



Merchant Onboarding API

Version 2.7

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Introduction

The Merchant Onboarding API is a RESTful web service designed to improve onboarding experience for Payroc partners and customers.

A simple form can be used to request new merchant setups for both PAD and Card payment processing.

Messages are HTTPS POST or HTTPS GET with JSON format being used for data exchange.

Process Overview

Customers can request an account setup for Merchant Onboarding API by contacting Payroc Merchant Services.

Tel: 647-258-3708

Toll Free: 1-855-812-5191

Email: canada-support@payroc.com

After receiving their account credentials, customers can construct and send request messages to Payroc's API server

Payroc's API server will return a response specifying whether a request has been queued for review or rejected due to validation errors

Payroc Merchant Services will review all queued requests and update the status to either approved or declined

A notification message is delivered to the customer's server specifying whether a request has been approved or declined.

For approved requests, the notification will include the information required to commence payment processing.

Customers can choose to submit Status Update requests to determine the status of their merchant setups instead of receiving Notification messages.

Authentication

Authentication of requests is performed based on following values included in HTTP header:

X-User-ID

X-User-ID value must be base64 encoded API User ID assigned by Payroc

API User ID will be an ASCII string up to 32 bytes in length that can contain A-Z,a-z,0-9,-,_,

X-Message-Hash

X-Message-Hash value must be base64 encoded result of hash function

Message hash is calculated using the API Key provided by Payroc and the entire JSON string included in the request

API Key will be an alphanumeric ASCII string up to 64 bytes in length

Hash is to be generated using HMAC-SHA256 algorithm - see RFC 2104 for details

HTTP header example:

```
Content-Type: application/json
```

```
X-User-ID: sample\_ID12345
```

```
X-Message-Hash: kCaHLZMAF+30v923dfPF+AkauzmSc1An1vnFaoTu/rk=
```

Response returned for failed authentication:

```
HTTP Code: 401
```

```
{ "message": "", "details": {} }
```

Request Fields

Templates setup by Payroc Merchant Services are used to control the field requirements for each API User ID. Examples of typical templates are provided in [*Template Examples*](#) section.

General Boarding Information

Field	Values	Description
request_id	String [1-64] Alphanumeric, underscore, hyphen, space, period, comma, ampersand, colon, semicolon, slash, vertical slash, @	Unique identifier for the request. Requests including a previous request id will be rejected as duplicate.
action	String [1-16]	Action 'add' - Create a new merchant 'update' - Update an existing merchant 'deactivate' - Deactivate an existing merchant Optional for "add" requests. Required for "update", "deactivate" requests.
terminal_id	String [8] Alphanumeric	Terminal ID Required for "update" and "deactivate" requests. Rejected for "add" requests.
legal_entity_name	String [1-30] Alphanumeric, space, hyphen, underscore, period, comma, ampersand	Legal Entity Name Used as Chain name for Payment Facilitator setups
legal_entity_type	String [6]	Legal Entity Type 'CRPPRV' - Private Corporation 'CRPPUB' - Public Corporation 'NNPRFT' - Non-Profit 'GOVERN' - Government 'LLCPRV' - Private LLC 'LLCPUB' - Public LLC 'PRTPRV' - Partnership Private 'PRTPUB' - Partnership Public 'SOLEPR' - Sole Proprietor
legal_entity_contact_phone	String [1-25] Alphanumeric, space, hyphen, period, comma	Legal Entity Phone number
legal_entity_contact_email	String [1-254] Multiple emails can be separated by comma	Legal Entity Email address
customer_service_phone	String [1-25] Alphanumeric, space, hyphen, period, comma	Customer Service Phone number

url	String [1-128] URL address	Company URL
dba_name	String [1-25] Alphanumeric and space	Doing Business As (DBA) name
mcc	String [4] Numeric only	Merchant Category Code

Address

Field	Values	Description
address	Object	Merchant address
street	String [1-50] Alphanumeric, space, hyphen, underscore, period, comma	Street number PO BOX numbers are not allowed Unit or Apt number needs to be preceded by UNIT or APT
city	String [1-20] Alphanumeric and underscore	City name
province	String [2] Two-Letter abbreviation	Province or State
pc_zip	String [1-16]	Canadian Postal Code or U.S. Zip Code
country	String [2]	Country "CA" or "US"

Owner Information

Owner information must be an Authorized Signer to satisfy Amex compliance requirements.

Field	Values	Description
owner_information	Object	Owner information
name	String [1-30] Alphanumeric First and last name separated by space	Owner name
phone	String[1-25] Alphanumeric, space, hyphen, comma, period	Phone number
email	String [1-300] Multiple email addresses can be separated by comma	Email address

	country	String [2]	Country Code Format: ISO Alpha-2 Country Code Example: CA, US, GB
	date_of_birth	String [8] Numeric value	Owner's date of birth Format: YYYYMMDD

Contact Details

Primary Contact

Field	Values	Description
primary_contact	Object	Primary contact information
name	String [1-30] Alphanumeric First and last name separated by space	Contact name
phone	String[1-25] Alphanumeric, space, hyphen, comma, period	Phone number
fax	String[1-25] Alphanumeric, space, hyphen, comma, period	Fax number
email	String [1-300] Multiple email addresses can be separated by comma	Email address
chargeback_contact	Object	Chargeback contact information
name	String [1-30] Alphanumeric First and last name separated by space	Contact name
phone	String [1-25] Alphanumeric, space, hyphen, comma, period	Phone number
fax	String [1-25] Alphanumeric, space, hyphen, comma, period	Fax number

	email	String [1-300] Multiple email addresses can be separated by comma	Email address
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Admin Contact

Field	Values	Description
admin_contact	Object	Admin contact information
name	String [1-30] Alphanumeric First and last name separated by space	Contact name
phone	String [1-25] Alphanumeric, space, hyphen, comma, period	Phone number
fax	String [1-25] Alphanumeric, space, hyphen, comma, period	Fax number
email	String [1-300] Multiple email addresses can be separated by comma	Email address

Technical Contact

Field	Values	Description
tech_contact	Object	Technical contact information
name	String [1-30] Alphanumeric First and last name separated by space	Contact name
phone	String [1-25] Alphanumeric, space, hyphen, comma, period	Phone number
fax	String [1-25] Alphanumeric, space, hyphen, comma, period	Fax number
email	String [1-300] Multiple email addresses can be separated by comma	Email address

PAD Boarding Details

Field	Values	Description
pad_acceptance	String [1]	Specifies whether PAD payments are to be accepted "Y" or "N"
pad	Object	PAD related parameters Required if pad_acceptance is set to Y
account	Object	Merchant bank account
bank	String [1-3] Numeric value	Bank number
transit	String [1-5] Numeric value	Transit number
account	String [7-12] Numeric value	Account number
returned_item_account	Object	Merchant bank account for returned items, AKA NSF items
bank	String [1-3] Numeric value	Bank number
transit	String [1-5] Numeric value	Transit number
account	String [7-12] Numeric value	Account number
threshold	Object	Merchant risk thresholds
max_transaction_amount	Integer value	Maximum transaction amount (in cents)
max_monthly_transaction_count	Integer value	Maximum monthly transaction count
max_monthly_transaction_volume	Integer value	Maximum monthly volume (in cents)
funding_days	Integer [0-99]	Funding Days Number of banking days after settlement that merchant funds are to be issued. Optional

Cheque Boarding Details

Field	Values	Description
cheque_acceptance	String [1]	Specifies whether Cheque payments are to be accepted "Y" or "N"
cheque	Object	Cheque related parameters Required if cheque_acceptance is set to Y
account	Object	Merchant bank account
bank	String [1-3] Numeric value	Bank number
transit	String [1-5] Numeric value	Transit number
account	String [7-12] Numeric value	Account number
threshold	Object	Merchant risk thresholds
max_transaction_amount	Integer value	Maximum transaction amount (in cents)
max_monthly_transaction_count	Integer value	Maximum monthly transaction count
max_monthly_transaction_volume	Integer value	Maximum monthly volume (in cents)
funding_days	Integer [0-99]	Funding Days Number of banking days after settlement that merchant funds are to be issued. Optional

EFT Payment Boarding Details

Field	Values	Description
eft_payment_acceptance	String [1]	Specifies whether EFT payments are to be accepted "Y" or "N"
eft_payment	Object	EFT payment related parameters Required if eft_payment_acceptance is set to Y
account	Object	Merchant bank account
bank	String [1-3] Numeric value	Bank number
transit	String [1-5] Numeric value	Transit number
account	String [7-12] Numeric value	Account number
fees	Object	PAD related fees
transaction	Integer value	Transaction fee (in cents)
reject	Integer value	Reject fee (in cents)
return	Integer value	Return fee (in cents)
funding_days	Integer [0-99]	Funding Days Number of banking days after settlement that merchant funds are to be issued. Optional

Card Payment Boarding Details

Field	Values	Description
card_payment_acceptance	String [1]	Specifies whether card payments are to be accepted "Y" or "N"
card_payment	Object	Card payment related parameters Required if card_payment_acceptance is set to Y
credit_account	Object	Credit bank account
bank	String [1-3] Numeric value	Bank number
transit	String [1-5] Numeric value	Transit number
account	String [7-12] Numeric value	Account number
debit_account	Object	Debit bank account
bank	String [1-3] Numeric value	Bank number
transit	String [1-5] Numeric value	Transit number
account	String [7-12] Numeric value	Account number
interchange_plus	Object	Interchange Plus parameters
convenience_fee	Object	Convenience Fee parameters
discount_fee	Object	Discount Fee parameters

If card payments are to be accepted by the merchant then the request must include at least one of the following objects:

interchange_plus
discount_fee
convenience_fee

Following combinations are allowed if more than one of the above objects is included:

interchange_plus, convenience_fee

discount_fee, convenience_fee

Interchange Plus

Field	Values	Description
interchange_plus	Object - child of card_payment	Interchange Plus parameters
visa	Object	Visa parameters
acceptance	Object	Specifies whether Visa card brand is to be accepted
credit	String [1]	Specifies whether Visa Credit is to be accepted 'Y' or 'N'
debit	String [1]	Specifies whether Visa Debit is to be accepted 'Y' or 'N'
fees	Object	Fees
credit	Object	Visa Credit fees
basis_points	Integer value	Basis points
transaction	Integer value	Transaction fees (in cents)
debit	Object	Visa Debit fees
basis_points	Integer value	Basis points
transaction	Integer value	Transaction fees (in cents)
commercial	Object	Visa Commercial fees
basis_points	Integer value	Basis points
transaction	Integer value	Transaction fees (in cents)
mcrd	Object	MasterCard parameters
acceptance	Object	Specifies whether MasterCard card brand is to be accepted
credit	String [1]	Specifies whether MasterCard Credit is to be accepted 'Y' or 'N'
debit	String [1]	Specifies whether MasterCard Debit is to be accepted 'Y' or 'N'
fees	Object	Fees
credit	Object	MasterCard Credit fees
basis_points	Integer value	Basis points
transaction	Integer value	Transaction fees (in cents)
debit	Object	MasterCard Debit fees
basis_points	Integer value	Basis points
transaction	Integer value	Transaction fees (in cents)
commercial	Object	MasterCard Commercial fees
basis_points	Integer value	Basis points
transaction	Integer value	Transaction fees (in cents)
amex	Object	AMEX parameters
acceptance	Object	Specifies whether AMEX card brand is to be accepted
credit	String [1]	Specifies whether AMEX Credit is to be accepted 'Y' or 'N'

		fees	Object	Fees
		credit	Object	AMEX Credit fees
		basis_points	Integer value	Basis points
		transaction	Integer value	Transaction fees (in cents)
	jcb		Object	JCB parameters
		acceptance	Object	Specifies whether JCB card brand is to be accepted
		credit	String [1]	Specifies whether JCB Credit is to be accepted 'Y' or 'N'
		fees	Object	Fees
		credit	Object	JCB Credit fees
		basis_points	Integer value	Basis points
		transaction	Integer value	Transaction fees (in cents)

Discount Fee

Field	Values	Description
discount_fee	Object - child of card_payment	Discount Fee parameters
visa	Object	Visa parameters
acceptance	Object	Specifies whether Visa card brand is to be accepted
credit	String [1]	Specifies whether Visa Credit is to be accepted 'Y' or 'N'
debit	String [1]	Specifies whether Visa Debit is to be accepted 'Y' or 'N'
fees	Object	Fees
credit	Object	Visa Credit fees
discount_rate	Numeric value, 2 decimal places	Discount rate
transaction	Integer value	Transaction fees (in cents)
debit	Object	Visa Debit fees
discount_rate	Numeric value, 2 decimal places	Discount rate
transaction	Integer value	Transaction fees (in cents)
commercial	Object	Visa Commercial fees
discount_rate	Numeric value, 2 decimal places	Discount rate
transaction	Integer value	Transaction fees (in cents)
mcrd	Object	MasterCard parameters
acceptance	Object	Specifies whether MasterCard card brand is to be accepted
credit	String [1]	Specifies whether MasterCard Credit is to be accepted 'Y' or 'N'
debit	String [1]	Specifies whether MasterCard Debit is to be accepted 'Y' or 'N'
fees	Object	Fees
credit	Object	MasterCard Credit fees
discount_rate	Numeric value, 2 decimal places	Discount rate
transaction	Integer value	Transaction fees (in cents)
debit	Object	MasterCard Debit fees
discount_rate	Numeric value, 2 decimal places	Discount rate

			transaction	Integer value	Transaction fees (in cents)
			commercial	Object	MasterCard Commercial fees
			discount_rate	Numeric value, 2 decimal places	Discount rate
			transaction	Integer value	Transaction fees (in cents)
	amex			Object	AMEX parameters
		acceptance		Object	Specifies whether AMEX card brand is to be accepted
			credit	String [1]	Specifies whether AMEX Credit is to be accepted 'Y' or 'N'
		fees		Object	Fees
			credit	Object	AMEX Credit fees
			discount_rate	Numeric value, 2 decimal places	Discount rate
			transaction	Integer value	Transaction fees (in cents)
	jcb			Object	JCB parameters
		acceptance		Object	Specifies whether JCB card brand is to be accepted
			credit	String [1]	Specifies whether JCB Credit is to be accepted 'Y' or 'N'
		fees		Object	Fees
			credit	Object	JCB Credit fees
			discount_rate	Numeric value, 2 decimal places	Discount rate
			transaction	Integer value	Transaction fees (in cents)

Convenience Fee

Convenience fees can be setup as either a percentage or based on amount ranges. Tables are provided below with request field details for each option.

Convenience Fee - percentage option

Field	Values	Description
convenience_fee	Object - child of card_payment	Convenience Fee parameters
visa	Object	Visa parameters
acceptance	Object	Specifies whether Visa card brand is to be accepted
credit	String [1]	Specifies whether Visa Credit is to be accepted 'Y' or 'N'
debit	String [1]	Specifies whether Visa Debit is to be accepted 'Y' or 'N'
fees	Object	Fees
credit	Object	Visa Credit fees
rate	Numeric value, 2 decimal places	Rate
debit	Object	Visa Debit fees
rate	Numeric value, 2 decimal places	Rate
commercial	Object	Visa Commercial fees
rate	Numeric value, 2 decimal places	Rate
mcrd	Object	MasterCard parameters

		acceptance	Object	Specifies whether MasterCard card brand is to be accepted
		credit	String [1]	Specifies whether MasterCard Credit is to be accepted 'Y' or 'N'
		debit	String [1]	Specifies whether MasterCard Debit is to be accepted 'Y' or 'N'
		fees	Object	Fees
		credit	Object	MasterCard Credit fees
		rate	Numeric value, 2 decimal places	Rate
		debit	Object	MasterCard Debit fees
		rate	Numeric value, 2 decimal places	Rate
		commercial	Object	MasterCard Commercial fees
		rate	Numeric value, 2 decimal places	Rate

Convenience Fee - amount range option

Field		Values	Description
convenience_fee		Object - child of card_payment	Convenience Fee parameters
	visa	Object	Visa parameters
	acceptance	Object	Specifies whether Visa card brand is to be accepted
	credit	String [1]	Specifies whether Visa Credit is to be accepted 'Y' or 'N'
	debit	String [1]	Specifies whether Visa Debit is to be accepted 'Y' or 'N'
	fees	Object	Fees
	credit	Object	Visa Credit fees
	range	Array Object	Amount ranges & fees
	debit	Object	Visa Debit fees
	range	Array Object	Amount ranges & fees
	commercial	Object	Visa Commercial fees
	range	Array Object	Amount ranges & fees
	mcrd	Object	MasterCard parameters
	acceptance	Object	Specifies whether MasterCard card brand is to be accepted
	credit	String [1]	Specifies whether MasterCard Credit is to be accepted 'Y' or 'N'
	debit	String [1]	Specifies whether MasterCard Debit is to be accepted 'Y' or 'N'
	fees	Object	Fees
	credit	Object	MasterCard Credit fees
	range	Array Object	Amount ranges & fees
	debit	Object	MasterCard Debit fees

			range	Array Object	Amount ranges & fees
		commercial		Object	MasterCard Commercial fees
			range	Array Object	Amount ranges & fees

Range array syntax:

```
{"range": [[amount1, fee1], [amount2, fee2], [amount3, fee3]]}
```

Each array item includes maximum payment amount and associated fee to be charged for the range

Template Examples

Some of the factors used to determine the request field requirements for an API user account:

Type of merchant accounts to be setup, e.g., individual merchant account, Payment Facilitator sub-merchant

Fee model to be setup for merchant accounts, e.g., Interchange Plus, Discount Fee

Examples are provided below for templates that would typically apply for individual merchant and Payment Facilitator sub-merchant account setups. Request fields are specified as being Required, Optional, or Rejected where Rejected means that a value is not to be provided.

Payment Facilitator Sub-Merchant

Merchant Add

request_id	Required
action	Optional
terminal_id	Rejected
legal_entity_name	Required
legal_entity_type	Required
legal_entity_contact_phone	Required
legal_entity_contact_email	Required
customer_service_phone	Required
url	Required
dba_name	Required
mcc	Optional
address	Required
street	Required
city	Required
country	Required
province	Required
pc_zip	Required
owner_information	Required
name	Required
phone	Required
email	Required
country	Required
date_of_birth	Required
primary_contact	Required
name	Required
phone	Required
fax	Required
email	Required
chargeback_contact	Required
name	Required

	phone	Required
	fax	Required
	email	Required
admin_contact		Optional
	name	Required
	phone	Required
	fax	Required
	email	Required
tech_contact		Optional
	name	Required
	phone	Required
	fax	Required
	email	Required
pad_acceptance		Required
pad		Required if pad_acceptance = Y otherwise ignored
	account	Required
	bank	Required
	transit	Required
	account	Required
returned_item_account		Optional
	bank	Required
	transit	Required
	account	Required
threshold		Required
	max_transaction_amount	Required
	max_monthly_transaction_count	Required
	max_monthly_transaction_volume	Required
fees		Required
	transaction	Required
	reject	Required
	return	Required
funding_days		Optional
cheque_acceptance		Optional
cheque		Required if cheque_acceptance = Y otherwise ignored
	account	Required
	bank	Required
	transit	Required
	account	Required
threshold		Optional
	max_transaction_amount	Required
	max_monthly_transaction_count	Required
	max_monthly_transaction_volume	Required
fees		Required
	transaction	Required

		reject	Required
		return	Required
		funding_days	Optional
		eft_payment_acceptance	Optional
		eft_payment	Required if eft_payment_acceptance = Y otherwise ignored
		account	Required
		bank	Required
		transit	Required
		account	Required
		fees	Required
		transaction	Required
		reject	Required
		return	Required
		funding_days	Optional
		card_payment_acceptance	Required
		card_payment	Required if card_payment_acceptance = Y otherwise ignored
		credit_account	Rejected
		debit_account	Rejected
		interchange_plus	Required
		visa	Required
		acceptance	Required
		credit	Required
		debit	Required
		fees	Rejected
		mcrd	Required
		acceptance	Required
		credit	Required
		debit	Required
		fees	Rejected
		amex	Required
		acceptance	Required
		credit	Required
		fees	Rejected
		jcb	Required
		acceptance	Required
		credit	Required
		fees	Rejected
		discount_fee	Rejected
		convenience_fee	Rejected

Individual Merchant

Merchant Add

request_id	Required
action	Optional
terminal_id	Rejected
legal_entity_name	Required
legal_entity_type	Required
legal_entity_contact_phone	Required
legal_entity_contact_email	Required
customer_service_phone	Required
url	Required
dba_name	Required
mcc	Optional
address	Required
street	Required
city	Required
country	Required
province	Required
pc_zip	Required
owner_information	Required
name	Required
phone	Required
email	Required
country	Required
date_of_birth	Optional
primary_contact	Required
name	Required
phone	Required
fax	Required
email	Required
chargeback_contact	Required
name	Required
phone	Required
fax	Required
email	Required
admin_contact	Optional
name	Required
phone	Required
fax	Required
email	Required
tech_contact	Optional
name	Required
phone	Required
fax	Required
email	Required
pad_acceptance	Required
pad	Required if pad_acceptance = Y otherwise ignored

	account	Required
	bank	Required
	transit	Required
	account	Required
	returned_item_account	Optional
	bank	Required
	transit	Required
	account	Required
	threshold	Required
	max_transaction_amount	Required
	max_monthly_transaction_count	Required
	max_monthly_transaction_volume	Required
	fees	Required
	transaction	Required
	reject	Required
	return	Required
	funding_days	Optional
	cheque_acceptance	Required
	cheque	Required if cheque_acceptance = Y otherwise ignored
	account	Required
	bank	Required
	transit	Required
	account	Required
	threshold	Optional
	max_transaction_amount	Required
	max_monthly_transaction_count	Required
	max_monthly_transaction_volume	Required
	fees	Required
	transaction	Required
	reject	Required
	return	Required
	funding_days	Optional
	eft_payment_acceptance	Required
	eft_payment	Required if eft_payment_acceptance = Y otherwise ignored
	account	Required
	bank	Required
	transit	Required
	account	Required
	fees	Required
	transaction	Required
	reject	Required
	return	Required
	funding_days	Optional
	card_payment_acceptance	Required

card_payment		Required if card_payment_acceptance = Y otherwise ignored
	credit_account	Required
	bank	Required
	transit	Required
	account	Required
	debit_account	Required
	bank	Required
	transit	Required
	account	Required
	interchange_plus	Optional
	visa	Required
	acceptance	Required
	credit	Required
	debit	Required
	fees	Required
	credit	Required
	basis_points	Required
	transaction	Required
	debit	Required
	basis_points	Required
	transaction	Required
	commercial	Required
	basis_points	Required
	transaction	Required
	mcrd	Required
	acceptance	Required
	credit	Required
	debit	Required
	fees	Required
	credit	Required
	basis_points	Required
	transaction	Required
	debit	Required
	basis_points	Required
	transaction	Required
	commercial	Required
	basis_points	Required
	transaction	Required
	amex	Required
	acceptance	Required
	credit	Required
	fees	Required
	credit	Required
	basis_points	Required
	transaction	Required

		jcb	Required
		acceptance	Required
		credit	Required
		fees	Required
		credit	Required
		basis_points	Required
		transaction	Required
		discount_fee	Optional
		visa	Required
		acceptance	Required
		credit	Required
		debit	Required
		fees	Required
		credit	Required
		discount_rate	Required
		transaction	Required
		debit	Required
		discount_rate	Required
		transaction	Required
		commercial	Required
		discount_rate	Required
		transaction	Required
		mcrd	Required
		acceptance	Required
		credit	Required
		debit	Required
		fees	Required
		credit	Required
		discount_rate	Required
		transaction	Required
		debit	Required
		discount_rate	Required
		transaction	Required
		commercial	Required
		discount_rate	Required
		transaction	Required
		amex	Required
		acceptance	Required
		credit	Required
		fees	Required
		credit	Required
		discount_rate	Required
		transaction	Required
		jcb	Required
		acceptance	Required
		credit	Required

			fees	Required
			credit	Required
			discount_rate	Required
			transaction	Required
			convenience_fee	Optional
			visa	Required
			acceptance	Required
			credit	Required
			debit	Required
			fees	Required
			credit	Required
			rate	Optional
			range	Rejected if rate specified otherwise Optional
			debit	Required
			rate	Optional
			range	Rejected if rate specified otherwise Optional
			commercial	Required
			rate	Optional
			range	Rejected if rate specified otherwise Optional
			mcrd	Required
			acceptance	Required
			credit	Required
			debit	Required
			fees	Required
			credit	Required
			rate	Optional
			range	Rejected if rate specified otherwise Optional
			debit	Required
			rate	Optional
			range	Rejected if rate specified otherwise Optional
			commercial	Required
			rate	Optional
			range	Rejected if rate specified otherwise Optional

Request Examples

Payment Facilitator Request Examples

Merchant Add - PAD Processing

```
{
  "request_id": "request0001",
  "legal_entity_name": "Sample",
  "legal_entity_type": "CRPPUB",
  "legal_entity_contact_phone": "416 123-4567",
  "legal_entity_contact_email": "contact@example.com",
  "customer_service_phone": "416 123-4567",
  "url": "www.example.com",
  "dba_name": "Retailer",
  "address": {
    "street": "2275 Upper Middle Rd.",
    "city": "Oakville",
    "country": "CA",
    "province": "ON",
    "pc_zip": "L6H0C3"
  },
  "pad_acceptance": "Y",
  "pad": {
    "account": {
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
    "returned_item_account": {
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
    "threshold": {
      "max_transaction_amount": "199999",
      "max_monthly_transaction_count": "500",
      "max_monthly_transaction_volume": "6900000"
    }
  },
  "cheque_acceptance": "N"
}
```

Notes: returned_item_account object is optional for PAD processing

Merchant Add - Cheque Processing

```
{
  "request_id": "request0001",
  "legal_entity_name": "Sample",
  "legal_entity_type": "CRPPUB",
  "legal_entity_contact_phone": "416 123-4567",
  "legal_entity_contact_email": "contact@example.com",
  "customer_service_phone": "416 123-4567",
}
```

```

"url": "www.example.com",
"dba_name": "Retailer",
"address":{
  "street": "2275 Upper Middle Rd.",
  "city": "Oakville",
  "country": "CA",
  "province": "ON",
  "pc_zip": "L6H0C3"
},
"pad_acceptance": "N",
"cheque_acceptance": "Y",
"cheque":{
  "account":{
    "bank": "001",
    "transit": "12345",
    "account": "1234556"
  },
  "threshold":{
    "max_transaction_amount": "199999",
    "max_monthly_transaction_count": "500",
    "max_monthly_transaction_volume": "6900000"
  }
}
}
}

```

Merchant Add - PAD & Cheque Processing

```

{
  "request_id": "request0001",
  "legal_entity_name": "Sample",
  "legal_entity_type": "CRPPUB",
  "legal_entity_contact_phone": "416 123-4567",
  "legal_entity_contact_email": "contact@example.com",
  "customer_service_phone": "416 123-4567",
  "url": "www.example.com",
  "dba_name": "Retailer",
  "address":{
    "street": "2275 Upper Middle Rd.",
    "city": "Oakville",
    "country": "CA",
    "province": "ON",
    "pc_zip": "L6H0C3"
  },
  "pad_acceptance": "Y",
  "pad":{
    "account":{
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
    "returned_item_account":{
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
  },
  "threshold":{

```

```

        "max_transaction_amount": "199999",
        "max_monthly_transaction_count": "500",
        "max_monthly_transaction_volume": "6900000"
    }
},
"cheque_acceptance": "Y"
}

```

Notes: returned_item_account object is optional for PAD processing

Merchant Update - Add Cheque Processing for merchant accepting PAD

```

{
  "request_id": "request1",
  "action": "update",
  "terminal_id": "EXAMPLE1",
  "cheque_acceptance": "Y"
}

```

Merchant Update – Add PAD processing for merchant accepting Cheque payments

```

{
  "request_id": "request1",
  "action": "update",
  "terminal_id": "EXAMPLE1",
  "pad_acceptance": "Y",
  "pad": {
    "returned_item_account": {
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    }
  }
}

```

Notes: returned_item_account object is optional for PAD processing

Merchant Update –Account information & Risk Thresholds

```

{
  "request_id": "request1",
  "action": "update",
  "terminal_id": "EXAMPLE1",
  "pad": {
    "account": {
      "bank": "001",
      "transit": "12345",
      "account": "123456789"
    },
    "threshold": {
      "max_transaction_amount": "199999",
      "max_monthly_transaction_count": "500",

```

```

        "max_monthly_transaction_volume": "6900000"
    }
}

{
  "request_id": "request1",
  "action": "update",
  "terminal_id": "EXAMPLE1",
  "cheque": {
    "account": {
      "bank": "001",
      "transit": "12345",
      "account": "123456789"
    },
    "threshold": {
      "max_transaction_amount": "199999",
      "max_monthly_transaction_count": "500",
      "max_monthly_transaction_volume": "6900000"
    }
  }
}

```

Notes: Account information and thresholds can be updated by including either the pad or cheque object in a boarding request as the same fields are used for PAD & Cheque payment processing. Update requests are not currently supported that include both the pad and cheque objects.

Individual Merchant Request Examples

Merchant Add

Request including only PAD payment acceptance:

```

{
  "request_id": "request0001",
  "legal_entity_name": "Sample",
  "legal_entity_type": "CRPPUB",
  "legal_entity_contact_phone": "416 123-4567",
  "legal_entity_contact_email": "contact@example.com",
  "customer_service_phone": "416 123-4567",
  "url": "www.example.com",
  "dba_name": "Retailer",
  "address": {
    "street": "2275 Upper Middle Rd.",
    "city": "Oakville",
    "country": "CA",
    "province": "ON",
    "pc_zip": "L6H0C3"
  },
  "owner_information": {
    "name": "Owner Name",
    "phone": "416 123-4567",
    "email": "o@example.com",
  }
}

```

```

    "country": "CA",
    "date_of_birth": "20000101"
  },
  "primary_contact":{
    "name": "Contact A",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "a@example.com"
  },
  "chargeback_contact":{
    "name": "Contact B ",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "b@example.com"
  },
  "admin_contact":{
    "name": "Contact C",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "c@example.com"
  },
  "tech_contact":{
    "name": "Contact D",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "d@example.com"
  },
  "pad_acceptance": "Y",
  "pad":{
    "account":{
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
    "returned_item_account":{
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
    "threshold":{
      "max_transaction_amount": "199999",
      "max_monthly_transaction_count": "500",
      "max_monthly_transaction_volume": "6900000"
    },
    "fees":{
      "transaction": "8",
      "reject": "1500",
      "return": "1500"
    }
  },
  "cheque_acceptance": "N",
  "eft_payment_acceptance": "N",
  "card_payment_acceptance": "N"
}

```

Request including PAD and Card payments with both Interchange Plus fees and Convenience fees:

```

{
  "request_id": "request0001",
  "legal_entity_name": "Sample",
  "legal_entity_type": "CRPPUB",
  "legal_entity_contact_phone": "416 123-4567",
  "legal_entity_contact_email": "contact@example.com",
  "customer_service_phone": "416 123-4567",
  "url": "www.example.com",
  "dba_name": "Retailer",
  "mcc": "1234",
  "address": {
    "street": "2275 Upper Middle Rd.",
    "city": "Oakville",
    "country": "CA",
    "province": "ON",
    "pc_zip": "L6H0C3"
  },
  "owner_information": {
    "name": "Owner Name",
    "phone": "416 123-4567",
    "email": "o@example.com",
    "country": "CA",
    "date_of_birth": "20000101"
  },
  "primary_contact": {
    "name": "Contact A",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "a@example.com"
  },
  "chargeback_contact": {
    "name": "Contact B ",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "b@example.com"
  },
  "admin_contact": {
    "name": "Contact C",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "c@example.com"
  },
  "tech_contact": {
    "name": "Contact D",
    "phone": "416 123-4567",
    "fax": "416 123-4567",
    "email": "d@example.com"
  },
  "pad_acceptance": "Y",
  "pad": {
    "account": {
      "bank": "001",
      "transit": "12345",
      "account": "1234556"
    },
    "returned_item_account": {

```

```

    "bank": "001",
    "transit": "12345",
    "account": "1234556"
  },
  "threshold":{
    "max_transaction_amount": "199999",
    "max_monthly_transaction_count": "500",
    "max_monthly_transaction_volume": "6900000"
  },
  "fees":{
    "transaction": "8",
    "reject": "1500",
    "return": "1500"
  }
},
"cheque_acceptance": "N",
"eft_payment_acceptance": "N",
"card_payment_acceptance": "Y",
"card_payment":{
  "credit_account":{
    "bank": "001",
    "transit": "12345",
    "account": "123456789"
  },
  "debit_account":{
    "bank": "001",
    "transit": "12345",
    "account": "123456789"
  },
  "interchange_plus":{
    "visa":{
      "acceptance": {"credit": "Y", "debit": "Y"},
      "fees":{
        "credit": {"basis_points": "15", "transaction": "110"},
        "debit": {"basis_points": "15", "transaction": "110"},
        "commercial": {"basis_points": "15", "transaction": "110"}
      },
    },
    "mcrd":{
      "acceptance": {"credit": "Y", "debit": "Y"},
      "fees":{
        "credit": {"basis_points": "15", "transaction": "110"},
        "debit": {"basis_points": "15", "transaction": "110"},
        "commercial": {"basis_points": "15", "transaction": "110"}
      },
    }
  },
  "amex":{
    "acceptance": {"credit": "Y"},
    "fees":{
      "credit": {"basis_points": "15", "transaction": "110"},
    }
  },
  "jcb":{
    "acceptance": {"credit": "Y"},
    "fees":{
      "credit": {"basis_points": "15", "transaction": "110"},
    }
  }
}

```

```

    }
  },
  "convenience_fee":{
    "visa": {
      "acceptance": {"credit":"Y", "debit":"Y" },
      "fees":{
        "credit": {"rate":"0.75"},
        "debit": {"rate":"0.75"},
        "commercial": {"rate":"0.75"}
      }
    },
    "mcrd":{
      "acceptance":{"credit":"Y", "debit":"Y"},
      "fees":{
        "credit": {"rate":"0.75"},
        "debit": {"rate":"0.75"},
        "commercial":{"rate":"0.75"}
      }
    }
  }
}

```

Following is sample snippet for merchant setup with Discount Fee setup:

```

{
  "discount_fee": {
    "visa": {
      "acceptance":{"credit":"Y", "debit":"Y"},
      "fees":{
        "credit": {"discount_rate":"2.50", "transaction":"10"},
        "debit": {"discount_rate":"2.50", "transaction":"10"},
        "commercial": {"discount_rate":"2.50", "transaction":"10"}
      }
    },
    "mcrd": {
      "acceptance": {"credit":"Y", "debit":"Y"},
      "fees":{
        "credit": {"discount_rate":"2.50", "transaction":"10"},
        "debit": {"discount_rate":"2.50", "transaction":"10"},
        "commercial": {"discount_rate":"1.00", "transaction":"110"}
      }
    }
  }
  "amex": {
    "acceptance": {"credit":"Y"},
    "fees":{
      "credit": {"discount_rate":"2.50", "transaction":"10"},
    }
  }
  "jcb": {
    "acceptance": {"credit":"Y"},
    "fees":{
      "credit": {"discount_rate":"2.50", "transaction":"10"},
    }
  }
}

```



```
}  
}
```

Following is sample snippet for merchant setup with Convenience Fee amount ranges:

```
{  
  "convenience_fee":{  
    "visa":{  
      "acceptance": {"credit":"Y", "debit":"Y"},  
      "fees":{  
        "credit": {"range":[[1000, 105],[2000, 250],[3000, 315]]},  
        "debit": {"range":[[1000, 105],[2000, 250],[3000, 315]]},  
        "commercial": {"range":[[1000, 105],[2000, 250],[3000, 315]]}  
      }  
    },  
    "mcrd": {  
      "acceptance": {"credit":"Y", "debit":"Y"},  
      "fees":{  
        "credit": {"range":[[1000, 105],[2000, 250],[3000, 315]]},  
        "debit": {"range":[[1000, 105],[2000, 250],[3000, 315]]},  
        "commercial": {"range":[[1000, 105],[2000, 250],[3000, 315]]}  
      }  
    }  
  }  
}
```

Merchant Update

```
{  
  "request_id": "request1",  
  "action": "update",  
  "terminal_id": "EXAMPLE1",  
  "pad":{  
    "account":{  
      "bank": "001",  
      "transit": "12345",  
      "account": "123456789"  
    },  
    "returned_item_account":{  
      "bank": "001",  
      "transit": "12345",  
      "account": "1234556"  
    }  
  }  
}
```

Merchant Deactivate

```
{  
  "request_id": "request1",  
  "action": "deactivate",  
  "terminal_id": "EXAMPLE1"  
}
```

Response

For successful requests, HTTP 202 will be returned with the following object:

```
{
  "message": "",
  "details": {}
}
```

For failed requests, HTTP 4xx code is returned. Depending on the scenario, the following object may be returned with the error messages attached to the corresponding fields:

```
{
  "message": "Invalid data",
  "details": {
    "legal_entity_name": "0",
    "legal_entity_type": "Invalid",
    "address": {
      "street": "0",
      "city": "0",
      "country": "0",
      "province": "Invalid",
      "pc_zip": "0"
    }
  }
}
```

Note: fields with a "0" or empty string indicate that the values passed validation

For some HTTP codes, such as 405, 415, 404, an empty body will be returned.

Notification

A notification (HTTP POST with JSON string) is sent back to customer's server after a request has been reviewed and approved or declined by Payroc Merchant Services.

Customer's server is expected to return an HTTP 200 code when the notification is received. Delivery of notification will be retried up to 3 times if HTTP 200 is not returned by the customer's server.

HTTP Headers will include:

Content-Type

application/json

X-User-ID

This is the same X-User-ID which submitted the request

X-Message-Hash

X-Message-Hash will be calculated using the secret key from the API user specified by X-User-ID and the JSON payload in the notification.

The hash will be generated using HMAC-SHA256 algorithm - see RFC 2104 for details.

X-Message-Hash will be base64 encoded.

Fields that can be included in the notification message

Field	Values	Description
status	String[1-32]	'Pending', 'Approved', 'Declined'
message	String	Reserved
details	Object	
request_id	String	
action	String[1-16]	'add', 'update', 'deactivate'
pad	Object	If PAD payment is setup
terminal_id	String[8]	Assigned by Payroc
cheque	Object	If Cheque payment is setup
terminal_id	String[8]	
eft_payment	Object	If EFT payment is setup
terminal_id	String[8]	
card_payment	Object	If Card payment is setup
interchange_plus	Object	
terminal_id	String[8]	
bp_gateway_id	String	Certain customer only
bp_secret_key	String	Certain customer only
acquirer_merchant_id	Object	
visa	String[16]	Assigned by Payroc for VISA
mcrd	String[16]	Assigned by Payroc for MCRD
amex	String[16]	Assigned by Payroc for AMEX

				jcb	String[16]	Assigned by Payroc for JCB
			convenience_fee		Object	
			terminal_id		String[8]	
			acquirer_merchant_id		Object	
				visa	String[16]	Assigned by Payroc for VISA
				mcrd	String[16]	Assigned by Payroc for MCRD
				amex	String[16]	Assigned by Payroc for AMEX
				jcb	String[16]	Assigned by Payroc for JCB
			discount_fee		Object	
			terminal_id		String[8]	
			bp_gateway_id		String	Certain customer only
			bp_secret_key		String	Certain customer only
			acquirer_merchant_id		Object	
				visa	String[16]	Assigned by Payroc for VISA
				mcrd	String[16]	Assigned by Payroc for MCRD
				amex	String[16]	Assigned by Payroc for AMEX
				jcb	String[16]	Assigned by Payroc for JCB

Sample notification for approved request:

```

{
  "status": "Approved",
  "message": "",
  "details": {
    "request_id": "request0001",
    "action": "add",
    "pad": {
      "terminal_id": "INTG0001"
    },
    "card_payment": {
      "interchange_plus": {
        "terminal_id": "INTG0001",
        "acquirer_merchant_id": {
          "visa": "1234567890123456",
          "mcrd": "1234567890123456",
          "amex": "1234567890123456",
          "jcb": "1234567890123456"
        },
        "bp_gateway_id": "100000123000",
        "bp_secret_key": "9c24c7bd1d2b2354e4bd84a578e91b46"
      }
    }
  }
}

```

Sample notification for declined request:

```

{
  "status": "Declined",

```

```
"message": "",
"details":{
  "request_id": "request0001",
  "action": "add",
  "message": "Merchant already exists"
}
}
```

Status Update

Status update process provides Payroc's customers/partners with an alternative to Notification process. Instead of receiving a Notification message from Payroc's API server, customers/partners would be able to submit a request to determine if the status of a merchant setup has been updated.

Status update for a merchant setup can be obtained by submitting a HTTPS GET including the boarding request_id along with a timestamp;

```
https://api.caledoncard.com/boarding/request/<url_encoded_request_id>/<epoch>
```

Timestamp (epoch) is to specify when the status update request was initiated.

HTTP header must include same set of values as specified in Authentication section:

```
Content-Type: application/json
X-User-ID: <Base 64 encoded User ID>
X-Message-Hash: <Base64 encoded result of hash function>
```

Message hash for status update requests is calculated using the API Key provided by Payroc and request_id concatenated with epoch. Hash is to be generated using HMAC-SHA256 algorithm.

Status Update responses include:

HTTP 401 Unauthorized will be returned if the request failed to pass the authentication.

```
{
  "message": "",
  "details": {}
}
```

HTTP 400 Bad request will be returned if the epoch is outside of allowed time period

```
{
  "message": "Request expired",
  "details": {}
}
```

HTTP 404 Not found will be returned if the request ID does not exist

```
{
  "message": "",
  "details": {}
}
```

HTTP 200 Ok will be returned if the boarding request is still pending.

```
{
  "message": "",
  "status": "Pending",
  "details": {}
}
```

HTTP 200 Ok will be returned if the boarding request has been approved

```
{
  "message": "",
  "status": "Approved",
  "details": {
    "request_id": "request0001",
    "action": "add",
    "pad": {
      "terminal_id": "INTG0001"
    },
    "card_payment": {
      "interchange_plus": {
        "terminal_id": "INTG0001",
        "acquirer_merchant_id": {
          "visa": "1234567890123456",
          "mcrd": "1234567890123456",
          "amex": "1234567890123456",
          "jcb": "1234567890123456"
        },
        "bp_gateway_id": "100000123000",
        "bp_secret_key": "9c24c7bd1d2b2354e4bd84a578e91b46"
      }
    }
  }
}
```

HTTP 200 will be returned if the boarding request was declined.

```
{
  "message": "",
  "status": "Declined",
  "details": {
    "request_id": "request0001",
    "action": "add",
    "message": "Merchant already exists"
  }
}
```