

Building Blocks REST API

API	API allows to select a specific Application Programming interface, which is available in SNOW	Ex TableAPI,AggregateAPI
Namespace	REST APIs provided by ServiceNow has now namespace	Scripted REST may use a different one
Method	REST enables the use of few methods like GET,POST,DELETE,PATCH	Not all the APIs available from ServiceNow would have all the methods available
Request Header	Allows to specify a header for the Integration	Can add Custom header as per requirement
Query parameter	Allows to specify an encoded query for the REST Call	Can add more query parameters or even a sys_id for some methods

You can prepare the sample request using the REST API Explorer in ServiceNow. ServiceNow REST URI looks like this <LINKFORSNOW>/api/now/apiname/. For ex : if we are using a table API for POST then the link look something like below : POST <LINKOFServiceNow>/api/now/table/tablename

REST API Rate Limit

To prevent excessive inbound REST API requests, set rules that limit the number of inbound REST API requests processed per hour.

There is an option to create Rate Limit for users with specific roles, or for all users.

The table for creating rate limit is **sys_rate_limit_rules**.

In the basic Response Header, the Rate limit would be specified for ex : x-RateLimit-Limit -->10

REST API Headers

Accept	application/json, application/xml
Content-Type	pplication/json, application/xml

By design, POST, PUT, PATCH, and DELETE operations required to provide both headers.

GET operations require only the Accept header.

There is an option override the HTTP method, such as GET or POST, by setting the X-http-method-override header.

REST API Response Codes

200	Success	Success with Response Body
201	Created	Success with Response Body
204	Success	Success with Response Body

REST API Response Codes (cont)

400	Bad Request	The Request URI can't match the API.	Invalid headers, or API incorrect
401	Unauthorized	The User is not authorized to use API	
403	Forbidden	The Operation requested is not permitted for the user	ACL constraint on table, Business Rule or data policies
404	Not Found	The requested resource is not found	ACL constraint or resource not available
405	Method not allowed	The HTTP action is not allowed or not supported by the API	
406	Not acceptable	The endpoint doesn't support the response format	Response format in the Request Accept Header
415	Unsupported media type	The endpoint does not support the format of the request body.	

RESTMessageV2

execute()	Sends the REST message to Endpoint
executeAsync()	Sends the REST message asynchronously, that means the instance doesn't wait for a response from provider
getEndpoint()	Get the URL of the endpoint for the REST message.
getRequestBody()	Get the content of the REST message body.
getRequestHeader(<header-name>)*	Get the value for an HTTP header specified in the REST message.
getRequestHeaders()	Get HTTP headers that were set by the REST client and the associated values.

RESTMessageV2 (cont)

<code>saveResponseBodyAsAttachment(tblname,recordid,filename)**</code>	Configures the REST message to save the returned response body as an attachment record.
<code>saveResponseBodyAsAttachment(tblname,recordid,filename,encryptcontext) *</code>	Configure the REST message to save the returned response body as an encrypted attachment record.
<code>setAuthenticationProfile(type,profileid) *</code>	Set the credentials for the REST message using an existing basic auth or OAuth 2.0 profile.
<code>setBasicAuth(username,password)</code>	Sets basic authentication headers for the REST message.
<code>setEccCorrelator(correlator)</code>	Associate outbound requests and the resulting response record in the ECC queue. This method only applies to REST messages sent through a MID Server.
<code>setEccParameter(name,value)</code>	Override a value from the database by writing to the REST message payload. This method only applies to REST messages sent through a MID Server.
<code>setEndpoint(endpoint)</code>	Set the endpoint for the REST message.
<code>setHttpMethod(method)</code>	The HTTP method this REST message performs, such as GET or PUT.
<code>setHttpTimeout(millisecods)</code>	Set the amount of time the REST message waits for a response from the web service provider before the request times out.
<code>setLogLevel(level)</code>	Set the log level for this message and the corresponding response. Valid values for level are basic, elevated, and all.

RESTMessageV2 (cont)

<code>setMIDServer(midserver)</code>	The name of the MID Server to use. Your instance must have an active MID Server with the specified name.
<code>setMutualAuth(profilename)</code>	Set the mutual authentication protocol profile for the REST message.
<code>setQueryParameter(name, value)</code>	Append a parameter to the end of the request URL with the form name=value.
<code>setRequestBody(body)</code>	Set the body content to send to the web service provider when using PUT or POST HTTP methods.
<code>setRequestBodyFromAttachment(attachmentsysid)</code>	Sets the request body using an existing attachment record.
<code>setRequestHeader(name,value);</code>	Set an HTTP header in the REST message to the specified value.
<code>setRequestorProfile(requestorcontext,requestorid)</code>	Override the default requestor profile for the REST message in order to retrieve an OAuth access token associated with a different requestor.
<code>setStringParameter(name,value)</code>	Set a REST message function variable with the specified name from the REST message record to the specified value.
<code>setStringParameterNoEscape(name,value)</code>	XML reserved characters in the value are converted to the equivalent escaped characters.
<code>waitForResponse(seconds)</code>	In seconds. Wait at most 60 seconds to get response from ECC Queue/Mid Server.

*By design, this method cannot return the value for a header set automatically by the system. To grant this method access to all headers, set the property glide.http.log_debug to true.

**the input parameters for this functions are string, and recordId is the sysid of the record

*encryptcontext should specify the sysid of the encryption context



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