Precision Time Protocol Version 2 (PTPv2) Management Information Base

draft-ietf-tictoc-ptp-mib-03.txt
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Overview of Draft

• Presents a MIB for a PTP Clock
  – Concentrates on standard PTP data elements
  – Associated information such as performance data metrics are to be covered in a separate MIB

• PTP protocol-specific standard data sets:
  – Default, Current, Parent, Time Properties, Port, TC Default and TC Port Data Sets

• Covers all types of PTP clocks
  – ordinary, boundary and transparent clocks

• Aims to create a standard method for managing PTP clocks
History

• 00 (Jul 11) First full, syntactically correct and compile-able MIB
• 01 (Jan 12) Revised following comments from Bert Wijnen (6 Oct 2011) + editorial changes
• 02 (Jul 12) Add flexibility to transport type
• 03 (Jul 12) Changes from Andy Bierman comments
Overall changes in -02

- Replace `ptpbaseClockPortRunningVersion` by `ptpbaseClockPortTransportType`
- Change addresses associated with transports from "InetAddress" (for the IP transport) to a string, to allow for the different transport types
- Few minor changes
ClockPortTransportType ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"The Clock port transport type. The transport protocol used for the communication between the clock nodes. This includes IP version 4, IP version 6, Ethernet, DeviceNet, ControlNet and IEC61158."
SYNTAX INTEGER {
    ipversion4(1),
    ipversion6(2),
    ethernet(3),
    DeviceNet(4),
    ControlNet(5),
    IEC61158(6)
}
ClockPortTransportTypeAddress ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION "The Clock port transport protocol address used for the communication between the clock nodes. This is a string corresponding to the address type as specified by the ClockPortTransportType. This can be an address of types IP version 4, IP version 6, Ethernet, DeviceNet, ControlNet and IEC61158."
SYNTAX OCTET STRING (SIZE (1..255))

• ptpbaseClockPortAssociateAddress ClockPortTransportTypeAddress,
• ptpbaseClockPortCurrentPeerAddress ClockPortTransportTypeAddress,
Overall changes in -03

- Correct minor compiling errors and typos from -01
- Correct breaking compiling error from -02
- Move the OBJECT-GROUPS and MODULE-COMPLIANCES to the end
- Edit description clauses of MIBCompliances 1, 2, 3 & 4 and rename ptpbaseMIBCompliances1 to 4:
  1. ptpbaseMIBCompliancesSystemInfo
  2. ptpbaseMIBCompliancesClockInfo
  3. ptpbaseMIBCompliancesClockPortInfo
  4. ptpbaseMIBCompliancesTransparentClockInfo
- Add an Annex with list of extended structures which has been added in -01
- Minor edit corrections from -02
Current Status

• Last call issued in October (on -00)
• One review since -01 (Andy Bierman)
• Requires more “MIB Doctor” review
Next steps

• For further flexibility on transport type object, use AutonomousType textual convention and define the transport types using OBJECT-IDENTITY statements.
  – Ex: PTPoMPLS

• New related MIBs
  – MIB for ITU profile (extension) ➔ ITU-T SG13?
    • G.8265.1
    • G.8275.1 (working item; telecom profile for time)
    • Metrics? (reference: ITU-T G.8260 Appendix I)