AfNOG 2010

Track SI-E

Scalable Network Infrastructure

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

What You Will Learn

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

Instructors

- Alan Barrett (South Africa)
- Geert Jan de Groot (Netherlands)
- Geraldine Daloeng (Nigeria)
- Mark Tinka (Uganda/Malaysia)
- Noah Maina (Uganda/Tanzania)
- Nishal Goburdhan (South Africa/ Mauritius)
- Philip Smith (Scotland/Australia)
- Randy Bush (USA/Japan)
- Sunday Folayan (Nigeria)

Participants

- Entire workshop:
  - 120 participants from 20 countries.

- SI-E Track:
  - 39 participants (gh, ke, ug, sn, ng, cm, gm, tz, rw, so, su, dj)

- 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.

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:
  - Mille Collines.
  - Others.

- Lunch & Dinner at KIST 3 on Level 5.

- Tea breaks in KIST 4 on Level 3 corridor.

Daily Schedule

07:30 – 08:15 *From the hotel, use buses*
09:00 – 10:45 **Classroom session**
10:45 – 11:00   *Tea/Coffee*
11:00 – 13:00 **Classroom session**
13:00 – 14:15   *Lunch (KIST 3, Level 5)*
14:15 – 16:15 **Classroom session**
16:15 – 16:30   *Tea/Coffee*
16:30 – 17:30 **Classroom session**
18:30 – 20:00   *Dinner (KIST 3, Level 5)*
20:00 – 21:30 **Optional Evening session**
    Transport back to hotel(s) will be available…

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 – extra charges for Mille Collines hotel.

Hotel Room Mini-Bar

- If it's "outside", it's free of charge, i.e., mineral water bottle, e.t.c.
- Anything inside the fridge (including the mineral water), will be billed extra.
- Any extra charges made to the room mini-bar will be bourne 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 will be optional evening sessions.

Classroom Layout

- 14 "cells" - labelled A B C D E F G H I J K L M N

- Each cell has:
  - 3 participants.
  - 1 PC with FreeBSD-8.0.
  - 1 Cisco router.
  - 1 Cisco console cable.
  - 1 Ethernet cable to central switch.
  - 1 Ethernet cable to your PC.

PC Configuration

- FreeBSD-8.0.
- root password is "**sie**"
- 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 ☺.
- History of the Internet.
- TCP/IP & The OSI Stack.
- Layer 2 Ethernet: 802.1Q VLAN Trunking.
- IPv4, IPv6 & IP Address Configuration.
- Introduction to Cisco Routers & IOS.
- Introduction to Static & Dynamic Routing.
- Introduction to IS-IS.
- 802.1Q VLAN Trunking Demo.
- Static Routing Lab Exercise.

Schedule - Tuesday

- IS-IS Lab Exercise.
- IS-IS Best Current Practices (IOS).
- BGP.

Schedule - Wednesday

- BGP Scaling.
- BGP Best Current Practices.
- BGP Scaling Considerations.

Schedule - Thursday

- BGP.
- iBGP & IS-IS Lab Exercise.

Schedule - Friday

- Internet Exchange Points.
- Internet Exchange Points Lab Exercise.
- NOC Services & Applications.
- Network Traffic Analysis.

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 wil be answered on Friday or during free periods when exercises are completed.

Overall…

WELCOME TO KIGALI

Enjoy the weather

Learn everything you can

Have fun

See some hills

Take photos

Network

Ask questions, make me happy ☺

Thank You!