# Ch3 Basic Environment Establishment

## 3.5 Mariadb Database Configuration

**Step1**. install mariadb on controller:

Yum install mariadb mariadb-server MySQL-python (tip: you should mount centos 7.2 to cdrom)

**Step2.** Configurate /etc/my.cnf.d/mariadb\_openstack.cnf file

Vim /etc/my.cnf.d/mariadb\_openstack.cnf

**Step3.** Add the following text into this file:

|  |
| --- |
| [mysqld]  bind-address =10.0.0.11  default-storage-engine =innodb  innodb\_file\_per\_table  collation-server=utf8\_general\_ci  init-connect=’SET NAMES utf8’  character-set-server = utf8 |

# Ch4 Keystone – identity Service

Keystone is one of the component of openstack. It is in charge of user security identification and permission control service.

## 4.1 Controller Node Installation and Configuration

## 4.2 Mariadb Database Installation

## 4.3 Identity Service Component Installation and Configuration

**Step1:** Install packages

|  |
| --- |
| Yum install openstack-keystone httpd mod\_wsgi python-openstackclient memcached python-memcached |

**Step2**: configure memcached service

|  |
| --- |
| Systemctl enable memcached.service  Systemctl start memcached.service |

**Step3:** configure and modify /etc/keystone/keystone.conf

|  |
| --- |
| [DEFAULT]  Admin\_token =ADMIN # a temporary token when we first configure keystone  verbose = true  debug = true  log\_file = keystone.log  log\_dir = /var/log/keystone  admin\_bind\_host= 10.0.0.11  public\_bind\_host=10.0.0.11  # connect keystone’s /usr/password/host/database  [database]  connection = mysql://keystone:own\_password@controller/keystone  [memcache]  servers=localhost:11211  # use uuid to verify and token to store memcache  [token]  provider= uuid  driver = memcache  # An implementation of the backend for persisting revocation events  [revoke]  driver = mysql |

**Step4**: synchronize database

|  |
| --- |
| su –s /bin/sh –c “keystone-manage db\_sync” keystone  # if synchronize succeed, keystone will establish tables  # No handlers could be found for logger “oslo\_config.cfg”, this warning can be ignored |

## 4.4 Configure Apache HTTP Server

Step1: modify /etc/httpd/conf/httpd.conf

vim /etc/httpd/conf/httpd.conf

|  |
| --- |
| # add those code into this file  ServerName controller |

Step2: copy wsgi-keystone.conf to /etc/httpd/conf.d directory

Step3:

|  |
| --- |
| Systemctl enable httpd.service  Systemctl start httpd.service  Systemctl status httpd.service |

|  |
| --- |
| 1. No such file or directory: AH02291: Cannot access directory ‘/var/log/apache2/’ for error log of vhost defined at /etc/httpd/conf.d/wsgi-keystone.conf:27 solution: <https://stackoverflow.com/questions/37796943/accidentally-deleted-var-log-apache2-and-now-cant-restart-apache> (answer2) |

## 4.5 Create Service Entity and API Endpoint

S1:

|  |
| --- |
| export OS\_TOKEN = ADMIN  export OS\_URL = <http://controller:35357/v3>  export OS\_IDENTITY\_API\_VERSION=3 |

S2:

|  |
| --- |
| openstack service create –name keystone –description “OpenStack Identity” identity |

|  |
| --- |
| The request you have made requires authentication. (Disable debug mode to suppress these detail.) (HTTP 401) |