
ECOSWAY WEB SERVICE INTEGRATION GUIDE

Version 2.1

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1 Overview

The purpose of this document is to provide information on application integration and programming guide between external party and eCosway Web Service.

1.1 Revision History

Version	Date	Description	Created/Modified By
1.0	20/07/2012	Document Creation	Keong
1.0	15/08/2012	Review and Release	Chooi Mey
2.0	08/10/2012	Add service getVoucher	Keong
2.1	10/10/2012	Amend Error Message	Keong
2.1	10/10/2012	Review and Release	Chooi Mey

2 The Ecosway Web Service

2.1 Description

This section describes the web services interface provided by ECOSWAY.

2.2 Protocol

ECOSWAY Web service is using SOAP (HTTP-XML) as communication protocol.

This Web Service implements the WS-Security Username Token Profile.

The consumer of ECOSWAY web service is required to supply a UsernameToken as a means of identifying the requestor by `username`, and `password` in type: PasswordText.

2.3 WSDL

The WSDL is accessible via:

Staging Environment:

<https://60.49.152.22/ecoswayService/services/PointServiceImplPort?wsdl>

Username: ecosway

Password: abcdef

Hash Key: mcom

Production Environment: To Be Provided.

3 Service Operation

3.1 getPoint

3.1.1 Description

This interface will provide service for external party to query member's RP Point, eAccount Balance, Refund Balance and Registration RP Point from eCosway System.

3.1.2 Input Field

Field Name	Field Type	Description
username	Alphanumeric	Authentication on Server. (provided)
password	Alphanumeric	Authentication on Server. (provided)
shopperId	Alphanumeric	Shopper Id. Use to retrieve the eAcct, eRefund, PurchaseRP and RegistrationRP value.
hashValue	Alphanumeric	Authorization (by using md5 algorithm, refer Appendix A: create MD5 Hash)

3.1.3 Output field

Field Name	Field Type	Description
RequestId	Alphanumeric	Unique identifies. (shopperId + yyyyMMddHHmmss)
eAcct	Numeric	E-Account amount. (currency)
refundEAcct	Numeric	Refund E-Account (currency)
purchaseRP	Numeric	PurchaseRP value.
registrationRP	Numeric	registrationRP value.
responseCode	Numeric	Status of the request.
responseMsg	Alphanumeric	Status message of the request.
responseDateTime	DateTime	Server Time response to the client.

3.2 getVoucher

3.2.1 Description

This interface will provide service for external party to query member's voucher amount from eCosway System.

3.2.2 Input Field

Field Name	Field Type	Description
username	Alphanumeric	Authentication on Server. (provided)
password	Alphanumeric	Authentication on Server. (provided)
shopperId	Alphanumeric	Shopper Id. Use to retrieve the voucher amount.
hashValue	Alphanumeric	Authorization (by using md5 algorithm, refer Appendix A: create MD5 Hash)

3.2.3 Output field

Field Name	Field Type	Description
RequestId	Alphanumeric	Unique identifies. (shopperId + yyyyMMddHHmmss)
Voucher	Numeric	Voucher Amount
responseCode	Numeric	Status of the request.
responseMsg	Alphanumeric	Status message of the request.
responseDateTime	DateTime	Server Time response to the client.

3.3 Response Code and Message

Code	Message	Description
0	Success	Successful retrieve shopper data.
10	Invalid shopper Id	Shopper Id not in record.
89	Unauthorized	Hash value not matches.
98	Error Retrieve Value	System error - Network exception
99	System Error	Server error - Runtime exception
401	Unauthorized	Username and password not provided.
403	Forbidden	Username or password not matches.

3.4 Test Plan

Test Case	Input Parameter
#1	ShopperId: US108823 hashValue: wLeIHNFndK1BxG+eXd+Ag==
#2	ShopperId: US108645A hashValue: zRjERZsgYcDyMLCvvs4zGw==

APPENDIX A

1 Create MD5 Hash (Java Programming)

```

java.lang.String md5(java.lang.String shopperId,
                    java.lang.String key){
    java.security.MessageDigest md5 =
    java.security.MessageDigest.getInstance("MD5");

    md5.update(shopperId.getBytes("UTF-8"));
    md5.update(*key.getBytes("UTF-8"));

    return new sun.misc.BASE64Encoder().encode(md5.digest());
}

```

* replace with the provided key value. Refer to section 2.3 for the hash key.

2 Step to create McomClient (Using eclipse)

1. Download Apache (2.3.11) from <http://cxf.apache.org/download.html>.
2. In eclipse, go to Windows → Preferences → Web Services → CXF 2.X Preferences → CXF Runtime, click on the Browse button and select the downloaded cxf folder in step 1.
3. Create Dynamic Project, File → New → Dynamic Web Project. Enter Project Name, select Target runtime, Click on the Modify button in Configuration and check on the CXF 2.X Web Service checkbox. Click the Finish button.
4. Right click on the Project, go to New → other → Web Service Client. You may enter the url in the Server definition or Browser the wsdl file from project. Make sure the Web service runtime value is Apache CXF 2.x.
5. Click on the Finish button.
6. Java classes will auto created in package com.ecosway.mcom.service.
7. Open %PointService_PointServiceImplPort_Client.java+, add below code for the Authentication into public static void main method. (highlighted in dark grey background)

```

PointServiceImplService ss = new PointServiceImplService(wsdlURL,
                SERVICE_NAME);
IPointService port = ss.getPortServiceImplPort();

// Authentication
javax.xml.ws.BindingProvider bp = (javax.xml.ws.BindingProvider) port;

bp.getRequestContext().put(
    javax.xml.ws.BindingProvider.USERNAME_PROPERTY, *username);

bp.getRequestContext().put(
    javax.xml.ws.BindingProvider.PASSWORD_PROPERTY, *password);

// Authorization
java.lang.String hashValue = md5(shopperId, *key);

```

*replace with the provided username, password and key value.

8. To execute the client, right click and select Run As → 2. Java Application.