

IPv6 Renumbering

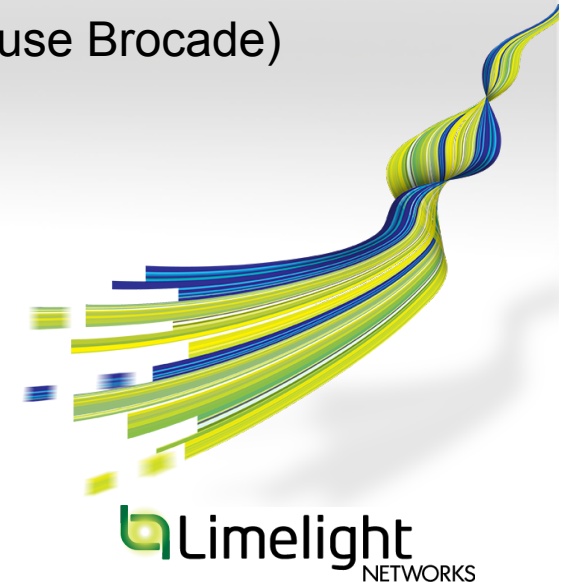
... in the real world

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Ripe 62 - Amsterdam



Before

- ⦿ Global Network of POPs
- ⦿ Dual stack, v4 region specific but v6 numbered out of ARIN space
- ⦿ Address Plan
 - /48 per 'Metro' re-using BGP info
 - /64 per network (grouped in /52s per physical POP)
 - First /48 reserved for loopbacks
 - Second & Third /48 reserved for p2p links (/126 as we use Brocade)
 - Last two /48's reserved for 'experimental/testing'



Goal

- ④ Renumber RIPE region pops so they use RIPE v6
- ④ As little impact as possible to operations
- ④ Maintain as much of Address Plan as possible



Method

- ⌚ We use BGP identifiers
- ⌚ Example London
 - BGP Community 60
 - Old - 2607:F4E8:600:/48
 - New - 2A02:3D0:600:/48
- ⌚ Loop backs
- ⌚ Links
- ⌚ Networks
- ⌚ Internal Systems (Infoblox)



Lessons Learned

- ④ Make sure you documentation is accurate
 - 1 Source of data
 - Future tense in documentation should be checked
- ④ Sometimes things are simple...



