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Lightweight IGMPv3/MLDv2

draft-ietf-mboned-lightweight-igmpv3-mldv2-01

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Outline

• Changes from -00 to -01:
  – Substitute the message type IS_EX(NULL) by TO_EX(NULL) on the host side
  – Editorial changes, clarifications, and corrections

• Implementation and test status

• Next step
# Record Types

<table>
<thead>
<tr>
<th>Full Version</th>
<th>LW -00</th>
<th>LW -01</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS_EX()</td>
<td>IS_EX()</td>
<td>TO_EX()</td>
<td>query response for (*,G) join</td>
</tr>
<tr>
<td>IS_EX(x)</td>
<td>N/A</td>
<td>N/A</td>
<td>query response for EXCLUDE (x,G) join</td>
</tr>
<tr>
<td>IS_IN(x)</td>
<td>ALLOW(x)</td>
<td>ALLOW(x)</td>
<td>query response for INCLUDE (x,G) join</td>
</tr>
<tr>
<td>ALLOW(x)</td>
<td>ALLOW(x)</td>
<td>ALLOW(x)</td>
<td>INCLUDE (x,G) join</td>
</tr>
<tr>
<td>BLOCK(x)</td>
<td>BLOCK(x)</td>
<td>BLOCK(x)</td>
<td>INCLUDE (x,G) leave</td>
</tr>
<tr>
<td>TO_IN(x)</td>
<td>TO_IN(x)</td>
<td>TO_IN(x)</td>
<td>change to INCLUDE (x,G) join</td>
</tr>
<tr>
<td>TO_IN()</td>
<td>TO_IN()</td>
<td>TO_IN()</td>
<td>(*,G) leave</td>
</tr>
<tr>
<td>TO_EX(x)</td>
<td>N/A</td>
<td>N/A</td>
<td>change to EXCLUDE (x,G) join</td>
</tr>
<tr>
<td>TO_EX()</td>
<td>IS_EX()</td>
<td>TO_EX()</td>
<td>(*,G) join</td>
</tr>
</tbody>
</table>
Host-Side Implementation

- Open source implementation
  - NetBSD-current
    - Hopefully, ported to other BSDs
  - LW-IGMPv3 implementation will be ready around the end of Aug.
  - LW-MLDv2 implementation will be ready before the next IETF
- Others?
Router-Side Implementation

- Software-based router implementation (by Huawei)
  - XORP1.4
    - On NetBSD-3.1 / GNU make 3.80 / gcc 3.3.3
    - LW-IGMPv3 implementation was done
    - LW-MLDv2 implementation will be ready soon

- Others?
Implementation Test

• Done
  – Router behavior with a full IGMPv3 host and application was confirmed
  – Router compatibility with IGMPv3/v2/v1 messages (given by a packet generator) was confirmed

• Next
  – LW-IGMPv3 test for the host-side implementation
  – Router behavior with a LW-IGMPv3 host
  – LW-MLDv2 test for both sides
Next Step

• Implementation completion and public release of host-side implementations
• Router-side implementations (i.e. XORP modification) will be opened to public, too
• Compatibility and interoperability test
• Improvement of the documentation quality
  – Seek the documentation review