

DYMO, NHDP, SMF and OLSR MIBs

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Introduction

- Four MIBs related to MANET WG protocols:
 - DYMO MIB <ietf-manet-dymo-mib-01.txt> [1]
 - NHDP MIB <ietf-cole-manet-nhdp-mib-00.txt> [2]
 - SMF MIB <ietf-cole-manet-smf-mib-01.txt> [3]
 - OLSR MIB <ietf-cole-manet-olsr-mib-00.txt> [4]
- Supports configuration, state, performance and notifications for the associated MANET protocols
- DYMO MIB – small update since last revision
- NHDP MIB – currently working in earnest, revision in a couple of weeks
- SMF MIB – added config objects, IpFilter table, RMON-like reports capabilities
- OLSR MIB – new draft

Relationships and Suggestions

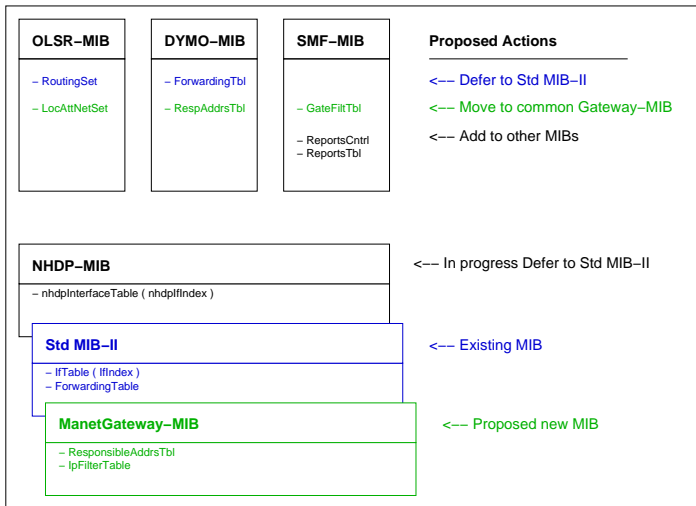


Figure: MIB Relationships and proposed restructuring.

Clarifications

- DYMO routingTable and Std MIB II forwardingTable differ only in the dymoSeqNo. Std MIB II forwardingTable however contains a handful of object 'placeholders' which can be defined to hold dymoSeqNo when routing protocol = DYMO.
- RMON MIBs support the creation of, e.g., hourly, reports which can be developed offline (locally) and pulled off the devices at anytime. This would mitigate device polling of performance objects to remotely construct performance reports (see current SMF-MIB).
- There are multiple RSSA algorithms pointed to in the SMF MIB. They may require difference configuration objects depending upon the specific RSSA chosen. It would be desirable for the MIB to allow for their configuration.
- There are several (common) tables across routing MIBs which relate to inter-domain networking. These include the responsibleAddrs in both DYMO and OLSR MIBs and the IpFiltersTable in SMF.

Questions

- Are RMON-style reports desirable?
- Should we consolidate external routing and filtering functions into a single MIB?

If yes, then ...

- DYMO Responsible address(es)?
 - OLSR Local Attached Network Set?
 - SMP MIB IpFilters table (or should this be a separate MIB worked elsewhere)?
 - What other functions should be considered?
- Should the SMF-MIB include configuration objects for RSSAs? If so, how?

References

- 1 Harnedy, S., Cole, R.G. and I.D. Chakeres, *Definition of Managed Objects for the DYMO Manet Routing Protocol*, IETF Draft, <draft-ietf-manet-dymo-mib-01.txt>, November 2008.
- 2 Cole, R.G. and I.D. Chakeres, *Definition of Managed Objects for the Neighborhood Discovery Protocol*, IETF Draft, <draft-cole-manet-nhdp-mib-00.txt>, May 2008.
- 3 Cole, R.G. Macker, J. and B. Adamson, *Definition of Managed Objects for the Manet Simplified Multicast Framework Relay Set Process*, IETF Draft, <draft-cole-manet-smf-mib-01.txt>, November 2008.
- 4 Cole, R.G. and T. Clausen, *Definition of Managed Objects for the Optimised Link State Routing version 2 Protocol*, IETF Draft, <draft-cole-manet-olsr-mib-00.txt>, November 2008.