

# Welcome

## Network Monitoring, Management and Automation

### npNOG 5

Dec 8 - 12, 2019



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# Workshop Schedule

Schedule	Time
Session 1	09:30 - 11:00
Break	11:00 - 11:30
Session 2	11:30 - 13:00
Lunch	13:00 - 14:00
Session 3	14:00 - 15:30
Break	15:30 - 16:00
Session 4	16:00 - 17:30

# Workshop Instructors

Name	Organization	Country
Chatur Ratna Shakya	PCH	Nepal
Dibya Khatiwada	PCH	Nepal
Srijan Bhuju	Worldlink	Nepal
Ritesh Adhikari	Workalaya	Nepal

# Workshop Participants Introduction

- Name
- Organization
- Position / Field of work
- Brief work overview
- Reason for joining workshop
- Expected outcome from the event

# Workshop Agenda

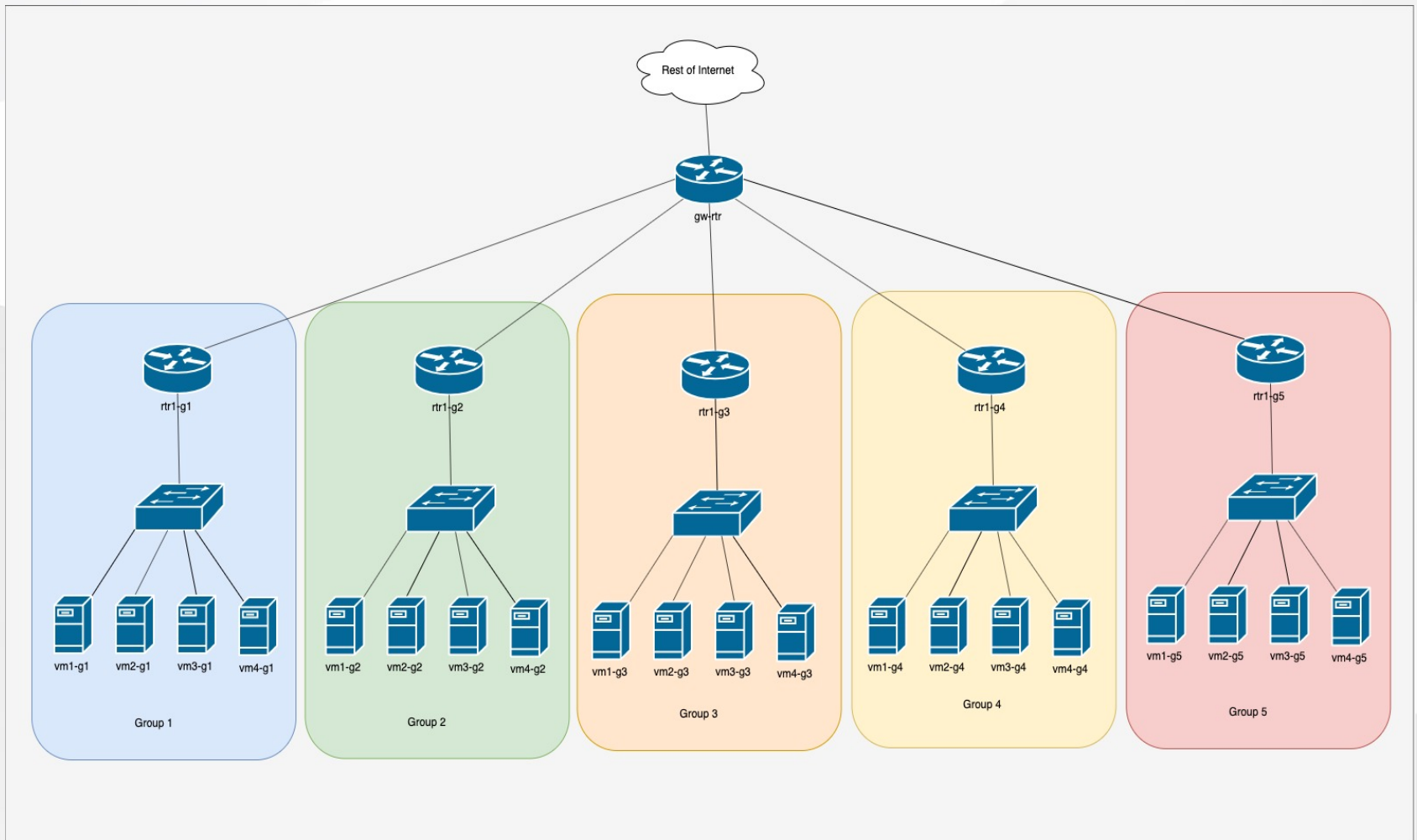
## Agenda / Course Materials

- <http://npnog5.chatur.com.np/>

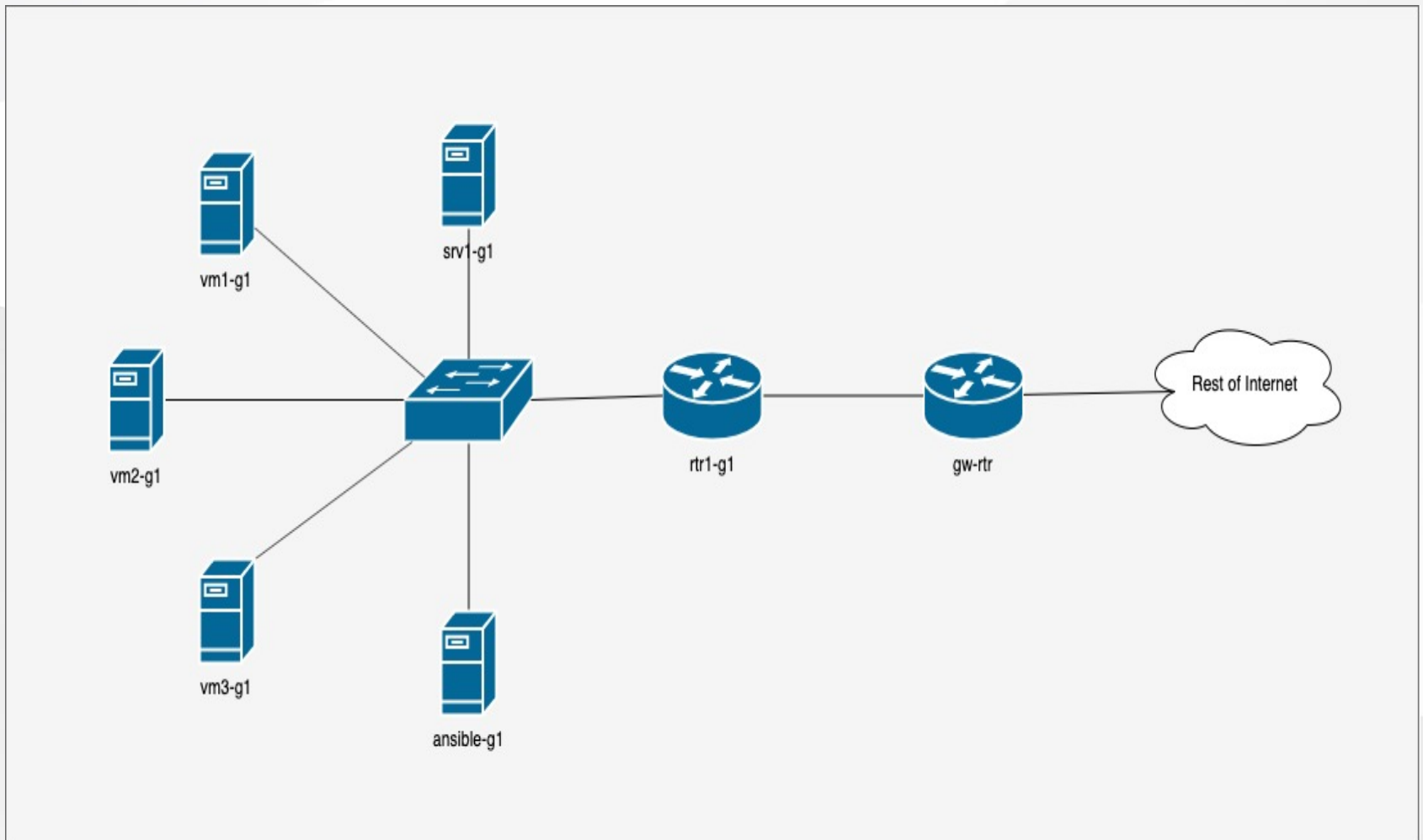
## During the workshop

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

# Network Diagram Overview



# Group 1 Network Diagram



# Single Group Detail

## Services

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DNS: 100.68.100.244 100.68.100.245  
apt-cacher: 100.68.100.254

## Network Devices

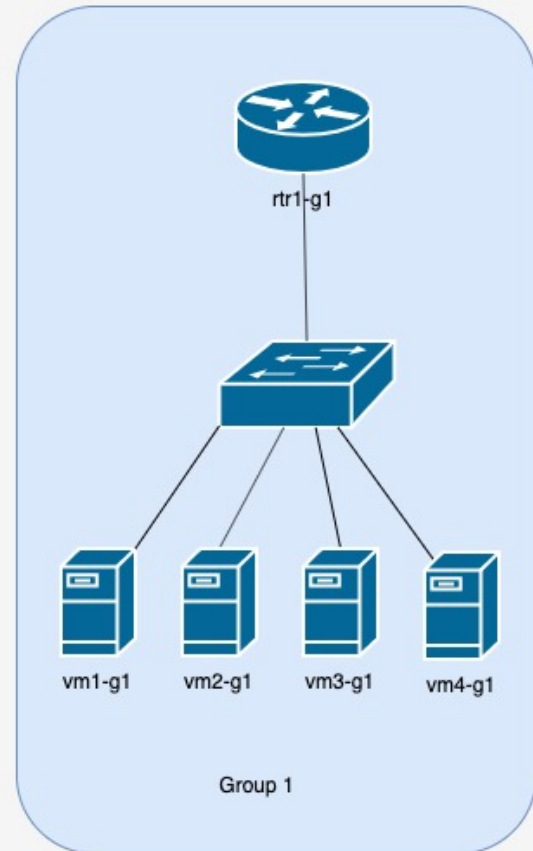
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gw-rtr.lab.workalaya.net: 100.68.100.254  
rtr1.lab.workalaya.net: 100.68.100.1

## Group Servers

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srv1-g1.lab.workalaya.net: 100.68.1.254  
vm[1-4]-g1.lab.workalaya.net: 100.68.1.2[1-4]  
ansible-g1.lab.workalaya.net: 100.68.1.253





# Group Details

Group 1		Group 2	
rtr1-g1.lab.workalaya.net	100.68.100.1	rtr1-g2.lab.workalaya.net	100.68.100.2
vm1-g1.lab.workalaya.net	100.68.1.21	vm1-g2.lab.workalaya.net	100.68.2.21
vm2-g1.lab.workalaya.net	100.68.1.22	vm2-g2.lab.workalaya.net	100.68.2.22
vm3-g1.lab.workalaya.net	100.68.1.23	vm3-g2.lab.workalaya.net	100.68.2.23
vm4-g1.lab.workalaya.net	100.68.1.24	vm4-g2.lab.workalaya.net	100.68.2.24
srv1-g1.lab.workalaya.net	100.68.1.254	srv1-g2.lab.workalaya.net	100.68.2.254
ansible-g1.lab.workalaya.net	100.68.1.253	ansible-g2.lab.workalaya.net	100.68.2.253

Group 3		Group 4	
rtr1-g3.lab.workalaya.net	100.68.100.3	rtr1-g4.lab.workalaya.net	100.68.100.4
vm1-g3.lab.workalaya.net	100.68.3.21	vm1-g4.lab.workalaya.net	100.68.4.21
vm2-g3.lab.workalaya.net	100.68.3.22	vm2-g4.lab.workalaya.net	100.68.4.22
vm3-g3.lab.workalaya.net	100.68.3.23	vm3-g4.lab.workalaya.net	100.68.4.23
vm4-g3.lab.workalaya.net	100.68.3.24	vm4-g4.lab.workalaya.net	100.68.4.24
srv1-g3.lab.workalaya.net	100.68.3.254	srv1-g4.lab.workalaya.net	100.68.4.254
ansible-g3.lab.workalaya.net	100.68.3.253	ansible-g4.lab.workalaya.net	100.68.4.253

# Group Details (Contd.)

Group 5		Group 6	
rtr1-g5.lab.workalaya.net	100.68.100.5	rtr1-g6.lab.workalaya.net	100.68.100.6
vm1-g5.lab.workalaya.net	100.68.5.21	vm1-g6.lab.workalaya.net	100.68.6.21
vm2-g5.lab.workalaya.net	100.68.5.22	vm2-g6.lab.workalaya.net	100.68.6.22
vm3-g5.lab.workalaya.net	100.68.5.23	vm3-g6.lab.workalaya.net	100.68.6.23
vm4-g5.lab.workalaya.net	100.68.5.24	vm4-g6.lab.workalaya.net	100.68.6.24
srv1-g5.lab.workalaya.net	100.68.5.254	srv1-g6.lab.workalaya.net	100.68.6.254
ansible-g5.lab.workalaya.net	100.68.5.253	ansible-g6.lab.workalaya.net	100.68.6.253

Group 7		Group 8	
rtr1-g7.lab.workalaya.net	100.68.100.7	rtr1-g8.lab.workalaya.net	100.68.100.8
vm1-g7.lab.workalaya.net	100.68.7.21	vm1-g8.lab.workalaya.net	100.68.8.21
vm2-g7.lab.workalaya.net	100.68.7.22	vm2-g8.lab.workalaya.net	100.68.8.22
vm3-g7.lab.workalaya.net	100.68.7.23	vm3-g8.lab.workalaya.net	100.68.8.23
vm4-g7.lab.workalaya.net	100.68.7.24	vm4-g8.lab.workalaya.net	100.68.8.24
srv1-g7.lab.workalaya.net	100.68.7.254	srv1-g8.lab.workalaya.net	100.68.8.254
ansible-g7.lab.workalaya.net	100.68.7.253	ansible-g8.lab.workalaya.net	100.68.8.253

# Group Details (Contd.)

Group 9		Group 10	
rtr1-g9.lab.workalaya.net	100.68.100.9	rtr1-g10.lab.workalaya.net	100.68.100.10
vm1-g9.lab.workalaya.net	100.68.9.21	vm1-g10.lab.workalaya.net	100.68.10.21
vm2-g9.lab.workalaya.net	100.68.9.22	vm2-g10.lab.workalaya.net	100.68.10.22
vm3-g9.lab.workalaya.net	100.68.9.23	vm3-g10.lab.workalaya.net	100.68.10.23
vm4-g9.lab.workalaya.net	100.68.9.24	vm4-g10.lab.workalaya.net	100.68.10.24
srv1-g9.lab.workalaya.net	100.68.9.254	srv1-g10.lab.workalaya.net	100.68.10.254
ansible-g9.lab.workalaya.net	100.68.9.253	ansible-g10.lab.workalaya.net	100.68.10.253

Group 11		Group 12	
rtr1-g11.lab.workalaya.net	100.68.100.11	rtr1-g12.lab.workalaya.net	100.68.100.12
vm1-g11.lab.workalaya.net	100.68.11.21	vm1-g12.lab.workalaya.net	100.68.12.21
vm2-g11.lab.workalaya.net	100.68.11.22	vm2-g12.lab.workalaya.net	100.68.12.22
vm3-g11.lab.workalaya.net	100.68.11.23	vm3-g12.lab.workalaya.net	100.68.12.23
vm4-g11.lab.workalaya.net	100.68.11.24	vm4-g12.lab.workalaya.net	100.68.12.24
srv1-g11.lab.workalaya.net	100.68.11.254	srv1-g12.lab.workalaya.net	100.68.12.254
ansible-g11.lab.workalaya.net	100.68.11.253	ansible-g12.lab.workalaya.net	100.68.12.253

# Group Details (Contd.)

Group 13		Group 14	
rtr1-g13.lab.workalaya.net	100.68.100.13	rtr1-g14.lab.workalaya.net	100.68.100.14
vm1-g13.lab.workalaya.net	100.68.13.21	vm1-g14.lab.workalaya.net	100.68.14.21
vm2-g13.lab.workalaya.net	100.68.13.22	vm2-g14.lab.workalaya.net	100.68.14.22
vm3-g13.lab.workalaya.net	100.68.13.23	vm3-g14.lab.workalaya.net	100.68.14.23
vm4-g13.lab.workalaya.net	100.68.13.24	vm4-g14.lab.workalaya.net	100.68.14.24
srv1-g13.lab.workalaya.net	100.68.13.254	srv1-g14.lab.workalaya.net	100.68.14.254
ansible-g13.lab.workalaya.net	100.68.13.253	ansible-g14.lab.workalaya.net	100.68.14.253

Group 15	
rtr1-g15.lab.workalaya.net	100.68.100.15
vm1-g15.lab.workalaya.net	100.68.15.21
vm2-g15.lab.workalaya.net	100.68.15.22
vm3-g15.lab.workalaya.net	100.68.15.23
vm4-g15.lab.workalaya.net	100.68.15.24
srv1-g15.lab.workalaya.net	100.68.15.254
ansible-g15.lab.workalaya.net	100.68.15.253

# We will assign VMs & Groups Now

- 1 transit routers (gw-rtr)
- 15 border routers (rtr1-gY)
- 94 virtual servers
  - 2 Name Servers (ns1, ns2)
  - 1 Web Server (www)
  - 1 NOC Server (noc)
  - 1 server per user (vmX-gY)
  - 1 shared server per group (srv1-gY)
  - 1 shared ansible controller server per group (ansible-gY)

1. You will work in groups of 4-8 on some exercises
2. Please choose your location for the week now
3. You will use your group's virtual machines all week

# Virtual Machine Access

- There are 90 Virtual Machines:
  - `vmX-gY.lab.workalaya.net`
  - `srv1-gY.lab.workalaya.net`
  - `ansible-gY.lab.workalaya.net`
- Each virtual machine has two users:
  - General user: `lab`
  - Administrative user: `root`
- Password for `lab` is written on the board
- Ansible Controller VM has different set of users:
  - General users: `vmX-gY`
  - eg: if participant is assigned `vm1-g1.lab.workalaya.net` then his/her login to ansible vm will be `vm1-g1`
  - Password will be same as `lab` user

# Router Access

- There are 15 routers:
  - `rtr1-gY.lab.workalaya.net`
- Each router has one users:
  - General user: `lab`
- Password for `lab` and Secret for `enable` comand are written on the board

# Questions

**Please Ask Questions At Any Time**

Feel free to ask questions at any time !



