

Multicast Transition Work Items

Based on

draft-eubanks-mboned-transition-overview-03

Hitoshi Asaeda

Marshall Eubanks

Tina Tsou

Stig Venaas

Topics

- Overview document
- Multicast address translation
- Address acquisition
- Adaptation function (AF) specification

Overview Document

- Identifies the specific multicast transition problems that the IETF needs to work on.
- Identifies the work items that need to be achieved for a solution.
- Identifies the requirements that the solutions must satisfy.

Multicast Address Translation

- Draft-ietf-mboned-64-multicast-address-format has been accepted as a Working Group document
- Provides stateless, algorithmic, reversible translation between IPv4 and IPv6 addresses using embedded IPv4 address approach

Is this sufficient to meet requirements?

Address Acquisition

- Problem: if the receiver is not dual stack, the multicast group address (and the unicast source address in the case of SSM) provided by the Electronic Program Guide (EPG) may be in the wrong IP version
- EPG is generally a complex XML-encoded document transmitted in multiple parts
 - EPG content and encoding defined by other SDOs
 - makes modification by external AF difficult even though some versions contain SDP
- Various possible strategies explored in draft-tsou-mboned-multtrans-addr-acquisition

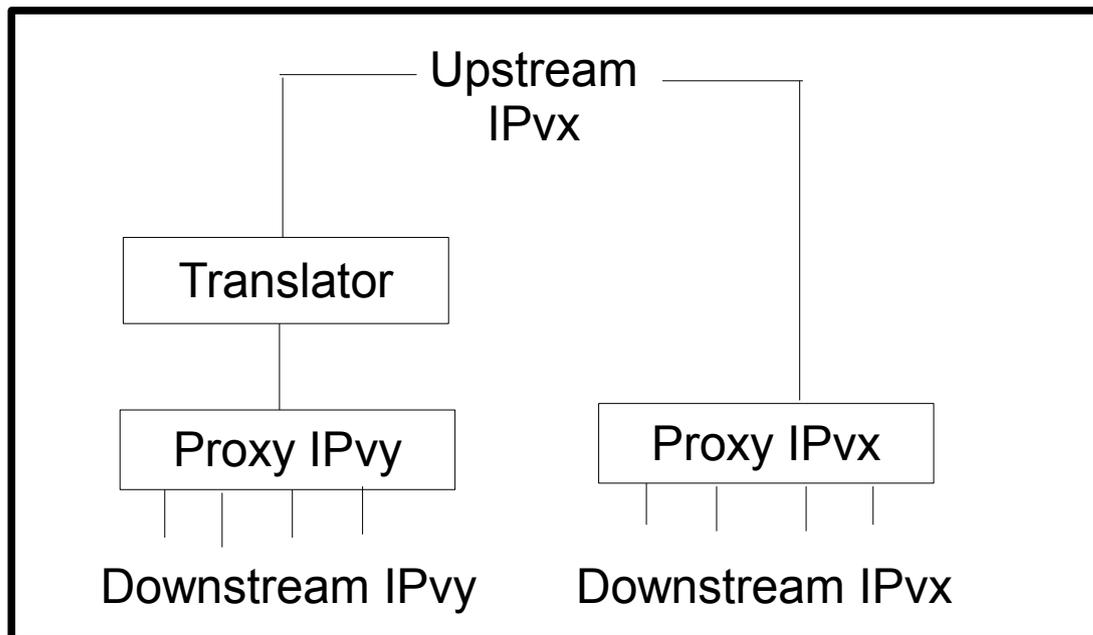
Can the IETF really contribute anything useful here?

• Adaptation Function (AF) Specification

- Operates in both control and forwarding planes
- In forwarding plane, primary operation is header translation
 - could encapsulate as configurable option
- In control plane, have multiple scenarios depending on where AF is deployed
 - IGMPv3 ↔ MLDv2 (other versions by configuration)
 - PIM(v4) ↔ PIM(v6)
 - IGMPv3 ↔ PIM(v6)
 - MLDv2 ↔ PIM(v4)

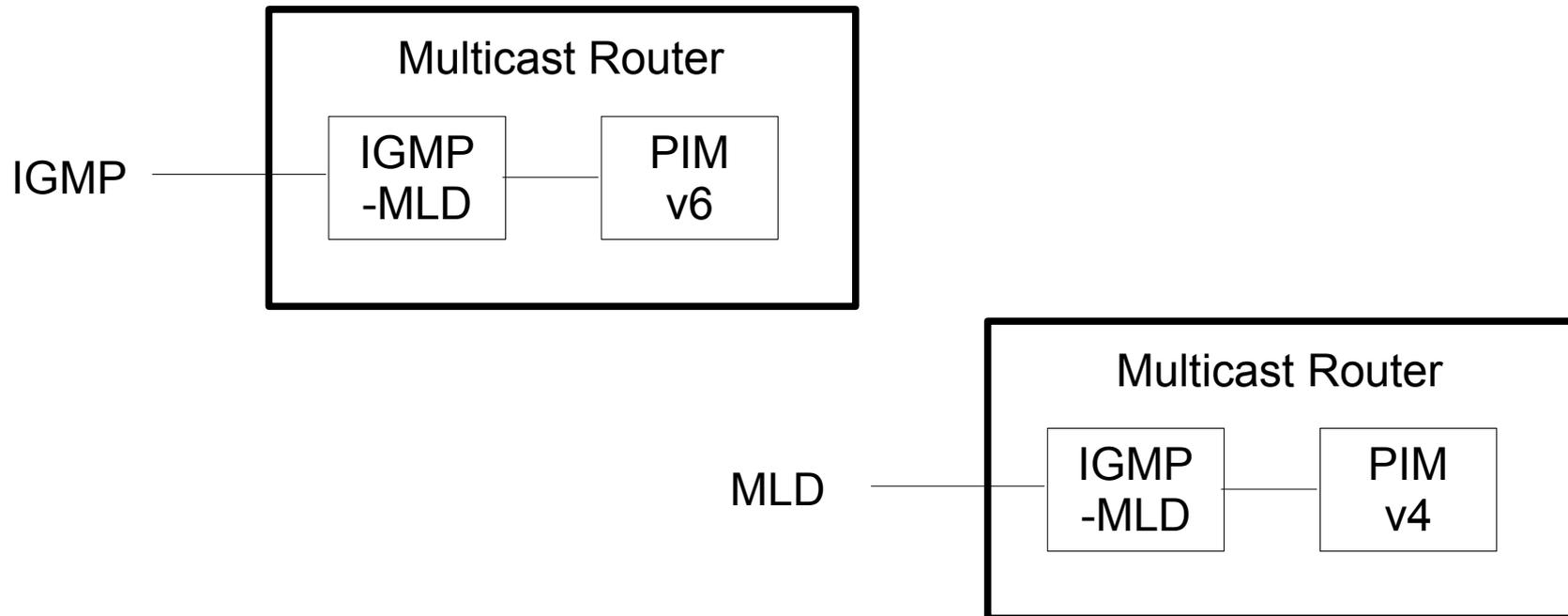
AF Specification cont'd

- Have draft-perreault-mboned-igmp-ml-d-translation for IGMP-MLD translation
- Single state machine per downstream address family
- Mapping of messages between the two protocols



AF Specification (cont'd)

- Argument that IGMP-MLD translator will also satisfy requirements for IGMP-PIMv6 and MLD-PIMv4 interworking



AF Specification (cont'd)

- This leaves PIMv4 ↔ PIMv6 translation to be specified. See draft-venaas-mboned-v4v6mcastgw.

Do we also need a separate AF specification?

or

Will the overview document evolve to be the AF specification?

And ...

- *What is missing from this work program?*