Proposed Multrans Charter

Preamble

During the period of transition from IPv4 to IPv6, multicast will have to operate across boundaries between network segments supporting different versions of the Internet Protocol. IPTV simulcast is a key application of multicast, with an emerging consensus on requirements.

Given the large flows inherent in the distribution of television channels, it is highly desirable that the bandwidth-minimizing capabilities of multicast technology be applicable during the transition period. The MULTRANS Working Group is tasked with specifying the operation of Application Level Gateways (ALGs) spanning IP version boundaries to make use of those bandwidth-minimizing capabilities in support of the IPTV application.

First Goal

1. The Working Group's first task is to develop a problem statement that identifies the scope of the problem of multicast operation for the IPTV application during the transition from IPv4 to IPv6. The problem statement will identify:

-- requirements that must be satisfied by the mechanisms for multicast transition;

-- use cases that must be considered, ranked by priority;

-- design considerations that should be taken into account in subsequent work.

Second Goal

2. The MULTRANS Working Group will develop Informational documents specifying the operation of dual stack Application Level Gateways (ALGs) spanning the boundary between network segments supporting different IP versions, capable of participating in the establishment of multicast topologies within each network segment, and able to pass received multicast content into those topologies.

Third Goal

3. The MULTRANS Working Group will specify the means whereby multicast addresses may be translated between IPv4 and IPv6, in direct analogy to RFC 6052 for unicast addresses. For the IPTV scenario, stateless translation is sufficient and stateful translation will not be addressed.

Fourth Goal

4. The MULTRANS Working Group will specify the operational and management capabilities required to support multicast transition. In particular, this work may involve the specification of MIBs for configuration and debugging of ALG operation.

Relationship To Other Working Groups

- The specification for translation between IPv4 and IPv6 multicast addresses will be reviewed jointly with INT Area and the MBONED Working Group
- Recommendations relating to ALG operation and management will be reviewed jointly with the MBONED Working Group
- The ALG specifications developed in this group will be reviewed jointly with PIM and MBONED.