

RIPE

IPv6 for Enterprises

BCOP project



Problem statement

- Enterprises have many questions about IPv6
- For which good answers are difficult to find
 - Sometimes good BCOP documentation doesn't exist
 - Or it's hard to find unless you already know what you're looking for
- Enterprises need guidance!

Current work

- Started gathering BCOP docs on ipv6guide.net
- I want to make it read like a “story” for enterprise
- With links to pages/docs that go a bit deeper
 - Hypertext is great! ;-)

- Goals:
 - Make an overview of what’s available
 - And find people to write the bits that are missing



Update

- For those who hadn't noticed:
those were the slides from RIPE 71

Update

- For those who hadn't noticed:
those were the slides from RIPE 71
- There has been progress!

Authors get together in Amsterdam



- Meeting at NCC office
 - Jan Žorž
 - Kevin Meynell
 - Nathalie Trenaman
 - Ron Broersma
 - Sander Steffann

The usual suspects



What did we do?

- We took several of the most important topics
 - Lots of brainstorming
 - Thinking about the flow of the “story”
 - Lots of raw notes

Which topics?

- Test environments
- Host configuration models
- Routing protocols
- Addressing plans
- Security considerations

Test environments

- Playgrounds to get comfortable with IPv6
- Get experience with tools
- Testing the planned architecture
- Labs testing equipment and software

Host configuration models

- What was reason for 64 bit interface identifier?
- Discuss alternatives
 - Static
 - SLAAC
 - DHCPv6
- Describe common scenarios
- Advice on decision making process

Routing protocols

- Compare equivalent protocols for IPv4 and IPv6
 - OSPFv2 vs OSPFv3
 - IS-IS single vs multiple topology
- BGP:
 - Exchange IPv4 routes over IPv4
 - Exchange IPv6 routes over IPv6
 - MPLS exceptions to these rules

Addressing plans

- IPv6 addressing \neq IPv4 addressing
 - IPv4 is constrained by available space
 - IPv6 space can be used to make better plans
- Discuss mental shift

Security considerations

- Look at IPv6 myths on Deploy360 blog
- Compare IPv4 to equivalent in IPv6
- Biggest threat to IPv6 security is human error
- IPv6 makes some things better, other things worse, most things are just different
- ICMPv6 is a crucial component
- RA-Guard, DHCPv6 snooping, Destination Guard, etc...

Volunteers?

- The current authors are working on the subjects
- But there is so much more to be done
- If anybody wants to work on a topic:
contribute@ipv6guide.net

Questions?

