

Setting the standard for utility computing

The industry's first standard for the data center

fact sheet: data center markup language

In October 2003, key industry leaders introduced the industry's first unifying language for the data center, Data Center Markup Language (DCML). 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. The future of utility computing is promising the ability to consume IT as a service and this will require a new level of standards for managing the complexity. DCML is a necessary precursor for realizing the benefits of utility computing. DCML can identify the services required by the organization and manage all of the components as they relate to the services being consumed.

Advantages

Empowers corporations with accurate and up-to-date information about their data center environment.

DCML will bring the core competency in associating infrastructure components to services, roles, environment architecture and IT policies. This will enable companies to reduce IT infrastructure costs, increase service levels, and align IT with business.

Maximizes the value of any utility computing investment through common language.

Reduces the time needed to achieve value from utility computing initiatives.

By relating IT resources to the business processes and services that they support, organizations can increase each pool of capacity being managed and therefore can decrease the total capacity needed so long as they are able to dynamically reallocate resources based upon changing business priorities.

What is DCML?

To solve the level of complexity that exists, companies, enterprises and service providers must gain control of the basic asset information and begin to manage IT at a higher level, gaining control over independent, disparate, and heterogeneous assets. DCML provides the first standard model to describe both a recipe and a blueprint of one or more data center environments. Much as a culinary recipe provides both the list of ingredients and the instructions for successfully combining them, DCML provides both an inventory of data center elements and the desired functional relationship between them. Just as an architectural blueprint establishes an easily understood, multidimensional plan for constructing or replicating a building, DCML can be used to provision or reproduce a complete data center infrastructure - with all of its component relationships, dependencies, configurations, operational policies and management processes. 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. 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 of implementation.

Features

- Provides both an inventory of data center elements and the desired functional relationship between them
- Captures component relationships, dependencies, configurations, operational policies and management processes
- Standardizes environment and policy information between and among IT systems
- Utilizes an open, XML schema that describes the data model and semantics
- Compatible with and complementary to other existing software standards

Benefits

- Greater operational efficiencies through a common representation of the data center environment, blueprint and policies that all systems can leverage
- Seamless interoperability among DCML-compliant data center utility computing systems
- Rapid deployment, upgrading and patching of servers, applications and management/automation systems
- Open, vendor-neutral schema gives customers the ability to choose best-of-breed solutions for data center management
- Increased visibility into data center environments and operations

The power of DCML

By most industry accounts, the promises of utility computing are 10 years or more in the future. DCML innovations significantly reduce that wait. The explosion of complexity and scale inside the data center, combined with pressures for cost reductions and quality improvements, requires a proactive response. DCML provides the competitive advantage needed to unlock the promises of utility, enabling your corporation to realize the benefits more quickly and with less frustration.

Realizing the promise of utility computing

IT automation and utility computing initiatives promise lower cost, higher quality and more efficient IT systems management. For utility computing to become a reality, a common standard for exchanging critical environmental and policy information across servers, applications, and tools is required inside the data center. DCML is that standard, and here is why:

- **DCML goes beyond components.** DCML not only describes the components running in the data center, but also captures best practices, operational policies and dependencies.
- **DCML applies to new and legacy environments.** DCML captures information relevant to new automation and utility computing solutions, and also helps customers extract additional value from existing management solutions.
- **DCML offers a standardized way to describe and share environment and policy information between IT systems.** This includes system management tools, monitoring tools, automation and utility computing systems, performance management tools, and asset management systems.
- **DCML provides a blueprint for the data center.** DCML describes how to construct, replicate and recover systems under management, enabling automation of ad hoc, manual processes such as provisioning, scaling and securing data centers.
- **DCML leverages existing standards.** DCML leverages existing standards such as CIM and WSDM by creating meta relationships within the framework specification making it a unique utility computing spec.

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- Framework Working Group
- Server Working Group
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Membership

For information on joining the DCML Organization, please visit www.dcml.org.