



# System Center 2012 R2



Microsoft System Center 2012 R2 helps you realize the benefits of the [Microsoft Cloud OS](#) by delivering unified management across your datacenters, service provider datacenters, and Windows Azure. With System Center 2012 R2 you can:

- utilize enterprise-grade management capabilities with best-in-class performance for your Windows Server environments and first-party Microsoft workloads (SQL, Exchange, and SharePoint).
- reduce datacenter complexity by simplifying how you provision, manage, and operate your infrastructure.
- enable delivery of predictable application SLAs through a relentless focus on optimizing your applications and workloads.

System Center 2012 R2 includes the following components:

- App Controller
- Configuration Manager
- Data Protection Manager
- Orchestrator
- Operations Manager
- Service Manager
- Virtual Machine Manager

**Microsoft System Center 2012 R2 helps you realize the Microsoft Cloud OS vision by delivering unified management across customer, service provider, and Windows Azure datacenters.**

## System Center 2012 R2: Unified management for the Cloud OS

To compete in the global economy and keep up with the pace of innovation, IT organizations must improve their ability to quickly and flexibly respond to changing business needs, improve efficiency, and better manage costs. Some of the ways to accomplish the following include automation of repeatable tasks, cross-platform interoperability, and the creation and deployment of modern, self-service, and highly available applications that can span datacenters.

System Center 2012 R2 helps you realize your datacenter transformation goals by delivering enterprise-class capabilities including best-in-class management of your Windows Server infrastructure and first-party Microsoft workloads. With SAN-based storage management technologies, you can virtualize even your most demanding workloads. Open and extensible web-based interfaces enable easy integration with your existing investments such as portals. System Center 2012 R2 also focuses on optimizing your applications and workloads through their lifecycle. Rich diagnostics and insight facilitate predictable application SLAs, including the ability to elastically scale applications across clouds.

## Enterprise-class

Managing a heterogeneous datacenter can often prove complex, inefficient, and costly. System Center 2012 R2 delivers comprehensive enterprise-class management capabilities for your top-tier applications and workloads while seamlessly integrating cloud, service provider, and on-premises environments.

With System Center 2012 R2, you can take advantage of best-in-class virtualization-management for Windows Server environments. Additionally, Microsoft delivers extensive built-in knowledge and best practices to help you optimize performance and availability for your first-party Microsoft workloads such as Exchange, SQL, and SharePoint.

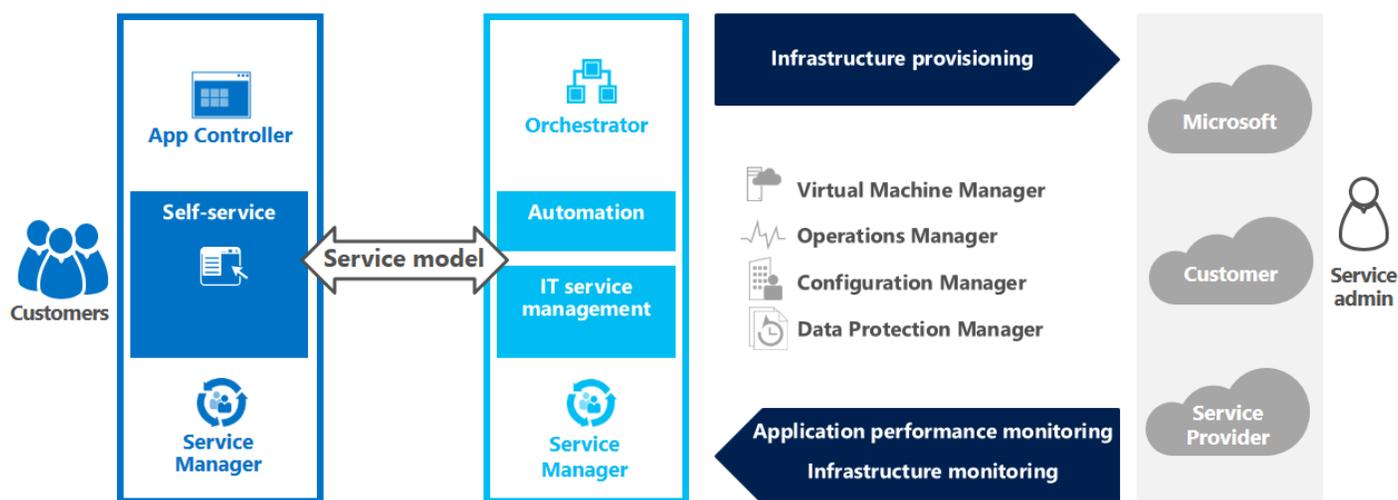
System Center 2012 R2 delivers multi-hypervisor virtualization-management, including Hyper-V, VMware, and Citrix. With full Dynamic Memory support for Linux, System Center 2012 R2 provides robust support for your heterogeneous datacenter workloads.

When virtualizing top-tier applications, you need a virtualization platform and management solution that can provide the necessary scale and performance to meet your business requirements. System Center 2012 R2 offers support for virtual machine connectivity into virtual Fibre Channel SAN, enabling IT staffs to virtualize the most demanding workloads and connect them directly to

the highest-tier storage platforms. This capability is very useful for organizations that have invested in file and block storage, helping you optimize your investments in SAN storage and other platforms.

Windows Server provides a built-in network virtualization platform that helps you abstract your network from the underlying physical hardware to unlock breakthrough flexibility. System Center enables you to provision and manage virtual networks at-scale, helping you align your virtualized network resources with your virtual workloads. This sets you up to easily extend your datacenter into third-party datacenters with flexible placement of virtual machines and the ability to continue utilizing the same IP address. To facilitate such hybrid connectivity, System Center 2012 delivers provisioning and configuration of multi-tenant edge gateway that bridges physical and virtual networks, helping you to move your workloads within and across datacenters and clouds. System Center 2012 R2 enables flexible workload mobility through the App Controller component that triggers virtual machine portability between Windows Server 2012 R2 and Windows Azure.

To enable the most effective monitoring of your hybrid datacenter environment, IT needs to have a centralized view into all aspects of your datacenter infrastructure. System Center 2012 R2 delivers unified monitoring that provides a single view across your on-premises, service provider, and Windows Azure infrastructures. This unique



System Center delivers unified management for the Cloud OS.

approach utilizes intelligence and scale from the public cloud (Windows Azure) with the familiar System Center Operations Manager monitoring experience.

## Simple and cost-effective

With IT budgets shrinking, many companies are looking to reduce their infrastructure complexity and find more efficient ways to manage their datacenters. System Center 2012 R2 simplifies your datacenter environment by helping you more efficiently and effectively provision, manage, and operate infrastructure services.

Windows Server file-based storage and Storage Spaces support enhances administrative productivity and operational efficiency by offering bare metal provisioning and cluster creation of scale-out file server clusters, discovery of physical disks, and creation of storage pools and file shares. Standards-based top-of-rack network switch configuration transforms your datacenter by abstracting storage, compute, and network resources from their underlying physical hardware, helping you manage them in a more standardized manner. A new plugin for System Center 2012 R2 Virtual Machine Manager (VMM) provides you with the ability to manage top-of-rack network switches that support OMI.

For service providers and enterprises that cater to multiple constituencies, there is a need to ensure at-scale isolation across those constituencies while providing visibility into their resource consumption. In-box service templates and runbooks in System Center 2012 R2 enable you to quickly deploy System Center components, with less expertise and less chance for configuration error.

Web-based interfaces into System Center capabilities help you quickly integrate your existing infrastructure investments, such as panels and portals, with System Center infrastructure at the back end. Service Provider Foundation (SPF), a set of web services APIs that expose System Center capabilities, makes this integration possible.

To ensure that scarce IT staff can focus on strategic IT projects rather than keeping IT services running smoothly, you need to invest in automation technologies that ensure predictable deployments while mitigating chances of human error. System Center 2012 R2 offers extensible service management automation and integration that helps service providers and enterprise IT respond to tenant and business needs faster, more efficiently, and with higher

accuracy, by automating system tasks. These workflows and APIs, built into the Orchestrator component, enable automation of various Infrastructure as a Service (IaaS) and service administration tasks such as REST API coverage for VMM, orchestration, and monitoring tasks.

They also provide rich integration into external management systems as well as existing service provider systems.

And with Hyper-V Recovery Manager, you can protect your workloads by providing continuous health monitoring of the primary datacenter and helping automate the orderly recovery of services in the event of a site outage at the primary datacenter.

## Application-focused

You need your business' critical apps to be available and performing reliably per defined SLAs. System Center 2012 R2 relentlessly focuses on optimizing your applications and workloads by delivering rich insights that facilitate predictable application SLAs.

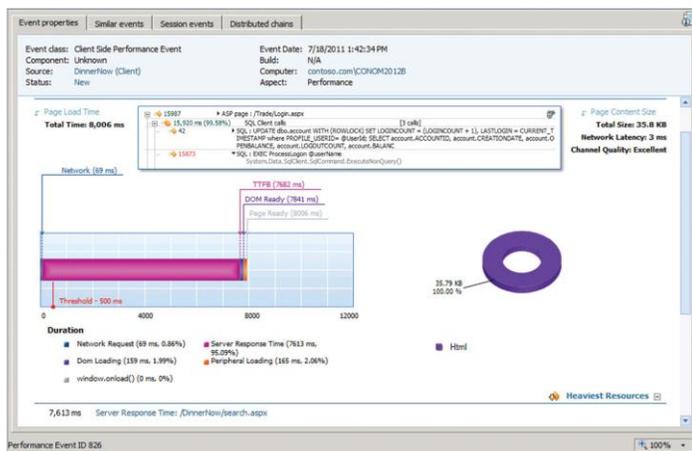
To maximize application availability and performance, System Center 2012 R2 offers deep .NET and Java application monitoring and diagnostics in Operations Manager. Easy-to-use reports and dashboards enable you to track and communicate SLAs more effectively, leading to more predictable SLAs. You also can utilize rich performance and availability metrics for multiple perspectives, such as server-side monitoring, client-side monitoring, end-user experience monitoring, and synthetic transaction monitoring. In addition, Operations Manager provides the ability for operations staff to drill down into application stack traces and performance exceptions to identify offending lines of code.

Operations Manager integrates with Microsoft Visual Studio, through a connector, to enable productive development and operations collaboration. The connector simplifies sending detailed diagnostics and insight provided by Operations Manager directly to the developers work queue.

When application owners globally deploy their applications, they want to see an accurate view of end-user experiences. Global Service Monitor (GSM) and System Center Advisor provide cloud-integrated application and workload insight that enables you to assess the real-world performance and availability of your applications. You can also consume best-practice configuration guidance for

Microsoft workloads within the familiar Operations Manager console. GSM, a Software Assurance benefit to System Center customers, offers an “outside-in” view of end-user experiences based on global points of presence in Windows Azure. And with System Center Advisor, you gain extensive configuration guidance with a knowledge base generated from thousands of hours of Microsoft customer support engagements.

Management Packs in Operations Manager offer extensive built-in knowledge of Microsoft workloads such as Exchange, SQL, and SharePoint as well as third-party enterprise LOB applications such as SAP.



Deep insight into .NET applications helps developers pinpoint the root cause of issues down to the offending line of code, enabling faster resolution.

## System Center 2012 R2 editions

- **System Center 2012 R2 Datacenter:** for highly virtualized datacenter and cloud environments
- **System Center 2012 R2 Standard:** for physical or minimally virtualized environments

## Next steps

- See additional System Center 2012 R2 resources <http://www.microsoft.com/en-us/server-cloud/products/system-center/system-center-2012-r2>
- Read about System Center 2012 R2 on TechNet <http://www.microsoft.com/technet>
- Download and evaluate System Center 2012 R2 <http://msft.it/trycloudos>
- Visit the System Center marketplace: <http://systemcenter.pinpoint.microsoft.com>
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