AfNOG 2012

Track SI-E

Scalable Network Infrastructure

Introduction,
Logistics,
Schedule,
etc.

What You Will Learn

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

Instructors

- Alan Barrett (South Africa)
- Geert Jan de Groot (Netherlands)
- Nishal Goburdhan (South Africa/Mauritius)
- Isatou Jah (Gambia)
- Noah Maina (Uganda/Tanzania)
- Patrick Okui (Uganda)

Participants

- Entire workshop:
  - 148 participants from 23 countries.

- This track:
  - 37 participants from 10 countries.

- 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.

- Workshop materials on USB flash drive, 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

- All meals in the hotel restaurant

- Tea breaks in the Jaama lobby

Daily Schedule

06:00 – 08:30   Breakfast
08:45 – 10:45   **Classroom session**
10:45 – 11:00   *Tea/Coffee*
11:00 – 13:00   **Classroom session**
13:00 – 14:15   *Lunch*
14:15 – 16:00   **Classroom session**
16:00 – 16:15   *Tea/Coffee*
16:30 – 17:30   **Classroom session**
18:30 – 20:00   *Dinner*
20:00 – 21:30   **Optional Evening session**

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.
- WiFi access should work on your personal laptop or other device
  - SSID "AfNOG-AfriNIC-bgn"
  - WPA password "success!"
- If the instructors are present, you may use the classroom in the evenings.
- There is no Internet service in your hotel rooms.

Cell phone SIM cards

- QCELL has donated many cell phone SIM cards.
- You can get one from the secretariat, or the QCELL table outside.
- Each card starts with GMD 50.00 credit. You can buy more airtime at the QCELL table outside the conference centre.
- APN "qcellnet"

Hotel Room Mini-Bar

- 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.
  - Bar.
  - Laundry.
  - etc.

Evening Sessions

- There will be optional evening sessions.

Classroom Layout

- 12 "cells" - labelled A B C D E F (no G H) I J K L M N

- Each cell has:
  - 3 participants.
  - 1 PC with FreeBSD-9.0.
  - 1 Cisco router.
  - 1 Cisco console cable.
  - 1 Ethernet cable to central switch.

PC Configuration

- FreeBSD-9.0.
- **"root"** password is "**afnog12**"
- User **"afnog"** 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.
- IPv4, IPv6 & IP Address Configuration.
- Introduction to Cisco Routers & IOS.
- Introduction to Static & Dynamic Routing.
- Static Routing Lab Exercise.

Schedule - Tuesday

- Forwarding & Routing Simulation
- Introduction to IS-IS.
- IS-IS Lab Exercise.
- IS-IS Best Current Practices (IOS).
- Layer 2 Ethernet: 802.1Q VLAN Trunking.
- 802.1Q VLAN Trunking Demo.

Schedule - Wednesday

- Introduction to BGP
- 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 GAMBIA
Enjoy the weather,
Learn everything you can,
Have fun,
Take photos,
Network,
Ask questions, make the instructors happy ☺

Thank You!