Yodlee REST API

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Version 1.1

About This Document

The REST API Guide explains the REST APIs currently supported by Yodlee.

Who Should Read This Document

This document is meant for developers who are interested in building financial applications using Yodlee APIs.

Other Documents of Interest

- *Yodlee Developer's Guide*

After Reading This Document

Yodlee welcomes your comments and suggestions on the quality and usefulness of this document. Please feel free to share your input by sending an email to developer@yodlee.com.

1. REST API Introduction

REST stands for Representational State Transfer. It relies on a stateless, client-server, cacheable communications protocol and in virtually all cases, the HTTP protocol is used.

REST is *an architecture style* for designing networked applications. The idea is that, rather than using complex mechanisms such as CORBA, RPC or SOAP to connect between machines, simple HTTP is used to make calls between machines.

RESTful applications use HTTP requests to post data (create and/or update), read data (e.g., make queries), and delete data. Thus, REST uses HTTP for all four CRUD (Create/Read/Update/Delete) operations.

You can use almost any programming language to communicate over http with the REST Server.

Yodlee REST API URL Pattern

The base Yodlee REST URL pattern is :

https://www.yodlee.com/moneycenter/srest/<cobName>/v1.0/{functional rest name}/

E.g. https://www.yodlee.com/moneycenter/srest/<cobName>/v1.0/account for the main module.

Examples of sub-module REST urls are:

https://www.yodlee.com/moneycenter/srest/<cobName>/v1.0/account/summary/all

https://www.yodlee.com/moneycenter/srest/<cobName>/v1.0/account/summary/{container_name}

https://www.yodlee.com/moneycenter/srest/<cobName>/v1.0/account/detail/{container_name}

https://www.yodlee.com/moneycenter/srest/<cobName>/v1.0/account/detail/{container_name}/{account_id}

URL Query Parameters

Yodlee does not encourage passing operation names as http query strings. For absolute simplicity and any third party standardization point of view Yodlee will recognize query parameters. Oauth parameters will be passed HTTP Post data.

HTTP Headers

HTTP REQUEST HEADERS

Standard HTTP Headers and Yodlee Cookies Optionally Oauth authentication parameters may be included in the HTTP headers.

HTTP RESPONSE HEADERS

HTTP Status code: 200 -- Successful response with XMLcontent
HTTP Status code: 201 -- Successful response with no content

POSITIVE RESPONSE CONTENT

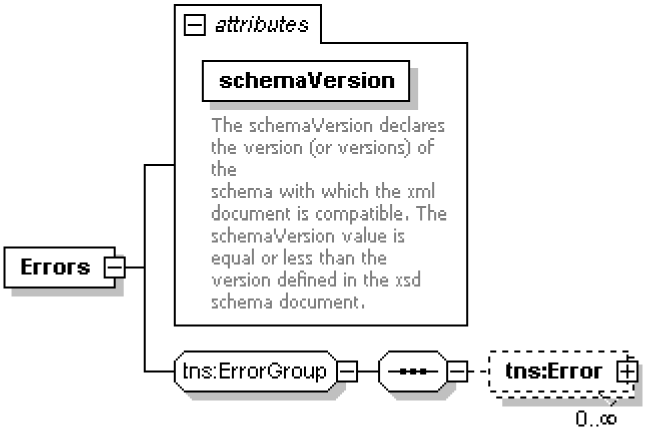
Defined separately for each functional REST services

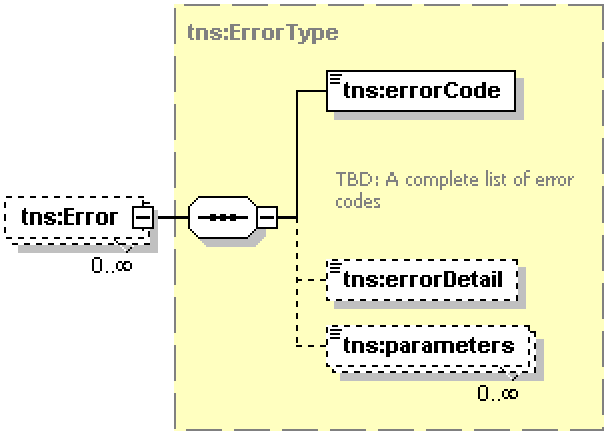
ERROR & EXCEPTION RESPONSES

HTTP Status code 40x -- These values reflect system failures or invalid service urls or site unavailability.

HTTP Status code 50x -- These values reflects functional errors for specific REST calls. The detail error message and additional information are specified as XML string in HTTP Response defined through Error.xsd xml schema.

The following diagram describes the Error xml schema:


attributes
schemaVersion
The schemaVersion declares the version (or versions) of the
schema with which the xml document is compatible. The schemaVersion value is equal or less than the version defined in the xsd schema document.
Errors
tns:ErrorGroup
tns:Error
0..∞



Versioning

REST SERVICE VERSIONING

All REST urls includes a version number. This version indicates that the REST service consumer is compliant with a particular version. For Yodlee, a single instance of the REST service endpoint will support multiple versions.

A complete REST URI is:

https://<server>:<port>/moneycenter/srest/<yodleeName>/v1.0/account/summary/all

XML SCHEMA VERSIONING

Yodlee REST XML Schema versions are specified in two places:
One in the version attribute at the start of the XML schema. For example:

```
<xs:schema xmlns:jaxb="http://java.sun.com/xml/ns/jaxb"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:tns="http://namespace.yodlee.com/pfm/2009/Account
" xmlns:err="http://namespace.yodlee.com/2009/Error"
targetNamespace="http://namespace.yodlee.com/pfm/2009/A
ccount" elementFormDefault="qualified" version="1.0"
jaxb:version="2.0">
```

XML documents do not have to change if they remain valid with the new version of the schema. This version is guidance to the REST service consumer. For Yodlee, it is not an enforceable constraint. The XML schema validator ignores the version attribute.

The second place where a version is specified and enforced by Yodlee is in the Root element. For example,

```
<xs:schema xmlns:jaxb="http://java.sun.com/xml/ns/jaxb"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:tns="http://namespace.yodlee.com/pfm/2009/Account
```

```
" xmlns:err="http://namespace.yodlee.com/2009/Error"
targetNamespace="http://namespace.yodlee.com/pfm/2009/A
ccount" elementFormDefault="qualified" version="1.0"
jaxb:version="2.0">
          <xs:element name="AccountSummaries">
               <xs:complexType>
                    …
                    <xs:attribute name="schemaVersion"
type="xs:decimal" use="required">
                         <xs:annotation>
<xs:documentation>
The schemaVersion declares the version (or versions) of
the schema with which the xml document is compatible.
The schemaVersion value is equal or less than the
version defined in the xsd schema document.
</xs:documentation>
                         </xs:annotation>
                    </xs:attribute>
               </xs:complexType>
</xs:element>
```

2. Account Summary

The REST URL gets a summary list of all accounts for the consumer. This provides summary information for all accounts. It may be filtered using various criteria only to return a sub-set of accounts.

Summary information is generally the same regardless of the container.
Current container support includes Banking, Credit Card, Investment, CD, Loan, Real Estate, and Reward Data.

The API output includes values that can be used in making further calls to retrieve additional account information.

The following information is not returned by this API:

- Deleted accounts
- De-activated accounts

The API will return currency code which will always be the account level currency code. It will not return the consumer-preference currency code.

Service URL

https://<server>:<port>/moneycenter/srest/<cobName>/v1.0/account/itemsummary/

Applications

This API applies to the following Yodlee applications:

- PersonalFinance
- BillPay
- FundsTransfer
- AccountVerification
- AccountAccelerator

Format

Beta Link - https://beta.yodlee.com/moneycenter/srest/yodleebeta/v1.0/account/summary/all

HTTP Method(s)

GET

Input Parameter Description

Input parameters can be used to filter the accounts based on the container such as Banking, Credit Card, Investment, etc.

Input Parameter Definition

Field	Mandatory/Optional	Description
AccountGroup	Optional	Filter the Accounts by their respective account groups.

OUTPUT FORMAT

The response block is a simple hierarchy of summary data that groups the accounts based on the container. It contains simple elements such as account name, account balance and the latest account update.

Balance information is generally present in the of the consumer's currency preference, but for rewards container the balance information is shown as a value and a type which is commonly miles, points, dollars, etc.

Example: For American Express Blue Cash, the value can be 39.13 dollars but for JetBlue Airways – TrueBlue, the value can be 636 points.

Not all account types have valid balance. In the case of an account not having a valid balance, the balance field is returned as an empty tag.

The following balance information is returned based on the container:

Container	Balance
CREDIT_CARD	Running Balance
BANKING	Current Balance
INVESTMENT	Total Balance
LOAN	Principal Balance (if no Principal Balance, the Payoff amount)
MORTGAGE	Principal Balance
INSURANCE	Cash Value
REALESTATE	Home Value
REWARD_PROGRAM	Units
BILL	Not returned yet
TELEPHONE	Not returned yet
MINUTES	Not returned yet
UTILITIES	Not returned yet
CABLE_SATELLITE	Not returned yet
BILL_PAY_SERVICE	Not returned yet
MISCELLANEOUS	Not returned yet
MAIL	Not returned yet

Each summary object contains a reference (xlink) pointing to the unique REST URL for the account details call.