

Microsoft Plans to Manage Next Generation Data Centers

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Abstract: Microsoft's recent commitment to providing System Center support for non-Windows operating systems, open source management standards and VMware ESX virtual servers is a major step in the firms' race to become a major player in the operation of next generation enterprise data centers. Microsoft is serious about taking on entrenched IT systems management solutions. The next two years will show whether the firm's plans to tightly couple virtualization and system management tools will pay off.

Microsoft Embraces Open Management

During the recently concluded Microsoft Management Summit, Microsoft executives updated the analyst community on the firm's long term "Dynamic IT" vision for enterprise data centers and application environments. This is the next step in the evolution of Microsoft's Dynamic Systems Initiative (DSI). In brief, Microsoft's view of Dynamic IT envisions a day when enterprise data centers resemble large scale, service-enabled cloud computing facilities based on heavily virtualized infrastructure and applications. Within these enterprise class clouds, CIOs will mix and match services provided by third party and internal sources in order to deliver the IT functions required by the business. Management of these environments will be highly automated, model-driven, process-led and standards-based.

With the Dynamic IT vision setting the firm's long term strategic context, Microsoft unveiled a number of major management software and virtualization upgrades that—though they may appear disconnected on the surface—set the stage for Microsoft to play a major role in managing next generation IT environments.

Major announcements include:

- **Extension of System Center** support beyond Windows to support a range of non-Windows platforms, including Linux and Unix operating systems. This move is an important shift in System Center positioning as it has historically been optimized for Windows-centric environments.
- **Extension of Virtual Machine Manager (VMM)** visibility and control beyond the Microsoft Hypervisor to include VMware ESX platforms by the end of 2008.
- **Significant extension of the System Center connector framework** for Operations Manager to enable broader integration with heterogeneous, third party device and system configuration tools.
- **Major commitments and contributions** to the Desktop Management Task Force's (DMTF) Web-Services for Management (WS-Management) standards program and the OpenPegasus committee's open source implementation of the DMTF's Common Information Model (CIM) and Web-Based Enterprise Management (WBEM) recommendations for the management of distributed computing environments.

Microsoft's decision to take on a significant role in the open source management arena—and to aggressively extend System Center beyond Windows—indicates just how important the firm believes a strong multi-platform management capability will be in the future. Microsoft is clearly preparing for the day when physical and virtual IT management converge and customers choose infrastructure hardware and software technologies based on the efficiency of integrated management across all layers of the IT stack.

Taken as a whole, these announcements indicate Microsoft is serious about becoming a major management player in the next generation data center. As infrastructure and applications blend into services that are managed by a unified set of tools and standards, Microsoft recognizes that management will be a vital control point directly

influencing the choices customers make about development platforms, collaboration tools, databases, business intelligence suites and many other core Microsoft products.

Management and Virtualization Converge

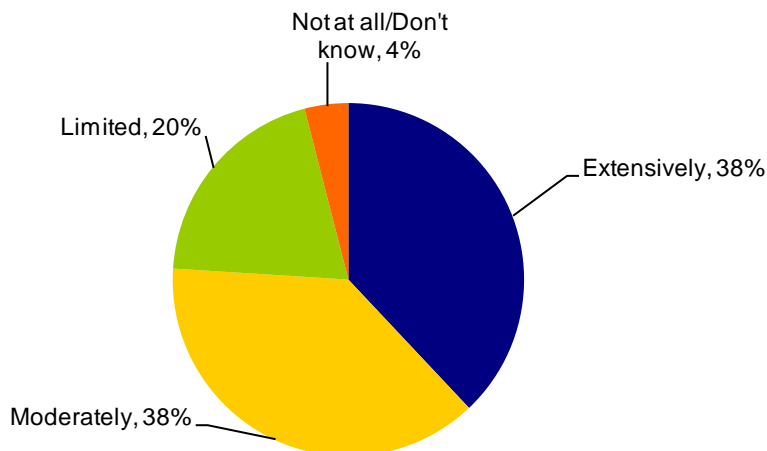
Heterogeneous hypervisor support and non-Windows management capabilities are central to Microsoft's execution on this vision. Over the next year, Microsoft will stress its growing ability to manage a heterogeneous mix of virtual servers, desktops and applications using a consistent set of tools as it seeks to convince customers that building on the Microsoft Hyper-V platform is the fastest and most economical path towards creating a highly manageable and unified physical and virtual IT environment. Given the disruptive impact virtualization will have in many data centers over the next 24 months, the firm's timing is right on the money.

In a recent survey of current and planned server virtualization users, ESG discovered that 70% of planned server virtualization adopters will deploy a server virtualization solution in the next twelve months.¹ As companies implement server virtualization broadly, Microsoft's goal is to closely tie server infrastructure to the application platforms and to then build out a model-driven, services-oriented environment that can enable its Dynamic IT vision. Developing management strategies that can efficiently manage this virtualized infrastructure—and the applications and services it supports—will be a major priority facing every CIO in the coming years.

To this point, ESG's research consistently finds that virtualization is already driving many IT decision makers to take a fresh look at their management requirements. Fully 76% of participants in ESG's recent global IT management survey reported they expect server virtualization to extensively or moderately impact their IT management requirements in the next 24 months (see Figure 1). Organizations that struggle with the complexity created by virtualization quickly realize they need more sophisticated inventory, asset, discovery, configuration, change and process automation tools. As customers begin to identify these needs in large numbers, Microsoft hopes to answer with data center wide System Center deployments for monitoring, configuration and capacity planning as well as a wide range of desktop and application virtualization management capabilities.

FIGURE 1. IMPACT OF SERVER VIRTUALIZATION ON IT MANAGEMENT STRATEGIES

**To what extent do you expect server virtualization to impact your IT management strategy over the next 24 months?
(Percent of respondents, N=530)**



Source: Enterprise Strategy Group, 2008

2008-2010: Critical Time for System Center to Gain Credibility

Microsoft paints a far-reaching, multi-year vision for the build out of a comprehensive, enterprise-class System Center suite that goes well beyond software distribution and configuration management to take on the heart of complex data center operations and service delivery activities. A key element in this agenda is the Service

¹ Source: ESG Research Report, *ESG IT Infrastructure and Service Management Survey*, March 2008

Manager product intended to provide help desk and workflow automation services, as well as process automation support for managing Software-as-a-service offerings, mobile devices and desktop virtualization. Just a few months ago, general availability of Service Manager was delayed by almost two years, until 2010, due to scalability problems with the original architecture. Given that many IT organizations are showing intense interest in process automation as a way to help them cope with the increased operational complexity created by virtualization, the Service Manager delay is unfortunate for Microsoft. The firm will attempt to fill this gap in the near term via the solution accelerator program, which pumps out a steady stream of add-ons targeted at helping customers plan, deliver and operate the tools. One example is the Offline Virtual Machine Servicing tools due out later in 2008. It provides automated patching of virtual machine libraries and integration between VMM and other System Center Models. Additionally, although delivery dates are not yet available, the firm is also planning to offer solution accelerators that provide service level dashboards and backup and recovery automation for virtualized environments.

Microsoft Hyper-V has the potential to accelerate the implementation of management tools like VMM into enterprise data centers while dragging other System Center tools—such as Operations Manager—along for the ride. Server virtualization offers tremendous benefits such as server consolidation and improved hardware resource utilization, but the real benefits lie in enabling data center automation and building an infrastructure that can adapt to changing business requirements. Microsoft's competition also recognizes that virtualization and management go hand in hand and these firms are unlikely to wait quietly while Microsoft executes on a comprehensive long term vision. Look for lots of fireworks in the management space over the next two years as the battle rages on.