



## **Using System Center Configuration Manager on Windows Embedded Standard 7**

*White Paper*

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## Table of Contents

I.	Overview.....	3
II.	Audience.....	3
III.	Scope.....	3
IV.	System Center Configuration Manager .....	3
V.	Windows Embedded Standard 7 .....	3
VI.	System Center Configuration Manager with Windows Embedded Standard 7 .....	4
	a. Technical Features.....	4
	b. Business Benefits.....	5
VII.	Implementation.....	6
VIII.	Using Write Filters with System Center Configuration Manager.....	6
IX.	Conclusion.....	6

## **Overview**

As a business grows in size, the need for consistency across its enterprise becomes increasingly apparent. Critical to this mission is the centralized management of a company's embedded devices. Enterprise management solutions that are scalable, customizable, and save time and money are a necessity. Microsoft® System Center Configuration Manager, Microsoft's comprehensive solution to uniformly assessing, updating and deploying devices across mobile environments, is a natural fit for Windows® Embedded Standard 7.

## **Audience**

This white paper is intended for IT decision makers who are managing large quantities of embedded devices.

## **Scope**

This white paper covers the technical features and business benefits to using Microsoft System Center Configuration Manager to centrally manage your Windows Embedded Standard 7 devices.

## **System Center Configuration Manager**

Microsoft System Center Configuration Manager is the solution to comprehensively assess, deploy and update your servers, clients, and devices – across physical, virtual, distributed and mobile environments – that, optimized for Windows and extensible beyond, is the best choice for gaining enhanced insight into and control over your IT systems.

Previously known as Systems Management Server, System Center Configuration Manager 2007 provides the control necessary to more effectively manage change in today's dynamic IT infrastructures. It delivers robust capabilities including: comprehensive deployment and updating functionality, enhanced insight and control, and optimization for Windows with extensibility beyond. Built on key Microsoft technologies such as Windows Server® Update Services (WSUS), Active Directory®, and the Windows architecture, and leveraging System Center knowledge-driven IT-management, System Center Configuration Manager helps administrators minimize the number of OS images to manage, more easily define and track systems compliance, and improve systems performance and security to better manage today's dynamic IT infrastructure.

## **Windows Embedded Standard 7**

Windows Embedded Standard 7 (initially known as Windows Embedded Standard 2011) is the next generation platform in the product family that includes Windows XP Embedded and Windows Embedded Standard 2009. Windows Embedded Standard 7 delivers the power,

familiarity, and reliability of the Windows 7 operating system in a highly customizable and componentized form, enabling OEMs in retail, hospitality and other markets to focus on their core competencies and create product differentiation. Devices using Windows Embedded might include: Point of sale (POS) devices, automated teller machines (ATMs), industrial controllers, gateways, internet protocol (IP) telephones, server appliances, Windows-based thin clients, and specialized handheld devices.

## **System Center Configuration Manager with Windows Embedded Standard 7**

System Center Configuration Manager offers a streamlined approach to device management for Windows Embedded Standard 7. It provides businesses with a central location from which to assess and manage the health and functioning of their embedded devices. When installed on a Windows embedded device, it can perform the following functions from one centralized console:

- Desired Configuration Management
- Hardware Inventory
- Device Refresh
- Software Inventory
- Software Metering
- Software Distribution
- Software Updates Management
- Remote Tools
- Remote Desktop
- Remote Assistance
- Wake-on-LAN
- Patching
- Configuration Manager 2007 reporting for the preceding features

System Center Configuration Manager can be customized to meet your individual business requirements, and dramatically reduces the inconvenience associated with outsourcing or manually managing your embedded environment.

## **Technical Features of System Center Configuration for Windows Embedded Standard 7**

### **Scalability**

System Center Configuration Manager scales to the largest of organizations today, supporting up to 200,000 individual embedded devices. The number of embedded devices you employ dictates the number of site servers you must have. System Center Configuration Manager can control the flow of data between the site servers, based on your individual configuration and needs.

### **Customization**

System Center Configuration Manager can be customized to meet your infrastructure requirements, allowing you to author your own configuration packs and define individual task sequences. For example, if certain embedded devices have unique requirements, such as designated support maintenance windows, System Center Configuration Manager can schedule tasks according to those limitations and timeframes. It can deploy specific initiatives to individual devices or groups of devices without impacting the entire enterprise.

### **Intelligent Task Management**

System Center Configuration Manager contains an advanced and flexible Task Sequencer that automates execution across multiple deployment steps, with 30 built in tasks that can be used as is or customized to leverage an organization's existing investments in operating system deployment automation.

### **Built on Robust Microsoft Windows Technology**

System Center Configuration Manager is a familiar, easy to use Microsoft technology that is optimized for Windows, which reduces the learning curve for Microsoft IT professionals. It is also extensible to third party applications.

## **Business Benefits**

### **Centralized Management, Scheduling and Control**

System Center Configuration Manager improves workflow efficiency by allowing all embedded devices to be managed from one centralized console. Security updates, asset reporting, application installations, migrations to new hardware and patching can all be deployed and monitored from a singular location. This process saves time and dramatically reduces the risk of inconsistencies or errors across an enterprise.

### **Rich Reporting/Asset Intelligence**

System Center Configuration Manager provides rich reports on your embedded devices that help you optimize software and hardware usage. A "live" connection dynamically updates your knowledge based on changing asset conditions and allows you to make better business decisions about software licensing through the automated collection of inventory data.

### **Cost Savings**

System Center Configuration Manager significantly reduces the need for IT help associated with deploying system-wide initiatives, such as recent updates and new applications. If your deployment is 100% successful, the end users can begin using the new updates immediately, without any additional technical support. If the deployment is not 100% successful, System Center Configuration Manager can "bucketize" the failure types and use that information to make improvements for future phases, thereby reducing the headache and costs of future deployments.

### **Time Savings**

Individual device technical glitches can often be solved through System Center Configuration Manager. Devices may no longer have to be manually assessed, shipped away or removed for repair by a central IT department.

### **Mobility**

Regardless of the location of the embedded device, solutions can usually be deployed from remote locations, allowing for greater mobility within an organization.

### **Implementation**

Once System Center Configuration Manager is implemented, devices can be added within a short period of time.

### **Using Write Filters with System Center Configuration Manager**

The addition of write filters to the embedded environment presents additional considerations for the use of System Center Configuration Manager.

When Windows Embedded write filters are not enabled, the Configuration Manager client behaves normally. However, when write filters are enabled, there are differences in functionality depending on the type of write filters in use. For more information about the different types of write filters used in Windows Embedded, please visit:

<http://technet.microsoft.com/en-us/library/bb932158.aspx>.

For more information about using System Center Configuration Manager with Write Filters, please visit: <http://technet.microsoft.com/en-us/library/bb932155.aspx>

### **Conclusion**

Without a centralized management system for embedded devices, even a small enterprise will suffer from a chaotic infrastructure and workflow inefficiency. System Center Configuration Manager is the solution that organizes and consolidates the administration process, so a business can realize the benefits of Windows Embedded Standard 7 without the headache of manual device management.

For more information about planning and deploying your server infrastructure for System Center Configuration Manager, please visit: <http://technet.microsoft.com/en-us/library/bb680397.aspx>

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