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
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• 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 ≠ 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?