Energy Aware MIB

draft-ietf-eman-energy-aware-mib-06

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Charter & Abstract

• “3. Energy-aware Networks and Devices MIB document The EMAN WG will develop a MIB module for monitoring energy-aware networks and devices. The module will address devices identification, context information, and potential relationship between reporting devices, remote devices, and monitoring probes.”
Summary of Major Changes in 06

- Entity MIB Compliance
- Representation of Relationships
- Organized Mandatory / Optional
- Misc. comments and conformance
- Open Issues (persistence)
Changes in version 6

• **New MIB design to model relationships between Energy entities**
  – addresses the open issue in version 5
  – based on suggestions of Juergen Quittek, Juergen Schoenwaelder

• **Compliance with ENTITY-MIB**
  – Working to comply with ENTITY-MIB v4 draft
  – Energy-Aware MIB will compliant with ENTITY-MIB v4

• **Incorporated review comments of Juergen Quittek**
Changes in version 6
Representation of Energy relationships

• Instead of a UUID list of children, individual relationships between entities

• +- eoRelationTable
   +- eoRelationEntry
      [entPhysicalIndex, eoRelationIndex]
      |                             
      |+- --n  INTEGER  eoRelationIndex
      |+- r-n  OCTET  STRING   eoRelationID
      |+- r-n  BITS     eoRelationship

• similar table for Proxy Relationship – eoProxyTable
Changes in version 6
Representation of Energy relationships

EnergyRelations ::= TEXTUAL-CONVENTION
SYNTAX BITS {
  none (0),
  poweredby(1),  -- power relationship
  powering(2),
  meteredby(3),  -- meter relationship
  metering(4),
  proxyby(5),    -- proxy relationship
  proxying(6),
  aggregatedby(7), -- aggregation relationship
  aggregating(8)
}
Changes in version 6
Compliance to ENTITY MIB

• ENTITY-MIB V4 based on EMAN requirements
  • draft-chandramouli-eman-rfc4133bis-01.txt

• Read-only UUID
• ENTITY-MIB compliance with a subset of MIB objects
• IANA controlled entPhysicalClass

Minimum requirement from the ENTITY-MIB:
  entPhysicalIndex, entPhysicalName, entPhysicalUris
Changes in version 6
Other changes

• PoE indices eoethPortIndex, eoethPortGrpIndex, lldpLocPortNum from Lldp MIB as optional
  – conformance statement allows this to be optional

• organized the MIB objects in eoTable
  – grouping of mandatory and optional MIB objects
  – Helps mib walks
Current Open Issues

- Global Persistence of eoTable? - eoPersistence
  - some objects (optional indices) are read-only
  - persist only the objects that are read-write
    - eoDomainName, eoRoleDescription, eoKeywords, eoImportance
  - Identity should be persistent
  - That is persistence of objects in ENTITY-MIB?
    - entPhysicalIndex, entPhysicalUris
    - Conformance statement in ENERGY-AWARE-MIB
Conclusion

• Good progress; feedback integrated

• New MIB design – request for feedback from MIB experts on the design

• Must still check if all the requirements are covered. Let’s freeze [EMAN-REQ]...