

11.6 TI RSocketS USING OFED

11.6.1 IB SETUP

Connect the HCAs and switches as per the Architected Network and make sure that no SM is running on the Fabric.

This procedure, as the previous ones, will be based on the cluster connectivity. An SM/SA which supports IPoIB (sufficient IB multicast support) will be running on the HCAs, or on a switch with an embedded SM/SA or a third HCA which would only run SM/SA for the partner pair (with a switch in the middle). This procedure has been developed for Linux and maybe ported to Windows if there is sufficient vendor support.

11.6.2 ETHERNET SETUP

- 1) Connect RSocket host client and server Channel Adapters to an 10GbE switch.

11.6.3 INSTALLATION REQUIREMENTS

Make sure the following are installed on all nodes:

- 1) sshd - for SCP application.

11.6.4 CREATING A USER NAME

Special account for this should be created as follows:

- 1) Username: interop.
- 2) Password: openfabrics.

11.6.5 SFTP PROCEDURE

SFTP procedures require an SFTP server to be configured on each machine in the partner pair. An SFTP client needs to be available on each machine as well. The default RHEL install includes both.

A 4 MB file will be SFTP'd to the partner and then SFTP'd back and binary compared to the original file. This must be done in each direction and then bidirectional and for IB using every SM available. If needed, you can create a 4 MB file 'tfile.orig' filled with random data using the following command:

```
dd if=/dev/urandom of=tfile.orig bs=1000 count=4000
```

11.6.5.1 Procedure

- 1) [For IB] Start an SM (all SM's will need to be tested) and let it initialize
 - a) Verify that the running SM is the one you started.
- 2) SFTP:
 - a) [For IB] Connect an HCA pair via SFTP on IPoIB using the specified user name and password.
 - b) Put the 4MB file to the /tmp dir on the remote host.
 - c) Get the same file to your local dir again.

- d) Compare the file using the command *cmp tfile tfile.orig*. 1
- i) The two must be identical 2
- e) [For IB] Repeat the procedure with a different SM. 3
- 3) [For IB] Repeat the procedure with a different SM. 4
- Note:** Every node must SFTP the 4MB file to all others using all SM's and the 5
 files must be identical as determined by the binary compare in order for the 6
 device to pass 12.4.7 overall. 7

11.6.6 SCP PROCEDURE 8

A 4MB file will be SCP'd to the partner and then SCP'd back and binary compared 9
to the original file. This must be done in each direction and then bidirectional and 10
for IB, using every SM available. If needed, you can create a 4 MB file 'tfile.orig' 11
filled with random data using the following command: 12

```
dd if=/dev/urandom of=tfile.orig bs=1000 count=4000 13
```

11.6.6.1 SETUP 14

- 1) A special account for this should be created as follows: 15
- a) Username: Interop 16
- b) Password: openfabrics 17

11.6.6.2 Procedure 18

- 1) [For IB] Start an SM (all SM's will need to be tested) and let it initialize 19
- a) Verify that the running SM is the one you started. 20
- 2) SCP: 21
- a) Put the 4MB file to the /tmp dir on the remote host via SCP. 22
- b) Get the same file to your local dir again via SCP. 23
- c) Compare the file using the command *cmp tfile tfile.orig*. 24
- i) The two must be identical 25
- d) Repeat step #2 with a different HCA pair until all HCAs have been test- 26
 ed with all others (All to All). 27
- 3) [For IB] Repeat the procedure with a different SM. 28
- Note:** Every node must SCP the 4MB file to all others using all SM's and the 29
 files must be identical as determined by the binary compare in order for the 30
 device to pass 12.4.8 overall. 31
- Note:** The device must pass both sections in order to pass Rsockets overall 32