Apache Ranger Public REST APIs

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

API Name	Get Service Definition
Request Params	
Response	(see below)

```
{
    "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":
```

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	

```
{
    "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",
```

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	

```
{
    "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
```

Update Service Definition by ID

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

API Name	Update Service Definition
Request Type	PUT

API Name	Update Service Definition
Request URL	service/public/v2/api/servicedef/{id}
Request Params	

```
{
    "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": ""
```

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	Query Params pageSize int The page size required startIndex int The start record index serviceType string The service definition names("hdfs","hive","hbase","knox","storm", "solr", "kafka","yarn") isEnabled boolean The enabled status : true if enabled; false otherwise Example : pageSize=25&startIndex=0
Response	``` [{ "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": "" }, ... "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.Range "matcherOptions": { "ignoreCase": "true", "wildCard": "true" }, ```

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	service/public/v2/api/service/{id}
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

API Name	Get Service
Request URL	service/public/v2/api/service/name/{name}
Request Params	
| Response | ```json
{
    "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": "cl1_hive",
    "policyUpdateTime":
 1450757995000,
    "policyVersion": 4,
    "tagUpdateTime": 1450916660000,
    "tagVersion": 74,
    "type": "hive",
    "updateTime": 1450757995000,
    "updatedBy": "amb_ranger_admin",
    "version": 78
}
``` |

Create Service

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

API Name	Create Service
Request Type	Post

API Name	Create Service
Request URL	service/public/v2/api/service
| Request Params | ```json
{
    "configs": {
        "password": "*****",
        "username": "hadoop"
    },
    "description": "test service",
    "isEnabled": true,
    "name": "cl1_test",
    "type": "test",
    "version": 1
}
``` |
| Response | ```json
{
    "configs": {
        "password": "*****",
        "username": "hadoop"
    },
    "createTime": 1451348710255,
    "createdBy": "Admin",
    "description": "test service",
    "guid": "e72cb64d-66d7-4632-
b5ae-c6966cb52105",
    "id": 6,
    "isEnabled": true,
    "name": "cl1_test",
    "tagVersion": 1,
    "type": "test",
    "updateTime": 1451348710256,
    "updatedBy": "Admin",
    "version": 1
}
``` |

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 | ```json
{
    "configs": {
        "password": "*****",
        "username": "admin"
    },
    "description": "test service",
    "isEnabled": true,
    "name": "cl1_test",
    "type": "test"
}
``` |
| Response | ```json
{
    "configs": {
        "password": "*****",
        "username": "admin"
    },
    "createTime": 1451348710000,
    "createdBy": "Admin",
    "description": "test service",
    "guid": "e72cb64d-66d7-4632-
b5ae-c6966cb52105",
    "id": 6,
    "isEnabled": true,
    "name": "cl1_test",
    "policyUpdateTime":
 1451351474000,
    "policyVersion": 3,
    "tagVersion": 1,
    "type": "test",
    "updateTime": 1451352016713,
    "updatedBy": "Admin",
    "version": 5
}
``` |

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

API Name	Delete Service
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.

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

API Name	Search Services
Request Params	Query Parameters: pageSize int The page size required startIndex int The start record index serviceName stringThe service name serviceNamePartial string Partial service name serviceType string The service types(such as "hdfs","hive","hbase","knox","storm") isEnabled boolean The enabled status (true/false): true is enabled, false otherwise Example : pageSize=25&startIndex=0
Response	(see below)

```
[
    {
        "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,
```

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":
"6f956063401eda656f1eae8870c1afac",
"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	service/public/v2/api/service/{service-name}/policy/{policy-name}

API Name	Get Policy
Request Params	
Response	(see below)

```json
{
    "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"
            ]
```

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Create Policy

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

API name	Create Policy
Request Type	POST

API name	Create Policy
Request URL	service/public/v2/api/policy
Request Params	

```
{
    "allowExceptions": [],
    "denyExceptions": [],
    "denyPolicyItems": [
        {
            "accesses": [
                {
                    "isAllowed":
    true,
                    "type": "drop"
                }
            ],
            "conditions": [],
            "delegateAdmin": true,
            "groups": [],
            "users": [
        "hadoop"
            ]
        }
    ],
    "description": "Policy for
    Service: cl1_test",
    "isAuditEnabled": true,
    "isEnabled": true,
    "name": "cl1_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": {
```

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	

```
{
    "id": 8,
    "allowExceptions": [],
    "denyExceptions": [],
    "denyPolicyItems": [
        {
            "accesses": [
                {
                    "isAllowed":
true,
                    "type": "drop"
                }
            ],
            "conditions": [],
            "delegateAdmin": true,
            "groups": [],
            "users": [
        "admin"
            ]
        }
    ],
    "description": "Policy for
Service: cl1_test",
    "isAuditEnabled": true,
    "isEnabled": true,
    "name": "cl1_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"
            ]
        },
```

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}.

API Name	update policy
Request Type	PUT

API Name	update policy
Request URL	service/public/v2/api/service/{service-name}/policy/{policy-name}
Request Params	

```
{
    "allowExceptions": [],
    "denyExceptions": [],
    "denyPolicyItems": [
        {
            "accesses": [
                {
                    "isAllowed":
true,
                    "type": "drop"
                }
            ],
            "conditions": [],
            "delegateAdmin": true,
            "groups": [],
            "users": [
        "hadoop",
        "admin"
            ]
        }
    ],
    "description": "Policy for
Service: cl1_test",
    "isAuditEnabled": true,
    "isEnabled": true,
    "name": "cl1_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"
            ]
        },
```

Delete Policy by ID

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

API Name	Delete Policy
Request Type	DELETE
Request URL	service/public/v2/api/policy/{id}
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.

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

Search Policies in a Service

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

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

API Name	Search Policies in a Service
API Name	Search Policies in a Service
Request Params	Query Parameters: pageSize int The page size required startIndex int The start record index policyName string The Exact Name of the policy policyNamePartial string The Partial Name of the policy policyId string The policy ID polResource string The policy resource value resource:resource-type string The policy resource value for given resource-type user stringThe user name group string The group name isRecursive boolean The isRecursive property ("true" or "false") isEnabled boolean The enable/disabled property ("true" or "false") Example = pageSize=25&startIndex=0&resource:database=finance
Response	(see below)

```
[
    {
        "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"
                    },
                    {
```