

hyperWALLET Integration API Specifications

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Version: 1.42

Revision History:

May 16, 2006	Version 1.0		
June 14, 2006	Version 1.1		merchantTxnId is required for Direct Load Add missing <expirationDate> for Add Card and Replace Card
June 21, 2006	Version 1.2		Add Close Account API
June 27, 2006	Version 1.3		Added example response where Cancel Direct Load is performed on a Direct Load that has already been cancelled.
July 5, 2006	Version 1.4		Updated example values for country and gender. Added new response codes for Server NSF and duplicate e-mail
October 11, 2006	Version 1.5		Updated Create account to new XML format Added Update account API Added Additional Ids
October 12, 2006	Version 1.6		Added additional Ids to the examples Added appendix for additional ID fields
July 15, 2009	Version 1.7		Enhanced Account Balance API to return multiple balances including currency converted balances at the current FX rates.
November 9, 2009	Version 1.8		Added Japan accounts
November 20, 2009	Version 1.9		Added details from Japan account implementation Added samples for use of language, accountCreatedNotificationEmail, defaultCurrency
December 21, 2009	Version 1.9.1		Fixed japan account type (3 not valid – should be 9)
January 20, 2010	Version 1.10		Add Korea bank account formats
January 25, 2010	Version 1.11		Added Get Account Details transaction
February 4, 2010	Version 1.12	Bryce Watson	Added Security and SSL certificate import instructions Correct preference example in appendix, add author column to revision history. Add requestLocale to receive internationalized error responses. Enhance response codes appendix. Corrected createAccount \ updateAccount <dateOfBirth> parameter format. The correct format is yyyy-mm-dd Changed the name of the email parameter in createAccount from 'optionalEmail' to 'email' Added id to credit card block – for login and getAccountDetails operations Enhancements to close account API. Allow client to
February 5, 2010	Version 1.13	James Chang	
February 11, 2010	Version 1.14	James Chang	
May 25, 2010	Version 1.15	Bill Crowley	
June 14, 2010	Version 1.16	Pippa Lattey	
August 6, 2010	Version 1.17	Pippa Lattey	
August 18, 2010	Version 1.18	James Chang	

February 14, 2011	Version 1.19	Bill Crowley	request close account cleanup to release Wallet information for re-use. Automatically allow duplicate bank accounts to be reused if requested. Removed various card API references as no longer supported in this manner.
March 28, 2011	Version 1.20	David Koch	Added Taiwan bank account format Removed CASHOUT_FULL_BALANCE_WEEKLY: no longer supported
May 26, 2011	Version 1.21	Bryce Watson	Including updates to Update Account to use the optional 'updateProfile' flag.
June 3, 2011	Version 1.22	Amin Majidi	Added Change Issuer function
August 9, 2011	Version 1.23	Blair Olynyk	Add new bank account format, same as old, but less fields returned in response
August 11, 2011	Version 1.25	James Chang	Add cardRequest enhancement to updateAccount API to create a new or replace an existing prepaid card.
August 23, 2011	Version 1.26	James Chang	Add Malaysia Bank account support to createAccount and updateAccount APIs.
Dec. 19, 2011	Version 1.27	James Chang	Add bank account registration syntax for CANADA and USA bank account formats.
January 23, 2012	Version 1.28	Bill Crowley	Updated USA bank account type option from checking to demand
January 30, 2012	Version 1.29	Bill Crowley	Added new externalGroupId parameter that identifies issuerId under which to perform the request.
February 1, 2012	Version 1.30	James Chang	Add extralId and accountStatus to the accountBalance response.
March 19, 2012	Version 1.31	Raj Sidhu	Added Thailand and China bank Account registration syntax.
March 20, 2012	Version 1.32	Raj Sidhu	Added UK Euro bank account registration syntax
March 30, 2012	Version 1.33	Raj Sidhu	Added Generic EURO(EURO-2) and UK_1 Bacs Bank Account Examples
April 5, 2012	Version 1.34	James Chang	Add bank account registration specifications for AUSTRALIA, NEWZEALAND, and MEXICO
April 10, 2012	Version 1.35	Raj Sidhu	Fixed AUSTRALIA EXAMPLE and specifications
April 27, 2012	Version 1.36	Raj Sidhu	Add bank account registration specifications for South Africa and Indonesia
May 3, 2012	Version 1.37	James Chang	Enhance updateAccount API spec to allow for updateEmail capability.
July 24, 2012	Version 1.38	James Chang	Return walletNumber in accountBalance response. Enhance create and update account to request cards to allow specifying a brand design id.
January 23, 2013	Version 1.39	Blair Olynyk	Updating the time zone key list and description.
July 11, 2013	Version 1.40	Megan Park	Update Account Type for JAPAN 1
July 18, 2013	Version 1.41	James Chang	Enhance updateAccount to be able to register a new bank account without having to update the profile information.
July 19, 2013	Version 1.42	Amin Majidi	Adding accountStatus to getAccountDetails API

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1. Introduction

The set of APIs (application programming interfaces) is designed to allow client applications to process real-time account creation, account loading, reverse load, cancel load, and account management functions. All data exchanged between the client system and the payment application will be in an XML block in a regular HTTPS POST method. This document will cover:

- Sending the XML request message via HTTPS POST method
- Information required (and optional parameters) to use the API
- Sample XML responses.

2. Getting Started With Integration

2.1 *The API Gateway*

The API Gateway is the entry point for all APIs. The gateway handles user authentication and authorization for the APIs. In order to submit a message through the gateway, a valid API user with the correct permissions is required. Please contact hyperWALLET Systems Inc. to be setup with an API user account.

1. The client will issue a HTTPS POST the following information:
 - a. The issuer identification id (the numeric part of the program id number)
 - b. The API username
 - c. The API user's password
 - d. The API operation
 - e. The XML message with the details of the operation

NOTE: HTTPS GET requests are not supported and will be ignored.

2.2 *Security*

For increased security, the API gateway enforces the use of SSL (HTTPS / Port 448) only, and only accepts POSTs (GETs will be ignored). Production site APIs will be using trusted certificates and should be automatically accepted by most client systems. In the event of a trusted certificate not being trusted (SSL Exception) please download the certificate from the website, and follow the steps outlined in section 2.3.

Note: Demo sites are also enforcing SSL-only connections, but will be using self-signed certificates which are not automatically trusted. In order to use the self-signed certificates for demo, follow the same steps outlined in section 2.3 for your environment. If you wish to purchase a signed certificate for your demo site, please contact hyperWALLET.

2.3 SSL Certificate Import

In order to import the obtained SSL certificate, follow the platform-specific guides listed below.

- IIS / .Net: <http://support.microsoft.com/kb/228991>
- Java: <http://java.sun.com/javase/6/docs/technotes/tools/solaris/keytool.html>

Bank

General instructions:

1. Gain administration access to your environment (Microsoft Management Console for .Net/IIS)
2. Save the provided Certificate file in an accessible location.
3. Use the platform-specific tool to begin installing the certificate file into the trusted keystore.
4. Restart your application and test by attempting to use the gateway.

2.4 HTTPS POST To API Gateway

Test API Gateway URL:

<https://demo.<siteName>.com/apiGateway.do>

Production API Gateway URL:

<https://www.<siteName>.com/apiGateway.do>

Sample request to the API Gateway:

```
https://demo.<siteName>.com/apiGateway.do?  
issuerId=19980095&userLoginName=admin&userPassword=pass1234!  
&operation=directLoad&requestLocale=FR&txnRequestMessage=<transaction><....>  
</transaction>
```

2.5 HTTPS POST Parameters

Name	Description	Format	Example
issuerId	Merchant ID assigned to each merchant.	Numeric	19980095 IS20060091
userLoginName	API login name of the assigned merchant wallet	Alphanumeric	admin joe
userPassword	API password of the merchant wallet login name	Alphanumeric	password pass1234! my\$pass
externalGroupId	This is an <u>optional</u> parameter that	Alphanumeric	CAN

	identifies the issuerId under which the API request should be processed, allowing a single API login to be used. The externalGroupId must be pre-registered in the hyperWALLET system. See section 2.6 for further details.		SALES102 unit_xyz
operation	Operation to perform	Alphanumeric	createAccount updateAccount getAccountDetails closeAccount directLoad reverseDirectLoad cancelDirectLoad accountBalance
requestLocale	<p>The language locale to receive description responses in. This is an optional field, if not entered or not a valid language code, then the default language code for the application will be used. (See the Language table in Appendix D). See your account manager for the languages configured for your program.</p> <p>NOTE: This is currently supported for the following operations and responses: createAccount (profile and bank registration responses), updateAccount (profile and bank registration responses), getAccountDetails (bank registration responses).</p>	2 char language identifier	EN FR JA KO
txnRequestMessage	Transaction request message in XML format (see each API spec for details)	XML	

2.6 External Group ID Parameter

The External Group ID is an optional parameter that allows API requests to be submitted on behalf of a child issuer ID. The hyperWALLET platform is configured as a 5-level hierarchical system, that allows wallet accounts to be grouped by a customer's physical or logical locations or business units. Each group is referred to as an "Issuing Store" or "IS account" within the hyperWALLET system. Each IS account is owned by a parent account within the hierarchy. The External Group ID (externalGroupId) allows the customer to map their own business or location until Ids to the IS account. If the API request identifies the optional externalGroupId parameter, the API gateway will validate the externalGroupId and perform the API request on behalf of the IS account. This allows the customer to configure a single API credential account within their system, and effectively submit API requests for a particular IS account. For example if the externalGroupId parameter is included in a Create Account API request the new consumer account will be created under IS account mapped to the externalGroupId. If the externalGroup is included in an Account Load API request, the funds for the load will be debited from the loading wallet of the IS account mapped to the externalGroupId.

Customers who wish to use the externalGroupId parameter must provide hyperWALLET with mapping values for the parameter for configuration within their own account hierarchy tree.

Example externalGroupId configurations:

Customer Domain	externalGroupId	HW Program Name	IS Account
Customer groups customers by geographic region. Customer assigned the ISO country code to the external Group ID	CAN USA AUS	DSO Canada Region DSO USA Region DSO Australia Region	IS45534535 IS45232999 IS348282828
Customer groups customer by internal assigned business unit ID.	SALES102 SALES456 SALES235	Sales Unit 102 Sales Unit 456 Sales Union235	IS45534535 IS45232999 IS348282828

Sample request to the API Gateway with externalGroupId

```
https://demo.<sitename>.com/apiGateway.do?  
issuerId=19980095&userLoginName=admin&userPassword=pass1234!  
&externalGroupId=SALES235&operation=directLoad&requestLocale=F  
R&txnRequestMessage=<transaction><...></transaction>
```

3. Account Management APIs

3.1 Create Account

3.1.1 Purpose

The Create Account API is designed to allow client applications to submit real-time account registration as well as attach a card to the account at the same time.

3.1.2 Transaction Data XML

```
<transaction>
  <createAccount>
    <account>
      <extraId>myExtraId</extraId>
      <email>johndoe@domain.com</email>
      <identification>
        <firstName>John</firstName>
        <middleName>S</middleName>
        <lastName>Doe</lastName>
        <phoneNumber>6048622810</phoneNumber>
        <cellNumber>6043698723</cellNumber>
        <faxNumber>6048973654</faxNumber>
        <dateOfBirth>1980-01-31</dateOfBirth>
        <gender>M</gender>
        <mothersMaidenName>mom</mothersMaidenName>
        <additionalIds>
          <additionalId>
            <name>passport</name>
            <value>JS12345678</value>
            <countryCode>CA</countryCode>
          </additionalId>
          <additionalId>
            <name>driversLicense</name>
            <value>DL123123123</value>
            <countryCode>CA</countryCode>
            <stateProv>BC</stateProv>
          </additionalId>
        </additionalIds>
      </identification>
      <address>
        <street>736 Granville Street.</street>
        <city>Vancouver</city>
        <stateProv>BC</stateProv>
        <postCode>V6Z1G3</postCode>
        <countryCode>CA</countryCode>
      </address>
      <webAccess>yes</webAccess>
      <accountCreatedNotificationEmail>oldmankoch@gmail.com
    </accountCreatedNotificationEmail>
      <defaultCurrency>JPY</defaultCurrency>
      <preference>
        <timeZone>Asia/Tokyo</timeZone>
        <language>fr</language>
      </preference>
    </account>
  </createAccount>
</transaction>
```

```

    </preference>
  </account>
<bankAccounts>
  <bankInfo>
    <format>JAPAN_1</format>
    <bankCode>1234</bankCode>
    <branchCode/>123</branchCode>
    <accountNumber>1234567</accountNumber>
    <accountType/>1</accountType>
    <accountHolderName>ウクトリジ 〆ウクト</accountHolderName>
    <autoCashoutConfig>CASHOUT_FULL_BALANCE_WEEKLY</autoCashoutConfig>
  </bankInfo>
</bankAccounts>
<attachCard>yes</attachCard>
</createAccount>
</transaction>

```

3.1.3 Transaction Data Parameters

XML Property Name	Description	Format	Required	Examples
email	The email address of the account holder.	Alphanumeric valid email address.	No.	johndoe@domain.com
firstName	The first name of the account holder.	Max of 20 characters and symbols. Cannot contain numbers. Spaces allowed. Case insensitive.	Yes.	John john Mary Jane Mary-jane
middleName	The middle name of the account holder.	Character and symbols. Cannot contain numbers. Case insensitive.	No.	Adam adam A
lastName	The last name of the account holder.	Max. of 20 characters and symbols. Cannot contain numbers. Spaces	Yes.	Smith smith Jones-Brown O'Connor

		allowed. Case insensitive.		
street	The street address.	Alphanumeric characters. Max. of 40 alphanumeric characters.	Yes.	#1804 305 Any Street
city	The city.	Character only. Cannot contain symbols and spaces. Case insensitive. Max. of 40 characters.	Yes.	Los Angeles Toronto St. John
stateProv or region if outside US/CA	The 2 letter USPS state code or 2 letter Canadian province code or region.	US / Canada use 2 character state/province code and must be uppercase. International use alphanumeric case insensitive.	Yes.	BC TX
country	The 2-character ISO country code.	2 character ISO country code. Must be uppercase.	Yes.	US CA JP
postCode	The postal code or zip code.	5 or 9 alphanumeric (US). 6 alphanumeric (CDN). Space allowed.	Yes	In Canada: V6C1W8 In US: 90356 In US: 90356-1234
phoneNumber	The home phone number.	10-13 digits.	Yes.	604-555-5555 5675555555
cellNumber	The mobile phone	10-13 digits.	No.	604-555-5555 5675555555

	number.			
faxNumber	The fax number.	10-13 digits.	No.	604-555-5555 5675555555
mothersMaidenName	The mother's maiden name.	Characters and symbols.	Yes.	Jones O'Connor
gender	The gender.	M or F, male or female. Case sensitive.	Yes.	M F Female male
dateOfBirth	The date of birth (DOB) of the accountholder	yyyy-mm-dd	Yes	yyyy – 1975 mm – (01....12) dd – (01....31) eg. 1975-01-31
extraId	An external identification or account number	Alphanumeric characters.	No.	#12345 special words
webAccess	Allow the accountholder to setup online access to their account.	Characters, yes or no.	Yes.	yes no
accountCreatedNotificationEmail	The email address where the account activation email will be sent	Alphanumeric valid email address.	No	johndoe@domain.com
defaultCurrency	The default currency for the wallet	3 characters	No	JPY USD CAD
preference	Please refer to Appendix D for details			
additionalIds	Please refer to Appendix A for details			
bankAccounts	Please refer to Appendix B for details			
attachCard	Please refer to Appendix H for details			

3.1.4 Response XML

Create account successful response

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <createAccountResponse>
    <responseCode>00</responseCode>
    <responseDescription>Account updated
successfully.</responseDescription>
    <name>John S Doe</name>
    <email>johndoe@domain.com</email>
    <extraId>jdoe</extraId>
  </createAccountResponse>
  <responseCode>00</responseCode>
  <responseDescription>Processed 1 of 1 update account
requests</responseDescription>
  <issuerId>790097</issuerId>
  <operation>updateAccount</operation>
</OperationResponse>
```

Create account error response

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <responseCode>14</responseCode>
  <responseDescription>Invalid gender! </responseDescription>
  <issuerId>790097</issuerId>
  <operation>createAccount</operation>
</OperationResponse>
```

Duplicate e-mail response

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <createAccountResponse>
    <responseCode>22</responseCode>
    <responseDescription>Failed to create account for John Doe. Duplicate
email johndoe@domain.com. error code[22]</responseDescription>
  </createAccountResponse>
  <responseCode>04</responseCode>
  <responseDescription>Processed 0 of 1 create account
requests</responseDescription>
  <issuerId>790097</issuerId>
  <operation>createAccount</operation>
</OperationResponse>
```

3.1.5 Response XML Format

Name	Descriptions	Format	Examples
issuerId	The numeric part of the Program's Id.	Numeric	<issuerId>18840041</issuerId>

operation	Returns the operation processed.	Alphanumeric.	<operation>createAccount</operation>
responseCode	Indicates success (00) or an error (see response code index below)	Numeric 2 digits.	<responseCode>00</responseCode>
responseDescription	Describes in detail, the successful response or the errors that need to be corrected in terms of an error response. NOTE: The responseDescription details may change from time to time with system enhancements and modifications. Logic must not be built around this field as it can change without notice.	Alphanumeric.	Failed Response: <responseDescription>John Doe – Invalid sin</responseDescription> Successful Response: <responseDescription>John Doe: [account number=20480042] [email=johndoe@domain.com]</responseDescription>

3.2 Update Account

3.2.1 Purpose

The Update Account API is designed to allow client applications to submit real-time updates to existing account information.

3.2.2 Transaction Data XML

Example: Updating all profile information

```
<transaction>
  <updateAccount>
    <account>
      <email>johndoe@domain.com</email>
    <identification>
      <firstName>John</firstName>
      <middleName>S</middleName>
      <lastName>Doe</lastName>
    </identification>
  </updateAccount>
</transaction>
```



```

    <phoneNumber>6048622810</phoneNumber>
    <cellNumber>6043698723</cellNumber>
    <faxNumber>6048973654</faxNumber>
    <dateOfBirth>1980-01-31</dateOfBirth>
    <gender>M</gender>
    <mothersMaidenName>mom</mothersMaidenName>
    <additionalIds>
      <additionalId>
        <name>passport</name>
        <value>JS12345678</value>
        <countryCode>CA</countryCode>
      </additionalId>
      <additionalId>
        <name>driversLicense</name>
        <value>DL123123123</value>
        <countryCode>CA</countryCode>
        <stateProv>BC</stateProv>
      </additionalId>
    </additionalIds>
  </identification>
  <address>
    <street>736 Granville Street.</street>
    <city>Vancouver</city>
    <stateProv>BC</stateProv>
    <postCode>V6Z1G3</postCode>
    <countryCode>CA</countryCode>
  </address>
  <webAccess>yes</webAccess>
  <accountCreatedNotificationEmail>oldmankoch@gmail.com
</accountCreatedNotificationEmail>
  <defaultCurrency>JPY</defaultCurrency>
  <preference>
    <timeZone>Asia/Tokyo</timeZone>
    <language>fr</language>
  </preference>
</account>
<bankAccounts>
  <bankInfo>
    <format>JAPAN_1</format>
    <bankCode>1234</bankCode>
    <branchCode/>123</branchCode>
    <accountNumber>1234567</accountNumber>
    <accountType/>1</accountType>
    <accountHolderName>カトリック 〆カト</accountHolderName>
    <autoCashoutConfig>CASHOUT_FULL_BALANCE_WEEKLY</autoCashoutConfig>
  </bankInfo>
</bankAccounts>
  <cardRequest>
    <requestType>CREATE</requestType>
  </cardRequest>
</updateAccount>
</transaction>

```

Example: Updating account details only (without profile) – with deviceId

Note: The following can also be part of the the UpdateProfile API. The user can choose to update the profile at the same time.

```
<transaction>
  <updateAccount>
    <updateProfile>>false</updateProfile>
    <account>
      <email>johndoe@domain.com</email>
      <deviceId>DKC8D23DKD0L978</deviceId>
    </account>
  </updateAccount>
</transaction>
```

Example: Updating account details only (without profile) – Change Issuer API

Note: The following can also be part of the the UpdateProfile API. The user can choose to update the profile at the same time.

```
<transaction>
  <updateAccount>
    <updateProfile>>false</updateProfile>
    <account>
      <extraId>DIS434444</extraId>
    </account>
    <newIssuerId>484050059</newIssuerId>
  </updateAccount>
</transaction>
```

Example: Replacing a prepaid card (without updating profile) – Replace Prepaid Card

Note: The following can also be part of the the UpdateProfile API. The user can choose to update the profile at the same time.

```
<transaction>
  <updateAccount>
    <updateProfile>>false</updateProfile>
    <account>
      <extraId>DIS434444</extraId>
    </account>
    <cardRequest>
      <requestType>REPLACE</requestType>
      <cardNumber>4337190000016118</cardNumber>
    </cardRequest>
  </updateAccount>
</transaction>
```

Example: Registering a bank account (without updating profile) – Bank Account Registration

Note: The following can also be part of the the UpdateProfile API. The user can choose to update the profile at the same time. The example below shows a JAPAN_1 bank account registration.

```
<transaction>
  <updateAccount>
    <updateProfile>>false</updateProfile>
    <account>
```

```

    <extraId>james12345</extraId>
  </account>
  <bankAccounts>

    <bankInfo>

      <format>JAPAN_1</format>

      <bankCode>0005</bankCode>

      <branchCode>130</branchCode>

      <accountNumber>0123456</accountNumber>

      <accountType>1</accountType>

      <accountHolderName>モヤ
ル
ク
</accountHolderName>

    </bankInfo>

  </bankAccounts>
</updateAccount>
</transaction>

```

Example: Updating the email address of a Wallet.

Note: The account identifier in the example below is using the extraId. You may choose to identify the Wallet to update by the email instead. The updateEmail will be the new email to replace in the identified Wallet.

```

<transaction>
  <updateAccount>
    <updateProfile>>false</updateProfile>
    <account>
      <extraId>DIS434444</extraId>
      <updateEmail>johndoe2@hyperwallet.com</updateEmail>
    </account>
  </updateAccount>
</transaction>

```

3.2.3 Transaction Data Parameters

XML Property Name	Description	Format	Required	Examples
email	The email address of the account holder. This is used to identify the Wallet being updated.	Alphanumeric valid email address.	No.	johndoe@hyperwallet.com
updateEmail	The new email address for update.	Alphanumeric valid email address.	No.	johndoe2@hyperwallet.com
updateProfile	Optional flag that can disable profile updates, useful when only updating deviceId etc.	True / false	No.	true
deviceId	An optional mobile device id used for push notifications.	Alphanumeric Lengths vary	No	DKL39DKBVI980D
newIssuerId	An optional Issuer id used to make 'changeIssuer' API calls	Numeric	No	<newIssuerId>484050059</newIssuerId>
firstName	The first name of the account holder.	Max. of 20 characters and symbols. Cannot contain numbers. Spaces allowed. Case insensitive.	Yes.	John john Mary Jane Mary-jane
middleName	The middle name of the account holder.	Character and symbols. Cannot contain numbers. Case insensitive.	No.	Adam adam A
lastName	The last name of the account holder.	Max. of 20 characters and symbols. Cannot contain numbers. Spaces	Yes.	Smith smith Jones-Brown O'Connor

		allowed. Case insensitive.		
street	The street address.	Alphanumeric characters. Max. of 40 alphanumeric characters.	Yes.	#1804 305 Any Street
city	The city.	Character only. Cannot contain symbols and spaces. Case insensitive. Max. of 40 characters.	Yes.	Los Angeles Toronto St. John
stateProv or region if outside US/CA	The 2 letter USPS state code or 2 letter Canadian province code or region.	US / Canada use 2 character state/province code and must be uppercase. International use alphanumeric case insensitive.	Yes.	BC TX
country	The 2-character ISO country code.	2 character ISO country code. Must be uppercase.	Yes.	US CA JP
postCode	The postal code or zip code.	5 or 9 alphanumeric digits (US). 6 alphanumeric (CDN). Space allowed.	Yes	In Canada: V6C1W8 In US: 90356 In US: 90356-1234
phoneNumber	The home phone number.	10-13 digits.	Yes.	604-555-5555 5675555555
cellNumber	The mobile phone number.	10-13 digits.	No.	604-555-5555 5675555555
faxNumber	The fax number.	10-13 digits.	No.	604-555-5555

				5675555555
mothersMaidenName	The mother's maiden name.	Characters and symbols.	Yes.	Jones O'Connor
gender	The gender.	M or F, male or female. Case sensitive.	Yes.	M F female male
dateOfBirth	The date of birth (DOB) of the accountholder	yyyy-mm-dd	Yes	yyyy – 1975 mm – (01....12) dd – (01....31) eg. 1975-01-31
extraId	An external identification or account number	Alphanumeric characters.	No.	#12345 special words
webAccess	Allow the accountholder to setup online access to their account.	Characters, yes or no.	Yes.	yes no
defaultCurrency	The default currency for the wallet	3 characters	No	JPY USD CAD
preference	Please refer to Appendix D for details			
additionalIds	Please refer to Appendix A for details			
bankAccounts	Please refer to Appendix B for details			
cardRequest	Please refer to Appendix F for details			

3.2.4 Response XML

Create account successful response

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <updateAccountResponse>
    <responseCode>00</responseCode>
    <responseDescription>Account updated
successfully.</responseDescription>
    <name>John S Doe</name>
    <email>johndoe@domain.com</email>
  </updateAccountResponse>
</OperationResponse>
```

```
<responseCode>00</responseCode>
<responseDescription>Processed 1 of 1 update account
requests</responseDescription>
<issuerId>790097</issuerId>
<operation>updateAccount</operation>
</OperationResponse>
```

Create account error response

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <responseCode>14</responseCode>
  <responseDescription>Invalid gender! </responseDescription>
  <issuerId>790097</issuerId>
  <operation>updateAccount</operation>
</OperationResponse>
```

Change Issuer error due to existing pending txn with unsupported currency under the new issuer

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <responseDescription>Successfully validated 0 of 1
accounts.</responseDescription>
  <issuerId>490020054</issuerId>
  <operation>updateAccount</operation>
  <updateAccountResponse>
    <responseCode>630</responseCode>
    <responseDescription>
      There is a pending transaction with a $11.00 currency that
is incompatible with the new issuer's available currencies.
    </responseDescription>
    <extraId>HW28</extraId>
  </updateAccountResponse>
</OperationResponse>
```

Change Issuer error due to duplicate ExtraId (Also, when source and destination issuers are the same)

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <responseDescription>Successfully validated 0 of 1
accounts.</responseDescription>
  <issuerId>490020054</issuerId>
  <operation>updateAccount</operation>
  <updateAccountResponse>
    <responseCode>23</responseCode>
    <responseDescription>Duplicate ExtraId HW23</responseDescription>
    <extraId>HW23</extraId>
  </updateAccountResponse>
</OperationResponse>
```

Change Issuer error due to an attached Prepaid Card when the destination issuer doesn't support Prepaid cards

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <responseCode>00</responseCode>
  <responseDescription>Processed 0 update account requests!
</responseDescription>
  <issuerId>490020054</issuerId>
  <operation>updateAccount</operation>
  <updateAccountResponse>
    <responseCode>686</responseCode>
    <responseDescription>
      The new issuer the wallet is being moved to does not support
      prepaid cards.
    </responseDescription>
    <name>Cheng1 Chang1</name>
    <accountNumber>CS543800056</accountNumber>
    <extraId>HW28</extraId>
  </updateAccountResponse>
</OperationResponse>
```

Invalid prepaid card request type error. The request type must be CREATE or REPLACE, case sensitive.

```
<OperationResponse>

  <responseCode>00</responseCode>

  <responseDescription>Processed 0 update account requests!
</responseDescription>

  <issuerId>1371460054</issuerId>

  <operation>updateAccount</operation>

  <updateAccountResponse>

    <responseCode>155</responseCode>

    <responseDescription>Invalid Prepaid card request
    type</responseDescription>

    <accountNumber>CS1371580059</accountNumber>

    <extraId>jamesTest</extraId>

  </updateAccountResponse>

</OperationResponse>
```

A create card request was issued, however, the issuer is not enabled to perform such an action. Contact your account manager to have this feature enabled.

```
<OperationResponse>
```



```

<responseCode>00</responseCode>

  <responseDescription>Processed 0 update account requests!
</responseDescription>

  <issuerId>1371460054</issuerId>

  <operation>updateAccount</operation>

  <updateAccountResponse>

    <responseCode>694</responseCode>

    <responseDescription>
Issuer not configured to request prepaid card, please contact your account
manager!

    </responseDescription>

    <accountNumber>CS1371700053</accountNumber>

    <extraId>jamesTest</extraId>

  </updateAccountResponse>
</OperationResponse>

```

A replace card request was issued, however, the issuer is not enabled to perform such an action. Contact your account manager to have this feature enabled.

```

<OperationResponse>

  <responseCode>00</responseCode>

  <responseDescription>Processed 0 update account requests!
</responseDescription>

  <issuerId>1371460054</issuerId>

  <operation>updateAccount</operation>

  <updateAccountResponse>

    <responseCode>695</responseCode>

    <responseDescription>
Issuer not configured to replace prepaid card, please contact your account
manager!

    </responseDescription>

    <accountNumber>CS1371630052</accountNumber>

    <extraId>jamesTest</extraId>

```

```
</updateAccountResponse>
</OperationResponse>
```

A card request failed b/c the consumer cannot have another card assigned to them. Please contact customer service for further assistance.

```
<OperationResponse>
  <responseCode>00</responseCode>
  <responseDescription>Processed 0 update account requests!
</responseDescription>

  <issuerId>1371460054</issuerId>
  <operation>updateAccount</operation>
  <updateAccountResponse>
    <responseCode>696</responseCode>
    <responseDescription>
      Another prepaid card cannot be added to this account. Please contact
      customer service for further assistance.
    </responseDescription>
    <accountNumber>CS1371700053</accountNumber>
    <extraId>jamesTest</extraId>
  </updateAccountResponse>
</OperationResponse>
```

Replace card error because the cardNumber field was invalid. This field is mandatory to identify the card to replace.

```
<OperationResponse>
  <responseCode>00</responseCode>
  <responseDescription>Processed 0 update account requests!
</responseDescription>

  <issuerId>1371460054</issuerId>
  <operation>updateAccount</operation>
  <updateAccountResponse>
    <responseCode>155</responseCode>
```

```
<responseDescription>Invalid Prepaid Card</responseDescription>

<accountNumber>CS1371630052</accountNumber>

<extraId>jamesTest</extraId>

</updateAccountResponse>

</OperationResponse>
```

Replace card error due to invalid prepaid card status for replacement. Existing card is not of status lost or stolen or cannot transition to this status.

```
<OperationResponse>

  <responseCode>00</responseCode>

  <responseDescription>Processed 0 update account requests!
</responseDescription>

  <issuerId>1371460054</issuerId>

  <operation>updateAccount</operation>

  <updateAccountResponse>

    <responseCode>648</responseCode>

    <responseDescription>

Invalid prepaid card status, please verify that the current card status
allows it to complete this transaction and that it is not out of sync with
the issuer

    </responseDescription>

    <accountNumber>CS1371580059</accountNumber>

    <extraId>jamesTest</extraId>

  </updateAccountResponse>

</OperationResponse>
```

Replace card error due to prepaid card status being out of synch with the remote card processor. Customer service will need to be contacted to assist with resolving this issue.

```
<OperationResponse>

  <responseCode>00</responseCode>

  <responseDescription>Processed 0 update account requests!
</responseDescription>
```

```

<issuerId>1371460054</issuerId>

<operation>updateAccount</operation>

<updateAccountResponse>

  <responseCode>649</responseCode>

  <responseDescription>
Replacement failed, please ensure that card numbers and card states are in
sync with the issuing authority
</responseDescription>

    <name>james  chang</name>

    <accountNumber>1371580059</accountNumber>

    <email>jchang@paylution.com</email>

    <extraId>jamesTest</extraId>

  </updateAccountResponse>
</OperationResponse>

```

3.2.5 Response XML Format

Name	Descriptions	Format	Examples
issuerId	The numeric part of the Program's Id.	Numeric	<issuerId>18840041</issuerId>
operation	Returns the operation processed.	Alphanumeric.	<operation>updateAccount</operation>
responseCode	Indicates success (00) or an error (see response code index below)	Numeric 2 digits.	<responseCode>00</responseCode>
responseDescription	Describes in detail, the successful response or the errors that need to be corrected in terms of an error response. NOTE: The responseDescription	Alphanumeric.	Failed Response: <responseDescription>John Doe – Invalid sin</responseDescription> Successful Response: <responseDescription>James Chang: [account number=20480042] [email=johndoe@domain.com]</responseDescription>

	<p>ion details may change from time to time with system enhancements and modifications. Logic must not be built around this field as it can change without notice.</p>		
--	--	--	--

3.3 Get Account Details

3.3.1 Purpose

The Get Account Details API is designed to allow program operators to retrieve client account details.

3.3.2 Transaction Data XML

```
<transaction>
  <getAccountDetails>
    <account>
      <extraId>myExtraId</extraId>
    </account>
    <retrieveRegisteredBankAccounts>yes</retrieveRegisteredBankAccounts>
    <retrieveRegisteredCreditCards>yes</retrieveRegisteredCreditCards>
    <retrieveRiskManagementStatus>yes</retrieveRiskManagementStatus>
    <retrieveAccountLimits>
      <limitTxnTypes>XF, DP, BALANCE</limitTxnTypes>
      <limitTxnTypeCurrencyCodes>CAD</limitTxnTypeCurrencyCodes>
    </retrieveAccountLimits>
    <retrieveGrantedRoles>view_profile, search_account</retrieveGrantedRoles>
  </getAccountDetails>
</transaction>
```

3.3.3 Transaction Data XML

XML Property Name	Description	Format	Required	Examples
account	The Wallet id, email address, or extra id.	Alphanumeric	yes	See appendix E for valid account id types.
retrieveRegisteredBankAccounts	Enable this attribute to pull back information	yes no	no	yes no

	for registered and verified bank accounts. NOTE: The bank account information returned will include a masked bank account number.			
retrieveRegisteredCreditCards	Enable this attribute to pull back information for registered credit cards. NOTE: The card information returned will include a masked credit card number.	yes no	no	yes no
retrieveRiskManagementStatus	Enable this attribute to pull back the account's risk management status information.	yes no	no	yes no
retrieveAccountLimits	Enable this attribute to pull back transaction limit and account balance limit information. NOTE: See your account manager for the type of limits returned.	See details in the retrieve account limits transaction data parameters table below.	no	See details in the retrieve account limits transaction data parameters table below.
retrieveGrantedRoles	Will return the subset of roles specified in the request. The returned set is the set for which the account has been	A comma delimited set of role names	No	view_profile,update_profile,edit_bank_account

	granted access to; as defined by the roles management component.			
--	--	--	--	--

3.3.4 Retrieve Account Limits Transaction Data Parameters

XML Property Name	Description	Format	Required	Examples
limitTxnTypes	Comma separated list of transaction limit keys to retrieve account limits for. NOTE: See your account manager for the set of transaction type keys available.	Comma separated list of transaction type keys.	no	XF, DP,BALANCE
limitTxnTypeCurrencyCodes	Comma separated list of currency codes that the transaction type account limits be returned in. NOTE: If this is not defined, the set of transaction type limits will be returned in the account's default currency code.	Comma separated list of currency codes.	no	CAD CAD,USD

3.3.5 Response XML

getAccountDetails successful response. The bank account section will only be returned if the request enabled the *retrieveRegisteredBankAccounts* attribute. The credit card section will only be returned if the request enabled the *retrieveRegisteredCreditCards* attribute. The *retrieveRiskManagementStatus* attribute is enabled in the request and returned in this response. The *retrieveAccountLimits* is enabled in the request and returned in this response. The *retrieveGrantedRoles* is enabled in the request and returned in this response; only the role names that the are granted to this user are included in the response.

```

<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <getAccountDetailsResponse>
    <responseCode>00</responseCode>
    <responseDescription>Login successfully verified.</responseDescription>
    <account>jchang3456</account>
    <issuer>1420256</issuer>
    <firstName>James</firstName>
    <lastName>Chang</lastName>
    <balance>$0.00</balance>
    <currencyCode>CAD</currencyCode>
    <accountStatus>OPEN</accountStatus>
    <creditCard>
      <id>100</id>
      <cardNumber>*****0015</cardNumber>
      <cardType>MasterCard</cardType>
      <expiryDate>01/10</expiryDate>
    </creditCard>
    <bankAccountInfo>
      <countryCode>CA</countryCode>
      <currencyCode>CAD</currencyCode>
      <bankNumber>07440</bankNumber>
      <transitNumber>62262</transitNumber>
      <accountNumber>9*****2</accountNumber>
      <accountHolderName>James Chang</accountHolderName>
      <nickname>My Savings</nickname>
      <identificationNo>1133</identificationNo>
    </bankAccountInfo>
    <riskManagement>
      <level>1</level>
      <description>Wallet credential has been verified.</description>
    </riskManagement>
    <accountLimits>
      <transactionLimit>
        <transactionType>DP</transactionType>
        <currencyCode>CAD</currencyCode>
        <minValue>5.00</minValue>
        <maxValue>
          <perTxn>1000.00</perTxn>
          <daily>1000.00</daily>
          <weekly>2000.00</weekly>
          <monthly>2000.00</monthly>
        </maxValue>
      </transactionLimit>
      <transactionLimit>
        <transactionType>XF</transactionType>
        <currencyCode>CAD</currencyCode>
        <minValue>3.00</minValue>
        <maxValue>
          <perTxn>250.00</perTxn>
          <daily>250.00</daily>
          <weekly>500.00</weekly>
          <monthly>750.00</monthly>
        </maxValue>
      </transactionLimit>
      <balanceLimit>

```



```

        <currencyCode>CAD</currencyCode>
        <maxBalance>2500.00</maxBalance>
    </balanceLimit>
</accountLimits>
    <rolesContainer>
        <role>
            <name>view_profile</name>
        </role>
    </rolesContainer>
    <sessionTimeout>2007-11-25 14 :52 :12</sessionTimeout>
</getAccountDetailsResponse>
<responseCode>00</responseCode>
<responseDescription>Processed 1 of 1 login
requests.</responseDescription>
<issuerId>19980095</issuerId>
<operation>login</operation>
</OperationResponse>

```

Login account error response, invalid account.

```

<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
    <getAccountDetailsResponse>
        <responseCode>40</responseCode>
        <responseDescription>Invalid login account id!</responseDescription>
        <account>jchang@hyperWALLET.com</account>
    </getAccountDetailsResponse>
    <responseCode>40</responseCode>
    <responseDescription>Processed 0 of 1 login
requests.</responseDescription>
    <issuerId>19980095</issuerId>
    <operation>getAccountDetails</operation>
</OperationResponse>

```

Login account error response, consumer account status flagged.

```

<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
    <getAccountDetailsResponse>
        <responseCode>41</responseCode>
        <responseDescription>Invalid login, consumer account flagged!
    </responseDescription>
        <account>jchang@hyperWALLET.com</account>
    </getAccountDetailsResponse>
    <responseCode>41</responseCode>
    <responseDescription>Processed 0 of 1 login
requests.</responseDescription>
    <issuerId>19980095</issuerId>
    <operation>getAccountDetails</operation>
</OperationResponse>

```

Bank account new format

```

<OperationResponse>
  <responseCode>00</responseCode>
  <responseDescription>Processed 1 requests!</responseDescription>
  <issuerId>7790868</issuerId>
  <operation>getAccountDetails</operation>
  <getAccountDetailsResponse>
    <responseCode>00</responseCode>
    <responseDescription>Account Details found.</responseDescription>
    <sessionTimeout>2011-07-27 23:17:25.48 GMT</sessionTimeout>
    <account>blairsometimes@hyperwallet.com</account>
    <firstName>Blair</firstName>
    <lastName>Olynyk</lastName>
    <balance>$0.00</balance>
    <currencyCode>USD</currencyCode>
    <accountStatus>OPEN</accountStatus>
    <bankAccountInfo>
      <accountNumber>*****3123</accountNumber>
      <nickname>Holiday</nickname>
      <identificationNo>321</identificationNo>
    </bankAccountInfo>
    <issuer>7790868</issuer>
  </getAccountDetailsResponse>
</OperationResponse>

```

3.3.6 Response XML Format

Name	Descriptions	Format	Examples
issuerId	The numeric part of the Program's Id.	Numeric	<issuerId>18840041</issuerId>
operation	Returns the operation processed.	Alphanumeric.	<operation>login</operation>
responseCode	Indicates success (00) or an error (see response code index below)	Numeric 2 digits.	<responseCode>00</responseCode>
responseDescription	Describes in detail, the successful response or the errors that need to be corrected in terms of an error response. NOTE: The	Alphanumeric.	Failed Response: <responseDescription>John Doe – Invalid sin</responseDescription> Successful Response: <responseDescription>John Doe: [account number=20480042] [email=johndoe@domain.com]</responseDescription>

	responseDescription details may change from time to time with system enhancements and modifications. Logic must not be built around this field as it can change without notice.		
account	The Wallet id, email address, or extra id, username to identify the consumer account for login.	Alphanumeric	See appendix A for valid account id types.
issuer	The issuer of the account. This could be different from the issuerId of the API request.	Numeric	1420256
firstName	The first name of the consumer account.	Alphanumeric	John
lastName	The last name of the consumer account.	Alphanumeric	Smith
currencyCode	3-character currency code of the balance	3 characters	CAD USD
balance	The balance on the account in the default currency	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
accountStatus	The account status of the Wallet.	Alphanumeric	See appendix G for valid account statuses.
accountInfo	A bank account registered for the account.	Information detailing a registered bank	See details in the login bank account details table below.

		account for the account.	
creditCard	A credit card registered for the account.	Information detailing a registered credit card for the account.	See details in login credit card details table below.
riskManagement	The risk management details for the account.	Information detailing the risk management information for the account.	See details in the login risk management details table below.
accountLimits	The account limits details for the account for the transaction types specified in the request.	Information detailing the account limits information for the account.	See details in the account limits details table below.
sessionTimeout	The time that the consumer's session will time out if they do not submit requests before this time.	Date yyyy-MM-dd HH:mm:ss	2007-11-25 14:52:12

3.3.7 Get Account Details Bank Account XML Format

Note: these details are for CA and US banks. See Appendix B for details on other bank account formats.

Name	Descriptions	Format	Examples
countryCode	2-character ISO country code where the bank resides.	2 character country code.	CA US
bankNumber	4-digit bank number – required for transfer from Canadian FI	Numeric 4 digits. (required for CA countryCode)	0030 0080
transitNumber	5-digit transit number – required for	Numeric 5 digits (required for CA countryCode)	07440 97298

routingNumber	transfer from Canadian FI 9-digit routing number – required for transfer from US FI	Numeric 9 digits (required for US countryCode)	123123123 529714089
accountType	Account type (Chequing / Savings) – required for transfer from US FI	C = chequing S = savings (required for US countryCode)	C S
accountNumber	Account number of bank account	Numeric Max 12 digits for CA and US countryCodes.	79234768 2352348234
bankAccountHolderName	The name of the owner of the bank account used.	Characters	James Chang
nickname	The nickname used to identify the registered bank account.	Alphanumeric	RBC Savings CIBC Chequing My Savings
identificationNo	The unique identifier for a bank account in the system	Numeric	1133

3.3.8 Get Account Details Bank Account XML New Format

Note: these details are for CA and US banks. See Appendix B for details on other bank account formats.

Name	Descriptions	Format	Examples
accountNumber	Account number of bank account	Numeric Max 12 digits for CA and US countryCodes.	79234768 2352348234
nickname	The nickname	Alphanumeric	RBC Savings

identificationNo	used to identify the registered bank account.	Numeric	CIBC Chequing
	The unique identifier for a bank account in the system		My Savings
			1133

3.3.9 Get Account Details Credit Card XML Format

Name	Descriptions	Format	Examples
Id	Unique id for this credit card	Numeric	5, 437
cardNumber	The masked card number for the registered credit card	Masked Numeric	*****0015 *****0042
cardType	The card type for the registered credit card.	Characters	MasterCard Visa
expiryDate	The expiry date for the registered credit card.	Mm/yy	01/10 03/12
cvvStatus	If your program is configured with CVV STATUS MODE, this attribute is returned. 0 means the cvv status for the particular credit card is not verified and is required to complete a successful credit card transaction. 1 means the cvv status for the particular credit card is verified. The cvv is not required to	Numeric	0 = cvv not verified 1 = cvv verified

	perform subsequent transaction requests with the particular credit card.		
--	--	--	--

3.3.10 Login Risk Management XML Format

Name	Descriptions	Format	Examples
level	The risk management level defined for the particular business.	Numeric	-2 -1 0 1 2
description	The informational description of the risk management status. Do not build logic around the description as this can change without notice.	Alphanumeric	Wallet credential has been verified.

3.3.11 Get Account Details Limits XML Format

Name	Descriptions	Format	Examples
transactionLimit	There is a one to one mapping between the numbers of transaction limit type keys requested and the numbers of transactionLimit blocks returned. NOTE: The one exception is if the BALANCE transaction type key is in the set of transaction types requested. This	See details in the transaction limit XML parameters limits details table below.	

	will be a one to one mapping to a balanceLimit block, see the balanceLimit block details below.		
balanceLimit	The balanceLimit block is returned if the BALANCE key is requested in the set of transaction types.	See details in the balance limit XML parameters limits details table below.	

3.3.12 Get Account Details Account Limits - Transaction Limit XML Format

Name	Descriptions	Format	Examples
transactionType	The transaction type key for this set of limits.	Alphanumeric	DP
currencyCode	The currency code for this set of limits.	Characters	XF CAD
minValue	The minimum value of this transaction type limit in the currency code.	Money Value	0.00 100.00
maxValue/perTxn	The maximum value of this transaction type limit in the currency code.	Money Value	100.00
maxValue/daily	The daily value limit of this transaction type.	Money Value	100.00
maxValue/weekly	NOTE: This is only returned if configured. The weekly value limit of this transaction type.	Money Value	500.00
	NOTE: This is		

maxValue/monthly	only returned if configured. The monthly value limit of this transaction type. NOTE: This is only returned if configured.	Money Value	1000.00
------------------	---	-------------	---------

3.3.13 Get Account Details Limits – Balance Limit XML Format

Name	Descriptions	Format	Examples
currencyCode	The currency code of the account balance limit.	Currency code	CAD
maxBalance	The maximum value of the account balance in the currency code.	Money Value	2500.00

3.4 Close Account

3.4.1 Purpose

The Close Account API is used to close account so that they can no longer be accessed. This is essentially a terminal state for the account.

3.4.2 Transaction Data XML

```
<transaction>
  <closeAccount>
    <account>
      <extraId>james12345</extraId>
    </account>
    <releaseEmail>yes</releaseEmail>
    <releaseCellNumber>yes</releaseCellNumber>
    <releaseExtraId>yes</releaseExtraId>
    <releaseSIN>yes</releaseSIN>
    <allowBankAcctDuplicate>yes</allowBankAcctDuplicate>
    <notes>Account Closed</notes>
  </closeAccount>
</transaction>
```

3.4.3 Transaction Data Parameters

Parameter	Description	Format	Examples	Required
account	The Wallet id, email address, or extra id.	Alphanumeric	yes	See appendix E for valid account id types.
currencyCode	Deprecated as of version 1.18. The currency code is still supported in the request but is not used for anything.	n/a	n/a	n/a
releaseEmail	Release the email when the account is closed so that it can be used again for another account.	Yes or no	Yes no	N
releaseCellNumber	Release the cell number when the account is closed so that it can be used again for another account. (NOTE: If your program requires cell numbers to be unique).	Yes or no	Yes no	N
releaseExtraId	Release the extra id when the account is closed so that it can be used again for another account. (NOTE: If your program requires extra id to be unique).	Yes or no	Yes no	N
releaseSIN	Release the SIN when the account is closed so that it can be used again for another account. (NOTE: If your program requires SIN to be unique).	Yes or no	Yes no	N
allowBankAcct Duplicate	If the Wallet account being closed has a registered bank account, the bank account will be allowed to be registered again to another Wallet account. (NOTE: If your program requires a configured number of duplicates per bank account).	Yes or no	Yes no	N
notes	Private notes for the issuer	Alphanumeric	Oct payout	N

3.4.4 Response XML

Successful Close Account

```
<OperationResponse>
  <responses>
    <closeAccountResponse>
      <responseCode>00</responseCode>
```

```

    <responseDescription>Close Account Successful.</responseDescription>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <balance>$0.00</balance>
    <currencyCode>CAD</currencyCode>
    <limits/>
  </closeAccountResponse>
</responses>
<issuerId>65460065</issuerId>
<operation>closeAccount</operation>
</OperationResponse>

```

Failed Close Account Request, Wallet to close does not exist.

```

<OperationResponse>
  <responseCode>128</responseCode>
  <responseDescription>Validated 0 of 1 requests successfully!
</responseDescription>
  <issuerId>1161740053</issuerId>
  <operation>closeAccount</operation>
  <closeAccountResponse>
    <responseCode>102</responseCode>
    <responseDescription>The account does not exist.</responseDescription>
    <account>James23364</account>
  </closeAccountResponse>
</OperationResponse>

```

Failed Close Account Request, Wallet is already Closed.

```

<OperationResponse>
  <responseCode>634</responseCode>
  <responseDescription>Validated 0 of 1 requests successfully!
</responseDescription>
  <issuerId>1161740053</issuerId>
  <operation>closeAccount</operation>
  <closeAccountResponse>
    <responseCode>634</responseCode>
    <responseDescription>Your request cannot be processed as the account is
Closed.</responseDescription>
    <account>James12345</account>
  </closeAccountResponse>
</OperationResponse>

```

3.4.5 Response XML Format

Parameter	Description	Format	Examples
issuerId	The id of the merchant initiating the load account API	Numeric	19980095 37900048
operation	The name of the operations	Alphanumeric	closeAccount
responseCode	Indicate the result of the transaction. See response code	2 digit numeric	00

	section for a list of possible response codes		01 02
responseDescription	A text description of the response status	Alphanumeric	System error
account	The payer's account Id (email address, extra id, etc) as sent from the request.	Alphanumeric	21010095 johndoe@domain.com
currencyCode	3-character currency code of the total balance remaining. Should always be zero dollars.	3 characters	CAD USD
firstName	The first name of the closed Wallet account.	Alphanumeric	John
lastName	The last name of the closed Wallet account.	Alphanumeric	Smith
balance	The balance remaining on the account. Should always be 0.00.	Numeric with optional decimals and dollar symbol	\$0.00
dailyAvailable	Today's remaining limit on the closed account.	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
weeklyAvailable	This week's remaining limit on the closed account.	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
monthlyAvailable	This month's remaining limit on the closed account.	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
totalAvailable	The remaining limit on the whole balance of the closed account.	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99

3.5 Account Balance

3.5.1 Purpose

The Account Balance API is designed to allow client applications to submit real-time request to query the account balance and remaining limits for a Account.

3.5.2 Transaction Data XML

```
<transaction>
  <accountBalance>
    <account>
      <extraId>2312313</extraId>
    </account>
    <currencyCode>CAD</currencyCode>
  </accountBalance>
</transaction>
```

3.5.3 Transaction Data Parameters

Parameter	Description	Format	Examples	Required
account	The Wallet id, email address, or extra id.	Alphanumeric	yes	See appendix E for valid account id types.
currencyCode	The balance details to return in this currency.	3 characters	CAD USD	Y

3.5.4 Response XML

```
<?xml version="1.0" encoding="UTF-8"?>
<OperationResponse>
  <accountBalanceResponse>
    <responseCode>00</responseCode>
    <responseDescription>Account Balance returned
successfully.</responseDescription>
    <account>1234876509000000</account>
    <walletNumber>1386250052</walletNumber>
    <extraId>id-12345</extraId>
    <accountStatus>OPEN</accountStatus>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <accountBalances>
      <baseCurrencyBalance>
        <currencyCode>CAD</currencyCode>
        <balance>$10.00</balance>
        <totalAccountBalance>$82.28</totalAccountBalance>
      </baseCurrencyBalance>
      <balanceDetails>
        <currencyCode>CAD</currencyCode>
```

```

    <balance>$10.00</balance>
    <fxRate>1.0</fxRate>
    <baseCurrencyCode>CAD</baseCurrencyCode>
    <convertedBalance>$10.00</convertedBalance>
  </balanceDetails>
  <balanceDetails>
    <currencyCode>USD</currencyCode>
    <balance>$20.00</balance>
    <fxRate>0.9019</fxRate>
    <baseCurrencyCode>CAD</baseCurrencyCode>
    <convertedBalance>$19.79</convertedBalance>
  </balanceDetails>
  <balanceDetails>
    <currencyCode>AUD</currencyCode>
    <balance>$50.00</balance>
    <fxRate>1.0019</fxRate>
    <baseCurrencyCode>CAD</baseCurrencyCode>
    <convertedBalance>$52.49</convertedBalance>
  </balanceDetails>
</accountBalances>
</accountBalanceResponse>
<issuerId>65460065</issuerId>
<operation>accountBalance</operation>
</OperationResponse>

```

3.5.5 Account Balance Response Format

Parameter	Description	Format	Examples
issuerId	The id of the merchant initiating the load account API	Numeric	19980095 37900048
operation	The name of the operations	Alphanumeric	accountBalance
responseCode	Indicate the result of the transaction. See response code section for a list of possible response codes	2 digit numeric	00 01 02
responseDescription	A text description of the response status	Alphanumeric	System error
account	The payer's account Id, payer's account email address, or payer's account Account number as sent from the request	Alphanumeric	21010095 johndoe@domain.com
walletNumber	The payer's Wallet account id on the payment application.	Numeric	21010095
extraId	Unique account id as assigned to a consumer on the remote application.	Alphanumeric	25

accountStatus	The account status of the Wallet.	Alphanumeric	See appendix G for valid account statuses.
currencyCode	3-character currency code of the amount debited from the merchant account	3 characters	CAD USD
firstName	The first name of the client receiving the credit	Alphanumeric	John
lastName	The last name of the client receiving the credit	Alphanumeric	Smith
balance	The balance on the account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
accountBalances	The balance of each currency exchanged to the base currency.		
baseCurrencyBalance	The details of the total account balance in the requested base currency.	See baseCurrencyBalance table below.	
balanceDetails	The converted balance details breakdown of the total account balance value for the base currency.	See balanceDetails table below.	

3.5.6 Account Balance Response Format

Parameter	Description	Format	Examples
currencyCode	The currency code the balance details were requested for	3 Characters	CAD USD
balance	The balance available in the base currency requested.	Money	\$10.00
totalAccountBalance	The total balance available when all other currencies are exchanged to the base currency requested.	Money	\$82.28 \$76.52

3.5.7 Balance Details Response Format

Parameter	Description	Format	Examples
currencyCode	The currency code of a particular balance owned. This could be the same as the requested currency.	3 Characters	CAD USD
balance	The balance available in the	Money	\$10.00

	currency detailed.		
fxRate	The total balance available when all other currencies are exchanged to the base currency requested.	Money	\$82.28 \$76.52
baseCurrencyCode	The requested currency code to convert any balances to.	3 Characters	CAD USD
convertedBalance	The balance converted to the base currency.		\$19.79 \$52.49

4. Account Load APIs

4.1 Direct Load

4.1.1 Purpose

The Direct Load API is designed to allow client applications to process real-time loading of funds from the merchant to an account.

4.1.2 Transaction Data XML

```
<transaction>
  <directLoad>
    <account>
      <extraId>21020095</extraId>
    </account>
    <amount>$50.00</amount>
    <currencyCode>CAD</currencyCode>
    <merchantTxnId>457811</merchantTxnId>
    <notes>Oct 31 payout</notes>
    <description>Payment to account 21020095, Oct 31</description>
  </directLoad>
</transaction>
```

4.1.3 Transaction Data Parameters

Parameter	Description	Format	Examples	Required
amount	Amount to load	Numeric with optional decimals and dollar symbol	125 \$1.75 99.99	Y

currencyCode	Amount to load in this currency.	3 characters	CAD USD	Y
account	The Wallet id, email address, or extra id.	Alphanumeric	yes	See appendix E for valid account id types.
merchantTxnId	A reference id created by the merchant.	Alphanumeric	450092	Y
notes	Private notes for the issuer	Alphanumeric	Oct payout	N
description	Description to be displayed in the transaction receipt of the recipient	Alphanumeric	Payout for Oct	N

4.1.4 Response XML

Successful Direct Load

```
<OperationResponse>
  <issuerId>19980095</issuerId>
  <operation>directLoad</operation>
  <directLoadResponse>
    <responseCode>00</responseCode>
    <responseDescription>Funds loaded
    successfully.</responseDescription>
    <account>johndoe@domain.com</account>
    <txnId>12207</txnId>
    <merchantTxnId>457811</merchantTxnId>
    <amount>$50.00</amount>
    <currencyCode>CAD</currencyCode>
    <merchantFee>$1.00</merchantFee>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
  </directLoadResponse>
</OperationResponse>
```

Decline Due to Invalid Parameter

```
<OperationResponse>
  <directLoadResponse>
    <responseCode>06</responseCode>
    <responseDescription>Currency Mismatch for load method limit.
    [european] does not match the default currency
    [CAD].</responseDescription>
    <account>johndoe@domain.com</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>50</amount>
    <currencyCode>european</currencyCode>
  </directLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>directLoad</operation>
</OperationResponse>
```

Decline Due to Recipient Not Found

```
<OperationResponse>
  <directLoadResponse>
    <responseCode>08</responseCode>
    <responseDescription>Invalid Account!</responseDescription>
    <account>bobsCousin@hyperwallet.com</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>50</amount>
    <currencyCode>CAD</currencyCode>
  </directLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>directLoad</operation>
</OperationResponse>
```

Decline Due to Transaction Limit Exceeded

```
<OperationResponse>
  <directLoadResponse>
    <responseCode>09</responseCode>
    <responseDescription>$500.00 to recipientId 3333333333000027.
    CAD$500.25 exceeded Issuer Load transaction limit of
    CAD$300.00</responseDescription>
    <account>CS20610044</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>$500.00</amount>
    <currencyCode>CAD</currencyCode>
    <merchantFee>$0.25</merchantFee>
    <firstName>John</firstName>
    <lastName>Smith</lastName>
  </directLoadResponse>
  <issuerId>18840041</issuerId>
  <operation>directLoad</operation>
</OperationResponse>
```

4.1.5 Direct Load Response Format

Parameter	Description	Format	Examples
issuerId	The id of the merchant initiating the load account API	Numeric	19980095 37900048
operation	The name of the operations	Alphanumeric	directLoad
responseCode	Indicate the result of the transaction. See response code section for a list of possible response codes	2 digit numeric	00 01 02
responseDescription	A text description of the response status	Alphanumeric	System error
account	The account Id, email address, or extraId as sent from the request	Alphanumeric	21010095 johndoe@domain.com
txnId	Unique id that identifies the	Numeric	9083

	load account transaction created on our system		
merchantTxnId	The merchant reference sent in the original request	Alphanumeric	450092
amount	Original load amount as requested	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
currencyCode	3-character currency code of the amount debited from the merchant account	3 characters	CAD USD
merchantFee	The fee amount of the account load transaction paid by the merchant	Numeric with decimals	0.50
firstName	The first name of the client receiving the credit	Alphanumeric	John
lastName	The last name of the client receiving the credit	Alphanumeric	Smith

4.2 Cancel Direct Load

4.2.1 Purpose

The Cancel Direct Load API is designed to allow client applications to process real-time canceling of previous direct load transactions.

4.2.2 Transaction Data XML

```
<transaction>
  <cancelDirectLoad>
    <account>
      <extraId>123566</extraId>
    </account>
    <txnId>457811</txnId>
    <currencyCode>CAD</currencyCode>
    <notes>Oct 31 reverse</notes>
    <description>Reverse load on Account 123566, Oct
      31</description>
    </cancelDirectLoad>
  </transaction>
```

4.2.3 Transaction Data Parameters

Parameter	Description	Format	Examples	Required
account	The Wallet id, email address, or extra id.	Alphanumeric	yes	See appendix E for valid account id types.

txnId	A transaction id from the transaction to be cancelled. This can be found in a successful direct load response XML.	Numeric	9083	Y
currencyCode	Amount to reverse in this currency.	3 characters	CAD USD	Y
notes	Private notes for the issuer	Alphanumeric	Oct payout	N
description	Description to be displayed in the transaction receipt of the recipient	Alphanumeric	Payout for Oct	N

4.2.4 Response XML

Successful Cancel Direct Load

```
<OperationResponse>
  <issuerId>19980095</issuerId>
  <operation>cancelDirectLoad</operation>
  <cancelDirectLoadResponse>
    <responseCode>00</responseCode>
    <responseDescription>Funds reversed
    successfully.</responseDescription>
    <account>johndoe@domain.com</account>
    <amount>$-50.00</amount>
    <currencyCode>CAD</currencyCode>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <balance>$0.00</balance>
    <limits>
      <dailyAvailable>$100.00</dailyAvailable>
      <weeklyAvailable>$200.00</weeklyAvailable>
      <monthlyAvailable>$300.00</monthlyAvailable>
      <totalAvailable>$1000.00</totalAvailable>
    </limits>
  </cancelDirectLoadResponse>
</OperationResponse>
```

Decline Due to Invalid Parameter

```
<OperationResponse>
  <cancelDirectLoadResponse>
    <responseCode>06</responseCode>
    <responseDescription>Currency Mismatch for load method limit.
    [european] does not match the default currency
    [CAD].</responseDescription>
    <account>johndoe@domain.com</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>$-50.00</amount>
    <currencyCode>european</currencyCode>
  </cancelDirectLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>cancelDirectLoad</operation>
```

```
</OperationResponse>
```

Decline Due to Account Not Found

```
<OperationResponse>
  <cancelDirectLoadResponse>
    <responseCode>08</responseCode>
    <responseDescription>Invalid Account!</responseDescription>
    <account>johndoe@domain.com</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>$-50.00</amount>
    <currencyCode>CAD</currencyCode>
  </cancelDirectLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>cancelDirectLoad</operation>
</OperationResponse>
```

Decline Due to Original Transaction Not Found

```
<OperationResponse>
  <cancelDirectLoadResponse>
    <responseCode>09</responseCode>
    <responseDescription>Original Transaction Not
Found!</responseDescription>
    <account>johndoe@domain.com</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>$-50.00</amount>
    <currencyCode>CAD</currencyCode>
  </cancelDirectLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>cancelDirectLoad</operation>
</OperationResponse>
```

Decline Due to Cancel Direct Load already performed

```
<OperationResponse>
  <cancelDirectLoadResponse>
    <responseCode>06</responseCode>
    <responseDescription>Account Load transaction has already been
cancelled.</responseDescription>
    <account>12348765090000002</account>
    <currencyCode>USD</currencyCode>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <limits/>
  </cancelDirectLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>cancelDirectLoad</operation>
</OperationResponse>
```

Decline Due to Server Insufficient Funds

```
<OperationResponse>
  <cancelDirectLoadResponse>
    <responseCode>24</responseCode>
    <responseDescription> Insufficient funds on server
side.</responseDescription>
    <account>12348765090000002</account>
```

```

    <currencyCode>USD</currencyCode>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <limits/>
  </cancelDirectLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>cancelDirectLoad</operation>
</OperationResponse>

```

4.2.5 Cancel Direct Load Response Format

Parameter	Description	Format	Examples
issuerId	The id of the merchant initiating the load account API	Numeric	19980095 37900048
operation	The name of the operations	Alphanumeric	cancelDirectLoad
responseCode	Indicate the result of the transaction. See response code section for a list of possible response codes	2 digit numeric	00 01 02
responseDescription	A text description of the response status	Alphanumeric	System error
account	The payer's account Id, payer's account email address, as sent from the request	Alphanumeric	21010095 johndoe@domain.com
amount	Original load amount as requested	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
currencyCode	3-character currency code of the amount debited from the merchant account	3 characters	CAD USD
merchantFee	The fee amount of the account load transaction paid by the merchant	Numeric with decimals	0.50
firstName	The first name of the client receiving the credit	Alphanumeric	John
lastName	The last name of the client receiving the credit	Alphanumeric	Smith
balance	The balance on the account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
dailyAvailable	Today's remaining limit on loading an account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99

weeklyAvailable	This week's remaining limit on loading an account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
monthlyAvailable	This month's remaining limit on loading an account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
totalAvailable	The remaining limit on the whole balance of the account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99

4.3 Reverse Direct Load

4.3.1 Purpose

The Reverse DirectLoad API is designed to allow client applications to process real-time reversal of funds from an account back to the merchant.

4.3.2 Transaction Data XML

```
<transaction>
  <reverseDirectLoad>
    <account>
      <extraId>2312313</extraId>
    </account>
    <amount>$-50.00</amount>
    <currencyCode>CAD</currencyCode>
    <merchantTxnId>457811</merchantTxnId>
    <notes>Oct 31 reverse</notes>
    <description>Reverse load on account 2312313 , Oct
      31</description>
    </reverseDirectLoad>
  </transaction>
```

4.3.3 Transaction Data Parameters

Parameter	Description	Format	Examples	Required
account	The Wallet id, email address, or extra id.	Alphanumeric	yes	See appendix E for valid account id types.
amount	Amount to reverse	Numeric with optional decimals and dollar symbol	-125 \$-1.75 -99.99	Y
currencyCode	Amount to reverse in this	3 characters	CAD	Y

	currency.		USD	
merchantTxnId	A reference id created by the merchant.	Alphanumeric	450092	N
notes	Private notes for the issuer	Alphanumeric	Oct payout	N
description	Description to be displayed in the transaction receipt of the recipient	Alphanumeric	Payout for Oct	N

4.3.4 Response XML

```
<OperationResponse>
  <issuerId>19980095</issuerId>
  <operation>reverseDirectLoad</operation>
  <reverseDirectLoadResponse>
    <responseCode>00</responseCode>
    <responseDescription>Reverse Loaded Account.</responseDescription>
    <account>62806800000000000001</account>
    <amount>$-50.00</amount>
    <currencyCode>CAD</currencyCode>
    <firstName>John</firstName>
    <lastName>Doe</lastName>
    <balance>$0.00</balance>
    <limits>
      <dailyAvailable>$100.00</dailyAvailable>

      <weeklyAvailable>$200.00</weeklyAvailable>
      <monthlyAvailable>$300.00</monthlyAvailable>
      <totalAvailable>$1000.00</totalAvailable>
    </limits>
  </reverseDirectLoadResponse>
</OperationResponse>
```

Decline Due to Invalid Parameter

```
<OperationResponse>
  <reverseDirectLoadResponse>
    <responseCode>06</responseCode>
    <responseDescription>Currency Mismatch for load method limit.
    [european] does not match the default currency
    [CAD].</responseDescription>
    <account>johndoe@domain.com</account>
    <merchantTxnId>457811</merchantTxnId>
    <amount>50</amount>
    <currencyCode>european</currencyCode>
  </reverseDirectLoadResponse>
  <issuerId>27030048</issuerId>
  <operation>reverseDirectLoad</operation>
</OperationResponse>
```

Decline Due to Account Not Found

```
<OperationResponse>
  <reverseDirectLoadResponse>
    <responseCode>08</responseCode>
```



```

<responseDescription>Invalid Account!</responseDescription>
<account>bobsCousin@hyperwallet.com</account>
<merchantTxnId>457811</merchantTxnId>
<amount>50</amount>
<currencyCode>CAD</currencyCode>
</reverseDirectLoadResponse>
<issuerId>27030048</issuerId>
<operation>reverseDirectLoad</operation>
</OperationResponse>

```

4.3.5 Reverse Direct Load Response Format

Parameter	Description	Format	Examples
issuerId	The id of the merchant initiating the load account API	Numeric	19980095 37900048
operation	The name of the operations	Alphanumeric	reverseDirectLoad
responseCode	Indicate the result of the transaction. See response code section for a list of possible response codes	2 digit numeric	00 01 02
responseDescription	A text description of the response status	Alphanumeric	System error
account	The payer's account Id, payer's account email address, or payer's account Account number as sent from the request	Alphanumeric	21010095 johndoe@domain.com
amount	Original load amount as requested	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
currencyCode	3-character currency code of the amount debited from the merchant account	3 characters	CAD USD
firstName	The first name of the client receiving the credit	Alphanumeric	John
lastName	The last name of the client receiving the credit	Alphanumeric	Smith
balance	The balance on the account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
dailyAvailable	Today's remaining limit on loading an account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
weeklyAvailable	This week's remaining limit on	Numeric with	125, \$1.75, 99.99

	loading an account	optional decimals and dollar symbol	
monthlyAvailable	This month's remaining limit on loading an account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99
totalAvailable	The remaining limit on the whole balance of the account	Numeric with optional decimals and dollar symbol	125, \$1.75, 99.99

5. Response Codes

Response Code Status		Description
00	SUCCESS	Operation Success
01	INVALID ISSUER	IssuerId, username, or password doesn't match
02	INVALID OPERATION	Operation provided not available
03	INVALID MESSAGE	TxnRequestMessage provided is invalid
04	SYSTEM ERROR	System error
05	ACCESS DENIED	Issuer denied access to the specified operation
06	INVALID PARAMETER	Parameters provided for the operation is invalid
07	INSUFFICIENT FUNDS	Insufficient funds in loading account for the account load
08	RECIPIENT NOT FOUND	Account specified cannot be found
09	LIMIT EXCEEDED	Account load limit of the issuer is exceeded
12	FINANCIAL INSTITUTION NOT FOUND	The bank account's financial institution is not valid.
13	MISSING BANKING INFO	Information is missing to properly add or update a bank account.
14	INVALID_ACCOUNT_INFO	The account information provided is invalid.
20	ACCOUNT REGISTRATION FLAGGED	The account registration has been flagged. Any attempts to use this registration will fail. Contact customer support for further assistance.
23	DUPLICATE_EXTRA_ID_TYPE	Duplicate ExtraId <ExtraId>
32	BANK ACCOUNT REGISTRATION LIMIT EXCEEDED	The new bank account cannot be registered as the maximum limit of bank accounts has been reached.
33	INVALID BANKING INFO	The banking information provided is invalid.
37	DUPLICATE BANK ACCOUNT	The bank account to register already exists in the system.

	REGISTRATION	
128	NO_SUCH_WALLET_EXCEPTION	The account identifier for the request does not exist.
155	INVALID FIELD	The information provided for the identified field is invalid.
156	MISSING FIELD	A required field is missing.
237	MAX LENGTH FIELD EXCEEDED	The maximum length of a particular field in the request has been exceeded.
270	FIELD MUST BE NUMERIC	The field identified only accepts numeric values.
272	FIELD MUST BE OF EXACT LENGTH	The field identified must be populated with the exact length returned in the description.
347	IBAN COUNTRY CODE NOT SUPPORTED	The country code for the bank account IBAN is not supported.
348	IBAN MISSING COUNTRY CODE	The bank account IBAN is missing the country code.
389	NOT_ISSUING_STORE_ISSUER	The issuer selected is not an issuing store.
611	HALF WIDTH KATAKANA ACCOUNT HOLDER NAME	The Japanese bank account holder's name must use half width katakana character set.
634	WALLET_CLOSED	The request cannot be processed as the Wallet is Closed.
648	INVALID_PREPAID_CARD_STATUS	Invalid status of prepaid card for replacement.
649	REPLACE_PPC_FAILURE	Failed to complete the replace card request.
686	CHANGE_ISSUER_FAILURE_DUE_TO_ATTACHED_PREPAID_CARD	The new issuer the wallet is being moved to does not support prepaid cards.
694	ISSUER_NOT_ENABLED_TO_CREATE_PREPAID_CARD	The issuer is not enabled to create a new prepaid card.
695	ISSUER_NOT_ENABLED_TO_REPLACE_PREPAID_CARD	The issuer is not enabled to replace an existing prepaid card.
696	CONSUMER_PREPAID_CARD_MAX_REACHED	Failed to assign a new card to the consumer as they have max allowed cards assigned to them already.

6. Other Common Response XML

Declined Due to Invalid Issuer

```
<OperationResponse>
  <responseCode>01</responseCode>
```

```
<responseDescription>Invalid Issuer</responseDescription>
<issuerId>27030048</issuerId>
<operation>directLoad</operation>
</OperationResponse>
```

Declined Due to Invalid Operation Request

```
<OperationResponse>
<responseCode>02</responseCode>
<responseDescription>Invalid operation!</responseDescription>
<issuerId>27030048</issuerId>
<operation>badOp</operation>
</OperationResponse>
```

Declined Due to Invalid Transaction Request Message

```
<OperationResponse>
<responseCode>03</responseCode>
<responseDescription>Invalid Operation Request
Message!</responseDescription>
<issuerId>27030048</issuerId>
<operation>directLoad</operation>
</OperationResponse>
```

Declined Due to System Error

```
<OperationResponse>
<responseCode>04</responseCode>
<responseDescription>System Error</responseDescription>
<issuerId>27030048</issuerId>
<operation>directLoad</operation>
</OperationResponse>
```

Decline Due to Access Violation Error

```
<OperationResponse>
<responseCode>05</responseCode>
<responseDescription>User not authorized for operation
requested!</responseDescription>
<issuerId>27030048</issuerId>
<operation>directLoad</operation>
</OperationResponse>
```

Decline Due to Insufficient Funds Code

```
<OperationResponse>
<responseCode>07</responseCode>
<responseDescription>The total loading amount of CAD$500.00
exceeds your available limit of CAD$467.00!</responseDescription>
<issuerId>27030048</issuerId>
<operation>directLoad</operation>
</OperationResponse>
```

7. Appendix A – Additional IDs

7.1 Purpose

Additional IDs are customized identification fields that can be configured dynamically. These ID fields also have the option of specifying the country of origin and the state/province (region) of origin.

7.2 Fields

Name	Description	Format	Country Code Required	State/Prov. Required	Examples
driversLicense	Driver's license number.	alphanumeric	Yes.	Yes.	34523964 DL34563246
sin	Social security/insurance number.	alphanumeric	Yes.	No.	3456432055 123
passport	Passport number	alphanumeric	Yes.	No.	JS123123123
birthCert	Birth certificate	alphanumeric	Yes.	Yes.	12341234
ctznCard	Citizenship card	alphanumeric	Yes.	No.	12341234
residentCard	Resident card	alphanumeric	Yes.	No.	12341234
govIdCard	Government ID Card	alphanumeric	Yes.	No.	12341234
other	Other ID type	Alphanumeric	Yes	No	HealthCard-432322

** Additional identification types can be defined as required. Please contact hyperWALLET Systems Inc to request specific identification types.

8. Appendix B – Bank Accounts

8.1 Purpose

This section describes the different bank account types supported and their data requirements.

8.2 Bank Accounts

Bank Accounts may contain several banking details.

8.2.1 Example

```
...
    <bankAccounts>
      <bankInfo>
...
      </bankInfo>
      <bankInfo>
...
      </bankInfo>
      <bankInfo>
...
      </bankInfo>
    </bankAccounts>
...
```

8.3 BankInfo Fields

Name	Description	Data Format	Examples
format	The bank account format	alphanumeric	JAPAN_1
bankCode	Bank code of the account	alphanumeric	1234
branchCode	Branch code of the account	alphanumeric	123
accountNumber	Account Number	alphanumeric	1234567
accountType	Type of account	alphanumeric	1
accountHolderName	The name of the account holder. Must match the account	alphanumeric	John Doe

	holder's name held by the FI		
autoCashoutConfig	The type of autocashout to create	alphanumeric	CASHOUT_FULL_BALANCE_DAILY See Appendix C

8.4 Country/Currency format mapping

Country	Currency	Available Formats
JP	JPY	JAPAN_1
KR	KRW	KOREA_1
TW	TWD	TAIWAN_1
MY	MYR	MALAYSIA_1

8.5 Bank Account Formats

JAPAN_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	JAPAN_1
bankCode	Bank code of the account	alphanumeric	Yes.	4	1234
branchCode	Branch code of the account	alphanumeric	Yes.	3	123
accountNumber	Account Number	alphanumeric	Yes.	7	1234567
accountType	Type of account	alphanumeric	Yes.	1	1=SAVINGS 2=CURRENT 4=DEPOSIT 9=OTHER
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe ウケトリジ 〇ウケト
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

JAPAN_1 Example

```

...
  <bankAccounts>
    <bankInfo>
      <format>JAPAN_1</format>
      <bankCode>1234</bankCode>
      <branchCode/>123</branchCode>
      <accountNumber>1234567</accountNumber>
      <accountType/>1</accountType>
      <accountHolderName>ウケトリジ 〇ウケト</accountHolderName>
    </bankInfo>
  </bankAccounts>

```

</bankAccounts>

...

KOREA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	KOREA_1
bankCode	Bank code of the account	Numeric 3 digits	Yes.	3	123
accountNumber	Account Number	Numeric Max 24 digits	Yes.	Max 24	1234567
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1-30	Haneul Kim
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

KOREA_1 Example

```
<bankAccounts>
  <bankInfo>
    <format>KOREA_1</format>
    <bankCode>123</bankCode>
    <accountNumber>1234567</accountNumber>
    <accountHolderName>Haneul Kim</accountHolderName>
    <autoCashoutConfig>CASHOUT_FULL_BALANCE_WEEKLY</autoCashoutConfig>
  </bankInfo>
</bankAccounts>
```

TAIWAN_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	TAIWAN_1
bankCode	Bank code of the account	alphanumeric	Yes.	3	1234
branchCode	Branch code of the account	alphanumeric	Yes.	4	123
accountNumber	Account Number	alphanumeric	Yes.	Max 14	1234567
identificationNumber	Government Identification Number	alphanumeric	Yes - if not provided with profile.	30	488488488
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

TAIWAN_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>MALAYSIA_1</format>
    <bankCode>99</bankCode>
    <accountNumber>1234567890123456</accountNumber>
    <accountHolderName>firstname lastname</accountHolderName>
  <bankInfo>
</bankAccounts>

```

...

MALAYSIA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	MALAYSIA_1
branchCode	Branch code of the account	alphanumeric	Yes.	2	123
accountNumber	Account Number	alphanumeric	Yes.	Max 16	1234567890123456
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

MALAYSIA_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>MALAYSIA_1</format>
    <bankCode>99</bankCode>
    <accountNumber>1234567890123456</accountNumber>
    <accountHolderName>firstname lastname</accountHolderName>
  </bankInfo>
</bankAccounts>
...

```

CANADA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
------	-------------	-------------	----------	--------	----------

format	The bank account format	alphanumeric	Yes.	variable	CANADA_1
bankNumber	Bank number	numeric	Yes.	4	0003
transitNumber	Transit number	numeric			01050
accountNumber	Account Number	alphanumeric	Yes.	Max 16	1234567890123456
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

CANADA_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>CANADA_1</format>
    <bankNumber>0003</bankNumber>
    <transitNumber>01050</transitNumber>
    <accountNumber>1234567890123456</accountNumber>
    <accountHolderName>firstname lastname</accountHolderName>
  </bankInfo>
</bankAccounts>
...

```

USA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	USA_1
routingNumber	Routing number	numeric	Yes.	9	022000020
accountType	Identifies the bank account type.	Characters	Yes.	Max 15	SAVINGS DEMAND

		<i>hyperWALLET Systems Inc.</i> 1200 – 736 Granville Street Vancouver, BC Canada V6Z 1G3 Telephone: 604-482-0090 Fax: 604-482-0091			
accountNumber	Account Number	alphanumeric	Yes.	Max 16	1234567890123456
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

USA_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>USA_1</format>
    <routingNumber>022000020</routingNumber>
    <accountType>SAVINGS</accountType>
    <accountNumber>1234567890123456</accountNumber>
    <accountHolderName>firstname lastname</accountHolderName>
  </bankInfo>
</bankAccounts>
...

```

AUSTRALIA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	AUSTRALIA_1
bankCode	First three digits of Bank BSB	alphanumeric	Yes.	3	123
branchCode	Last three digits of Bank BSB	alphanumeric	Yes	3	456
accountNumber	Account Number	alphanumeric	Yes.	Max 12	123456789012
accountHolderName	The name of the account holder. Must match the account holder's name held by	alphanumeric	Yes.	1..30	John Doe



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1200 – 736 Granville Street
Vancouver, BC Canada V6Z 1G3
Telephone: 604-482-0090
Fax: 604-482-0091

	the FI				
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

AUSTRALIA_1 Example

```
...  
<bankAccounts>  
  <bankInfo>  
    <format>AUSTRALIA_1</format>  
    <bankCode>123</bankCode>  
    <branchCode>456</branchCode>  
    <accountNumber>123456789012</accountNumber>  
    <accountHolderName>firstname lastname</accountHolderName>  
  </bankInfo>  
</bankAccounts>  
...
```

NEWZEALAND_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	NEWZEALAND_1
bankCode	Bank Code of the account	alphanumeric	Yes.	2	99
branchCode	Branch code of the account	alphanumeric	Yes.	4	1234
accountNumber	Account Number	alphanumeric	Yes.	Max 12	123456789012
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe
autoCashoutConfig	The type of autocashout to	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAI

		hyperWALLET Systems Inc. 1200 – 736 Granville Street Vancouver, BC Canada V6Z 1G3 Telephone: 604-482-0090 Fax: 604-482-0091	
	create		LY

NEWZEALAND_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>NEWZEALAND_1</format>
    <bankCode>99</bankCode>
    <branchCode>1234</branchCode>
    <accountNumber>123456789012</accountNumber>
    <accountHolderName>firstname lastname</accountHolderName>
  <bankInfo>
</bankAccounts>
...

```

MEXICO_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	MEXICO_1
accountNumber	CLABE Number	alphanumeric	Yes.	Max 16	1234567890123456
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	alphanumeric	Yes.	1..30	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

MEXICO_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>MEXICO_1</format>

```


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 1200 – 736 Granville Street
 Vancouver, BC Canada V6Z 1G3
 Telephone: 604-482-0090
 Fax: 604-482-0091

```
<accountNumber>1234567890123456</accountNumber>
<accountHolderName>firstname lastname</accountHolderName>
<bankInfo>
<bankAccounts>
...

```

CHINA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	alphanumeric	Yes.	variable	CHINA_1
accountNumber	CLABE Number	alphanumeric	Yes.	Max 50	1234567890123456
accountHolderFirst Name	The first name of the account holder. Must match the account holder's first name held by the FI	alphanumeric	Yes.	1..40	明
accountHolderLast Name	The first name of the account holder. Must match the account holder's last name held by the FI	alphanumeric	No	1..40	王
accountHolderCellNumber	The cellphone number of the account holder. Must match the account holder's cell phone number held by the FI	alphanumeric	No	Max 80	123456789
accountHolderNationalId	The national ID number of the account holder. Must match the account holders national Id held by the FI	alphanumeric	No	Max 18	12345623432
bankName	Name of the Bank	alphanumeric	Yes	1..50	工商银行

		hyperWALLET Systems Inc. 1200 – 736 Granville Street Vancouver, BC Canada V6Z 1G3 Telephone: 604-482-0090 Fax: 604-482-0091			
branchName	Bank Branch Name	alphanumeric	Yes	1..100	上海分行长宁支行
province	Province for the bank branch.	alphanumeric	Yes	1..10	广东
city	City in which the branch is located	alphanumeric	Yes	1..20	深圳
AutoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

CHINA_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>CHINA_1</format>
    <accountHolderFirstName>五</accountHolderFirstName>
    <accountHolderLastName>王</accountHolderLastName>
    <accountHolderCellNumber>13800138003</accountHolderCellNumber>
    <accountHolderNationalId>399226699911018021</accountHolderNationalId>
    <bankName>工商银行</bankName>
    <branchName>商银行</branchName>
    <accountNumber>9558880200005404377</accountNumber>
    <province>广东</province>
    <city>深圳</city>
    <autoCashoutConfig>CASHOUT_FULL_BALANCE_DAILY</autoCashoutConfig>
  </bankInfo>
</bankAccounts>..

```

THAILAND_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	AlphaNumeric	Yes.	variable	THAILAND_1
bankCode	Bank Code	AlphaNumeric	Yes.	MAX 3	002
accountNumber	Account Number	Numeric	Yes.		123456789

		hyperWALLET Systems Inc. 1200 – 736 Granville Street Vancouver, BC Canada V6Z 1G3 Telephone: 604-482-0090 Fax: 604-482-0091			
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	AlphaNumeric	Yes.	1..50	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

THAILAND_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>THAILAND_1</format>
    <bankCode>002</bankCode>
    <accountNumber>123456789</accountNumber>
    <accountHolderName>firstname lastname</accountHolderName>
  </bankInfo>
</bankAccounts>
...

```

UK_EURO_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	AlphaNumeric	Yes.	variable	UK_EURO_1
bankNum	Bank BIC Code	AlphaNumeric	Yes.		BARCGB71XXX
accountNumber	IBAN Number	Alphanumeric	Yes.		AB12312
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	AlphaNumeric	Yes.	1..50	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

UK_EURO_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>UK_EURO_1</format>
    <accountHolderName>ACCOUNTHOLDER NAME</accountHolderName>
    <accountNumber>AB12312</accountNumber>
    <bankNumber>BARCGB71XXX</bankNumber>
    <autoCashoutConfig>CASHOUT_FULL_BALANCE_DAILY</autoCashoutConfig>
  </bankInfo>
</bankAccounts>
...

```

EURO_2 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	AlphaNumeric	Yes.	variable	EURO_2
bankNum	Bank BIC Code	AlphaNumeric	Yes.		BARCGB71XXX
accountNumber	IBAN Number	Alphanumeric	Yes.		AB12312
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	AlphaNumeric	Yes.	1..50	John Doe
countryCode	ISOA2 Country Code	Alpha	Yes	2	GB
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

EURO_2 Example

```

...
<bankAccounts>

```

```

    <bankInfo>
      <format>EURO_2</format>
      <accountHolderName>John Doe</accountHolderName>
      <accountNumber>IBAN Number</accountNumber>
      <bankNumber>BIC</bankNumber>
      <countryCode>GR</countryCode>
      <autoCashoutConfig>CASHOUT_FULL_BALANCE_DAILY</autoCashoutConfig>
    </bankInfo>
  </bankAccounts>
  ...

```

UK_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	AlphaNumeric	Yes.	variable	UK_1
bankCode	Sorting Code for the bank	AlphaNumeric	Yes.	6	123456
accountNumber	Account Number of the account holder	Alphanumeric	Yes.	Max 8	12345678
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	AlphaNumeric	Yes.	1..50	John Doe
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

UK_1 Example

```

...
<bankAccounts>
  <bankInfo>
    <format>UK_1</format>
    <accountHolderName>John Doe</accountHolderName>
    <accountNumber>12345681</accountNumber>
    <bankCode>121236</bankCode>
  </bankInfo>
</bankAccounts>

```

```
<autoCashoutConfig>CASHOUT_FULL_BALANCE_DAILY</autoCashoutConfig>
</bankInfo>
</bankAccounts>...
```

SOUTH_AFRICA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	AlphaNumeric	Yes.	variable	SOUTH_AFRICA_1
bankCode	Bank Code	Numeric	Yes.	6	123456
accountNumber	Account Number of the account holder	Alphanumeric	Yes.	Max 16	12345678
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	AlphaNumeric	Yes.	1..35	John Doe
branchName	General location is acceptable eg: Pretoria	AlphaNumeric	No	Max 50	Pretoria
bankName	Name of the bank	AlphaNumeric	Yes	Max 50	State Bank Of South Africa
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	CASHOUT_FULL_BALANCE_DAILY

SOUTH_AFRICA_1 Example

```
...
<bankAccounts>

    <bankInfo>
```

```

<format>SOUTH_AFRICA_1</format>

<accountHolderName>John Doe</accountHolderName>

<bankCode>012345</bankCode>

<branchName>Pretoria</branchName>

<bankName>State Bank Of South AFrica</bankName>

<accountNumber>123456789616</accountNumber>

<autoCashoutConfig>CASHOUT_FULL_BALANCE_DAILY</autoCashoutConfig>

</bankInfo>

</bankAccounts>...
  
```

INDONESIA_1 Data requirements

Name	Description	Data Format	Required	Length	Examples
format	The bank account format	AlphaNumeric	Yes.	variable	INDONESIA_1
bankCode	Bank Code	Numeric	Yes.	7	1234567
accountNumber	Account Number of the account holder	Alphanumeric	Yes.	Max 10	12345678
accountHolderName	The name of the account holder. Must match the account holder's name held by the FI	AlphaNumeric	Yes.	1..50	John Doe
swiftCode	Swift code of the account holder branch	AlphaNumeric	Yes	8/11	BRINIDJA

<div></div>		hyperWALLET Systems Inc. 1200 – 736 Granville Street Vancouver, BC Canada V6Z 1G3 Telephone: 604-482-0090 Fax: 604-482-0091			CASHOUT_FULL_BALANCE_D AILY
autoCashoutConfig	The type of autocashout to create	alphanumeric	No	variable	

INDONESIA_1 Example

```

...
<bankAccounts>

  <bankInfo>

    <format>INDONESIA_1</format>

    <accountHolderName>John Doe</accountHolderName>

    <bankCode>0020077</bankCode>

    <swiftCode>BRINIDJA</swiftCode>

    <accountNumber>1234567890</accountNumber>

    <autoCashoutConfig>CASHOUT_FULL_BALANCE_DAILY</autoCashoutConfig>

  </bankInfo>

</bankAccounts>...
...

```

9. Appendix C – Auto Cashout Configurations

9. Purpose

This section describes the different types of autocashouts that can be created. This is an optional element of bank accounts on createAccount or updateAccount.

9.1 autoCashoutConfig

Value	Description
-------	-------------

hyperWALLET Systems Inc.
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Vancouver, BC Canada V6Z 1G3
Telephone: 604-482-0090
Fax: 604-482-0091

CASHOUT_FULL_BALANCE_DAILY

Transfer full wallet balance to bank account daily

CASHOUT_FULL_BALANCE_MONTHLY

Transfer full wallet balance to bank account monthly
Bank

9.1.1 Example

```
...  
<bankAccounts>  
  <bankInfo>  
    <format>JAPAN_1</format>  
    <bankCode>1234</bankCode>  
    <branchCode/>123</branchCode>  
    <accountNumber>1234567</accountNumber>  
    <accountType/>1</accountType>  
    <accountHolderName>カトリック 〇〇〇</accountHolderName>  
    <autoCashoutConfig>CASHOUT_FULL_BALANCE_WEEKLY</autoCashoutConfig>  
  </bankInfo>  
</bankAccounts>  
...
```

10 Appendix D – Preferences

10. Purpose

This section describes wallet preferences that can be set.

10.1 Preference

10.1.1 Example

```

...
  <account>
...
    <preference>
      <language>ja</language>
      <timeZone>GMT</timeZone>
    </preference>
...
  </account>
...

```

10.2 Preference Fields

Name	Description	Data Format	Examples
Language	The 2 char language identifier	alphanumeric	See language table below
TimeZone	The time zone	alphanumeric	See timeZone table below

10.2.1 Language

Value	Description
EN	English
FR	French
ZH	Chinese
DE	German
ES	Spanish
IW	Hebrew
PT	Portuguese
PL	Polish
JA	Japanese
KO	Korea
MS	Malay

10.3 TimeZone

Time zones ID's are defined by the Java 6 (<http://docs.oracle.com/javase/6/docs/api/java/util/TimeZone.html>) API. You can use the `TimeZone.getAvailableIDs` method to iterate through all the supported time zone IDs. Please note that an application instance will have its Java SDK updated from time to time, you will be notified by customer/operational support when such instances will occur.

ACT	America/Martinique	Asia/Ujung_Pandang	Europe/Simferopol
AET	America/Mazatlan	Asia/Ulaanbaatar	Europe/Skopje
Africa/Abidjan	America/Mendoza	Asia/Ulan_Bator	Europe/Sofia
Africa/Accra	America/Metlakatla	Asia/Urumqi	Europe/Stockholm
Africa/Addis_Ababa	America/Miquelon	Asia/Vientiane	Europe/Tallinn
Africa/Algiers	America/Moncton	Asia/Vladivostok	Europe/Tirane
Africa/Asmara	America/Montevideo	Asia/Yakutsk	Europe/Tiraspol
Africa/Asmera	America/Montreal	Asia/Yekaterinburg	Europe/Uzhgorod
Africa/Bamako	America/Montserrat	Asia/Yerevan	Europe/Vaduz
Africa/Bangui	America/Nassau	AST	Europe/Vatican
Africa/Banjul	America/New_York	Atlantic/Azores	Europe/Vienna
Africa/Bissau	America/Nipigon	Atlantic/Bermuda	Europe/Vilnius
Africa/Blantyre	America/Nome	Atlantic/Canary	Europe/Volgograd
Africa/Brazzaville	America/Noronha	Atlantic/Cape_Verde	Europe/Warsaw
Africa/Bujumbura	America/Ojinaga	Atlantic/Faeroe	Europe/Zagreb
Africa/Cairo	America/Panama	Atlantic/Faroe	Europe/Zaporozhye
Africa/Casablanca	America/Pangnirtung	Atlantic/Jan_Mayen	Europe/Zurich
Africa/Ceuta	America/Paramaribo	Atlantic/Madeira	GB
Africa/Conakry	America/Phoenix	Atlantic/Reykjavik	GB-Eire
Africa/Dakar	America/Port_of_Spain	Atlantic/South_Georgia	GMT
Africa/Dar_es_Salaam	America/Port-au-Prince	Atlantic/St_Helena	GMT0
Africa/Djibouti	America/Porto_Acre	Atlantic/Stanley	Greenwich
Africa/Douala	America/Porto_Velho	Australia/ACT	Hongkong
Africa/El_Aaiun	America/Puerto_Rico	Australia/Adelaide	HST
Africa/Freetown	America/Recife	Australia/Brisbane	Iceland
Africa/Gaborone	America/Resolute	Australia/Broken_Hill	IET
Africa/Harare	America/Rio_Branco	Australia/Canberra	Indian/Antananarivo
Africa/Johannesburg	America/Rosario	Australia/Currie	Indian/Chagos
Africa/Juba	America/Santa_Isabel	Australia/Darwin	Indian/Christmas
Africa/Kampala	America/Santarem	Australia/Eucla	Indian/Cocos
Africa/Khartoum	America/Santiago	Australia/Hobart	Indian/Comoro
Africa/Kigali	America/Santo_Domingo	Australia/LHI	Indian/Kerguelen
Africa/Kinshasa	America/Sao_Paulo	Australia/Lindeman	Indian/Mahe
Africa/Lagos	America/Scoresbysund	Australia/Lord_Howe	Indian/Maldives
Africa/Libreville	America/Shiprock	Australia/Melbourne	Indian/Mauritius
Africa/Lome	America/Sitka	Australia/North	Indian/Mayotte
Africa/Luanda	America/St_Barthlemy	Australia/NSW	Indian/Reunion

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Africa/Lubumbashi	America/St_Johns		
Africa/Lusaka	America/St_Kitts	Australia/Perth	Iran
Africa/Malabo	America/St_Lucia	Australia/Queensland	Israel
Africa/Maputo	America/St_Thomas	Australia/South	IST
Africa/Maseru	America/St_Vincent	Australia/Sydney	Jamaica
Africa/Mbabane	America/Swift_Current	Australia/Tasmania	Japan
Africa/Mogadishu	America/Thule	Australia/Victoria	JST
Africa/Monrovia	America/Thunder_Bay	Australia/West	Kwajalein
Africa/Nairobi	America/Tijuana	Australia/Yancowinna	Libya
Africa/Ndjamena	America/Toronto	BET	MET
Africa/Niamey	America/Tortola	Brazil/Acre	Mexico/BajaNorte
Africa/Nouakchott	America/Vancouver	Brazil/DeNoronha	Mexico/BajaSur
Africa/Ouagadougou	America/Virgin	Brazil/East	Mexico/General
Africa/Porto-Novo	America/Whitehorse	Brazil/West	Mideast/Riyadh87
Africa/Sao_Tome	America/Winnipeg	BST	Mideast/Riyadh88
Africa/Timbuktu	America/Yakutat	Canada/Atlantic	Mideast/Riyadh89
Africa/Tripoli	America/Yellowknife	Canada/Central	MIT
Africa/Tunis	Antarctica/Casey	Canada/East-Saskatchewan	MST
Africa/Windhoek	Antarctica/Davis	Canada/Eastern	MST7MDT
AGT	Antarctica/DumontD'Urville	Canada/Mountain	Navajo
America/Adak	Antarctica/Macquarie	Canada/Newfoundland	NET
America/Anchorage	Antarctica/Mawson	Canada/Pacific	NST
America/Anguilla	Antarctica/McMurdo	Canada/Yukon	NZ
America/Antigua	Antarctica/Palmer	CAT	NZ-CHAT
America/Araguaina	Antarctica/Rothera	CET	Pacific/Apia
America/Argentina/Buenos_Aires	Antarctica/South_Pole	Chile/Continental	Pacific/Auckland
America/Argentina/Catamarca	Antarctica/Syowa	Chile/EasterIsland	Pacific/Chatham
America/Argentina/ComodRivadavia	Antarctica/Vostok	CNT	Pacific/Chuuk
America/Argentina/Cordoba	Arctic/Longyearbyen	CST	Pacific/Easter
America/Argentina/Jujuy	ART	CST6CDT	Pacific/Efate
America/Argentina/La_Rioja	Asia/Aden	CTT	Pacific/Enderbury
America/Argentina/Mendoza	Asia/Almaty	Cuba	Pacific/Fakaofu
America/Argentina/Rio_Gallegos	Asia/Amman	EAT	Pacific/Fiji
America/Argentina/Salta	Asia/Anadyr	ECT	Pacific/Funafuti
America/Argentina/San_Juan	Asia/Aqtou	EET	Pacific/Galapagos
America/Argentina/San_Luis	Asia/Aqtobe	Egypt	Pacific/Gambier
America/Argentina/Tucuman	Asia/Ashgabat	Eire	Pacific/Guadalcanal
America/Argentina/Ushuaia	Asia/Ashkhabad	EST	Pacific/Guam
America/Aruba	Asia/Baghdad	EST5EDT	Pacific/Honolulu
America/Asuncion	Asia/Bahrain	Etc/GMT	Pacific/Johnston
America/Atikokan	Asia/Baku	Etc/GMT-0	Pacific/Kosrae
America/Atka	Asia/Bangkok	Etc/GMT-1	Pacific/Kwajalein
America/Bahia	Asia/Beirut	Etc/GMT-10	Pacific/Majuro
America/Bahia_Banderas	Asia/Bishkek	Etc/GMT-11	Pacific/Marquesas
America/Barbados	Asia/Brunei	Etc/GMT-12	Pacific/Midway
America/Belem	Asia/Calcutta	Etc/GMT-13	Pacific/Nauru

America/Belize	Asia/Choibalsan	Etc/GMT-2	Pacific/Niue
America/Blanc-Sablon	Asia/Chongqing	Etc/GMT-3	Pacific/Norfolk
America/Boa_Vista	Asia/Chungking	Etc/GMT-4	Pacific/Noumea
America/Bogota	Asia/Colombo	Etc/GMT-5	Pacific/Pago_Pago
America/Boise	Asia/Dacca	Etc/GMT-6	Pacific/Palau
America/Buenos_Aires	Asia/Damascus	Etc/GMT-7	Pacific/Pitcairn
America/Cambridge_Bay	Asia/Dhaka	Etc/GMT-8	Pacific/Pohnpei
America/Campo_Grande	Asia/Dili	Etc/GMT-9	Pacific/Ponape
America/Caracas	Asia/Dubai	Etc/GMT+0	Pacific/Port_Moresby
America/Catamarca	Asia/Dushanbe	Etc/GMT+1	Pacific/Rarotonga
America/Cayenne	Asia/Gaza	Etc/GMT+10	Pacific/Saipan
America/Cayman	Asia/Harbin	Etc/GMT+11	Pacific/Samoa
America/Chihuahua	Asia/Hebron	Etc/GMT+12	Pacific/Tahiti
America/Coral_Harbour	Asia/Ho_Chi_Minh	Etc/GMT+2	Pacific/Tarawa
America/Cordoba	Asia/Hong_Kong	Etc/GMT+3	Pacific/Truk
America/Cuiaba	Asia/Hovd	Etc/GMT+4	Pacific/Wake
America/Curacao	Asia/Irkutsk	Etc/GMT+5	Pacific/Wallis
America/Danmarkshavn	Asia/Istanbul	Etc/GMT+6	Pacific/Yap
America/Dawson	Asia/Jakarta	Etc/GMT+7	PLT
America/Dawson_Creek	Asia/Jayapura	Etc/GMT+8	PNT
America/Denver	Asia/Jerusalem	Etc/GMT+9	Poland
America/Detroit	Asia/Kabul	Etc/GMT0	Portugal
America/Dominica	Asia/Kamchatka	Etc/Greenwich	PRC
America/Edmonton	Asia/Karachi	Etc/UCT	PRT
America/Eirunepe	Asia/Kashgar	Etc/Universal	PST
America/El_Salvador	Asia/Kathmandu	Etc/UTC	PST8PDT
America/Ensenada	Asia/Katmandu	Etc/Zulu	ROK
America/Fort_Wayne	Asia/Kolkata	Europe/Amsterdam	Singapore
America/Fortaleza	Asia/Krasnoyarsk	Europe/Andorra	SST
America/Glace_Bay	Asia/Kuala_Lumpur	Europe/Athens	SystemV/AST4
America/Godthab	Asia/Kuching	Europe/Belfast	SystemV/AST4ADT
America/Goose_Bay	Asia/Kuwait	Europe/Belgrade	SystemV/CST6
America/Grand_Turk	Asia/Macao	Europe/Berlin	SystemV/CST6CDT
America/Grenada	Asia/Macau	Europe/Bratislava	SystemV/EST5
America/Guadeloupe	Asia/Magadan	Europe/Brussels	SystemV/EST5EDT
America/Guayaquil	Asia/Makassar	Europe/Bucharest	SystemV/HST10
America/Guyana	Asia/Manila	Europe/Budapest	SystemV/MST7
America/Halifax	Asia/Muscat	Europe/Chisinau	SystemV/MST7MDT
America/Havana	Asia/Nicosia	Europe/Copenhagen	SystemV/PST8
America/Hermosillo	Asia/Novokuznetsk	Europe/Dublin	SystemV/PST8PDT
America/Indiana/Indianapolis	Asia/Novosibirsk	Europe/Gibraltar	SystemV/YST9
America/Indiana/Knox	Asia/Omsk	Europe/Guernsey	SystemV/YST9YDT
America/Indiana/Marengo	Asia/Oral	Europe/Helsinki	Turkey
America/Indiana/Petersburg	Asia/Phnom_Penh	Europe/Isle_of_Man	UCT

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America/Indiana/Tell_City	Asia/Pontianak	Europe/Istanbul	Universal
America/Indiana/Vevay	Asia/Pyongyang	Europe/Jersey	US/Alaska
America/Indiana/Vincennes	Asia/Qatar	Europe/Kaliningrad	US/Aleutian
America/Indiana/Winamac	Asia/Qyzylorda	Europe/Kiev	US/Arizona
America/Indianapolis	Asia/Rangoon	Europe/Lisbon	US/Central
America/Inuvik	Asia/Riyadh	Europe/Ljubljana	US/East-Indiana
America/Iqaluit	Asia/Riyadh87	Europe/London	US/Eastern
America/Jamaica	Asia/Riyadh88	Europe/Luxembourg	US/Hawaii
America/Jujuy	Asia/Riyadh89	Europe/Madrid	US/Indiana-Starke
America/Juneau	Asia/Saigon	Europe/Malta	US/Michigan
America/Kentucky/Louisville	Asia/Sakhalin	Europe/Mariehamn	US/Mountain
America/Kentucky/Monticello	Asia/Samarkand	Europe/Minsk	US/Pacific
America/Knox_IN	Asia/Seoul	Europe/Monaco	US/Pacific-New
America/Kralendijk	Asia/Shanghai	Europe/Moscow	US/Samoa
America/La_Paz	Asia/Singapore	Europe/Nicosia	UTC
America/Lima	Asia/Taipei	Europe/Oslo	VST
America/Los_Angeles	Asia/Tashkent	Europe/Paris	W-SU
America/Louisville	Asia/Tbilisi	Europe/Podgorica	WET
America/Lower_Princes	Asia/Tehran	Europe/Prague	Zulu
America/Maceio	Asia/Tel_Aviv	Europe/Riga	
America/Managua	Asia/Thimbu	Europe/Rome	
America/Manaus	Asia/Thimphu	Europe/Samara	
America/Marigot	Asia/Tokyo	Europe/San_Marino	
		Europe/Sarajevo	

11 Appendix E – Account Id Types

Parameter	Description	Format	Max Length	Examples
email	Email address of the customer.	Alphanumeric	25	johndoe@hyperwallet.com
walletNumber	System assigned wallet number of the customer.	Alphanumeric	25	658742787 CS658742787
extraId	Unique account id as assigned to a consumer on the remote application.	Alphanumeric	25	263634 JS3g42234G Lkh092jf2

cellNumber	<p>The unique mobile phone number in the system. This can only be used if cell numbers are unique in the system.</p> <p>See your account manager to configure your application for unique cell numbers.</p>	Numeric	10	<p>18002985526</p> <p>6042820090</p>
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12 Appendix F – <cardRequest> for updateAccount

Request a new prepaid card.

```
<cardRequest>
  <requestType>CREATE</requestType>
</cardRequest>
```

Confirm with your client support representative if you are configured to select a specific card brand design when requesting a card.

Request a new prepaid card and choose the card design.

```
<cardRequest>
  <requestType>CREATE</requestType>
  <designId>5</designId>
</cardRequest>
```

- If a valid design ID (i.e. 1, 2, 3, 4..) is specified, then the card brand design will be requested, otherwise the default brand design will be requested.
- We will map your card design ID to our system, for example:
 - Card Design Mountain = 1
 - Card Design Beach = 2
 - Card Design Ocean = 3

Request to replace an existing prepaid card.

```
<cardRequest>
  <requestType>REPLACE</requestType>
```

<cardNumber></cardNumber>
 </cardRequest>

Parameter	Description	Format	Mandatory	Examples
requestType	The action to perform for a prepaid card.	Alphanumeric	Yes	CREATE REPLACE
designId	The specific card design mapping as defined by the payment system.	Alphanumeric	No	1 2 3
cardNumber	The plain text prepaid card number to replace.	Numeric	Required only if requestType = REPLACE.	4337190000061957 4337190000061118

13 Appendix G – Account Statuses

Account Status	Description
PRE_ACTIVATION	Wallet is create but has not activated.
OPEN	Wallet is activated for online access. Security information and passwords have been set during the activation process.
LOCKED	The Wallet is disabled for access. This could be due to too many failed login attempts w/the wrong password. Wallet holder must contact customer service for review.
FROZEN.	The Wallet is disabled from online access. The Wallet is under investigation for potential fraud or suspicious activity. Wallet holder must contact customer service for review.
CLOSED	All funds have been evaporated and the Wallet can no longer be accessed.

14 Appendix H – <attachCard> for createAccount

Confirm with your client support representative to have this feature enabled.

- <attachCard>yes</attachCard> Include this attribute within your createAccount request to have a prepaid card requested for the new account.

Confirm with your client support representative if you are configured to select a specific card brand design when requesting a card.

- <attachCard>1</attachCard> If a valid design ID (i.e. 1, 2, 3, 4..) is specified, then the card brand design will be requested, otherwise the default brand design will be requested.
- We will map your card design ID to our system, for example:
 - Card Design Mountain = 1
 - Card Design Beach = 2
 - Card Design Ocean = 3