

Network Monitoring and Management Welcome

Network Startup Resource Center
www.nsrc.org



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Workshop Schedule

Session I	09:00 – 10:30
Break	10:30 – 11:00
Session II	11:00 – 13:00
Lunch	13:00 – 14:00
Session III	14:00 – 15:30
Break	15:30 – 16:00
Session IV	16:00 – 17:30+

Workshop Instructors

<u>INSTRUCTOR</u>	<u>COUNTRY</u>	<u>ORGANIZATION</u>
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Cleven Mmari	Tanzania/USA	University of Oregon/NSRC
Isaac Armah-Mensah	Ghana	University of Cape Coast
Seun Ojedeji	Nigeria	Federal University Oye-Ekiti
Timothy Ola Akinfenwa	Nigeria	Osun State University

Student Introductions

Workshop Agenda

Show Briefing Slides
Show Wiki

Administrative Items

Agenda

- <http://www.ws.nsrc.org/>

During the course

- Please ask questions as you have them.
- Your experiences are valuable. Please share them.
- The schedule is somewhat flexible.

Course Materials

- <http://www.ws.nsrc.org/>
- Will be available permanently here:
- <http://nsrc.org/workshops/2018/afnog-nme>

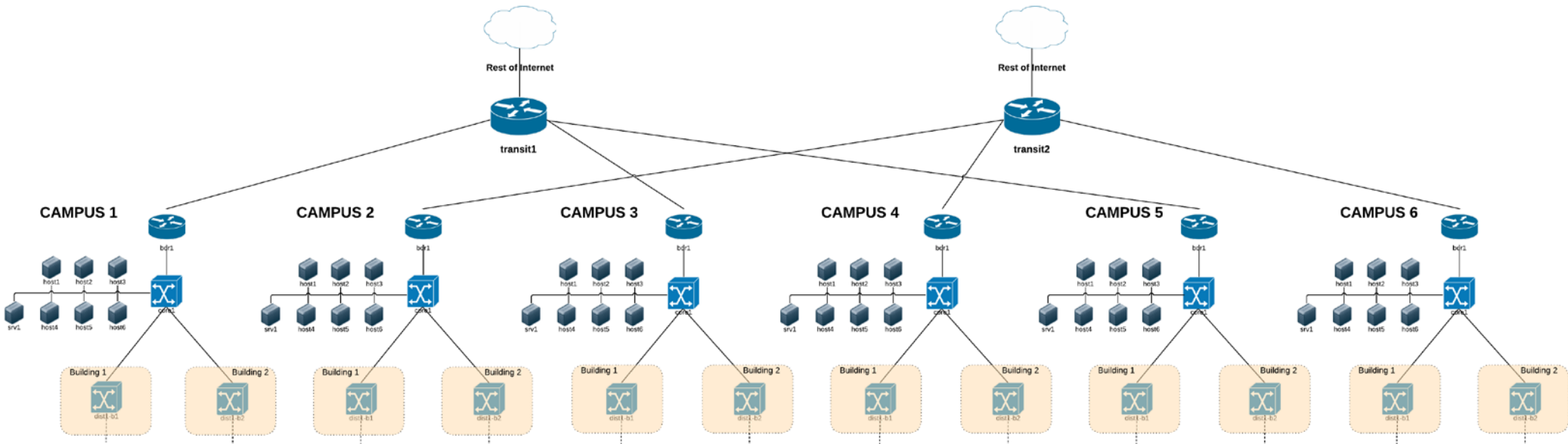
Virtual Machine Access

- There are 36 Virtual Machines:

`hostX.campusY.ws.nsrc.org`

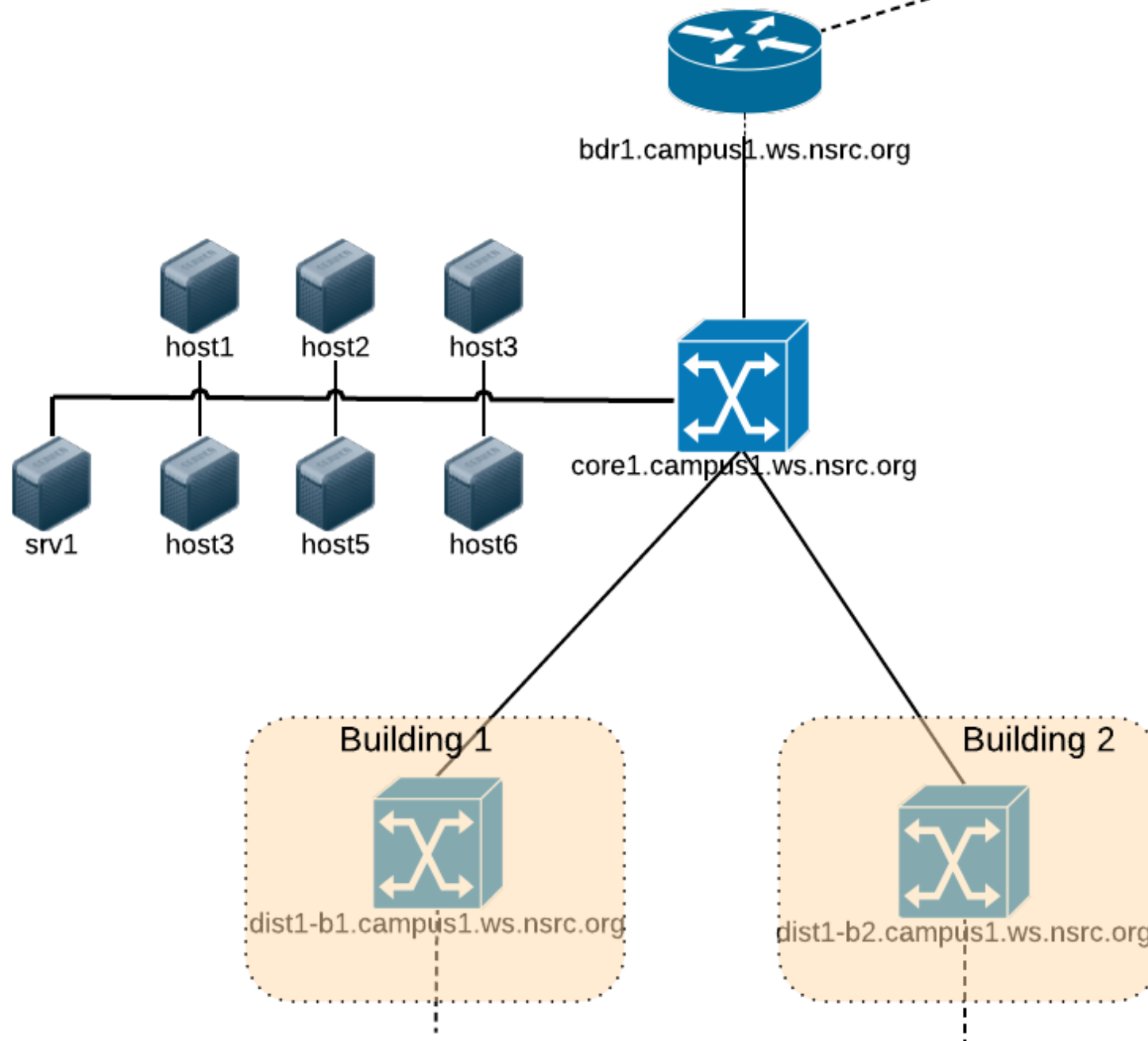
- Each virtual machine has two users:
 - General user: *sysadm* ← “s y s a d m”
 - Administrative user: *root*
- Password for *sysadm* is written on the board

Network Diagram Overview



CAMPUS 1

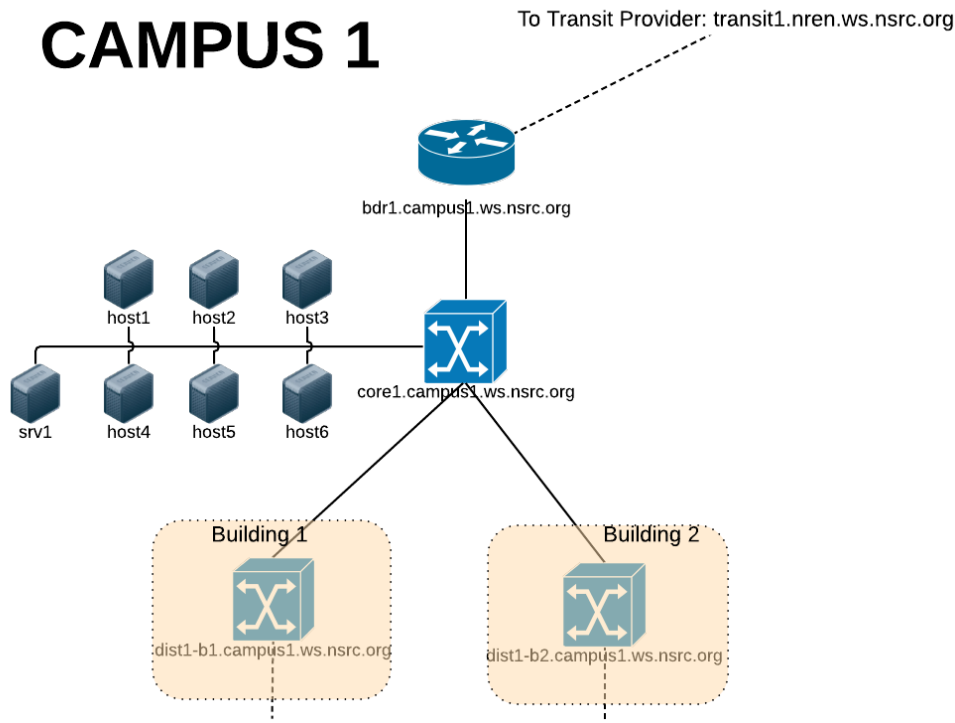
To Transit Provider: transit1.nren.ws.nsrc.org



Network Diagram

Single Campus Detail

CAMPUS 1



Services

dns:
apt-cacher:

IPv4

100.68.100.254
100.68.100.254

IPv6

2001:db8:100::1
2001:db8:100::1

Network Devices

transit1.nren.ws.nsrc.org:
bdr1.campus1.ws.nsrc.org:
core1.campus1.ws.nsrc.org:
dist1-b1.campus1.ws.nsrc.org:
dist1-b2.campus1.ws.nsrc.org:

100.68.100.235
100.68.1.1
100.68.1.2
172.21.10.2
172.21.20.2

2001:db8:100::235
2001:DB8:1:0::1
2001:DB8:1:0::2

Campus Servers

srv1.campus1.ws.nsrc.org:
host[1..6].campus1.ws.nsrc.org:

100.68.1.130
100.68.1.[131..136]

2001:db8:[1..6]:1::130
2001:db8:[1..6]:1::131

campus1.ws.nsrc.org	campus2.ws.nsrc.org	campus3.ws.nsrc.org
srv1 → 100.68.1.130	srv1 → 100.68.2.130	srv1 → 100.68.3.130
host1 → 100.68.1.131	host1 → 100.68.2.131	host1 → 100.68.3.131
host2 → 100.68.1.132	host2 → 100.68.2.132	host2 → 100.68.3.132
host3 → 100.68.1.133	host3 → 100.68.2.133	host3 → 100.68.3.133
host4 → 100.68.1.134	host4 → 100.68.2.134	host4 → 100.68.3.134
host5 → 100.68.1.135	host5 → 100.68.2.135	host5 → 100.68.3.135
host6 → 100.68.1.136	host6 → 100.68.2.136	host6 → 100.68.3.136
bdr1 → 100.68.1.1	bdr1 → 100.68.2.1	bdr1 → 100.68.3.1
core1 → 100.68.1.2	core1 → 100.68.2.2	core1 → 100.68.3.2
dist1-b1 → 172.21.10.2	dist1-b1 → 172.22.10.2	dist1-b1 → 172.23.10.2
dist1-b2 → 172.21.20.2	dist1-b2 → 172.22.20.2	dist1-b2 → 172.23.20.2
campus4.ws.nsrc.org	campus5.ws.nsrc.org	campus6.ws.nsrc.org
srv1 → 100.68.4.130	srv1 → 100.68.5.130	srv1 → 100.68.6.130
host1 → 100.68.4.131	host1 → 100.68.5.131	host1 → 100.68.6.131
host2 → 100.68.4.132	host2 → 100.68.5.132	host2 → 100.68.6.132
host3 → 100.68.4.133	host3 → 100.68.5.133	host3 → 100.68.6.133
host4 → 100.68.4.134	host4 → 100.68.5.134	host4 → 100.68.6.134
host5 → 100.68.4.135	host5 → 100.68.5.135	host5 → 100.68.6.135
host6 → 100.68.4.136	host6 → 100.68.5.136	host6 → 100.68.6.136
bdr1 → 100.68.4.1	bdr1 → 100.68.5.1	bdr1 → 100.68.6.1
core1 → 100.68.4.2	core1 → 100.68.5.2	core1 → 100.68.6.2
dist1-b1 → 172.24.10.2	dist1-b1 → 172.25.10.2	dist1-b1 → 172.26.10.2
dist1-b2 → 172.24.20.2	dist1-b2 → 172.25.20.2	dist1-b2 → 172.26.20.2

We will assign PCs & Groups Now

- 2 transit routers that serve odd and even groups
 - 6 border routers (`bdrX.campusY`)
 - 6 core layer 3 switches (`coreX.campusY`)
 - 12 building switches (2 buildings per campus)
 - No edge switches
 - 42 virtual servers
 - 1 server per user (`hostX.campusY`)
 - 1 shared server per group (`srv1.campusY`)
1. *You will work in groups of 6 on some exercises*
 2. *Please choose your location for the week now*
 3. *You will use your group's virtual machines all week*

Questions

Please Ask Questions At Any Time!