

Requirements for Multicast in L3 PPVPNs

`draft-ietf-l3vpn-ppvpn-mcast-reqts-01`

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IETF 63th, Paris, 2005-08-01

Status / Agenda

- draft-ietf-l3vpn-ppvpn-mcast-reqts-00 presented in IETF 62th
- [draft-ietf-l3vpn-ppvpn-mcast-reqts-01](#) posted July 13th
- In this presentation
 - Going through the changes since -00
 - Multicast VPN Survey
 - What's next...

Changes ^[1/3]

- New sections
 - Carrier's carrier (5.1.9) : *“A multicast VPN solution SHOULD support the carrier's carrier model in a scalable and efficient manner [...]”*
 - Quality of Service Differentiation (5.2.5) : *“the ability to offer differentiated levels of QoS”*
- Updated sections
 - QoS (5.1.3) : Mention join and leave delay requirements (refers to RFC2432)
 - Minimum MTU (5.1.13 / 5.2.3.2) : more precise content

[...]

Changes ^[2/3]

- Updated Sections : (continued)
 - Tunneling technologies (5.2.3.1) : mention P2MP LDP as a possible way of signalling MPLS MDTunnels
 - Compatibility and migration issues (5.2.10) : *“a solution SHOULD state a migration policy from possibly existing deployments”*
 - Troubleshooting (5.2.11) : *“providing the operators with means to check the proper setup and operation of MDTunnels”* / mention of LSPPing
 - Inter AS (5.2.12) : *“A multicast VPN solution SHOULD provide inter-AS mechanisms requiring the least possible coordination between providers [...]”*

Changes [3/3]

- Initiated content of Section 4 “Use cases”
 - Goal of this section : to better illustrate deployment requirements, especially scalability requirements
 - express use cases scenarios *[started]*
 - provide orders of magnitude for scalability parameters *[waiting for survey results]*
- Editorial changes
 - A lot of picky rewordings :-)
 - Moved some sections around
 - Conversion to RFC2629 XML format
 - Added and updated references
 - Added “Changelog” and “Requirement Summary” Appendices

Multicast VPN Survey ^[1/2]

- Section 4 “Use Cases” needs more detailed content
 - Not easy to guess relevant scalability orders of magnitude
 - We proposed to do a Multicast VPN Survey
- Survey overview
 - We expect mostly ISPs to answer
 - Focus is “*future expected deployments*”, **NOT** past / today / short-term
 - Typical questions:
 - Quantitative
 - *Number of VPNs for which multicast is made available ?*
 - *Number of PEs with multicast service enabled ?*
 - Qualitative
 - *Type of multicast applications ?*
 - *Do you expect applications that are sensitive to multicast join/latency ?*
 - *Do you plan to deploy multicast VPNs in a multi-AS context ?*

Multicast VPN Survey [2/2]

- Survey “launched” July 27th
 - Posted on different lists (l3vpn, mboned, nanog.org)
 - Please disseminate it
 - Please answer it... :-)
- Anonymization through Daniel King (Thank you)
 - Please send completed surveys to him (dan@dnni.com)
- ***Answers wanted for September 15th, 2005***

What's next ?

- Completing Section 4
 - Survey answers expected for mid-september
 - Section should be completed for IETF 64th
- Refining requirements levels
 - PE-CE protocols:
 - PIM-SM is the only MUST currently
 - SSM, IGMP/MLD as MUSTs ?
 - “SHOULD” or more for : Inter-AS / Carrier's carrier / Extranet
 - Tunneling protocols for MDTunnels :
 - currently : “a solution *SHOULD* be able to use a range of tunneling technologies, [...] *including* : [list]”
 - need to be more precise : what is MUST/SHOULD ?
- Some open questions...
 - Relevance of MTU-related sections

Conclusion

- Requirements document can now be considered mostly mature (except Section 4 “Use Cases”)
 - Thank you to all contributors
 - More feedback is now needed, e.g. :
 - on requirement levels
 - on current content of section 4
- Please comment the draft
- Please answer/disseminate the survey
- **Questions / Comments ?**