

## SciDB Configuration (Single Node)

Things we listed here are needed to be done after SciDB installation.

1. Configure Postgres to use 'md5' authentication for local and remote TCP/IP connections.

Modify the `pg_hba.conf` under `/etc/postgresql/8.4/main/`. The following settings need to be included:

```
host all all 127.0.0.1/32 md5
host all all ::1/128 md5
host all all W.X.Y.Z/N md5 (change it yourself)
```

2. If you need to set the listening port and addresses, set the file `postgresql.conf`.

3. Restart Postgres by: `sudo /etc/init.d/postgresql restart`

4. Add Postgres to the system services by calling:

```
sudo /sbin/chkconfig --add postgresql
```

5. Add environment variables on coordinator server:

```
export SCIDB_VER=13.6
export PATH="$PATH:/opt/scidb/$SCIDB_VER/bin:/opt/scidb/$SCIDB_VER/share/scidb"
export LD_LIBRARY_PATH="$LD_LIBRARY_PATH:/opt/scidb/$SCIDB_VER/lib"
```

6. Edit SciDB configuration file `/opt/scidb/13.6/etc/config.ini`.

```
[test1] - Cluster name
server-0=localhost,0 - Server configuration, "server-N, w" w means # of worker instances.
db_user=test1user - User name to use in the catalog connection string.
db_passwd=test1passwd - Password to use in the catalog connection string.
install_root=/opt/scidb/13.6
metadata=/opt/scidb/13.6/share/scidb/meta.sql
pluginsdir=/opt/scidb/13.6/lib/scidb/plugins
logconf=/opt/scidb/13.6/share/scidb/log4cxx.properties
base-path=/home/scidb/data
base-port=1239
interface=eth0
network-buffer=1024
mem-array-threshold=1024 - Maximum size in MB of temporary data to be cached in memory.
smgr-cache-size=1024 - Size of memory in MB allocated to the global shared cache of array
                        chunks.
execution-threads=16
result-prefetch-queue-size=4
result-prefetch-threads=4
chunk-segment-size=100485760 - Size of a storage segment in bytes. Nonzero value enables a
                                reuse. Default 85MB, maximum 2GB.
```

7. Initialize the system catalog database in Postgres (I suggest run it as root).

```
sudo -u postgres /opt/scidb/13.6/bin/scidb.py init_syscat dbname
```

8. Install the database as user `scidb`: `scidb.py install dbname`

9. Now start the database using `scidb.py startall db`