New Microsoft Releases Are Coming — EMC Wants You to Seize the Day

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Management Summary

To *seize the day*, or to make the most out of life and the opportunities it presents, is an admirable goal to which many people aspire. The original Latin phrase "*carpe diem*" has even become an artifact of popular culture. You may have heard it in a movie, read it in a book, or even seen it engraved on a sundial. *Carpe diem – seize the day!*

With that in mind, the software vendor Microsoft is on the verge of several major releases.

- *Windows Server 2008 R2 and Hyper-V* – "Release two" of Microsoft's latest server operating system offers feature enhancements in performance, scalability, manageability, functionality, efficiency, virtualization, and availability.

- *Exchange Server 2010* – The latest version of its solution for unified messaging, email, and calendaring with many new features for reducing costs and improving the user experience.

- *Windows 7* – The highly anticipated new PC operating system and successor to *Windows Vista* and *Windows XP*.

Many enterprises will want to seize the day and get the most out of their deployment of the new Microsoft software releases. Getting the most depends on not only the software and server hardware on which it runs; it also depends on the information infrastructure that supports the deployment and how well the whole environment is architected, designed, integrated, and managed.

For these reasons, many enterprises are turning to EMC, a major Microsoft partner and solution provider. EMC brings numerous capabilities for enhancing and completing a Microsoft deployment, including the new Windows Server R2, Hyper-V, Exchange Server 2010, and Windows 7.

- *EMC Information Infrastructure* – Shared storage, backup and data protection, intelligent information management, and security solutions integrated and certified for Windows and other Microsoft applications.

- *EMC Consulting* – Services for planning and implementing Microsoft environments, both physical and virtual, including applications, infrastructure, and governance.

- *EMC Proven Solutions* – EMC offers detailed, tested, end-to-end solutions for key IT challenges, ranging from business continuity to specialized application requirements associated with Microsoft technologies, such as Windows Server R2.

In fact, EMC is a Microsoft Gold Certified Partner with 11 Microsoft competencies and 20 "Partner of the Year" awards. Read on for the details.

New Microsoft Releases – Opportunities and Challenges

The new releases of Microsoft *Windows Server 2008 R2*, *Exchange Server 2010, and Windows 7* offer enterprises and end users a panoply of new features of which they will want to take advantage. (See the three text boxes that follow for summary descriptions of Windows Server 2008 R2 and Hyper-V, Exchange Server 2010, and Windows 7). R2 is significantly more scalable and manageable and, therefore, a stronger platform for server consolidation. Hyper-V 2.0 supports LiveMigration, a feature that moves workloads between physical servers without perceived downtime for applications and users. Exchange Server 2010 is more func-

tional and manageable, especially for users who access email over the web. Windows 7 improves upon Windows Vista's ease of use while streamlining the code for faster performance.

With the opportunity these new software releases present comes the challenge of implementing and making the most of the upgrade or new system deployment. Enterprises have to assess the features, benefits, and costs of an installation and, if they choose to go forward, design and implement a rollout plan. This applies to the Microsoft software and the supporting infrastructure – server, storage, network, security data protection, and management. All of it needs to be integrated, and it is this "whole system" working together that delivers the

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Microsoft Windows Server 2008 R2

Windows Server 2008 R2 or "release two" is Microsoft's latest and most advanced server operating system. "Release twos" at Microsoft typically deliver feature enhancements in between major architectural upgrades, but don't let that fool you. This is a major OS release with enhancements in performance, scalability, manageability, functionality, efficiency, virtualization, and availability. R2 is already getting positive reviews from users and the press. Its release is coordinated with the Windows 7 client, since additional functionality is available when the two are used together.

One of the most significant enhancements is to Hyper-V, Microsoft's hypervisor-based virtualization platform. It now supports LiveMigration, a feature that moves workloads between physical servers without perceived downtime for applications and users. This is similar to VMware's VMotion, though LiveMigration is included free with the Windows Server 2008 license. LiveMigration facilitates workload failover in a cluster and improves uptime for routine maintenance tasks, such as patches and upgrades. Hyper-V 2.0 can also hot add and remove virtual hard drives (VHD) without rebooting.

R2 has improved scalability and manageability. It is the first 64-bit only Windows Server OS and now supports 256 logical processors and the latest CPU capabilities (up to 64 logical processors with Hyper-V). *Internet Information Services (IIS) 7.5* has updated management tools, including support for PHP and .NET server core installations. Windows *PowerShell 2.0* provides over 240 new commandlets so administrators can script and perform many tasks from a command line. *Active Directory* has a new interface and capabilities, such group policy objects for deeper management of Windows 7 clients. Another nice feature is *File Classification Infrastructure*, which automatically classifies and manages files based on policies and file characteristics. Administrators can use it to control access for security and file placement and deletion for lifecycle management.

When Windows Server 2008 R2 is used with Windows 7, clients can remotely access the enterprise network securely over any network without a VPN, and administrators can manage remote clients with two-way communication as if they were local. Remote clients cache corporate data for faster access and reduced WAN traffic. Finally, Remote Desktop Services (formerly known as Terminal Services) allows clients to access applications and desktop environments on the central server as if they were running locally on the PC.

Windows Server 2008 R2 has other features as well. R2 was released to manufacturing on August 14, 2009, and is slated for general availability on October 22, 2009.

Source: Microsoft

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desired functionality, availability, recoverability, performance, and manageability to an enterprise.

Therefore, partners are an important part of the Microsoft equation. They complete the system with supporting infrastructure and help enterprises get the most out of it.

EMC's Offerings for Microsoft

EMC, well known for its storage and information infrastructure offerings, has become a major Microsoft partner and provider of Microsoft-related expertise and technologies for customers of all sizes.

- **EMC Information Infrastructure** – Leading technologies that have been integrated and certified for Microsoft environments and applications, including the new 2009 releases.
- **EMC Consulting** – Services for planning and implementation of applications, infrastructure, and governance for Microsoft environments, both physical and virtual (i.e., Hyper-V).
- **EMC Proven Solutions** – EMC develops, tests, and documents end-to-end IT solutions that include Microsoft technologies. These solutions are designed to reduce integration

risks and help ensure predictable outcomes for joint customers.

EMC is a Microsoft Gold Certified Partner with 11 Microsoft competencies and 20 "Partner of the Year" awards. Perhaps even more telling is that EMC is considered among Microsoft's top two partners for driving sales. No doubt, EMC has become important to Microsoft and its customers.

EMC Information Infrastructure

It is always safer to deploy product combinations that are supported by the vendors explicitly. If a problem arises, you can be confident they will back it and help resolve any potential issues. EMC offers information infrastructure solutions that support and integrate with Microsoft environments.

- **Shared networked storage** – Storage is an essential part of any Microsoft solution. With EMC *Symmetrix DMX* and *Symmetrix V-Max* high-end storage, EMC *CLARiiON CX4 UltraScale*, *CX3*, and *AX4* midrange and entry storage, EMC *Celerra* IP storage, EMC offers a broad range of platforms for supporting architectural requirements for Microsoft

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Microsoft Exchange Server 2010

The third element of Microsoft's upcoming release is Exchange Server 2010, the latest version of its solution for unified messaging, email, and calendaring. It offers numerous new features designed to reduce costs and improve the user experience.

Outlook Web Access (OWA) is greatly improved. It now supports browsers other than Microsoft's own Internet Explorer, including Firefox and Safari. It suggests contacts for messages, like the standard Outlook client, and can track the deliver status of sent messages. The new Conversation View collapses multiple related emails into a single, expandable view to follow a conversation more easily. Calendar and contact sharing also is available in OWA.

Exchange Server 2010 consolidates email and voice mail into a single user mailbox. Speech recognition technology generates a text transcript of voice messages. The *Mail Tips* feature alerts users to potential problems *before* a message is sent, such as file attachments that are too large for the recipient or sending messages to an unintended group. *Exchange Control Panel* gives users self-help options that previously required administrators to intervene.

For Exchange administrators, Exchange 2010 has capabilities for policy-based archiving, retention, mailbox search, and implementing legal holds to prevent message deletion. Role-based access controls establish who can do what in the Exchange environment. Wizards are available to assist in creating message rules and policies. The *ActiveSync* feature controls how specific devices synchronize with user accounts. Administrators can now federate and establish relationships between Exchange servers, for instance, to enable calendar scheduling between trusted companies. Mailboxes can be moved between servers without taking a user offline.

Exchange Server 2010 has other features as well. The release candidate is now available, and general availability is scheduled for later in 2009. Exchange 2010 will run only on Windows Server 2008.

Source: Microsoft

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environments and applications, including Exchange 2010. In fact, in the Windows Server Catalog for R2 support of hardware-based RAID (storage array), EMC products comprised 130 of 233, or 56%, of the listings as of August 30, 2009. The benefits of shared, networked storage in general are consolidation, flexibility, and a cost-effective, tiered architecture that can be optimized for application requirements.

- **Backup and recovery** – EMC has a long history of offering solid backup and recovery technologies for Microsoft environments, such as EMC *Avamar* and EMC *NetWorker*. Its recent acquisition of *Data Domain* adds the market-leading data de-duplication technology to its backup portfolio.

- **Replication and disaster recovery** – EMC offers a spectrum of replication and DR technologies to meet various RPO and RTO requirement, including EMC *TimeFinder*, EMC *SRDF*, *SnapView*, *MirrorView*, and *RecoverPoint.*

- **Intelligent information management** – Numerous other EMC solutions for resource management, archiving, automated discovery, storage tiering, automated data movement, and document management as well as capabilities for data de-duplication, compression, and thin provisioning are all applicable to Microsoft environments.

- **Security** – RSA solutions for access control, authentication, credential management, and data loss prevention enhance security in Microsoft environments, representing another area where EMC can step in as a strategic advisor.

EMC Consulting

EMC Consulting can help assess, plan, and implement a Microsoft-based solution. It offers consulting services and expertise in applications, infrastructure, and governance, including Microsoft enterprise applications like *Exchange Server*, *SQL Server*, and *SharePoint* in both physical and Hyper-V virtual environments.

EMC Proven Solutions

EMC offers EMC Proven Solutions for Microsoft environments, including Exchange Server, SQL Server, and SharePoint running on Windows Server and in Hyper-V virtual environments. EMC designs and tests these solutions based on real-world dynamics in

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Microsoft Windows 7

Windows 7 is the most highly anticipated new PC operating system from Microsoft in many years. Windows 7 is the successor to *Windows Vista* and, before that, *Windows XP*. Microsoft designed the new OS for ease of use and performance – and early signs suggest it will deliver.

Windows 7 improves and builds upon the graphical interface in Windows Vista. For example, Windows 7 has a taskbar that shows programs with large, easily visible icons. When hovering over an icon, all windows associated with the program appear in a preview screen, and clicking one expands and brings it to the front. Right clicking an icon shows a "Jump List" of recently- and frequently-used files and functions specifically for that program. Two windows can split the screen side-by-side simply by dragging one to the right and the other to the left. When a device such as a camera, phone, or portable media player is connected to the PC, the Device Stage feature automatically pops up a management window that is customized for the device. No device driver installation is needed.

Microsoft designed Windows 7 to be faster than its predecessors by using system resources (e.g., processor, memory, and disk I/O) more efficiently. For instance, unlike Windows Vista, minimized programs do not use video memory in Windows 7, speeding up system performance. Indexing for desktop search now is prioritized below other tasks to minimize the system impact. While performance will vary based on the particular hardware, configuration, and applications, common tasks in Window 7 (like startup, shutdown, sleep, file transfer, and program launch) should be faster.

Moreover, Windows 7 is backward compatible with all Windows Vista programs and supports an XP virtual mode for programs that have not been upgraded from Windows XP. General availability for Windows 7 is slated for October 22, 2009. Users with Windows Vista and Windows XP can upgrade to the new operating system. Microsoft provides an upgrade advisor program that confirms your PC hardware and drivers would be compatible with Windows 7.

Source: Microsoft

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customers' environments. The purpose of these solutions is to offer detailed, consistent, and reliable configurations that minimize the time and effort for customers in testing and integration. The configurations then are published in reference architectures with best practices and implementation guidelines.

Conclusion

Carpe diem! Seize the day! The new Microsoft releases of Windows Server 2008 R2 and Hyper-V, Windows 7 client, and Exchange 2010 have many new useful capabilities. When considering them for your enterprise, you will also want look at what Microsoft partners can bring to build out the infrastructure, complete the system, and help you get the most out of it. For the areas of information infrastructure, end-to-end solution templates, and consulting services for planning and implementation, EMC's offerings for Microsoft are solid and extensive.

About The Clipper Group, Inc.

The Clipper Group, Inc., is an independent consulting firm specializing in acquisition decisions and strategic advice regarding complex, enterprise-class information technologies. Our team of industry professionals averages more than 25 years of real-world experience. A team of staff consultants augments our capabilities, with significant experience across a broad spectrum of applications and environments.

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About the Author

Michael Fisch is Director of Storage and Networking for The Clipper Group. He brings over twelve years of experience in the computer industry working in sales, market analysis and positioning, and engineering. Mr. Fisch worked at EMC Corporation as a marketing program manager focused on service providers and as a competitive market analyst. Before that, he worked in international channel development, manufacturing, and technical support at Extended Systems, Inc. Mr. Fisch earned an MBA from Babson College and a Bachelor's degree in electrical engineering from the University of Idaho.

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