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                       IGMPv3 and MLDv2 Survey
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Abstract

   The PIM WG intends to progress IGMPv3 and MLDv2 from Proposed
   Standards to Internet Standards. This document describes the
   motivation, procedures and questions proposed for a survey of
   operators, vendors and implementors of IGMPv3 and MLDv2. The
   objective of the survey is to collate information to help the PIM WG
   progress these protocols to Internet Standards.

Status of This Memo

   This Internet-Draft will expire on September 9, 2019.

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1. Introduction

   Internet Group Management Protocol Version 3 (IGMPv3) [RFC3376] and
   Multicast Listener Discovery Version 2 (MLDv2) for IPv6 [RFC3810] are
   currently Proposed Standards. Given the fact that multiple
   independent implementations of these protocols exist and they have
   been successfully and widely used operationally, the PIM WG is keen
   to progress these protocols to Internet Standards. In order to
   facilitate this effort, it is critical to establish if there are

features specified in [RFC3376] and [RFC3810] that have not been
widely used and also to determine any interoperability issues that
have arisen from using the protocols.

Following approach taken for PIM-SM, documented in [RFC7063], the PIM
WG has decided that conducting a comprehensive survey on
implementations and deployment of IGMPv3 and MLDv2 will provide
valuable information to facilitate their progression to Internet
Standard.

This document describes the procedures proposed for conducting the
survey and introduces the proposed questions.

2. Procedures Followed

2.1. Methodology

The PIM WG Chairs will officially kick off the survey and distribute
the questionnaire and pertinent information through appropriate
forums, aiming to ensure the survey reaches as wide an audience as
possible.

2.2. Intended Recipients of Questionnaire

1. Network operators

2. Router vendors

3. Switch vendors

4. Host implementors

2.3. Processing of Responses

Responses received will remain confidential. Only the aggregated
results will be published and so it will be impossible to identify
the contributions by individual operators, vendors or implementors.
Furthermore, an option to submit the completed questionnaire
anonymously will be available.

3. Questionnaire

3.1. Questionnaire for Vendors or Host Implementors

Name:

Affiliation/Organization:

Contact Email:

Do you wish to keep your name and affiliation confidential?: Y/N

3.1.1. Implementation Status

Which of the following have you implemented? And for how long has it been implemented?

1.   IGMPv1 [RFC1112] implemented?: Y/N, since:

2.   IGMPv2 [RFC2236] implemented?: Y/N, since:

3.   IGMPv3 [RFC3376] implemented?: Y/N, since:

4.   Lightweight IGMPv3 [RFC5790] Implemented: Y/N, since:

5.   MLDv1 [RFC2710] implemented?: Y/N, since:

6.   MLDv2 [RFC3810] implemented?: Y/N, since:

7.   Lightweight MLDv2 [RFC5790] implemented?: Y/N, since:

3.1.2. Implementation Specifics

1.   Which IGMPv3 features have you implemented?

2.   Which MLDv2 features have you implemented?

3.   Have you carried out IGMPv3 or MLDv2 interoperability tests with other implementations? (What issues arose during these tests?) (How could the standards have help minimize these issues?)

3.1.3. Implementation Perspectives

1.   What feature(s) has been deliberately omitted from IGMPv3 or MLDv2 implementations? (Because you think it is sub-optimal or potentially has significant disadvantages/issues?) (Because of insufficient demand/use cases?)

2.   Which ambiguities or inconsistencies in RFC 3376 or RFC 3810 made the implementation challenging?

3.   What suggestions would you make to the PIM WG as it seeks to progress IGMPv3 and MLDv2 to Internet Standard?

[3.2](#). Questionnaire for Network Operators

   Name:

   Affiliation/Organization:

   Contact Email:

   Do you wish to keep your name and affiliation confidential?:

[3.2.1](#). Deployment Status

   Which of the following are currently deployed in your network? And
   for how long has it been deployed?

   1. IGMPv1 [[RFC1112](#)] deployed?: Y/N, since:

   2. IGMPv2 [[RFC2236](#)] deployed?: Y/N, since:

   3. IGMPv3 [[RFC3376](#)] deployed?: Y/N, since:

   4. Lightweight IGMPv3 [[RFC5790](#)] Implemented: Y/N, since:

   5. MLDv1 [[RFC2710](#)] deployed?: Y/N, since:

   6. MLDv2 [[RFC3810](#)] deployed?: Y/N, since:

   7. Lightweight MLDv2 [[RFC5790](#)] deployed?: Y/N, since:

[3.2.2](#). Deployment Specifics

   1. Which IGMPv3 features are in use? (Is Exclude mode with source
       list in use?)

   2. Which MLDv2 features are in use? (Is Exclude mode with source
       list in use?)

   3. Does your network rely on the fallback mechanism between
       different IGMP versions? (Between which IGMP versions?) (What
       is your experience with this fallback mechanism?)

   4. Are you using equipment with different (multi-vendor)
       implementations for your deployment? (Have you encountered any
       inter-operability or backward-compatibility issues amongst
       differing implementations?) (What are your concerns about these
       issues?)

3.2.3. Deployment Perspectives

   1. What have you found to be the strengths of IGMPv3 or MLDv2?

   2. What have you found to be the weaknesses of IGMPv3 or MLDv2?

   3. What suggestions would you make to the PIM WG as it seeks to
       progress IGMPv3 and MLDv2 to Internet Standard?

4. Acknowledgments

   The authors would like to thank Stig and Mike for valuable review and
   feedback.

5. References

5.1. Normative References

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5.2. Informative References

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