

## Apache Ranger Public REST APIs

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## 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>
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## 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	<pre> {   "itemId": 1,   "label": "Username",   "mandatory": true,   "name": "username" } </pre>

## Create Service Definition

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

API Name	Create Service Definition
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": ""     }   ] }, </pre>
8	<pre> "contextEnrichers": [], "description": "Test Component", "enums": [], "implClass": </pre>
	"org.apache.ranger.services.test.RangerService"



## 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	<pre>       "type": "password",       "uiHint": "",       "validationMessage": "",       "validationRegEx": ""     }   ] } </pre>

## 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	<code>service/public/v2/api/servicedef/{name}</code>
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	<code>service/public/v2/api/servicedef/{id}</code>
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	<code>service/public/v2/api/servicedef/name/{name}</code>
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	<code>service/public/v2/api/servicedef</code>

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,</pre>
12	<pre>         "mandatory": true,         "matcher": "org.apache.ranger.plugin.resourcematcher.RangerResourceMatcher",         "matcherOptions": {</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": "c11_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}`.

<b>API Name</b>	<b>Get Service</b>
Request Type	GET
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": "cll_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
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}`.



<b>API Name</b>	<b>Delete Service</b>
Request Type	DELETE
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": &gt;false",       "password": "*****",       "username": "hadoop"     },     "createTime": 1450757397000,     "createdBy": "amb_ranger_admin",     "description": "hdfs repo",     "guid": "ec082eea-0c22-43b8-84e0-129422f689b9",     "id": 1,     "isEnabled": true,     "name": "cll_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", </pre>
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## 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: cll_hadoop",   "guid": "4c2f7afb-23fa-45e9-9b41-29bdc7423b65",   "id": 1,   "isAuditEnabled": true,   "isEnabled": true,   "name": "cll_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": "6f956063401eda656fleae8870clafac",   "resources": {     "path": {       "isExcludes": false,       "isRecursive": true,       "values": [         "/*"       ]     }   },   "service": "cll_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>
	<p>22</p> <pre> "users": [   "ambari-qa" ]                 </pre>

## 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>
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## Update Policy by ID

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

<b>API Name</b>	<b>update policy</b>
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	<pre>       "values": [         "abc"       ]     }   } } </pre>

## 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": { </pre>
28	<pre>       "isExcludes": false,       "isRecursive": false,       "values": [         "abc"       ]     }   ] } </pre>

## 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"           }         ]       }     ]   } ]</pre>
30	<pre>{   "isAllowed":   true,   "type":   "create" }</pre>