

# OpenStack Pilot PowerPack – Quick Setup

## Caveats

- This PowerPack will only run on 7.8.2 or later EM7 systems – not tested with 8.1 platform.
- This PowerPack requires OpenStack Kilo or later – using only v2 API's or later.
- OpenStack Admin users can see Projects, but not what's managed by a project unless they are also members of the project.
- OpenStack Non-Admin users cannot see system resources such as Hypervisors or Networks
- The OpenStack PowerPack project is not yet complete, this pack is recommended only for testing purposes.
- Testing feedback should go to [JSherwood@sciencellogic.com](mailto:JSherwood@sciencellogic.com) or [CCordray@sciencellogic.com](mailto:CCordray@sciencellogic.com)

## Credential

Install the PowerPack as usual, there should be a supplied example credential. Use the example credential as the basis for your customized credential.

The screenshot shows the 'Credential Editor [71]' window with a dark theme. It contains several sections for configuring a credential:

- Edit SOAP/XML Credential #71**: Includes 'New' and 'Reset' buttons.
- Basic Settings**:
  - Profile Name: OpenStack | v3 Example
  - Content Encoding: [ text/xml ]
  - Method: [ POST ]
  - HTTP Version: [ HTTP/1.1 ]
  - URL [ http(s)://HostPort/Path | %D = Aligned Device Address | %N = Aligned Device Host Name ]: http://%D:35357
  - HTTP Auth User: admin
  - HTTP Auth Password: [ masked with asterisks ]
  - Timeout (seconds): 5
- Soap Options**:
  - Embedded Password [%P]: [ empty field ]
  - Embed Value [%1]: default
  - Embed Value [%2]: admin
  - Embed Value [%3]: [ empty field ]
  - Embed Value [%4]: [ empty field ]
- Proxy Settings**:
  - Hostname/IP: [ empty field ]
  - Port: 0
  - User: [ empty field ]
- CURL Options**:
  - Left list: CAINFO, CAPATH, CLOSEPOLICY, CONNECTTIMEOUT, COOKIE, COOKIEFILE, COOKIEJAR, COOKIELIST, CRLF, CUSTOMREQUEST
  - Right list: [ empty ]
- HTTP Headers**:
  - + Add a header

At the bottom are 'Save' and 'Save As' buttons.

The following credential fields are required in order to authenticate to the OpenStack API.

The URL of the Keystone API Service. Format should be <https://ipaddress:port>

Ports are generally 5000 or 35357. You may use FQDN if resolvable. HTTPS is preferred.

The user account name

The user account password

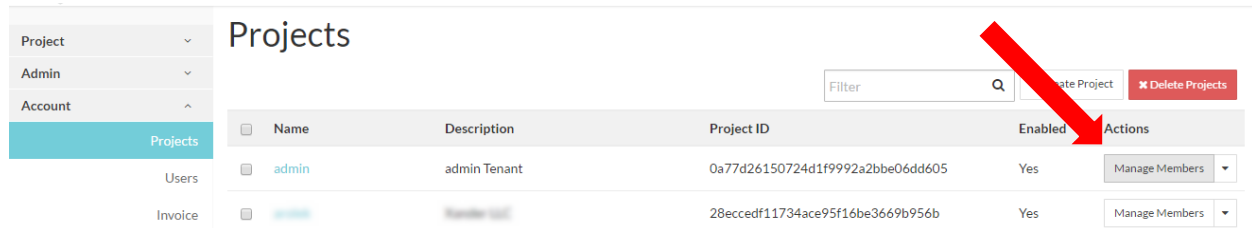
The screenshot shows the 'Credential Editor [70]' window. It has a title bar with a close button. Below the title bar is a tab labeled 'Edit SOAP/XML Credential #70' with 'New' and 'Reset' buttons. The main area is divided into several sections: 'Basic Settings' with fields for Profile Name (OpenStack | BD LAB), Content Encoding (text/xml), Method (POST), HTTP Version (HTTP/1.1), URL (http://10.0.6.123:35357), HTTP Auth User (admin), HTTP Auth Password (masked), and Timeout (30); 'Proxy Settings' with Hostname/IP, Port (0), and User fields; 'CURL Options' with a list of options like CAINFO, CAPATH, etc.; 'Soap Options' with an Embedded Password field and four Embed Value fields (default, admin, and two empty); and 'HTTP Headers' with a '+ Add a header' button. At the bottom are 'Save' and 'Save As' buttons. Red lines connect external text boxes to specific fields: the URL box points to the URL field, the user name box points to the HTTP Auth User field, the password box points to the HTTP Auth Password field, the project name box points to the Embed Value [%2] field, and the domain name box points to the Embed Value [%3] field. The 'Save As' button is circled in red.

The OpenStack Project Name – typically the “Active” project for the user

The OpenStack Domain Name – Commonly this is “default”

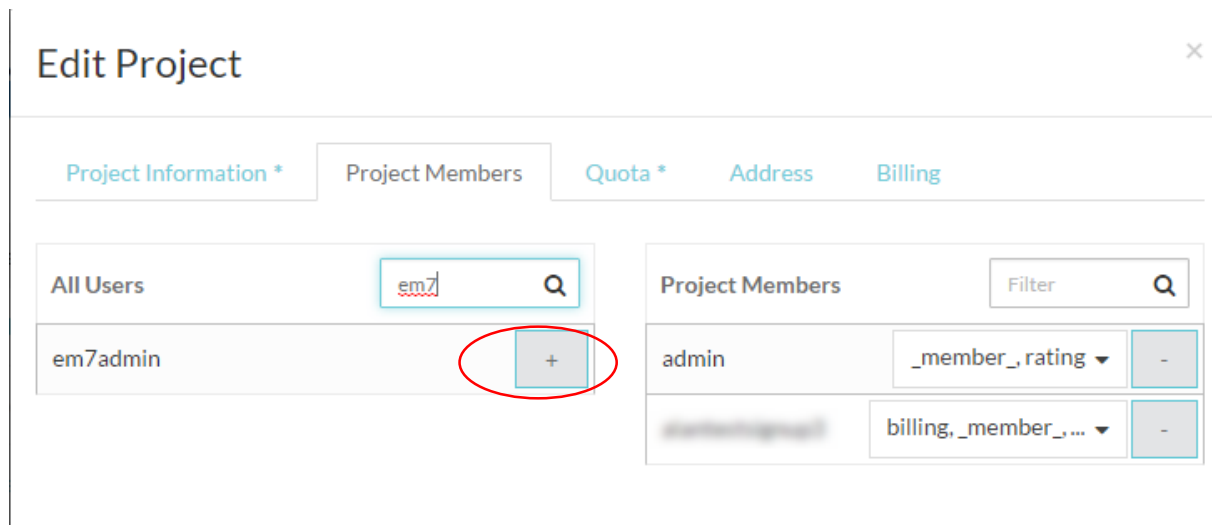
## OpenStack Memberships

User accounts in OpenStack must have memberships into each Project in order to see project items. This is required even if the user account has Admin rights.



|          |   |                          |       |              |                                  |         |                  |                |                 |
|----------|---|--------------------------|-------|--------------|----------------------------------|---------|------------------|----------------|-----------------|
| Project  | ▼ | Projects                 |       |              |                                  | Filter  | Q                | Create Project | Delete Projects |
| Admin    | ▼ |                          |       |              |                                  |         |                  |                |                 |
| Account  | ^ |                          |       |              |                                  |         |                  |                |                 |
| Projects |   | <input type="checkbox"/> | Name  | Description  | Project ID                       | Enabled | Actions          |                |                 |
| Users    |   | <input type="checkbox"/> | admin | admin Tenant | 0a77d26150724d1f9992a2bbe06dd605 | Yes     | Manage Members ▼ |                |                 |
| Invoice  |   | <input type="checkbox"/> | admin | admin Tenant | 28eccedf11734ace95f16be3669b956b | Yes     | Manage Members ▼ |                |                 |

If you want one user account to monitor multiple OpenStack projects, that account must be a member of each project. Click on the “Manage Members”...



### Edit Project

Project Information \* Project Members Quota \* Address Billing

All Users

em7

Q

em7admin

+

Project Members

Filter

Q

admin

\_member\_, rating ▼

-

admin

billing, \_member\_, ... ▼

-

Locate the user, then click the “+” button, then click Save.

# Edit Project



- Project Information \*
- Project Members
- Quota \*
- Address
- Billing

All Users

Filter

Q

Project Members

Filter

Q

|                     |                          |   |
|---------------------|--------------------------|---|
| admin               | _member_, rating ▼       | - |
| <del>em7admin</del> | billing, _member_, ... ▼ | - |
| em7admin            | _member_ ▼               | - |

Cancel

Save

## Discovery

You can discover your OpenStack system by either using EM7's discovery engine, or manually alignment of the discovery application. This guide will use the manual method because it allows for multiple project tenant monitoring.

In Device Registry, Select the Actions button, then click on “Create Virtual Device”. Add the name of the device, then select the Device Class “OpenStack | Cloud Computing Platform | Virtual”. Set the Collector and the Organization, then click Add. Exit the modal window, and then locate the device in the Registry page. Click on the yellow wrench icon, then go to the device properties page. From here, click on the “Collections” tabs.

Click on the Actions button, then select “Add Dynamic Application”. Next, select the “OpenStack: Discovery\*” application, then select the corresponding credential. Click save.

| Collection Object     | Cid     | Found | Collecting | Edited By |
|-----------------------|---------|-------|------------|-----------|
| Domain Name           | o_14910 | yes   | yes        | —         |
| Domain ID             | o_14914 | yes   | yes        | —         |
| Operationally Enabled | o_14915 | yes   | yes        | —         |
| Availability          | o_14913 | yes   | yes        | —         |
| Discovery Items       | o_15419 | no    | yes        | —         |
| Discovery Object      | o_14916 | no    | yes        | —         |
| GUID                  | o_14911 | yes   | yes        | —         |
| Nova Domains          | o_14904 | yes   | yes        | —         |
| Nova Projects         | o_14905 | yes   | yes        | —         |
| Nova Regions          | o_14907 | yes   | yes        | —         |
| OpenStack Domains     | o_14909 | no    | yes        | —         |
| Unique ID             | o_14912 | yes   | yes        | —         |

You may run the first collection by clicking on the lightning bolt icon.

```
Run Dynamic App
For Device [ SILO-PUBLIC ] | Session Complete
Original Collected index of 0 was mapped to EM7 internal instance of 0
Original Collected index of 0 was mapped to EM7 internal instance of 0
DID: 58
BAD OIDS: 0
ERROR MESSAGE:
COLLECTED: True
FOUND OBJECTS: set([14912, 14913, 14914, 14915, 14904, 14905, 14907, 14910, 14911])
Group Obj_ID Index Data Changed? Collection Time
1 14912 default OPENSTACK+58+DOMAINS+default 0 0
1 14913 default 1 0 0
1 14914 default default 0 0
1 14915 default True 0 0
1 14910 default Default 0 0
1 14911 default OPENSTACK+58+DOMAINS+default 0 0
5 14904 0 1 Item Discovered 0 0
5 14905 0 26 Items Discovered 0 0
5 14907 0 1 Item Discovered 0 0
processing app alerts
Loaded 0 active alert policies for this app
loaded app default thresholds: {}
```

If authentication and access worked correctly, your results should appear similar to the above. After the discovery runs for several minutes, you start seeing the topology appear.

