More areas... more levels

• If a router becomes an area full of little routers, then what happens to the network architecture?
  • Data center/POP becomes a bunch of L1 areas.
  • The data center itself becomes an L2 area.
  • Now we need Level 3 for the WAN.
Levels 3 thru 8

- IS-IS encoding already reserves bits for more levels
- Circuit type (ISO 10589, section 9.5):
  - 1 - Level 1
  - 2 - Level 2
  - 3 - Level 1 & 2
  - 6 reserved bits
New bits

- Bit values:
  - 4 - Level 3
  - 8 - Level 4
  - 16 - Level 5
  - 32 - Level 6
  - 64 - Level 7
  - 128 - Level 8

- Set bits MUST be contiguous
New Hello PDU

• Existing:
  • LAN L1 IIH PDU
  • LAN L2 IIH PDU

• Add:
  • LAN HELLO PDU (same format, just separate for backward compatibility)
  • Covers L3 - L8
  • If only some levels are supported, this acts as only on the common levels.
New LSPs

• Existing:
  • L1 LSP
  • L2 LSP

• Add
  • L3 LSP, L4 LSP, ..., L8 LSP

• Inherits everything from L2, translated to the target level
New CSNP, PSNP

• Existing: L1 CSNP, L2 CSNP, L1 PSNP, L2 PSNP

• Add:
  • L3 CSNP, L4 CSNP, ..., L8 CSNP
  • L3 PSNP, L4 PSNP, ..., L8 PSNP
Looney Tunes

"That's all Folks!"