OpenStack EC2 authentication

EXT v1.0 (Sep 13, 2011)

DRAFT

openstack™

OpenStack EC2 authentication Extension (Admin Operations)

EXT v1.0 (2011-09-13)
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This document is intended for client developers interested in using the OpenStack EC2 Authentication Service Extension along with the Keystone - OpenStack Identity (API).

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1. About This Extension

Name	OpenStack EC2 authentication Extension
Namespace	http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0
Alias	OS-KSEC2
Dependencies	Keystone - OpenStack Identity
	OS-KSEC2 Extension
Doc Link (PDF)	/home/yogi/keystone/keystone/content/admin/OS-KSEC2-admin-devguide.pdf
Doc Link (WADL)	/home/yogi/keystone/keystone/content/admin/OS-KSEC2-admin.wadl
Doc Link (XSD)	/home/yogi/keystone/keystone/content/common/xsd/OS-KSEC2-credentials.xsd
Short Description	OpenStack EC2 authentication Service Extension to Keystone v2.0 API adds the capability to support EC2 style authentication.

Example 1.1. Extension Query Response: XML

```xml
<?xml version="1.0" encoding="UTF-8"?>
    <extension
        name="OpenStack EC2 authentication Extension"
        namespace="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0"
        alias="OS-KSEC2"
        updated="2011-08-25T09:50:00-00:00">

        <description>
            Adds the capability to support EC2 style authentication.
        </description>

        <atom:link rel="describedby"
                   type="application/pdf"
                   href="https://github.com/openstack/keystone/raw/master/
keystone/content/admin/OS-KSEC2-admin-devguide.pdf"/>
    <atom:link rel="describedby"
        type="application/vnd.sun.wadl+xml"
        href="https://raw.github.com/openstack/keystone/master/keystone/content/
admin/OS-KSEC2-admin.wadl"/>
    </extension>
```

Example 1.2. Extension Query Response: JSON

```json
{
  "extension":{
        "name": "OpenStack EC2 authentication Extension",
        "namespace": "http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.
0",
        "alias": "OS-KSEC2",
        "updated": "2011-08-25T09:50:00-00:00",
        "description": "Adds the capability to support EC2 style
 authentication.",
        "links": [
          {
            "rel": "describedby",
            "type": "application/pdf",
            "href": "https://github.com/openstack/keystone/raw/master/
keystone/content/admin/OS-KSEC2-admin-devguide.pdf"
          },
          {
            "rel": "describedby",
            "type": "application/vnd.sun.wadl+xml",
            "href": "https://raw.github.com/openstack/keystone/master/
keystone/content/admin/OS-KSEC2-admin.wadl"
          }
        ]
  }
}
```

1.1. Document Change History

Revision Date	Summary of Changes
Sep. 13, 2011	• Initial release.

2. Summary of Changes

The OpenStack EC2 authentication Extension allows crud/listing operations on
ec2Credentials.

2.1. New Headers

None.

2.2. New Faults

None.

2.3. New Resources

None.

2.4. New Actions

None.

2.5. New Element

2.5.1. ec2Credentials

This extension allows authentication calls to accept new type of credentials
ec2Credentials. These are additional type of credentials defined to support ec2 style
authentication. Examples of *ec2Credentials* are illustrated below

Example 2.1. ec2Credentials XML

```
<?xml version="1.0" encoding="UTF-8"?>
  <ec2Credentials
    xmlns="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0"
    username="testuser"
    key="aaaaa"
    signature="bbbbb"/>
```

Example 2.2. ec2Credentials JSON

```
{
    "OS-KSEC2-ec2Credentials":{
        "username":"test_user",
        "secret":"aaaaa",
        "signature":"bbb"
    }
}
```

2.6. OS-KSEC2-admin Extension API Operations

Table 2.1. Authentication Header

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

Following operations are the list of operations whose behavior is altered by OpenStack EC2
authentication Extension:

Verb	URI	Description
	User Operations	
POST	`v2.0/users/{userId}/credentials`	Adds a credential to a user.
GET	`v2.0/users/{userId}/credentials?` `marker=`*string*`&limit=`*int*	List credentials.
POST	`v2.0/users/{userId}/credentials/` `OS-KSEC2:ec2Credentials`	Update credentials.
DELETE	`v2.0/users/{userId}/credentials/` `OS-KSEC2:ec2Credentials`	Delete User credentials.
GET	`v2.0/users/{userId}/credentials/` `OS-KSEC2:ec2Credentials`	Get user credentials.

2.6.1. User Operations

Verb	URI	Description
POST	`v2.0/users/{userId}/credentials`	Adds a credential to a user.
GET	`v2.0/users/{userId}/credentials?` `marker=`*string*`&limit=`*int*	List credentials.
POST	`v2.0/users/{userId}/credentials/` `OS-KSEC2:ec2Credentials`	Update credentials.
DELETE	`v2.0/users/{userId}/credentials/` `OS-KSEC2:ec2Credentials`	Delete User credentials.
GET	`v2.0/users/{userId}/credentials/` `OS-KSEC2:ec2Credentials`	Get user credentials.

2.6.1.1. Add user Credential.

Verb	URI	Description
POST	`v2.0/users/{userId}/credentials`	Adds a credential to a user.

Adds a credential to a user.

Table 2.2. Add user Credential. 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)

Example 2.3. Add Credentials Request: XML

```xml
<?xml version="1.0" encoding="UTF-8"?>
  <ec2Credentials
    xmlns="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0"
    username="testuser"
    key="aaaaa"
    signature="bbbbb"/>
```

Example 2.4. Add Credentials Request: JSON

```json
{
    "OS-KSEC2-ec2Credentials":{
        "username":"test_user",
        "secret":"aaaaa",
        "signature":"bbb"
    }
}
```

Example 2.5. Add Credential Response: XML

```xml
<?xml version="1.0" encoding="UTF-8"?>
  <ec2Credentials
    xmlns="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0"
    username="testuser"
    key="aaaaa"
    signature="bbbbb"/>
```

Example 2.6. Add Credential Response: JSON

```json
{
    "OS-KSEC2-ec2Credentials":{
        "username":"test_user",
        "secret":"aaaaa",
        "signature":"bbb"
    }
}
```

2.6.1.2. List Credentials

Verb	URI	Description
GET	v2.0/users/{userId}/credentials? marker=*string*&limit=*int*	List credentials.

List credentials.

Table 2.3. List Credentials parameters

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

Example 2.7. List Credentials Response: XML

```
<?xml version="1.0" encoding="UTF-8"?>
<credentials xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="http://docs.openstack.org/identity/api/v2.0">
    <passwordCredentials username="test_user" password="test"/>
    <ec2Credentials xmlns="http://docs.openstack.org/identity/api/ext/OS-
KSEC2/v1.0"
     username="testuser" key="aaaaa" signature="bbbbb"/>
</credentials>
```

Example 2.8. List Credentials Response: JSON

```
{
    "credentials":[{
            "passwordCredentials":{
                "username":"test_user",
                "password":"mypass"
            }
        },
        {
            "OS-KSEC2-ec2Credentials":{
                "username":"test_user",
                "secret":"aaaaa",
                "signature":"bbb"
            }
        }
    ],
    "credentials_links":[]
}
```

2.6.1.3. Update user credential

Verb	URI	Description
POST	v2.0/users/{userId}/credentials/ OS-KSEC2:ec2Credentials	Update credentials.

Update credentials.

Table 2.4. Update user credential 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 (200)

Error Response Code(s)

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

Example 2.9. Update Credential Request: XML

```
<?xml version="1.0" encoding="UTF-8"?>
<apikeyCredentials
 xmlns="http://docs.rackspace.com/identity/api/ext/RAX-KSKEY/v1.0"
 username="testuser"
 apikey="aaaaa-bbbbb-ccccc-12345678"/>
```

Example 2.10. Update Credential Request: JSON

```
{
    "RAX-KSKEY:apikeyCredentials":{
        "username":"test_user",
        "apikey":"aaaaa-bbbbb-ccccc-12345678"
    }
}
```

Example 2.11. Update Credential Response: XML

```
<?xml version="1.0" encoding="UTF-8"?>
  <ec2Credentials
    xmlns="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0"
    username="testuser"
```

```
      key="aaaaa"
      signature="bbbbb"/>
```

Example 2.12. Update Credential Response: JSON

```
{
    "OS-KSEC2-ec2Credentials":{
        "username":"test_user",
        "secret":"aaaaa",
        "signature":"bbb"
    }
}
```

2.6.1.4. Delete user credential

Verb	URI	Description
DELETE	v2.0/users/{userId}/credentials/ OS-KSEC2:ec2Credentials	Delete User credentials.

Delete User credentials.

Table 2.5. Delete user credential 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)
• badMediaType(415)
• itemNotFound(404)

Example 2.13. Delete User Credentials

```
This operation does not require a request body.
```

2.6.1.5. Get user Credentials

Verb	URI	Description
GET	v2.0/users/{userId}/credentials/ OS-KSEC2:ec2Credentials	Get user credentials.

Get user credentials.

Table 2.6. Get user Credentials 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 (200 203)

Error Response Code(s)

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

Example 2.14. Get User Credential Response: XML

```
<?xml version="1.0" encoding="UTF-8"?>
  <ec2Credentials
    xmlns="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0"
    username="testuser"
    key="aaaaa"
    signature="bbbbb"/>
```

Example 2.15. Get User Credential Response: JSON

```
{
    "OS-KSEC2-ec2Credentials":{
        "username":"test_user",
        "secret":"aaaaa",
        "signature":"bbb"
    }
}
```