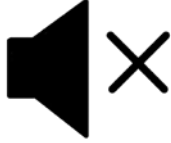


# IICS REST V2 Connector

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# Housekeeping Tips



- Today's Webinar is scheduled for **1 hour**
- The session will include a webcast and then your questions will be answered live at the end of the presentation
- All dial-in participants will be muted to enable the speakers to present without interruption
- Questions can be submitted to "All Panelists" via the **Q&A option** and we will respond at the end of the presentation
- The webinar is **being recorded** and will be available to view on our **INFASupport YouTube channel** and **Success Portal**. The link will be emailed as well.
- Please take time to complete the **post-webinar survey** and provide your feedback and suggestions for upcoming topics.

# Feature Rich Success Portal

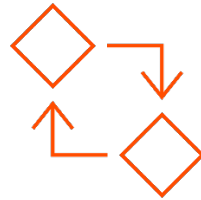
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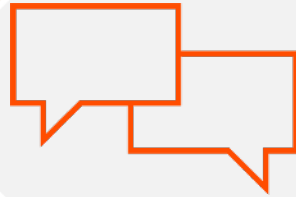
Tailored training and  
content  
recommendations

# More Information



## Success Portal

<https://success.informatica.com>



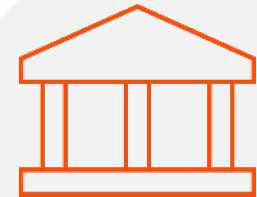
## Communities & Support

<https://network.informatica.com>



## Documentation

<https://docs.informatica.com>



## University

<https://www.informatica.com/in/services-and-training/informatica-university.html>

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# Agenda

- Introduction
- What is REST API?
- Deep Dive: IICS REST V2 Connector
- Connection Properties
- Authorization
- Swagger File Generation
- REST V2 Operations
- Demo – Retrieving IICS activity log entries using REST V2 connection
- Q&A

# What is a REST API?

An API (application program interface) is a set of rules that enables different programs to communicate with one another. It outlines the appropriate way for a software developer to compose a program on a server that communicates with various client applications.

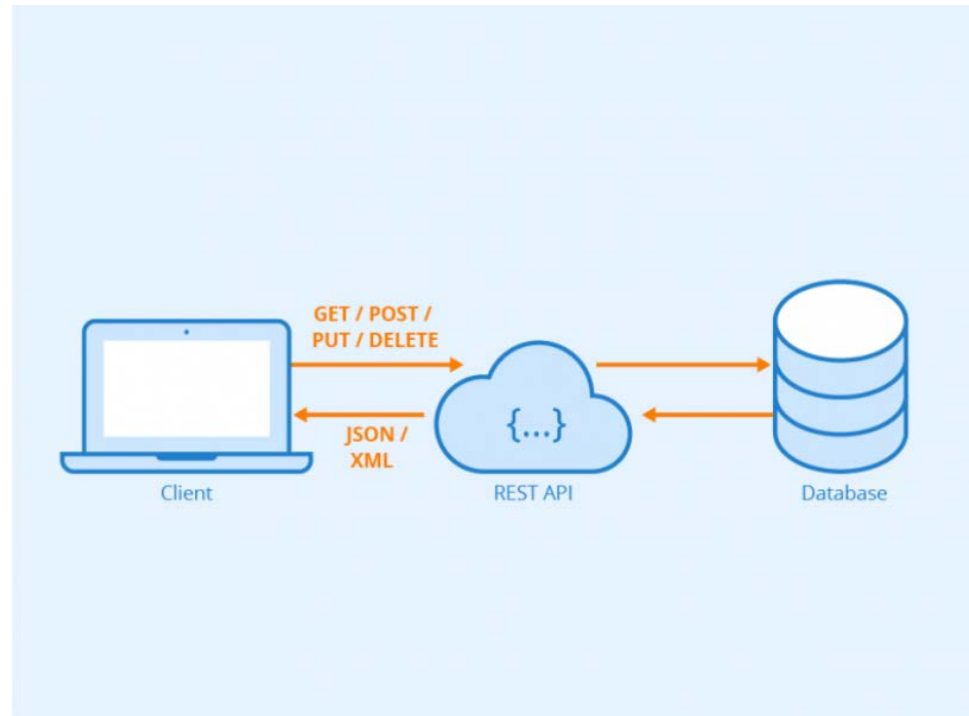
What is REST API?

REST stands for REpresentational State Transfer, meaning when a REST API is called, the server will *transfer a representation* of the requested resource's *state* to the client.

This representation of the state can be in a JSON, XML, or HTML format.

# Rest api Working

A RESTful web application exposes information about itself in the form of information about its resources. It also enables the client to take actions on those resources, such as create new resources (i.e. create a new user) or change existing resources (i.e. edit a post). For example, when a developer calls Instagram API to fetch a specific user (the resource), the API will return the state of that user, including the name, the number of posts that user posted on Instagram so far, how many followers they have, and more.





# REST API Methods

REST API breaks a transaction down to generate a sequence of small components. Every component addresses a specific fundamental aspect of the transaction. This modularity makes it a flexible development approach.

It uses the following requests:

- **GET** to fetch data
- **PUT** to alter the state of data (updating)
- **POST** to create data
- **DELETE** to delete data

# IICS REST V2 Connection

- One can use REST V2 Connector in IICS to interact with web service applications that support REST API.
- You can use REST V2 Connector in a Source transformation, Target transformation, or midstream in a Web Services transformation in IICS mapping.
- You can use the following REST methods in source, target, and midstream transformation: GET, PUT, POST, DELETE, OPTIONS, HEAD
- You can configure TLS authentication to establish one-way or two-way secure communication with the REST API. To do you will have to configure jvm options for trust store/key store properties.
- When you create a connection, it is mandatory specify the swagger specification file and the authentication method if required.
- REST V2 Connector supports swagger specification version 2.0.

# REST V2 connection properties

- You create a REST V2 connection on the Connections page in Administrator console.
- Choose the runtime environment , Authentication Type that the webservice endpoint supports, Auth/Oauth configuration properties, Swagger file path, Trust store/KeyStore properties, proxy configurations and advanced fields section
- Advanced field includes properties such as Connection Timeout, connection delaytime, retry attempts, qualified Schema.
- If your REST endpoint does not have a swagger specification, you can generate the swagger specification file from Administrator

# A successful REST V2 connection in IICS

aks\_restv2

✓ The test for this connection was successful.

### Connection Details

Connection Name:	aks_restv2
Description:	
Type:	REST V2 (Informatica Cloud)
Created On:	Sep 17, 2020 1:41:55 AM
Updated On:	Sep 17, 2020 1:41:55 AM
Created By:	akshaya
Updated By:	akshaya

### REST V2 Connection Properties ?

Runtime Environment:	aks_local_agent
Authentication:	Standard

### Standard Connection Properties ?

Authentication Type:	NONE
Auth User ID:	
Auth Password:	
OAuth Consumer Key:	
OAuth Consumer Secret:	
OAuth Token:	
OAuth Token Secret:	
Swagger File Path:	C:\flatfile\activity.json
TrustStore File Path:	
TrustStore Password:	
KeyStore File Path:	
KeyStore Password:	*****
Proxy Type:	Platform Proxy
Proxy Configuration:	<host>:<port>
Advanced Fields:	

# Authorization and media types supported

- Supported authentication types:

- 1) Standard

- BASIC

- DIGEST

- OAuth 1.0

- 2) OAuth 2.0 client credentials

- 3) OAuth 2.0 authorization code

- 4) JWT bearer token

- Supported media types

application/xml, application/json, application/x-www-form-urlencoded, JSON subtype, JSON custom type, Extended JSON mime type, text/xml

# Swagger file

- Swagger is a specification for documenting REST API. It specifies the format (URL, method, and representation) to describe REST web services.
- A Swagger file is JSON format file.
- It is mandatory to have Swagger file to configure IICS RestV2 connection to integrate with any REST API.
- Swagger file describes the HTTP method, parameters required and the expected response fields for that API.
- It is similar to WSDL file in SOAP based Webservices.

# Swagger file generation

- Login to IICS Org > Administrator Section > Swagger files > New.
- Swagger Generation page will appear.
- Fill in the details according to the type of REST call and other parameters for the REST API CALL such as API paths, authentication details, header parameters, response json file and click OK.
- Typically we have 4 operations in REST, GET, POST,PUT or DELETE.
- An entry for the file will be created in the Swagger page.
- Click download to save the Swagger file to a local directory in Secure Agent machine.

# Swagger file

aks\_activity\_swager

Create a swagger file.

## Swagger File Details

Name:	aks_activity_swager
Description:	
Runtime Environment:	aks_local_agent
URL:	https://na1.dm-us.informaticacloud.com
Verb:	GET
Authentication Type:	None
API Base Path:	/saas/api/v2
API Path:	/activity/activityLog
Username:	
Password:	
Token:	
Token Secret:	
Consumer Key:	
Consumer Secret:	
Accept:	application/json
Headers:	{"icSessionId": " "}
Query Params:	{"offset": "2", "rowLimit": "1"}
Operation Id:	activity
Content Type:	application/json
Raw Body:	



# REST V2 Operations

- One can create a mapping in the Mapping Designer to read or write data to the web service application.
- Use REST V2 connection in mappings, DSS doesn't support this connection.
- REST V2 as source/ target/midstream
- You can use REST V2 Connector to perform paging in Source and Midstream transformations.

# REST V2 as source

- When you create a Source transformation, configure an XML request message for the operation that you want to perform in the web service application.
- Use the Request Message Editor to create a request message.
- Select the elements in the response structure that you want to include as output fields. The Secure Agent converts the XML response in the hierarchical structure to relational groups at run time.
- Use case: For example, make a GET call to webservice endpoint and return the response of the user details.

# REST V2 as midstream

- When you use REST V2 Connector midstream in a mapping, you first create a business service for the operation that you want to perform in the web service application.
- You then associate the business service in a Web Services transformation midstream in a mapping to read from or write data to the web service application.
- Use case: You can use REST v2 in midstream when you want to make a GET/POST/PUT request to the webservice endpoint. This is the most widely used approach.
- For example, you can use REST V2 Connector as a midstream transformation to make a GET call to the web service/ POST call to web service.

# REST V2 as target

- Create a Target transformation in the Mapping Designer to write data to a web service application
- When you select a REST V2 connection for a Target transformation, you can select an operation.
- You can add multiple input groups into the REST target and define the primary and foreign key relationships between the multiple input groups before the mapping.
- Use case: For example when you want to make a UPDATE call to update the details of user resource

# REST V2 pagination

## ▼ Advanced

Paging Type:	<input type="text" value="Page"/>
Page Parameter:	<input type="text" value="offset"/>
Start Page:	<input type="text" value="1"/>
End Page:	<input type="text" value="100"/>
Page Increment Factor:	<input type="text" value="10"/>
End Of Response Expression:	<input type="text"/>
Override URL:	<input type="text"/>
Tracing Level:	<input type="text" value="Normal"/>
Cache Size for Web	<input type="text" value="1004"/>

- REST V2 connector supports paging for parsing the response from the web service endpoint in IICS.
- You would need to specify "Page" under Paging Type property present under Advanced Properties of the ReST V2 connection.
- This property enables paging support for ReST V2 connector and considers the values of *Page Parameter*, *Start Page*, *End Page* and *End of Response Expression* properties.

# IICS REST V2 connector DEMO

- I will be showing you a demo on how you can make use of REST V2 connector to fetch activity log entries using IICS REST API

# REST V2 Debugging options

- To capture the REST API Request/Response in the session log of the task, enable log level debug property at the agent level:

## Custom Configuration Details

Service	Type	Sub-type	Name	Value
Data Integration Server	DTM		LOGLEVEL	DEBUG

# Best Practices

- You can configure the Cache Size for Web Service Request /Response.
- If you want to process special characters, set infa\_codepageproperty to UTF-8 at the agent level.
- It is recommended to try out the REST API request/response outside IICS using any REST clients like Postman/ Advanced REST client before creating the REST V2 connection in IICS.
- For more information on the supported objects please have a check on the Rest v2 connector guide.



# References

- IICS REST V2 connector guide

<https://docs.informatica.com/integration-cloud/cloud-data-integration-connectors/current-version/rest-v2-connector>

- Informatica Knowledge Base: <https://search.informatica.com>

# Q & A



Thank You