

# Energy Aware MIB

## draft-ietf-eman-energy-aware-mib-03

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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.”

# Open Issues in Version 2

1. The terminology must be consistent for all EMAN drafts, and this one included.

DONE based on the last version of the terminology draft

2. Agreement: we need an UUID for every Energy Object, but how to model it? From the last meeting:

“- If we want to make it right: new OID in the ENTITY-MIB v4 with a limited compliance statement to the ENTITY-MIB, i.e. just a few OIDs?

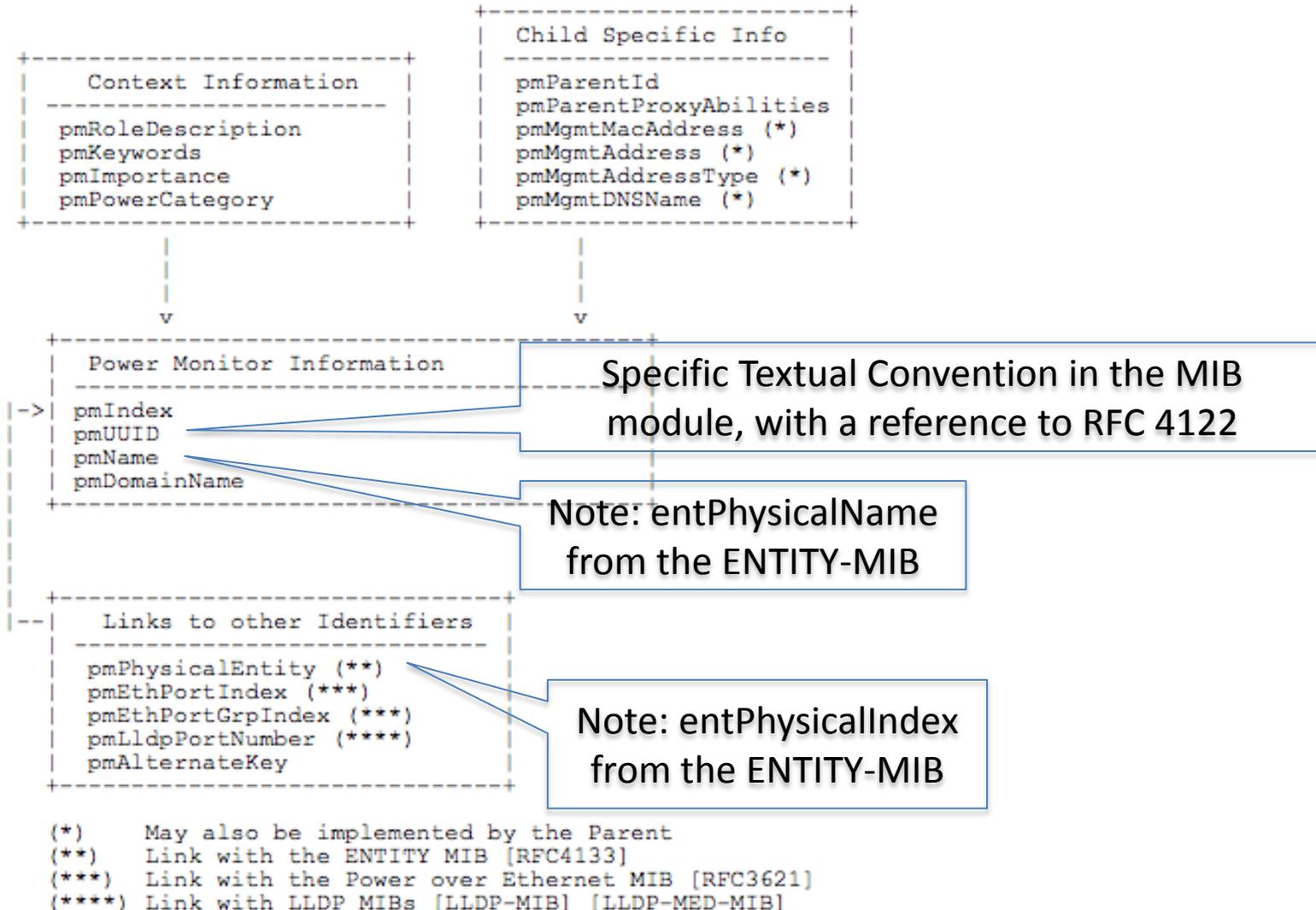
- If we want to make it quick: a new OID in the EMAN-MIB”

SOLVED: see next slides

3. A EO Child can have different EO parents in the monitoring, control, and power distribution. And a Child can have multiple parents in each of the topologies. In other words, the different relationships as defined in the EMAN framework must be inserted in this draft

SOLVED: see next slides

# Open Issue 2: UUID in the previous draft version



# New UUID proposal: AUGMENT table from the ENTITY-MIB **version 3**

```
+-----+
| EO Context Information |
+-----+
| eoRoleDescription     |
| eoKeywords            |
| eoImportance         |
| eoPowerCategory      |
+-----+
|
| v
+-----+
| EO Identification    |
+-----+
|->| entPhysicalIndex (*)
| entPhysicalName (*)
| entPhysicalUris (*) (EO UUID)
| eoDomainName
| eoMgmtMacAddress
| eoMgmtAddress
| eoMgmtAddressType
| eoMgmtDNSName
+-----+
|
|
+-----+
|--| Links to other Identifiers
+-----+
| eoEthPortIndex (**)
| eoEthPortGrpIndex (**)
| eoLldpPortNumber (***)
| eoAlternateKey
+-----+
```

We don't need the pmIndex any longer:  
use directly the entPhysicalIndex from  
the ENTITY-MIB

UUID the **ENTITY-MIB v3** (Thanks to  
Jürgen Schönwälder)

Minimum compliance to the ENTITY-  
MIB: entPhyIndex, entPhysicalName,  
entPhysicalUris

(\*) Compliance From the ENTITY MIB [[RFC4133](#)]  
(\*\*) Link with the Power over Ethernet MIB [[RFC3621](#)]  
(\*\*\*) Link with LLDP MIBs [[LLDP-MIB](#)] [[LLDP-MED-MIB](#)]

# Open Issue 3: Multiple Parents in different topologies

```
+-----+
--|  EO Child Relationships (optional)  |
|-----|
| eoMeteredBy (Parent(s) UUID list)   |
| eoPoweredBy (Parent(s) UUID list)   |
| eoDependentOf (Parent(s) UUID list) |
| eoAggregatedBy (Parent(s) UUID list)|
| eoProxyBy (Parent(s) UUID list)     |
| eoParentProxyAbilities (Parent abilities)|
+-----+

+-----+
--|  EO Parent Relationships (optional) |
|-----|
| eoChildrenList (Child(ren) UUID list)|
+-----+
```

OCTET STRING, specified as the entPhysicalUris (ENTITY-MIB v3), i.e. a list of UUIDs

- Two power supplies: eoPoweredBy = list of (UUID1, UUID2)
- Note: relationships are “optional”

# Current Open Issues

- TentPhysicalUris is read-write. Is this ok for a UUID from an operational point of view
- Do we need eoMeteringChildrenList, eoPoweringChildrenList, eoDependentChildrenList, eoAggregatingChildrenList, eoProxyingChildrenList?

# Conclusion

- Want to get consensus on the design
- Based on this design, this MIB module is slightly ahead of [EMAN-FMWK]
- Note: must still check if all the requirements are covered

# Thank You

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