SWIFT TLC (Tape Library Connector) Quick Start Guide

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SWIFT-TLC simulator

The SWIFT-TLC simulator provides a simulation environment that you can use this tool for verify how SWIFT-TLC works without connecting to a physical tape library.

The SWIFT TLC simulator package is under folder “SWIFT-TLC/packages/Tools/” of the github project repository, which named as “simulator_switcher.x.x.x.tar.gz”

Setup preparation

- Before install the SWIFT TLC simulator, you will need to have TLC installed. (Please note after SWIFT TLC installed, do not start the service.)
- There is a simulator.xml configure file under folder “conf” in the simulator_switcher package, can define the tapes, slots and the tape move/format/mount delay.
- We don’t suggest to manually add the virtual tape manually, there is another tool for generate simulator.xml with specify configure.
- If you want to use a new simulator.xml rather than the default one. You can do the following: Download the tool “**genSimXMLCfg.tar.gz**”, un-package the package then change directory to genSimXMLCfg, edit the “simulator.ini” file, changer the configure as you want, the ini file format like below:

```
[DE64000F22]          # Changer serial number
lto6_drive=4          # Specify the number of LTO6 drive
total_slot_num=20     # Specify the total slot number
mail_slot_num=1       # Specify the number of mail slot
lto6_tape=8           # Specify the number of LTO6 tape
```

  After setup the configure file, run “**python genSimulator.py**”, then you will have a simulator.xml generated base on the simulator.ini. Copy and replace this file of original one in the “simulator_switcher/conf/”.
- If you want to manually modify the xml file, please note that at current version the changer’s **<serial number>** and the **<scsi_addr>** must be the same in the simulator.xml file.

Install the TLC simulator by executing below steps

- Un-package the simulator_switcher.x.x.x.tar.gz
- Change to folder “simulator_switcher”
- Execute the shell script, “./switch2Sim.sh”
  You will see below content
- System will install the simulator binaries and then start the vs service automatically.

```
[root@localhost simulator_switcher]# ./switch2Sim.sh
[INFO] Stopping 'VS' service:
[INFO] Disabling watchdog.
[INFO] Cleaning Suds Cache
[WARNING] Stopping 'vs' service failed with unknown return code 1
[INFO] Cleaning pipe Cache.
[INFO] No 'pipe' cache is found
[SUCCESS] 'VS' Service has been stopped!
Copying simulator config file
Copying simulator vfs binraries
Copying simulator vfsclient binraries
[INFO] Starting 'VS' service
[INFO] Starting 'vfsserver-simulator'...
[SUCCESS] 'vfsserver-simulator' is started.
[INFO] Enabling watchdog.
[SUCCESS] 'VS' Service has been started!
Your system has been switched to use simulator.
```

- After switch to simulator environment, TLC will do “inventory” for all the virtual tape which defined in the simulator.xml under /etc/vs/simulator.xml
- Wait 10 mins after TLC-simulator service started and verify that TLC is running well by executing the commands “df - h | grep vs”. It should list the TLC VFS volume (/srv/node/vsnode) with a capacity of several TB. The shown VFS capacity is the capacity of the sum of all currently virtual formatted tapes.

```
[root@tlc01 TLC]# df -h | grep vs
/dev/md126       60G   33M   60G   1% /opt/VS/vsCache/meta
/dev/md127      1.4T   34M  1.4T   1% /opt/VS/vsCache/diskCache
vfsclient       7.9T     0  7.9T   0% /srv/node/vsnode
```