ITU-T SG13 & SG15 Update

Dinesh Mohan (Nortel) – SG13 Liaison
Hiroshi Ohta (NTT) – SG15 Liaison
Recent and future related meetings

> Recent Meetings
  • SG13/SG15 joint interim meeting: Nov 28–Dec 2, 2005 Chicago
    • Ethernet/MPLS related issues of the following Questions:
      • Q.5/13 (OAM)
      • Q.9/15 (Protection switching and equipment)
      • Q.11/15 (Services)
      • Q.12/15 (Network architecture)

> Future Meetings
  • SG13 plenary meeting: Jan 16–27, 2006 Geneva
  • SG15 plenary meeting: Feb 6–17, 2006 Geneva
  • SG13 plenary meeting: Jul 17-28, 2006 Geneva
SG13 Update
Q.5/13 Updates: Last meeting summary

> Recommendation Y.1730 completed – Ethernet OAM Requirements

> draft Recommendation Y.1731 (ex Y.17ethoam) was updated
  • Planned for consent in Jan 2006 plenary meeting
  • Y.1731 forms an input to Q.9/15 and Q.12/15 activities
  • G.8021 (equipment specification) Recommendation will provide the protocol specifications and state machines which are aligned with the IEEE 802.1ag
    • Consent date for G.8021 with OAM functionality is Nov 2006
    • IEEE 802.1ag is expected to be finished by this timeframe
Y.1731 overview

> Introduces OAM constructs e.g. MEs, MEGs, MEPs, MIPs, ME Levels, etc

> Introduces relationship between different OAM constructs

> Specifies high-level view of different OAM mechanisms required to meet different transport Ethernet requirements
  • Fault Management
  • Performance Management

> Identifies the information fields that are required to realize the OAM mechanisms

> Implementation details and state machines are to be specified in G.8021 (equipment specification)
  • Interest has been expressed to capture frame formats to allow equipment specification to determine pertaining issues
Y.1731 agreements in last meeting

> Previous IEEE 802.1 liaison responses taken into account
  
  • ME Level discussions closed
    • Fixed ME Levels retained inline with .1ag
    • ME Level assignments reversed to allow 7 to be highest and 0 to be lowest ME Level inline with .1ag

  • 32 OpCodes acknowledged
    • Response to .1 query: “ITU-T Rec. Y.1731” should be identified as owner of these OpCodes in 802.1ag
    • ITU-T plans to assign OpCode values for functions that are unique to ITU-T
Y.1731 questions/request to .1

> Allocate OpCodes values for .1ag functions such that common OAM OpCodes can be captured in Y.1731

> Timestamps be removed from CFM header since delay measurements are done proactively

> Terminal CCM is not seen as a requirement, therefore consider allocating values to all period values

> Preference to reduce the CCM size to 128bytes
  • this requires the MAID size to be reduced – preference for <64bytes

> Allocate two pairs of OpCodes for:
  • One pair for Organizationally Specific Values
  • One pair for Experimental OpCode Values
Y.1731 liaison to MEF

> When untagged frames are used by client layers, then the ME Level space has to be coordinated.

> When tagged frames are used by client layers, each layer can potentially have all 8 ME Levels of space for its use.

> Therefore it was proposed that ME Level be introduced as a service attribute for the purposes of negotiation while offering services.
Q.9/15 Updates: Last meeting summary

> New Recommendation G.8031 (Ethernet protection)
  • Added protection switching state transition table
  • Decided to concentrate ETV (VLAN) protection for this version
  • ETH protection was left for further study.
  • Planned to be consented in Feb. 2006 SG15 plenary.

> Revised Recommendation G.8021 (Ethernet equipment)
  • Added equipment functional description related to OAM functions, which are specified by Y.1731 (ex. Y.17ethoam)
  • Planned to be consented in Feb. 2006 SG15 plenary
  • OAM related part is planned to be consented in Nov. 2006 SG15 plenary
Q.12/15 Updates: Last meeting summary

> Revised Recommendation G.8010 (Ethernet architecture)
  • OAM related part is planned to be consented in Feb. 2006
  • Other parts are planned to be consented in Nov. 2006 SG15 plenary.
  • Details are contained in TD102 (3/15), TD103(3/15) and TD104(3/15) from May 2005 SG15 meeting

> New Recommendation G.ufatn (Unified Framework for the Architecture of Transport Networks)
  • Q.12/15 identified the need for unified network framework (i.e., connection oriented and connectionless network models) before the discussion of this enhancements
Backup
Rapporteur/liaison Officers
(Ethernet related questions)

> ITU-T SG13
  • Q.5/13 (OAM): Gilles Joncour (FT)

> ITU-T SG15
  • Q.3/15 (Coordination and terminology): Hiroshi Ohta (NTT)
  • Q.9/15 (Protection and equipment): Ghani Abbas (Marconi)
  • Q.11/15 (Service, mapping): Mark Jones (Sprint)
  • Q.12/15 (Network architecture): Malcolm Betts (Nortel)

> SG13 liaison representatives to:
  • IEEE 802.1: Dinesh Mohan (Nortel)

> SG15 liaison representatives to:
  • IEEE 802.1: Hiroshi Ohta (NTT)
## Status of related Recommendations

<table>
<thead>
<tr>
<th>Q.</th>
<th>Rec. No.</th>
<th>N/R</th>
<th>Title or Proposed Title</th>
<th>Issued date</th>
<th>Next Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/15</td>
<td>G.8001</td>
<td>N</td>
<td>Terms and definitions for Ethernet Frames over Transport</td>
<td>--</td>
<td>02/2006</td>
</tr>
<tr>
<td>9/15</td>
<td>G.8031</td>
<td>N</td>
<td>Ethernet protection switching</td>
<td>--</td>
<td>02/2006</td>
</tr>
<tr>
<td>11/15</td>
<td>G.7041</td>
<td>R</td>
<td>Generic Framing Procedure (GFP)</td>
<td>05/2005</td>
<td>2008</td>
</tr>
<tr>
<td>11/15</td>
<td>G.8011.1</td>
<td>R</td>
<td>Ethernet Private Line Service</td>
<td>04/2004</td>
<td>2007</td>
</tr>
<tr>
<td>11/15</td>
<td>G.8011.2</td>
<td>N</td>
<td>Ethernet Virtual Private Line Service</td>
<td>05/2005</td>
<td>2008</td>
</tr>
<tr>
<td>11/15</td>
<td>G.8012</td>
<td>R</td>
<td>Ethernet UNI and Ethernet over Transport NNI</td>
<td>08/2004</td>
<td>2007</td>
</tr>
</tbody>
</table>