

Rest API Services User Guide
Oracle FLEXCUBE Universal Banking
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Table of Contents

1.	PREFACE	1-1
1.1	INTRODUCTION.....	1-1
1.2	AUDIENCE.....	1-1
1.3	DOCUMENTATION ACCESSIBILITY	1-1
1.4	ORGANIZATION	1-1
2.	REST API SERVICES - OVERVIEW	2-1
2.1	INTRODUCTION.....	2-1
2.1.1	<i>Rest HTTP Headers</i>	2-2
2.2	REST SERVICES CHANGES	2-2

1. Preface

1.1 Introduction

This User Guide is intended to familiarize you with the light-weight REST based services of Oracle FLEXCUBE. The manual gives you an overview of the services developed, input/request parameters and the response of the each REST service.

1.2 Audience

The manual is intended for integrating external systems to Oracle FLEXCUBE using RESTFUL framework.

1.3 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

1.4 Organization

The manual is organized into the following chapters

<u>Chapter</u>	<u>Description</u>
Chapter 1	<i>Preface</i> - Gives information on the intended audience. It also lists the various chapters covered in this User Manual.
Chapter 2	<i>Rest API</i> - An Overview provides a snapshot of the features of the entire module.

2. Rest API Services - Overview

2.1 Introduction

Oracle FLEXCUBE Universal Banking has adopted the industry standard of providing light-weight services through Representational State Transfer (popularly known as ReST) services. These lightweight services support the current trend of mobile/tablet based applications. These services help to improve the response time for tablet/mobile applications, as these applications are very chatty, involves numerous hits to the server and the expected response time is minimal for each of the requests.

The REST/Fine grain services using GET methods are listed below:

1. Customer, Customer Accounts
2. Loan accounts for a customer
3. Loan account balance
4. Loan installment/EMI details
5. Loan account Principal balance
6. Loan guarantor details
7. Loan security details
8. Corporate deposit details
9. Credit Card
10. Standing Instructions
11. Currency Exchange Rates

More information on the above listed services can be found in the respective sections of the User manual.

Each of the services listed above will be a URL. These URLs can be tested using any of the available browser plug-ins like Postman, RestEasy etc.. Also these services can be integrated with an API manager depending on its use. Below is the format of a Get account balance service example which will take the customer account number and branch code as the input

[http://\(IP\):\(Port\)/AccountBalanceService/AccountBalance/QueryAcctBal/brhcode/{brhcode}/custAcNo/{custAcNo}](http://(IP):(Port)/AccountBalanceService/AccountBalance/QueryAcctBal/brhcode/{brhcode}/custAcNo/{custAcNo})

The input for the GET services is passed as a part of the URL and if more than one input needs to be passed they should be separated by a forward slash (/). Apart from passing the customer number as a part of the URL, the services also expect a few header parameters to be passed to the service. The following are the header parameters passed:

1. `userId` : Flexcube UBS login user Id
2. `branch` : The bank branch to which the user belongs
3. `msgId` : A alphanumeric input from the consumer
4. `source` : Source of the request whether it is FCUBS or an external system
5. `Content-Type`: This mentions the format of the input /output. Since we are using the JSON format we will give the content-type as `application/json`.
6. `Entity` : Entity ID

`UserId`, `password` and `msgId` are for authenticating the user accessing the service. More information on authentication can be found under Section 2.

The list of services will be discussed in detail in the following chapters.

2.1.1 Rest HTTP Headers

The following are the headers that are expected in all the requests that are sent to the Rest API application.

1. `userId` - Oracle FLEXCUBE UBS login user name.
2. `password` – Encrypted Oracle FLEXCUBE UBS login password.
3. `msgId` –This message id will be a unique id to identify the request.
4. `branch` – The branch code from where the request is sent.
5. `source` – The source code of the external system.

2.2 Rest Services Changes

Support for Rest Services are enhanced to all modules of FLEXCUBE through ODT. In ODT the user can opt for selected Rest services, ODT shall generate rest artefacts for Function IDs opted which can be deployed into application.

Fine grained services are introduced as part of the new release which caters to niche requests

List of services enabled



Rest_Services.xlsx

The document attached will have the services introduced newly along the existing services.

Rest Documentations



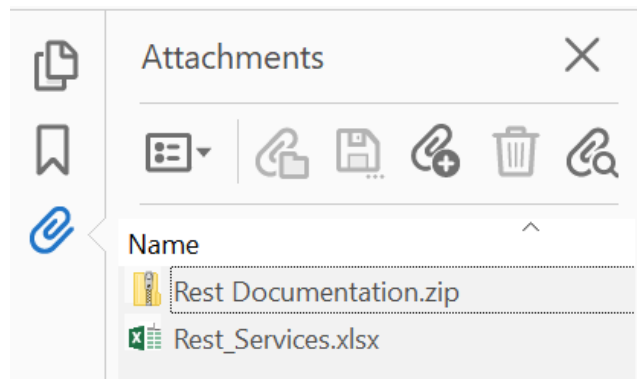
Rest
Documentation.zip

Perform the following steps to view the **Rest_Services.xlsx** and **Rest Documentaion.zip** attachments:

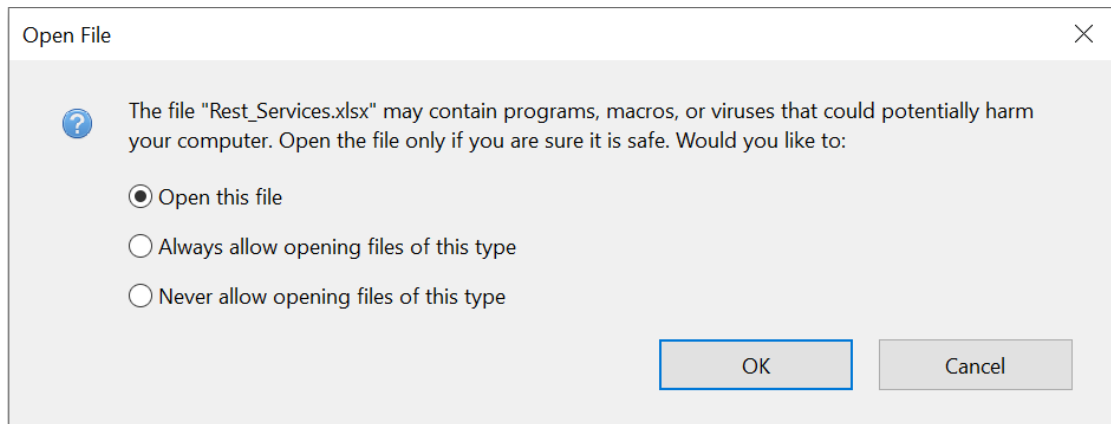
1. Download the **Rest API Services User Guide** to local drive or desktop.
2. Open the **Rest API Services User Guide** pdf.

Note: It is recommended to open the document in Adobe Acrobat Reader.

3. Click  icon on the left pane of the opened document.
 - Under the **Attachments** column, all attached files are displayed.



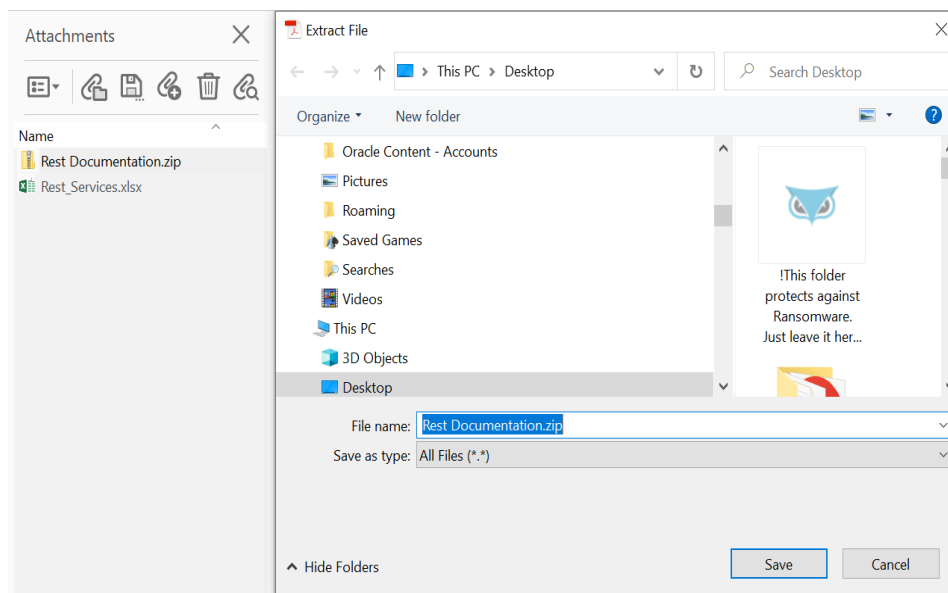
4. On the Attachments pane, right-click on the attachment, and click **Open Attachment** option.
 - The **Open File** window is displayed.



5. In the **Open File** window, select the **Open this file** option, and click **OK**.
 - The selected attachment is opened in a pre-defined file format such as Excel, Zip, etc.

Perform the following steps to download or save the **Rest_Services.xlsx** and **Rest Documentaion.zip** attachments:

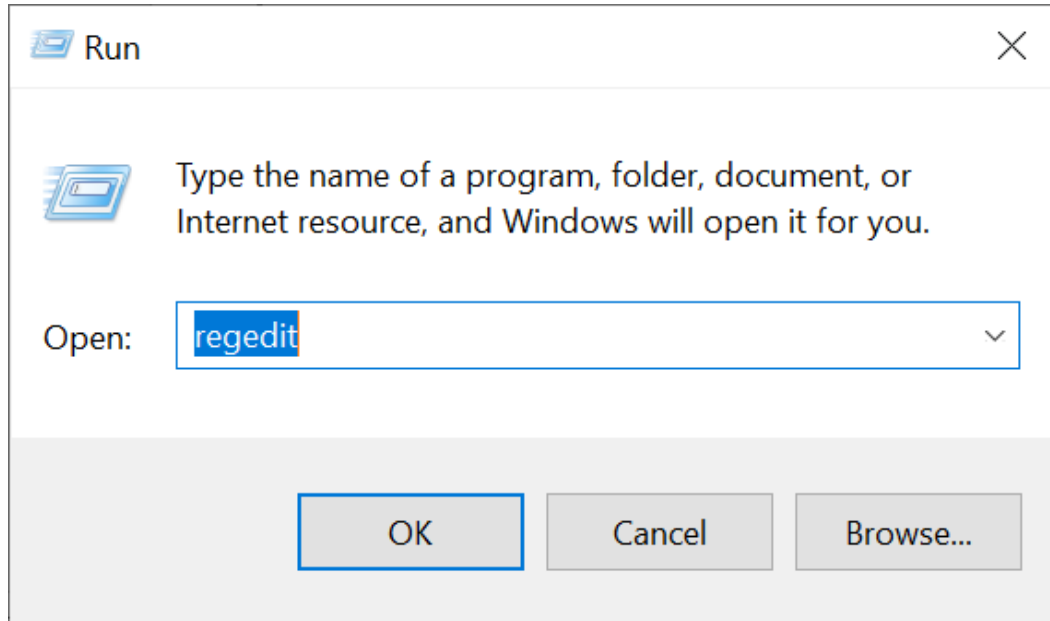
1. Under the **Attachments** column, right-click on the attachment to be saved and click the **Save Attachment** option.
 - **Extract File** window is displayed.
2. Select the destination folder and click **Save**.



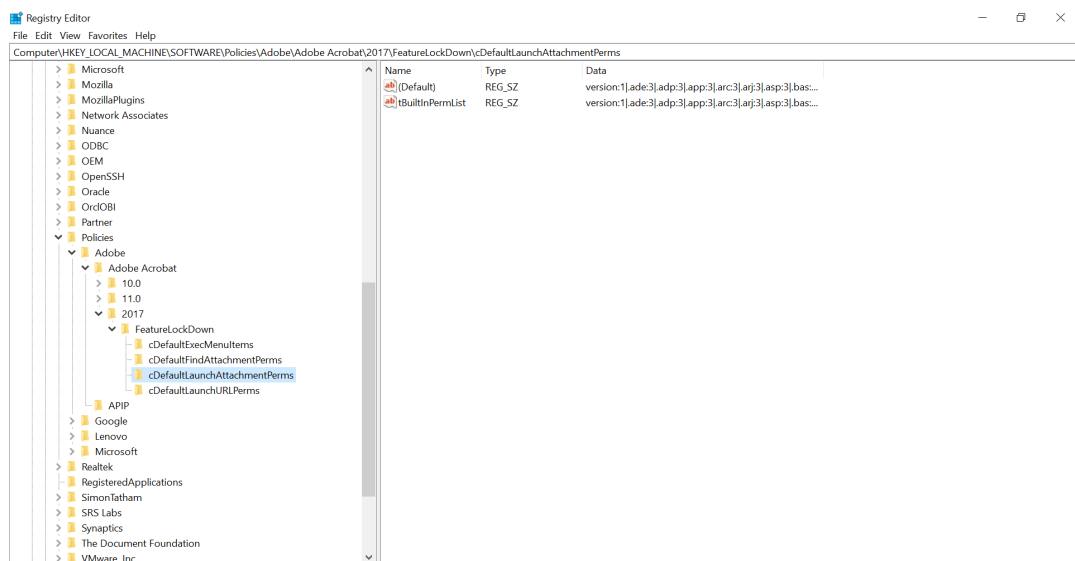
Troubleshooting Steps:

If you are unable to open the **Rest Documentaion.zip** attachment, refer to the following steps:

1. Open the **Run** application from the **Start** menu.
 - The **Run** pop-up window is displayed.
2. Type **regedit** into the **Open** box and click **OK**.



- The **User Account Control** window is displayed.
- 3. On **User Account Control** window, click **Yes** to allow the **Registry Editor** application to make changes to the device.
- The **Registry Editor** application is displayed.
- 4. Navigate to the following registry key:
HKEY_LOCAL_MACHINE\software\policies\adobe\AdobeAcrobat\DC\Feature LockDown\cDefaultLaunchAttachmentPerms



- 5. Double-click on **tBuiltInPermList**.
- The **Edit String** pop-up window is displayed.

Edit String [X]

Value name:

tBuiltInPermList

Value data:

t:3|search-ms:3|searchConnector-ms:3|vxd:3|website:3|zfsendtotarget:3

OK Cancel

6. In the **Value Data** field, locate the .zip file type extension and change the subsequent number to **1**.

version:1|.ade:3|.adp:3|.app:3|.arc:3|.arj:3|.asp:3|.bas:3|.bat:3|.bz:3|.bz2:3|.cab:3|.chm:3|.class:3|.cmd:3|.com:3|.command:3|.cpl:3|.crt:3|.csh:3|.desktop:3|.dll:3|.exe:3|.fxp:3|.gz:3|.hex:3|.hlp:3|.hqx:3|.hta:3|.inf:3|.ini:3|.ins:3|.isp:3|.its:3|.job:3|.js:3|.jse:3|.ksh:3|.lnk:3|.lzh:3|.mad:3|.maf:3|.mag:3|.mam:3|.maq:3|.mar:3|.mas:3|.mat:3|.mau:3|.mav:3|.maw:3|.mda:3|.mdb:3|.mde:3|.mdt:3|.mdw:3|.mdz:3|.msc:3|.msi:3|.msp:3|.mst:3|.ocx:3|.ops:3|.pcd:3|.pi:3|.pif:3|.prf:3|.prg:3|.pst:3|.rar:3|.reg:3|.scf:3|.scr:3|.sct:3|.sea:3|.shb:3|.shs:3|.sit:3|.tar:3|.taz:3|.tgz:3|.tmp:3|.url:3|.vb:3|.vbe:3|.vbs:3|.vsmacros:3|.vss:3|.vst:3|.vsw:3|.webloc:3|.ws:3|.wsc:3|.wsf:3|.wsh:3|.z:3|zip:1|.zlo:3|.zoo:3|.pdf:2|.fdf:2|.jar:3|.pkg:3|.tool:3|.term:3|.acm:3|.asa:3|.aspx:3|.ax:3|.ad:3|.application:3|.asx:3|.cer:3|.cfg:3|.chi:3|.class:3|.clb:3|.cnt:3|.cnv:3|.cpx:3|.crx:3|.der:3|.drv:3|.fon:3|.gadget:3|.grp:3|.htt:3|.ime:3|.jnlp:3|.local:3|.manifest:3|.mmc:3|.mof:3|.msh:3|.msh1:3|.msh2:3|.mshxml:3|.msh1xml:3|.msh2xml:3|.mui:3|.nls:3|.pl:3|.perl:3|.plg:3|.ps1:3|.ps2:3|.ps1xml:3|.ps2xml:3|.psc1:3|.psc2:3|.py:3|.pyc:3|.pyo:3|.pyd:3|.rb:3|.sys:3|.tlb:3|.tsp:3|.xbap:3|.xnk:3|.xpi:3|.air:3|.appref-ms:3|.desklink:3|.glk:3|.library-ms:3|.mapimail:3|.mydocs:3|.sct:3|.search-ms:3|.searchConnector-ms:3|.vxd:3|.website:3|.zfsendtotarget:3