

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
Dependencies	Keystone - OpenStack Identity
Doc Link (PDF)	OS-KSEC2 Extension https://raw.githubusercontent.com/openstack/keystone/master/keystone/content/admin/OS-KSEC2-admin-devguide.pdf
Doc Link (WADL)	https://raw.githubusercontent.com/openstack/keystone/master/keystone/content/admin/OS-KSEC2-admin.wadl
Doc Link (XSD)	https://raw.githubusercontent.com/openstack/keystone/master/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"
  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}/OS-KSADM/credentials	Adds a credential to a user.
GET	v2.0/users/{userId}/OS-KSADM/credentials?marker=string&limit=int	List credentials.
POST	v2.0/users/{userId}/OS-KSADM/credentials/OS-KSEC2:ec2Credentials	Update credentials.
DELETE	v2.0/users/{userId}/OS-KSADM/credentials/OS-KSEC2:ec2Credentials	Delete User credentials.
GET	v2.0/users/{userId}/OS-KSADM/credentials/OS-KSEC2:ec2Credentials	Get user credentials.

2.6.1. User Operations

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

2.6.1.1. Add user Credential.

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

Normal Response Code(s): 201

Error Response Code(s): identityFault (400, 500, ...), badRequest (400), unauthorized (401), forbidden (403), badMethod (405), overLimit (413), serviceUnavailable (503), badMediaType (415), itemNotFound (404)

Adds a credential to a user.

Table 2.2. Add user Credential. Request Parameters

Name	Style	Description
X-Auth-Token	header	You need a valid admin token for access. String. Required.
userId	template	String.

Example 2.3. Add user Credential. 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 user Credential. Request: JSON

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

Example 2.5. Add 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 2.6. Add user 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}/OS-KSADM/credentials?marker=string&limit=int	List credentials.

Normal Response Code(s): 200, 203

Error Response Code(s): identityFault (400, 500, ...), badRequest (400), unauthorized (401), forbidden (403), badMethod (405), overLimit (413), serviceUnavailable (503), itemNotFound (404)

List credentials.

Table 2.3. List Credentials Request Parameters

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

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}/OS-KSADM/credentials/OS-KSEC2:ec2Credentials	Update credentials.

Normal Response Code(s): 200

Error Response Code(s): identityFault (400, 500, ...), badRequest (400), unauthorized (401), forbidden (403), badMethod (405), overLimit (413), serviceUnavailable (503), badMediaType (415), itemNotFound (404)

Update credentials.

Table 2.4. Update user credential Request Parameters

Name	Style	Description
X-Auth-Token	header	You need a valid admin token for access. String. Required.
userId	template	String.

Example 2.9. Update user credential 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 2.10. Update user credential Request: JSON

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

Example 2.11. Update 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 2.12. Update user 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}/OS-KSADM/credentials/OS-KSEC2:ec2Credentials	Delete User credentials.

Normal Response Code(s): 204

Error Response Code(s): identityFault (400, 500, ...), badRequest (400), unauthorized (401), forbidden (403), badMethod (405), overLimit (413), serviceUnavailable (503), badMediaType (415), itemNotFound (404)

Delete User credentials.

Table 2.5. Delete user credential Request Parameters

Name	Style	Description
X-Auth-Token	header	You need a valid admin token for access. String. Required.
userId	template	String.

This operation does not require a request body and does not return a response body.

2.6.1.5. Get user Credentials

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

Normal Response Code(s): 200, 203

Error Response Code(s): identityFault (400, 500, ...), badRequest (400), unauthorized (401), forbidden (403), badMethod (405), overLimit (413), serviceUnavailable (503), itemNotFound (404)

Get user credentials.

Table 2.6. Get user Credentials Request Parameters

Name	Style	Description
X-Auth-Token	header	You need a valid admin token for access. String. Required.
userId	template	String.

This operation does not require a request body.

Example 2.13. Get user Credentials 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 2.14. Get user Credentials Response: JSON

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