

Windows 8.0 Overview

For IT Professionals

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Windows 8 Is NOT Vista!

Windows 8 release date:

- released to manufacturers on August 1, 2012 (11 months)
- released for general availability on October 26, 2012 (8 months)

Windows 8.1 release date:

- Windows 8.1 preview will be launched at the Microsoft Build developer conference in San Francisco on June 26
- The final RTM version will be released August 1, and will be available as a free, downloadable Windows 8 update.

Windows 8 hardware requirements:

- processor: 1 GHz or faster with support for PAE, NX, and SSE2
- RAM: 1 GB for 32-bit, 2 GB for 64-bit
- hard disk space: 16 GB for 32-bit, 20 GB for 64-bit
- graphics card: Microsoft DirectX 9 graphics device with WDDM driver

Windows 8 versions:

- Xbox & Windows Phone 8
 - not really 'Windows 8', but very similar to the Modern UI in look and feel
- Windows 8 RT
 - tablets built on ARM architecture
 - cannot install Desktop applications
- Windows 8 Home (a.k.a. 'Core', not 'Server Core')
 - home use
 - cannot join Domain
- Windows 8 Pro
 - for enthusiasts and business users
- Windows 8 Enterprise
 - for enterprise users

Windows 8 Pro vs. Windows 8 Enterprise:

	Windows 8 Professional	Windows 8 Enterprise
BitLocker and BitLocker To Go	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boot from VHD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Client Hyper-V	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Domain Join	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Group Policy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Encrypting File System	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Remote Desktop (host)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Windows To Go		<input checked="" type="checkbox"/>
DirectAccess		<input checked="" type="checkbox"/>
BranchCache		<input checked="" type="checkbox"/>
AppLocker		<input checked="" type="checkbox"/>
Virtual Desktop Infrastructure (VDI)		<input checked="" type="checkbox"/>

A five-minute tutorial of the

Windows 8 UIs (Modern & Desktop)

for IT pros who use KVM and need to get up and running quickly!

Windows Desktop applications vs. Windows 8 Apps:

- Windows 8 uses both the Desktop UI and the Modern UI (the UI formerly known as Metro).
 - Windows Desktop applications use the Desktop UI.
 - Windows 8 Apps use the Modern UI.

Note: During this presentation we'll use the term 'Apps' to refer to Windows 8 Apps, and 'applications' to refer to Windows Desktop applications.

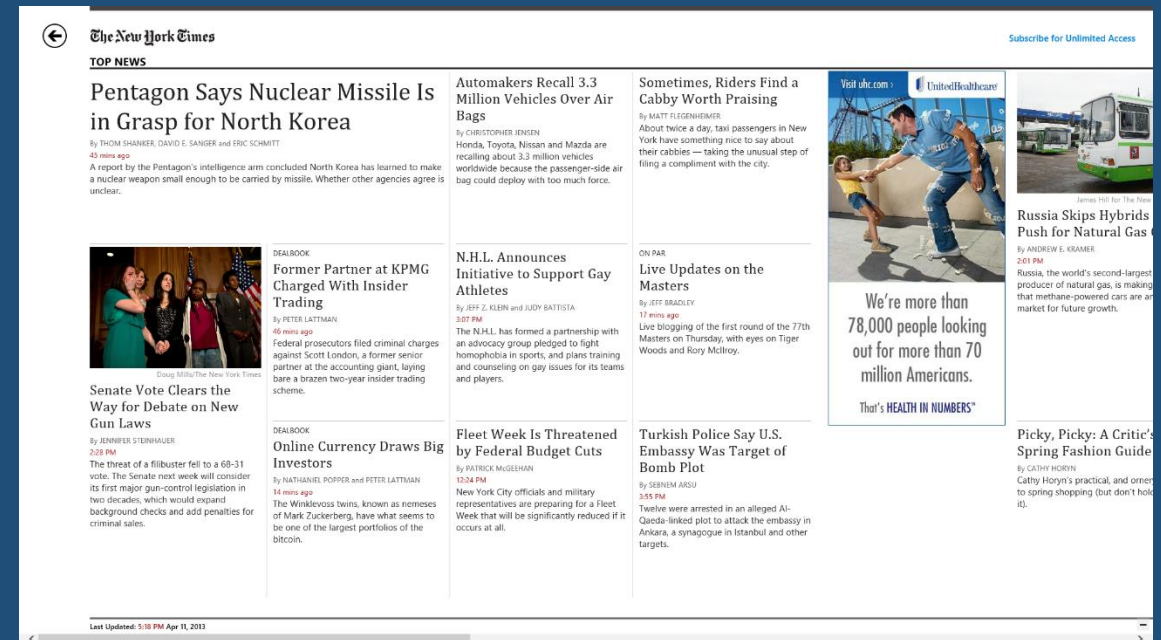
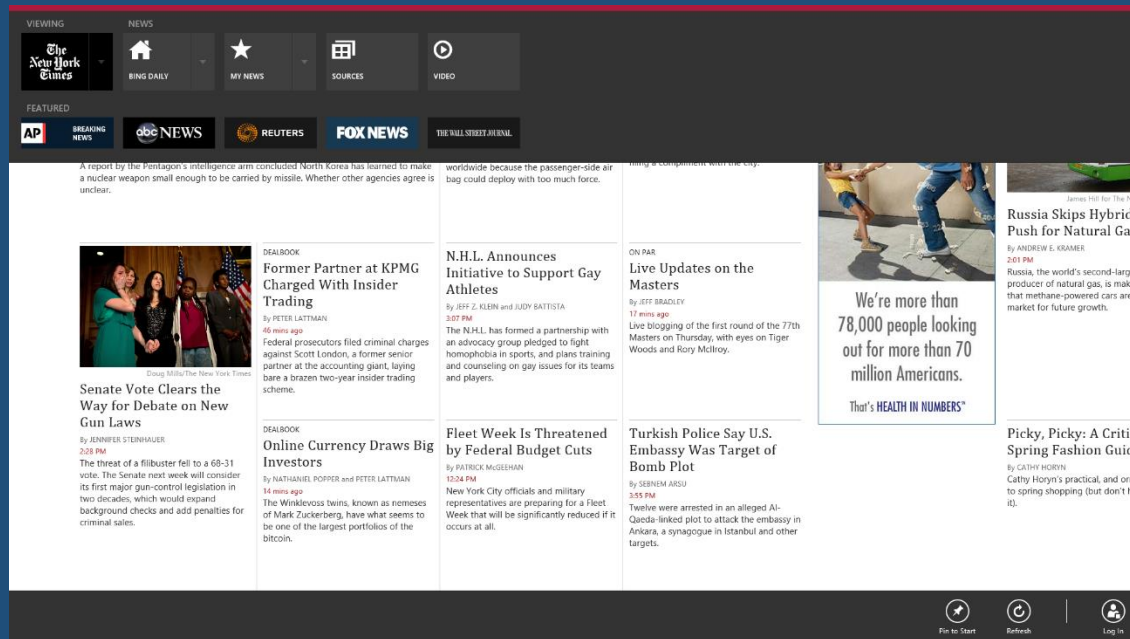
Desktop UI:

- Just like in Windows 7, LC the lower right of the Desktop to toggle between the Desktop and your active Desktop applications.



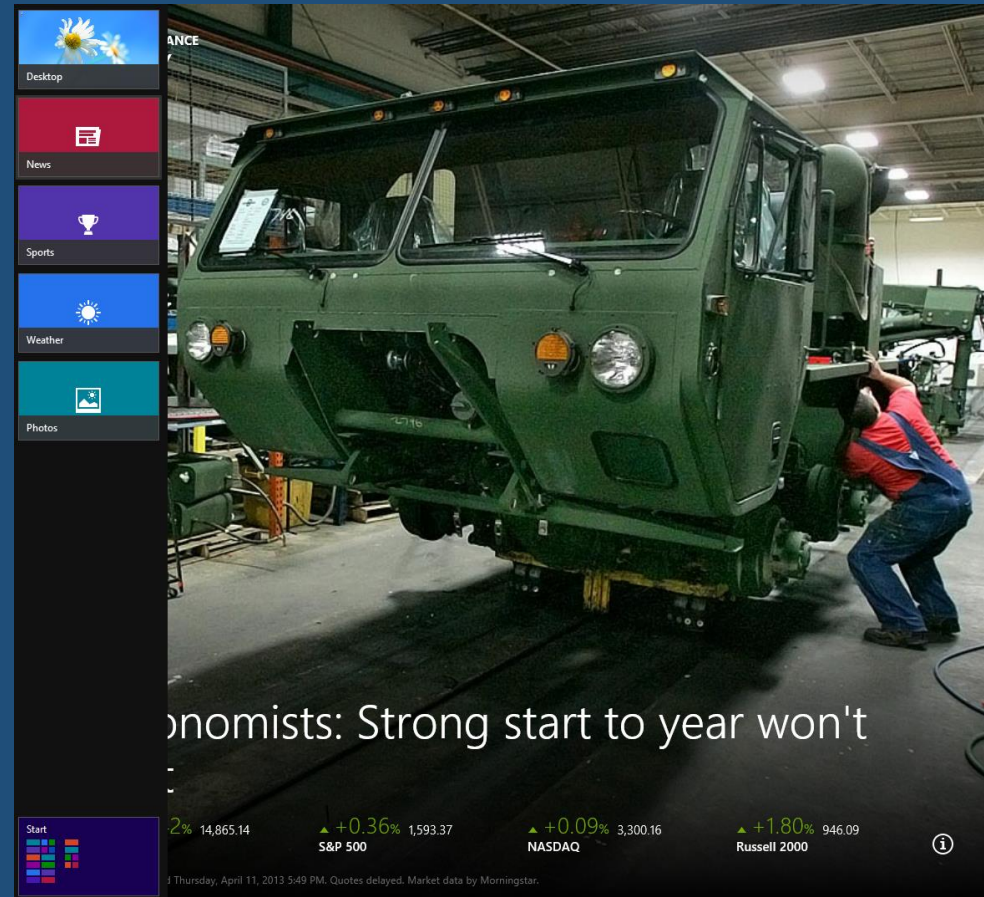
Modern UI:

- Windows 8 Apps use the Modern UI.
- The Modern UI uses 'App Bars' – RC the screen, and they appear at the top and bottom of the screen.
- The Modern UI uses zoom – a '-' in lower right corner of the screen.



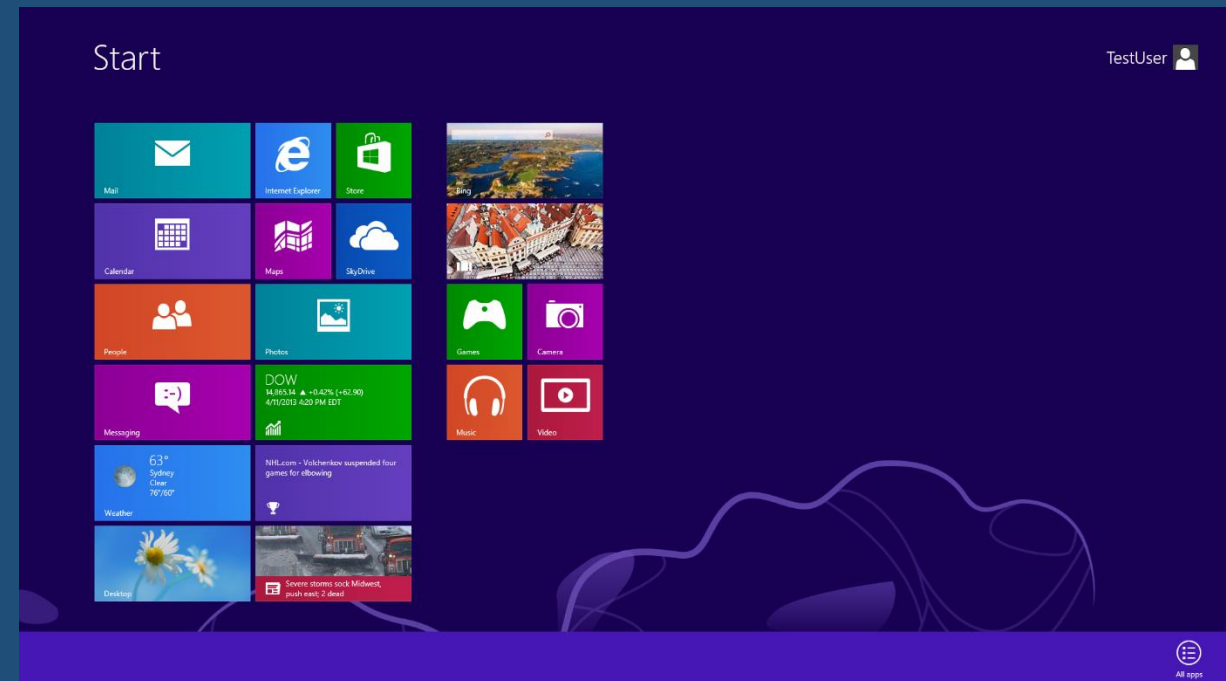
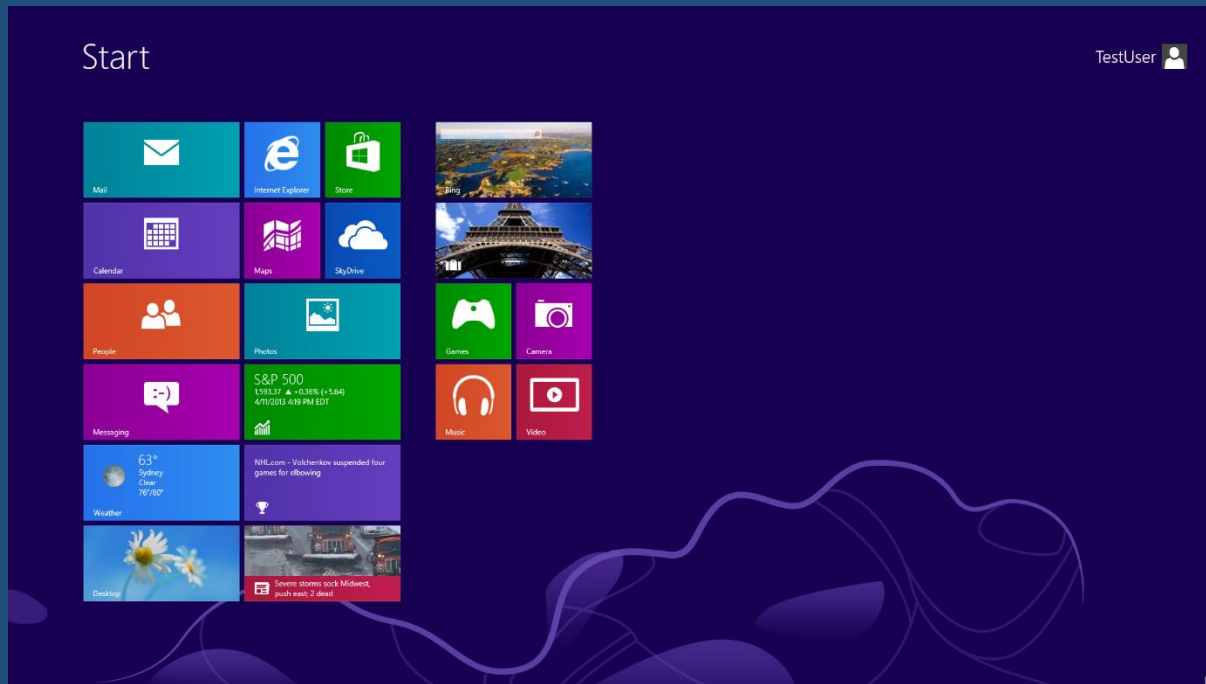
Listing the Windows 8 Apps that are running:

- Mouse to the upper left corner, then down.
- RC an App and LC 'close' to close it.
- Note that the 'Start Screen' is listed at the bottom (it's actually a Windows 8 App).



Start Screen (is a Windows 8 App):

- zoom ('-') in the lower right corner
- RC the screen to get the 'App Bar' which contains the 'All apps' icon



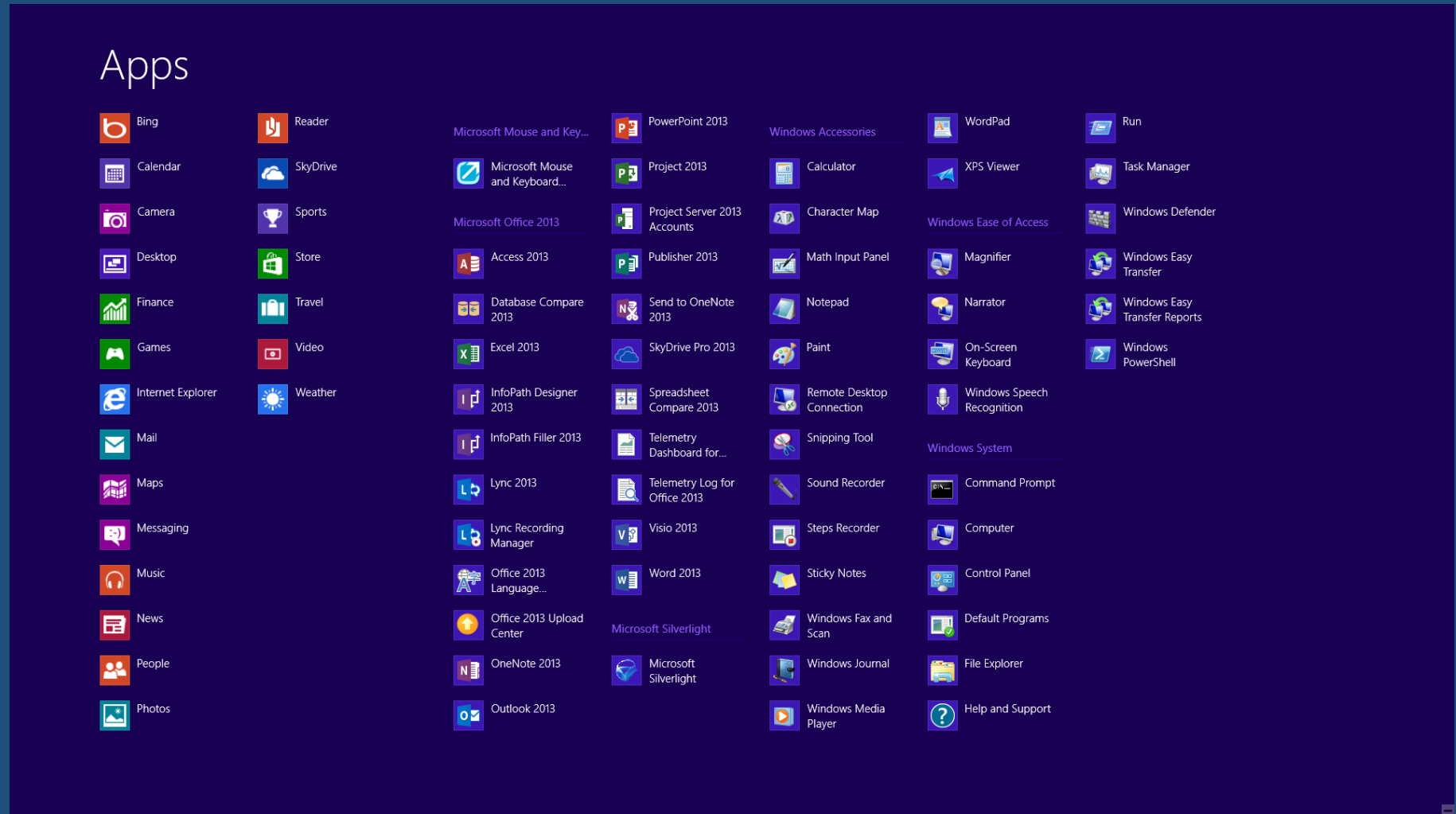
Start Screen tiles and groups (i.e. creating your own dashboard):

- static Tiles and dynamic Tiles (no more Gadgets)
- small and large Tiles (both can be re-sized)
- user created and named groups



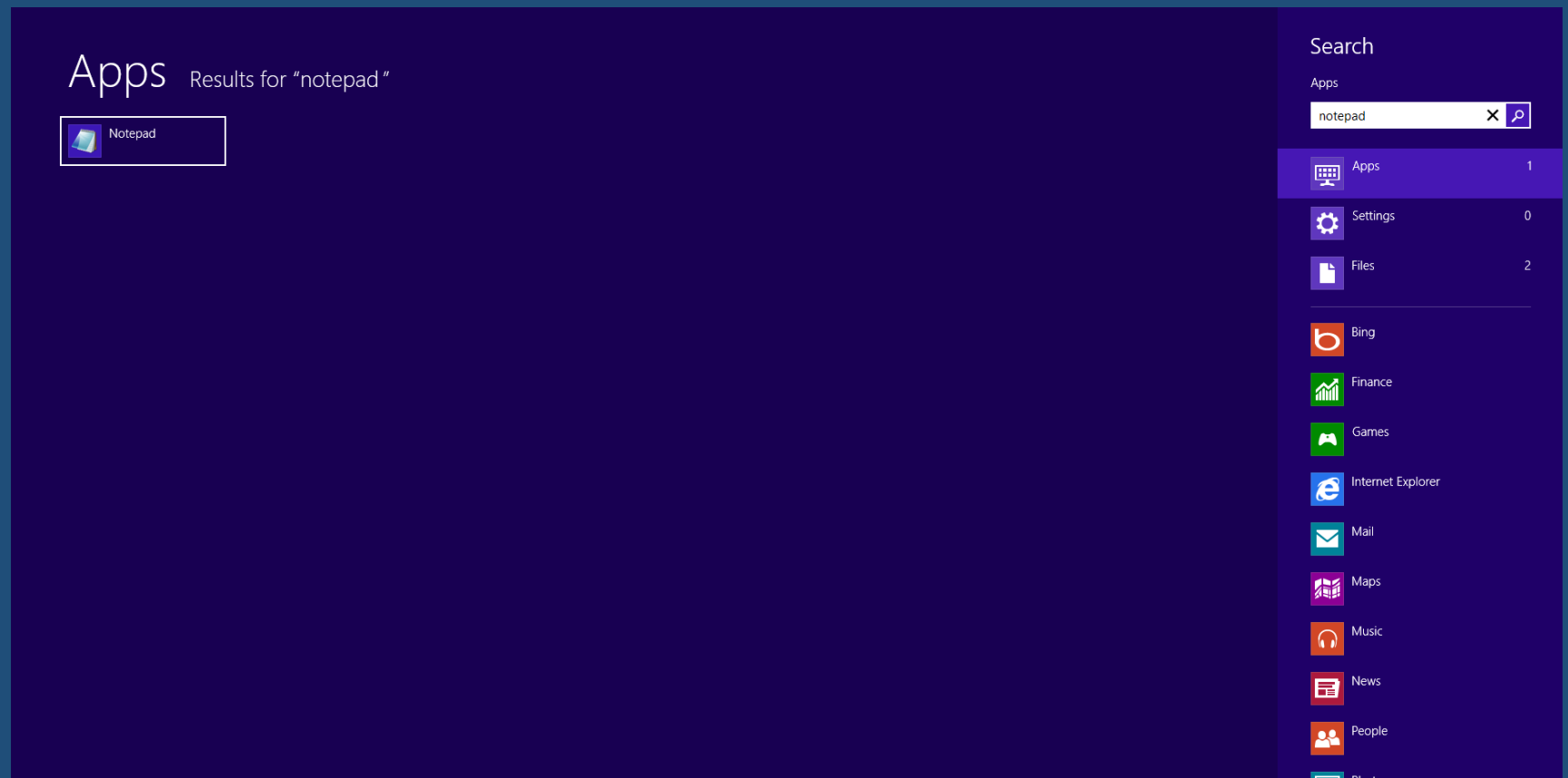
Windows 8 Start Screen, 'All apps':

- Windows 8 Apps appear on left
- Windows Desktop applications appear the right
- 'Flattened' Windows 7 Start Menu, complete with program groups



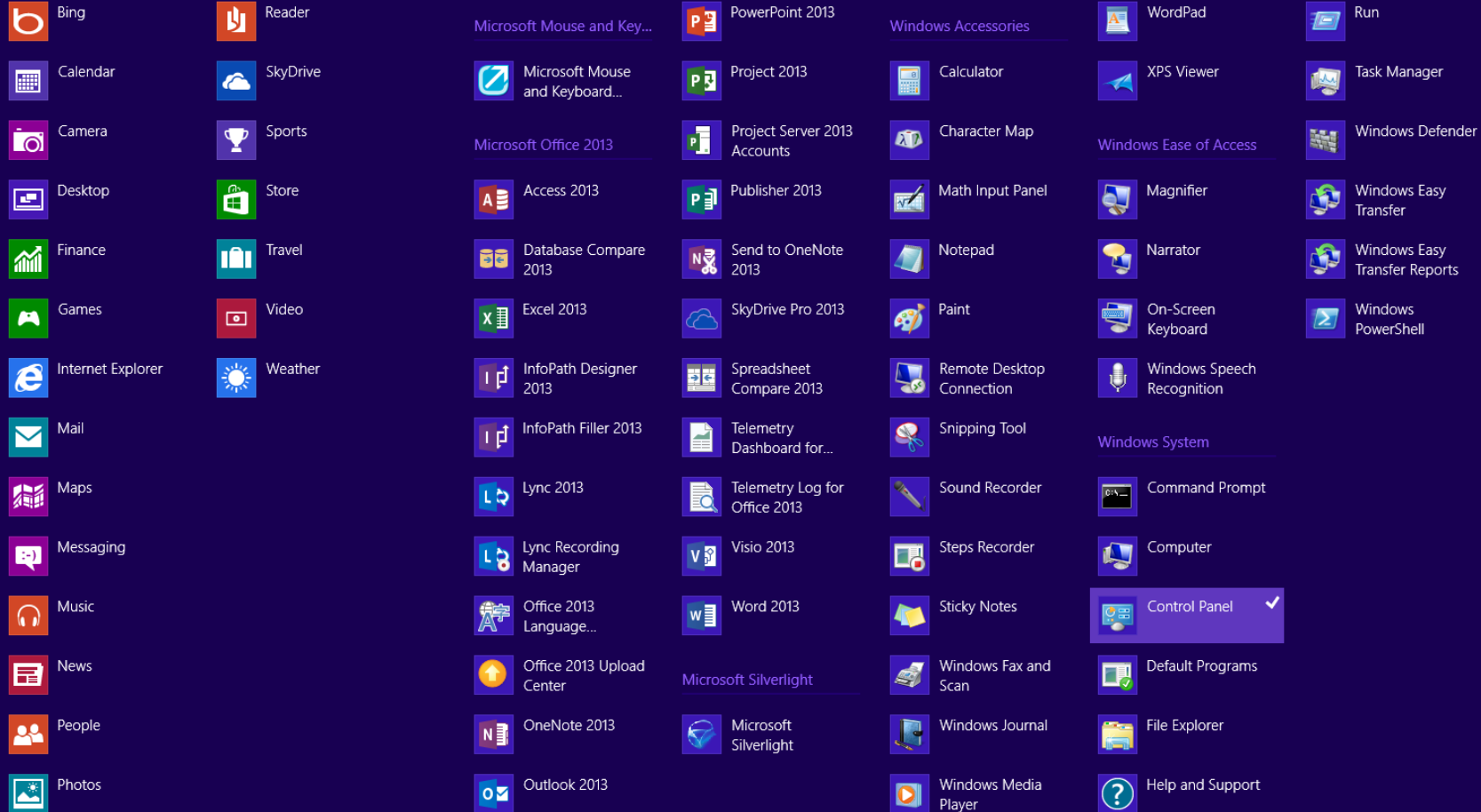
Windows 8 Start Screen, Search:

- Search is available from the Start Screen, and the 'All apps' screen... just start typing...



'Pin to Start', 'Pin to taskbar':

Apps



Pin to Start



Pin to taskbar



Open new window



Open file location



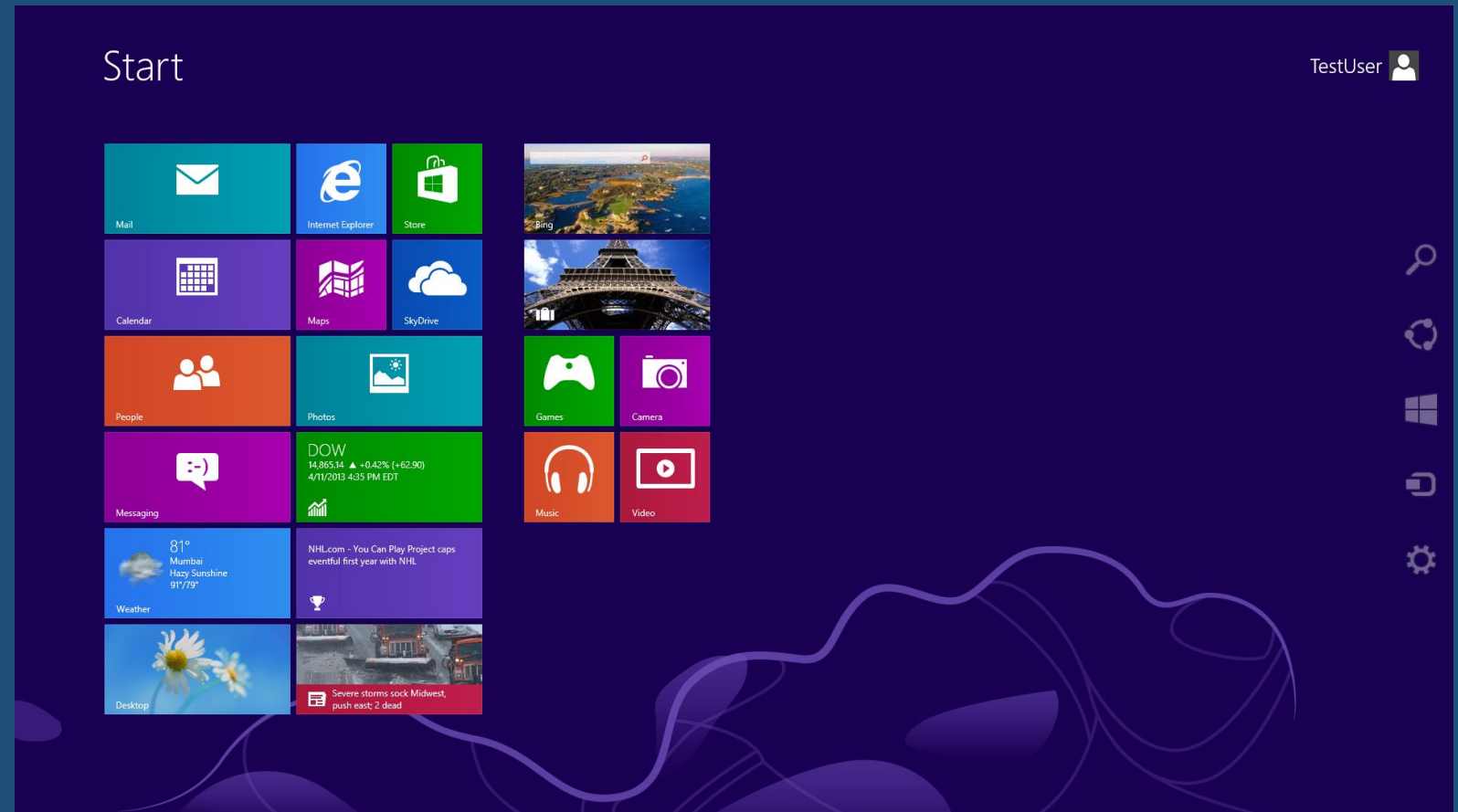
All apps

Calling up the Start Screen:

1. Mouse to the lower left, and LC
2. Windows key – the Windows key will switch back and forth between the Start Screen and the last used App or application
3. Start Charm (what's a charm?)

Charms:

- Charms - mouse to upper right or lower right corner
 - Context sensitive
 - Search
 - Share
 - Devices
 - Settings
 - Context insensitive
 - Start



Key Shortcuts:

Here are the most important ones:

- Win – switch between Start Screen and the last App or application
- Win+D – bring up the Desktop
- Win+R – Run
- Win+X – bring up the eXpert menu (an abbreviated Start Menu)
- Win+Tab – scroll between open Apps
- Alt+Tab – scroll between both open Apps and applications

<http://windows.microsoft.com/en-us/windows-8/new-keyboard-shortcuts#1TC=t1>

Administrative Tools:

- Pin Control Panel and/or Administrative Tools to your Start Screen by going into Control Panel, RC Administrative Tools, LC 'Pin to Start'.

Windows 8, two 'Control Panels':

The image displays two overlapping windows from the Windows 8 operating system. The background window is the 'PC settings' application, showing a sidebar with categories like 'Personalize', 'Users', and 'Notifications'. The main area is set to 'Personalize' and shows a lock screen with a scenic background, the time '11:40', and the date 'Tuesday, April 16'. Below the lock screen are options for 'Lock screen apps' and a 'Browse' button.

The foreground window is the 'Control Panel' application, titled 'All Control Panel Items'. It features a search bar at the top right and a 'View by: Small icons' dropdown. The main content area is a grid of 40 control panel items, including:

- Action Center
- Administrative Tools
- AutoPlay
- BitLocker Drive Encryption
- Color Management
- Credential Manager
- Date and Time
- Default Programs
- Dell Touchpad
- Device Manager
- Devices and Printers
- Display
- Ease of Access Center
- Family Safety
- File History
- Flash Player (32-bit)
- Folder Options
- Fonts
- HomeGroup
- Indexing Options
- Intel(R) Graphics and Media
- Internet Options
- Keyboard
- Language
- Location Settings
- Mail
- Mouse
- Network and Sharing Center
- Notification Area Icons
- NVIDIA Control Panel
- NVIDIA nView Desktop Manager
- Performance Information and Tools
- Personalization
- Phone and Modem
- Power Options
- Programs and Features
- Recovery
- Region
- RemoteApp and Desktop Connections
- Sound
- Speech Recognition
- Storage Spaces
- Sync Center
- System
- Taskbar
- Troubleshooting
- User Accounts
- Windows 7 File Recovery
- Windows Defender
- Windows Firewall
- Windows Mobility Center
- Windows Update
- Windows To Go

Shutting down¹:

- Settings Charm (3 clicks)
- Win+i (2 keys, then two clicks)
- Control+Alt+Delete (3 keys, then two clicks)
- Shutdown command (lots of clicks and keys)
- Use PowerShell to create Shutdown, Restart, and Logoff Tiles (<http://gallery.technet.microsoft.com/scriptcenter/Create-a-ShutdownRestartLog-37c8111d>)

1. we'll talk about a hybrid shutdown vs. a full shutdown in a few minutes...

Managing Windows 8 in the enterprise:

Managing the 'All apps' screen, and Taskbar with Group Policy:

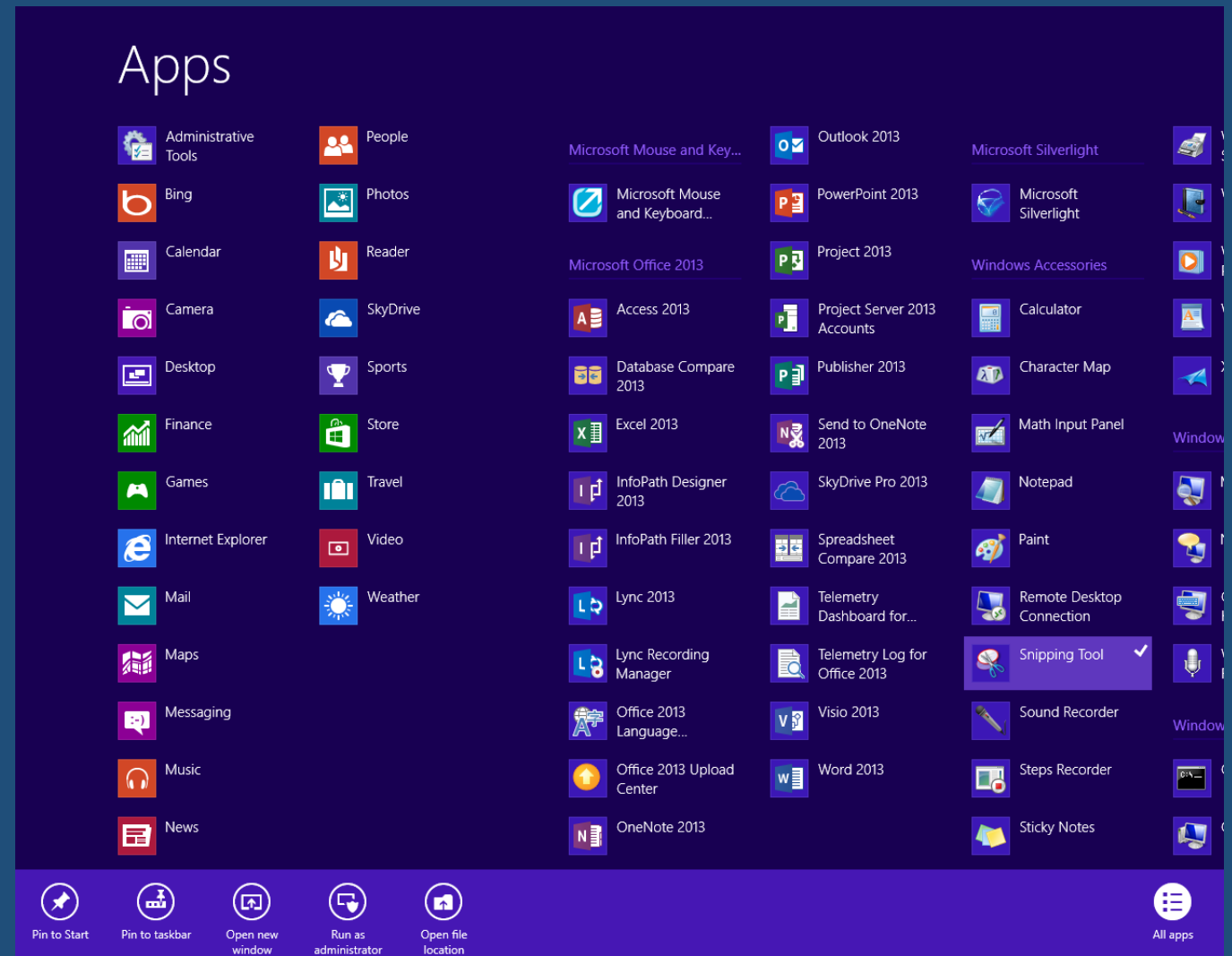
- managed through local and/or AD Group Policy, just like the Start Menu in Windows 7

The screenshot displays the Local Group Policy Editor window. The left-hand pane shows the tree view expanded to 'Start Menu and Taskbar' under 'Administrative Templates' in 'User Configuration'. The right-hand pane shows a list of 28 settings, all of which are currently 'Not configured'.

Setting	State	Comment
Notifications		
Add Search Internet link to Start Menu	Not configured	No
Clear history of recently opened documents on exit	Not configured	No
Clear the recent programs list for new users	Not configured	No
Clear history of tile notifications on exit	Not configured	No
Add Logoff to the Start Menu	Not configured	No
Gray unavailable Windows Installer programs Start Menu shortcuts	Not configured	No
Turn off personalized menus	Not configured	No
Lock the Taskbar	Not configured	No
Add "Run in Separate Memory Space" check box to Run dialog box	Not configured	No
Turn off notification area cleanup	Not configured	No
Remove Balloon Tips on Start Menu items	Not configured	No
Remove drag-and-drop and context menus on the Start Menu	Not configured	No
Remove and prevent access to the Shut Down, Restart, Sleep, and Hibernate commands	Not configured	No
Remove common program groups from Start Menu	Not configured	No
Remove Favorites menu from Start Menu	Not configured	No
Remove Search link from Start Menu	Not configured	No
Remove frequent programs list from the Start Menu	Not configured	No
Remove Games link from Start Menu	Not configured	No
Remove Help menu from Start Menu	Not configured	No
Turn off user tracking	Not configured	No
Remove All Programs list from the Start menu	Not configured	No
Remove Network Connections from Start Menu	Not configured	No
Remove pinned programs list from the Start Menu	Not configured	No
Do not keep history of recently opened documents	Not configured	No
Remove Recent Items menu from Start Menu	Not configured	No
Do not use the search-based method when resolving shell shortcuts	Not configured	No

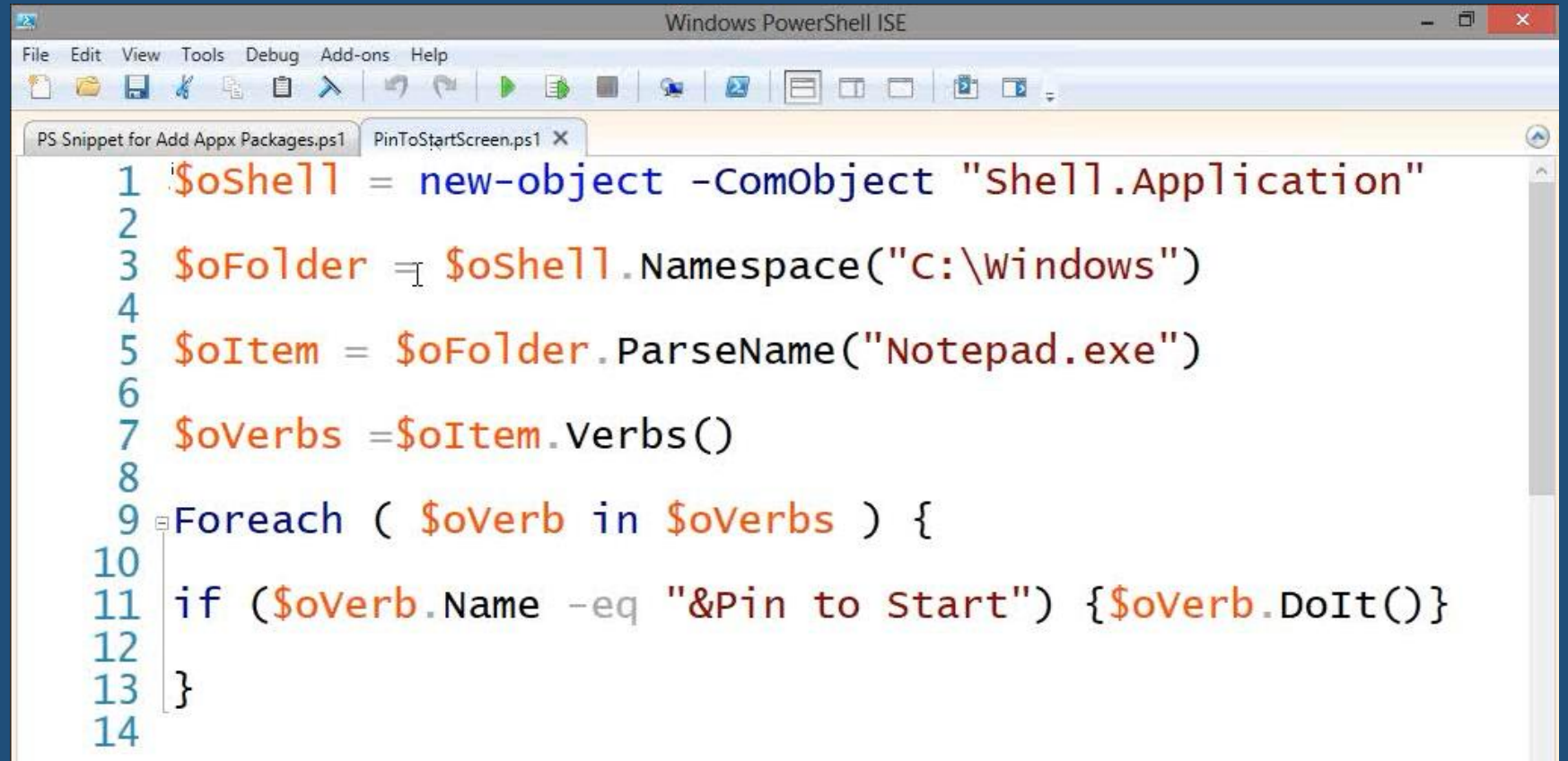
End-users can customize their Start Screen, and Taskbar:

- End-users can pin Apps and applications from 'All apps' to their main Start Screen.
- Only applications (not Apps) can be pinned to the taskbar.



Pinning applications to the Start Screen with PowerShell:

- Applications can be pinned to the Start Screen using Group Policy and PowerShell using the 'pin to start' verb.



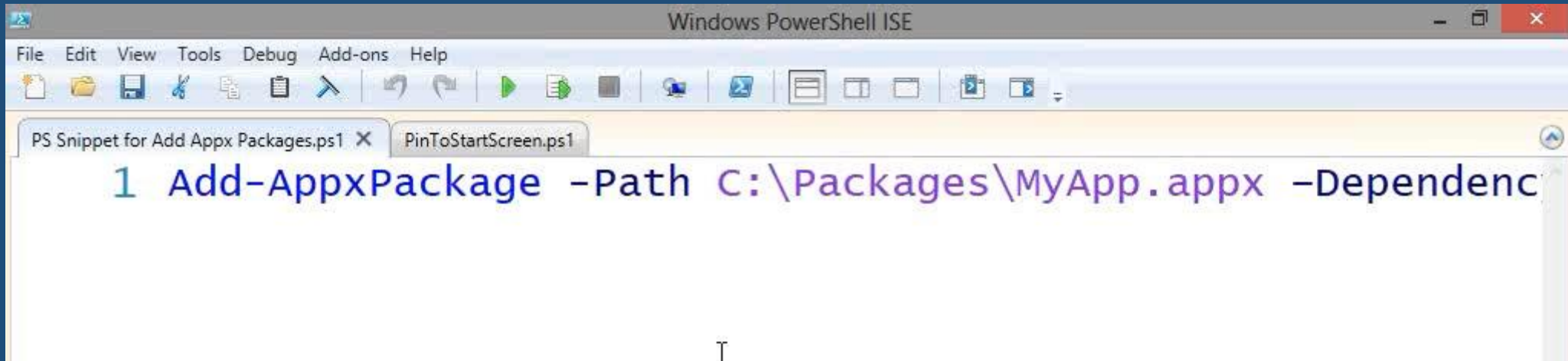
```
Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS Snippet for Add Appx Packages.ps1 PinToStartScreen.ps1 X
1 $oShell = new-object -ComObject "Shell.Application"
2
3 $oFolder = $oShell.Namespace("C:\windows")
4
5 $oItem = $oFolder.ParseName("Notepad.exe")
6
7 $oVerbs = $oItem.Verbs()
8
9 foreach ( $oVerb in $oVerbs ) {
10     if ( $oVerb.Name -eq "&Pin to start" ) { $oVerb.DoIt() }
11
12 }
13
14
```

Deploying applications:

- Desktop applications are deployed just like they were in downlevel versions of Windows:
 - images
 - scripts
 - GPOs
 - SCCM (System Center Configuration Manager)
 - MDT (Microsoft Deployment Toolkit)
 - etc.

Deploying Apps with PowerShell:

- Third-party or home-grown Apps can be packaged as .appx, and deployed to Windows 8 clients through Group Policy and PowerShell using the 'Add-AppxPackage' cmdlet.
- You'll need to enable side-loading on the clients, and follow normal certificate procedures (side-loaded Apps are those that are not certified or installed from the Windows Store).

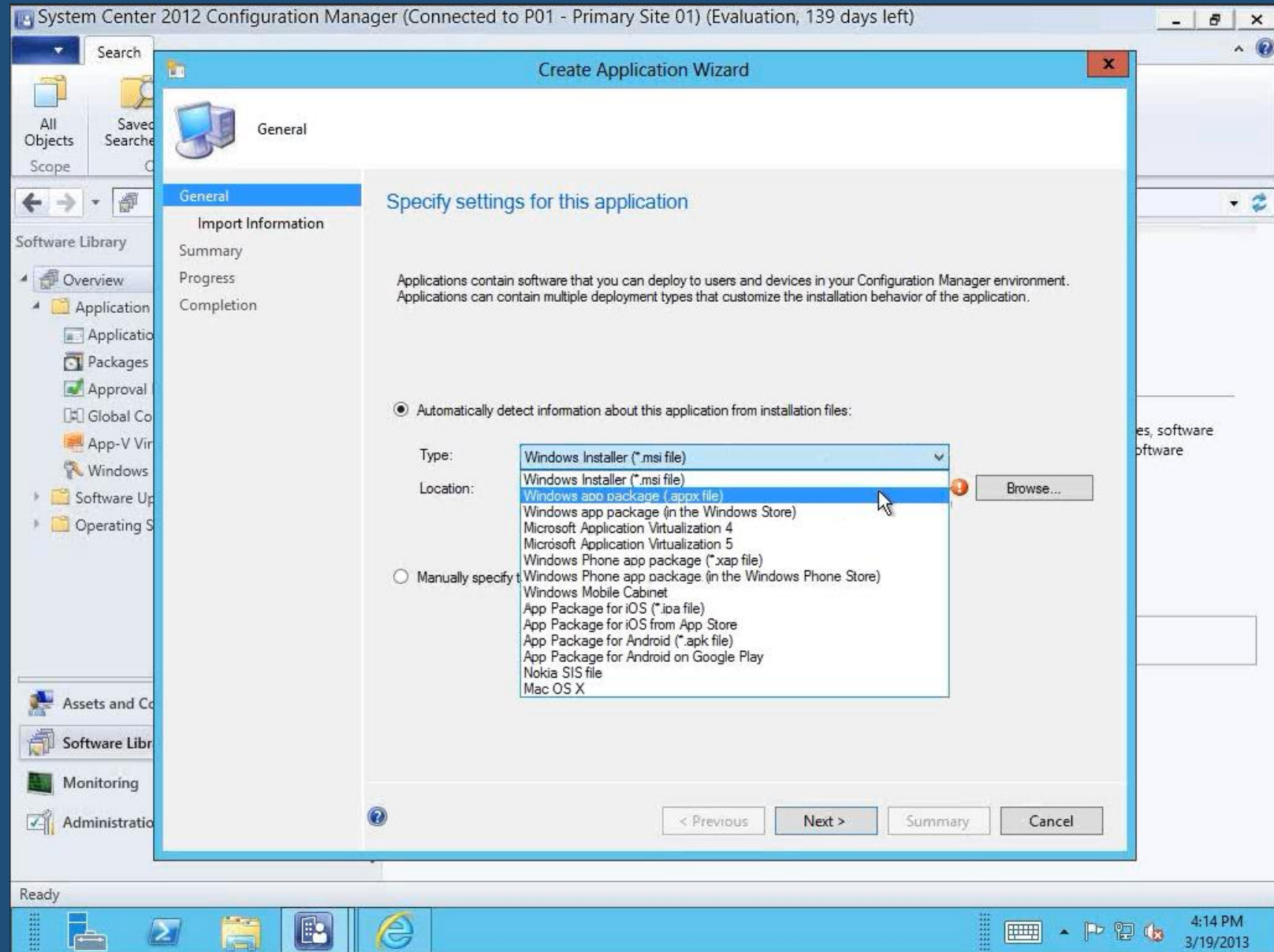


The screenshot shows the Windows PowerShell ISE interface. The title bar reads "Windows PowerShell ISE". The menu bar includes "File", "Edit", "View", "Tools", "Debug", "Add-ons", and "Help". The toolbar contains various icons for file operations and execution. The main editor area has two tabs: "PS Snippet for Add Appx Packages.ps1" and "PinToStartScreen.ps1". The active tab contains the following PowerShell command:

```
1 Add-AppxPackage -Path C:\Packages\MyApp.appx -Dependenc
```

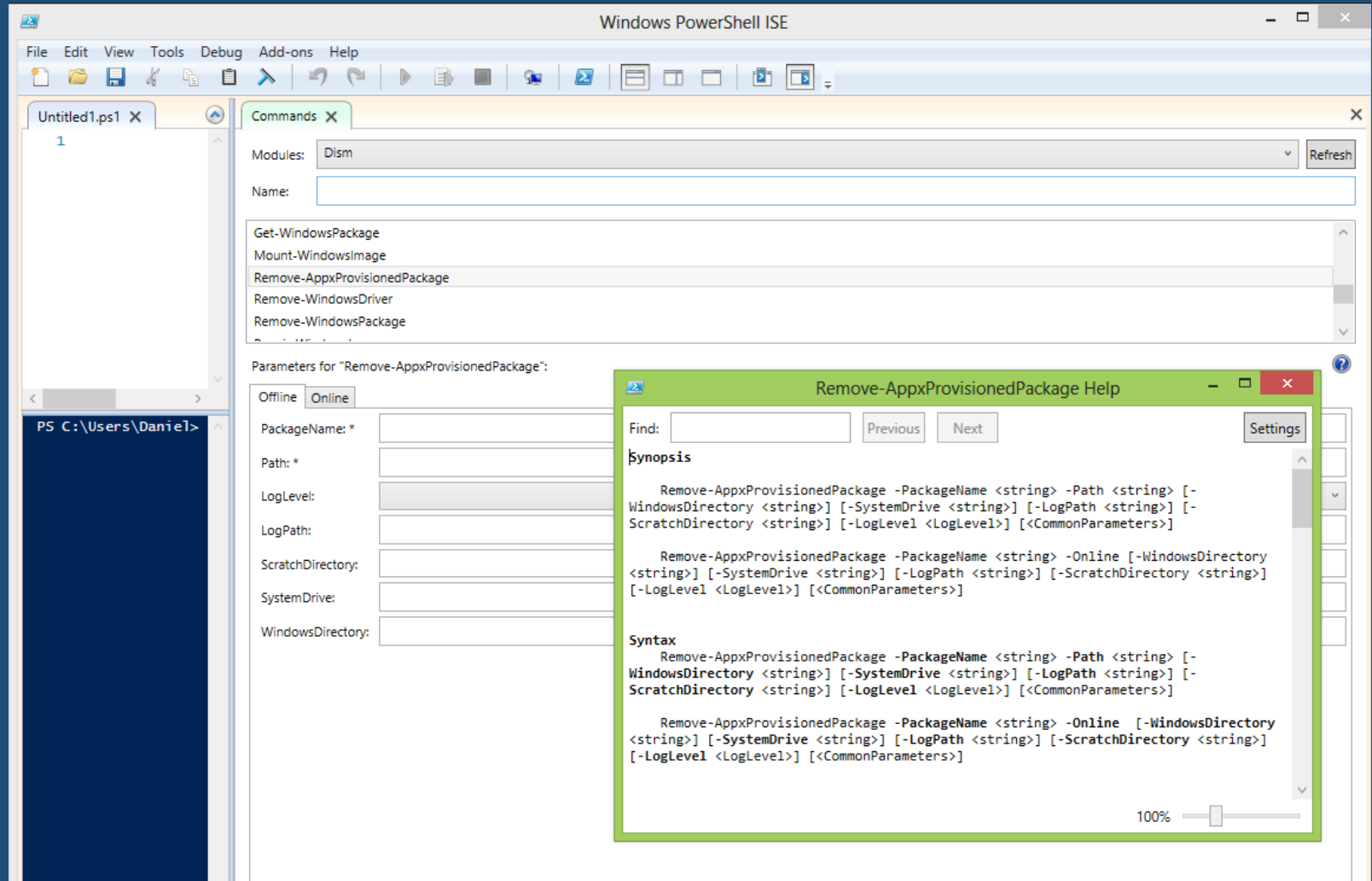
Deploying Apps with SCCM 2012:

- SCCM 2012 SP1 provides for the deployment of both .appx packages, as well as Windows App packages from the Windows Store.
- In the 'Create Application Wizard' you now have options for 'Windows app package (.appx file)', as well as 'Windows app package (in the Windows Store)'



Adding and removing Apps from a Windows 8 deployment image:

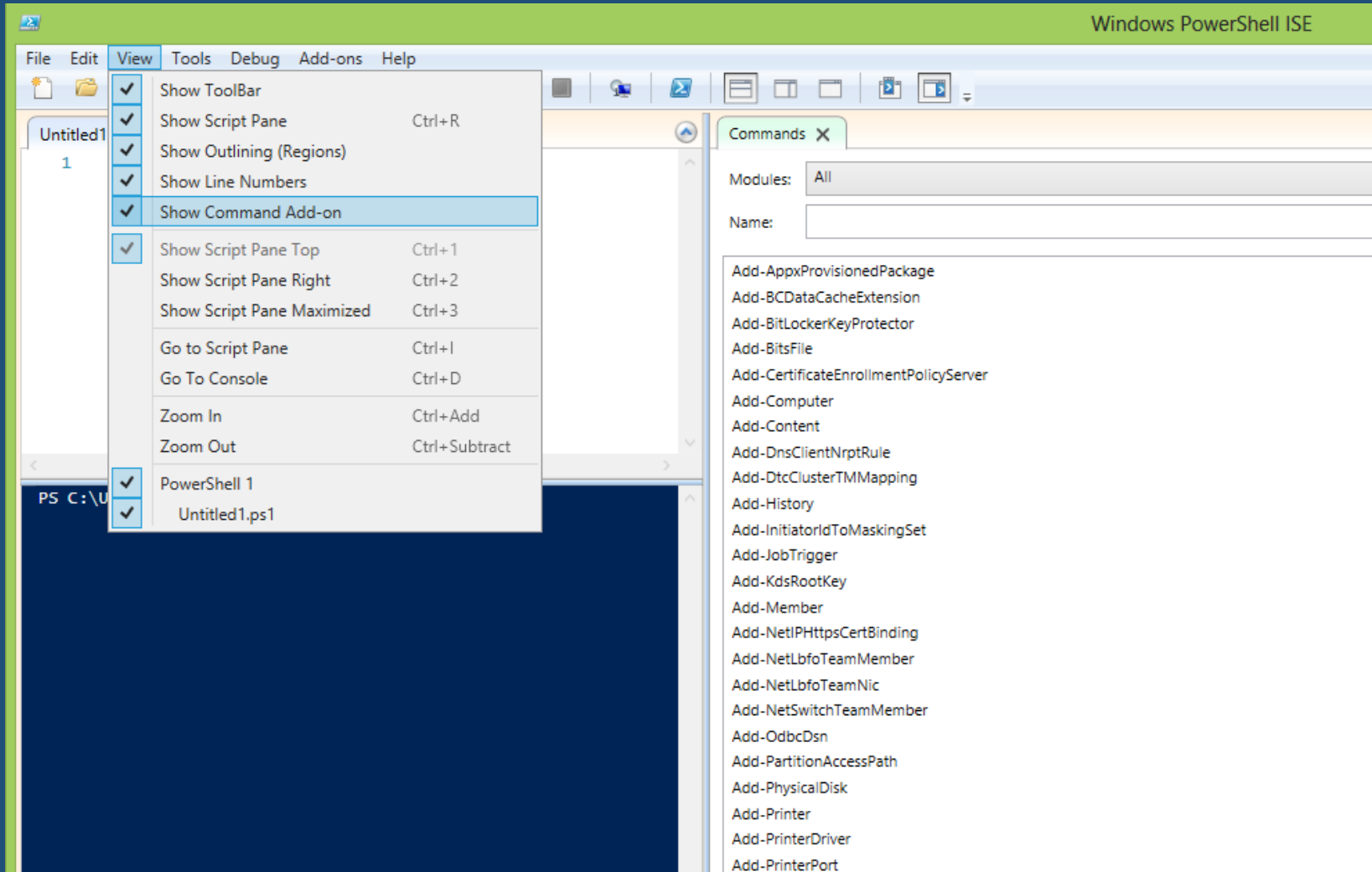
- Apps can be added / removed from Windows 8 deployment images using DISM and/or PowerShell's DISM module (Deployment Image Servicing and Management).
- For more info on DISM, lookup Mitch Tulloch.



Group Policy:

- Windows 8 comes with over 3,500 Group Policy items.
- ADMX templates can be imported to downlevel DCs in order to manage Windows 8.

PowerShell 3.0:



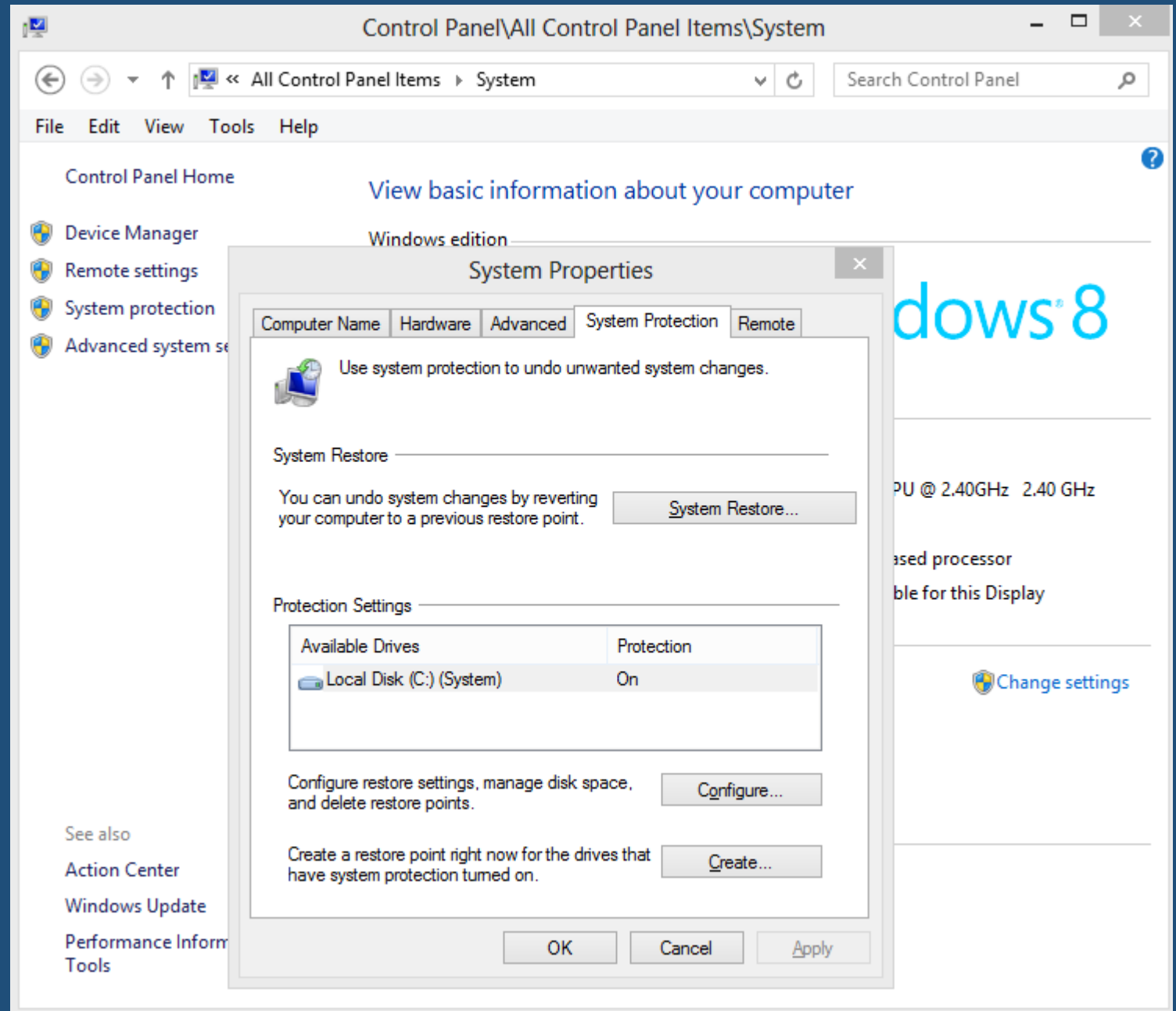
- Windows 8 comes with PowerShell 3.0, which has over 400 cmdlets out of the box¹ (PSh 1 had about 130, PSh 2 had about 240).
- Modules bring the count above 2,500
- Note the 'Show Command Add-on' feature in ISE.

1. `Get-Module -ListAvailable | Import-Module ; gcm -co cmdlet | measure`

Windows 8 features:

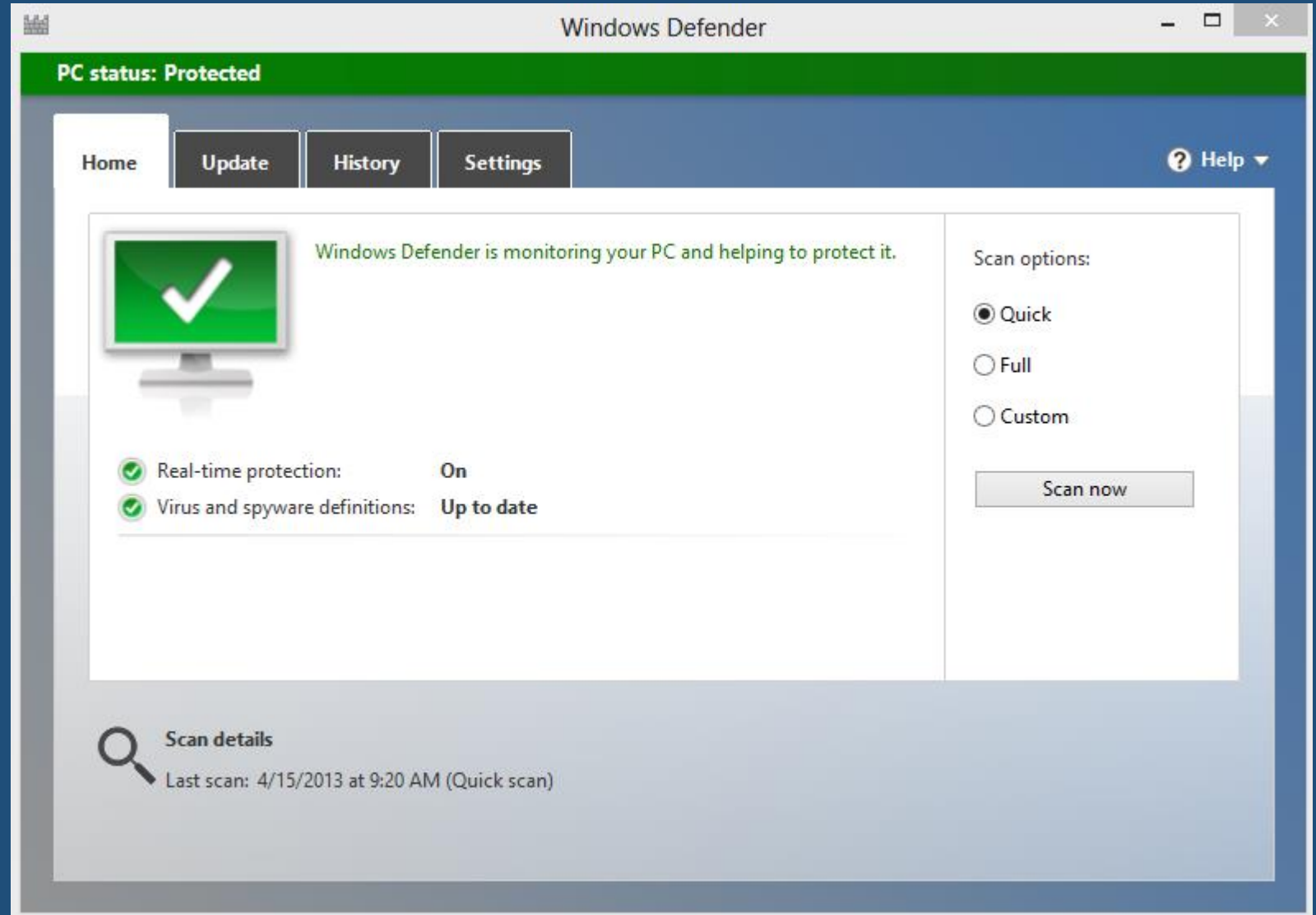
Restore Points:

- Just like in Windows 7, they can be configured locally, or by Group Policy.



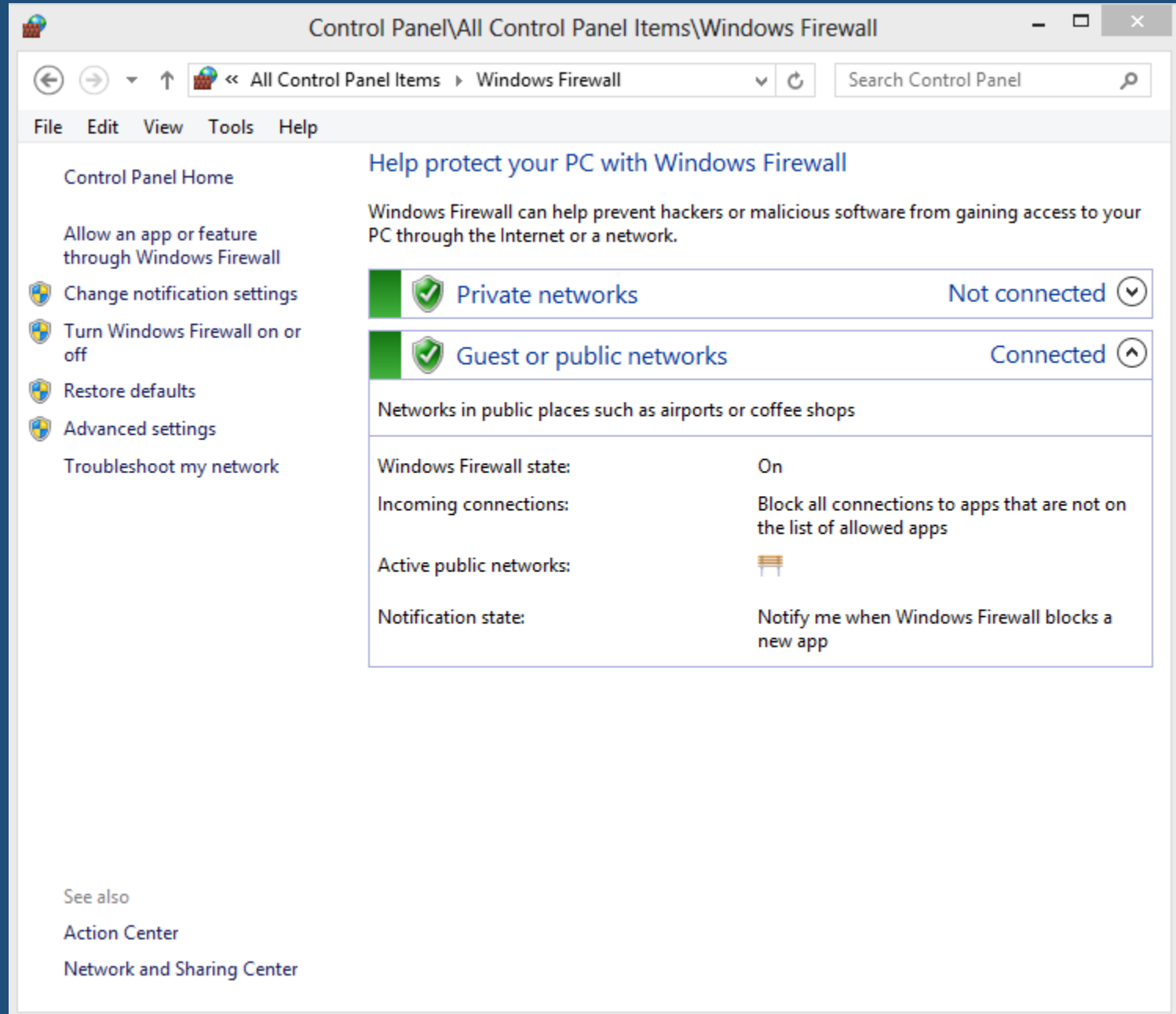
Windows Defender:

- Just like in Windows 7, it can be configured locally, or by Group Policy.
- Windows Defender is enabled by default.
- MSE (Microsoft Security Essentials) doesn't run on Windows 8.



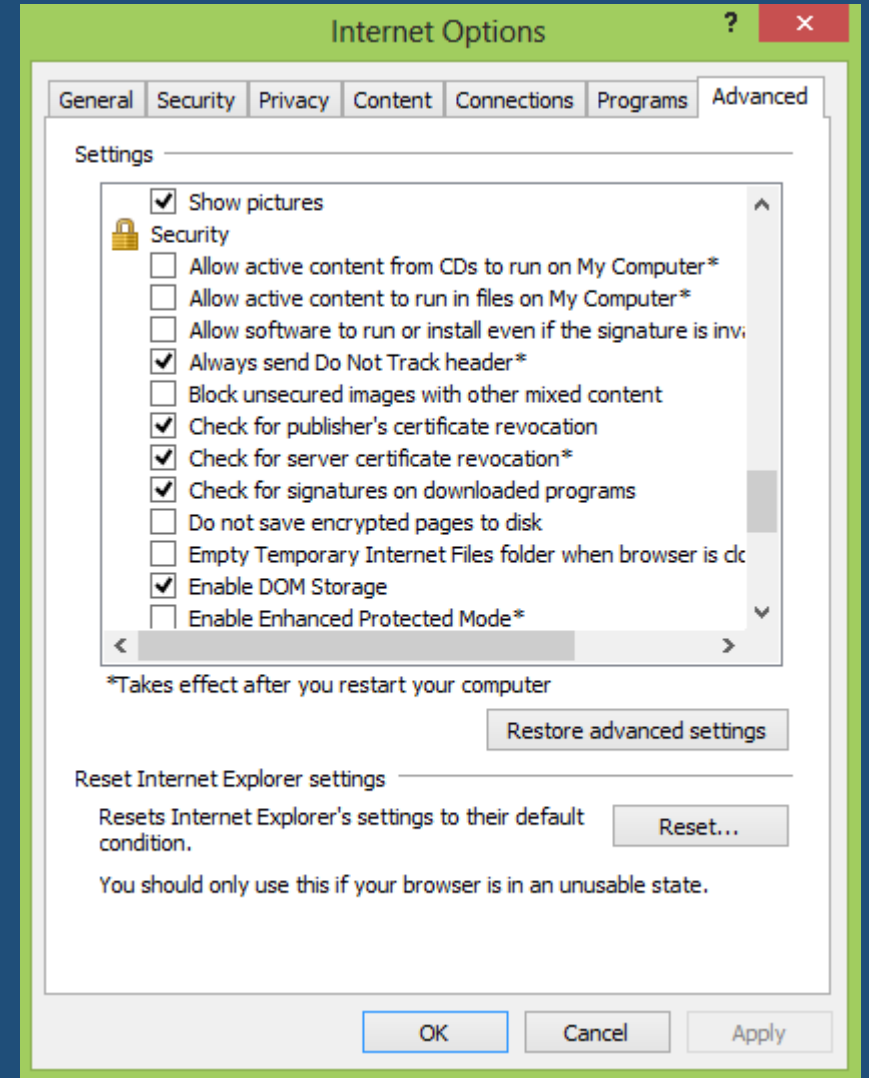
Firewall:

- Just like in Windows 7, it can be configured locally, or by Group Policy.



IE 10:

- Windows 8 App (does not allow third-party browser plug-ins)
- Windows Desktop application
- new security features
 - ‘Always send Do Not Track header’ – on by default
 - ‘Enable Enhanced Protected Mode’ – off by default – makes each tab run as an isolated 64 bit process (less compatible)
- highly manageable with Group Policy (over 1,500 Group Policy items for IE 10)



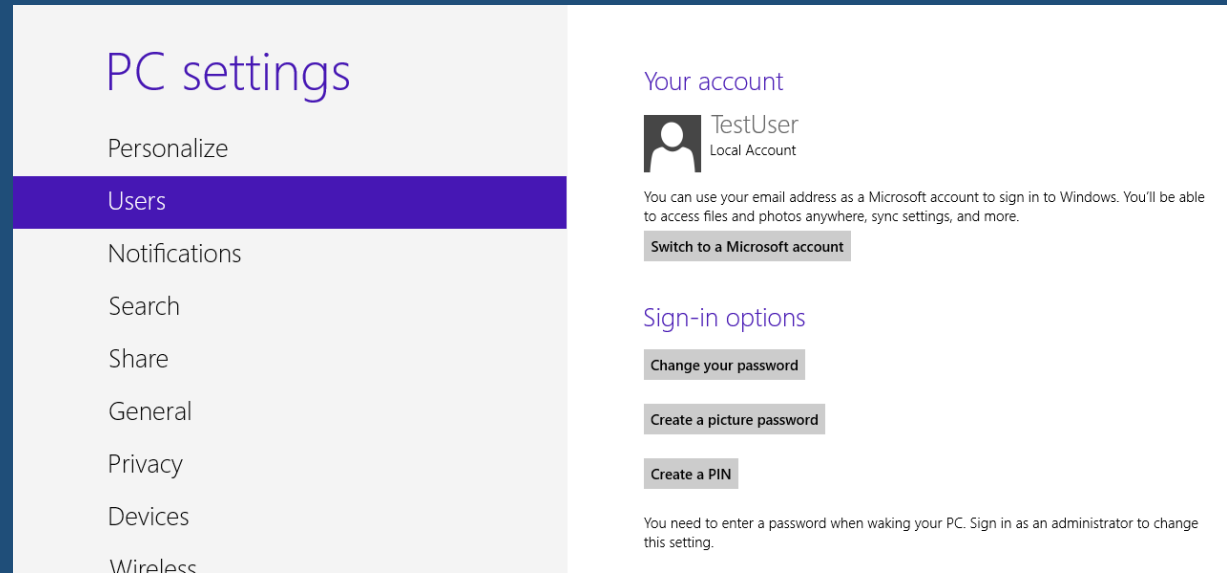
Fast startup (because of hybrid shutdown):

- By default, when Windows 8 shuts down it closes the user sessions and hibernates¹ the kernel session.
- Ways to do a full shutdown:
 - disable fast startup in local power options or by Group Policy
 - restart
 - use 'shutdown /s /t 0'
- Warning: Fast Startup causes startup and shutdown scripts to not be run!

1. system state is sent to disk

Domain Accounts, Local Accounts, & Microsoft Accounts:

- Users can link their Domain, or Local Account to their Microsoft Account.
- Integrated access to Apps that use a Microsoft account (social media, SkyDrive, etc.).
- Users can save preferences, settings, Favorites, etc. to the cloud, so preferences and settings follow the user from device to device.
- Can be configured locally or by GPO.

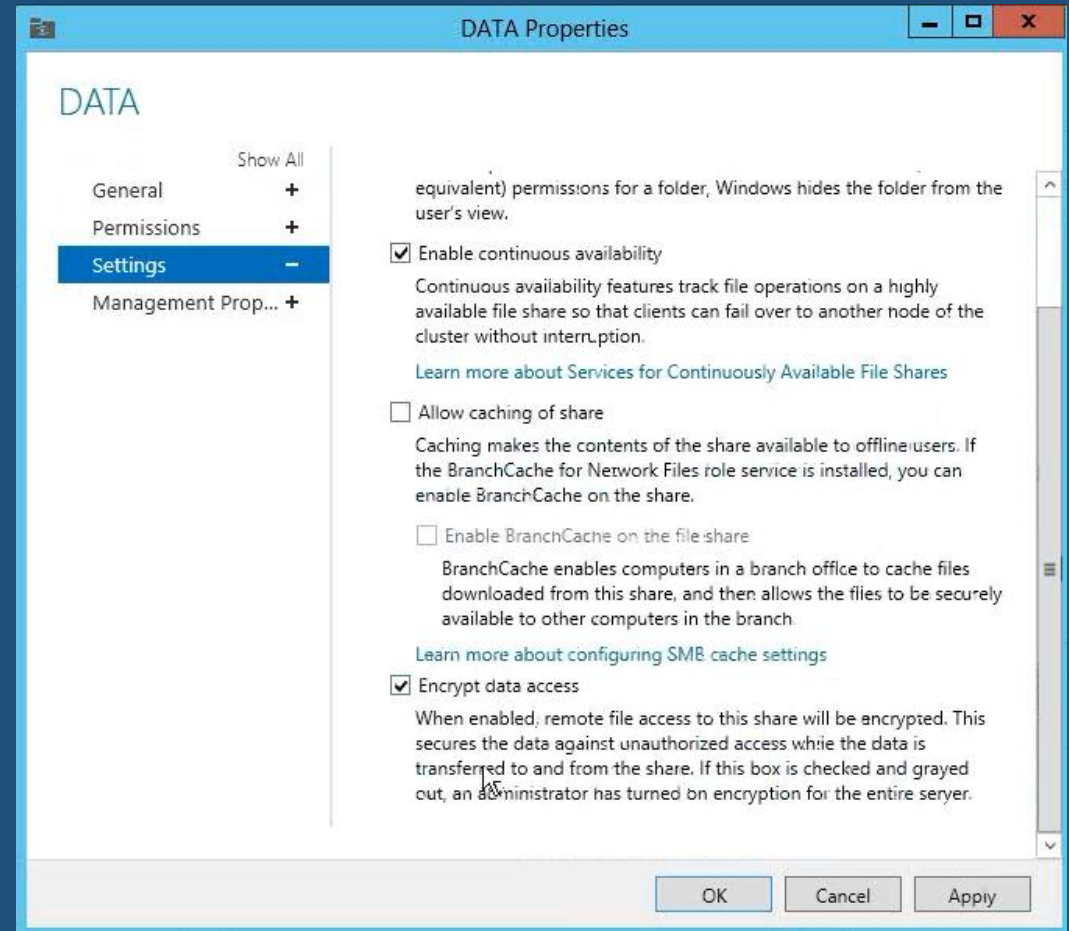


IPv4 and IPv6 dual stack:

- Microsoft's recommendation and official support stance is to leave IPv6 enabled, even in a predominantly IPv4 environment.
- Certain features of Windows 8, like DirectAccess, require IPv6 to be enabled.
- Leaving IPv6 enabled helps 'future-proof' your Windows 8 deployment.

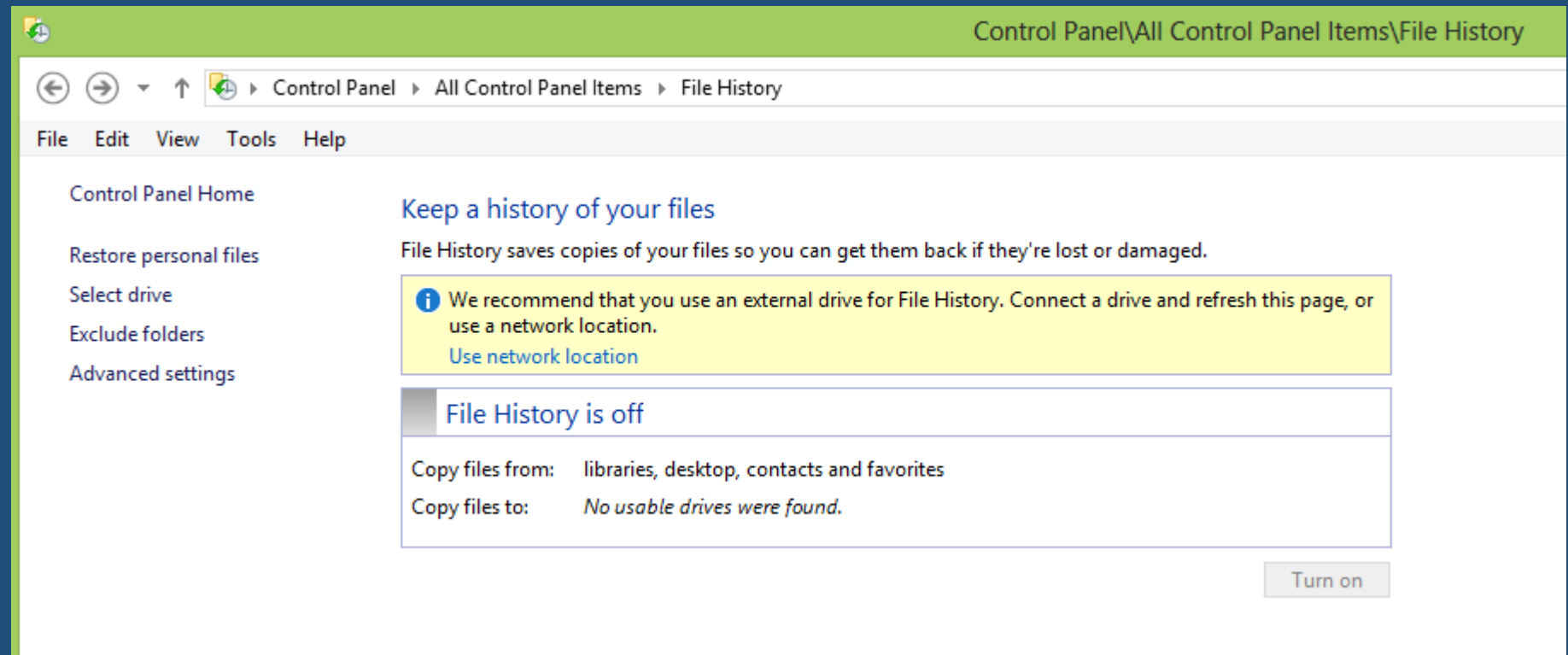
SMB (Server Message Block) 3.0:

- Windows 8 when used with Server 2012:
 - SMB Direct – Fibre Channel speeds by using RDMA (Remote Direct Memory Access)
 - SMB Directory leasing – more efficient caching
 - SMB Multichannel – multiple network paths are used when available
 - SMB Continuous Availability – continuous availability of clustered file shares, even during failovers
 - SMB Encryption – single click security

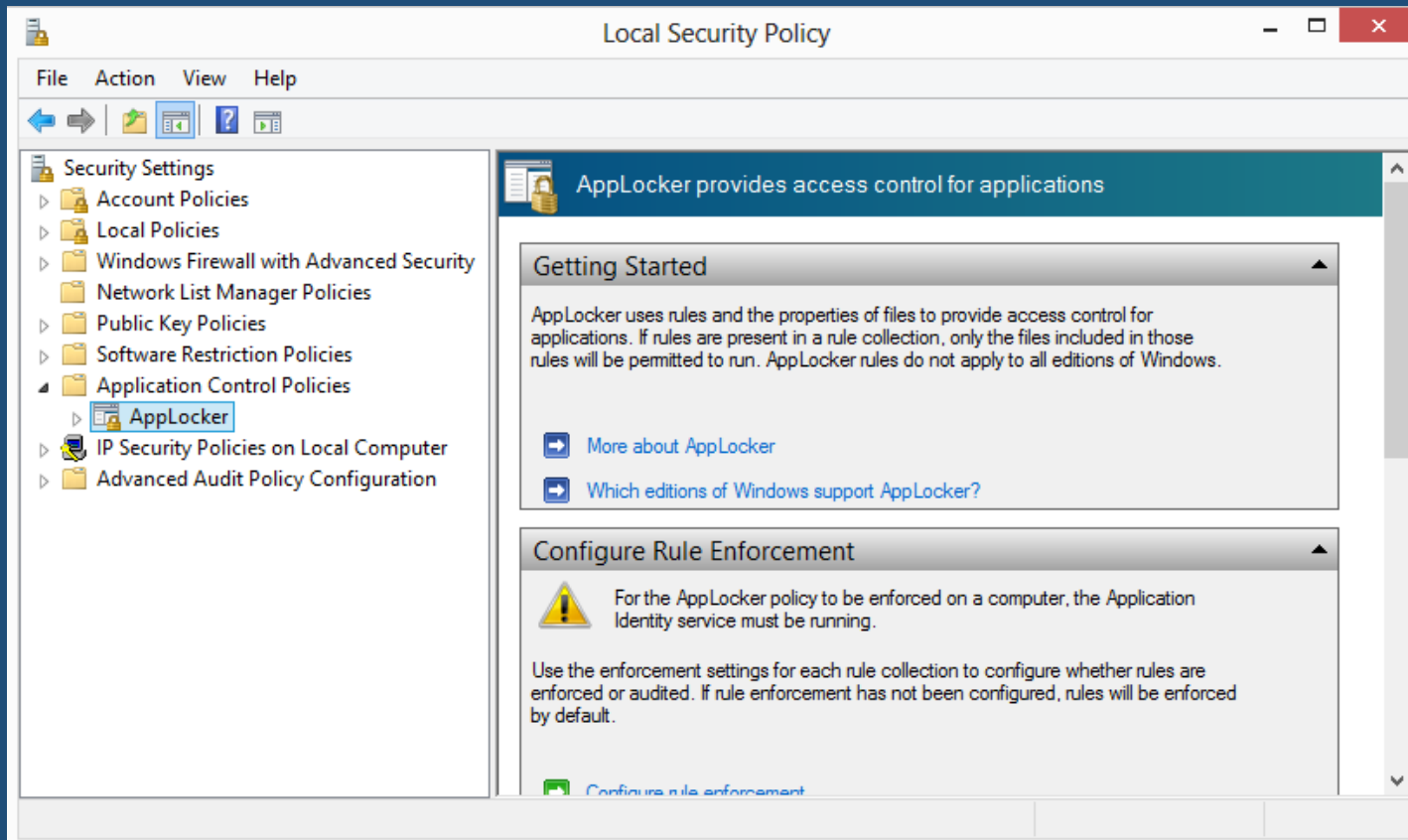


File History:

- Stores previous versions of user files (not OS, not system state)
- Reduces the number of normal, end-user data restore requests
- Controlled by local Control Panel, or GPO
- Recommend using an external drive or a network share (but you can also *cheat* and use a local share)



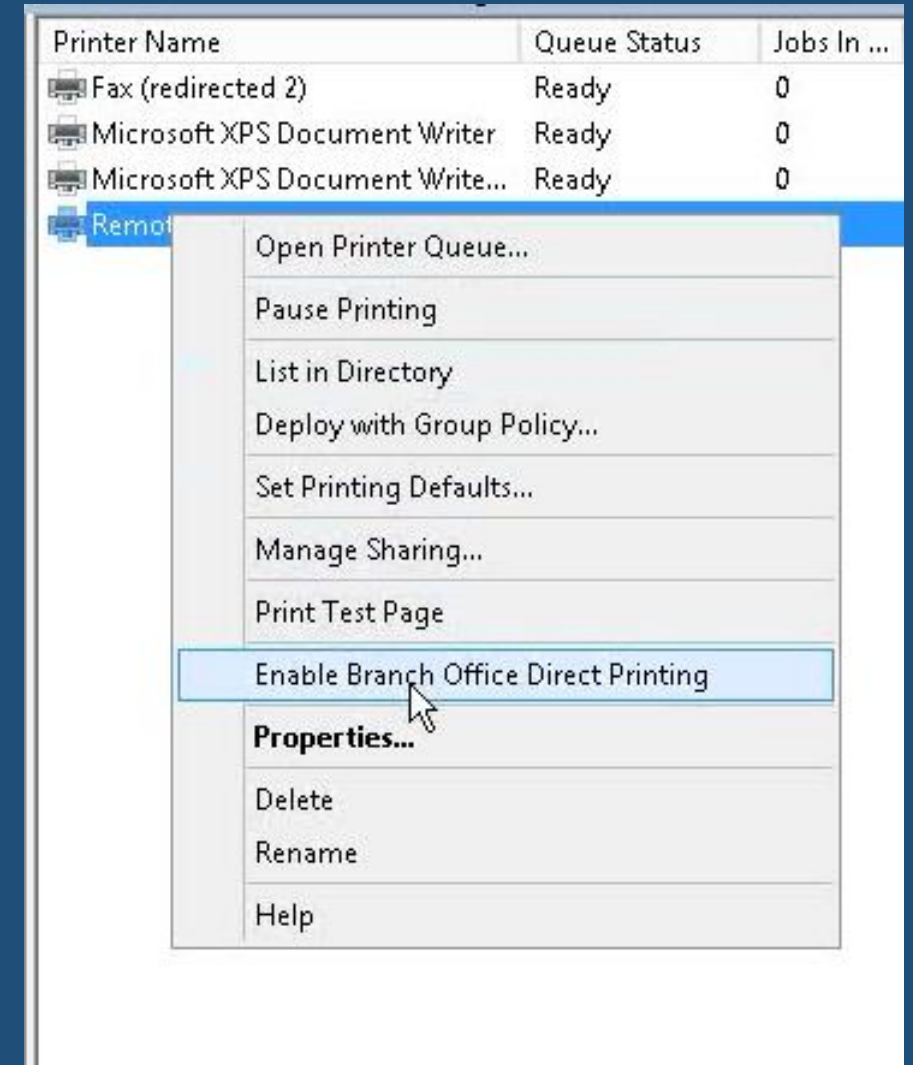
AppLocker:



- AppLocker can control:
 - executable files (.exe and .com)
 - scripts (.js, .ps1, .vbs, .cmd, and .bat)
 - DLL files (.dll and .ocx)
 - Windows Installer files (.msi and .msp)
 - Packaged Apps, packaged App installers
- AppLocker is configured with Local Security Policy, GPO, and, of course, PowerShell.

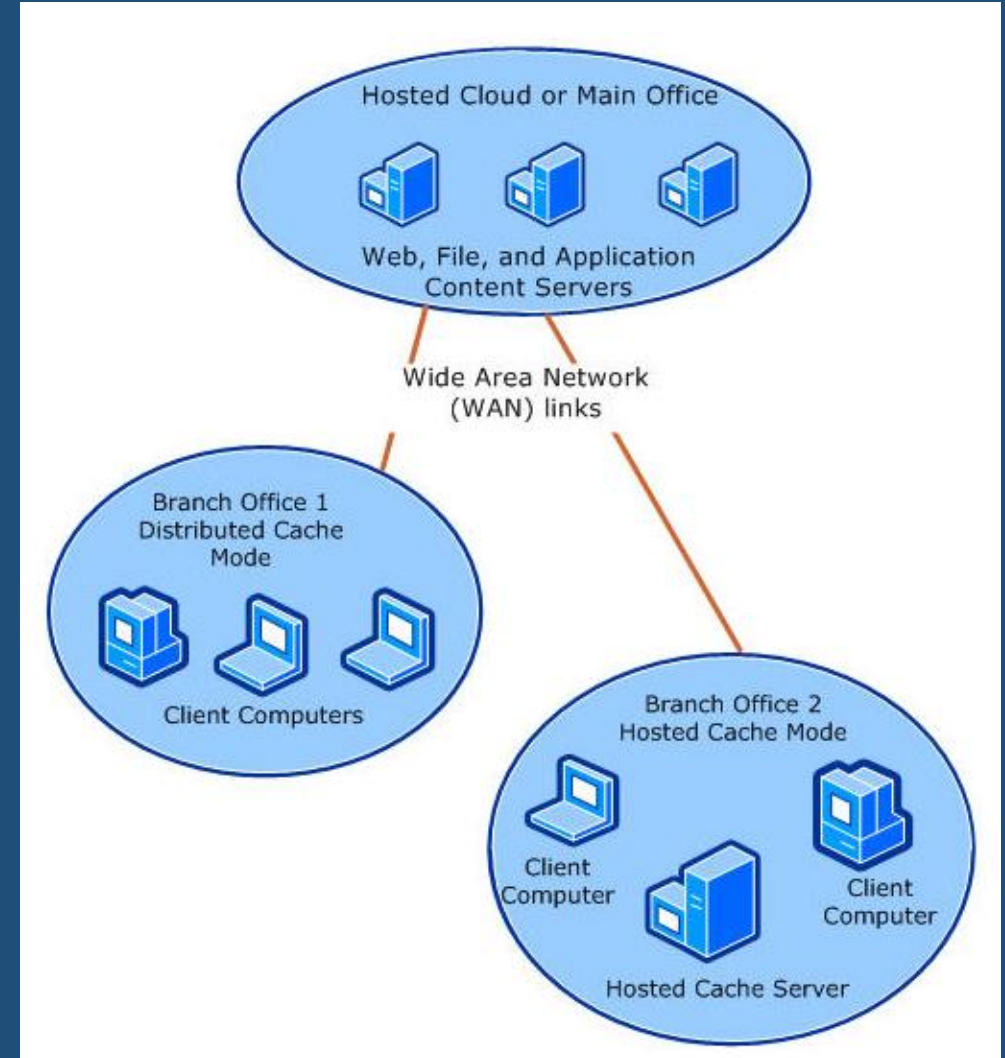
Branch Office Direct Printing:

- Windows 8 clients can print directly (once permissions have been verified) to a local print device controlled by a remote Server 2012 print queue, instead of SPOOLing the job across the WAN to the Server 2012 print queue and then back down to the local print device.
- Simply enable 'Branch Office Direct Printing' on the Sever 2012 print queue.



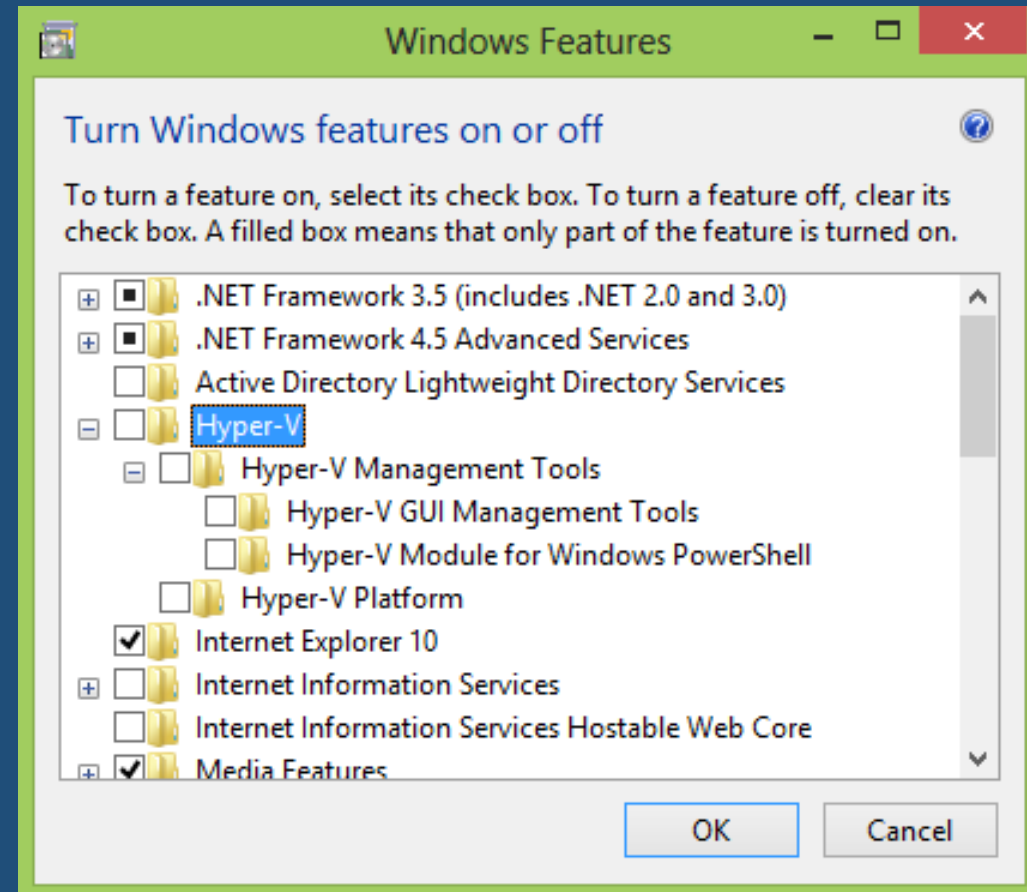
BranchCache:

- Distributed Cache mode is for small, single subnet remote office locations.
- Each client caches their frequently accessed content blocks in a local content cache and then shares this cache with other BranchCache-enabled clients on the local subnet via a peer distribution protocol. BranchCache-enabled clients dynamically discover and share this “distributed” cache with other BranchCache-enabled clients.

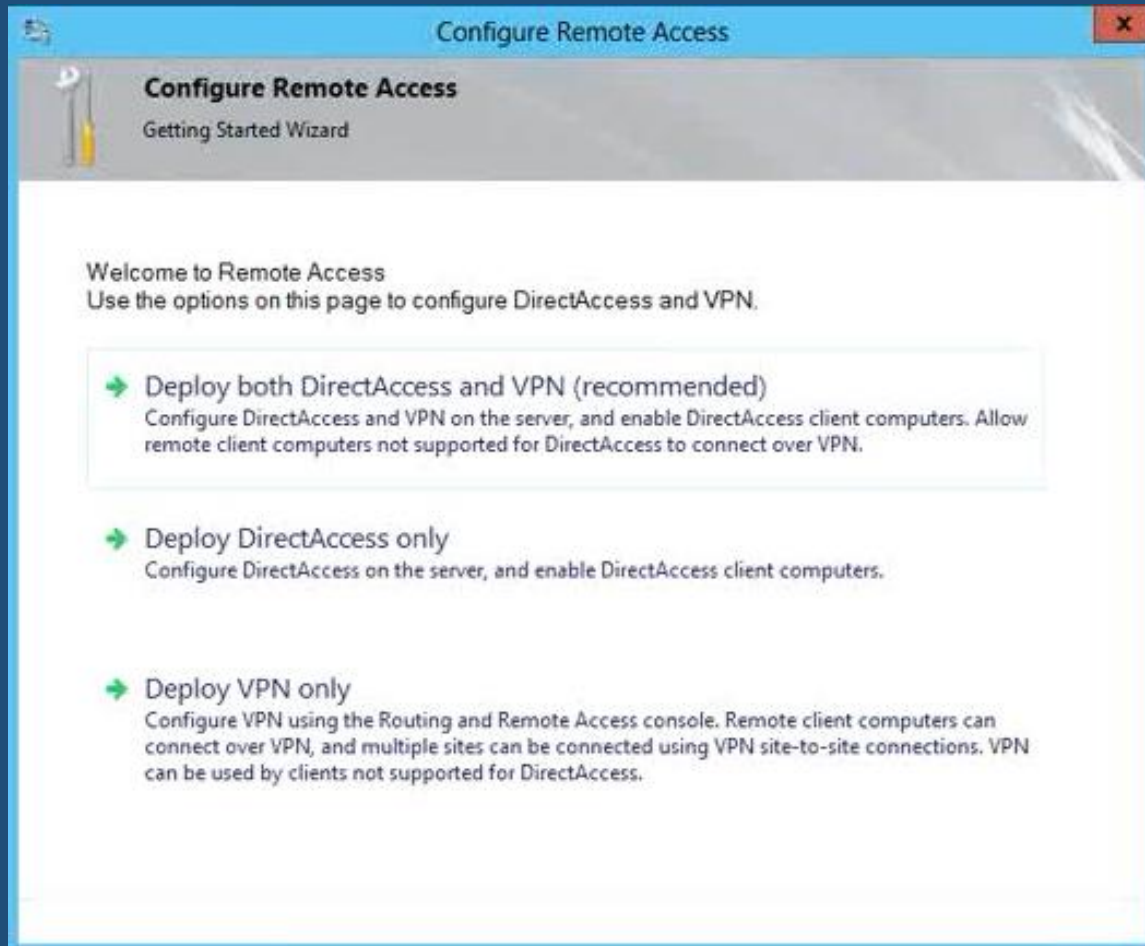


Client Hyper-V:

- Windows 8 Pro and Enterprise both have a client version of Hyper-V (no clustering, live migration, replication, etc.).
- There's no limitation on the number of VMs, but unlike Server 2012 Windows 8 doesn't include any free licenses.
- Hyper-V is not enabled by default, but it's quick and easy to enable it.



DirectAccess:



- requires Windows 8 Enterprise and Server 2012
- 'always-on VPN' that uses normal AD authentication whenever the client has an Internet connection (but can be augmented with certificates or multi-factor authentication)
- allows users to access resources, but also allows IT pros to have more frequent management access to the Windows 8 clients
- unlike Windows 7, Windows 8 already comes with all of the Direct Access components installed

Windows To Go:

- it's 'Windows 8 on a stick' (USB 2.0 or 3.0 mass storage, on BIOS or UEFI)
 - contractors / BYOD / work from home users
 - mass storage must be on the approved list, mostly for I/O specs (http://technet.microsoft.com/library/hh831833.aspx#wtg_hardware)
- in the Windows 8 Enterprise Control Panel, WTG puts a Windows 8 Enterprise WIM (Windows Imaging Format) on the storage device
- MS Deployment Toolkit 2012 can be used to customize the WIM file
- security:
 - Bitlocker capable
 - administrators can disable user account and computer account when done, restrict logon hours, etc.
 - system pauses if USB removed, resumes if reinserted within one minute, else shuts down after one minute

Resources:

- Microsoft Official Curriculum:
 - course 55032A: Getting Started with Windows 8
 - course 20689A: Upgrading Your Skills to MCSA Windows 8
- TechNet Virtual Labs:
<http://technet.microsoft.com/en-us/virtuallabs/ee862412>
- Microsoft Virtual Academy:
<http://www.microsoftvirtualacademy.com/Studies/SearchResult.aspx?q=windows%2b8>
- Windows 8 Jumpstart:
<http://technet.microsoft.com/en-us/windows/jj687764.aspx>
- Try Windows 8, risk free! (on QSI's Tom Walters' blog)
<http://twaltersmct.wordpress.com/2012/09/28/try-windows8-risk-free-part1/>

Thank you!