

Rackspace Keystone Group Extension

EXT v1.0 (Aug 26, 2011)

DRAFT



Rackspace Keystone Group Extension(Service Operations)

EXT v1.0 (2011-08-26)

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This document is intended for client developers interested in using the Rackspace Keystone Group Extension(Service) along with the Keystone - OpenStack Identity (API). The document is for informational purposes only and is provided "AS IS."

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1. About This Extension

Name	Rackspace Keystone Group Extension
Namespace	http://docs.rackspace.com/identity/api/ext/RAX-KSGROUP/v1.0
Alias	RAX-KSGRP
Dependencies	Keystone - OpenStack Identity
Doc Link (PDF)	https://github.com/openstack/keystone/raw/master/keystone/content/service/RAX-KSGRP-service-devguide.pdf
Doc Link (WADL)	None, the extension makes no modification to the API WADL.
Doc Link (XSD)	https://raw.githubusercontent.com/openstack/keystone/master/keystone/content/service/xsd/RAX-KSGRP-groups.xsd
Short Description	Rackspace extensions to Keystone v2.0 API enabling groups.

Example 1.1. Extension Query Response: XML

```
<?xml version="1.0" encoding="UTF-8"?>
<extension xmlns="http://docs.openstack.org/common/api/v1.0"
  xmlns:atom="http://www.w3.org/2005/Atom"
  name="Rackspace Keystone Group Extensions" namespace="http://docs.
rackspace.com/identity/api/ext/RAX-KSGROUP/v1.0"
  alias="RAX-KSGRP"
  updated="2011-08-14T13:25:27-06:00">
  <description>
    Rackspace extensions to Keystone v2.0 API
    enabling groups.
  </description>
  <atom:link rel="describedby" type="application/pdf"
    href="http://docs.rackspacecloud.com/identity/api/ext/
RAX-KSGRP-service-devguide.pdf"/>
</extension>
```

Example 1.2. Extension Query Response: JSON

```
{
  "extension":{
    "name": "Rackspace Keystone Group Extensions",
    "namespace": "http://docs.rackspace.com/identity/api/ext/RAX-KSGROUP/v1.
0",
    "alias": "RAX-KSGRP",
    "updated": "2011-08-14T13:25:27-06:00",
    "description": "Rackspace extensions to Keystone v2.0 API enabling groups.
",
    "links": [{
      "rel": "describedby",
      "type": "application/pdf",
      "href": "https://github.com/openstack/keystone/raw/master/keystone/
content/service/RAX-KSGRP-service-devguide.pdf"
    }]
  }
}
```

1.1. Document Change History

Revision Date	Summary of Changes
Aug. 24, 2011	<ul style="list-style-type: none"> Initial release.

2. Summary of Changes

Rackspace extensions to Keystone v2.0 API allows authenticate call to also return information about group memberships of the user.

2.1. New Headers

None.

2.2. New Faults

None.

2.3. New Resources

None.

2.4. New Actions

None.

2.5. New Elements

2.5.1. Rackspace extensions to Keystone v2.0 API enabling groups.

2.5.1.1. New Elements

This extension starts returning groups as a part of response when an authenticate call is made. The samples of new elements that are defined as a part of this extension are listed below.

Example 2.1. Groups Sample XML

```
<groups xmlns="http://docs.rackspace.com/identity/api/ext/RAX-KSGRP/v1.0">
  <group xmlns="http://docs.rackspace.com/identity/api/ext/RAX-KSGRP/v1.0"
    id="test_global_group_add">
    <description>A Description of the group</description>
  </group>
</groups>
```

Example 2.2. Groups Sample JSON

```
{
  "RAX-KSGRP:groups": [{
    "id": "test_global_group_add",
    "description": "A description ..."
  }],
  "RAX-KSGRP:groups_links": []
}
```

2.5.1.2. Authenticate

This extension allows authentication calls to also return information about groups. The usage of an existing call to authenticate, where it returns groups is illustrated below

Verb	URI	Description
POST	/tokens	Authenticate to generate a token.

Normal Response Code(s):200, 203

Error Response Code(s): unauthorized (401), userDisabled (403), badRequest (400), identityFault (500), serviceUnavailable(503)

This call will return a token if successful. Each ReST request against other services (or other calls on Keystone such as the GET /tenants call) requires the inclusion of a specific authorization token HTTP x-header, defined as X-Auth-Token. Clients obtain this token, along with the URL to other service APIs, by first authenticating against the Keystone Service and supplying valid credentials.

Client authentication is provided via a ReST interface using the POST method, with v2.0/ tokens supplied as the path. A payload of credentials must be included in the body.

The Keystone Service is a ReSTful web service. It is the entry point to all service APIs. To access the Keystone Service, you must know URL of the Keystone service.

Example 2.3. XML Auth Request using passwordCredentials

```
<?xml version="1.0" encoding="UTF-8"?>
<auth xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://docs.openstack.org/identity/api/v2.0"
  tenantName="customer-x">
  <passwordCredentials username="test_user" password="test" />
</auth>
```

Example 2.4. JSON Auth Request using passwordCredentials

```
{
  "auth": {
    "passwordCredentials": {
      "username": "test_user",
      "password": "mypass"
    },
    "tenantName": "customer-x"
  }
}
```

Example 2.5. XML Auth Response that contains Groups

```
<?xml version="1.0" encoding="UTF-8"?>
<access xmlns="http://docs.openstack.org/identity/api/v2.0">
  <token expires="2010-11-01T03:32:15-05:00"
    id="ab48a9efdfedb23ty3494" />
  <serviceCatalog>
    <service type="compute" name="Computers in the Cloud">
      <endpoint region="North" tenantId="1"
        publicURL="https://north.compute.public.com/v2.0/1234"
        internalURL="https://north.compute.internal.com/v2.0/1234">
        <version id="2.0"
```



```
info="https://north.compute.public.com/v2.0/"
list="https://north.compute.public.com/" />
</endpoint>
  <endpoint
    region="South"
    tenantId="3456"
    publicURL="https://south.compute.public.com/v2.0/3456"
    internalURL="https://south.compute.internal.com/v2.0/3456">
    <version
      id="2.0"
      info="https://south.compute.public.com/v2.0/"
      list="https://south.compute.public.com/" />
    </endpoint>
  </service>
  <service type="object-store" name="HTTP Object Store">
    <endpoint
      region="North"
      tenantId="1234"
      publicURL="https://north.object-store.public.com/v1/1234"
      internalURL="https://north.object-store.internal.com/v1/1234">
      <version
        id="1"
        info="https://north.object-store.public.com/v1/"
        list="https://north.object-store.public.com/" />
      </endpoint>
    <endpoint
      region="South"
      tenantId="3456"
      publicURL="https://south.object-store.public.com/v2.0/3456"
      internalURL="https://south.object-store.internal.com/v2.0/3456">
      <version
        id="2.0"
        info="https://south.object-store.public.com/v1/"
        list="https://south.object-store.public.com/" />
      </endpoint>
    </service>
  <service type="dns" name="DNS-as-a-Service">
    <endpoint
      publicURL="https://dns.public.com/v2.0/blah-blah">
    <version
      id="2.0"
      info="https://dns.public.com/v2.0/"
      list="https://dns.public.com/" />
    </endpoint>
  </service>
</serviceCatalog>
<user xmlns="http://docs.openstack.org/identity/api/v2.0"
  id="123" username="jqsmith">
<roles xmlns="http://docs.openstack.org/identity/api/v2.0">
  <role id="123" name="Admin" tenantId="1234" description="All Access" />
  <role id="234" name="object-store:admin" tenantId="1">

</roles>
<groups xmlns="http://docs.rackspace.com/identity/api/ext/RAX-KSGRP/v1.0">
  <group id="test_global_group_add">
    <description>A Description of the group</description>
```

```
</group>
</groups>
</user>
</auth>
```

Example 2.6. JSON Auth Response that contains Groups

```
{
  "access": {
    "token": {
      "id": "asdasdasd-adsasdasd-asdasdasd-adsadsas",
      "expires": "2010-11-01T03:32:15-05:00"
    },
    "user": {
      "id": "123",
      "name": "testName",
      "roles": [ {
        "id": "234",
        "name": "compute:admin"
      } ],
      {
        "id": "235",
        "name": "object-store:admin",
        "tenantId": "1"
      }
    ],
    "roles_links": [],
    "RAX-KSGRP:groups": [ {
      "id": "test_global_group_add",
      "description": "A description ..."
    } ],
    "RAX-KSGRP:groups_links": []
  },
  "serviceCatalog": [ {
    "name": "Cloud Servers",
    "type": "compute",
    "endpoints": [ {
      "publicURL": "https://compute.north.host/v1/1234",
      "internalURL": "https://compute.north.host/v1/1234",
      "region": "North",
      "tenantId": "1234",
      "versionId": "1.0",
      "versionInfo": "https://compute.north.host/v1.0/",
      "versionList": "https://compute.north.host/"
    } ],
    {
      "publicURL": "https://compute.north.host/v1.1/3456",
      "internalURL": "https://compute.north.host/v1.1/3456",
      "region": "North",
      "tenantId": "3456",
      "versionId": "1.1",
      "versionInfo": "https://compute.north.host/v1.1/",
      "versionList": "https://compute.north.host/"
    }
  ],
  "endpoints_links": []
},
{
  "name": "Cloud Files",
```

```
        "type": "object-store",
        "endpoints": [{
            "publicURL": "https://compute.north.host/v1/blah-blah",
            "internalURL": "https://compute.north.host/v1/blah-
blah",
            "region": "South",
            "tenantId": "1234",
            "versionId": "1.0",
            "versionInfo": "uri",
            "versionList": "uri"
        }],
        {
            "publicURL": "https://compute.north.host/v1.1/blah-
blah",
            "internalURL": "https://compute.north.host/v1.1/blah-
blah",
            "region": "South",
            "tenantId": "1234",
            "versionId": "1.1",
            "versionInfo": "https://compute.north.host/v1.1/",
            "versionList": "https://compute.north.host/"
        }
    ],
    "endpoints_links": [{
        "rel": "next",
        "href": "https://identity.north.host/v2.0/endpoints?
marker=2"
    }
]
},
{
    "serviceCatalog_links": [{
        "rel": "next",
        "href": "https://identity.host/v2.0/endpoints?session=2hfh8Ar&
marker=2"
    }
]
}
}
```