IPv6 Address Assignment to End Sites

draft-narten-ipv6-3177bis-48boundary-05.txt

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Background

• Document last discussed in Dublin
• WG asked a number of questions...
• But also agreed to take on as work item
• No action on spec for too long...
• Recently received multiple queries about its status
• Went back and reviewed the Dublin session discussion
• Issued revised -05
Purpose of Document

• Update 3177 based on where we are today
  • Some of the arguments no longer hold
  • Clarify what is architectural vs. operational
  • Clarify and reaffirm the key motivations and principles behind original recommendation

• Reaffirm to RIRs key concerns:
  • End sites should get multiple subnets
  • Allocations should consider longer time frames for growth (decade)
  • Renumbering into fewer bits (smaller subnet) is painful and doesn't need to happen
Changes since -04

• New text:
  • Made clear that giving out /128s is not recommended
    – Sites are by definition multiple devices...
  • Made clear: no hard boundaries between /64 and /48 (not a return to “classful addressing”)
  • State clearly: old recommendation of single, default of /48 for all sites is no longer recommended

• Added principle:
  • Intention is to give sites enough space, and that means more than a /64 in most cases
  • Intention is that End Sites not feel pressure to use address conservation techniques (e.g., NAT66) because they can't get space they need.
Changes (cont.)

- Added text showing that savings in overall address space consumption could be reduced by 2 orders of magnitude if /56 were used compared to /48
- Text not carried over from 3177:
  - Multihoming discussion (superceded by Multi6 work, multiple RFCs published) [1.5 pages]
  - Conservation of Address Space section [1.5 pages]
    - Argues that /48 is not a problem with analysis that there is lots of space
    - Misses the point: some people feel that /48 is simply too much and not justified.
Next Steps

• Do recent changes address previous concerns?
• What other changes/updates are needed?
• Reissue as WG document
Questions/Comments?