



# System Center 2016:

What is new and why it is the right deployment for your company



## **E** System Center 2016

System Center 2016 aims to ease the deployment, configuration, management and monitoring of your virtualized, software-defined datacenter and hybrid cloud infrastructure built on Windows Server 2016. A key goal of System Center 2016 is to improve the performance and the usability of System Center components to enhance your operational experience. It incorporates the improvements to System Center 2012 R2 that have been delivered through an ongoing cadence of update rollups, along with an array of advanced functionality for the software-defined datacenter.

System Center 2016 is also targeting broader support for heterogeneous environments including LAMP stack monitoring and scale improvements in UNIX/Linux monitoring. Finally, System Center 2016 will provide native integration with the Microsoft Operations Management Suite (OMS) – a set of cloud-based services that would complement and extend System Center functionality to give you analytics, data correlation, orchestration, archival, and hybrid management capabilities. The integration of System Center and OMS will be a continuous process, beginning with System Center 2016 and extending beyond.

Overall, System Center 2016 will be a significant upgrade over System Center 2012 R2 to manage key aspects of your applications and infrastructure, including client and server configuration management, monitoring and alerting, orchestration and automation, event and incident management, data protection, and virtual machine and infrastructure fabric management. Here's a summary of some of the key innovations in this latest version of System Center.

## **E** Virtual Machine Manager

Manage your virtualized datacenter using Virtual Machine Manager

System Center Virtual Machine Manager 2016 will provide a comprehensive solution for deploying and managing your Windows Server 2016-based software-defined datacenter. With Virtual Machine Manager, you will be able to manage your fabric as well as workloads in one place.



- Deploy compute and storage clusters from bare metal machines
- Manage the lifecycle of the new, minimal-footprint Nano Server-based hosts and VMs
- Perform rolling upgrade of Windows Server 2012 R2 clusters to Windows Server 2016 clusters with no downtime for the hosted workloads
- Take application-consistent VM checkpoints (production checkpoints)
- Change memory and virtual network adapter configuration of a running VM



- Easily deploy Software Defined Networking (SDN) components like Network Controller, Gateway, and Software Load Balancer (SLB) using pre-defined and customizable service templates
- Create and configure all SDN entities, such as virtual networks and virtualized network functions (e.g., gateways, SLB) via the Network Controller
- Create and manage flexible gateway pools instead of traditional gateway clusters to achieve higher availability with fewer virtual machines
- Control network traffic coming in and out of a VM using port access control lists (port ACLs)





Storage

- Deploy and manage storage clusters with Storage Spaces Direct (S2D) in disaggregated and hyper-converged topology.
  S2D reduces storage costs by building highly available and scalable storage systems using industry-standard servers with local storage
- Replicate storage volumes synchronously using Storage Replica (SR) instead of expensive storage-based replication
- Enforce Quality of service (QoS) for virtual machine storage to avoid the noisy neighbor problem.



Security

- Manage the lifecycle of guarded hosts that provide the infrastructure for shielded VMs; these hosts protect VM data against snooping and tampering by fabric administrators or malicious software
- Create shielded VMs using the Virtual Machine Manager console and Windows Azure Pack (WAP)
- Convert non-shielded virtual machines to shielded virtual machines using the Virtual Machine Manager console and WAP

# Operations Manager

# Monitor datacenter infrastructure & apps. using Operations Manager

System Center Operations Manager 2016 will expand the surface area of monitoring, and enhance the experience of monitoring infrastructure and applications across public and private clouds. The new version of Operations Manager will also ease the discovery and maintenance of management packs, provide better support for Linux environments, and integrate with the Operations Management Suite to provide richer analytics and improved diagnostics.Monitor a broad range of network devices without requiring Operations Manager certification.

- Monitor Nano Server deployments, including DNS and IIS roles
- Realize more than 2X scale improvement in monitoring UNIX/Linux servers
- Experience a more responsive application console, including the ability to navigate across different views and pivots without having to wait for the data to load
- Seamlessly discover, install and update required management packs right from the administration console
- Tune management packs, and alter the monitors and alerting rules – either at source level or group level – to reduce alert noise
- Plan and schedule maintenance windows for workloads without generating spurious alerts in Operations Manager console
- Utilize the Preferred Partner program to discover third-party management packs, authoring tools, dashboard utilities, etc., right from the Operations Manager console

# Configuration Manager

Deploy, configure, and keep your Windows and mobile devices up to date

System Center Configuration Manager provides a unified management console with an automated set of administrative tools to deploy software, protect data, monitor health, and enforce compliance across all devices in your organization. New enhancements in Configuration Manager make deploying and managing Windows easier than ever before with new improvements including the support of the latest Windows 10 features, Windows in-place upgrade, more frequent and easier updates, unified end-user portal, and more.

- Deploy, upgrade, and provision Windows with modern methods such as in-place upgrade and provisioning packages and profiles
- Keep Windows up to date with new configurable deployment rings, servicing dashboard, and cluster-aware settings



- Manage Windows in a way that works the best for your business through the Configuration Manager agent, onpremises MDM, and the cloud when Configuration Manager is connected with Microsoft Intune
- Manage iOS, Android, and Windows devices via MDM with improved mobile device and application
- management capabilities when Configuration Manager is connected with Microsoft Intune
- Get more frequent and easier to install updates directly in the management console to support new Windows, Configuration Manager, and mobile device management capabilities
- Allow users to access all of their applications from a unified end user portal
- Run Configuration Manager in Azure Virtual Machines
- Manage Office 365 desktop client updates using the Software Update Management (SUM) workflow

### Orchestrator and Service Management

#### Automate your datacenter tasks

You can choose to use System Center Orchestrator or Service Management Automation to automate your datacenter tasks. Service Management Automation will incorporate improved experiences for authoring, testing, debugging and executing runbooks.

- Create runbooks with native PowerShell scripts and execute runbooks more predictably without heavy pre-compilation steps
- Utilize an Integrated Scripting Environment (ISE) plugin for authoring and testing runbooks locally
- Utilize Windows Management Framework 5.0 for authoring runbooks with PowerShell 5.0 scripts
- Windows Server 2016 Hyper-V includes new features that improve security, stability and availability, and helps in reducing overall TCO of private cloud deployments. System Center Data Protection Manager has introduced support for protecting VMs deployed on these new Windows Server 2016 Hyper-V scenarios in Technical Preview 5.

### **E** Data Protection Manager

Protect your datacenter using Data Protection Manager

- Continue doing VM backup in the presence of Hyper-V node crash or VM storage migration using the new Resilient Change Tracking (RCT) protection technology
- Maintain Hyper-V VM backup even as Windows cluster upgrade is in progress
- Backup and recover shielded VMs
- Protect VMs deployed on Storage Spaces Direct configuration

### **E** Service Manager

#### Automate Service Delivery using Service Manager

The main focus of System Center Service Manager 2016 is improved performance and usability, which are key customer asks.

- Deploy HTML5 based self-service portal with updated UX and better performance
- Experience up to 10x improvement in console performance when creating/updating work items, up to 2x gain in workflow processing, and up to 4x improvement in incident processing capacity
- Get Configuration Manager and Active Directory (AD) data through connectors up to 67% and 50% faster, respectively, with Entity Change Log (ECL) log disabling
- Complete incident workflows up to 50% faster
- Be able to schedule AD group expansion workflows and get up to 75% faster performance
- Perform ECL grooming up to three times faster
- Create rich reports and slice data based on Year, Quarter, Month, and Day using new date dimensions in Service Manager data warehouse cubes
- Use Lync 2013 and Skype for business with Service Manager