Setup of OpenDJ 2.4.5 v0.2

DNS

OpenDJ replication requires that you use fully qualified domain names, such as opendj.example.com so we'll use,

opendj0.krypton.com and www.opendj0.krypton.com

Ensure that your all dns entries that you use are are in your host file.

Install Required Package

For some reason fontconfig is required for a proper install otherwise you get this error message,

```
Fontconfig error: Cannot load default config file
See /tmp/opends-setup-2789148880898957298.log for a detailed log of this
operation.
```

Install fontconfig

```
sudo apt-get install fontconfig
```

Setup Java

In theory and design we should be able to make OpenDJ truly zero footprint and specify the exact version of Java to run via the systems configuration file. However, in actual practice you end up having to setup and Java environment variable to pretty much do anything, so we might as well use a Java environment variable to run OpenDJ.

When you try to run the setup,

```
cd /opt/opendj.0

./setup --cli
Please set OPENDS_JAVA_HOME to the root of a Java 6 update 10 (or higher)
installation or edit the java.properties file and then run the
dsjavaproperties script to specify the Java version to be used.
```

Install Java

Forget about using editing the java.properties. Instead, first install 32-bit JRE per the Zero Footprint Java on Ubuntu instructions using serveradmin. The only slight change is that we will move the JRE into the following folder using a root enabled account,

```
sudo mv /home/serveradmin/java/ /opt/java-forgerock/
sudo chown -R serveradmin:staff /opt/java-forgerock/
sudo chmod -R 750 /opt/java-forgerock/
```

Configure Java Environment Path

> There is a bug that was resolved in the main start-ds, but as of 2.4.5 still exists with dsjavaproperties, the environment variable should be, OPEN**DJ**_JAVA_HOME but dsjavaproperties still uses OPEN**DS**_JAVA_HOME.

We set the environment variable for serveradmin by editing the user's profile,

```
cd ~
vi .profile
```

At the the following to the end of the file,

```
export OPENDS_JAVA_HOME=/opt/java-forgerock
```

Command Line Setup

Do everything as the user that will be running OpenDJ. In our tutorial we will use **serveradmin** unless otherwise indicated,

OpenDJ Download and Prep

First grab the software and unzip,

```
wget http://download.forgerock.org/downloads/opendj/2.4.5/OpenDJ-2.4.5.zip
unzip OpenDJ-2.4.5.zip
```

Setup folder using a **root** capable user,

```
sudo mv /home/serveradmin/OpenDJ-2.4.5/ /opt/opendj/
sudo chown -R serveradmin:staff ./opendj/
sudo chmod -R 750 ./opendj/
sudo mv ./opendj/ ./opendj.0/ # Marking this as the first instance
```

Start the Setup

Run the command line setup,

```
cd /opt/opendj.0
./setup --cli
```

Unless otherwise indicated select the default option,

```
What would you like to use as the initial root user DN for the Directory
Server? [cn=Directory Manager]:
Please provide the password to use for the initial root user:
Please re-enter the password for confirmation:
```

Make sure to use a complex password for the initial root user. We'll use the standard T&R password on "Directory Manager".

```
On which port would you like the Directory Server to accept connections
from
LDAP clients? [1389]:
On which port would you like the Administration Connector to accept
connections? [4444]:
```

For LDAP client port, unless you are running with root priviledges you cannot use ports 1 through 1024. So rather than use 389, use 1389.

Use the default 4444 port for Administration Connector.

```
Do you want to create base DNs in the server? (yes / no) [yes]:
Provide the base DN for the directory data: [dc=example,dc=com]:
cd=krypton,dc=com
Options for populating the database:
    1)  Only create the base entry
    2)  Leave the database empty
    3)  Import data from an LDIF file
    4)  Load automatically-generated sample data
Enter choice [1]:
Do you want to enable SSL? (yes / no) [no]:
Do you want to enable Start TLS? (yes / no) [no]:
Do you want to start the server when the configuration is completed? (yes /
no) [yes]: no
```

Do you want to create base DNs in the server, select yes if you have a real DNS or use host entries on the server and client.

I select no to start the server because I like to we can run the status command even if the server is off and verify the configuration.

```
Setup Summary
=============
LDAP Listener Port:           1389
Administration Connector Port: 4444
LDAP Secure Access:           disabled
Root User DN:                 cn=Directory Manager
Directory Data:               Create New Base DN cd=krypton,dc=com.
Base DN Data: Only Create Base Entry (cd=krypton,dc=com)
Do not start Server when the configuration is completed
What would you like to do?
    1)  Set up the server with the parameters above
    2)  Provide the setup parameters again
    3)  Print equivalent non-interactive command-line
    4)  Cancel and exit
Enter choice [1]:


See /tmp/opends-setup-998122271824097562.log for a detailed log of this
operation.
Configuring Directory Server ..... Done.
Creating Base Entry cd=krypton,dc=com ..... Done.
To see basic server configuration status and configuration you can launch
/opt/opendj.0/bin/status
```

Start and Stop

As a reference,

```
cd /opt/opendj.0/bin
./start-ds

cd /opt/opendj.0/bin
./stop-ds

# I think this is verbose mode but not finding docs on it
./start-ds -s
```

Start the server,

```
cd /opt/opendj.0/bin
./start-ds
See /tmp/opends-setup-7855637320320628455.log for a detailed log of this
operation.
Configuring Directory Server ..... Done.
Creating Base Entry dc=tin-pham,dc=com ..... Done.
Starting Directory Server ......... Done.
To see basic server configuration status and configuration you can launch
/opt/opendj.0/bin/status
```

Create Data Stores

During the OpenAM installation, two data stores will be are created,

1. Configuration
2. User

It is recommended by ForgeRock that the configuration use the OpenAM embedded data store for up to 4 OpenAM replicas. ForgeRock further recommends that no more then 4 OpenAM replicas exist for a given installation.

In our own experience, we were not successful when we tried to use OpenDJ for the configuration data store even though we followed the steps to Relax the Restriction on Objects.

References

Not bad but not good manual setup - http://opendj.forgerock.org/docs.html

https://bugster.forgerock.org/jira/browse/OPENDJ-330