



IEEE P802.3ae 10Gb/s Ethernet Management MIB Proposal

David Law, Edward Turner - 3Com
Howard Frazier - Cisco Systems

Management Proposal

- Clause 30 - Protocol independent management definition
 - Add to, or modify, existing attributes, objects, capabilities and packages as required
- Annex 30A & 30B - GDMO MIB
 - Changes to match Clause 30 changes
- Annex 30C - SNMP MIB (Link Agg only)
 - No additions

Why no SNMP MIB ?

- Annex 30C only contains the SNMP MIB for the Link Aggregation managed object classes
 - To provide a full set of SNMP MIBs would require
 - Including current SNMP MIBs in Annex 30C
 - Investigating and fixing discrepancies between IEEE management and IETF Ethernet RFCs
 - This seems a lot of work and out of scope of the 802.3ae PAR
- SNMP MIBs produced by IETF as usual

Management Clause Changes

- Clause 30 Management
 - Changes to title and overview to add 10Gb/s
 - Changes to managed objects are summarised in following slides
 - Minor changes to behaviours to add 10Gb/s to the list of exclusion are not listed (invert the set)
- Annex 30A & 30B - GDMO MIB
 - Changes follow the Clause 30 changes
 - Counter sizes already fixed

Clause 30 Updates

- Layer management for DTEs (30.3)
 - oMAC Entity managed object class (30.3.1)
 - aMACCapabilities
 - Additional value used to indicate support for Rate Control
 - aRate
 - Attribute to control and report MAC Rate
 - May only be required for ‘Open-Loop’ Rate Control
 - oPHY Entity managed object class (30.3.2)
 - aPhyType & aPhyTypeList - additional values for new PHY types

Clause 30 Updates (Cont)

- oMACControlEntity managed object class (30.3.3)
 - No changes
- oPauseEntity managed object class (30.3.4)
 - No changes
- Layer management for repeaters (30.4)
 - oRepeater (30.4.1), oGroup (30.4.2) and oPort (30.4.3) managed object classes
 - Repeater not supported so no changes

Clause 30 Updates (Cont)

- Layer management for MAUs (30.5)
 - oMAU managed object class (30.5.1)
 - aMAUType - additional values for new PHY types
 - aMediaAvailable & aFalseCarriers - behaviour updates
 - This is where any new PHY specific additions would go. This will require more analysis once the 10Gb/s PHY selection becomes clearer
 - May be need for new object class such as oWIS for WIS related features

Clause 30 Updates (Cont)

- Management for link Auto-Negotiation (30.6)
 - oAutoNegotiation managed object (30.6.1)
 - Auto Negotiation not supported so no changes
- Link Aggregation Management (30.7)
 - oAggregationPort (30.7.2), oAggPortStats (30.7.3) and oAggPortDebugInformation (30.7.4) managed object classes
 - No changes required

IEEE P802.3ae 10Gb/s Ethernet Management Recommendation

- Changes to Clause 30 as listed
 - Changes to Annex 30A and 30B GDMO MIB to match as required
- No addition to Annex 30C SNMP MIB
 - SNMP MIB to be produced by IETF as normal