OpenStack Identity Service

Codename: Keystone

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Keystone Overview

Keystone Concepts

Role

User

Credentials

Authentication

Endpoint

Service

Tenant / Project

Token

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Keystone Concepts: User

User

Person

System

Service

Keystone Concepts: Credentials

Credentials

Keystone Concepts: Authentication

Keystone Concepts: Token

Keystone Concepts: Tenant / Project

Tenant / Project

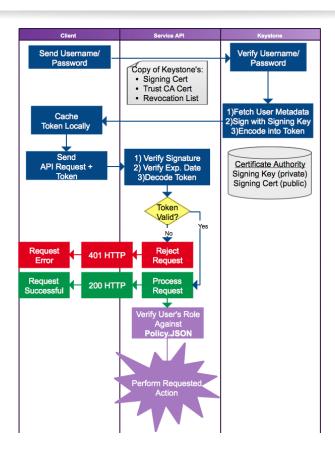# Keystone Concepts: Service

Service

Keystone Concepts: Endpoint

Keystone Concepts: Role

Keystone Operations Overview

API v2 Sample Org Structure

Project1: Biology
- User1: JohnB
- Role1: Sysadmin
- User2: LisaD
- Role2: Engineer

Project2: Aerospace
- User3: SandraD
- Role1: Sysadmin
- User4: MarkF
- Role3: Project Mgr

Project3: Comp Sci
- User1: JohnB
- Role1: Sysadmin
- User3: SandraD
- Role4: Support
- User5: MichaelR
- Role2: Engineer

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Keystone v3 API

The Keystone v3 API is included with OpenStack Havana & Icehouse but the Python-KeystoneClient does not expose v3 functionality at this time.

Any interaction with the v3 API needs to be done directly via curl or the new Python-OpenstackClient. The term **tenant** is now officially replaced with **project**.

The Keystone v3 API introduces three significant Keystone features/concepts:

- Domains
- Groups
- Federation Authentication

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Keystone v3 Domains

Keystone v3 Groups

Populating Authentication Data

- Add Tenants / Projects:

```
keystone tenant-create --name MyProject
keystone tenant-list
```

- Add Users:

```
keystone user-create --tenant-id <UUID> --name myuser --pass mypassword
keystone user-list
```

- Add Roles:

```
keystone role-create --name Admin
keystone role-create --name Member
keystone role-list
```

- Grant Roles:

```
keystone user-role-add --user <UUID> --tenant_id <UUID> --role <UUID>
```

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Populating Service Catalog

- Add Services:

```
keystone service-create \
--name keystone \
--type identity \
--description "Keystone Identity Service"

keystone service-list
```

- Add Endpoints:

```
keystone endpoint-create \
--region RegionOne \
--service_id <UUID> \
--public_url "http://174.143.194.225:5000/v2.0" \
--internal_url "http://192.168.100.200:5000/v2.0" \
--admin_url "http://192.168.100.200:35357/v2.0"

keystone endpoint-list
```