

Task 4: Verify the operating parameters of all service components

SA Lab 2 provides **five** commands for examining and verifying the operating status of all service components: `show service sdp {x}` `show service sap-using` `show service id {x} base`
`show service id {x} labels` `show router ldp bindings`

Those 5 are sufficient for verifying the operation from a Service Provider's perspective. We'll add three extras, including one to verify the operation from the Subscriber's perspective.

- Step 1. From a PE router, test the uni-directional connection provided by the SDP:
`oam sdp-ping {sdp-number}`
Examine the output to see how many fields make sense (already!)
- Step 2. From a PE router, test the bi-directional connection provided by the SDP:
`oam sdp-ping {sdp-number} resp-sdp {far-end-return-sdp}`
Examine the output to see how many fields make sense (already!)
- Step 3. Ping between CE routers. On each of the CE routers, examine the ARP table:
`show router arp`
Compare the display of the two routers' tables, and correlate the values you see.

CHECK POINT #3: Help the lab Professor understand what does and doesn't match, and why.

Task 5: Save your configs

As always, save the configs for your P, PE, and CE routers on the EDU ftp server:
use `edu1 / dEEtgx2Y` or `edu2 / dEEtgx2Y` for each 1/2 of the class; **Rxx = R01, R02, ...**

save: `admin save ftp://{acct}:{pswd}@192.168.181.81/Rxx/ande0001-L8.cfg`

check: `file dir ftp://{acct}:{pswd}@192.168.181.81/Rxx/`

restore: `exec ftp://{acct}:{pswd}@192.168.181.81/Rxx/ande0001-L8.cfg`

Task 6: Questions

Correct written answers to these three questions are the last required item for the in-lab.

1. You can see labels for the system address of P routers as well as PE routers by using the `show router ldp bindings` command. A label is required for the PE router because it is the end of the transport tunnel. Why do P routers need labels as well?

Labels for P routers exist as a by-product of needing them for the transport tunnel.

2. The `show router ldp bindings` command shows the LMTU and RMTU for the service. What is the meaning of these values? Why is the value 1500?

LMTU = Local MTU; RMTU = Remote MTU; values are always the L3 IP payload size

3. CE1, CE2, CE3 and CE4 are all in the same subnet. Why is it possible to ping CE4 from CE1, but not from CE2 or CE3?

There are only diagonal (virtual) connections; no horizontal or vertical connections exist.

CHECK POINT #4: Submit your written answers to the lab Professor.