

General Questions

Q. What are you announcing today?

A. A group of key technology leaders is announcing the launch of the Data Center Markup Language (DCML) Organization, an independent, open, vendor neutral industry consortium dedicated to designing a new specification that will control data center complexity, reduce the cost of managing data centers and provide a foundation to enable utility computing. The organization will also focus on developing interoperability, certification and compliance programs, and facilitating market and user education.

Q. Who is joining the DCML initiative and why?

A. The DCML effort was initiated by EDS and Opsware. At the time of publication, Governing members include EDS, Opsware, and Computer Associates. Founding members include Tibco, Mercury Interactive, Micromuse, NetIQ, Marimba, Tripwire, Egenera, Akamai and Inkra. These companies have joined the DCML initiative because of the immense need to control data center complexity and reduce the cost of managing data centers. The governing and founding members believe DCML is a necessary step in enabling a true utility computing environment.

Q. What is the underlying IT problem driving the need for such a specification?

A. The dramatic shift in enterprise computing from client-server to Internet architectures has resulted in an explosion of servers and applications in today's data centers. In most enterprises, the resulting exponential increase in data center complexity is currently handled by armies of IT staff and dozens of disconnected management and IT systems that do not effectively communicate with one another. This has resulted in a data center management crisis. The lack of interoperability between management, emerging automation and utility computing systems prevents even the most basic IT process improvements from taking hold. A data center standard is imperative to realizing a true utility computing environment.

Q. What is DCML?

A. Data Center Markup Language (DCML) is the first vendor-neutral, open language to describe data center environments, dependencies between data center components and the policies governing management and construction of those environments. DCML provides a structured data format to describe, construct, replicate, recover and communicate about data center environments. DCML encompasses a wide array of data center elements, including UNIX, Linux, Windows and other servers, software infrastructure and applications, network components, and storage components. In addition, DCML can be extended to support other technologies as needed. The adoption of DCML will help organizations realize the benefits of utility computing: greater operational efficiencies, increased visibility into data center environments and operations, and reduced time and cost to implement strategic IT initiatives, such as data center security, consolidation, disaster recovery, metered service delivery and operations outsourcing.

Q. What is the primary mission of the DCML initiative?

A. The primary mission of the DCML initiative is to enable the realization of the data center automation vision of lower costs, enhanced security, higher quality and quicker responsiveness by creating a standard mechanism to describe the contents of the data center and the policies governing the construction and management of that content. DCML is intended to ensure interoperability between existing management and emerging automation and utility computing systems, enabling fundamental IT process improvements to take place.

Q. What is unique about this approach? Are there other standards or initiatives that do the same thing?

A. While there are several management standards, most notably the Simple Network Management Protocol (SNMP) and the Common Information Model (CIM), none target the specific need that DCML addresses. The need for DCML is driven by customers looking to reduce costs and improve quality in the data center by implementing utility computing and automation systems. These systems need more than a simple catalogue of components; they need an actual recipe to build an environment and an automation-friendly description of the operational policies that govern its management. DCML provides a standard way to define those recipes and operational policies to enable the realization of the automated data center vision.

Q. Who will benefit from this initiative?

A. Enterprises and government agencies with large IT environments will be the primary beneficiaries of DCML. These groups have been hit hardest by the explosion of complexity in the data center and are aggressively implementing utility computing and automation solutions in an effort to reduce operational costs and improve quality. Over time as more and more organizations move to automated operations, all customers with large computing infrastructures will benefit.

For IT vendors who provide solutions to these customers, ranging from traditional Enterprise Systems Management (ESM) vendors to newer utility computing and automation vendors, DCML provides opportunities to bring unprecedented value to customers in the form of reduced costs of ownership, easier implementation, higher quality and previously unattainable leaps in innovation.

Q. Any proven financial benefits from this initiative?

A. All of the companies who have pledged to adopt and implement DCML believe there will be considerable cost-savings and efficiency gains realized by this initiative. Projected financial benefits for companies operating a DCML-compliant data center include: labor savings through data center operations automation, cost reductions resulting from improved security levels and reduced impact of viruses, reduced integration expense when bringing in new data center automation and management tools, and reduced business impact resulting from system downtime.

Q. How will the industry benefit from this initiative?

A. DCML opens important new avenues for IT innovation. The interoperability established by DCML allows the IT vendor community to begin to address customer requirements with unprecedented creativity and far-reaching results. DCML will prevent fragmentation to proprietary silos and unite automation and utility computing technologies and their vendors around a unified goal of helping IT organizations do more, faster, with less by ensuring interoperability between systems.

Q. How, specifically, will DCML advance utility computing?

A. Today, there are several key technology hurdles that prevent the realization of the utility computing promise of lower costs, higher quality and quicker responsiveness. In order to realize the utility computing vision, there are three key technologies needed – automation, virtualization and metering – in addition to the traditional IT management systems in use today. There is no one system that can provide all these aspects of utility computing across a heterogeneous environment. The key technological hurdle is that these systems are completely disjointed today. DCML is the first specification that will enable these systems to communicate and work with each other to enable the utility computing vision.

Q. Is DCML an open industry initiative?

A. Yes, DCML is an open industry initiative, driven by the DCML Organization. Membership is open to any company or individual with an interest in and commitment to achieving the goals of the DCML Organization.

Q. What is the DCML Organization structure?

A. The organization is being structured as a non-profit 501(c) (6) corporation which will be supported and funded through annual membership dues. The corporation will own the specifications, certification, logo, and other programs developed by the members. The corporation will be governed by a Board of Directors, which will appoint officers and create working groups and committees to realize the DCML mission and vision. The DCML Organization is not a standards-making body. At the appropriate time, specifications developed by the DCML Organization will be donated to appropriate standards organizations for standardization.

Q. How do members benefit from joining the DCML Organization and what role do they play on the organization?

A. Members benefit in a number of ways. First, they will gain early access to the specifications and work product of the organization, which they can utilize for competitive gain. Second, members will have the ability to contribute to and approve DCML specifications. Third, they will be able to drive the evolution of the specifications. Fourth, they will be able to utilize organization logos and certification marks to promote their compliance to the specification. And fifth, they will gain collective benefit and category traction from the market and user education programs that DCML intends to sponsor.

Q. What will happen to the DCML specifications once they are completed?

A. The intent is to submit the specification to a formal standards body for their further evolution and eventual ratification as de-jure standards.

Q. What licensing terms do you contemplate?

A. We require contributions to the specification to be provided with an irrevocable, royalty free license. The final specification, which will be owned by the DCML Organization, is expected to be freely and publicly available. When passed on to a standards organization, the DCML Organization will abide by any appropriate licensing terms.

Q. What are the levels of membership in the DCML Organization?

A. The DCML Organization is made up of Governing Members, Founding Members, and General Members. These levels provide for tiered participation in the organization, and allow interested entities to size their engagement in relation to their business and technology needs.

Q. What is the relationship between the DCML Organization and existing standards bodies like DMTF, IETF, OASIS and SNIA?

A. The DCML Organization is chartered with developing a specification that will eventually be submitted to a standards body such as DMTF, IETF, OASIS or SNIA. The specific organization will be chosen at the appropriate time.

Q. What are the next steps for the initiative?

A. The next step for DCML is for the members to continue working on a draft of the specification and release it for public feedback and comments.

Q. Are you announcing any products/reference implementations/proof-of-concepts today? If not, what are the customer commercialization plans, timing and business structure?

A. Today we are announcing a specification development effort. Over time reference implementations, proof-of-concepts and DCML-compliant products will be released, but the initial primary focus is to develop a draft specification for commentary.

Q. What specifications have been released to date? How will the specification evolve and when do you expect version 1.0 to be published?

A. The specification will be evolved in the DCML working group. We currently are targeting a version 1.0 release for public feedback and commentary in December 2003. The DCML specification will continue to evolve in the working group and as public feedback comes in. The timetable of releases and other milestones will be determined over the next several working group meetings collectively by the members, not any single entity.

Q. Where can I find out more info on DCML? Web site? References?

A. www.dcml.org

Technical Questions

Q. Is DCML a data format, a protocol, or an application programming interface (API)?

A. DCML is a data format and corresponding data model. This gives implementers of DCML flexibility in determining how DCML should best be accessed and produced by their product, while still providing tremendous value to customers.

Q. Is DCML Web-services compliant? Is it a Web service?

A. DCML can and likely will be exchanged over Web services interfaces. DCML itself, however, is not a Web service, rather it is the data that would be exchanged over a Web service.

Q. Is DCML secure? What are the security implications for DCML?

A. DCML is secure and there is a standard way to encrypt and sign information contained in a DCML document. DCML will also help customers secure their data center environments by enabling standardization and policy enforcement.

Q. Does DCML help with disaster recovery? How?

A. Yes, DCML will help tremendously with disaster recovery efforts. Cornerstone to DCML is a blueprint of the operational environment. This blueprint is essentially a recipe of how to build the environment and could be used to rebuild the environment in disaster recovery scenarios.

Q. How is DCML different from the Common Information Model (CIM)? How does DCML work with CIM?

A. The Common Information Model (CIM) is a Distributed Management Task Force (DMTF) standards effort for describing overall management information in a network/enterprise environment. CIM defines an abstract data model, method for instantiation in XML, and mappings to other management and information standards like SNMP and the Lightweight Directory Access Protocol (LDAP). CIM's focus is on defining abstract models of managed objects to be used by monitoring and other traditional management systems. While CIM is quite comprehensive in this area and therefore overlaps somewhat with DCML, CIM is not well-suited to the data center automation problem that is DCML's focus. DCML describes not just the state of an environment, but also how to construct the environment and the policies governing the management of that environment, neither of which CIM describes. Where CIM concepts and data elements can be mapped onto DCML for use with data center automation tools, DCML references CIM to avoid duplicating work.

Q. How is DCML different from Microsoft's Systems Definition Model (SDM)? How does DCML work with SDM?

A. Microsoft's Systems Definition Model (SDM), part of the Dynamic Systems Initiative (DSI), is a recently announced initiative complementary to DCML. SDM establishes a technical contract between development and operations. By providing a standard format for encoding Windows application component requirements, SDM can help automate the creation of a production server for Windows-based applications. For example, developers can use SDM to encode requirements such as minimum hardware configurations, IIS version, and which ports need to be listening. However, while SDM provides operational requirements for a Microsoft Windows application component, DCML provides the blueprint for constructing and managing the entire heterogeneous environment in which that application is running. Ultimately, SDM component requirements can feed directly into the DCML-defined constraints for Windows applications.

Q. How does DCML apply to the IT Infrastructure Library (ITIL)?

A. The IT Infrastructure Library is a collection of standards defining best practice IT processes. ITIL standardizes processes such as service desk, change management, service level management, and more. ITIL does not specify how these processes are implemented. DCML is an important implementation component of these ITIL processes in automated environments, making them more reliable, consistent, and vendor-independent.