ITU-T SG13/SG15 updates

May 10, 2005

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Recent and near future related meeting

<Recent meeting>

- SG13 plenary meeting: April 25 – May 6, Geneva
  - Q.5/13 (OAM)
    - Progressed Y.17ethoam (Ethernet OAM): Output of the meeting: TD75(PLEN); Further updated version to be available by the end of June.
    - Decided to start Y.ethmpls-oam (OAM functionality for Ethernet-MPLS interworking)

<Near future meeting>

- SG15 plenary meeting: May 16 – 27, Geneva
  - Q.9/15 (Protection switching and equipment)
  - Q.11/15 (Services)
  - Q.12/15 (Network architecture)

Y.17ethoam (Ethernet OAM) - Drafting

- The draft was updated in terms of:
  - MEP/MIP Configurations for P2P/MP ME
    - Configuration issues for each OAM functions were discussed and drafted intensively.
    - OAM functions: CC, u-LB, m-LB, LT, AIS, Test, DM, LM, RDI
    - Common items include: Monitoring point identifier (MEGID+MEPID), ME Level, Peer MEP ID in the same MEG, priority and discard eligibility
    - Specific items for each OAM function such as periodicity and lifetime for CC
    - Details are given in TD73(PLEN)
- Output of the last SG13 meeting: TD75(PLEN)
- Further updates to be made to reflect the discussion by the end of June

Y.17ethoam (Ethernet OAM) – MA levels

- How can we indicate the MA levels?
  - Use different DA?
  - Use different EtherType?
- There was a proposal to different DA to distinguish MA levels in the last SG13 meeting.
- Q.5/13 sent a liaison to 802.1 on this issue.

Y.17ethoam (Ethernet OAM) – priority/discard eligibility

- What should be the priority of OAM frames?
  - For CC: Default is highest available for data traffic (but it may have a lower priority than BPDUs) and configurable
  - For other functions: under study
- Discard eligibility – non-configurable
  - For CC: fixed as non-discard eligible
  - For other functions: to be fixed
- How should the frame losses be measured?
  - Use CC, LB or LM?
  - To be decided to use one of them

Y.17ethoam (Ethernet OAM) – CC database, Test, LB modes

- “CC database”: Clarify the usage or delete
- Test OAM frames
  - Needs further clarification how Test OAM frames can be detected by receiving MEP
  - May need two OpCodes (for unidirectional test and for bidirectional test)
- LB modes: 2 options retained out of 4 on the draft
  - Retain: Looping back all received frames where DA and SA are replaced … for out-of-service test
  - Add: Looping back only for ETH-Test OAM with exact MAC address where DA and SA are replaced … for in-service test
  - Delete: “Looping back all received frames without any modifications”, “Looping back only ETH-OAM frames where DA and SA are replaced”, “Looping back only for OAM with exact MAC address where DA and SA are replaced”

Y.17ethoam (Ethernet OAM) – AIS

- AIS
  - Non-selective approach should be the default
  - Transmission period should be decided.
  - Propagation mechanism to the higher OAM level should be clarified

Y.17ethoam (Ethernet OAM) – possible new function

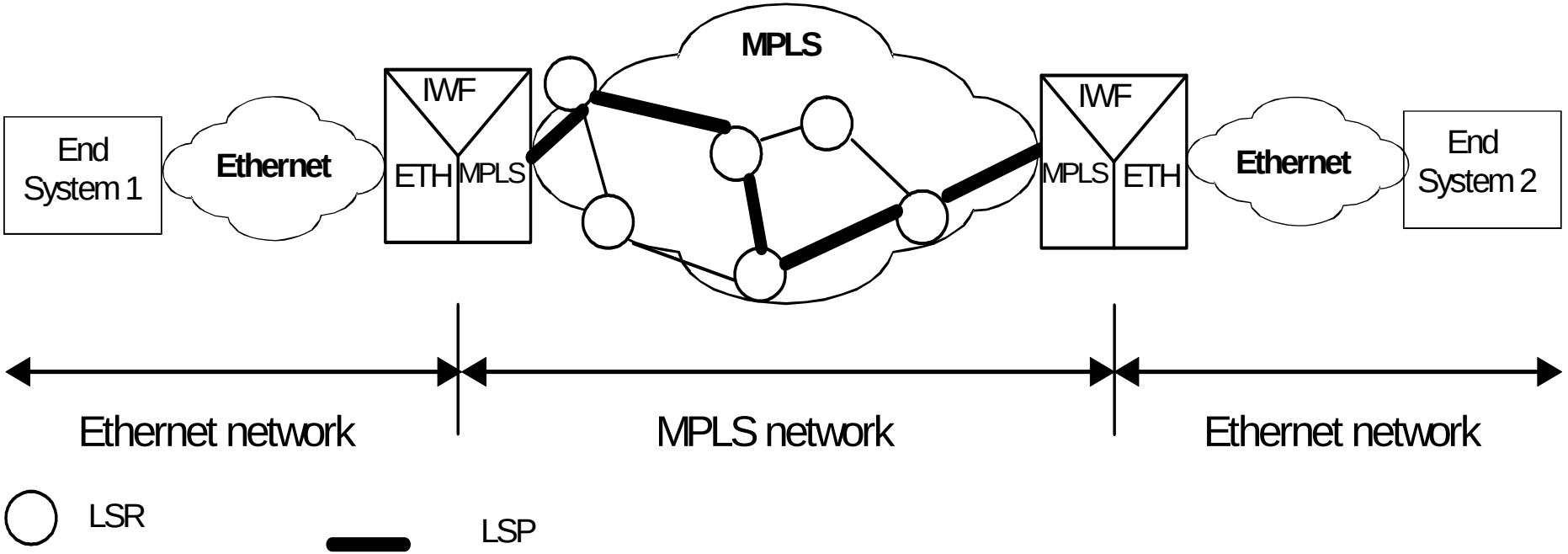
- DSL Forum suggested to define “communication channels”
- Similar to USR channels in SDH (F1, F2 and F3) or GCC (General Communication Channels) in OTN
- Q.5/13 has questions below:
  - Does this belong to the Ethernet OAM?
  - What would keep the GCC frames from reaching the customers?
  - Is an assumption always made that BRAS and DSLAM are always connected with a p2p? Can it be mp, which would have some impact on choice made?

Y.17ethoam (Ethernet OAM) – terminology, etc.

- Terminology
  - What is the “Service Instance”?
  - Service ID can be replaced by MEG ID
  - Maintenance Association is equivalent to MEG (Maintenance Entity Group)
  - Common terminology between .1ag and ITU-T is desirable
- Other discussion points
  - .1ag is targeting both enterprise and transport domains while Y.17ethoam is targeting specifically transport domain. The differences need to be identified

Draft Y.ethmpls-oam

- Y.1415 (User plane MPLS-Ethernet Interworking): Approved at Feb. 2005
- Y.ethmpls-oam covers OAM functions under MPLS-Ethernet interworking situation.



Reference architecture for Ethernet-MPLS network interworking

Future meetings

<Plenary meetings>

- SG15 plenary meeting: May 16 – 27, Geneva
- SG13 plenary meeting: Aug. 29 – Sept. 9, Geneva

<Interim meeting>

- SG15: to be decided at the May plenary meeting (Sept. 2005?)

Backup slides

Ethernet related Questions: rapporteurs and liaisons

- 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)

- SG15 liaison representatives to:
  - IEEE 802.1: Hiroshi Ohta (NTT)
  - IEEE 802.3: Glenn Parsons (Nortel)
  - IEEE 802.17: Glenn Parsons (Nortel)
  - MEF: Glenn Parsons (Nortel)

Ethernet related Recommendations

- Q.5/13
  - Y.17ethoam (OAM) (New editor: Dinesh Mohan (Nortel))
  - Y.ethmpls-oam (OAM functionality for Ethernet-MPLS interworking)
- Q.3/15
  - G.voceth (Ethernet related terminology)
- Q.9/15
  - Y.17ethps (Protection switching)
  - G.8021 (Ethernet equipment)
- Q.11/15
  - G.7041 (GFP)
  - G.8011 (Ethernet over Transport)
  - G.8011.1 (Ethernet Private Line service)
  - G.8011.2 (Ethernet Virtual Private Line service)
  - G.8012 (Ethernet over Transport NNI)
- Q.12/15
  - G.8010 (Ethernet Layer Network Architecture)

Status of related Recommendations

Q.	Rec. No.	N/R	Title or Proposed Title	Issued date	Next Target
5/13	Y.17ethoam	N	OAM functions and mechanisms for Ethernet based networks	--	02/2006
5/13	Y.ethmpls-oam	N	OAM functionality for Ethernet-MPLS interworking	--	07/2006
3/15	G.voceth	N	Terms and definitions for Ethernet Frames over Transport	--	05/2005
9/15	G.8021	R	Characteristics of Ethernet Transport Network Equipment Functional Blocks	4/2004	02/2006
9/15	Y.17ethps	N	Ethernet protection switching	--	02/2006
11/15	G.7041	R	Generic Framing Procedure (GFP)	11/2004	02/2006
11/15	G.8011	R	Ethernet over Transport – Ethernet Service Characteristics	04/2004	02/2006
11/15	G.8011.1	R	Ethernet Private Line Service	04/2004	02/2006
11/15	G.8011.2	N	Ethernet Virtual Private Line Service	--	02/2006
11/15	G.8012	R	Ethernet UNI and Ethernet over Transport NNI	04/2004	02/2006
12/15	G.8010	R	Ethernet Layer Network Architecture	10/2003	02/2006