Multicast Issues in Networks Using NVO3

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Motivation

- Document various multicast mechanisms in NVO3 networks
    - With and without support from the underlay
- Highlight issues and deployment considerations of each mechanism
- Discuss issues with providing multicast service in overlay networks

Changes since -00

- -00 was published and presented at IETF 86
- Updated terminology to match framework document
- Added reference to additional schemes
- Added discussion of issues with supporting multicast applications in overlay networks
- Additional coauthors

Mechanisms for Multicast in NVO3

1. No multicast

2. Replication at the source NVE

3. Replication at a multicast service node

4. IP multicast

5. Other schemes
   1. e.g. draft-marques-l3vpn-mcast-edge

Supporting IP Multicast Applications in Networks Using NVO3

- NVE needs to support IGMP snooping
- Mapping tenant multicast groups to actual set of delivery tunnels
  - For #2 and #3, use NVA
  - For #4
    - Mapping between inner and outer multicast groups
    - NVE implements IGMP/MLD for outer multicast groups
- Location of IGMP Querying function
  - Either at NVE or multicast service node
- Multicast routing at NVEs with L3 VNIs
  - Mechanisms for setting up forwarding entries, etc.

Summary

- The draft provides a summary of issues for supporting L2 and L3 multicast in networks using NVO3

- Next steps
  - WG document?
  - Address these issues as part of the architecture document?

THANK YOU