Deprecating ASM for Interdomain Multicast

draft-ietf-mboned-deprecate-interdomain-asm-02

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v1.0

Update since IETF 102
From draft-ietf-mboned-deprecate-interdomain-asm-00.txt

- – 01
    - Lots of good textual cleanup, removal of redundant text by Lenny
    - Should now be on datatracker – use rfcdiff.
- - 02
    - Semantic changes (hopefully enhancements) from Toerless
    - Primarily picking up on the discussion with customer using Bidir:
        - ASM > PIM-SM: ASM =~ PIM-SM | Bidir-PIM (ignoring other options)
        - Bidir-PIM never interdomain deployed nor possible, but still old text caused confusion with Bidir users.

Update since IETF 102

- Section 2: Multicast Routing protocols -> "Background"
  - Section 2.1 : "Multicast Service models" explains/introduces ASM and SSM (text improvements from Lenny+toerless)
- Added 2.2.3 Bidir-PIM
  - Key point: Bidir-PIM is a key reason for not to deprecate intradomain ASM: It can scale apps intradomain that we can't equally do with SSM.
- 2.3 SSM routing protocols
  - Interesting tidbit: SSM RFC4607 is not agnostic of protocols, but mandates PIM-SSM (good/bad?) just documented.

Update since IETF 102

- 3.2 restructured into the three key areas of SSM benefits
  - 3.2.1 Reduced network operations complexity
    - Added note about Bidir-PIM (not applicable)
  - 3.2.2 No network wide IP multicast group-address management
    - New. Explains how attempts to standardize address management failed (500 pages IETF standards)
  - 3.2.3 Intrinsic source-control security
    - Added explains how in SSM traffic from undesired sources is discarded on first hop. Important due to absensce of interdomain source control in any extensions to ASM. ACLs don't work if you expect them to be put across the Internet.
- 4.4 new: Developing application guidance: SSM, ASM, service discovery
  - We are missing guidance abot criteria for apps when they consider
    - SSM, ASM, service discovery
    - Service discovery: Many ASM apps just do service discovery, should better use DNS-SD

Update since IETF 102

- 4.8 not precluding Intradomain ASM
  - Added notion about Bidir-PIM deployments. Summary: This document makes no statement. Rathre enourages bidir-pim intradomain where appropriate (intead of PIM-SM).
- 4.9 Evolving PIM deployments for SSM
  - Explicit text explaining how existing PIM-SM deployment can easily be used to provide PIM-SSM . Depending on vendor it's default, or simple configs
  - (text may still need improvement): Running SSM outside of SSM address space (ASM address space). What do we want to say. It's possible, but probably easier not to encourage but discourage (IGMPv3 -> PIM-SM state issues).
    - Currently text strongly recommends to ALWAYS use SSM address space for SSM.

Update since IETF 102

- 5.0 Future ASM work
  - Some details about possible future ASM work, but discouraging:

  - This document does not believe that any ASM solution, even with such future work, can ever provide the same intrinsic security and network and address management simplicity as SSM (see Section 3.2). Instead, this document believes that future work for general purpose interdomain IP multicast is better spent on the SSM items listed in Section 4.
  - (section 4 being the asks what SSM pieces are undocumented).

Thank You!