Keystone OS-KSADM-admin Dev

API v2.0 (Aug 29, 2011)

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Keystone OS-KSADM-admin Developer Guide

API v2.0 (2011-08-29)
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This document includes details on various operations supported by the OS-KSADM-admin extensions on top of core keystone operations.

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1. Identity Service Concepts

The Keystone Identity Service has several key concepts which are important to understand:

User	A digital representation of a person, system, or service who uses OpenStack cloud services. Keystone authentication services will validate that incoming request are being made by the user who claims to be making the call. Users have a login and may be assigned tokens to access resources. Users may be directly assigned to a particular tenant and behave as if they are contained in that tenant.
Credentials	Data that belongs to, is owned by, and generally only known by a user that the user can present to prove they are who they are (since nobody else should know that data). Examples are: • a matching username and password • a matching username and API key • yourself and a driver's license with a picture of you • a token that was issued to you that nobody else knows of
Authentication	In the context of Keystone, authentication is the act of confirming the identity of a user or the truth of a claim. Keystone will confirm that incoming request are being made by the user who claims to be making the call by validating a set of claims that the user is making. These claims are initially in the form of a set of credentials (username & password, or username and API key). After initial confirmation, Keystone will issue the user a token which the user can then provide to demonstrate that their identity has been authenticated when making subsequent requests.
Token	A token is an arbitrary bit of text that is used to access resources. Each token has a scope which describes which resources are accessible with it. A token may be revoked at anytime and is valid for a finite duration. While Keystone supports token-based authentication in this release, the intention is for it to support additional protocols in the future. The intent is for it to be an integration service foremost, and not a aspire to be a full-fledged identity store and management solution.
Tenant	A container used to group or isolate resources and/or identity objects. Depending on the service operator, a tenant may map to a customer, account, organization, or project.
Service	An OpenStack service, such as Compute (Nova), Object Storage (Swift), or Image Service (Glance). A service provides one or more endpoints through which users can access resources and perform (presumably useful) operations.

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Endpoint	An network-accessible address, usually described by URL, where a service may be accessed. If using an extension for templates, you can create an endpoint template, which represents the templates of all the consumable services that are available across the regions.
Role	A personality that a user assumes when performing a specific set of operations. A role includes a set of right and privileges. A user assuming that role inherits those rights and privileges. In Keystone, a token that is issued to a user includes the list of roles that user can assume. Services that are being called by that user determine how they interpret the set of roles a user has and which operations or resources each roles grants access to.

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Verb	URI	Description
PUT	`/OS-KSADM/services`	Add a service.
GET	`/OS-KSADM/services/{serviceId}`	Get a service.
DELETE	`/OS-KSADM/services/{serviceId}`	Delete a service.

2.1. OS-KSADM Admin Extension API (Service Developer Operations)

Extension operations.

Table 2.1. Authentication Header

Header Type	Name	Value
HTTP/1.1 Request	X-Auth-Token	txfa8426a08eaf

The following calls are core for the Keystone Admin 2.0 API OS-KSADM Extension:

Verb	URI	Description
User Operations		
POST	`/users`	Adds a user.
POST	`/users/{userId}`	Update a user.
DELETE	`/users/{userId}`	Delete a user.
GET	`/users/{userId}/OS-KSADM/roles?serviceId=`*`string`*	List roles for a user.
PUT	`/users/{userId}/OS-KSADM/roles/{roleId}`	Adds a specific role to a user.
GET	`/users/{userId}/OS-KSADM/roles/{roleId}`	Get information about a role that belongs to a user.
DELETE	`/users/{userId}/OS-KSADM/roles/{roleId}`	Deletes a specific role from a user.
POST	`/users/{userId}/OS-KSADM/credentials`	Adds a credential to a user.
GET	`/users/{userId}/OS-KSADM/credentials`	List credentials.
GET	`/users/{userId}/OS-KSADM/credentials/{credential-type}`	List credentials by type.
POST	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Update credentials.
POST	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Delete credentials.
GET	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Get user credentials.
Tenant Operations		
POST	`/tenants`	Creates a tenant.
POST	`/tenants/{tenantId}`	Updates a tenant.
DELETE	`/tenants/{tenantId}`	Deletes a tenant.

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Verb	URI	Description
GET	`/tenants/{tenantId}/OS-KSADM/roles?marker=string&limit=int`	Lists all the roles for a tenant.
GET	`/tenants/{tenantId}/OS-KSADM/users?marker=string&limit=int`	Lists all the users for a tenant.
GET	`/tenants/{tenantId}/OS-KSADM/users?roleId=string&marker=string&limit=int`	Lists all the users with a specific role for a tenant.
Role Operations		
GET	`/OS-KSADM/roles?serviceId=string&marker=string&limit=int`	List roles.
PUT	`/OS-KSADM/roles`	Add a Role.
GET	`/OS-KSADM/roles/{roleId}`	Get a role.
DELETE	`/OS-KSADM/roles/{roleId}`	Delete a role.
Service Operations		
GET	`/OS-KSADM/services?serviceId=string&marker=string&limit=int`	List services.
PUT	`/OS-KSADM/services`	Add a service.
GET	`/OS-KSADM/services/{serviceId}`	Get a service.
DELETE	`/OS-KSADM/services/{serviceId}`	Delete a service.

2.1.1. User Operations

Verb	URI	Description
POST	`/users`	Adds a user.
POST	`/users/{userId}`	Update a user.
DELETE	`/users/{userId}`	Delete a user.
GET	`/users/{userId}/OS-KSADM/roles?serviceId=string`	List roles for a user.
PUT	`/users/{userId}/OS-KSADM/roles/{roleId}`	Adds a specific role to a user.
GET	`/users/{userId}/OS-KSADM/roles/{roleId}`	Get information about a role that belongs to a user.
DELETE	`/users/{userId}/OS-KSADM/roles/{roleId}`	Deletes a specific role from a user.
POST	`/users/{userId}/OS-KSADM/credentials`	Adds a credential to a user.
GET	`/users/{userId}/OS-KSADM/credentials`	List credentials.
GET	`/users/{userId}/OS-KSADM/credentials/{credential-type}`	List credentials by type.
POST	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Update credentials.
POST	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Delete credentials.
GET	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Get user credentials.

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```
    "username": "jqsmith",
    "email": "john.smith@example.org",
    "enabled": true
 }
}
```

2.1.1.2. Update user

Verb	URI	Description
POST	`/users/{userId}`	Update a user.

Update a user.

Table 2.3. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- user (200)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

Example 2.3. User Updation Request

```
<?xml version="1.0" encoding="UTF-8"?>
<user xmlns="http://docs.openstack.org/identity/api/v2.0"
      enabled="true" email="john.smith@example.org"
      username="jqsmith" id="u1000"/>
```

```
{
  "user": {
    "id": "u1000",
    "username": "jqsmith",
    "email": "john.smith@example.org",
    "enabled": true
 }
}
```

Example 2.4. User Updation Response

```
<?xml version="1.0" encoding="UTF-8"?>
```


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```
<user xmlns="http://docs.openstack.org/identity/api/v2.0"
      enabled="true" email="john.smith@example.org"
      username="jqsmith" id="u1000"/>
```

```
{
  "user": {
    "id": "u1000",
    "username": "jqsmith",
    "email": "john.smith@example.org",
    "enabled": true
  }
}
```

2.1.1.3. Delete user

Verb	URI	Description
DELETE	`/users/{userId}`	Delete a user.

Delete a user.

Table 2.4. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- (204)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

2.1.1.4. List Roles

Verb	URI	Description
GET	`/users/{userId}/OS-KSADM/roles?serviceId=`*`string`*	List roles for a user.

List roles for a user.

Table 2.5. Parameters

Name	Style	Description
Request parameters		

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Name	Style	Description
X-Auth-Token	header	You need a valid admin token for access. String. Required.
serviceId	query	String. Optional.

Normal Response Code(s)

- roles (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

Example 2.5. List Roles for User Response

```
<?xml version="1.0" encoding="UTF-8"?>

<roles xmlns="http://docs.openstack.org/identity/api/v2.0">
  <role id="Admin" description="All Access" />
  <role id="Guest" description="Guest Access" />
</roles>
```

```
{
    "roles":{
        "values":[{
                "id":"compute:admin"
            }
        ],
        "links":[]
    }
}
```

2.1.1.5. Add roles to a user.

Verb	URI	Description
PUT	/users/{userId}/OS-KSADM/roles/{roleId}	Adds a specific role to a user.

Adds a specific role to a user.

Table 2.6. Parameters

Name	Style	Description
Request parameters		
X-Auth-Token	header	You need a valid admin token for access. String. Required.

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Name	Style	Description
roleId	template	Int. Optional.

Normal Response Code(s)

- (200)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

2.1.1.6. Get user Role

Verb	URI	Description
GET	/users/{userId}/OS-KSADM/roles/{roleId}	Get information about a role that belongs to a user.

Get information about a role that belongs to a user.

Table 2.7. Parameters

Name	Style	Description
Request parameters		
X-Auth-Token	header	You need a valid admin token for access. String. Required.
roleId	template	Int. Optional.

Normal Response Code(s)

- role (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

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Example 2.6. List Roles for User Response

```
<?xml version="1.0" encoding="UTF-8"?>

<role xmlns="http://docs.openstack.org/identity/api/v2.0"
  id="Admin"
  description="All Access" />
```

```
{
  "role": {
    "id": "Guest",
    "description": "Guest Access"
  }
}
```

2.1.1.7. Delete roles on user.

Verb	URI	Description
DELETE	`/users/{userId}/OS-KSADM/roles/{roleId}`	Deletes a specific role from a user.

Deletes a specific role from a user.

Table 2.8. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`roleId`	template	Int. Optional.

Normal Response Code(s)

- (204)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

2.1.1.8. Add user Credential.

Verb	URI	Description
POST	`/users/{userId}/OS-KSADM/credentials`	Adds a credential to a user.

Adds a credential to a user.

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Table 2.9. Parameters

Name	Style	Description
Request parameters		
X-Auth-Token	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- credentials (201)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

2.1.1.9. List Credentials

Verb	URI	Description
GET	/users/{userId}/OS-KSADM/credentials	List credentials.

List credentials.

Table 2.10. Parameters

Name	Style	Description
Request parameters		
X-Auth-Token	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- credentials-collection (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)

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- itemNotFound(404)

2.1.1.10. List Credentials by type

Verb	URI	Description
GET	`/users/{userId}/OS-KSADM/credentials/{credential-type}`	List credentials by type.

List credentials by type.

Table 2.11. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- credentials-collection (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

2.1.1.11. Update user credential

Verb	URI	Description
POST	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Update credentials.

Update credentials.

Table 2.12. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`credentialTypeAndId`	template	String. Optional.

Normal Response Code(s)

- credentials (200)

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Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

2.1.1.12. Update user credential

Verb	URI	Description
POST	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Delete credentials.

Delete credentials.

Table 2.13. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`credentialTypeAndId`	template	String. Optional.

Normal Response Code(s)

- credentials (200)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

2.1.1.13. Get user Credentials

Verb	URI	Description
GET	`/users/{userId}/OS-KSADM/credentials/{credential-type-and-id}`	Get user credentials.

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Get user credentials.

Table 2.14. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`credentialType` and `tenantId`	template	String. Optional.

Normal Response Code(s)

- credentials (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

2.1.2. Tenant Operations

Verb	URI	Description
POST	`/tenants`	Creates a tenant.
POST	`/tenants/{tenantId}`	Updates a tenant.
DELETE	`/tenants/{tenantId}`	Deletes a tenant.
GET	`/tenants/{tenantId}/OS-KSADM/roles?marker=`*`string`*`&limit=`*`int`*	Lists all the roles for a tenant.
GET	`/tenants/{tenantId}/OS-KSADM/users?marker=`*`string`*`&limit=`*`int`*	Lists all the users for a tenant.
GET	`/tenants/{tenantId}/OS-KSADM/users?roleId=`*`string`*`&marker=`*`string`*`&limit=`*`int`*	Lists all the users with a specific role for a tenant.

2.1.2.1. Add Tenant

Verb	URI	Description
POST	`/tenants`	Creates a tenant.

This call creates a tenant.

Table 2.15. Parameters

Name	Style	Description
Request parameters		

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Name	Style	Description
X-Auth-Token	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- tenant (201)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)

Example 2.7. Tenant Creation Request

```
<?xml version="1.0" encoding="UTF-8"?>
<tenant xmlns="http://docs.openstack.org/identity/api/v2.0"
        enabled="true" name="ACME Corp">
    <description>A description...</description>
</tenant>
```

```
{
  "tenant": {
    "name": "ACME corp",
    "description": "A description ...",
    "enabled": true
  }
}
```

Example 2.8. Tenant Creation Response

```
<?xml version="1.0" encoding="UTF-8"?>
<tenant xmlns="http://docs.openstack.org/identity/api/v2.0"
        enabled="true" id="1234" name="ACME Corp">
    <description>A description...</description>
</tenant>
```

```
{
  "tenant": {
    "id": "1234",
    "name": "ACME corp",
    "description": "A description ...",
    "enabled": true
  }
}
```

2.1.2.2. Update Tenant

Verb	URI	Description
POST	/tenants/{tenantId}	Updates a tenant.

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This call updates a tenant.

Table 2.16. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`tenantId`	template	String. Optional.

Normal Response Code(s)

- tenant (200)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)
- badMediaType(415)

Example 2.9. Tenant Update Request

```
<?xml version="1.0" encoding="UTF-8"?>
<tenant xmlns="http://docs.openstack.org/identity/api/v2.0"
        enabled="true" id="1234" name="ACME Corp">
    <description>A description...</description>
</tenant>
```

```
{
  "tenant": {
    "id": "1234",
    "name": "ACME corp",
    "description": "A description ...",
    "enabled": true
  }
}
```

Example 2.10. Tenant Update Response

```
<?xml version="1.0" encoding="UTF-8"?>
<tenant xmlns="http://docs.openstack.org/identity/api/v2.0"
        enabled="true" id="1234" name="ACME Corp">
    <description>A description...</description>
</tenant>
```

```
{
  "tenant": {
    "id": "1234",
    "name": "ACME corp",
```


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```
    "description": "A description ...",
    "enabled": true
  }
}
```

2.1.2.3. Delete a Tenant

Verb	URI	Description
DELETE	`/tenants/{tenantId}`	Deletes a tenant.

This call deletes a tenant.

Table 2.17. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`tenantId`	template	String. Optional.

Normal Response Code(s)

- (204)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

2.1.2.4. List roles for a Tenant.

Verb	URI	Description
GET	`/tenants/{tenantId}/OS-KSADM/roles?marker=`*`string`*`&limit=`*`int`*	Lists all the roles for a tenant.

Lists all the roles for a tenant.

Table 2.18. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`marker`	query	String. Optional.

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Name	Style	Description
limit	query	Int. Optional.
tenantId	template	String. Optional.

Normal Response Code(s)

- roles (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

Example 2.11. List Roles for Tenant Response

```
<?xml version="1.0" encoding="UTF-8"?>

<roles xmlns="http://docs.openstack.org/identity/api/v2.0">
  <role id="Admin" description="All Access" />
  <role id="Guest" description="Guest Access" />
</roles>
```

```
{
    "roles":{
        "values":[{
                "id":"compute:admin"
            }
        ],
        "links":[]
    }
}
```

2.1.2.5. List users for a Tenant.

Verb	URI	Description
GET	/tenants/{tenantId}/OS-KSADM/users?marker=*string*&limit=*int*	Lists all the users for a tenant.

Lists all the users for a tenant.

Table 2.19. Parameters

Name	Style	Description
Request parameters		
X-Auth-Token	header	You need a valid admin token for access. String. Required.
marker	query	String. Optional.

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Name	Style	Description
limit	query	Int. Optional.
tenantId	template	String. Optional.

Normal Response Code(s)

- users (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

Example 2.12. List Users for Tenant Response

```
<?xml version="1.0" encoding="UTF-8"?>
<users xmlns="http://docs.openstack.org/identity/api/v2.0">
    <user xmlns="http://docs.openstack.org/identity/api/v2.0"
          enabled="true" email="john.smith@example.org"
          username="jqsmith" id="u1000"/>
    <user xmlns="http://docs.openstack.org/identity/api/v2.0"
          enabled="true" email="john.smith@example.org"
          username="jqsmith" id="u1000"/>
</users>
```

```
{
  "users": {
    "values": [
      {
        "id": "u1000",
        "username": "jqsmith",
        "email": "john.smith@example.org",
        "enabled": true
      }, {
        "id": "u1001",
        "username": "jqsmith",
        "email": "john.smith@example.org",
        "enabled": true
      }
    ],
    "links":[]
  }
}
```

2.1.2.6. List user with role for tenant.

Verb	URI	Description
GET	/tenants/{tenantId}/OS-KSADM/users?roleId=*string*&marker=*string*&limit=*int*	Lists all the users with a specific role for a tenant.

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Lists all the users with a specific role for a tenant.

Table 2.20. Parameters

Name	Style	Description
Request parameters		
X-Auth-Token	header	You need a valid admin token for access. String. Required.
roleId	query	String. Required.
marker	query	String. Optional.
limit	query	Int. Optional.
tenantId	template	String. Optional.

Normal Response Code(s)

- users (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

Example 2.13. List Users with a specific role for a Tenant Response

```
<?xml version="1.0" encoding="UTF-8"?>
<users xmlns="http://docs.openstack.org/identity/api/v2.0">
    <user xmlns="http://docs.openstack.org/identity/api/v2.0"
          enabled="true" email="john.smith@example.org"
          username="jqsmith" id="u1000"/>
    <user xmlns="http://docs.openstack.org/identity/api/v2.0"
          enabled="true" email="john.smith@example.org"
          username="jqsmith" id="u1000"/>
</users>
```

```
{
  "users": {
    "values": [
      {
        "id": "u1000",
        "username": "jqsmith",
        "email": "john.smith@example.org",
        "enabled": true
      }, {
        "id": "u1001",
        "username": "jqsmith",
        "email": "john.smith@example.org",
        "enabled": true
      }
    ],
```


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```
    "links":[]
  }
}
```

2.1.3. Role Operations

Verb	URI	Description
GET	`/OS-KSADM/roles?serviceId=string&marker=string&limit=int`	List roles.
PUT	`/OS-KSADM/roles`	Add a Role.
GET	`/OS-KSADM/roles/{roleId}`	Get a role.
DELETE	`/OS-KSADM/roles/{roleId}`	Delete a role.

2.1.3.1. List Roles

Verb	URI	Description
GET	`/OS-KSADM/roles?serviceId=string&marker=string&limit=int`	List roles.

List roles.

Table 2.21. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`serviceId`	query	String. Optional.
`marker`	query	String. Optional.
`limit`	query	Int. Optional.

Normal Response Code(s)

- roles (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

Example 2.14. List Roles Response

```
<?xml version="1.0" encoding="UTF-8"?>

<roles xmlns="http://docs.openstack.org/identity/api/v2.0">
```


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```
  <role id="Admin" description="All Access" />
  <role id="Guest" description="Guest Access" />
</roles>
```

```
{
    "roles":{
        "values":[{
                "id":"compute:admin"
            }
        ],
        "links":[]
    }
}
```

2.1.3.2. Add Role

Verb	URI	Description
PUT	`/OS-KSADM/roles`	Add a Role.

Add a Role.

Table 2.22. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- role (201)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

Example 2.15. Add a Role Request

```
<?xml version="1.0" encoding="UTF-8"?>

<role xmlns="http://docs.openstack.org/identity/api/v2.0"
  id="Admin"
  description="All Access" />
```

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


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```
    "id": "Guest",
    "description": "Guest Access"
  }
}
```

Example 2.16. Add a Role Response

```
<?xml version="1.0" encoding="UTF-8"?>

<role xmlns="http://docs.openstack.org/identity/api/v2.0"
  id="Admin"
  description="All Access" />
```

```
{
  "role": {
    "id": "Guest",
    "description": "Guest Access"
  }
}
```

2.1.3.3. Get Role

Verb	URI	Description
GET	`/OS-KSADM/roles/{roleId}`	Get a role.

Get a role.

Table 2.23. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`roleId`	template	String. Optional.

Normal Response Code(s)

- role (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

Example 2.17. Get a role

```
<?xml version="1.0" encoding="UTF-8"?>
```


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```
<role xmlns="http://docs.openstack.org/identity/api/v2.0"
  id="Admin"
  description="All Access" />
```

```
{
  "role": {
    "id": "Guest",
    "description": "Guest Access"
  }
}
```

2.1.3.4. Delete Role

Verb	URI	Description
DELETE	`/OS-KSADM/roles/{roleId}`	Delete a role.

Delete a role.

Table 2.24. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`roleId`	template	String. Optional.

Normal Response Code(s)

- (204)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

2.1.4. Service Operations

Verb	URI	Description
GET	`/OS-KSADM/services?serviceId=`*`string`*`&marker=`*`string`*`&limit=`*`int`	List services.
PUT	`/OS-KSADM/services`	Add a service.
GET	`/OS-KSADM/services/{serviceId}`	Get a service.
DELETE	`/OS-KSADM/services/{serviceId}`	Delete a service.

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```
            }
        ]
    },
    "links":[]
}
```

2.1.4.2. Add Service

Verb	URI	Description
PUT	`/OS-KSADM/services`	Add a service.

Add a service.

Table 2.26. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.

Normal Response Code(s)

- service (201)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- badMediaType(415)
- itemNotFound(404)

Example 2.19. Add a service Request

```
<?xml version="1.0" encoding="UTF-8"?>

<service xmlns="http://docs.openstack.org/identity/api/ext/OS-KSADM/v1.0" id=
"nova"
 type="compute" description="OpenStack Compute Service" />
```

```
{
    "OS-KSADM:service":{
        "id":"nova",
        "type":"compute",
        "description":"A description ..."
    }
}
```

Example 2.20. Add a service Response

```
<?xml version="1.0" encoding="UTF-8"?>
```


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```
<service xmlns="http://docs.openstack.org/identity/api/ext/OS-KSADM/v1.0" id=
"nova"
 type="compute" description="OpenStack Compute Service" />
```

```
{
    "OS-KSADM:service":{
        "id":"nova",
        "type":"compute",
        "description":"A description ..."
    }
}
```

2.1.4.3. Get Service

Verb	URI	Description
GET	`/OS-KSADM/services/{serviceId}`	Get a service.

Get a service.

Table 2.27. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`serviceId`	template	Int. Optional.

Normal Response Code(s)

- service (200 203)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

Example 2.21. Get a service Response

```
<?xml version="1.0" encoding="UTF-8"?>

<service xmlns="http://docs.openstack.org/identity/api/ext/OS-KSADM/v1.0" id=
"nova"
 type="compute" description="OpenStack Compute Service" />
```

```
{
    "OS-KSADM:service":{
        "id":"nova",
        "type":"compute",
```


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```
        "description":"A description ..."
    }
}
```

2.1.4.4. Add Service

Verb	URI	Description
DELETE	`/OS-KSADM/services/{serviceId}`	Delete a service.

Delete a service.

Table 2.28. Parameters

Name	Style	Description
Request parameters		
`X-Auth-Token`	header	You need a valid admin token for access. String. Required.
`serviceId`	template	Int. Optional.

Normal Response Code(s)

- (204)

Error Response Code(s)

- identityFault
- badRequest(400)
- unauthorized(401)
- forbidden(403)
- badMethod(405)
- overLimit(413)
- serviceUnavailable(503)
- itemNotFound(404)

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