IIntroduction

This is example how to checkout,build and test SXPD C code. For more details about compilation/testing/configuration/running SXPD please read README file
which is part of checkouted code.

Notice

Before use of example commands please update <ciso login> with you cisco login.

Do not run tests concurrently on one machine, test cases are using same TCP port numbers.

Dependencies

To build SXPD you need some packages in your linux distribution:
libevent-<version>
libevent-pthreads-<version>
libevent-dev
libconfig-dev
cmake
gcovr
lcov
valgrind

Also in case of using experimental testing branch there is dependency on:
tcl-expect-dev

Code checkout and build

Folowing commands are used to:

1. Change directory to home directory
2. Checkout all SXPD code and also README file from git repository to newly created directory sxpdc.
3. Switch to newly created sxpdc directory, wich is code root directory
4. Switch to branch master
5. Create build directory which will be used by cmake to generate make rules and also used as destination for compiled binary files.
6. Switch to this newly created directory
7. Call cmake command with path to SXPD source directory as one of
8. of the parameters.
9. Once cmake is finished, invoke make.

```
cd ~
git clone ssh://<cisco login>@wwwin-git-sjc.cisco.com/git/sxpdc/sxpdc.git
cd ~/sxpdc
git checkout experimental_testing
mkdir ~/build
cd ~/build
cmake -DCMAKE_BUILD_TYPE=Release -DTARGET_BUILD_PLATFORM=linux
-DENABLE_LOG_PRINTING=true -DENABLE_STRICT_BINDING_CFG_CHECK=true
-DENABLE_GDBUS_INTERFACE=false ../sxpdc/
```

```
make
```

Run C automated test suite

Folowing next commands are used to run SXP C test suite:

1. Change directory to build directory
2. Run test suite

```
cd ~/build
ctest
```

Prepare and run C vs JAVA test suite

Folowing next commands are used to run C vs Java test suite:

1. Create and change directory to run Linux vs Java files directory
2. Copy all needed files to this directory
3. Run test suite

```
mkdir -p ~/c_java_at && cd ~/c_java_at
cp ~/build/linux/test/topology/cj_topo_* ./
cp ~/sxpdc/linux/test/topology/cj_* ./
./cj_test_setup.sh
```

Prepare and run C vs IOS tests

Because of experimental state of Linux SXPD vs IOS SXP automated testing, source code is commited in branch "experimental_testing".

Before building and running C vs IOS automated tests please update source code configuration, by updating C defines in file c_ios_shared.c:

```
/* ssh connection to machine which can be used to configure IOS */
#define TEST_CFG_SSH_CMD "ssh odl@localhost"
/* ssh password */
#define TEST_CFG_SSH_PWD "********"
/* Linux SXPD IP used for SXP communication */
#define TEST_CFG_LINUX_SXPD_IP "10.1.4.50"
/* IOS SXP IP used to SXP communication */
#define TEST_CFG_IOS_IP "10.10.18.1"
/* router name */
#define TEST_CFG_IOS_NAME "cts-3850-b"
```

Folowing next commands are used to run C vs IOS test suite:

1. Create and change directory to run Linux vs Java files directory
2. Copy all needed files to this directory
3. Run test 1
4. Run test 2

```
mkdir -p ~/c_ios_at && cd ~/c_ios_at
cp ~/build/linux/test/topology/c_ios_topo_* ./
cp ~/sxpdc/linux/test/topology/c_ios_default.cfg ./
```

./c_ios_topo_1
./c_ios_topo_2