

OpenStack EC2 authentication

EXT v1.0 (Sep 13, 2011)

DRAFT



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-admin
Dependencies	Keystone - OpenStack Identity
Doc Link (PDF)	OS-KSCATALOG-admin Extension /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 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-admin"
    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/service/OS-KSEC2-admin-devguide.pdf" />
  </extension>
```

Example 1.2. Extension Query Response: JSON

```
{
  "extension": {
    "name": "OpenStack EC2 authentication Extension",
    "namespace": "http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0",
    "alias": "OS-KSEC2-admin",
    "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/service/OS-KSEC2-admin-devguide.pdf"
      }
    ]
  }
}
```

1.1. Document Change History

Revision Date	Summary of Changes
Sep. 13, 2011	<ul style="list-style-type: none"> 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="bbbbbb"/>
```

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	/users/{userId}/credentials	Adds a credential to a user.
GET	/users/{userId}/credentials? marker=string&limit=int	List credentials.
POST	/users/{userId}/credentials/OS- KSEC2:ec2Credentials	Update credentials.
POST	/users/{userId}/credentials/OS- KSEC2:ec2Credentials	Delete User credentials.
GET	/users/{userId}/credentials/OS- KSEC2:ec2Credentials	Get user credentials.

2.6.1. User Operations

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

2.6.1.1. Add user Credential.

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

Example 2.4. Add Credentials Request: JSON

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

Example 2.5. Add 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="bbbbbb"/>
```

Example 2.6. Add Credential Response: JSON

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

2.6.1.2. List Credentials

Verb	URI	Description
GET	/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="bbbbbb"/>
</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	/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-bbbbbb-ccccc-12345678" />
```

Example 2.10. Update Credential Request: JSON

```
{
  "RAX-KSKEY:apikeyCredentials": {
    "username": "test_user",
    "apikey": "aaaaa-bbbbbb-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="bbbbbb"/>
```

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
POST	/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	/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"
  }
}
```