

AfNOG 2009

Workshop on Network Technology

Track SI-E

Scalable Network Infrastructure

***Introduction,
Logistics,
Schedule,
e.t.c.***

What You Will Learn

- Internet protocol stack.
- IP addressing (IPv4 & IPv6).
- Basic routing.
- OSPF routing.
- BGP routing.
- Router management.
- Network operations & monitoring.
- Internet exchange points.

Instructors

- Alan Barrett (South Africa)
- Geert Jan de Groot (Netherlands)
- Mark Tinka (Uganda/Malaysia)
- Nishal Goburdhan (South Africa)
- Philip Smith (Scotland/Australia)
- Sunday Folayan (Nigeria)

Participants

- Entire workshop:
 - 63 participants from 21 countries.
- SI-E Track:
 - 24 participants from 10 countries.
 - (bw, cm, eg, ke, gh, mw, ng, rw, ug)
- Please introduce yourselves.
- Please wear your name badges at all times.

Let Us Know!



- If we speak too fast, please say so!
- If you can't see, please say so!
- If you don't understand, please ask!
- The only stupid question is one you don't ask.

Safety

- Be very careful when moving about, and do avoid:
 - tripping on power cords.
 - pulling cables out of sockets.
 - knocking equipment off tables.
 - Leaning too far back in your chair.

You Should Have Received...



- Name badges.
- Folder with:
 - Notepad.
 - Pen
 - Information pack.
- Money for dinner.

You Will Receive...

- Books.
- FreeBSD DVD.
- Workshop CD-ROM, at the end of the workshop.
- Take them back and teach others!
That's an order 😊.

Electronic Resources

- Web site

- <http://www.ws.afnog.org/>
- During the workshop, contains work-in-progress information.
- Afterwards, will contain a copy of the workshop materials.

- Mailing list

- afnog@afnog.org
- Subscribe via <http://www.afnog.org/>

Meals

- Breakfast at respective hotel:
 - Holiday Inn.
 - Intercontinental.
- Lunch at Fayrouz restaurant on Level -2.
- Dinner at your discretion – recommend the hotel mall.
- Tea breaks in conference room foyer.

Daily Schedule

- 07:30 – 08:15 *From the HI hotel, use golf carts*
- 08:45 – 10:45 **Classroom session**
- 10:45 – 11:00 *Tea/Coffee*
- 11:00 – 13:00 **Classroom session**
- 13:00 – 14:15 *Lunch (Fayrouz restaurant)*
- 14:15 – 16:15 **Classroom session**
- 16:15 – 16:30 *Tea/Coffee*
- 16:30 – 18:30 **Classroom session**
- 18:30 – 19:30 **Optional evening session**
- 19:30 onward *Dinner (your plans...)*
- For access back to the HI hotel...

Time Keeping

- Please be on time.
- We have a lot of material to cover, and we will not get through it all if breaks are longer than scheduled.

Internet Access

- Please don't read e-mail or browse the web during sessions.
- With an enabled laptop, wireless access should work – but please, NOT during sessions.
- If the instructors are present, you may use the classroom in the evenings.
- For access in your hotel rooms, ring up the concierge for details – no extra charges, all complimentary.

Hotel Room Mini-Bar

- If it's "outside", it's free of charge, i.e., mineral water bottle and coffee.
- Anything inside the fridge (including the mineral water), will be billed extra.
- Any extra charges made to the room mini-bar will be borne directly by the participants.
- BE CAREFUL, BUT HAVE FUN 😊

Extra Room Charges

- AfNOG will not pay for any extra charges to your hotel room, such as:
 - Phone calls.
 - Room service.
 - Laundry.
 - e.t.c.

Evening Sessions

- There might be optional evening sessions.
- The classroom may be open in the evenings for you to experiment with the equipment, depending on instructor availability:
 - Probably only before dinner, not after dinner

Classroom Layout

- 10 "cells" - labelled A B C D E F G H I J
- Each cell has:
 - 2 participants.
 - 1 PC with FreeBSD-7.1.
 - 1 Cisco router.
 - 1 Cisco console cable.
 - 1 Ethernet cable to central switch.
 - 1 Ethernet cable to your PC.

PC Configuration

- FreeBSD-7.1.
- root password is **"afnog09"**
- Don't change passwords.
- Don't install DNS resolvers.
- Don't "close security holes":
 - instructors have left themselves a way to login remotely.

Schedule - Monday

- This introduction 😊.
- IP & Networking Basics.
- Cisco Router Configuration Basics.
- Cisco Router TFTP Exercise.
- Static & Default Routes.
- Dynamic Routing Protocols.

- IPv6 Introduction (evening session).

Schedule - Tuesday

- Forwarding & Routing Simulation on Paper Exercise.
- OSPF & IGP's.
- BGP.

- Filtering Spoofed Packets (evening session).

Schedule - Wednesday



- More BGP.
- BGP Scaling.

Schedule - Thursday



- OSPF/iBGP Exercise.

Schedule - Friday

- Internet Exchange Points.
- NOC Services & Traffic Analysis.
- Open Q&A.

- Tear down – packing of all equipment neatly in boxes.

Optional Evening Sessions



- Subject to change.
- Other tracks might also have evening sessions which you may attend.

Open Questions

- Feel free to ask any questions during the sessions.
- Interrupt us if you don't understand anything or if you have a question.
- Please, ask questions!

- List of questions near door. They will be answered on Friday or during free periods when exercises are completed.

Overall...

WELCOME TO CAIRO

Enjoy the weather

Learn everything you can

Have fun

See some pyramids

Take photos

Network

Ask questions, make me happy 😊

Thank You!