



NSRC-UCSY Myanmar

Campus Network Design
Network Management
Welcome

Instructors

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- New Zealand

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Schedule

Session I	09:00 – 10:30
Break	10:30 – 10:45
Session II	10:45 – 12:15
Lunch	12:15 – 13:15
Session III	13:15 – 14:30
Break	14:30 – 15:00
Session IV	15:00 – 16:30+

Potential evening sessions. See Agenda for further details

Agenda:

Monday	Topic	
Session 1	Welcome, Introduction	HA/DS/SH
	Questionnaire	HA
	Cisco configuration essentials	AL/DP
Session 2	Cisco SSH Configuration Lab	AL/DP
	Switching architectures (Layer 2)	AL/DP
Session 3	Layer 2 Lab	AL/DP
Session 4	IP routing (addressing, subnetting)	AL/DP
	IP routing Lab	AL/DP

Tuesday		
Session 1	Campus Network Designs and RENS	DS
Session 2	Roundtable for Campus Networks	DS/All
	Participant presentations	
Session 3	Security, Campus Networks and Network Management	
Session 4	Introduction to Network Management	

Wednesday	
Session 1	Basic Linux for VM usage
	Simple Network Management Protocol (SNMP)
Session 2	SNMP Labs
Session 3	Cacti
Session 4	Cacti Continued & mixed Questions & Answers
	Smokeping

Thursday		
Session 1	Smokeping Labs	HA
Session 2	Nagios	PR
Session 3	Nagios Labs	PR
Session 4	Network Documentation & Automation with Netdot	AL
	RANCID Demonstration	PR
Friday		
Session 1	Log management: Syslog & Tenshi	HA
Session 2	Log management Labs	HA
Session 3	Netflow / NfSen	PR
Session 4	Netflow Labs	PR
	Wrap up, certificates and closing comments	all

Administrative Items

- **Agenda**
 - <http://noc.ws.nsrc.org/wikis/nsrc-myanmar-nren/>
- **During the course**
 - Please ask questions as you have them.
 - Your experiences are valuable. Please share them.
 - The schedule is somewhat flexible.
- **Course Materials**
 - Available in electronic format during the week:
<http://noc.ws.nsrc.org/>
 - Will be available permanently here:
<http://nsrc.org/workshops/2013/nsrc-myanmar-nren/>

Virtual machine access

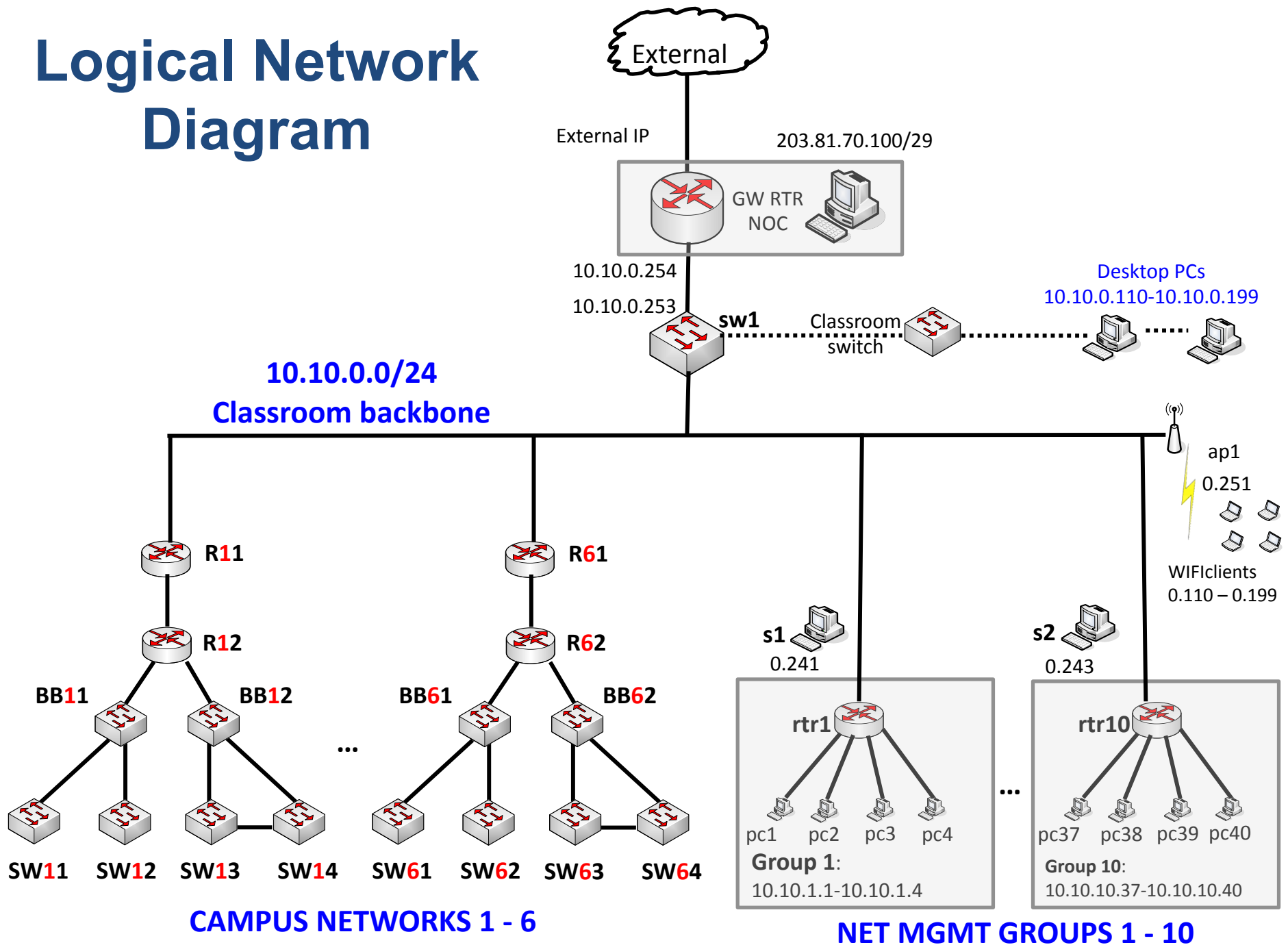
There are two users on your virtual machines (pc1-pc40)

General User
sysadm

Administrative User
root

Passwords are or will be written down in class

Logical Network Diagram



Virtual machine groups (nmm)

GROUP 1	GROUP 4	GROUP 7
rtr1 ==> 10.10.1.254	rtr4 ==> 10.10.4.254	rtr7 ==> 10.10.7.254
pc1 ==> 10.10.1.1	pc13 ==> 10.10.4.13	pc25 ==> 10.10.7.25
pc2 ==> 10.10.1.2	pc14 ==> 10.10.4.14	pc26 ==> 10.10.7.26
pc3 ==> 10.10.1.3	pc15 ==> 10.10.4.15	pc27 ==> 10.10.7.27
pc4 ==> 10.10.1.4	pc16 ==> 10.10.4.16	pc28 ==> 10.10.7.28
GROUP 2	GROUP 5	GROUP 8
rtr2 ==> 10.10.2.254	rtr5 ==> 10.10.5.254	rtr8 ==> 10.10.8.254
pc5 ==> 10.10.2.5	pc17 ==> 10.10.5.17	pc29 ==> 10.10.8.29
pc6 ==> 10.10.2.6	pc18 ==> 10.10.5.18	pc30 ==> 10.10.8.30
pc7 ==> 10.10.2.7	pc19 ==> 10.10.5.19	pc31 ==> 10.10.8.31
pc8 ==> 10.10.2.8	pc20 ==> 10.10.5.20	pc32 ==> 10.10.8.32
GROUP 3	GROUP 6	GROUP 9
rtr3 ==> 10.10.3.254	rtr6 ==> 10.10.6.254	rtr9 ==> 10.10.9.254
pc9 ==> 10.10.3.9	pc21 ==> 10.10.6.21	pc33 ==> 10.10.9.33
pc10 ==> 10.10.3.10	pc22 ==> 10.10.6.22	pc34 ==> 10.10.9.34
pc11 ==> 10.10.3.11	pc23 ==> 10.10.6.23	pc35 ==> 10.10.9.35
pc12 ==> 10.10.3.12	pc24 ==> 10.10.6.24	pc36 ==> 10.10.9.36

Select your group now

- 10 total (virtual) routers
- 4 (virtual) Ubuntu Linux server images per router.
 - 40 total virtual machine images

You will work in groups of 4 on some exercises. Please choose your location now. You will use your virtual machine during the week.

Questions

Do you have any questions?

