



Multisite Configuration Guide

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CONTENTS

1 Multisite configuration guide	1
1.1 Multisite identity service management	1

MULTISITE CONFIGURATION GUIDE

1.1 Multisite identity service management

1.1.1 Goal

a user should, using a single authentication point be able to manage virtual resources spread over multiple OpenStack regions.

1.1.2 Before you read

This chapter does not intend to cover all configuration of KeyStone and other OpenStack services to work together with KeyStone.

This chapter focuses only on the configuration part should be taken into account in multi-site scenario.

Please read the configuration documentation related to identity management of OpenStack for all configuration items.

http://docs.openstack.org/liberty/config-reference/content/ch_configuring-openstack-identity.html

How to configure the database cluster for synchronization or asynchronous replication in multi-site scenario is out of scope of this document. The only remainder is that for the synchronization or replication, only Keystone database is required. If you are using MySQL, you can configure like this:

In the master:

```
binlog-do-db=keystone
```

In the slave:

```
replicate-do-db=keystone
```

1.1.3 Deployment options

For each detail description of each deployment option, please refer to the admin-user-guide.

- Distributed KeyStone service with PKI token

In KeyStone configuration file, PKI token format should be configured

```
provider = pki
```

or

```
provider = pkiz
```

In the [keystone_authtoken] section of each OpenStack service configuration file in each site, configure the identity_url and auth_uri to the address of KeyStone service

```
identity_uri = https://keystone.your.com:35357/  
auth_uri = http://keystone.your.com:5000/v2.0
```

It's better to use domain name for the KeyStone service, but not to use IP address directly, especially if you deployed KeyStone service in at least two sites for site level high availability.

- Distributed KeyStone service with Fernet token
- Distributed KeyStone service with Fernet token + Async replication (star-mode).

In these two deployment options, the token validation is planned to be done in local site.

In KeyStone configuration file, Fernet token format should be configured

```
provider = fernet
```

In the [keystone_authtoken] section of each OpenStack service configuration file in each site, configure the identity_url and auth_uri to the address of local KeyStone service

```
identity_uri = https://local-keystone.your.com:35357/  
auth_uri = http://local-keystone.your.com:5000/v2.0
```

and especially, configure the region_name to your local region name, for example, if you are configuring services in RegionOne, and there is local KeyStone service in RegionOne, then

```
region_name = RegionOne
```