



AfNOG 2012

**Network Monitoring & Management
Welcome**

Instructors

Hervey Allen

Network Startup Resource Center
- Chile / United States

Brian Candler

Network Startup Resource Center
- England

Sunday Folayan

Network Startup Resource Center
- Nigeria

Jens Kuehlers

Google
- Ghana / Germany

Cleven Mmari

University of Oregon
- United States / Tanzania

Schedule

Session I	09:00 – 10:30
Break	10:30 – 11:00
Session II	11:30 – 13:00
Lunch	13:00 – 14:00
Session III	14:00 – 16:00
Break	16:00 – 16:30
Session IV	16:30 – 18:00

Optional evening sessions

Agenda:

Monday	Topic
Session 1	Welcome, Introductions, Workshop Details Questionnaire
Session 2	Introduction to Network Monitoring & Mgmt Linux for VM Usage
Session 3	Cisco Configuration Basics
Session 4	SNMP
Tuesday	
Session 1	SNMP Continued
Session 2	MRTG / RRDTool
Session 3	Cacti
Session 4	Cacti Continued
Wednesday	
Session 1	Nagios
Session 2	Nagios Continued
Session 3	SmokePing
Session 4	Documentation, NOCs and Netdot Demo

Thursday	
Session 1	Netdot continued
Session 2	Version Control (RANCID / SVNWeb)
Session 3	NetFlow
Session 4	NetFlow / NfSen
Friday	
Session 1	Log Management
Session 2	Ticketing Systems (RT)
Session 3	Ticketing Systems (Nagios / Cacti w/RT)
Session 4	Exam, Evals, Certificates

Administrative Items

- **Agenda / Course Materials**

- Available in electronic format during the week:

<http://noc.ws.nsrc.org/>

- Will be available permanently here:

<http://nsrc.org/workshops/2012/afnog-nme/>
<http://www.ws.afnog.org/>

- **During the course**

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

Virtual machine access

There are two users on your virtual machines (pc1-pc36)

General User

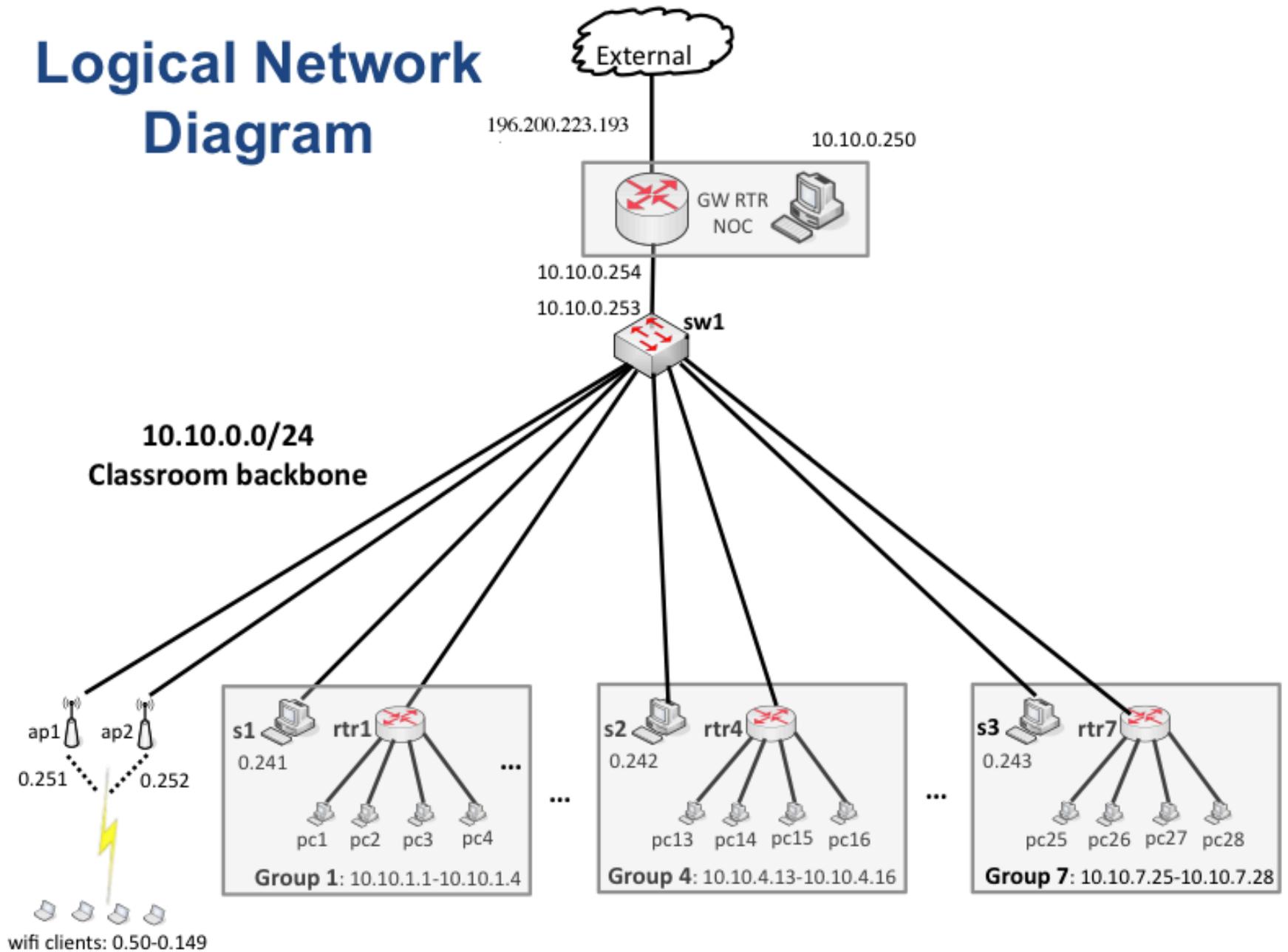
sysadm

Administrative User

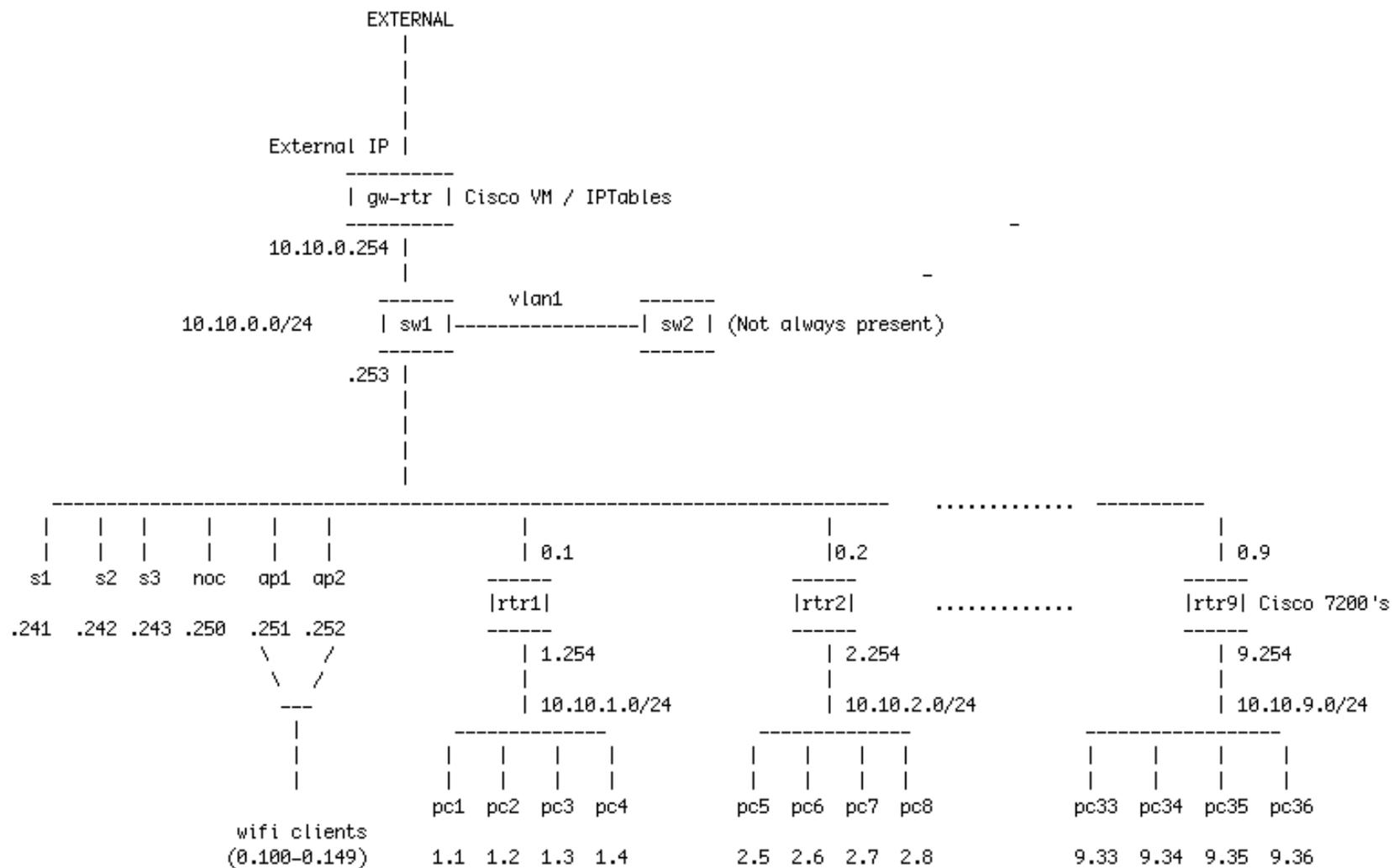
root

Passwords are or will be written down in class

Logical Network Diagram



Alternate Diagram



Available at <http://noc.ws.nsrc.org/wikis/afnog-nme-2012/wiki/Diagram>

Virtual machine groups

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

- 9 total (virtual) routers
- 4 (virtual) Ubuntu Linux server images per router.
 - 36 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 whole week.

Questions

Do you have any questions?

