

# 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	<a href="http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0">http://docs.openstack.org/identity/api/ext/OS-KSEC2/v1.0</a>
Alias	OS-KSEC2
Dependencies	Keystone - OpenStack Identity
Doc Link (PDF)	OS-KSEC2 Extension <a href="/home/yogi/keystone/keystone/content/admin/OS-KSEC2-admin-devguide.pdf">/home/yogi/keystone/keystone/content/admin/OS-KSEC2-admin-devguide.pdf</a>
Doc Link (WADL)	<a href="/home/yogi/keystone/keystone/content/admin/OS-KSEC2-admin.wadl">/home/yogi/keystone/keystone/content/admin/OS-KSEC2-admin.wadl</a>
Doc Link (XSD)	<a href="/home/yogi/keystone/keystone/content/common/xsd/OS-KSEC2-credentials.xsd">/home/yogi/keystone/keystone/content/common/xsd/OS-KSEC2-credentials.xsd</a>
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"
  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

```
{
  "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="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	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 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	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="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	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-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="bbbb" />
```

### 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="bbbbbb"/>
```

### Example 2.15. Get User Credential Response: JSON

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