



Deploying Windows 7 with System Center and MDOP

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Agenda

- Introduction to Client Management with System Center
- Planning and Deploying Windows 7
- Managing the Windows 7 environment
- Extending System Center with MDOP
- Roadmap
- Resources

Client Management

Streamlined Application and Desktop Delivery



Adaptive Application Delivery

- Managed client application delivery via traditional and virtual methods

Simplified Windows 7 Deployment

- Automated OS deployment via image standardization

Optimized Client Health and Performance



Client Infrastructure Monitoring

- Client health monitoring and proactive issue identification

Remote PC Diagnostics & Repair

- Zero-touch remote diagnosis and remediation with Intel® vPro™

Ease User Access Without Compromise



End-Point Security Management

- Enforced compliance with system health policy definitions via remediation

Configuration Compliance

- Assess systems compliance against established configuration baselines

Windows 7 Deployment Enhancements

Imaging



Deployment Image Servicing and Management

Add/Remove Drivers and Packages

WIM and VHD Image Management

Delivery



Windows Deployment Services

Multiple Stream Transfer

Dynamic Driver Provisioning

VHD and WIM Support

Migration



User State Migration Tool

Hardlink Migration

Offline File Gather

Improved user file detection

Integrated Solutions



Microsoft Assessment and Planning



Application Compatibility Toolkit



Microsoft Deployment Toolkit

Infrastructure and Networking

- Significant cost savings can be achieved by deploying into a managed environment
- Benefits can be achieved by utilizing capabilities such as :
 - System Center
 - Active Directory
 - Group Policy
 - Branch Cache
 - Direct Access



Deploying Windows 7 with System Center



Windows® 7

The focus areas of a deployment



Planning for Windows 7

- Enhance your Windows 7 deployment planning with deep Asset Intelligence knowledge
- Simplify your Windows 7 deployment customization for roles, locations, or other
- Customize your Windows 7 installations for explicit targeting to existing systems or users
- Accelerate Windows client deployments with centralized management control
- Ease migration with integrated virtualized application streaming
- Protect legacy environments with 'managed' enterprise desktop virtualization
- Manage, Update, Monitor and Backup important application and user data

Hardware Compatibility

- System Center can help provide hardware readiness reports of existing inventory
- Simple report glance of what systems are capable of Windows 7 today

Copy || Export || Print || Add to Favorites || E-mail

Report Name: Computers that meet the minimum system requirements for Windows 7
Category: Upgrade Assessment - Windows 7
Comment: Computers which meet the minimum hardware requirements for memory, processor speed
Parameters: Collection ID: SDS00010

4/21/2009 5:22:38 PM

	Netbios Name	Site Code	Free Space	Processor (GHz)	Current Physical Memory (MB)
[i]	ABEL-12	SDS	37.71	2.8	1966
[i]	ANDERSON-6	SDS	39.55	2.8	1966
[i]	BRODEUR-21	SDS	39.9	2.8	1966
[i]	CHELIOS-15	SDS	39.83	2.8	1966
[i]	COFFEY-7	SDS	38.97	2.8	1966
[i]	DATSYUK-23	SDS	39.78	2.8	1966
[i]	FOGILIN-3	SDS	37.78	2.8	1966
[i]	FUHR-16	SDS	38.89	2.8	1966
[i]	HOWE-9	SDS	39.56	2.8	1966
[i]	JOSEPH-8	SDS	38.92	2.8	1966
[i]	KURRI-17	SDS	39.12	2.8	1966
[i]	LEBDA-2	SDS	39.21	2.8	1966
[i]	LIDSTROM-5	SDS	38.95	2.8	1966
[i]	LINSEMAN-10	SDS	39.76	2.8	1966
[i]	MCSORLEY-20	SDS	36.72	2.8	1966
[i]	MESSIER-11	SDS	38.88	2.8	1966
[i]	MOOG-18	SDS	38.86	2.8	1966
[i]	RODNEY-13	SDS	39.88	2.8	1966
[i]	ROY-1	SDS	39.84	2.8	1966
[i]	SEMENKO-22	SDS	39.86	2.8	1966
[i]	SMITH-14	SDS	39.71	2.8	1966
[i]	YZERMAN-19	SDS	38.89	2.8	1966
[i]	ZETTERBERG-4	SDS	39.18	2.8	1966

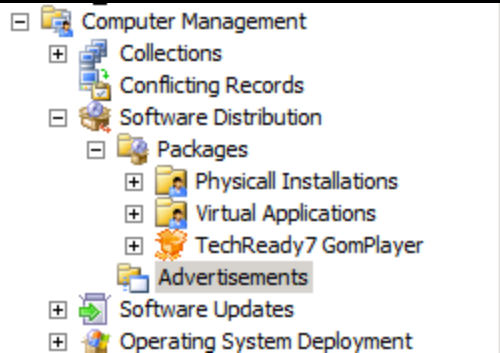
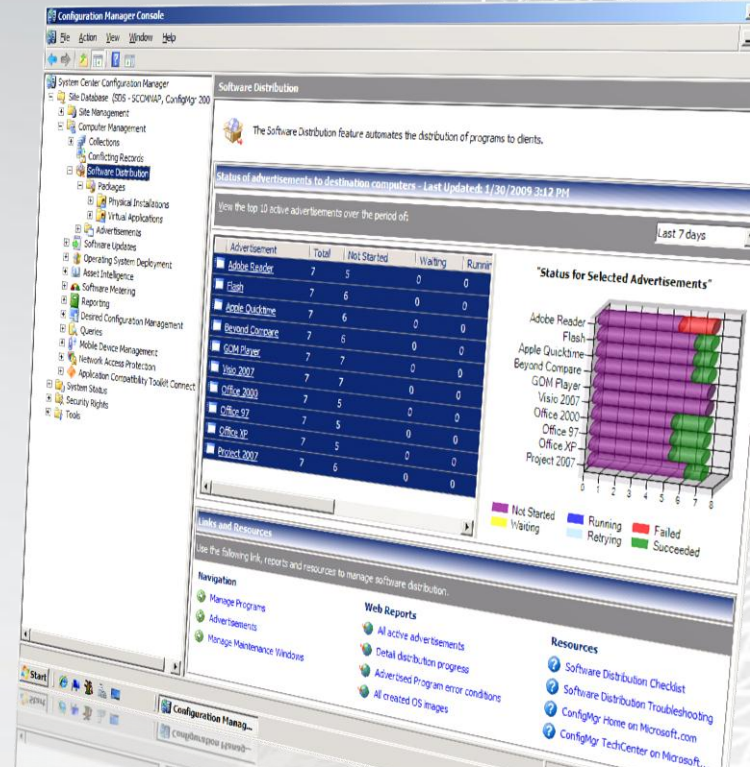
Application Management

- One of the most complicated areas of any deployment
- Application Compatibility Toolkit Connector, in 1 view compare your own testing results to:
 - Vendors
 - Other organizations
 - Microsoft
- Compatibility knowledge helps to understand priority focus
- Virtualization may be a solution
 - MDOP App-V
 - MDOP MED-V



Traditional Software Distribution

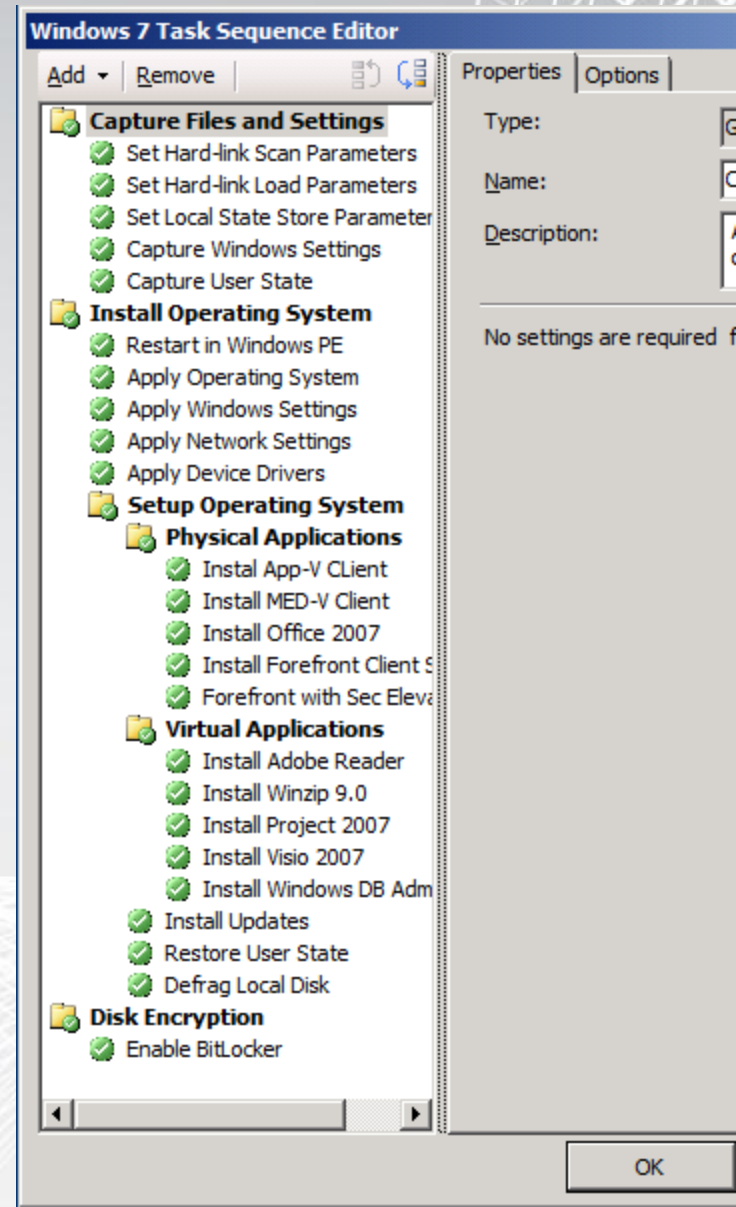
- Anything that can be executed via "Run" or CMD (MSIs, Scripts, etc.)
- BITS enabled for Checkpoint Restart and Bandwidth Throttling
- Control when change happens with Maintenance Windows
- Reduce your infrastructure with Branch Distribution Points
- Lower network traffic with Binary delta replication
- Client Branding for User Experience
- Wake on LAN support guarantees delivery



Name	Package	Program	Collection
Office 2007 - Office 2007 to All Windows XP Systems	Office 2007	Office 2007	All Windows XP S
Office 2007	Office 2007	Office 2007	Demo Client
Forefront - Forefront Client to All Windows XP Systems	Forefront	Forefront Client	All Windows XP S
Adobe Flash Player	Adobe Flash Player	[Virtual application]	All Systems
Gom Player	GomPlayer	[Virtual application]	All Systems
Microsoft Project	Project 2007	[Virtual application]	All Systems
GOM	Gom Player TechReady	[Virtual application]	All Systems
Apple Quicktime	Apple QuickTime	[Virtual application]	All Systems

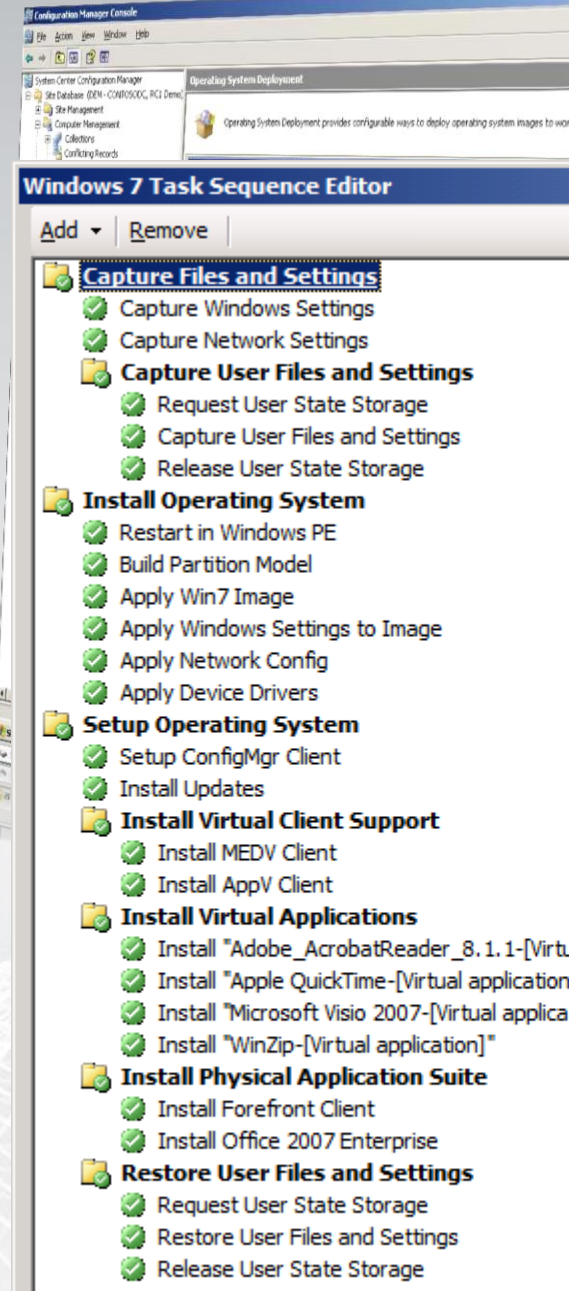
Imaging, Migration and Installation

- OS deployments are complex
- Multiple locations and security models are touched
- The Task Sequencer allows you to easily automate this from 1 view.
- System Center accelerates OS Deployment
- Automate and Combine:
 - User Migration
 - OS Customization
 - Partition modeling
 - Application installation
 - Updates
 - BitLocker
 - Reporting



Operating System Deployment

- Automated solution for assessing, migrating and deploying windows operating systems
 - End-to-end deployment automation support
 - Assess migration readiness for Windows Server 2008/R2, Win7 and Office 2010
 - Enable dynamic deployment of drivers at runtime
 - Organize, replicate and deploy packages
 - Unknown computer support for bare metal deployments
 - Multicast and PXE support for Bare Metal



Windows Deployment Automation

New machine

- Clean install
- Wipe and Load
- No migration considerations
- New or repurposed hardware



Wipe-and-load

- Target and install new OS to existing H/W
- Application reinstall under new OS
- Securely save/restore user state & settings



Side-by-side

- Machine to machine
- User and app data migration
- Application reinstall
- Securely save/restore user state & settings



In-place migration

- Scripted, targeted OS upgrade
- Not wipe and load
- Sent as software distribution package



Offline with removable media

- Install without network
- Removable media is source
- CD/DVD, USB flash drive
- Good for low bandwidth, mobile staff




PXE boot

- WDS integration, network boot delivered
- PXE style delivery
- Lite touch, network connection based



User Migration

- An OS image can be the smallest part of a deployment payload when compared to user data
-  USMT v4 - User State Migration Toolkit will completely eliminate any data move with a new feature called 'hardlinking'
- 'Hardlinking' allows you to simply scan the system for what you want to migrate, make a record of its location on the disk, and leave it there
- At the end of your deployment, you reconnect to this location in the new user profile
- Scan and copy times from hours to minutes
- Remove network storage completely
- Preserve bandwidth
- Integrated with System Center for total automation and reporting

An example:

- 5000 machines migration
- Avg. 4Gb of user data per machine
- Equates to 20,000Gb of data:
- Transferred up the network to a share
- Stored
- Transferred back down



Deploy Windows 7 with System Center

Delivery

- Explicit targeting, scheduling based on needs
- Flexible control with end user focus
- Optional 'opt-in' style approach
- Wake on LAN, Intel vPro integration

Reporting

- Detailed reporting for deployment project by: user, computer, collection, location
- Granular detail to Task Sequence Steps
- Rich troubleshooting support for root cause
- SQL Reporting Services integration

The screenshot shows the System Center Configuration Manager console. On the left is the navigation pane with categories like Computer Management, Software Updates, Reporting, and Tools. The main area displays a hierarchy of collections with associated reports:

- Labs Week 1** (with computer icons)
- Faculty Week 3** (with computer icons)
- Administration Week 2** (with computer icons)
- HR Week 4** (with computer icons)

The collection list includes: All Desktops and Servers, All Systems, All User Computers, All User Computers - 2000 Professional Systems, All User Computers - 2000 Server Systems, All User Computers - Mobile Devices, All User Computers - Mobile Pocket PC 2003 Devices, All User Computers - Mobile Pocket PC 5.0 Devices, All User Computers - Mobile Smartphone 2003 Devices, All User Computers - Mobile Smartphone 5.0 Devices, All Windows 7 Professional Systems, All Windows 7 Workstation or Professional Systems, and All Windows 7 Systems.

The screenshot shows a SQL Server Reporting Services report titled "Status summary of a specific task sequence advertisement". The report displays the execution state of the "Woodgrove Accounting - Windows 7 Installation" advertisement.

Execution State	Number of Machines	Total	Advertisement Id
Failed	2	2	SDS2002B
Running	18	18	SDS2002B
Succeeded	1	4.300000000000	SDS2002B
Waiting	2	8.700000000000	SDS2002B

The report also features a magnifying glass icon over a question mark, and a watermark for "SQL Server 2008 Reporting Services".



Windows[®] 7

Configuration Management Support

- Operating System Supported by Configuration Manager
 - Windows 7, Windows Vista and Windows XP
 - Fully managed clients, across all configuration features and scenarios
- Operating System Deployment – Support for 'in-place', PXE and offline scenarios
- Traditional and Virtual Application Distribution
- Software Update Management – full patch support to network and remote connected systems
- Intel vPro Integration for broad range of scenarios
- Desired Configuration Management – Model based configuration and regulatory support
- Asset Intelligence – Business terminology, software and hardware reporting, license reconciliation
- Network Access Protection integration – Policy based access control
- Remote control



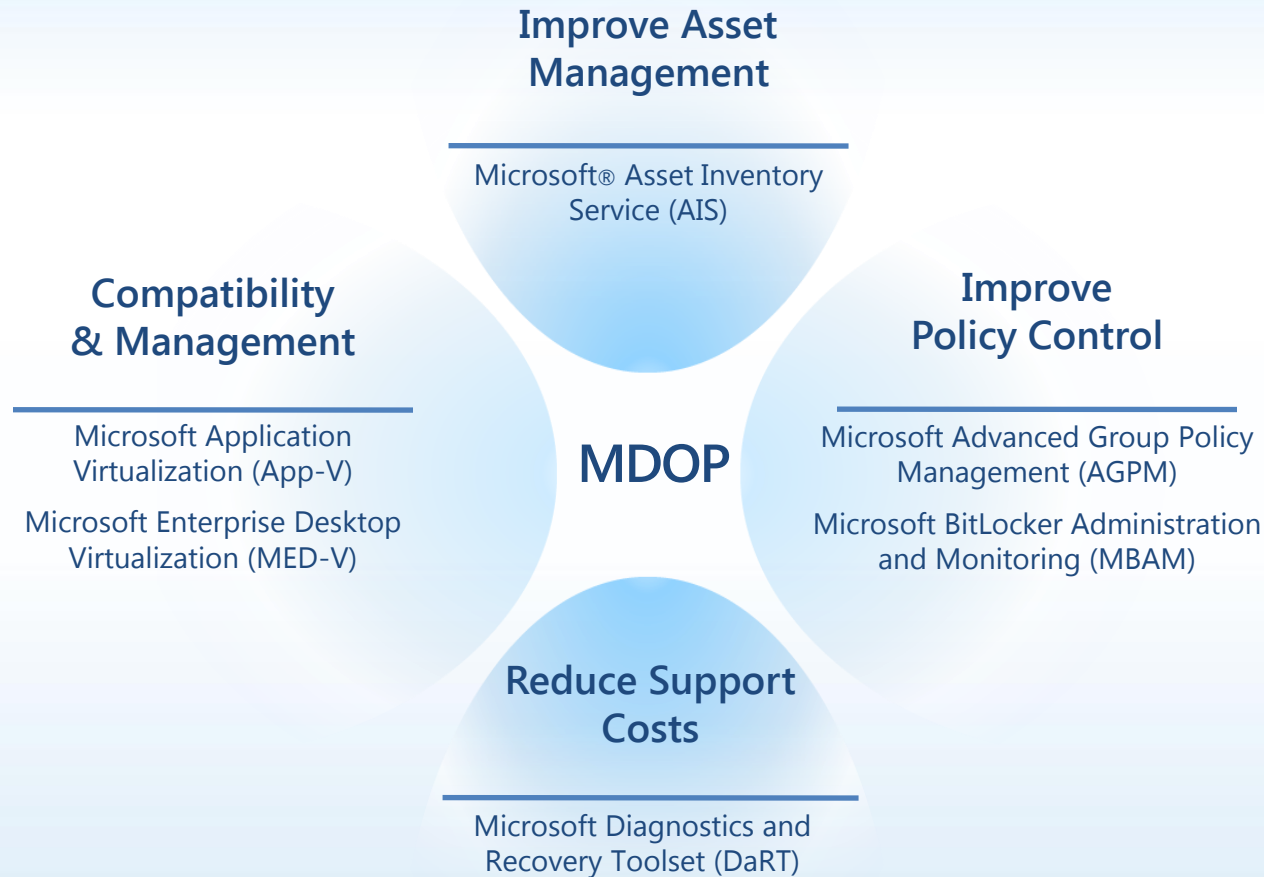
Windows[®] 7

Performance Management Support

- **Collective Monitoring**
 - Operating System Availability and Reliability Reports
 - Operating System Performance reports
 - Hardware and configuration service level management
 - Client specific console and report views
 - Client focused tasks (system, network, power transitions)
- **Diagnostic Monitoring**
 - Hardware Monitoring (Disk status and utilization)
 - Trend based performance monitoring (OS and Application levels)
 - Memory monitoring
- **Client Management Pack support:**
 - Enable upgrade decisions based on hardware performance
 - Determine which machines to upgrade
 - Set hardware standards
 - OEM specific diagnostics

Microsoft Desktop Optimization Pack

What you need to know about MDOP 2011 R2



MDOP and System Center



Microsoft
Application
Virtualization



Deliver and manage physical or virtual applications from a single infrastructure



Microsoft
Enterprise Desktop
Virtualization



Provision virtual PC images and MED-V policies leveraging System Center infrastructure



Microsoft
Asset Inventory
Service



Provides the power of choice:

- ▶ Catalog synergy with System Center
- ▶ AIS: In the cloud
- ▶ System Center: On site



Microsoft
System Center Desktop
Error Monitoring



Expand DEM agentless desktop monitoring, to full IT infrastructure monitoring with Operations Manager

Microsoft Application Virtualization

Dynamically streaming software as a centrally managed service

MDOP

What it Does

- Streams applications to users
- Centralizes permissions
- Eliminates application installation
- Isolates applications
- Provides real-time metering

Benefits

- Readily accessible applications
- Accelerate Windows deployment
- Reduced application conflict
- Minimize regression testing
- Leverage existing Management systems

"By using App-V, we'll be able to shrink the entire application deployment timeframe – from request through delivery – by more than 80 percent, from 30 days to just five days."

Stephen Dula
IT Staff Engineer
Qualcomm

App-V 4.6 SP1

MDOP

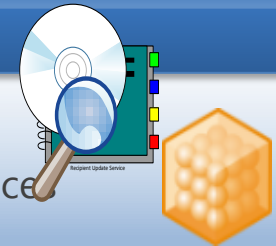
Application virtualization made easy

A streamlined and simplified packaging experience helps new users get started quickly, providing step-by-step guidance for common App-V tasks.



Fast conversion from traditional to virtual

Save passwords for easy sign on. Legacy applications have transparent access to Windows 7 Documents and Desktop Folders, network printers and USB devices.



Predictable results

Built-in best practices and flexible automation support make App-V packaging a consistent, reproducible process.



App-V and System Center

Benefits

MDOP



Virtual Application Management in the Box

- Assign virtual applications to end users using Active Directory and stream to users
- Update virtual applications without repackaging, disconnecting users, or rebooting
- Retire virtual applications quickly by removing assignment, no uninstall required
- Single update process for client and infrastructure components via Microsoft Update, no application changes required
- Virtual application license and usage metering included



Virtual and Physical Application Management

- Centralized infrastructure provides single delivery and management workflow for physical and virtual applications
- Deploy virtual application by targeting users or machines
- Automated staging & replication of applications to the enterprise, no scripting
- Inventory virtual & physical applications. Determine to who & where they are deployed
- Integrate virtual applications with System Center to streamline your Windows operating system upgrade and deployment process

Microsoft Enterprise Desktop Virtualization

Solves the last mile of application compatibility

MDOP

What it Does

- Run legacy applications on Windows 7
- Shares host USB, network printers and documents
- Redirect legacy web applications to Internet Explorer 6/7
- Automates first-time virtual workspace setup

Benefits

- Unlocks Windows 7 migration projects
- Provides a seamless end-user experience
- Allows multiple versions of Internet Explorer to coexist during migration
- Enables deployment and management with existing systems such as System Center Configuration Manager

"MED-V helps ensure that we can move forward with an enterprisewide rollout of Windows 7 without getting sidetracked by application compatibility issues."

Alex Ramos

Senior Manager, IT Operations
Royal Caribbean Cruises Ltd.

MED-V v2.0

MDOP

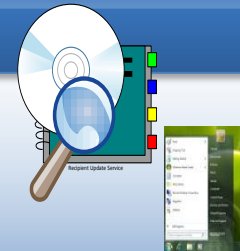
Application continuity for Windows migrations

Incompatible applications don't have to slow you down. Enjoy the benefits of Windows 7 today – handle application compatibility on your own schedule



Seamless integration with Windows 7

Save passwords for easy sign on. Legacy applications have transparent access to Windows 7 My Documents and Desktop Folders, network printers and USB devices



Simple IT management

No dedicated infrastructure required. MED-V integrates with SCCM or existing management systems for deployment, patching and application delivery.



Microsoft Diagnostics & Recovery Toolset

Powerful tools to accelerate desktop repair on site and remotely

What it Does

- Recover unbootable PCs
- Access deleted files, manipulate services, reset passwords, and more
- Detect and remove malware while the PC is offline

Benefits

- Accelerate TCO savings by minimizing recovery time
- Recover instead of reloading Windows®
- Make PCs safer to use

"This toolset enables us to restore clients instantly without rebuilding them - saving up to six hours per instance."

David Smith
Technical Support Center,
UMC Health System

Introducing DaRT 7.0

MDOP

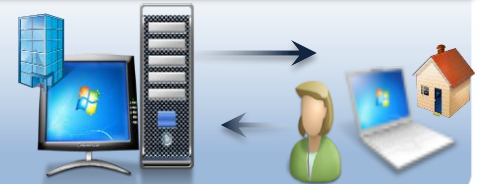
Support for additional deployment methods

Deploy DaRT from USB drives, Network/Pre-boot Execution Environment (PXE), and local recovery partitions



Software based remoting functionality

Save time by not having to send someone to the user's location to troubleshoot problems



Restrict user access to tools while making them available to IT

DaRT tools can be rendered inaccessible to local, unauthorized users; only a remote control session can unlock the tools

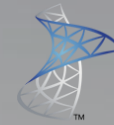


Summary

- System Center includes a robust toolset for Windows 7 to:
 - Plan
 - Customize
 - Automate
 - Deploy
 - Manage
 - Secure
 - Support

Client Management Suite

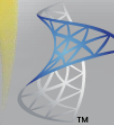
Enhancing the value of ECAL



Microsoft®

System Center

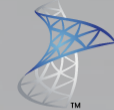
Configuration Manager 2007



Microsoft®

System Center

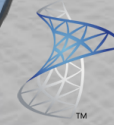
Operations Manager 2007



Microsoft®

System Center

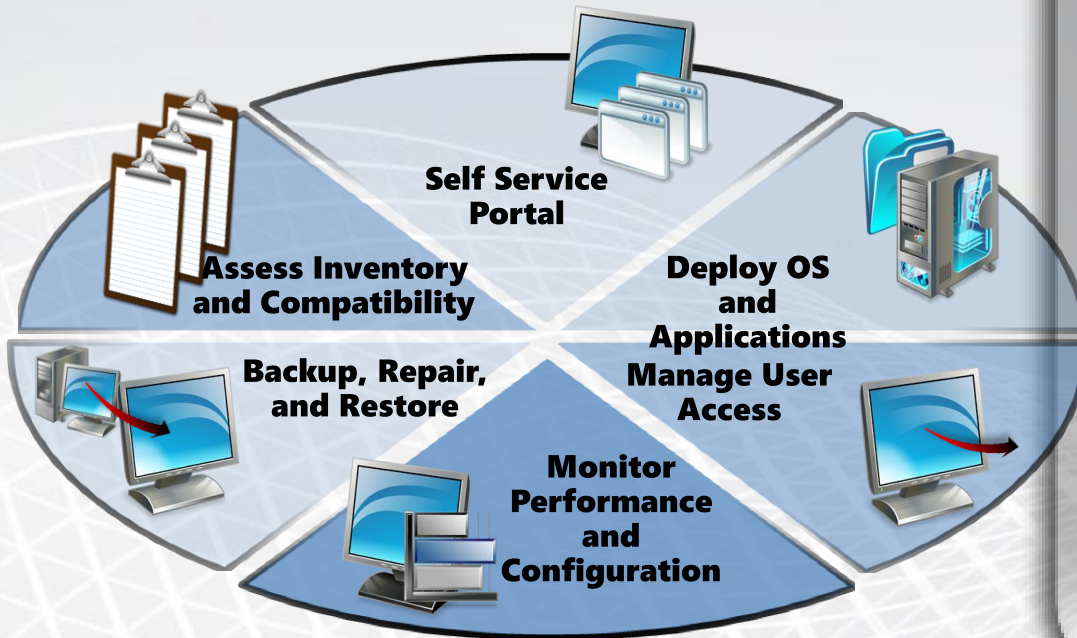
Data Protection Manager











Microsoft®

System Center

Service Manager



System Center Roadmap

	2008	2009	2010	2011
 Microsoft System Center Operations Manager	2007 SP1	2007 R2		vNext
 Microsoft System Center Virtual Machine Manager 2008	2008	2008 R2		vNext
 Microsoft System Center Configuration Manager	2007 R2	2007 SP2		vNext
 Microsoft System Center Data Protection Manager	2007 SP1		2010	
 Microsoft System Center Service Manager			2010	vNext
 Microsoft Desktop Optimization Pack for Software Assurance	2008	2009 & R2	2010 & R2	2011 & R2
 Microsoft System Center Online Desktop Manager			V1	V2 & V3
 Microsoft System Center Essentials	2007 SP1		2010	

MDOP: Continuous Enhancement



2007

MDOP 2007 R1

- SoftGrid 4.1

MDOP 2007 R2

- DaRT 5.0
- AGPM 2.5
- DEM 3.0
- SoftGrid 4.2

MDOP 2007

- AIS 1.0

MDOP 2008 R1

- DART 6.0
- DEM SP1

MDOP 2008 R2

- AGPM 3.0
- App-V 4.5
- Localization

MDOP 2008

- AIS 1.5

2009

MDOP 2009 R1

- MED-V 1.0
- App V 4.5 CU1

MDOP 2009 R2

- AGPM 4.0
- DEM 3.5
- DaRT 6.5
- App-V 4.5 SP1

2010

MDOP 2010

- App-V 4.6 (Client)

MDOP 2010 Refresh

- App-V 4.5 SP2 (Server)
- MED-V 1.0 SP1

2011

MDOP 2011

- App-V 4.6 SP1
- MED-V 2.0

MDOP 2011 R2

- AIS 2.0
- DaRT 7.0
- MBAM 1.0

Resources

- System Center Website
 - <http://www.microsoft.com/systemcenter/configmgr/default.mspix>
- Application Virtualization Website
 - <http://www.microsoft.com/systemcenter/softgrid/default.mspix>
- Management Techcenter
 - <http://www.microsoft.com/systemcenter/softgrid/default.mspix>
- Windows Server Resources
 - <http://www.microsoft.com/servers/default.mspix>
- System Center Team Blog
 - <http://blogs.technet.com/systemcenter/>
- Website for Microsoft Desktop Optimization Pack for Software Assurance
 - <http://www.windowsvista.com/optimizeddesktop>
- Virtual Labs
 - <http://technet.microsoft.com/en-us/virtuallabs/bb539977>

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