Windows 8 Deployment
Agenda

- Hardware/Software Compatibility and Toolsets
- Image Engineering and Deployment
- Volume Activation
- Security Management
- Application Lifecycle
- User Settings
- System Center 2012 Configuration Manager SP1
- Deployment Summary and Questions
Where are you today?

- Windows XP: Still on Windows XP
- Windows Vista: Currently running Windows Vista
- Windows 7: Windows 7 deployment in progress
- Windows 7: Already migrated to Windows 7
HARDWARE/SOFTWARE COMPATIBILITY AND TOOLSETS
MAP is an ideal assessment and planning tool for the following:

- Discovery of computers and applications
- Hardware and software readiness migration
- Capacity planning for server, desktop and virtualization projects
- Public and Private Cloud capacity and migration planning
- Software usage tracking
Windows Assessment and Deployment Kit (ADK) for Windows 8

Select the features you want to install

Click a feature name for more information.

- Application Compatibility Toolkit (ACT)
- Deployment Tools
- Windows Preinstallation Environment (Windows PE)
- User State Migration Tool (USMT)
- Volume Activation Management Tool (VAMT)
- Windows Performance Toolkit
- Windows Assessment Toolkit
- Windows Assessment Services - Client
- Microsoft SQL Server 2012 Express

Application Compatibility Toolkit (ACT)

Size: 24.4 MB
Tools to evaluate and mitigate application compatibility issues before deploying a new version of Windows.

ACT requires access to a database. The database must be SQL Server 2005 (or Express Edition) or later. You can install SQL Server or use an existing installation.

Estimated disk space required: 5.3 GB
Disk space available: 115.7 GB

[Back] [Install] [Cancel]
Common Compatibility Issues:

- User Account Control (UAC)
- Windows Resource Protection (WRP)
- Internet Explorer Protected Mode
- Deprecation
- Graphical Identification and Authentication (GINA) DLL
- Session 0
- Windows Filtering Platform (WFP)
- Operating System Version Changes
- Windows 64-bit
ACT Workflow

IT Pro

Application Compatibility Manager

Compatibility Exchange

Inventory Collector

ACT Database

Log Processing Service

Runtime Analysis Package

Pilot Testing

Organization

Finance

HR

Europe/Asia

Microsoft Partner
IMAGE ENGINEERING
Image Engineering Process

- Process generates an image that can be deployed to desktops, laptops, x86 tablets, virtual machines
- Includes components of security baseline, look-and-feel, core applications and out-of-box drivers
- Components applied using a reference deployment and captured into a single image file (.wim)
Windows 8 Versions

- **Windows RT**
  - Embedded into ARM processor
  - Does not run legacy x86/x64 applications
  - Imaged by OEM, cannot create or deploy an image to it

- **Windows 8 Professional**
  - Intended for business use
  - Available in 32-bit/64-bit editions

- **Windows 8 Enterprise**
  - Intended for business use
  - Available in 32-bit/64-bit editions
  - Includes AppLocker, BranchCache, DirectAccess, and Windows To Go
What to Include in the image?

Considerations
Including applications ties the lifecycle of the image to those applications.

Recommendations
Include applications critical to maintain a security baseline for the image.

If the deployment time is your objective, include large applications with high deployment times.

Do not include applications with frequent updates.
IMAGE DEPLOYMENT
The image deployment process delivers the components of the desktop.

The process includes:
- Capturing the user state from an old machine
- Laying down a new master image
- Configuring and installing applications
- Restoring the user state
Deployment Approach

- Microsoft System Center 2012 Configuration Manager SP1
- Microsoft Deployment Toolkit 2012 Update 1 (MDT)
  - Windows Assessment and Deployment Kit
  - Windows PE 4.0
  - USMT 5.0
- Windows Server 2012
  - Windows Deployment Services with multicast
  - Branch Cache improvements
Deployment Approach – LTI

- LTI – Lite Touch Installation
- Only requires Microsoft Deployment Toolkit 2012 Update1 (free download)
- Contains tools and best practice guidance for deployment
- Used for Image Engineering and Image Deployment processes
- Includes MDT Database for role, location, computer and hardware-based configurations
- Does not provide lifecycle for desktop components after deployment
- Support for UEFI deployment
Deployment Approach – OSD

- OSD – Operating System Deployment
- Requires Microsoft System Center 2012 Configuration Manager SP1 infrastructure
- Used for Image Deployment process
- Provides application, hardware, and security lifecycle after deployment
- Does not include MDT Database for role, location, computer or hardware-based configurations
Deployment Approach – WDS

- Windows Deployment Services in Standalone
- Requires Windows Deployment Services Feature installed on the server
- Can be used for Image Deployment process
- Does not provide lifecycle for desktop components after deployment
- Does not include MDT database for role, location, computer or hardware-based configurations
Deployment Approach – ZTI

- ZTI – Zero Touch Installation
- Combines the MDT database, OSD and WDS into a fully automated deployment solution
- Requires Microsoft Deployment Toolkit 2012 U1 integrated with Configuration Manager infrastructure
- Can be used for Image Deployment process
- Provides application, hardware and security lifecycle after deployment
- Includes MDT Database for role, location, computer and hardware-based configurations
VOLUME ACTIVATION
Activation Methods

- **Key Management Service (KMS)**
  - A server-client model in which a computer serves as the KMS host
  - A KMS host key must be installed and activated
  - This establishes a local activation service in your environment

- **Multiple Activation Key (MAK)**
  - If you use a MAK key, Office client computers are activated online by using the Microsoft hosted activation servers or by telephone

- **Active Directory-Based activation**
  - Automatically activates domain-joined Windows 8 clients
  - Only uses LDAP queries, not RPC for activation
  - Requires Server 2012 AD schema
  - Windows 8 clients only
Windows 8 clients can use Active Directory-based activation or KMS
Windows 7 must use KMS or MAK
Disconnected machines should use MAK activation
Consider VAMT 3.0
SECURITY MANAGEMENT
Security Management

- Security Management is the set of processes that ensure the security baseline of an enterprise desktop

- Several of these processes involve configuration and decisions at the time of deployment, including how to apply the latest patches, GPOs, firewall and anti-malware settings as well as which encryption strategy to use
Microsoft Security Compliance Manager 3.0

Key SCM Features:

- Baselines based on Microsoft security guide recommendations and industry best practices
- Centralized security baseline management features
- Gold master support (reference machine)
- Stand-alone machine configuration
- Updated security guides
- Comparisons against industry best practices
Group Policy
New Settings

- ADMX settings
  - Spreadsheet found here [http://go.microsoft.com/fwlink/?LinkId=261775](http://go.microsoft.com/fwlink/?LinkId=261775)
  - Spreadsheet has a column indicating new settings

- Internet Explorer 10
  - Group Policy settings (~1500 settings total)
  - Group Policy preferences
  - Enhanced Protection Mode
  - ActiveX controls
  - Do Not Track header
  - Browser geolocation
  - Site pinning behavior
  - Storage limits for individual domains
Group Policy
New Settings (cont.)

- Windows Store (Appx) Management
  - Permit/Restrict Sideload
  - Block launching applications (AppLocker)

- Windows Store
  - Manage access to Windows Store
  - Turn off Store application
  - Allow Store to install apps in Windows To Go
  - Turn off Automatic Download of updates
  - Wireless WAN
  - Set 3G Cost
  - Set 4G Cost

- Error Reporting
  - Advanced error reporting and behavior
  - Manage error reporting across restricted/costed networks
APPLICATION LIFECYCLE
Application Lifecycle

- Processes used to introduce, update and remove applications and their assignments to roles which feed into the image deployment process.
Application Analysis

- Analyze Applications
- Eliminate Redundant or Unused Applications
- Remove Multiple Versions of Same Application / Standardize
- Prioritize Based on Business Use
- Assess and Mitigate
- Sequence Testing, Piloting and Deployment Efforts
Two Most Common Reasons for Application Failure

- **Standard User Accounts**
  - It costs less to manage standard user accounts, however many applications break when you remove administrator rights
  - *If you are running Vista or 7 with UAC you have already overcome most of these issues*
  - UAC is required in Windows 8 to support Windows Store applications, so you must not disable UAC in Windows 8
  - If you are moving from XP, you will need to address running applications as standard users

- **Version Checks**
  - Windows 8 maintains the same major version number as Vista and Windows 7 (6). The minor version has changed.
  - Some applications perform version checks only for a specific version instead of “this version or later”
  - *This is an easy issue to mitigate*
USER SETTINGS
The User Profile Management group of processes are responsible for management of user data and settings as well as migration of this data and settings to new machines.
USMT 5.0 is available as part of the Windows Assessment and Deployment Kit (Windows ADK) for Windows 8

- Includes version 6.2 of loadstate, scanstate and usmtutils
- Full support for Windows 8

Hard-link migration

- USMT 5.0 continues to support local storage of user data during an in-place refresh
- Minimal network traffic, very fast process to hard-link local data

Offline Capture

- Captures file offline – no connectivity needed
- Reduces chances of files being open or in use

Document Finder

- Simplified migration rules
DEPLOYMENT SUMMARY
Where to get started?


Get Started:

1. Explore
2. Plan
3. Deliver
4. Operate
5. Support

Windows 8 delivers experiences users want, offers new possibilities for mobile productivity, and provides IT with a more secure, easy-to-manage infrastructure.

Try Windows 8

Test your apps and hardware on the final version of Windows 8 Enterprise.

Get Started with the Springboard Series for Windows 8
Windows 8 Deployment Key Milestones

**Management Tool Deployment**
- Select Tool (1 month)
- Deployment Tool Architecture (1-2 months)
- Deploy Infrastructure for Pilot Group (1-3 months)
- Deploy Full Infrastructure (1-6 months)

**Windows 8 Deployment**
- Assess Hardware (1-2 months)
- Assess, Test and Remediate Applications (1-18 months)
- Build Task Sequence and Gold Image (1-3 months)
- Hardware Upgrades (1-6 months)
- End User Readiness (1-3 months)
- Begin Deployment (3-12 months)

April 8, 2014
XP SP3 End of Extended Support*

Top issues to watch out for

- PXE Client issues
- Network Stability
- Multiple Partitions
- Bitlocker configuration
- Hardware configuration (BIOS settings)
- Refresh – Migrating User State
- 3rd party Encryption Software
- Assigning Applications – Think outside the box
- Troubleshooting Effectiveness
  - Logs, Event ID’s, Monitoring (LTI/SCOM), Windows Performance Toolkit (WPT), Windows Assessment Toolkit
Questions