# Advanced BGP Workshop

John Gitau, Philip Smith

AfNOG 2014
Djibouti
26<sup>th</sup> - 30<sup>th</sup> May 2014

#### Workshop Materials

- Master archive:
  - http://thyme.apnic.net/ftp/isp-workshops
- □ This workshop:
  - https://nsrc.org/workshops/2014/afnog-are/wiki/Agenda
  - Please keep this URL open, and download workshop materials as the workshop progresses

# Housekeeping

- Wireless
  - SSID: AR-E Wifi
  - Password: success!

#### Housekeeping

- □ Buses:
  - Morning: 07:45, 08:00, 08:15, 08:30
  - Evening: 19:30, 19:45, 20:00, 20:15
- Meals:
  - Breakfast @ Kempinski
  - Lunch & Dinner @ Palace du Peuple

#### Housekeeping

- This is a five day workshop
  - Completion certificates will be given to those who attend all five days
  - Small exam at the end
  - Have fun!
- □ Please Ask Questions
- No Skype, IM, Facebook, Twitter, etc.
- Mobile phones OFF or on SILENT
  - If you must take calls, please do so OUTSIDE the room

### Agenda – Monday

```
10:00 Presentations
    "Routing Basics", "Introduction to ISIS", "ISIS for ISPs"
13:30 Break for Lunch
14:30 Lab Module 1 - Basic ISIS
17:00 Presentation
    "Introduction to BGP"
16:30 Lab Module 1 - Basic iBGP
18:30 Close
(breaks for tea/coffee at 11:00 and 16:30)
```

### Agenda – Tuesday

```
09:00 Presentations
    "IPv6 Protocol & Standards", "IPv6 Addressing", IPv6 Routing Protocols", "ISIS for IPv6"
12:30 IPv6 Lab Module 1 – IPv6 ISIS
13:30 Break for lunch
14:30 IPv6 Lab Module 1 – IPv6 iBGP
16:00 Presentations
    "ISIS for IPv6", "BGP for IPv6", "BGP Scaling Techniques"
18:30 Close
(breaks for tea/coffee at 11:00 and 16:30)
```

# Agenda – Wednesday

```
09:00 Presentation
    "BGP Attributes"
10:00 Lab Module 3 - BGP Route Reflector
     (IPv4 and IPv6)
12:00 Presentation
     "BGP Best Practices"
13:30 Break for lunch
14:30 Lab Module 6 – iBGP and eBGP
     (IPv4)
16:30 Lab Module 6 - iBGP and eBGP
     (IPv6)
18:30 Close
(breaks for tea/coffee at 11:00 and 16:30)
```

## Agenda – Thursday

```
09:00 Presentations
    "BGP Policy Control", "BGP Multihoming - Part 1"
13:30 Break for lunch
14:30 Lab Module 6 (continued)
16:00 Presentations
    "BGP Multihoming - Part 2", "OSPF to ISIS Migration"
18:30 Close
(breaks for tea/coffee at 11:00 and 16:30)
```

## Agenda – Friday

```
09:00 Presentation
   "BGP Communities"
11:30 Lab Module 7 - Route Filtering
13:30 Break for Lunch
14:30 Presentation
   "RPKI & Origin Validation"
15:30 Lab Module 7 (continued)
17:00 Presentations
   "RIPE Atlas", "4-byte ASNs"
18:00 Extra Topics:
   Configuring Dynamips, Router Security,...
18:30 End of Workshop
(breaks for tea/coffee at 11:00 and 16:30)
```