Windows 7

Stanford

New Features Presentation
Overview

• Windows Deployment
• Security Updates to Windows 7
• System Protection
• Q&A
Module 1: Windows Deployment

- Deployment Scenarios
- Microsoft Deployment Tools
- Windows Deployment Options
- VHD Files
- Activation
Lesson 1: Deployment Scenarios

- Install
- Upgrade
- Migrate
Install

• Easier than before
• Least likely chance of failure
• Can be automated
Upgrade

- Retains user Settings and Applications
- Requires Qualifying Windows Vista Product
- May retain Problems existing in prior Install
Migrate

• Hybrid solution
• Can Be Done side by side or In-place
• Requires the Most precaution prior to roll out
Lesson 2: MDK 2010

• WIM file
• Image X
• Application Compatibility Toolkit
• Sysprep
• User Migration
  – USMT
  – WET
• Windows Automated Installation Kit
WIM File

- Contains deployment Images
- Replaces the I386 folder
- Can store Multiple images
- Uses single instance storing
- Allows for deployment across multiple platforms
Image X

• Used to Deploy and Capture WIM Images
• Used to Mount Images for Editing
• Microsoft Equivalent to Ghost.exe
Application Compatibility Toolkit

- Aids in troubleshooting Application failure
- Has a Knowledge base function
- Can be used to develop Application Shims
Sysprep

- Used to Prepare Disk Images
- Included as a built in tool in Windows 7
- Can be automated with WAIK
User Migration

- USMT
- WET
User State Migration Tool

• Used for Bulk User Migration
• Consists of 2 utilities
  – Scan State
    • Captures user Settings
    • Captures user Data
  – Load State
    • Deploys user Settings
    • Deploys user Data
• Uses XML configuration Files
Windows Easy Transfer

• Transfers User data and settings
• Run on a Computer by Computer Basis
• Customized at time of execution manually
• Demo: Capturing user Settings
Windows Automated Installation Kit

- Used to Create Windows Boot CD (WinPE)
- Automates deployments (Setup Image Manager)
- Deploy Windows (Image X)
- Maintain WIM Images (Deployment Image Service and Management)
- User Migration (USMT)
- Volume Activation (VAMT)
Lesson 3: Windows Deployment Options

- Manual
- Image Based
- WDS (Light Touch)
- SCCM (Zero Touch)
Manual

• Requires Boot Media (Install Disk, WinPE, Or Existing OS)
• Not very consistent
• Most Time Consuming
Image Based

• Thick Image (all inclusive)
• Thin Image (Base OS only)
• Stored in a WIM File
• Multiple images can be stored in a WIM
• Can Be non destructive
Windows Deployment Server

• Allows For Light Touch Network Install Images
• Requires Windows Server 2003 or Later
• Replaces RIS
• PXE Boot Service
• Should Not be on the DHCP server
• Requires DHCP, DNS, and AD
System Center Configuration Manager

• Replaces SMS
• Expensive and Complicated to Deploy
• Allows complete Agent Based Management
• Allows for Pre-staged Zero touch Image deployment
Lesson 4: VHD Files

• Creating and Managing VHD Files in Windows
  – Disk Management
  – Diskpart

• Windows XP-Mode
  – Requires Windows 7 Professional or higher
  – Provides Access To Windows XP SP3 Virtual Machine

• Booting To VHD
  – Allows Flexibility in testing
Lesson 5: Activation

• Multiple Activation Key
  – Microsoft Maintains Clearinghouse information on remaining Activations
  – Requires Most Manual Maintenance
  – Permanent Activations

• Key Management Services (Recommended)
  – You Maintain Clearinghouse information
  – Automated VIA DHCP Like Service
  – Temporary Activations with renewal
Module 2: Security Updates to Windows 7

- UAC
- Windows Firewall with Advanced Security
- Group Policy
Lesson 1: User Account Control

• Changes since Vista
• Demo
Changes since Vista

- Four Default settings instead of Two
- Differentiates between Application Tasks and Administrative Management Tasks
- Secure desktop is Optional
Demo

- Managing with the Control Panel
- Managing with Group Policy
Lesson 2: Windows Firewall with Advanced Security

- Inbound and Outbound configured separately
  - Program
  - Port
  - Predefined
  - Custom

- Offers Three separate network zones
  - Domain
  - Private
  - Public

- Demo
Lesson 3: Group Policy

• Group Policy
  – Enforced
  – One Half of a GPO
  – Local or Domain Settings

• Group Policy Preferences
  – Not Enforced
  – Can be filtered
  – Can only be set at the Domain Level

• Demo
Module 4: System Protection

• Backup
• AppLocker
• BitLocker and BitLocker to Go
Lesson 1: Backup

• Shadow Volume Copies
  – Used Since Windows 2003
  – Prevents File Locking Errors
  – Incremental Meta Data Backups

• Previous Versions
  – Enabled by Shadows Volume Services
  – Allows Local Recovery of changed or deleted Items
Lesson 2: AppLocker

- AppLocker Defined
- Requirements of AppLocker
- Rules
AppLocker Defined

- Prevents Execution of unwanted Software
- Replaces Software Restriction Policy
- Can be Set to default of Deny or Allow
Requirements of AppLocker

• Only Available on Windows 7 Enterprise and Ultimate
• Cannot coexist in a Policy Object with Software Restriction Policy
• APPID Service Need To Be Running
Rules

• File Types
  – Executables
  – Windows Installer Files
  – Scripts

• Rule Types
  – Hash
  – Path
  – Trusted Publisher

• DLL Enforcement
Lesson 3: BitLocker and BitLocker to Go

• Requires TPM v1.2 or newer
  – Can support USB card instead
• Full Volume Encryption
• Enhances personal encryption like EFS
Module 4: Free Style (Time Permitting)

• Topics Garnered from Audience
• Q&A
References and Links

• AppLocker

• Boot From VHD
  – VHD Boot Media: http://edge.technet.com/Media/Windows-7-Boot-from-VHD/

• MDT 2010

• Activation

• New Features
  – Third part list of new features:
    http://4sysops.com/archives/windows-7-new-features-the-complete-list-part1-user-interface/