Introduction to the
CDM Health Management Initiative

Membership Information:  www.dmtf.org/interoperability/CDM_Forum
Internal Website:  www.dmtf.org/apps/org/workgroup/cdm-forum

Efficiently maintaining computing solutions from the datacenter to the desktop is a vital concern for end-users, OEMs, ISVs, and integrators alike. Today, the maintenance of hardware in system solutions requires the use of an endless array of uncoordinated diagnostic tools and applications which decreases agility, increases time-to-repair, and management overhead. Even a single computer has sub-systems that are supplied by an array of vendors each having disparate diagnostic technology. Ultimately, this inefficiency deters IT consumers from aggressively expanding computing resources to meet demand and decreases business efficiency. Indeed, a central value proposition for modern autonomic computing systems are their ability to automatically detect failing hardware components and adaptively redirect applications to stable resources be it servers, networking components, or storage. Today, computing systems deliver little towards this vision principally due to the incompatible management APIs that traverse multi-vendor diagnostic programs today. This vision is further deterred due to the lack required functionality and security in interfaces to diagnostic routines.

In September 2006 the DMTF launched the Common Diagnostic Model (CDM) Health Management Initiative to, for the first time, unify the computer industry on a single interoperable, secure, and functionally rich interface to diagnostics programs on multi-vendor computer systems. CDM is based on the Common Information Model (CIM) and Web Based Enterprise Management (WBEM) standards as pioneered by the Distributed Management Task Force (DMTF). The CDM Health Management Initiative brings together the vast resources of the DMTF including: Education, Development Tools, Interoperability, Technical Work Groups, and Marketing, to fundamentally improve the efficiency of the computer industry in delivering more advanced software solutions as well as to directly decrease the cost of datacenter management. Via CDM technology, hardware suppliers will no longer need to develop unique diagnostic solutions for their various customers, IHVs will trim diagnostic development investment, Independent Software Vendors will benefit by having a single vehicle to deliver adaptive
software systems, and Original Equipment Manufacturers will benefit by having an improved level of support from their vendors.

The CDM Forum is the center of the CDM Health Initiative and functions similar to a DMTF Working Group or a DMTF Committee. The CDM Forum has additional responsibilities that go beyond a Working Group. For instance, the CDM Forum will own and drive the deployment of actual products into the industry as well as to ensure those products interoperate via the introduction of needed tools and test regimens. Examples include: A Software Development Kit (SDK), compliance testing tools, and a certification process. The fiscal responsibilities of the CDM Forum allow it to achieve results above and beyond that of a Working Group. The CDM Forum is responsible for securing the financial resources necessary to ensure the broader industry ultimately achieves the architectural vision of the technology. While self governed, the CDM Forum assures adherence to all DMTF bylaws, policies and procedures by reporting through the DMTF Interoperability Committee. This hierarchy allows visibility of the CDM Forum’s activities all the way to the DMTF Board of Directors, while not burdening the Interoperability Committee with the day-to-day workload of governing the CDM Forum’s activities.

The CDM Forum will drive the industry wide adoption of CDM by providing the ability for the industry to develop interoperable health management solutions based on CDM. More advanced and interoperable diagnostic solutions will have a mutually beneficial affect for all companies that participate in the CDM Forum. The key elements that will make this goal possible are: A Software Development Kit (SDK); Compliance testing tools; Use cases and profiles; as well as a certification process. These crucial elements are highlighted in the following paragraphs.

**CDM SDK**

The SDK is designed to minimize the time and effort necessary to produce CDM compliant diagnostic solutions. Many of the details associated with implementing a CDM provider are abstracted from the actual diagnosing portion of a module, thus allowing the developer to concentrate on adding the diagnostic test itself. By using the CDM SDK, a developer does not have to be a CDM expert in order to develop a CDM provider. The development process is greatly simplified, which also reduces the workload. While not required to certify CDM diagnostic providers, using the CDM SDK provides a high confidence level that the CDM content developed will be CDM Certification Process compliant.

**Compliance Testing**

CDM Forum member companies will be able to use the tools developed through the CDM Forum’s efforts to validate their CDM content. The results of the validation are stored on a server maintained under the supervision of the CDM Forum. Reasonable measures will be taken to assure that CDM content can be identified as the same content that successfully executed using the compliance testing tools.

**Use cases and Profiles**

Use cases will be maintained by the CDM Forum in the CDM Profiles and will be incorporated into the CDM Certification Tests to ensure thorough testing of the specified functionality. Completeness of the CDM Profiles and thoroughness of the use cases are critical factors in assuring an interoperable diagnostic solution.

**Certification Process**

Developers of CDM diagnostics will be able to self-certify their content by means of the CDM Certification Process. This process will thoroughly test CDM diagnostic solutions for compliance to the CDM specification and for interoperability as specified in the CDM Compliance Specification. Registered users of the CDM Certification Process will have the results of their self-certification posted to a server where their customers can validate the certification. The CDM Certification Process is the sole vehicle that will be used by the DMTF to promote interoperable diagnostics that conform to the CDM specification.

**Participating in the CDM Forum**

Prior to joining the CDM Forum, prospective member companies must be DMTF members. There are no additional prerequisites to joining the CDM Forum. However, it is recommended that members of the CDM Forum also join the following DMTF Working Groups: DIAG-SIG; CIM-CORE; Interoperability Committee.