

## Apache Ranger Public REST APIs

**Date of Publish:** 2019-12-17



# Contents

<b>Apache Ranger Public REST APIs.....</b>	<b>3</b>
--	----------

<b>Service Definition APIs.....</b>	<b>3</b>
-------------------------------------	----------

Get Service Definition by ID.....	3
Get Service Definition by Name.....	5
Create Service Definition.....	7
Update Service Definition by ID.....	9
Update Service Definition by Name.....	11
Delete Service Definition by ID.....	11
Delete Service Definition by Name.....	11
Search Service Definitions.....	11

<b>Service APIs.....</b>	<b>13</b>
--------------------------	-----------

Get Service by ID.....	13
Get Service by Name.....	13
Create Service.....	14
Update Service by ID.....	15
Update Service by Name.....	15
Delete Service by ID.....	16
Delete Service by Name.....	16
Search Services.....	17

<b>Policy APIs.....</b>	<b>19</b>
-------------------------	-----------

Get Policy by ID.....	19
Get Policy by Service Name and Policy Name.....	21
Create Policy.....	23
Update Policy by ID.....	25
Update Policy by Service Name and Policy Name.....	27
Delete Policy by ID.....	29
Delete Policy by Service Name and Policy Name.....	29
Search Policies in a Service.....	29

## Apache Ranger Public REST APIs

Reference for the Apache Ranger REST APIs.

### Service Definition APIs

Reference for the Apache Ranger REST Service Definition APIs.

#### Get Service Definition by ID

Reference information for the Ranger REST API `service/public/v2/api/servicedef/{id}`.

API Name	Get Service Definition
Request Type	GET
Request URL	<code>service/public/v2/api/servicedef/{id}</code>

API Name	Get Service Definition
Request Params	
Response	<pre> {   "accessTypes": [     {       "impliedGrants": [],       "itemId": 1,       "label": "Read",       "name": "read"     },     {       "impliedGrants": [],       "itemId": 2,       "label": "Write",       "name": "write"     },     {       "impliedGrants": [],       "itemId": 3,       "label": "Execute",       "name": "execute"     }   ],   "configs": [     {       "itemId": 1,       "label": "Username",       "mandatory": true,       "name": "username",       "subType": "",       "type": "string",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     },     {       "itemId": 2,       "label": "Password",       "mandatory": true,       "name": "password",       "subType": "",       "type": "password",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     },     {       "itemId": 3,       "label": "Namenode URL",       "mandatory": true,       "name": "fs.default.name",       "subType": "",       "type": "string",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     },     {       "defaultValue": "false",       "itemId": 4,       "label": "Authorization Enabled",       "mandatory": true,       "name": "hadoop.security.authorization",       "subType": </pre>
4	

## Get Service Definition by Name

Reference information for the Ranger REST API service/public/v2/api/servicedef/name/{name}.

API Name	Get Service Definition
Request Type	GET
Request URL	service/public/v2/api/servicedef/name/{name}

API Name	Get Service Definition
Request Params	
Response	<pre> {   "accessTypes": [     {       "impliedGrants": [],       "itemId": 1,       "label": "select",       "name": "select"     },     {       "impliedGrants": [],       "itemId": 2,       "label": "update",       "name": "update"     },     {       "impliedGrants": [],       "itemId": 3,       "label": "Create",       "name": "create"     },     {       "impliedGrants": [],       "itemId": 4,       "label": "Drop",       "name": "drop"     },     {       "impliedGrants": [],       "itemId": 5,       "label": "Alter",       "name": "alter"     },     {       "impliedGrants": [],       "itemId": 6,       "label": "Index",       "name": "index"     },     {       "impliedGrants": [],       "itemId": 7,       "label": "Lock",       "name": "lock"     },     {       "impliedGrants": [         "select",         "update",         "create",         "drop",         "alter",         "index",         "lock"       ],       "itemId": 8,       "label": "All",       "name": "all"     }   ],   "configs": [     {       "itemId": 1,       "label": "Username",       "mandatory": true,       "name": "username", </pre>
6	

## Create Service Definition

Reference information for the Ranger REST API service/public/v2/api/service/def.

<b>API Name</b>	<b>Create Service Definition</b>
Request Type	Post

API Name	Create Service Definition
Request URL	service/public/v2/api/servicedef
Request Params	<pre> {   "accessTypes": [     {       "impliedGrants": [],       "itemId": 1,       "label": "select",       "name": "select"     },     {       "impliedGrants": [],       "itemId": 2,       "label": "update",       "name": "update"     },     {       "impliedGrants": [],       "itemId": 3,       "label": "Create",       "name": "create"     },     {       "impliedGrants": [],       "itemId": 4,       "label": "Drop",       "name": "drop"     },     {       "impliedGrants": [         "select",         "update",         "create",         "drop"       ],       "itemId": 5,       "label": "All",       "name": "all"     }   ],   "configs": [     {       "itemId": 1,       "label": "Username",       "mandatory": true,       "name": "username",       "type": "string",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     },     {       "itemId": 2,       "label": "Password",       "mandatory": true,       "name": "password",       "type": "password",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     }   ],   "contextEnrichers": [],   "description": "Test Component",   "enums": [],   "implClass": "org.apache.ranger.services.test.RangerService" </pre>
<b>8</b>	



## Update Service Definition by ID

Reference information for the Ranger REST API service/public/v2/api/servicedef/{id}.

<b>API Name</b>	<b>Update Service Definition</b>
Request Type	PUT

API Name	Update Service Definition
Request URL	service/public/v2/api/servicedef/{id}
Request Params	<pre> {   "accessTypes": [     {       "impliedGrants": [],       "itemId": 1,       "label": "select",       "name": "select"     },     {       "impliedGrants": [],       "itemId": 2,       "label": "update",       "name": "update"     },     {       "impliedGrants": [],       "itemId": 3,       "label": "Create",       "name": "create"     },     {       "impliedGrants": [],       "itemId": 4,       "label": "Drop",       "name": "drop"     },     {       "impliedGrants": [],       "itemId": 5,       "label": "Index",       "name": "index"     },     {       "impliedGrants": [         "select",         "update",         "create",         "drop",         "index"       ],       "itemId": 6,       "label": "All",       "name": "all"     }   ],   "configs": [     {       "itemId": 1,       "label": "Username",       "mandatory": true,       "name": "username",       "type": "string",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     },     {       "itemId": 2,       "label": "Password",       "mandatory": true,       "name": "password",       "type": "password",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     }   ] } </pre>
10	

## Update Service Definition by Name

Reference information for the Ranger REST API service/public/v2/api/servicedef/{name}.

API Name	Update Service Definition
Request Type	PUT
Request URL	service/public/v2/api/servicedef/{name}
Request Params	Application/json • Example:
Response	200-Application/json

## Delete Service Definition by ID

Reference information for the Ranger REST API service/public/v2/api/servicedef/{id}.

API Name	Delete Service Definition
Request Type	DELETE
Request URL	service/public/v2/api/servicedef/{id}
Request Param	
Response	204-No Content

## Delete Service Definition by Name

Reference information for the Ranger REST API service/public/v2/api/servicedef/name/{name}.

API Name	Delete Service Definition
Request Type	DELETE
Request URL	service/public/v2/api/servicedef/name/{name}
Request Param	
Response	204-No Content

## Search Service Definitions

Reference information for the Ranger REST API service/public/v2/api/servicedef.

API Name	Search Service Definitions
Request Type	GET
Request URL	service/public/v2/api/servicedef

API Name	Search Service Definitions
Request Params	<p>Query Params</p> <p>pageSize int The page size required</p> <p>startIndex int The start record index</p> <p>serviceType string The service definition names("hdfs","hive","hbase","knox","storm","solr","kafka","yarn")</p> <p>isEnabled boolean The enabled status : true if enabled; false otherwise</p> <p>Example :</p> <p>pageSize=25&amp;startIndex=0</p>
Response	<pre>[   {     "accessTypes": [       {         "impliedGrants": [],         "itemId": 1,         "label": "Read",         "name": "read"       },       {         "impliedGrants": [],         "itemId": 2,         "label": "Write",         "name": "write"       },       {         "impliedGrants": [],         "itemId": 3,         "label": "Execute",         "name": "execute"       }     ],     "configs": [       {         "itemId": 1,         "label": "Username",         "mandatory": true,         "name": "username",         "subType": "",         "type": "string",         "uiHint": "",         "validationMessage": "",         "validationRegExp": ""       },       ...       {         "description": "Sub Resource for Test Component",         "excludesSupported": true,         "itemId": 2,         "label": "Test sub resource",         "level": 20,         "lookupSupported": true,         "mandatory": true,         "matcher": "org.apache.ranger.plugin.resourcematcher.RangerResourceMatcher",         "matcherOptions": {           "ignoreCase": true,           "wildCard": true         }       }     ]   } ]</pre>
12	<pre>       "wildCard": true     }   } ]</pre>

## Service APIs

Reference for the Apache Ranger REST Service APIs.

### Get Service by ID

Reference information for the Ranger REST API `service/public/v2/api/service/{id}`.

API Name	Get Service
Request Type	GET
Request URL	<code>service/public/v2/api/service/{id}</code>
Request Params	
Response	<pre>{   "configs": {     "fs.default.name":       "hdfs://akulkarni-etp-real-       final-1.novalocal:8020",     "hadoop.security.auth_to_local":       "DEFAULT",     "hadoop.security.authentication":       "simple",     "hadoop.security.authorization":       "false",       "password": "*****",       "username": "hadoop"     },     "createTime": 1450757397000,     "createdBy": "amb_ranger_admin",     "description": "hdfs repo",     "guid":       "ec082eea-0c22-43b8-84e0-129422f689b9",     "id": 1,     "isEnabled": true,     "name": "cl1_hadoop",     "policyUpdateTime":       1450757398000,     "policyVersion": 2,     "tagVersion": 1,     "type": "hdfs",     "updateTime": 1450757398000,     "updatedBy": "amb_ranger_admin",     "version": 3   } }</pre>

### Get Service by Name

Reference information for the Ranger REST API `service/public/v2/api/service/name/{name}`.

API Name	Get Service
Request Type	GET

<b>API Name</b>	<b>Get Service</b>
Request URL	service/public/v2/api/service/name/{name}
Request Params	
Response	<pre>{   "configs": {     "jdbc.driverClassName":       "org.apache.hive.jdbc.HiveDriver",     "jdbc.url":       "jdbc:hive2://akulkarni-etp-real-       final-1.novalocal:10000",     "password": "*****",     "username": "hive"   },   "createTime": 1450757992000,   "createdBy": "amb_ranger_admin",   "description": "hive repo",   "guid": "2bca8f98-4859-43c3-   a8f4-d31a15f28793",   "id": 3,   "isEnabled": true,   "name": "c11_hive",   "policyUpdateTime":     1450757995000,   "policyVersion": 4,   "tagUpdateTime": 1450916660000,   "tagVersion": 74,   "type": "hive",   "updateTime": 1450757995000,   "updatedBy": "amb_ranger_admin",   "version": 78 }</pre>

## Create Service

Reference information for the Ranger REST API service/public/v2/api/service.

<b>API Name</b>	<b>Create Service</b>
Request Type	Post

API Name	Create Service
Request URL	service/public/v2/api/service
Request Params	<pre>{   "configs": {     "password": "*****",     "username": "hadoop"   },   "description": "test service",   "isEnabled": true,   "name": "cll_test",   "type": "test",   "version": 1 }</pre>
Response	<pre>{   "configs": {     "password": "*****",     "username": "hadoop"   },   "createTime": 1451348710255,   "createdBy": "Admin",   "description": "test service",   "guid": "e72cb64d-66d7-4632-b5ae-c6966cb52105",   "id": 6,   "isEnabled": true,   "name": "cll_test",   "tagVersion": 1,   "type": "test",   "updateTime": 1451348710256,   "updatedBy": "Admin",   "version": 1 }</pre>

## Update Service by ID

Reference information for the Ranger REST API `service/public/v2/api/service/{id}`.

API Name	Update Service
Request Type	PUT
Request URL	service/public/v2/api/service/{id}
Request Params	Application/json • Example:
Response	200-Application/json

## Update Service by Name

Reference information for the Ranger REST API `service/public/v2/api/service/name/{name}`.

API Name	Update Service
Request Type	PUT

API Name	Update Service
Request URL	service/public/v2/api/service/name/{name}
Request Params	<pre>{   "configs": {     "password": "*****",     "username": "admin"   },   "description": "test service",   "isEnabled": true,   "name": "cll_test",   "type": "test" }</pre>
Response	<pre>{   "configs": {     "password": "*****",     "username": "admin"   },   "createTime": 1451348710000,   "createdBy": "Admin",   "description": "test service",   "guid": "e72cb64d-66d7-4632- b5ae-c6966cb52105",   "id": 6,   "isEnabled": true,   "name": "cll_test",   "policyUpdateTime": 1451351474000,   "policyVersion": 3,   "tagVersion": 1,   "type": "test",   "updateTime": 1451352016713,   "updatedBy": "Admin",   "version": 5 }</pre>

## Delete Service by ID

Reference information for the Ranger REST API service/public/v2/api/service/{id}.

API Name	Delete Service
Request Type	DELETE
Request URL	service/public/v2/api/service/{id}
Request Param	
Response	204-No Content

## Delete Service by Name

Reference information for the Ranger REST API service/public/v2/api/service/name/{name}.

API Name	Delete Service
Request Type	DELETE



<b>API Name</b>	<b>Delete Service</b>
Request URL	service/public/v2/api/service/name/{name}
Request Param	
Response	204-No Content

## Search Services

Reference information for the Ranger REST API service/public/v2/api/service.

<b>API Name</b>	<b>Search Services</b>
Request Type	GET
Request URL	service/public/v2/api/service

API Name	Search Services
Request Params	<p>Query Parameters:</p> <p>pageSize int The page size required</p> <p>startIndex int The start record index</p> <p>serviceName string The service name</p> <p>serviceNamePartial string Partial service name</p> <p>serviceType string The service types (such as "hdfs", "hive", "hbase", "knox", "storm")</p> <p>isEnabled boolean The enabled status (true/false): true is enabled, false otherwise</p> <p>Example :</p> <p>pageSize=25&amp;startIndex=0</p>
Response	<pre>[   {     "configs": {       "fs.default.name":       "hdfs://akulkarni-etp-real-       final-1.novalocal:8020",       "hadoop.security.auth_to_local":       "DEFAULT",       "hadoop.security.authentication":       "simple",       "hadoop.security.authorization":       "false",       "password": "*****",       "username": "hadoop"     },     "createTime": 1450757397000,     "createdBy":     "amb_ranger_admin",     "description": "hdfs repo",     "guid":     "ec082eea-0c22-43b8-84e0-129422f689b9",     "id": 1,     "isEnabled": true,     "name": "cl1_hadoop",     "policyUpdateTime":     1450757398000,     "policyVersion": 2,     "tagVersion": 1,     "type": "hdfs",     "updateTime": 1450757398000,     "updatedBy":     "amb_ranger_admin",     "version": 3   },   {     "configs": {       "password": "*****",       "username": "yarn",       "yarn.url":       "http://akulkarni-etp-real-       final-1.novalocal:8088"     },     "createTime": 1450757747000,     "createdBy":     "amb_ranger_admin",     "description": "yarn repo",     "guid":     "080970a9-2216-4660-962e-2b48046bf87e",     "id": 2,</pre>
18	

## Policy APIs

Reference for the Apache Ranger REST Policy APIs.

### Get Policy by ID

Reference information for the Ranger REST API service/public/v2/api/policy/{id}.

API Name	Get Policy
Request Type	Get
Request URL	service/public/v2/api/policy/{id}

API Name	Get Policy
Request Params	
Response	<pre> {   "allowExceptions": [],   "createTime": 1450757397000,   "createdBy": "amb_ranger_admin",   "denyExceptions": [],   "denyPolicyItems": [],   "description": "Default Policy for Service: cl1_hadoop",   "guid": "4c2f7afb-23fa-45e9-9b41-29bdc7423b65",   "id": 1,   "isAuditEnabled": true,   "isEnabled": true,   "name": "cl1_hadoop-1-20151222040957",   "policyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "read"         },         {           "isAllowed": true,           "type": "write"         },         {           "isAllowed": true,           "type": "execute"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": [],       "users": [         "ambari-qa"       ]     }   ],   "resourceSignature": "6f95606340leda656fleae8870clafac",   "resources": {     "path": {       "isExcludes": false,       "isRecursive": true,       "values": [         "/*"       ]     }   },   "service": "cl1_hadoop",   "updateTime": 1450757398000,   "updatedBy": "amb_ranger_admin",   "version": 2 } </pre>

## Get Policy by Service Name and Policy Name

Reference information for the Ranger REST API `service/public/v2/api/service/{service-name}/policy/{policy-name}`.

API Name	Get Policy
Request Type	Get
Request URL	<code>service/public/v2/api/service/{service-name}/policy/{policy-name}</code>

API Name	Get Policy
Request Params	
Response	<pre> {   "allowExceptions": [],   "createTime": 1450757992000,   "createdBy": "amb_ranger_admin",   "denyExceptions": [],   "denyPolicyItems": [],   "description": "Default Policy for Service: cl1_hive",   "guid": "d6218120-1b66-43e6-9fef-9c917a8e9e25",   "id": 4,   "isAuditEnabled": true,   "isEnabled": true,   "name": "cl1_hive-2-20151222041952",   "policyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "select"         },         {           "isAllowed": true,           "type": "update"         },         {           "isAllowed": true,           "type": "create"         },         {           "isAllowed": true,           "type": "drop"         },         {           "isAllowed": true,           "type": "alter"         },         {           "isAllowed": true,           "type": "index"         },         {           "isAllowed": true,           "type": "lock"         },         {           "isAllowed": true,           "type": "all"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": [],       "users": [         "ambari-qa"       ]     }   ] }                 </pre>
22	

## Create Policy

Reference information for the Ranger REST API service/public/v2/api/policy.

<b>API name</b>	<b>Create Policy</b>
Request Type	POST

API name	Create Policy
Request URL	service/public/v2/api/policy
Request Params	<pre> {   "allowExceptions": [],   "denyExceptions": [],   "denyPolicyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "drop"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": [],       "users": [         "hadoop"       ]     }   ],   "description": "Policy for Service: cll_test",   "isAuditEnabled": true,   "isEnabled": true,   "name": "cll_test-1",   "policyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "select"         },         {           "isAllowed": true,           "type": "update"         },         {           "isAllowed": true,           "type": "create"         },         {           "isAllowed": true,           "type": "drop"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": ["public"],       "users": [         ]     }   ],   "resources": {     "root": {       "isExcludes": false,       "isRecursive": false,       "values": [         "abc"       ]     },     "sub": { </pre>
24	



## Update Policy by ID

Reference information for the Ranger REST API service/public/v2/api/policy/{id}.

API Name	update policy
Request Type	PUT

API Name	update policy
Request URL	service/public/v2/api/policy/{id}
Request Params	<pre> {   "id": 8,   "allowExceptions": [],   "denyExceptions": [],   "denyPolicyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "drop"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": [],       "users": [         "admin"       ]     }   ],   "description": "Policy for Service: cll_test",   "isAuditEnabled": true,   "isEnabled": true,   "name": "c1l_test-1",   "policyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "select"         },         {           "isAllowed": true,           "type": "update"         },         {           "isAllowed": true,           "type": "create"         },         {           "isAllowed": true,           "type": "drop"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": ["public"],       "users": [         ]     }   ],   "resources": {     "root": {       "isExcludes": false,       "isRecursive": false,       "values": [         "abc"       ]     }   }, </pre>
26	

## Update Policy by Service Name and Policy Name

Reference information for the Ranger REST API service/public/v2/api/service/{service-name}/policy/{policy-name}.

<b>API Name</b>	<b>update policy</b>
Request Type	PUT

API Name	update policy
Request URL	service/public/v2/api/service/{service-name}/policy/{policy-name}
Request Params	<pre> {   "allowExceptions": [],   "denyExceptions": [],   "denyPolicyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "drop"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": [],       "users": [         "hadoop",         "admin"       ]     }   ],   "description": "Policy for Service: cll_test",   "isAuditEnabled": true,   "isEnabled": true,   "name": "c11_test-1",   "policyItems": [     {       "accesses": [         {           "isAllowed": true,           "type": "select"         },         {           "isAllowed": true,           "type": "update"         },         {           "isAllowed": true,           "type": "create"         },         {           "isAllowed": true,           "type": "drop"         }       ],       "conditions": [],       "delegateAdmin": true,       "groups": ["public"],       "users": [         ]     }   ],   "resources": {     "root": {       "isExcludes": false,       "isRecursive": false,       "values": [         "abc"       ]     }   }, </pre>
28	

## Delete Policy by ID

Reference information for the Ranger REST API `service/public/v2/api/policy/{id}`.

<b>API Name</b>	<b>Delete Policy</b>
Request Type	DELETE
Request URL	<code>service/public/v2/api/policy/{id}</code>
Request Params	
Response	204 - No Content

## Delete Policy by Service Name and Policy Name

Reference information for the Ranger REST API `service/public/v2/api/policy`.

<b>API Name</b>	<b>Delete Policy</b>
Request Type	DELETE
Request URL	<code>service/public/v2/api/policy</code>
Request Params	Query Parameters: servicename string The name of service policyname string The name of policy Example: <code>servicename=service-name&amp;policyname=policy-name</code>
Response	204 - No Content

## Search Policies in a Service

Reference information for the Ranger REST API `service/public/v2/api/service/{service-name}/policy`.

<b>API Name</b>	<b>Search Policies in a Service</b>
<b>API Name</b>	<b>Search Policies in a Service</b>
Request Type	GET
Request URL	<code>service/public/v2/api/service/{service-name}/policy</code>

API Name	Search Policies in a Service
API Name	Search Policies in a Service
Request Params	<p>Query Parameters:</p> <p>pageSize int The page size required</p> <p>startIndex int The start record index</p> <p>policyName string The Exact Name of the policy</p> <p>policyNamePartial string The Partial Name of the policy</p> <p>policyId string The policy ID</p> <p>polResource string The policy resource value</p> <p>resource:resource-type string The policy resource value for given resource-type</p> <p>user string The user name</p> <p>group string The group name</p> <p>isRecursive boolean The isRecursive property ("true" or "false")</p> <p>isEnabled boolean The enable/disabled property ("true" or "false")</p> <p>Example =</p> <p>pageSize=25&amp;startIndex=0&amp;resource:database=finance</p>
Response	<pre>[   {     "allowExceptions": [],     "createTime": 1450757992000,     "createdBy":     "amb_ranger_admin",     "denyExceptions": [],     "denyPolicyItems": [],     "description": "Default     Policy for Service: cl1_hive",     "guid": "4a322a05-c17f-4d6c-     b291-94cae3e6c353",     "id": 3,     "isAuditEnabled": true,     "isEnabled": true,     "name":     "cl1_hive-1-20151222041951",     "policyItems": [       {         "accesses": [           {             "isAllowed":             true,             "type":             "select"           },           {             "isAllowed":             true,             "type":             "update"           },           {             "isAllowed":             true,             "type":             "create"           },           {             "isAllowed":             true,             "type":             "drop"           }         ]       }     ]   } ]</pre>
<b>30</b>	