

Rackspace Keystone Group Extension

EXT v1.0 (Aug 26, 2011)

DRAFT



Rackspace Keystone Group Extension(Service Operations)

EXT v1.0 (2011-08-26)

Copyright © 2011 Rackspace US, Inc. All rights reserved.

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."

RACKSPACE MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS DOCUMENT AND RESERVES THE RIGHT TO MAKE CHANGES TO SPECIFICATIONS AND PRODUCT/SERVICES DESCRIPTION AT ANY TIME WITHOUT NOTICE. RACKSPACE SERVICES OFFERINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE. USERS MUST TAKE FULL RESPONSIBILITY FOR APPLICATION OF ANY SERVICES MENTIONED HEREIN. EXCEPT AS SET FORTH IN RACKSPACE GENERAL TERMS AND CONDITIONS AND/OR CLOUD TERMS OF SERVICE, RACKSPACE ASSUMES NO LIABILITY WHATSOEVER, AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO ITS SERVICES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT.

Except as expressly provided in any written license agreement from Rackspace, the furnishing of this document does not give you any license to patents, trademarks, copyrights, or other intellectual property.

Rackspace®, Rackspace logo and Fanatical Support® are registered service marks of Rackspace US, Inc. All other product names and trademarks used in this document are for identification purposes only and are property of their respective owners.

Table of Contents

1. About This Extension	1
1.1. Document Change History	2
2. Summary of Changes	3
2.1. New Headers	3
2.2. New Faults	3
2.3. New Resources	3
2.4. New Actions	3
2.5. New Elements	3
2.5.1. Rackspace extensions to Keystone v2.0 API enabling groups.	3

List of Examples

1.1. Extension Query Response: XML	2
1.2. Extension Query Response: JSON	2
2.1. Groups Sample XML	3
2.2. Groups Sample JSON	3
2.3. XML Auth Request using passwordCredentials	4
2.4. JSON Auth Request using passwordCredentials	4
2.5. XML Auth Response that contains Groups	4
2.6. JSON Auth Response that contains Groups	6

1. About This Extension

Name	Rackspace Keystone Group Extension
Namespace	http://docs.rackspace.com/identity/api/ext/RAX-KSGROUP/v1.0
Alias	RAX-KSGRP-service
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/v2.0"
  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-service"
  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-service",
    "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	• 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"
  tenantId="1234">
  <passwordCredentials username="test_user" password="test"/>
</auth>
```

Example 2.4. JSON Auth Request using passwordCredentials

```
{
  "auth":{
    "passwordCredentials":{
      "username":"test_user",
      "password":"mypass"
    },
    "tenantId":"1234"
  }
}
```

Example 2.5. XML Auth Response that contains Groups

```
<?xml version="1.0" encoding="UTF-8"?>
<auth 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="1234"
        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"
        username="jqsmith" id="ul000">
      <roles xmlns="http://docs.openstack.org/identity/api/v2.0">
        <role id="Admin" tenantId="1234" description="All Access" />
      </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

```
{
  "auth":{
    "token":{
      "id":"asdasdasd-adsasdads-asdasdasd-adsadsasd",
      "expires":"2010-11-01T03:32:15-05:00"
    },
    "user":{
      "id":"testId",
      "name":"testName",
      "roles":[{
        "id":"compute:admin"
      }]
    },
    "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"
  }
]
}
```