

Advanced Routing Workshop (IPv4 & IPv6)

AfNOG 2011, Dar es Salaam 30th May to 3rd June 2011



House Rules

- Have fun!
- Ask questions
- No Skype, IM, Facebook, Twitter or other social media
- Mobile phones OFF or on SILENT
 - And if you must take calls, please do so OUTSIDE the room
- Please be back on time after breaks



AR-E

- Meeting your Instructors:
 - Philip Smith Track Leader
 - Mark Tinka
 - Randy Bush
 - Kaveer Harie
 - Richard Mikisa



Agenda – Monday

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09:00 Introductions, Objectives
09:30 Presentations
     "Internet Introduction", "Routing Basics",
     "Introduction to ISIS", "ISIS for ISPs"
13:00 Break for Lunch
14:00 Lab Module 1 - Basic ISIS & iBGP
16:30 Presentation
     "Introduction to BGP"
17:30 Lab Module 1 (continued)
18:30 Dinner
20:00 Evening Session
     "ISIS vs OSPF"
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Agenda – Tuesday

- 09:00 Presentations
 - "Introduction to IPv6", "IPv6 Standards and Protocols"
 "IPv6 Addressing & Routing Protocols", "ISIS & BGP for IPv6"
- 13:00 Break for lunch
- 14:00 IPv6 Lab Module 1 ISIS and iBGP
- 16:30 Presentation
 - "BGP Scaling Techniques"
- 17:30 Lab Module 3 Route Reflector IPv4 and IPv6 labs
- 18:30 Dinner
- 20:00 Evening Session
 "Introduction to MPLS"



Agenda – Wednesday

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09:00 Presentation
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"BGP Attributes and Policy Control"

11:00 Lab Module 6 – iBGP and eBGP (IPv4)

13:00 Break for lunch

14:00 Lab Module 6 – iBGP and eBGP (IPv6)

16:30 Presentation

"4-byte ASNs", "BGP Best Practices"

18:30 Dinner

20:00 Evening Session:

"Out of Band Management", "TACACS+"



Agenda – Thursday

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09:00 Presentation
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"BGP Multihoming – Part 1"

11:00 IPv6 Lab Module 7 - Route Filtering

13:00 Break for lunch

14:00 Lab Module 7 (cont)

16:00 Presentations

"OSPF to ISIS Migration", "BGP Multihoming - Part 2"

18:30 Dinner



Agenda – Friday

- 09:00 Presentation and Lab
 - "X.509 RPKI & Origin Validation"
 - Hands-On Lab: "GUI and Routers"
 - "Status of Implementations", "BGPSEC: AS-Path Validation"
- 13:00 Break for lunch
- 14:00 IPv6 Lab Module 8 Multihoming Strategies
- 16:30 Presentation
 - "IPv6 Deployment Case Study", "The Value of Peering"
- 18:00 Extra Topics:
 - Configuring Dynamips, RPF, Traffic Policing,...
- 18:30 End of Workshop
- 18:45 Workshop Dinner & Certificate Ceremony