

10. Replication Web API

REST API

The REST API provides programmatic access to Reading and Write replication data. The REST API identifies the replication application and its users using OAUTH ; responses are available in json. We have used SWAGGER editor for the end users to make the API calls so that they can try out APIs exposed by our platform.

The link for accessing the API docs is <http://localhost:8080/webapi/api-docs/repl-v4/ReplicationAPIDriver>

Checklist Before Getting Started

1. User should have the release of 4.6.1 or later.
2. The on-premise instance should have Replication service running.

There is two API Methods list which is exposed for this release, we will be adding more methods in the upcoming releases. The order of the execution of API calls are as follows

1. Replicate
2. checkStatus

/replicate

The Replicate method is the actual API call used to invoke the replication process so that the Salesforce objects gets replicated to the Database. From this call, the process id is generated which is used in the checkStatus method to check the status of the replication process.

The below tables explains the various model schema and attributes which form the model class

Replication params

Parameter	Description	DataType
Salesforce (optional)	The salesforce credentials which are required to connect to the Salesforce instance	Salesforce
Database (optional)	The database credentials which are required to connect to supported databases	Database
Objects (optional)	The salesforce object which a client to replicate	Array Table
Logs (optional)	The parameters related to Log settings and specific to DBSync	Log properties
Run (optional)	The parameters related to run settings and specific to DBSync	Run properties

Salesforce Params

Parameter	Description	DataType
SoapEndpoint (optional)	The URL to access the Salesforce application	string
bulkApiEnable (optional)	The possible values are True and false which enables and disables the bulkapi calls	boolean
callbackurl (optional)	The DBSync call back URL	string
consumerkey (optional)	Its a consumersecretkey generated from salesforce oauth	string
ConsumerSecret (optional)	It's a consumerSecret generated from the salesforce oauth	string
password (optional)	The password of the Salesforce instance	string
username (optional)	The username of the Salesforce instance from which the user wishes to retrieve information for replication	string

Database Params

Parameter	Description	DataType
filereplication (optional)	The possible values are true and false to enable and disable the file replication	boolean

s3 (optional)	The possible values are true and false, true if hosted on aws	boolean
awsaccesskey (optional)	awsaccess key if db is hosted on aws, can be retrieved from the aws instance	string
awsBucketName (optional)	awsBucketName if db is hosted on aws, can be retrieved from the aws instance	string
awsRegion (optional)	awsRegion if db is hosted on aws, can be retrieved from the aws instance	string
consumerSecret (optional)	ConsumerSecret if db is hosted on aws, can be retrieved from the aws instance	string
database (optional)	Name of the database Eg: Sqlserver/Oracle/Mysql	string
host (optional)	The location of the database for instance localhost	string
password (optional)	the password of the database if any	string
port (optional)	port number the database instance which uses	string
schema (optional)	The name of the database	string
type (optional)	Specify the database that is being used Eg: Oracle	string
URL (optional)	The URL of the database which is generated by the replication in the connection string	string
username (optional)	The username of the database	string

Table Params

Parameter	Description	DataType
excludes (optional)	If the user wishes to remove any of the fields from the selected object in salesforce then he can use this parameter	Array[string]
filter (optional)	The filter parameter is used to specify the condition to read data from Salesforce	string
name (optional)	Name of the object that needs to be retrieved from the salesforce	string

Log Properties params

Parameter	Description	DataType
emailerror (optional)	The possible values are true and false to enable them and disable the email notification from DBSync replication tool	boolean
database (optional)	The possible values are true and false to enable them and disable the email notification of database from DBSync replication tool	boolean
dir (optional)	The directory name if the database if flat file database	string
emailreceipents (optional)	The email id of the recipient to who the system is intended to send out the logs / notifications	Array[string]
emailsender (optional)	The email id of the sender can be also be passed to identify the from address	string
callbackURL (optional)	The DBSync URL which sends the email notifications	string

Run Properties Params

Parameter	Description	DataType
command (optional)	The commands which are internal to DBSync replication like Cleancopy, DBtoSF, SFtoDB,db_setup	string
Profile (optional)	The profile name which user used in DBSync replication tool	string

Below table gives the attribute list of the response class

Parameter	Description	Data type
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Status	<i>The possible values are True and False which sends out the response value</i>	<i>String</i>
SubmitTime	<i>The API submitted time</i>	<i>Date</i>
CompletionTime	<i>The API Completion Time</i>	<i>Date</i>
ProcessID	<i>The process id which is sent by the API to identify the process</i>	<i>String</i>
callbackURL	<i>The URL is passed from the API</i>	<i>string</i>

Example

Curl

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' -d
'{"salesforce":{"soapEndpoint":"https://login.salesforce.com/services/Soap/u/32.0","bulkApiEnable":false,"c
allbackUrl":"https://localhost:8443/DBSync/oauth/_callback","consumerKey":"","consumerSecret":"3Q/190VEz3Bn
Iu6bMGO2sg\\\\\\\\=\\\\\\\\","password":"avankia!23","username":"ravindra.g@avankia.com"},"database":{"fileReplica
tion":false,"fileVersion":false,"s3":false,"awsAccessKey":"","awsBucketName":"","awsRegion":"","consumerSec
ret":"","database":"ORCL","filepath":"","host":"10.0.0.9","password":"Avankial","port":"1521","schema":"dbs
ync","type":"Oracle","url":"jdbc:oracle:thin:@10.0.0.9:1521:ORCL","username":"HR"},"objects":[{"excludes":[
],"filter":"","name":"Account"}],"log":{"emailError":false,"database":true,"dir":"","emailRecipients":["rav
indra.g@avankia.com"],"emailSender":"ravindra.g@avankia.com","callbackURL":"http://posttestserver.com/post.
php"},"run":{"command":"cleancopy","profile":""}}}'
'http://localhost:8080/webapi/appcode/repl-v4/ReplicationAPIDriver/replicate'
```

Request URL

http://localhost:8080/webapi/appcode/repl-v4/ReplicationAPIDriver/replicate

Response Body

```
{
  "value": [
    {
      "status": "submitted",
      "submitTime": "2016-04-21T19:31:37Z",
      "processId": "ravindra.g@avankia.com-1461267097548/cleancopy",
      "callbackURL": "http://posttestserver.com/post.php"
    }
  ]
}
```

Response Code

h6. 200

Response Headers

```
{
  "date": "Thu, 21 Apr 2016 19:31:37 GMT",
  "server": "Apache-Coyote/1.1",
  "content-length": "182",
  "content-type": "application/json"
}
```

/checkStatus

The Check status method is used to return the status of the replication process and to invoke this method user must have the process id attribute . The process id can be generated from the first method "Replicate", the check status method has two parts to it one is the request object and the other is the response object.

The below table explains the attributes and their description of this method. The process ID is the mandatory attribute used to invoke this call.

Parameter	Description	Data type
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<i>Status</i>	<i>The possible values are True and False which sends out the response value</i>	<i>String</i>
<i>SubmitTime</i>	<i>The API submitted time</i>	<i>Date</i>
<i>CompletionTime</i>	<i>The API Completion Time</i>	<i>Date</i>
<i>ProcessID</i>	<i>The process id which is sent by the API to identify the process</i>	<i>String</i>
<i>callbackURL</i>	<i>The URL is passed from the API</i>	<i>string</i>

Example

Curl

```
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' -d
'{"processId": "ravindra.g@avankia.com-1461267097548/cleancopy"}'
'http://localhost:8080/webapi/appcode/repl-v4/ReplicationAPIDriver/checkStatus'
```

Request URL

http://localhost:8080/webapi/appcode/repl-v4/ReplicationAPIDriver/checkStatus

Response Body

```
{
  "value": [
    {
      "status": "completed",
      "submitTime": "2016-04-21T19:31:37Z",
      "completionTime": "2016-04-21T19:31:38Z",
      "processId": "ravindra.g@avankia.com-1461267097548/cleancopy",
      "callbackURL": "http://posttestserver.com/post.php",
      "errorMessage": [
        null
      ]
    }
  ]
}
```

Response Code

200

Response Headers

```
{
  "date": "Thu, 21 Apr 2016 19:34:36 GMT",
  "server": "Apache-Coyote/1.1",
  "content-length": "244",
  "content-type": "application/json"
}
```