Draft CSD Responses for consideration

IEEE 802.3 YANG Data Model Study Group

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Managed Objects

Describe the plan for developing a definition of managed objects. The plan shall specify one of the following:
    a) The definitions will be part of this project.
    b) The definitions will be part of a different project and provide the plan for that project or anticipated future project.
    c) The definitions will not be developed and explain why such definitions are not needed.

- This project will develop YANG models from Clause 30 objects in IEEE Std 802.3-2015 and published amendments to enable NETCONF (RFC6241) management of IEEE Std 802.3 Ethernet.

Coexistence

A WG proposing a wireless project shall demonstrate coexistence through the preparation of a Coexistence Assurance (CA) document unless it is not applicable.
   a) Will the WG create a CA document as part of the WG balloting process as described in Clause 13?
   b) If not, explain why the CA document is not applicable

- A CA document is not applicable because the proposed project is not a wireless project.

Broad Market Potential

Each proposed IEEE 802 LMSC standard shall have broad market potential. At a minimum, address the following areas:
  - a) **Broad sets of applicability.**
  - b) **Multiple vendors and numerous users.**

- The proposed standard will enable the use of YANG model of 802.3 managed objects for a wide variety of IEEE Std 802.3 Ethernet devices. When combined with protocols, such as NETCONF, network operators will gain interoperable and more flexible network management tools supported across all IEEE Std 802.3 compliant network elements.

- Many users of IEEE Std 802.3 Ethernet are transitioning from MIBs/SNMP to YANG/NETCONF to operate their networks. Both IEEE Std 802.3 and NETCONF are already supported and used by multiple vendors/network operators/network users.

Compatibility

Each proposed IEEE 802 LMSC standard should be in conformance with IEEE Std 802, IEEE 802.1AC, and IEEE 802.1Q. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with IEEE 802.1 WG prior to submitting a PAR to the Sponsor.

    a) **Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q?**
    b) **If the answer to a) is "no", supply the response from the IEEE 802.1 WG.**
    c) **Compatibility with IEEE Std 802.3**
    d) **Conformance with the IEEE Std 802.3 MAC**
    e) **Managed object definitions compatible with SNMP**

- In defining YANG models for IEEE Std 802.3, the proposed project shall comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q.

- This work is fully aligned to and coordinated with equivalent work taking place in 802.1.

- Compatibility with SNMP is not applicable for this project.

Distinct Identity

Each proposed IEEE 802 LMSC standard shall provide evidence of a distinct identity. Identify standards and standards projects with similar scopes and for each one describe why the proposed project is substantially different.

Substantially different from other IEEE 802.3 specifications / solutions.

- This project provides YANG model definitions for selected areas of IEEE 802.3 to meet expressed customer needs in configuring and operating IEEE 802.3 Ethernet. There is no other IEEE 802 standard or approved project that overlaps with the scope of this project.

Technical Feasibility

Each proposed IEEE 802 LMSC standard shall provide evidence that the project is technically feasible within the time frame of the project. At a minimum, address the following items to demonstrate technical feasibility:
  a) **Demonstrated system feasibility.**
  b) **Proven similar technology via testing, modeling, simulation, etc.**
  c) **Confidence in reliability.**

- YANG data models are in use today in networks in vendor-specific implementations.

- Other SDOs (e.g., MEF and IETF) have already defined YANG data models for managing and operating networks.

- The proposed standard will use the NETCONF protocol (RFC6241) and the YANG data modeling language (RFC6020).

Economic Feasibility

Each proposed IEEE 802 LMSC standard shall provide evidence of economic feasibility. Demonstrate, as far as can reasonably be estimated, the economic feasibility of the proposed project for its intended applications. Among the areas that may be addressed in the cost for performance analysis are the following:

 a) **Balanced costs (infrastructure versus attached stations).**
 b) **Known cost factors.**
 c) **Consideration of installation costs.**
 d) **Consideration of operational costs (e.g., energy consumption).**
 e) **Other areas, as appropriate.**

- The additional resources required to support the YANG data model and NETCONF protocol are those of software protocols with well-bounded and understood requirements.

- There is no known impact on installation cost of network equipment supporting YANG with NETCONF.

- The industry-wide effort to adopt NETCONF/YANG aims to reduce operational costs associated with managing devices from multiple vendors.

Thank You!