

Schema Subcommittee Dated 3/20/08

The information provided below is subject to change and reflects the current knowledge of the Subcommittee.

Management Problem(s) and Environment

The DMTF's CIM standard includes the "Core" Model and numerous Common Models that address specific management domains. This Subcommittee is responsible for ensuring the consistency of all of the Core and Common models developed by the DMTF. This includes developing the Core model and the Common models.

This Subcommittee ensures that CIM can provision and manage objects in a heterogeneous and end-to-end environment, addressing general management abstractions, computer systems, physical assets and configuration, communications ports, processors and other system components.

Subcommittee Charter

The Schema Subcommittee is responsible for the:

1. Maintaining the CIM, PRS, and any other schema owned by the Technical Committee. This includes reviewing and approving all schema modifications.
2. Development of core schema and profiles defining generalized abstractions and standardized mechanisms that are the basis for domain specific modelling.
3. System and Device schema that includes specific system and device level abstractions, services and entities (such as computer systems, virtual computer systems, physical location, diagnostic services, logs and log records, storage configuration services) . It models both component (static and inventory-related objects and features) and behavioural (events, rules and methods) aspects of the existing high-level System, Computer System, Operating System, Logical Device, Physical Element, and their derived and related objects.
4. Database Schema and profiles that characterises the common properties and services performed by a database. This includes relational database entities, such as SQL and schema entities such as tables and indexes, inventory (static database properties, parameter settings, resource limits, features available/used), and behavioural (event, state, rules, and methods) attributes.
5. Network schema defining modelling for addressing management of networking hardware, software, technologies and associated protocols. This includes Local Area Networks (LANs), Metropolitan Area Networks (MANs), Wide Area Networks (WANs), Mobile Networks and Storage Area Networks (SANs).

6. Oversee the development of the Application schema
7. Oversee the development of the Metrics schema
8. Oversee the development of the Security schema and profiles
9. Oversee the development of Common Diagnostic Model schema

Alliance Partnerships

SNIA: Storage Networking Industry Association ensures that storage networks become efficient, complete, and trusted solutions across the IT community. The SNIA extends and documents the usage of the CIM Schema for specific problem domains in their technical working groups.

Work Register: http://www.dmtf.org/about/register/DMTF-SNIA_Work_Register1_1.pdf

PWG: The Printer Working Group, a program of the IEEE-ISTO, is an active standards development consortium for the printer, multifunction, print software and services, and printer/MFD management industry. PWG has produced a number of standards for the electronic printing industry that embody a rich model of printing. The existing DMTF CIM model for Printers, Print Jobs and Print Services does correlate, in some areas, with standards developed by the PWG, but does not provide comprehensive management capabilities. The PWG's current work with DMTF is updating the CIM model of printing based on the Printer MIB V2, the PWG Semantic Model, the Internet Printing Protocol, and Web-based Imaging Management Service protocols, as appropriate.

Work Register: <http://www.dmtf.org/about/register/PWG-DMTFWorkRegister.pdf>

TOG – MMF : The Open Group – Mobile Management Forum accelerates the integration of mobile applications into any information infrastructure, by bringing together supply and demand side organizations, to ensure delivered solutions meet customer requirements in support of the boundaryless information flow of an enterprise. The TOG-MMF is defining the information requirements for mobile device provisioning and management, as well as sponsoring the Mobile and Directory Challenge.

Work Register: <http://www.dmtf.org/about/register/144-theopengroup.pdf>

CompTIA: The Computing Technology Industry Association helps its members stay competitive and profitable by providing vendor-neutral standards in certification, e-commerce, customer service and workforce development to meet industry-wide challenges. Work efforts with the DMTF are focused on producing a common diagnostic tool and/or output (i.e., a multi-vendor tool for a technician to diagnose PC hardware problems).

Work Register: <http://www.dmtf.org/about/register/470-comptia.pdf>

NEEA: Northwest Energy Efficiency Alliance supports regional programs that make affordable, energy efficient products and services available in the marketplace. NEEA is working to develop worldwide, manageable, energy saving standards for networked devices, based on the DMTF standards.

Work Register: http://www.dmtf.org/about/register/energy_register.pdf

TMF: The TeleManagement Forum provides leadership, strategic guidance and practical solutions to improve the management and operation of information and communications services, for service providers, computing and network equipment suppliers, software solution suppliers and customers of communications services. Information is mined and mapped to CIM from the Shared Information and Data (SID) Model.

Work Register: <http://www.dmtf.org/about/register/TMF-DMTFWorkRegisterV1.2.pdf>

SAF: The Service Availability Forum is a coalition of the world's premier communications and computing companies working together to create and promote open, standard interface specifications. The transition to packet-based, converged, multi-service networks requires a carrier-grade infrastructure based on interoperable hardware and software building.

Work Register: <http://www.dmtf.org/about/register/SAF-DMTFWorkRegister.pdf>

OGF: The Open Grid Forum exists to promote and develop Grid technologies and applications via development and documentation of "best practices", implementation guidelines and standards. It is a community initiated forum of individual researchers and practitioners, working on computing, resource sharing and provisioning, and grid technologies. Working groups within the OGF are working to leverage and extend the CIM Database schema to support a CIM-based grid schema. More information on the relationship between the DMTF and the GGF can be found in <http://www.dmtf.org/about/register/GGF-DMTFWorkRegister.pdf>.

Work Register: <http://www.dmtf.org/about/register/GGF-DMTFWorkRegister.pdf>

Reliance/Coordination with other WG Models

This team works with all other DMTF Working Groups that are developing profiles to maintain and develop the underlying schema. This includes:

1. WBEM Infrastructure Modeling WG
2. Physical Platform Profiles WG
3. SVPC
4. Telco

The subcommittee is also working with the Architecture WG to plan and develop

future major versions of CIM.

Prior Work

The initial development for the Core, System, Database, Networks, Device and Physical Models was based upon the DMTF Master MIF. In addition, several standard IETF MIBs have been mapped into the CIM Schema (such as the Entity, Host Resource, Ether-like, Token Ring, Printer, and other MIBs).

In addition to the deliverables of its child working groups, this subcommittee is responsible for the following deliverables:

- CIM 2.x Schemas
- DSP0144 CIM Device White Paper
- DSP0150 CIM System White Paper
- DSP0151 CIM Physical White Paper
- DSP0152 CIM Network White Paper
- DSP0160 CIM Network OSPF Sub-Model White Paper
- DSP1080 Enabled Logical Element Profile

Current Work – Overview, Deliverables and Timeline

- Oversee 2.X schema:
 - Incorporate implementation feedback from SNIA.
 - Work with SNIA to develop new CIM Modelling to address the requirements of SMI
 - Support modeling needed for support of Pre-OS, including SMBIOS.
 - Support modeling for Server Management.
 - Support modeling for Desktop & Mobile platforms.
 - Support modeling for Server Virtualization and Partitioning
 - Support high availability and high performance clustering
- Develop CIM V3.0 Core, Device, System, Physical, Database & Network Schema candidates
- Continue to develop the Common Diagnostics Model & Profile(s)
- Maintain 2.X Schema Core, Device, System, Physical, Database, Network White Papers.
- Work with the OGF working group to extend the database model to include database schema entities.
- Develop and maintain Applications Model and related specifications
- Develop and maintain Metrics Model and related specifications
- Develop Security Profiles and Model

DMTF Contacts

Chair: schema-sc-chair@dmtof.org

To join the DMTF and/or the WG, see <http://www.dmtf.org/join/> and <http://www.dmtf.org/apps/org/workgroup/schema-sc/join.php>.