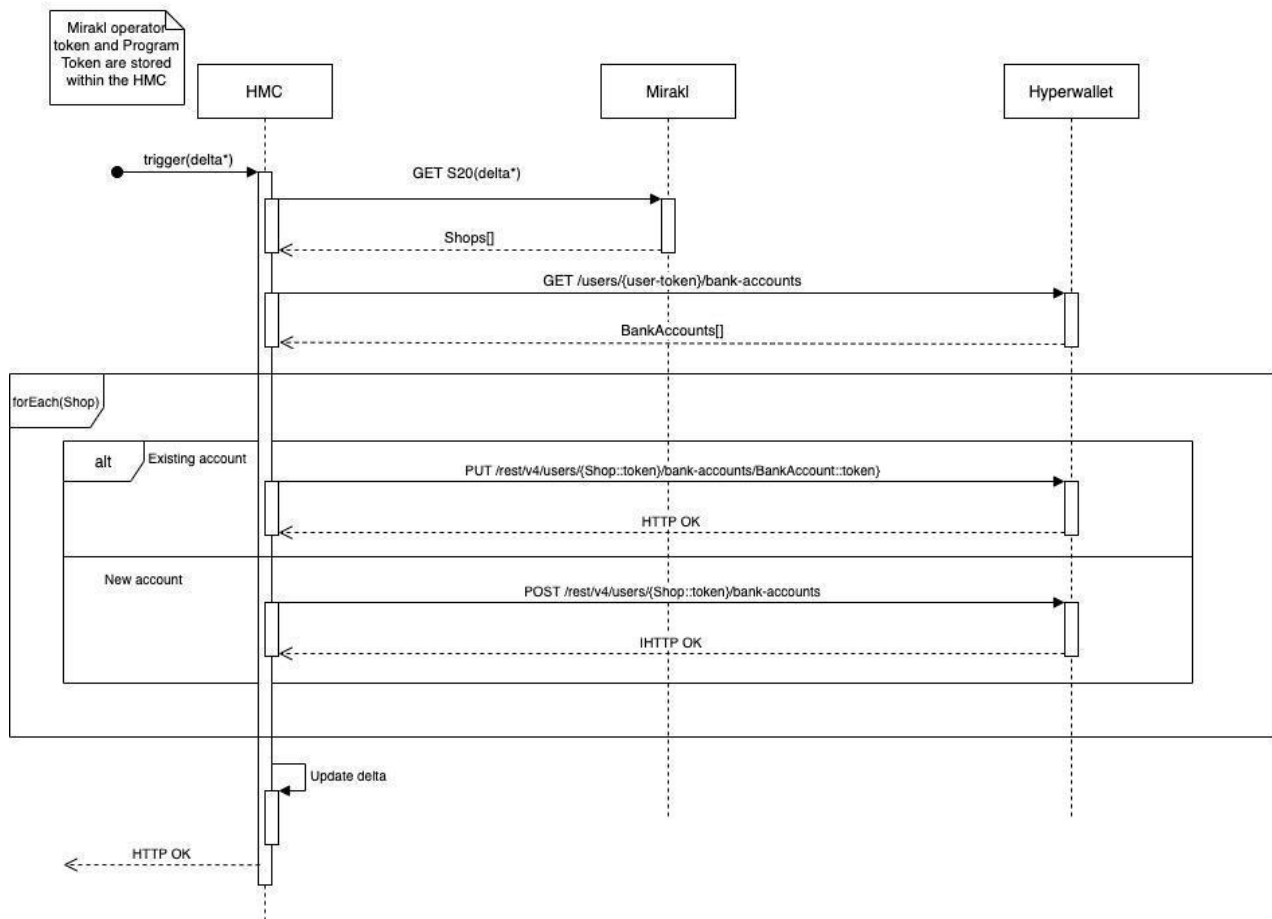
3.3.5 Technical Flow

Create/Update a bank account on Hyperwallet - sequence diagram

This diagram describes the high-level interaction between Mirakl and Hyperwallet through Hyperwallet Mirakl Connector (HMC) for creation and update of Seller's bank account in Hyperwallet

version 2

Last update: Thu Dec 24 2020 09:58:39



4 KYC

4.1 Overview

The Know Your Customer (KYC) process aims to verify customer accounts to ensure that the customers are genuinely who they claim to be. This involves verification of customer identity and, in the case of the Business Sellers, additional information about the business and its stakeholders.

KYC checks are mandatory in most countries that are the target market for Mirakl and Hyperwallet and so support for KYC processes exists on both platforms.

The Hyperwallet Mirakl Connector supports two flows for processing KYC verification:

- A **Managed Flow** where seller details are added directly into a Hyperwallet-managed KYC form
- An **Automated Flow** where seller details are added directly into the seller page in Mirakl
 - Note: as of version 4.2 this flow is still subject to change, as the corresponding feature-set has only recently been finalised and released on the Hyperwallet platform

Both flows are equally supported and can even be used interchangeably, for example if one is not available temporarily.

The 'KYC Status' feature should be enabled in Mirakl in order to enable KYC processing. The operator should request this feature to be enabled by contacting Mirakl support.

4.2 Managed KYC Flow

By default, HMC supports KYC verification via Hyperwallet-managed KYC forms. Please contact your Hyperwallet support team for instructions on how to conduct this process.

When the Hyperwallet platform sends KYC status update notifications, HMC will read these notifications and update the status on the relevant seller record(s) in Mirakl, thereby completing the KYC verification flow across Hyperwallet and Mirakl. See Section 4.7 “Update KYC Status” for more information about this process.

4.3 Automated KYC Flow

HMC aims to automate this process and consolidate the data collection into the Mirakl seller back office through a series of features including:

- Adding KYC details and documents in Mirakl;
- Extracting KYC details and documents from the Seller account in Mirakl;
- Sending the documents and corresponding payload (including metadata about the documents, such as category and type) to Hyperwallet;
- Updating the Seller’s KYC status in Mirakl based on the webhook notifications received from Hyperwallet;
- Displaying KYC failure reasons in Mirakl.

The Automated KYC flow is documented in detail throughout this document, see sections 4.4-4.9 and section 7 for further details

4.4 Add KYC details and documents in Mirakl - Individual Seller

4.4.1 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	List documents (GET) S30	help.mirakl.net/help/api-doc/operator/mmp.html#S30
Mirakl	Download documents (GET) S31	help.mirakl.net/help/api-doc/operator/mmp.html - S31
Hyperwallet	(PUT) Update a User	docs.hyperwallet.com/content/embedded-payout-experience/v1/verify-payee/api/individual-payee#2-upload-supplementary-documentation docs.hyperwallet.com/content/api/v4/resources/users/update

4.2.2 Data Requirements

As part of KYC verification Individual Sellers may be required to upload **Proof of Identity** and **Proof of Address** documents in Mirakl in order to be verified. The following document types are supported; only one document from each category is required.

Category	Document	Document sides
Proof of identity	Driver's license	Front and back
	National identity card	Front and back
	Passport	Front
Proof of address	Bank statement	Front
	Credit card statement	Front
	Official government letter	Front
	Property tax assessment	Front
	Tax return	Front
	Utility bill	Front

Add KYC details (metadata about documents)

Before uploading the documents, an Individual Seller needs to select what type of documents from the above list they are going to upload, which will be added to the payload when the corresponding documents are sent to Hyperwallet. This should be specified using the following fields on the Store details page in Mirakl:

Hyperwallet payload	Mirakl field	Notes
Category: "Identification" Type: <document type>	Proof of Identity Type	This is a single-value list containing the supported document types: <ul style="list-style-type: none"> • Driver's license • National identity card • Passport
Category: "Address" Type: <document type>	Proof of Address Type (Individual)	This is a single-value list containing the supported document types: <ul style="list-style-type: none"> • Bank statement • Credit card statement • Official government letter • Property tax assessment • Tax return Utility bill
"Country"	Proof of Identity country ISOCODE	2-letter ISO code for the country issuer of the Proof of Identity document.

Upload documents

Once the above information is provided, the Individual Seller should upload documents under the following fields in the *Documents* section of their profile in Mirakl:

- *Proof of Identity Front (Individual)*
- *Proof of Identity Back (individual)* [note: only for documents where a back side is required]
- *Proof of Address (Individual)*

HMC will only upload the documents to Hyperwallet when all required documents have been uploaded in Mirakl.

Note: The Hyperwallet platform has specific requirements for the size, quality and format of the documents submitted for KYC. Refer to the Hyperwallet documentation regarding these requirements: docs.hyperwallet.com/content/payee-requirements/v1/payee-verification/required-data#validation-requirements

4.2.3 Technical Flow

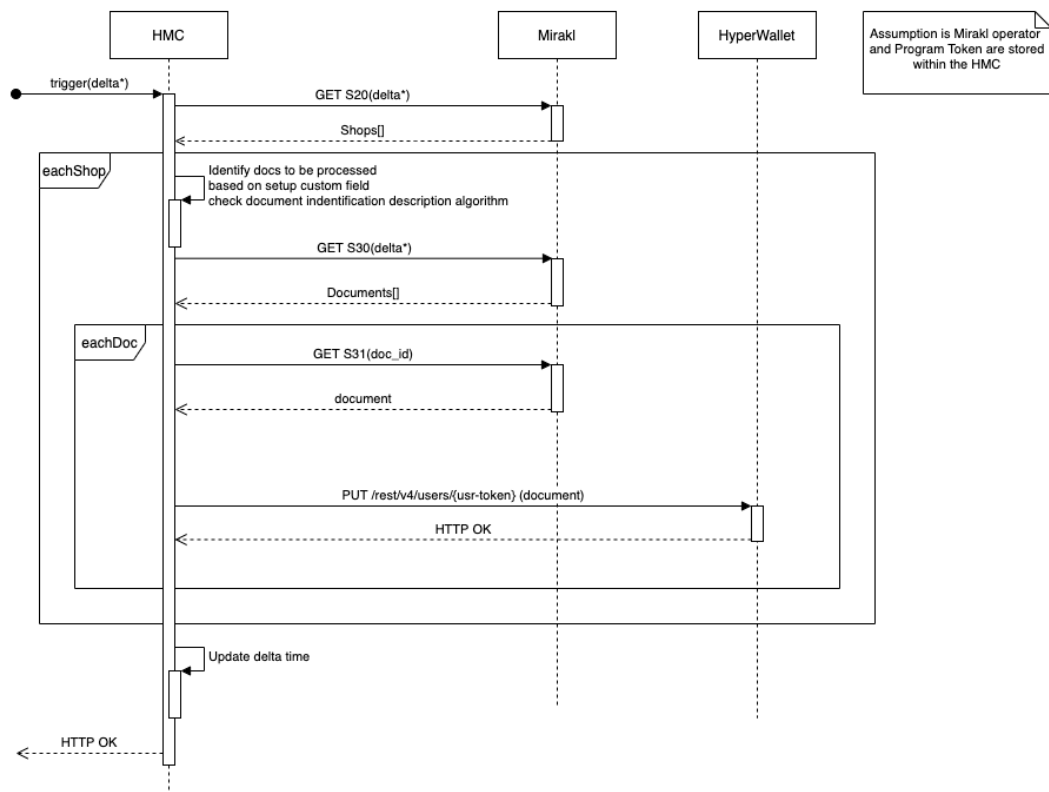


Extract documents for an Individual Payee on HyperWallet

version 1

Last Update: Tue Sep 25 2020 12:44

This diagram describes the high-level interaction between Mirakl and HyperWallet through HyperWallet Mirakl Connector (HMC) for the upload of documents to HyperWallet for KYC purposes



4.5 Add KYC details and documents in Mirakl - Business Seller

4.5.1 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	List documents (GET) S30	help.mirakl.net/help/api-doc/operator/mmp.html#S30
Mirakl	Download documents (GET) S31	help.mirakl.net/help/api-doc/operator/mmp.html - S31
Hyperwallet	(PUT) Update a User	docs.hyperwallet.com/content/embedded-payout-experience/v1/verify-payee/api/individual-payee#2-upload-supplementary-documentation docs.hyperwallet.com/content/api/v4/resources/users/update

4.5.2 Data Requirements

Business Sellers may be required to upload **Proof of Business**, **Proof of Identity** of their Business Stakeholders. In some cases, a **Letter of Authorisation** of a Business Stakeholder may also be required.

Add Business Stakeholder details

The first step a Business Seller needs to do is to complete the Business Stakeholder section of their store profile page. This section contains the details of stakeholders with significant interest in the business who can be a Director, Ultimate Beneficial Owner (UBO), or a Senior managing Official. Up to 5 Business Stakeholders can be provided.

For further details regarding Business Stakeholders please refer to:

- Hyperwallet documentation: docs.hyperwallet.com/content/payee-requirements/v1/payee-verification/required-data#verification-of-a-business
- List of custom fields for collecting Business Stakeholder details further in this document: [Seller Custom Fields](#)

Upload documents

The following document types are supported; only one document from each category is required.

Category	Document	Document sides
Incorporation	Proof of Business (e.g. an article/certificate of incorporation)	Front
Proof of identity (Business Stakeholders)	Driver's license	Front and back
	National identity card	Front and back
	Passport	Front
Authorisation (Business Stakeholders)	Letter of Authorisation	Front

	Note: This is only required for a Business Stakeholder who IS a contact and IS NOT a Director. Templates in different languages can be found here: docs.hyperwallet.com/content/embedded-payout-experience/v1/verify-payee/api/business-payee#letter-of-authorization	
--	---	--

As part of completing the Business Stakeholder section the Business Seller needs to also select what type of Proof of Identity documents for each Business Stakeholder will be uploaded. This should be specified using the following fields under each Business Stakeholder sub-section on the Store details page in Mirakl:

Hyperwallet payload	Mirakl field	Notes
Category: "Identification" Type: <document type>	Proof of Identity Type	This is a single-value list containing the supported document types: <ul style="list-style-type: none"> • Driver's license • National identity card • Passport
"Country"	Proof of Identity country ISOCODE	2-letter ISO code for the country issuer of the Proof of Identity document.

Once the above information is provided the Business Seller should upload documents under the following fields in the *Documents* section on the Store details page in Mirakl:

- *Proof of Business*
- *Business Stakeholder 1-5* Proof of Identity (front)*
- *Business Stakeholder 1-5* Proof of Identity (back)* [Note: only for documents where a back side is required]
- *Letter of authorisation (Business Stakeholder contact)*
 - * Business Stakeholder 1 through to 5.

HMC will only upload the documents to Hyperwallet when all required documents have been uploaded in Mirakl.

Note: Hyperwallet has specific requirements for the size, quality and format of the documents submitted for KYC. Refer to the Hyperwallet documentation regarding these requirements:
docs.hyperwallet.com/content/payee-requirements/v1/payee-verification/required-data#validation-requirements

4.5.3 Technical flow

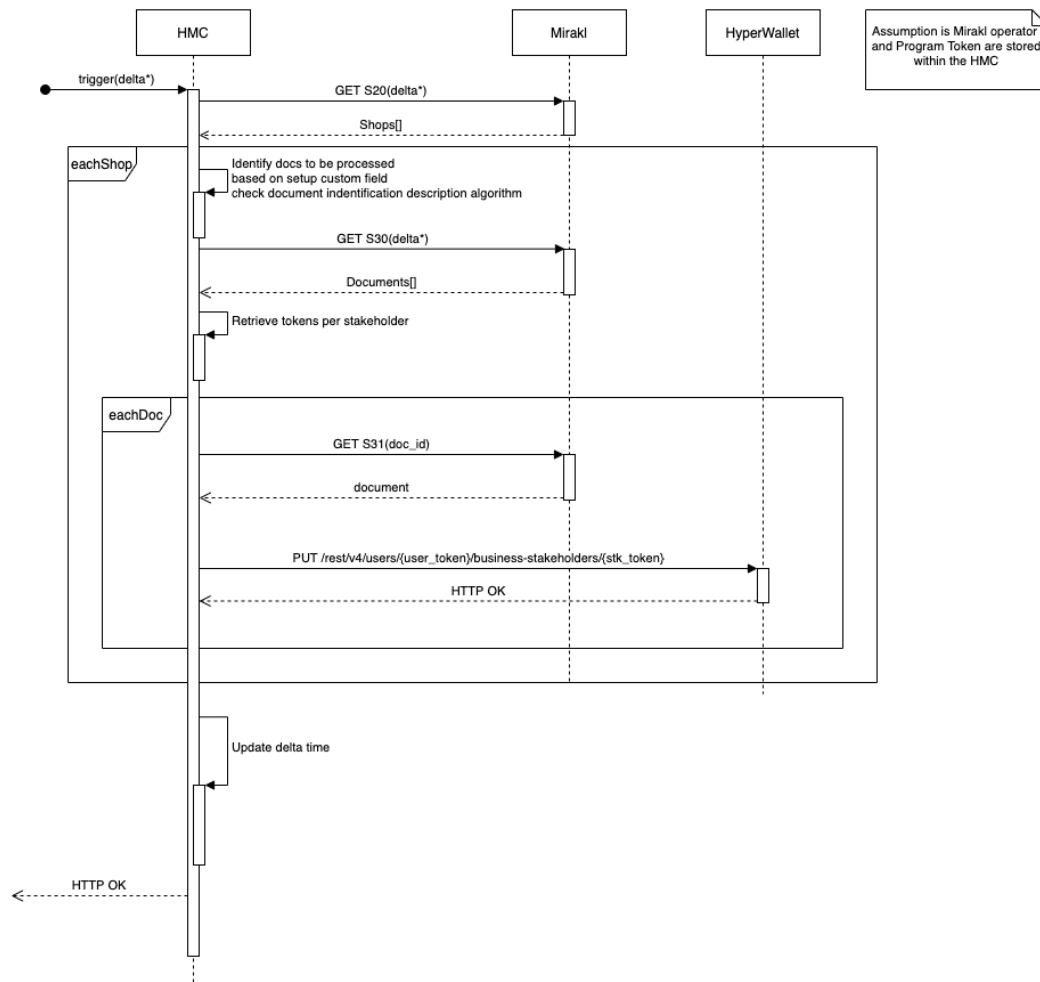


Extract documents for an stakeholder Payee on HyperWallet

version 1

Last Update: Tue Sep 25 2020 12:44

This diagram describes the high-level interaction between Mirakl and HyperWallet through HyperWallet Mirakl Connector (HMC) for the upload of documents to HyperWallet for KYC purposes



4.6 Timed Job Frequency

This section described the KYC document extract frequency in respect of both Individual and Business Sellers.

The frequency for the KYC document extract jobs is configurable. By default, these jobs are scheduled to run at 1:30 AM daily. The frequency can be changed if required, using the following Environment Variable (see README for further details such as format and default value):

- `PAYPAL_HYPERWALLET_EXTRACT_DOCUMENTS_CRON_EXPRESSION`

Please note, defining a very high frequency (e.g. every few minutes) may not deliver much benefit, as Seller records are not expected to be created/updated that often by the Operator. However, it will most likely impact performance. We suggest defining the frequency no higher than once a day, if possible.

4.7 Update KYC status

The Seller KYC status update will be received from HW via a webhook notification and updated on Mirakl as per the mapping below.

Note that there is a difference in the mapping for Individual and Business account types.

Individual Account

HW KYC status	Mirakl KYC status
UNDER_REVIEW	Awaiting KYC verification (PENDING_APPROVAL)
VERIFIED	KYC Passed (APPROVED)
REQUIRED	Awaiting KYC data (PENDING_SUBMISSION)
NOT_REQUIRED	KYC Passed (Approved)

Business Account

The 3 statuses from HW (*verificationStatus*, *businessStakeholderVerificationStatus*, *letterOfAuthorizationStatus*) will be compared to derive the overall KYC status updated in Mirakl.

The order of priority will be as follows, based on the following precedence rules:

- REQUIRED (most restrictive)
- UNDER REVIEW
- VERIFIED
- NOT_REQUIRED (least restrictive)

When ALL of these statuses in HW: - verificationStatus - businessStakeholderVerificationStatus - letterOfAuthorizationStatus have reached at least:	Mirakl KYC status
NOT_REQUIRED	KYC Passed (APPROVED)
VERIFIED	KYC Passed (APPROVED)
UNDER_REVIEW	Awaiting KYC verification (PENDING_APPROVAL)
REQUIRED	Awaiting KYC data (PENDING_SUBMISSION)

4.7.1 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	(PUT) S07	help.mirakl.net/help/api-doc/operator/mmp.html#S07
Hyperwallet	Webhook	Individual seller: docs.hyperwallet.com/content/embedded-payout-experience/v1/verify-payee/api/individual-payee Business seller: docs.hyperwallet.com/content/embedded-payout-experience/v1/verify-payee/api/business-payee Business stakeholders: https://docs.hyperwallet.com/content/webhooks/v1/notification-types/business-stakeholders

4.8 KYC Failure reason message

Upon updating KYC status if the status received from Hyperwallet is still REQUIRED, HMC will send a failure reason message to Mirakl to be displayed on the shop details page. Below are the possible failure messages depending on the type of notification received from Hyperwallet.

- **Individual Seller:** notification received is `verificationStatus=REQUIRED`



The KYC information is invalid

There is an issue with verifying your details in Hyperwallet. Please ensure that you:

- filled all your account details correctly;
- submitted your Proof of Identity and Proof of Address documents. For more information on document requirements please refer to the [guidelines](#).

- **Business Seller:** notification received is `verificationStatus=REQUIRED`



The KYC information is invalid

There is an issue with verifying your details in Hyperwallet. Please ensure that you:

- filled all your account details correctly;
- Submitted Certificate of incorporation. For more information on document requirements please refer to the [guidelines](#).

- **Business Seller:** notification received is `businessStakeholderVerificationStatus=REQUIRED`



The KYC information is invalid

There is an issue with verifying your details in Hyperwallet. Please ensure that you:

- filled Business Stakeholder details;
- Submitted their Proof of Identity documents. For more information on document requirements please refer to the [guidelines](#).

- **Business Seller:** notification received is `letterOfAuthorizationStatus=REQUIRED`



The KYC information is invalid

There is an issue with verifying your details in Hyperwallet. Please ensure that you:

- provided a Letter of Authorization document for the nominated Business Contact who is not a Director. For more information on document requirements please refer to the [guidelines](#).

4.9 KYC custom fields used by HMC

The following custom fields are populated by HMC as part of the Automated KYC processing:

- **Required Proof of Authorization** - this determines whether the Seller/Payee needs to submit a Letter of Authorisation document as part of the payee verification in Hyperwallet.
- **Required Proof of Identity/Business** - this determines whether the Seller/Payee needs to submit a Proof of Identity or Proof of Business documents as part of the payee verification in Hyperwallet.
- **Required Proof of Identity** - this determines if the Business Stakeholder needs to provide a proof of identity document to be verified in Hyperwallet.

These fields are configured as invisible, as such they are not exposed to the Sellers as part of the Store details in Mirakl and can only be viewed by the Operator. These fields should never be manually set by the Operator, unless instructed to do so by the Hyperwallet support team. Further details on all custom fields configurations can be found in [Mirakl Configuration](#) section of this guide (Section 7).

The above 3 fields are used by the connector as follows:

Account creation/verification step	HMC behaviour
Initial shop creation	"No value" is set
HMC receives a verification status "Required" webhook notification from Hyperwallet for the seller or one of the business stakeholders.	The value for the relevant field is set to "YES" in Mirakl
HMC receives a verification status "Verified" or "Under Review" webhook notification from Hyperwallet for the seller/business stakeholder HMC has successfully uploaded the relevant document to Hyperwallet	The value for the relevant field is set to "NO" in Mirakl
Note: if for any reason Hyperwallet sends another notification verification status "Required" notification, this will set the status of the relevant field to YES again, meaning the seller account/business stakeholder will need to be verified again and the relevant documents will need to be re-uploaded.	

5 Payout

The Payout feature in HMC covers payment of Mirakl accounting documents (i.e. invoices) to corresponding payees via Hyperwallet. This means that payout depends on the creation of Invoices in the Mirakl platform.

Mirakl runs the regular process of creating invoices on a billing cycle. The billing cycle is configurable, and depending on the operator's use cases can be set to run anywhere from monthly, specific day(s) of a month, or even daily. In addition, the billing cycle can be configured at the Seller level, meaning different sellers can have a different billing cycle. HMC was implemented to avoid the complexity of relying on Mirakl billing cycles. Instead, when running an invoice extract, the HMC queries for any new invoices generated since the last extract and processes the payouts for each qualifying invoice.

The following criteria determine if an invoice is eligible for automated payout via HMC:

- Both automatically generated invoices and manual credit notes can be extracted from Mirakl and sent for payout to Hyperwallet via HMC.
- Invoices with DRAFT or GENERATED state are not processed, HMC will only extract/process the invoices in COMPLETE state;
- Invoices with PAID payment_status are also omitted as no payout is required.

HMC supports 2 types of payees - Marketplace Sellers and Operators:

- Sellers receive payments for the goods and services sold (**transfer_amount** on Mirakl invoice)
- Operator receive their operator fees from transactions placed on the marketplace (**total_commissions_incl_tax** + **total_subscription_incl_tax**).

5.1 Seller Payout

As per the Hyperwallet API spec, the TRM token (seller's bank account) and programme token will be used to target the correct Seller account.

Seller accounts and bank accounts will be created automatically via HMC, as described in section 3 [Seller onboarding](#). No further configuration is required for HMC to enable Seller payout.

Payout is triggered through the *Extract Invoices* job, which extracts eligible invoices from Mirakl and creates payment requests in Hyperwallet. This job handles both Seller and Operator payout.

5.1.1 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	(GET) IV01	help.mirakl.net/help/api-doc/operator/mmp.html#IV01
Hyperwallet	(POST) Create Payment	docs.hyperwallet.com/content/api/v4/resources/payments/create

5.1.2 Data Requirements

Seller, Bank account and Invoice

- The Seller accounts should exist in Mirakl and be set up with one of the supported Bank Account payment methods and currencies, as described in section 3.3 [Create/Update Seller Bank Account](#);
- Accounting documents (i.e. Invoices) should be created in Mirakl for the above sellers in order to trigger Payout feature.

Data mapping

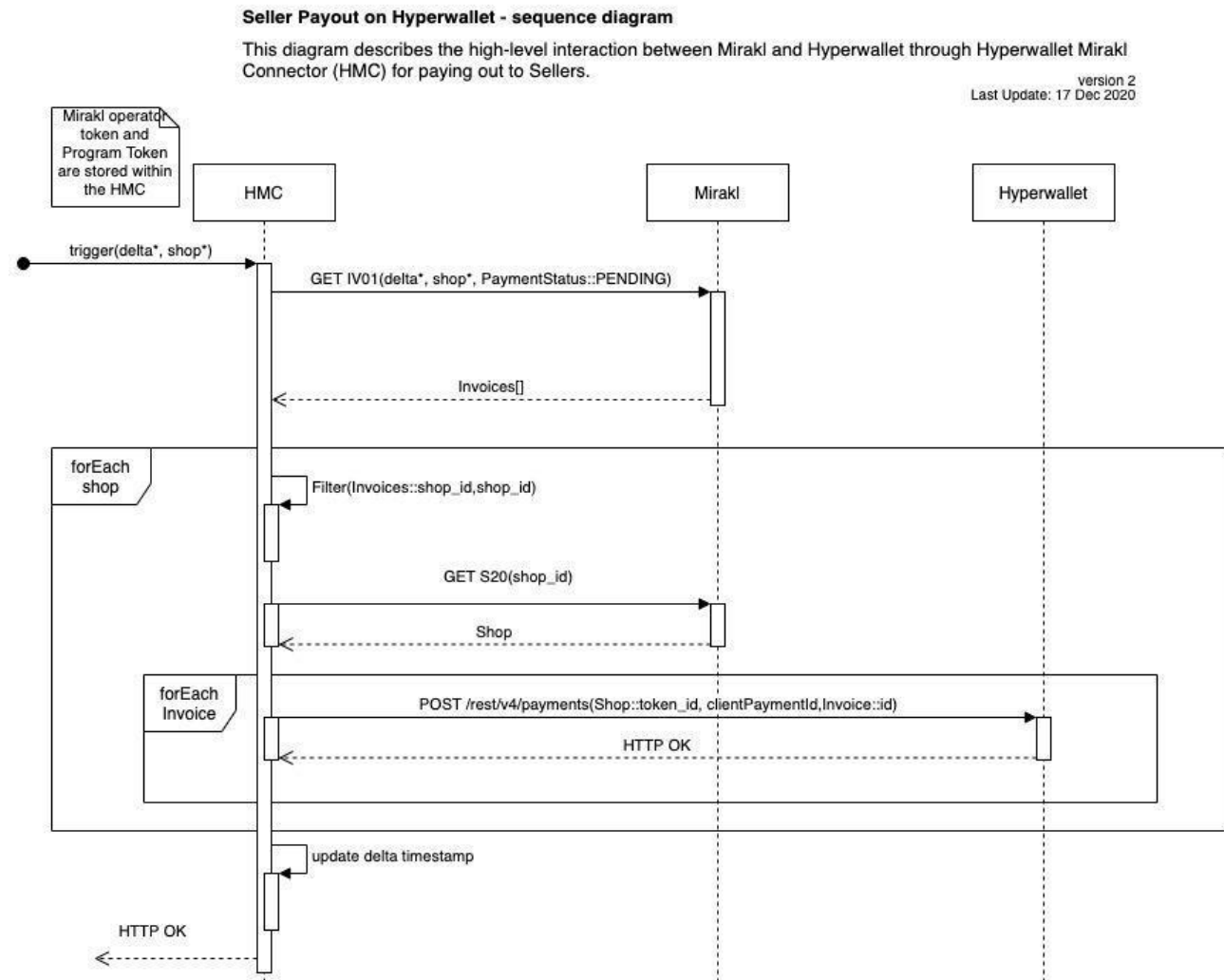
Mirakl IV01 API field	HW API field	Notes
total_charged_amount	"amount"	
invoice_id	"clientPaymentId"	
"currency_iso_code"	"currency"	
TRM token	"destinationToken"	The seller TRM token denoting the bank account in HW Embedded Experience.
Operator token in the Connector	"programToken"	Operator token
n/a	"purpose": "OTHER"	We will use OTHER for all payouts.

5.1.3 Timed Job Frequency

As with Seller extract jobs, this job is scheduled to run at certain configurable frequency, by default at 01.00 AM. The frequency can be changed if required, using the following Environment Variables (see README for further details such as format and default value):

- PAYPAL_HYPERWALLET_EXTRACT_INVOICES_CRON_EXPRESSION

5.1.4 Technical Flow



5.2 Operator Payout

The Operator is entitled to receive a payout for the commission and subscription charges that are applied to sellers' activities on the marketplace.

The Operator may choose not to receive their Operator fee, in which case their funds will be kept within the main funding account of the program in Hyperwallet. This can be configured in HMC properties as a toggle (on/off). See section 5.3.5 [Enabling or disabling the operator payout](#) below.

Only one marketplace operator exists for each instance of Mirakl. Setting up operator account Hyperwallet credentials in HMC will be handled manually. These details (including the program tokens and TRM tokens) should be provided to the Operator by the Hyperwallet team as part of the onboarding process.

Configuring operator payout details is described in section 2.3.1 [Operator onboarding](#).

5.2.1 REST API Endpoint

Platform	Endpoint	Documentation
Mirakl	(GET) IV01	help.mirakl.net/help/api-doc/operator/mmp.html#IV01

Hyperwallet	(POST)	docs.hyperwallet.com/content/api/v4/resources/payments/create
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5.2.2 Data Requirements

- The Seller accounts should exist in Mirakl and be set up with one of the supported Bank Account payment methods and currencies, as described in 3.3 [Create/Update Seller Bank Account](#);
- Accounting documents (i.e. Invoices) should be created in Mirakl for the above sellers in order to trigger Payout feature.
- The Operator account should be created in Hyperwallet and relevant settings (user token, TRM) should be copied over to HMC properties.

5.2.3 Timed Frequency

Operator payout is processed as part of the same Payout job (*Extract Invoices*) as for the Seller Payout. See 5.2.4 in [Seller Payout](#) section.

5.2.4 Enabling or disabling the operator payout

The following Environment Variable can be used to enable or disable the payout of the operator commission into the operator's bank account (see README for further details such as format and default value):

- PAYPAL_HYPERWALLET_OPERATOR_COMMISSIONS_ENABLED

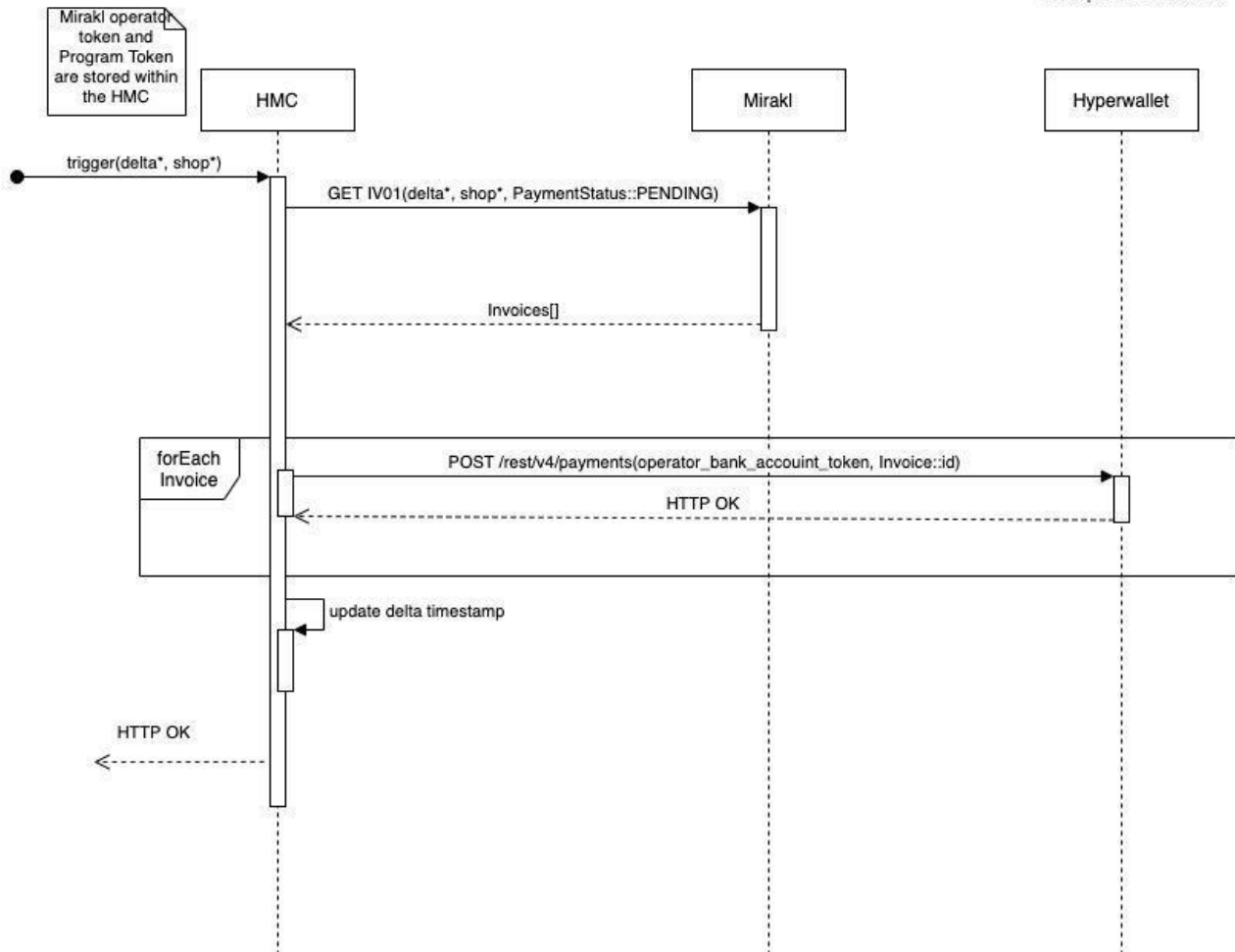
This setting is ON by default, meaning that the operator's commission will be paid to the corresponding bank account set up for the operator. If disabled, the commission will be kept within the main funding account of the program in Hyperwallet.

5.2.5 Technical Flow

Operator Payout on Hyperwallet - sequence diagram

This diagram describes the high-level interaction between Mirakl and Hyperwallet through Hyperwallet Mirakl Connector (HMC) for paying out to Operators.

version 1
Last Update: 22 Dec 2020



5.3 Payout Notifications

Payout notifications are received from Hyperwallet via a webhook.

Success notifications

When the payment status is changed to COMPLETED in Hyperwallet HMC will automatically set the status on the corresponding accounting document in Mirakl to PAID.

The payment confirmation is received by the HMC via a Payment webhook notification sent from Hyperwallet, with the status: PAYMENT.UDATED.STATUS.COMPLETED.

In regard to Operator payout, there is no Mirakl end-point for confirming that the operator has had commissions/subscriptions paid out for an invoice. It is assumed that the Hyperwallet platform will be responsible for notifying the operators about successful payouts.

Failure notifications

Handling of failed payout notifications applies to the following statuses received by HMC from Hyperwallet via the webhook:

- FAILED
- RECALLED
- RETURNED

When one of those statuses is received via the webhook, the HMC will send an email to the operator's email address (configured in properties). Below is the content of the email message:

Subject: Payment issue - <invoice ID>

Body: There was an issue with payment of <invoice ID> invoice. The payment status is <HW STATE>. Please login to Hyperwallet to view and resolve the payment issue.

Note: <invoice ID> will be provided in the format to distinguish the operator payment (e.g. "12345-operatorFee").

5.3.1 REST API Endpoints

Platform	Endpoint	Documentation
Mirakl	(PUT) IV07	help.mirakl.net/help/api-doc/operator/mmp.html#IV07
Hyperwallet	Webhook	docs.hyperwallet.com/content/webhooks/v1/notification-types/payments

5.4 Manual Credit Notes

HMC supports processing payments from the Operator to the Sellers via the creation of Manual Credit Notes in Mirakl. The processing works the same as for automatically generated invoice documents and as described in Section 5.1.

The Manual Credit Note processing feature is enabled by default, but can optionally be configured through the following Environment Variable (see README for further details such as format and default value):

- PAYPAL_HYPERWALLET_OPERATOR_CREDIT_NOTES_ENABLED

Note on Refunds:

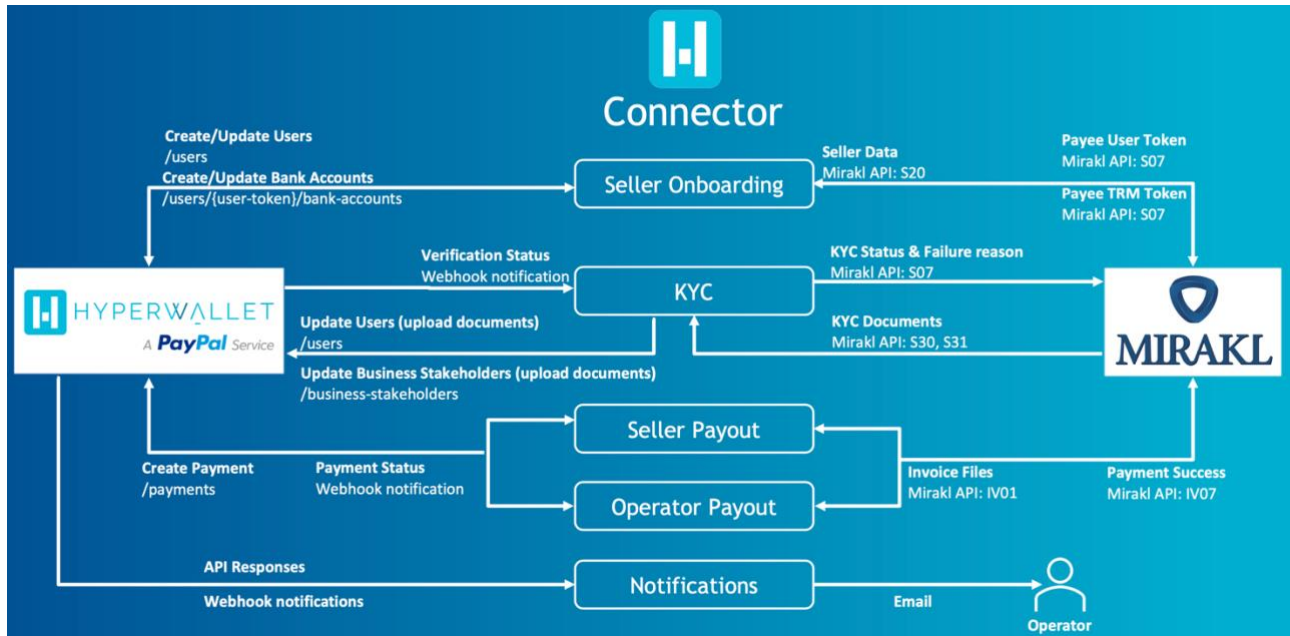
Please note that HMC is responsible for facilitating payout to the Sellers and Operator, which includes the money that is owed to the Seller or Operator.

Customer refunds are processed as part of the pay-in functionality and are covered by the Braintree-Mirakl connector scope. This is a separate connector service provided as part of the overall PayPal product offering.

In instances when the Seller balance in Mirakl becomes negative (e.g. to enable the Seller to honour customer refunds) Mirakl allows creation of Manual credit notes. This allows replenishment of the Seller bank account balance, which involves a payout element.

6 Hyperwallet-Mirakl Technical Integration

6.1 Overall Architecture



6.2 Error Handling

API call failures and other unexpected errors (e.g. missing mandatory fields in the payload) are handled by the HMC. When such errors occur, the operator will receive an email message to the email address configured in the HMC properties.

Error Types:

- Mirakl: Issue detected getting shops in Mirakl
- Mirakl: Issue detected updating KYC information in Mirakl
- Hyperwallet: Issue detected when creating seller in Hyperwallet
- Hyperwallet: Issue detected when updating seller in Hyperwallet
- Hyperwallet: Issue detected when creating bank account in Hyperwallet
- Hyperwallet: Issue detected when updating bank account in Hyperwallet

Error example (email to operator):

Subject: Issue detected when updating seller in Hyperwallet

Body: There was an error, please check the logs for further information:

Error updating user with clientId [2214]

```
{exceptionMessage=A system error has occurred. Please try again. If you continue to receive this error, contact customer support for assistance (Ref ID: usr-dc7bf083-310d-4f04-a9b7-13561f011e85).,error=CONSTRAINT_VIOLATIONS[[code=CONSTRAINT_VIOLATIONS,fieldName=<null>,message=A system error has occurred. Please try again. If you continue to receive this error, contact customer support for assistance (Ref ID: usr-dc7bf083-310d-4f04-a9b7-13561f011e85).,relatedResources=<null>]][code=CONSTRAINT_VIOLATIONS,fieldName=<null>,message=,relatedResources=<null>]]}
```

If the Seller Extract or Bank Account Extract jobs end in failure, any data that wasn't processed due to the failure will be processed during next extract.

Re-run previously failed actions

HMC has built-in auto-recovery functionality for unexpected technical failures such as API timeout and IO exceptions. If any of such failures occur during creation and update of user accounts (both Individual and Busines) or bank accounts HMC will attempt to re-run the previously failed action.

This action will be attempted once, and if the error occurs again on the re-run action it will be logged and communicated to the operator as described in this section above.

When communicating with Hyperwallet HMC is using a default timeout set in the Hyperwallet SDK. The timeout for communicating with Mirakl API is up to 90 seconds (30 seconds for connection and 60 seconds for reading the records).

6.3 Payload Encryption

Hyperwallet provides payload encryption for webhooks and API communication which is also supported by HMC. This involves a process where webhook and API data is signed and encrypted when sent from Hyperwallet to HMC and vice versa. The receiving application (Hyperwallet or HMC, depending on where the data is sent to) is then responsible for validating the signature and decrypting the data.

For further information on payload encryption please refer to the Hyperwallet Payload Encryption specification docs.hyperwallet.com/content/api/v4/overview/payload-encryption.

The Payload Encryption feature is by default disabled in HMC upon installation and can be enabled using the following property adding the profile encrypted to the Environment Variable `PAYPAL_SPRING_PROFILE_ACTIVE`.

6.4 External Technical Documentation

Mirakl

API docs: help.mirakl.net/Customers/topics/home_pages/api_docs.htm

SDK/Connectors: help.mirakl.net/Customers/topics/home_pages/connectors.htm

Hyperwallet

API docs: docs.hyperwallet.com/content/hyperwallet-payout-documentation

SDK: docs.hyperwallet.com/content/api/v4/overview/sdk

7 Deployment and setup

7.1 Getting Started with HMC

HMC can be deployed as Java/Spring service or as a Docker container.

For setup and build details please refer to the *README* file in the main HMC repository.

7.2 Setting up and running jobs

There 5 jobs in HMC:

Job	Description	HTTP method	Endpoint
Individual sellers extract	Extract new individual seller data from Mirakl and perform create/update on Hyperwallet.	POST	/job/sellers-extract
Professional sellers extract	Extract new professional seller data from Mirakl and perform create/update on Hyperwallet.	POST	/job/professional-sellers-extract
Bank Accounts extract	Extract bank account data from sellers in Mirakl and create/update a bank account on Hyperwallet associated to the corresponding user in Hyperwallet	POST	/job/bank-accounts-extract
Invoices extract	Extract new invoices and create payment requests in Hyperwallet for Seller and Operator payout.	POST	/job/invoices-extract
Documents extract	Extract documents for KYC verification on the Hyperwallet platform.	POST	/job/documents-extract

Those jobs are currently setup with the following Environment Variables, as follows:

Environment Variable	Default Cron expression
PAYPAL_HYPERWALLET_EXTRACT_SELLERS_CRON_EXPRESSION	0 0 0 1/1 * ? *
PAYPAL_HYPERWALLET_EXTRACT_PROFESSIONAL_SELLERS_CRON_EXPRESSION	0 0 0 1/1 * ? *
PAYPAL_HYPERWALLET_BANK_ACCOUNT_EXTRACT_CRON_EXPRESSION	0 30 0 1/1 * ? *
PAYPAL_HYPERWALLET_EXTRACT_INVOICES_CRON_EXPRESSION	1 0 0 1/1 * ? *
PAYPAL_HYPERWALLET_EXTRACT_DOCUMENTS_CRON_EXPRESSION	1 30 0 1/1 * ? *

These jobs are scheduled to run at regular intervals (time of day, as per the cron expression above).

Jobs can also be executed manually through their endpoints.

All of the endpoints support 2 optional parameters:

Param	Description	Format
delta	When filled the extract jobs will filter values to be updated/created from this date onwards. Using a value far into the past runs the risk of having the connector re-process many old entries, which will likely cause the Hyperwallet platform to return numerous 'ID already exists' errors	yyyy-MM-dd'T'HH:mm:ss.SSSXXX
name	When filled the job instance running will be assigned the given name	String

Example of valid execution request:

```
curl --location --request POST 'http://localhost:8080/job/bank-accounts-extract?delta=2020-11-22T11:52:00.000-00:00&name=bankAccountExtractJob'
```

The HMC repository contains an example Postman collection in the /docs folder, which can be imported and used as a starting point for running jobs manually using the Postman API tool.

7.2.1 Access Rules

The exposed connector endpoints should only be accessible by operator-network locations, and for the purposes of triggering jobs manually.

The webhook listener described in section 2.2 should only be accessible from Hyperwallet's IP range described in the [official documentation page](#)

7.2.2 Data initialization

It is recommended to run first time all the jobs with a delta time set in a time before the creation of any data in Mirakl to ensure all the existing data in Mirakl environment is exported into Hyperwallet

7.2.3 Data storage

The connector has 3 different database connections, all these database connections are currently setup as H2 Database files. The files are stored in the directory: data.

The data stored on those databases are:

- Last delta execution time for a specific job
- Mirakl Seller/shop ID's when a seller can't be created in Hyperwallet due to connectivity issues during a job execution. This data will be used in the next job execution for retrying the import process for those specific Mirakl sellers.

When the Documents Extract Job runs, the connector must temporarily store KYC-related documents on its filesystem while uploading them to the Hyperwallet platform. All documents are immediately and permanently deleted from the connector upon both a successful or a failed upload.

7.3 Logging & log file

By default, the connector produces detailed log entries for every action that it takes, including both successful and failed actions. The logs can therefore be a useful troubleshooting tool while testing & running the connector.

Logfile	Location
application.log	paypal/logs/application.log

Each log line contains a timestamp, the module and code-level class that produced it, and a descriptive text explaining what has occurred.

Any errors that come from Hyperwallet or Mirakl are reproduced exactly in HMC's logs.

Example of log lines:

```
2021-04-27 14:08:42.553 ERROR 1 --- [eduler_Worker-1]
ctHyperwalletBankAccountRetryApiStrategy : Bank account not created or updated for
seller with clientId [41342]
2021-04-27 14:08:42.553 ERROR 1 --- [eduler_Worker-1]
ctHyperwalletBankAccountRetryApiStrategy : {exceptionMessage=Branch Sorting Code
Invalid
entry..,error=CONSTRAINT_VIOLATIONS[[code=CONSTRAINT_VIOLATIONS,fieldName=bankId,message=Branch Sorting Code Invalid entry..,relatedResources=<null>]]}
```

7.4 Deployment profiles

HMC has the option to run under different execution profiles, which determine whether certain features are enabled or disabled (such as payload encryption) or if the connections to certain system components (for example webhook processing) are real or mocked (faked).

Profiles are set using the **PAYPAL_SPRING_PROFILE_ACTIVE** environment variable and are documented in the README file contained in the HMC repository.

The general execution profiles are **dev**, **qa**, and **prod**

For UAT testing and production purposes, it is strongly encouraged to just use the **prod** profile, along with any of the optional features that need to be enabled.

7.5 Mirakl Configuration

7.5.1 Seller Custom Fields

During the initial setup, the custom fields and sections described here must be created in Mirakl, in the Settings > Advanced parameters > Shops section of the Mirakl Operator back office.

The Mirakl documentation describes how to create and manage custom fields:

help.mirakl.net/Customers/topics/Mirakl/mmp/Operator/config_custom_fields/config_custom_fields.html

Note: all the custom fields listed in this section need to be configured in Mirakl in order for HMC to function properly. The last column (“Required/Optional”) indicated whether the value in this field need to be provided in Mirakl or not, based on the data requirements outlined in Hyperwallet documentation:

- Required - the value must be provided for this field;
- Optional - the value is not required but can be provided;
- n/a - the value should not be provided by the user and will be auto-generated.

7.5.1.1 Section 1 - Hyperwallet Seller/Payee Details - Operator-only fields

Section Name: Hyperwallet Seller/Payee Details - Operator-only fields Section Description: The fields in this section are for assisting in the operator's administration & operation tasks. All fields herein should be Invisible to sellers. Section Fields:						
Code	Label	Description	Type	Values	Shop permissions	Required/ Optional
hw-program	Hyperwallet Program	Your Hyperwallet implementation may consist of one or more programs based on your payout needs. Select the appropriate program for this Seller/Payee.	Single value list	Values configured by the operator based on the program hierarchy agreed with Hyperwallet. This is set to DEFAULT for a single-level merchant hierarchy. New values can be added in case of multi-level program hierarchy. Please refer to Multi-program hierarchy section of this document.	Invisible	Required
hw-user-token	Hyperwallet User Token	Auto-generated, DO NOT change this value. This is a unique identifier for this Seller/Payee in Hyperwallet.	Text	Autogenerated	Invisible	n/a
hw-bankaccount-token	Hyperwallet Bank Account Token	Auto-generated, DO NOT change this value. This is a unique identifier for this Seller/Payee's bank account in Hyperwallet.	Text	Autogenerated	Invisible	n/a
hw-kyc-req-proof-authorization	Required Proof of Authorization	Auto-generated, DO NOT change this value. This determines whether the Seller/Payee needs to submit a Letter of Authorisation document as part of the payee verification in Hyperwallet.	Yes/ No	Autogenerated	Invisible	n/a
hw-kyc-req-proof-identity-business	Required Proof of Identity/Business	Auto-generated, DO NOT change this value. This determines whether the Seller/Payee needs to submit a Proof of Identity or Proof of Business documents as part of the payee verification in Hyperwallet.	Yes/ No	Autogenerated	Invisible	n/a

hw-prof-proof-business-type	Proof of Business Type		Single value list	INCORPORATION (set to default value)	Invisible	Required
hw-employer-id	Employer Identifier	*Note* this is deprecated field and slated for removal in a future version of the Hyperwallet Mirakl Connector	Text	Free text	Invisible	optional

7.5.1.2 Section 2 - Hyperwallet Seller/Payee Details

This section applies to all seller types, including Individual sellers and Business sellers.

Section Name: Hyperwallet Seller/Payee Details						
Section Description: Please provide the following details of the Seller/Payee, i.e. details of the shop owner for Individual Seller or business/invoicing contact for Business Sellers.						
Section Fields:						
Code	Label	Description	Type	Values	Shop permissions	Required/Optional
hw-government-id-type	Government ID Type		Single value list	<ul style="list-style-type: none">PASSPORTNATIONAL_ID_CARD	Read write	Optional
hw-government-id	Government ID number	If the Government ID type above is NATIONAL_ID_CARD please enter the national ID card number. Otherwise, leave blank.	Text	Free text	Read write	Optional
hw-passport-id	Passport Id	If the Government ID type above is PASSPORT please enter the Passport number. Otherwise, leave blank.	Text	Free text	Read write	Optional
hw-drivers-license-id	Drivers license Id		Text	Free text	Read write	Optional
hw-date-of-birth	Date of birth		Text	Date - Select from date picker	Read write	Optional
hw-country-of-birth	Country of birth	Please enter a 2-character ISO country code for the country of birth	Text	Free text	Read write	Optional
hw-country-of-nationality	Country of nationality	Please enter a 2-character ISO country code for the country of nationality	Text	Free text	Read write	Optional
hw-bankaccount-state	Bank Account State/Province	Seller/Payee's Bank Account State/Province	Text	Free text	Read write	Required

7.5.1.3 Section 3 - Hyperwallet Individual Seller/Payee Details

This section applies to Individual sellers only.

Section Name: Hyperwallet Individual Seller/Payee Details						
Section Description: The fields in this section are specific to the verification of Individual Sellers/Payees						
Section Fields:						
Code	Label	Description	Type	Values	Shop permissions	Required/ Optional
hw-ind-proof-identity-type	Proof of Identity Type	Please select the type of document that will be used as the proof of identity for the individual seller/shop owner.	Single value list	<ul style="list-style-type: none">NATIONAL_IDENTITY_CARDDRIVERS_LICENSEPASSPORTGOVERNMENT_ID	Read Write	Required (if KYC status in Mirakl is not “Approved”)
hw-ind-proof-address-type	Proof of Address Type	Please select the type of document that will be used as the proof of address for the individual seller/shop owner.	Single value list	<ul style="list-style-type: none">BANK_STATEMENTCREDIT_CARD_STATEMENTOFFICIAL_GOVERNMENT_LETTERTAX_RETURNUTILITY_BILLPROPERTY_TAX_ASSESSMENT	Read Write	Required (if KYC status in Mirakl is not “Approved”)
hw-ind-proof-identity-country	Proof of Identity Country	Please enter a 2-character ISO country code for the proof of address country	Single value list	Free text	Read Write	Required (if KYC status in Mirakl is not “Approved”)

7.5.1.4 Section 4 - Hyperwallet Business Seller/Payee Details

This section applies to Business sellers only.

Section Name: Hyperwallet Business Seller/Payee Details						
Section Description: The fields in this section are specific to the verification of Business Sellers/Payees						
Section Fields:						
Code	Label	Description	Type	Values	Shop permissions	Required/Optional
hw-business-type	Business Type	Please choose the most relevant type of business for your store	Single value list	<ul style="list-style-type: none">▪ CORPORATION▪ PRIVATE_COMPANY▪ PARTNERSHIP▪ NOT_FOR_PROFIT_ORGANIZATION▪ GOVERNMENT_ENTITY▪ PUBLIC_COMPANY	Read Write	optional

7.5.1.5 Section 5 - Hyperwallet Ts & Cs and Privacy Policy consent

Note: this section is placed at the end of the Seller custom fields section, before the Contact details on the Seller Details page.

Section Name: Hyperwallet Ts & Cs and Privacy Policy consent						
Section Description: Payment Services for your Store will be provided by Hyperwallet, a PayPal company. In order to use this marketplace, you are required to accept the Hyperwallet Terms of Services and Privacy Policy						
Section Fields:						
Code	Label	Description	Type	Values	Shop permissions	Required/ Optional
hw-terms-consent	I accept the Hyperwallet Terms of Services and Privacy Policy: https://hyperwallet.com/agreements-terms	By accepting these terms I also agree that Hyperwallet may contact me directly to request additional information to verify my account. I will contact the marketplace operator if I need to revoke this.	Yes/No		Read Write	required

7.5.2 Seller Business Stakeholder KYC Custom Fields

If using the automated KYC feature, up to 5 additional custom field sections must be created, for the 1-5 Business Stakeholder entities. In advanced scenarios it might be necessary to create additional Business Stakeholders to cover all required entities on a Business Seller.

The following details will be shown for just the first Business Stakeholder and will need to be repeated for each following Business Stakeholder. The * symbol is used in each place where the number used must be updated to correspond to the Business Stakeholder being created.

Note: all the custom fields listed in this section need to be configured in Mirakl in order for HMC to function properly. The last column (“Required/Optional”) indicated whether the value in this field need to be provided in Mirakl or not, based on the data requirements outlined in Hyperwallet documentation:

- Required - the value must be provided for this field;
- Optional - the value is not required but can be provided;
- n/a - the value should not be provided by the user and will be auto-generated.

Section Name: Business Stakeholder 1* (Professional Sellers only)						
Section Description: Please provide the details for the FIRST* Business Stakeholder of your store (up to 5). This is only applicable to business sellers (i.e. incorporated companies).						
Section Fields:						
Label	Description	Code	Type	Values	Permissions	Required/ Optional
Hyperwallet Business Stakeholder 1 token	Auto-generated token from Hyperwallet	hw-stakeholder-token-1	Text	Autogenerated	Invisible	n/a
Business Contact	Please confirm if this person is also the business contact for this store.	hw-stakeholder-business-contact-1	Yes/No		Read write	optional
Director	Please confirm if this person is also a Director of this business	hw-stakeholder-director-1	Yes/No		Read write	optional

Ultimate Beneficial Owner	Please confirm if this person is also an Ultimate Beneficial Owner (UBO) of this business	hw-stakeholder-ubo-1	Yes/No		Read write	optional
Senior Managing Officer	Please confirm if this person is also a Senior Managing Officer of this business	hw-stakeholder-smo-1	Yes/No		Read write	optional
First name	Business Stakeholder 1 - First name	hw-stakeholder-first-name-1	Text		Read write	optional
Middle name	Business Stakeholder 1 - Middle name	hw-stakeholder-middle-name-1	Text		Read write	optional
Last name	Business Stakeholder 1 - Last name	hw-stakeholder-last-name-1	Text		Read write	optional
Date of birth	Business Stakeholder 1 - Date of birth	hw-stakeholder-dob-1	Date (ISO 8601)	Date - Select from date picker	Read write	optional
Country of birth	Business Stakeholder 1 - Country of birth (2-letter code, e.g. ES for Spain)	hw-stakeholder-country-of-birth-1	Text	2-letter code ISO code, e.g. ES for Spain	Read write	optional
Country of nationality	Business Stakeholder 1 - Country of nationality (2-letter code, e.g. ES for Spain)	hw-stakeholder-nationality-1	Text	2-letter code ISO code, e.g. ES for Spain	Read write	optional
Gender	Business Stakeholder 1 - Gender	hw-stakeholder-gender-1	Single values list	<ul style="list-style-type: none"> ▪ FEMALE ▪ MALE 	Read write	optional
Phone number	Business Stakeholder 1 - Phone number	hw-stakeholder-phone-number-1	Text		Read write	optional
Mobile phone number	Business Stakeholder 1 - Mobile phone number	hw-stakeholder-mobile-number-1	Text		Read write	optional

Email	Business Stakeholder 1 - Email	hw-stakeholder-email-1	Text		Read write	optional
Address line 1	Business Stakeholder 1 - Address line 1	hw-stakeholder-address-line1-1	Text		Read write	optional
Address line 2	Business Stakeholder 1 - Address line 2	hw-stakeholder-address-line2-1	Text		Read write	optional
City	Business Stakeholder 1 - City	hw-stakeholder-city-1	Text		Read write	optional
State/province	Business Stakeholder 1 - State/province	hw-stakeholder-state-1	Text		Read write	optional
Postal code	Business Stakeholder 1 - Postal code	hw-stakeholder-post-code-1	Text		Read write	optional
Country	Business Stakeholder 1 - Country of address (2-letter code, e.g. ES for Spain)	hw-stakeholder-country-1	Text	2-letter ISO code, e.g. ES for Spain	Read write	optional
Government ID type	Business Stakeholder 1 - Government ID type	hw-stakeholder-government-id-type-1	Single values list	<ul style="list-style-type: none"> PASSPORT NATIONAL_ID_CARD 	Read write	optional
Government ID number	Business Stakeholder 1 - Government ID number. Please enter the number of the Government ID specified above (either Passport or National ID card)	hw-stakeholder-government-id-num-1	Text		Read write	optional
Government ID country code	Business Stakeholder 1 - Government ID country code (2-letter code, e.g. ES for Spain)	hw-stakeholder-government-id-count-1	Text		Read write	optional

Drivers license number	Business Stakeholder 1 - Drivers license number	hw-stakeholder-drivers-license-num-1	Text		Read write	optional
Drivers license country code	Business Stakeholder 1 - Drivers license country code (2-letter code, e.g. ES for Spain)	hw-stakeholder-drivers-license-cnt-1	Text	2-letter ISO code, e.g. ES for Spain	Read write	optional
Required Proof of Identity	Business Stakeholder 1 - Required Proof of Identity	hw-stakeholder-req-proof-identity-1	Yes/No	Autogenerated	Read write (do not change)	n/a
Proof of Identity Type	Business Stakeholder 1 - Proof of Identity Type	hw-stakeholder-proof-identity-type-1	Single values list	<ul style="list-style-type: none"> PASSPORT NATIONAL_IDENTITY_CARD DRIVERS_LICENSE 	Read write	optional
Proof of Identity country Isocode	Business Stakeholder 1 - Proof of identity country code (2-letter code, e.g. ES for Spain)	hw-stakeholder-proof-identity-ctry-1	Text	2-letter ISO code, e.g. ES for Spain	Read write	optional

7.5.3 KYC Documents

The following section described configuration of KYC documents in Mirakl that is required for leveraging the automated KYC feature.

Note: all the documents listed in this section need to be configured in Mirakl in order for HMC to function properly.

Label	Code	Description
Proof of Identity Front (Individual)	hw-ind-proof-identity-front	Proof of Identity Front (Individual)
Proof of Identity Back (individual)	hw-ind-proof-identity-back	Proof of Identity Back (individual)
Proof of Address (Individual)	hw-ind-proof-address	Proof of Address (Individual)
Proof of Business	hw-prof-proof-business-front	Proof of Business Front (business)
Business Stakeholder 1 - Proof of Identity (front)	hw-bsh1-proof-identity-front	Please upload Business Stakeholder 1 - Proof of Identity document (front side)
Business Stakeholder 1 - Proof of Identity (back)	hw-bsh1-proof-identity-back	Please upload Business Stakeholder 1 - Proof of Identity document (rear side)
Business Stakeholder 2 - Proof of Identity (front)	hw-bsh2-proof-identity-front	Please upload Business Stakeholder 2 - Proof of Identity document (front side)
Business Stakeholder 2 - Proof of Identity (back)	hw-bsh2-proof-identity-back	Please upload Business Stakeholder 2 - Proof of Identity document (rear side)
Business Stakeholder 3 - Proof of Identity (front)	hw-bsh3-proof-identity-front	Please upload Business Stakeholder 3 - Proof of Identity document (front side)
Business Stakeholder 3 - Proof of Identity (back)	hw-bsh3-proof-identity-back	Please upload Business Stakeholder 3 - Proof of Identity document (rear side)
Business Stakeholder 4 - Proof of Identity (front)	hw-bsh4-proof-identity-front	Please upload Business Stakeholder 4 - Proof of Identity document (front side)
Business Stakeholder 4 - Proof of Identity (back)	hw-bsh4-proof-identity-back	Please upload Business Stakeholder 4 - Proof of Identity document (rear side)
Business Stakeholder 5 - Proof of Identity (front)	hw-bsh5-proof-identity-front	Please upload Business Stakeholder 5 - Proof of Identity document (front side)
Business Stakeholder 5 - Proof of Identity (back)	hw-bsh5-proof-identity-back	Please upload Business Stakeholder 5 - Proof of Identity document (rear side)
Letter of authorization (Business stakeholder contact)	hw-bsh-letter-authorization	Please upload the document for business stakeholder contact - Letter of authorization

7.5.4 Mirakl Features to Activate

The following features need to be activated on the Operator's Mirakl environments. Please contact Mirakl Support in order to activate each of these features:

"KYC status": help.mirakl.net/Customers/topics/Mirakl/PSP_Project/topics/validating_kyc_psp.htm

“Payment Confirmation”:

help.mirakl.net/Customers/topics/Mirakl/integrating_mirakl/pay_sellers/payment_confirmation.htm

“Multiple Currencies”:

help.mirakl.net/Customers/topics/Mirakl/mmp/Operator/config_languages_currencies/Currencies/config_currencies.html