Lab Access Instructions - Virtualised Platform

Introduction

This lab runs on a virtualised environment for Cisco IOS called ”Dynamips”. The method of access to each virtual router is via Telnet to a specific port on the IP of the machine that runs the virtualization platform.

Switch types used in the lab

This lab uses a Cisco 3745 router with 16 Port 10BaseT/100BaseTX EtherSwitch (NM-16ESW) module.

Note: This Cisco model is actually a router, but the 16-port module provides basic Layer-2 capabilities, and we will use these as switches. Dynamips does not support the emulation of the Cisco Catalyst class of switches, unfortunately.

Lab access instructions

The instructors will divide the class into groups, where each group is responsible for the operation of a campus. Decide amongst yourselves which person will be responsible for configuring each switch.

Access to Dynamips is by telnet, where each virtual switch or router has a different port number in the table below.

Each participant should ensure that their device has a suitable telnet client. Linux and MacOS system have access to a shell command prompt (or Terminal) program, which allows telnet at the command line. Windows users should use Putty or another similar telnet program; make sure you select Telnet not SSH.

The instructor will provide the IP address of the host in this particular workshop. It will normally be s1.ws.nsrc.org, but the instructor will confirm this at the start of this lab.

Campus 1 Device Name	**Console Access**
bdr1-campus1	telnet s1.ws.nsrc.org 2101
core1-campus1	telnet s1.ws.nsrc.org 2102
dist1-b1-campus1	telnet s1.ws.nsrc.org 2103
edge1-b1-campus1	telnet s1.ws.nsrc.org 2104
edge2-b1-campus1	telnet s1.ws.nsrc.org 2105
dist1-b2-campus1	telnet s1.ws.nsrc.org 2106
edge1-b2-campus1	telnet s1.ws.nsrc.org 2107
edge2-b2-campus1	telnet s1.ws.nsrc.org 2108
Campus 2 Device Name	**Console Access**
bdr1-campus2	telnet s1.ws.nsrc.org 2201
core1-campus2	telnet s1.ws.nsrc.org 2202
dist1-b1-campus2	telnet s1.ws.nsrc.org 2203
edge1-b1-campus2	telnet s1.ws.nsrc.org 2204
edge2-b1-campus2	telnet s1.ws.nsrc.org 2205
dist1-b2-campus2	telnet s1.ws.nsrc.org 2206
edge1-b2-campus2	telnet s1.ws.nsrc.org 2207
edge2-b2-campus2	telnet s1.ws.nsrc.org 2208
Campus 3 Device Name	**Console Access**
bdr1-campus3	telnet s1.ws.nsrc.org 2301
core1-campus3	telnet s1.ws.nsrc.org 2302
dist1-b1-campus3	telnet s1.ws.nsrc.org 2303
edge1-b1-campus3	telnet s1.ws.nsrc.org 2304
edge2-b1-campus3	telnet s1.ws.nsrc.org 2305
dist1-b2-campus3	telnet s1.ws.nsrc.org 2306

edge1-b2-campus3	telnet s1.ws.nsrc.org 2307
edge2-b2-campus3	telnet s1.ws.nsrc.org 2308
Campus 4 Device Name	**Console Access**
bdr1-campus4	telnet s1.ws.nsrc.org 2401
core1-campus4	telnet s1.ws.nsrc.org 2402
dist1-b1-campus4	telnet s1.ws.nsrc.org 2403
edge1-b1-campus4	telnet s1.ws.nsrc.org 2404
edge2-b1-campus4	telnet s1.ws.nsrc.org 2405
dist1-b2-campus4	telnet s1.ws.nsrc.org 2406
edge1-b2-campus4	telnet s1.ws.nsrc.org 2407
edge2-b2-campus4	telnet s1.ws.nsrc.org 2408
Campus 5 Device Name	**Console Access**
bdr1-campus5	telnet s1.ws.nsrc.org 2501
core1-campus5	telnet s1.ws.nsrc.org 2502
dist1-b1-campus5	telnet s1.ws.nsrc.org 2503
edge1-b1-campus5	telnet s1.ws.nsrc.org 2504
edge2-b1-campus5	telnet s1.ws.nsrc.org 2505
dist1-b2-campus5	telnet s1.ws.nsrc.org 2506
edge1-b2-campus5	telnet s1.ws.nsrc.org 2507
edge2-b2-campus5	telnet s1.ws.nsrc.org 2508
Campus 6 Device Name	**Console Access**
bdr1-campus6	telnet s1.ws.nsrc.org 2601
core1-campus6	telnet s1.ws.nsrc.org 2602
dist1-b1-campus6	telnet s1.ws.nsrc.org 2603
edge1-b1-campus6	telnet s1.ws.nsrc.org 2604
edge2-b1-campus6	telnet s1.ws.nsrc.org 2605
dist1-b2-campus6	telnet s1.ws.nsrc.org 2606
edge1-b2-campus6	telnet s1.ws.nsrc.org 2607
edge2-b2-campus6	telnet s1.ws.nsrc.org 2608

Login Instructions

Using the telnet client on your PC or laptop, connect to the switches you have been assigned; for example, to connect to the console port of core1-campus1:

```
telnet s1.ws.nsrc.org 2102
```

or to edge2-b1-campus6:

```
telnet s1.ws.nsrc.org 2605
```

Once connected, you will see the Dynamips response, followed by the login or command prompt of the router:

```
bash-3.2$ telnet s1.ws.nsrc.org 2102

Trying 10.10.0.241...
Connected to s1.ws.nsrc.org.
Escape character is '^]'.
Connected to Dynamips VM "core1-campus1" (ID 4, type c3745) - Console port
Press ENTER to get the prompt.

....
```

If the “Connected to Dynamips VM” won’t appear, even after hitting the Return key several times, please request help from the workshop instructors.

Then, if you see this question:

```
Would you like to enter the initial configuration dialog? [yes/no]:
```

Answer ”no”.

The router will show some initialization routines, and finally, you will see the default prompt:

```
Router>
```

You can then go into privileged mode:

```
Router> enable
Router#
```

And then enter configuration mode:

```
Router# configure terminal
Router(config)#
```

And you are ready to start entering configuration statements. When you are done, exit configuration mode by typing *end* or pressing *ctrl-Z* and save your changes:

```
Router(config)# end
Router# write memory
```