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	☑	☑
Boot from VHD	☑	☑
Client Hyper-V	☑	☑
Domain Join	☑	☑
Group Policy	☑	☑
Encrypting File System	☑	☑
Remote Desktop (host)	☑	☑
Windows To Go		☑
DirectAccess		☑
BranchCache		☑
AppLocker		☑
Virtual Desktop Infrastructure (VDI)		☑

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.

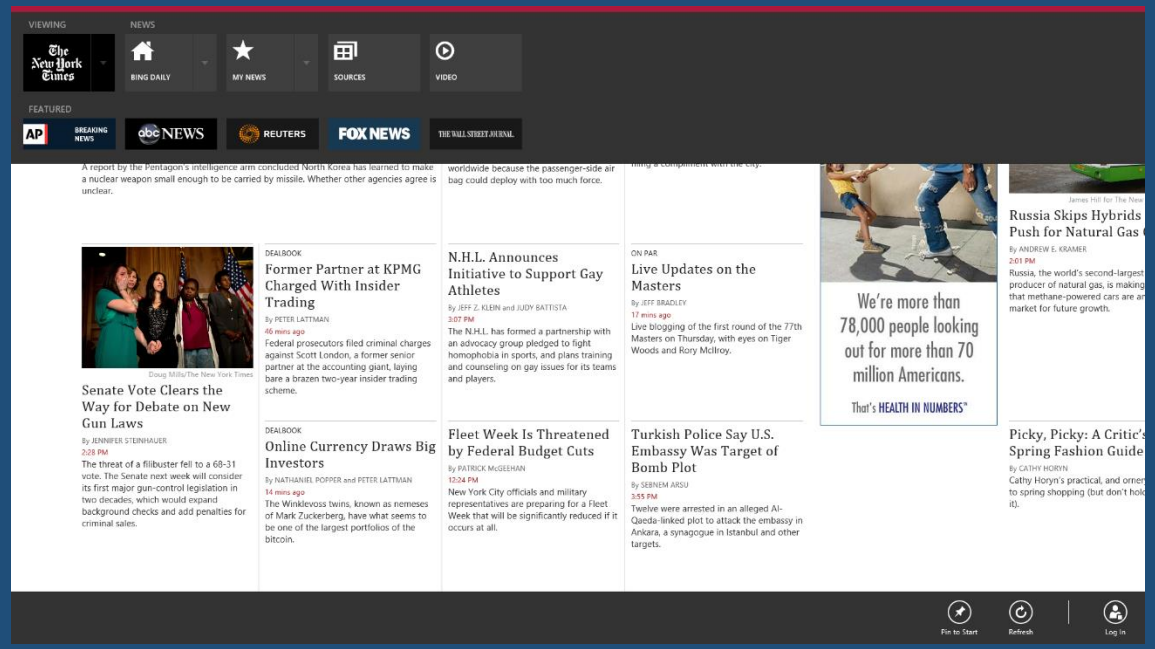
Note: During this presentation we'll use the term 'Apps' to refer to Windows 8 Apps, and 'applications' to refer to Windows Desktop applications.

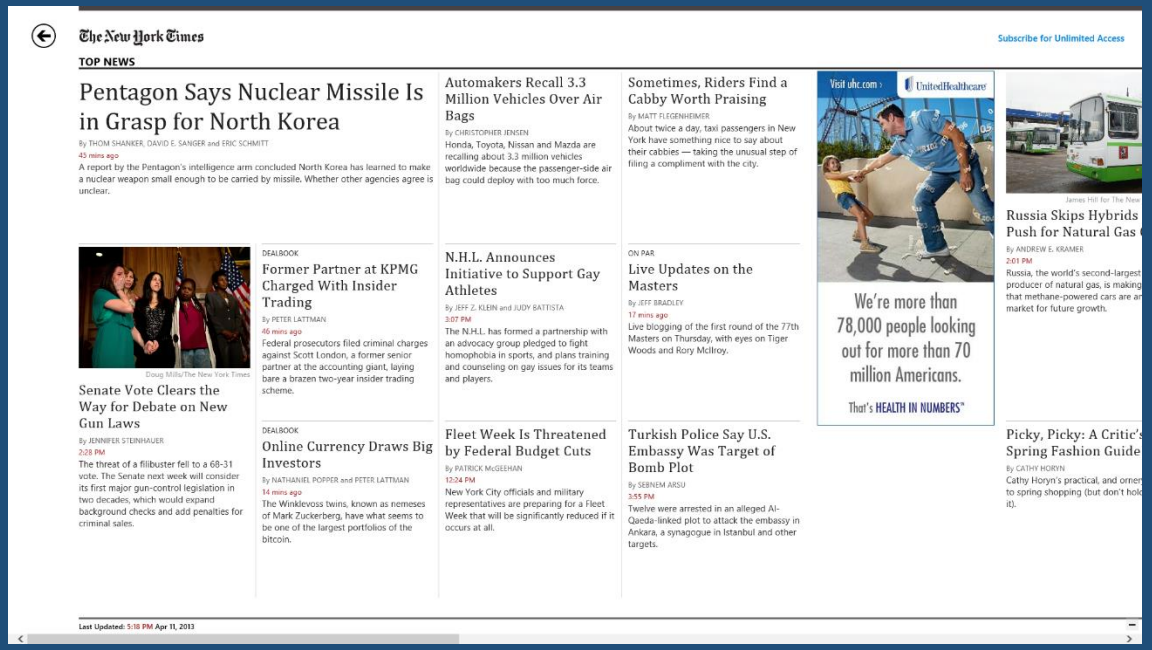
Desktop UI:

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

Modern UI:

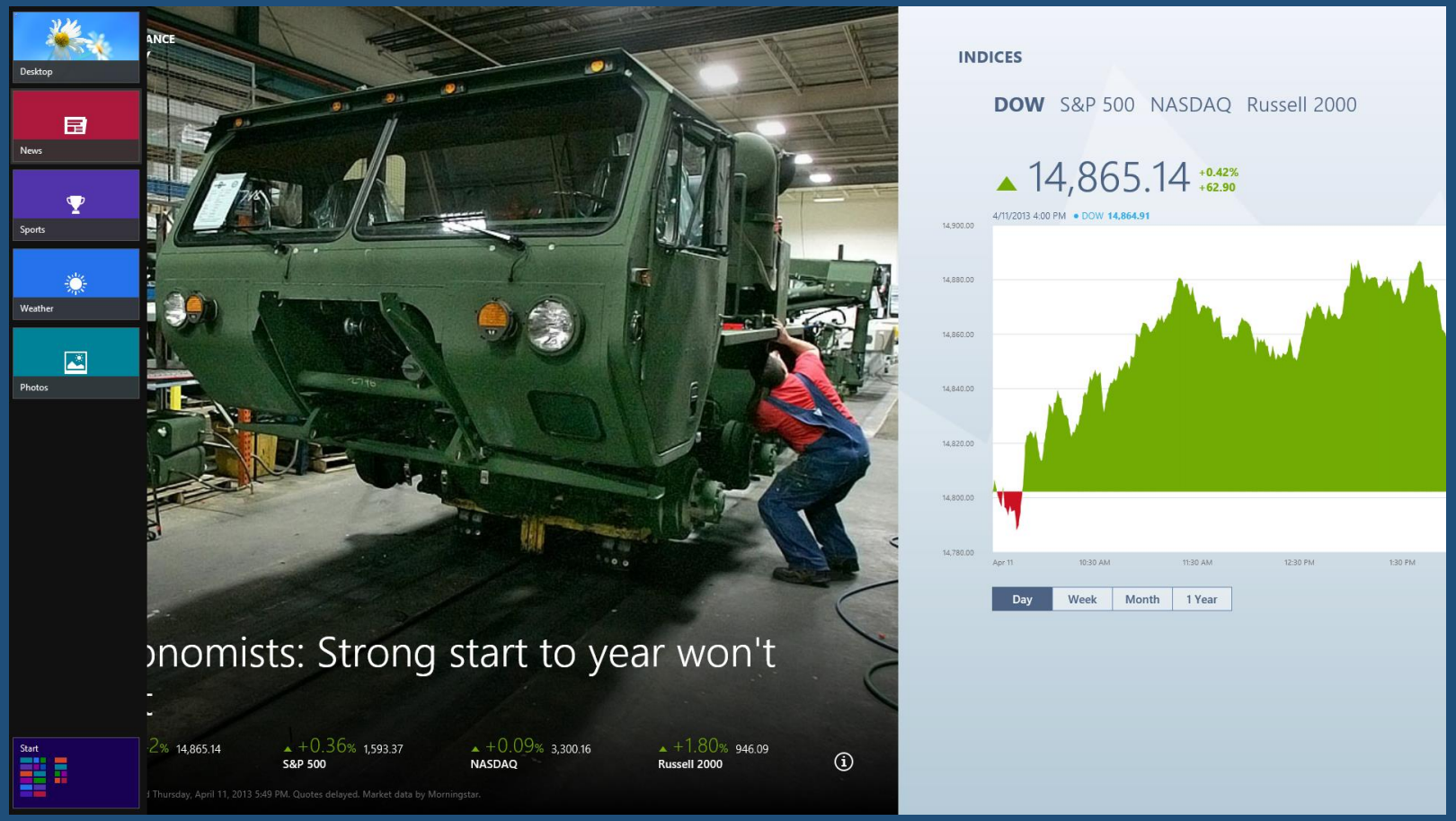
- Windows 8 Apps use the Modern UI.
- The Modern UI uses ‘App Bars’ – RC the screen, and they appear at the top and bottom of the screen.
- The Modern UI uses zoom – a ‘-’ in lower right corner of the screen.





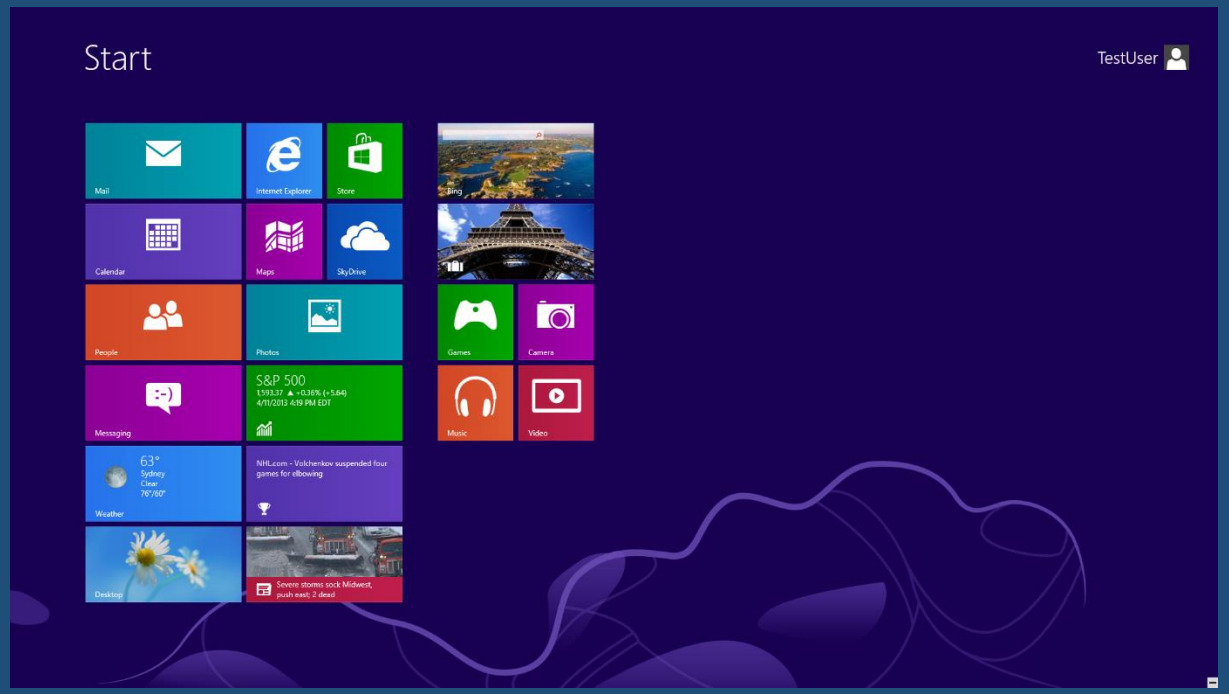
Listing the Windows 8 Apps that are running:

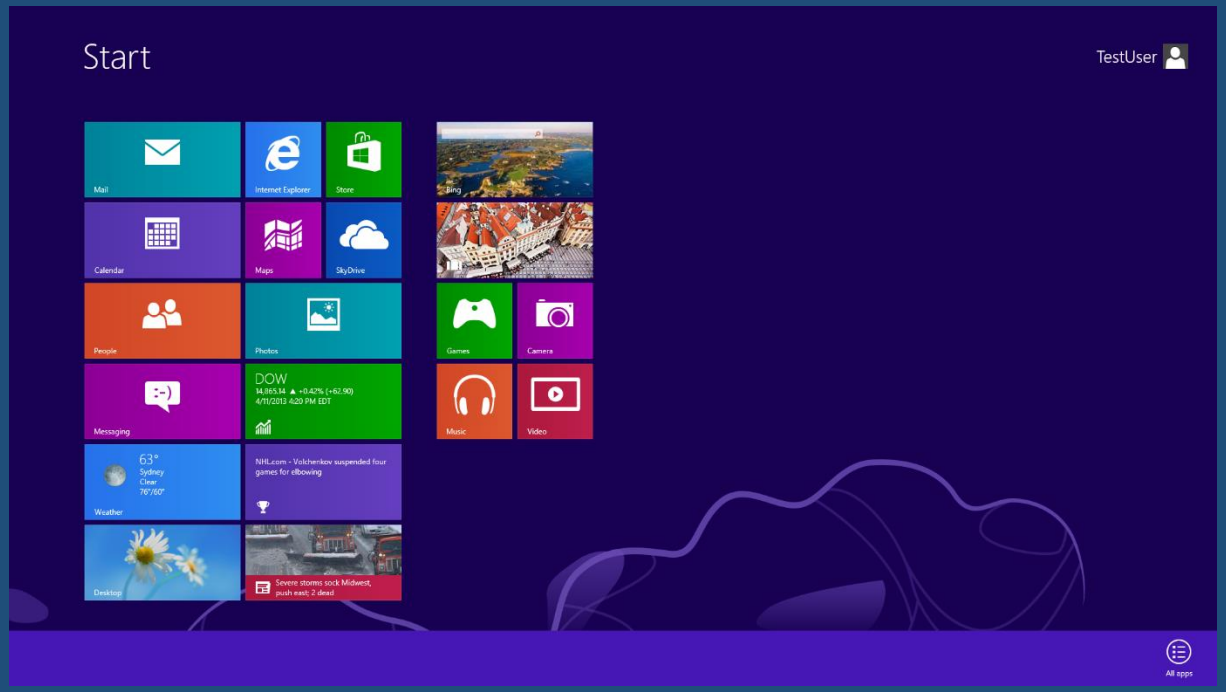
- Mouse to the upper left corner, then down.
- RC an App and LC ‘close’ to close it.
- Note that the ‘Start Screen’ is listed at the bottom (it’s actually a Windows 8 App).



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



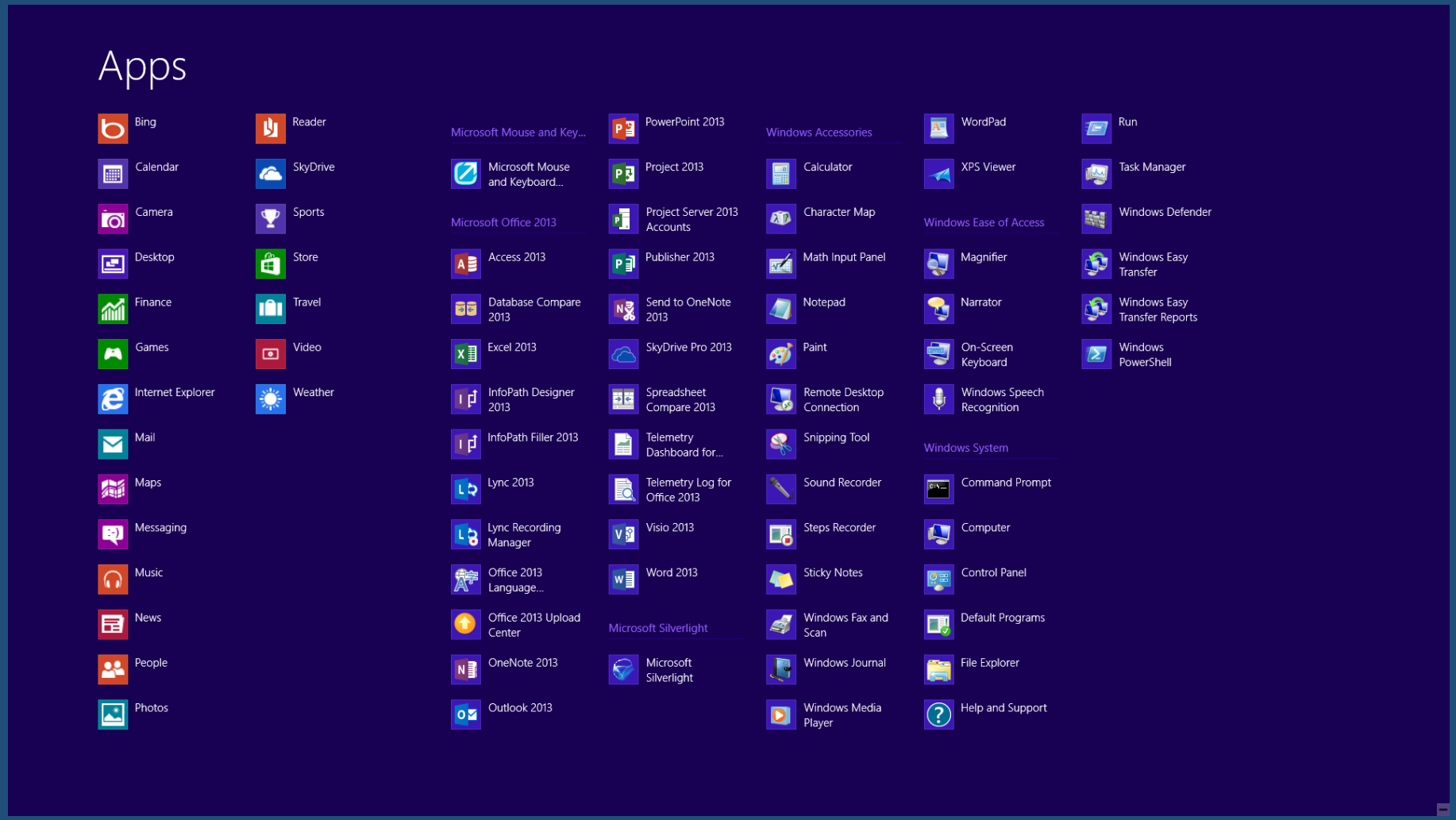


Start Screen tiles and groups (i.e. creating your own dashboard):

- 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’:

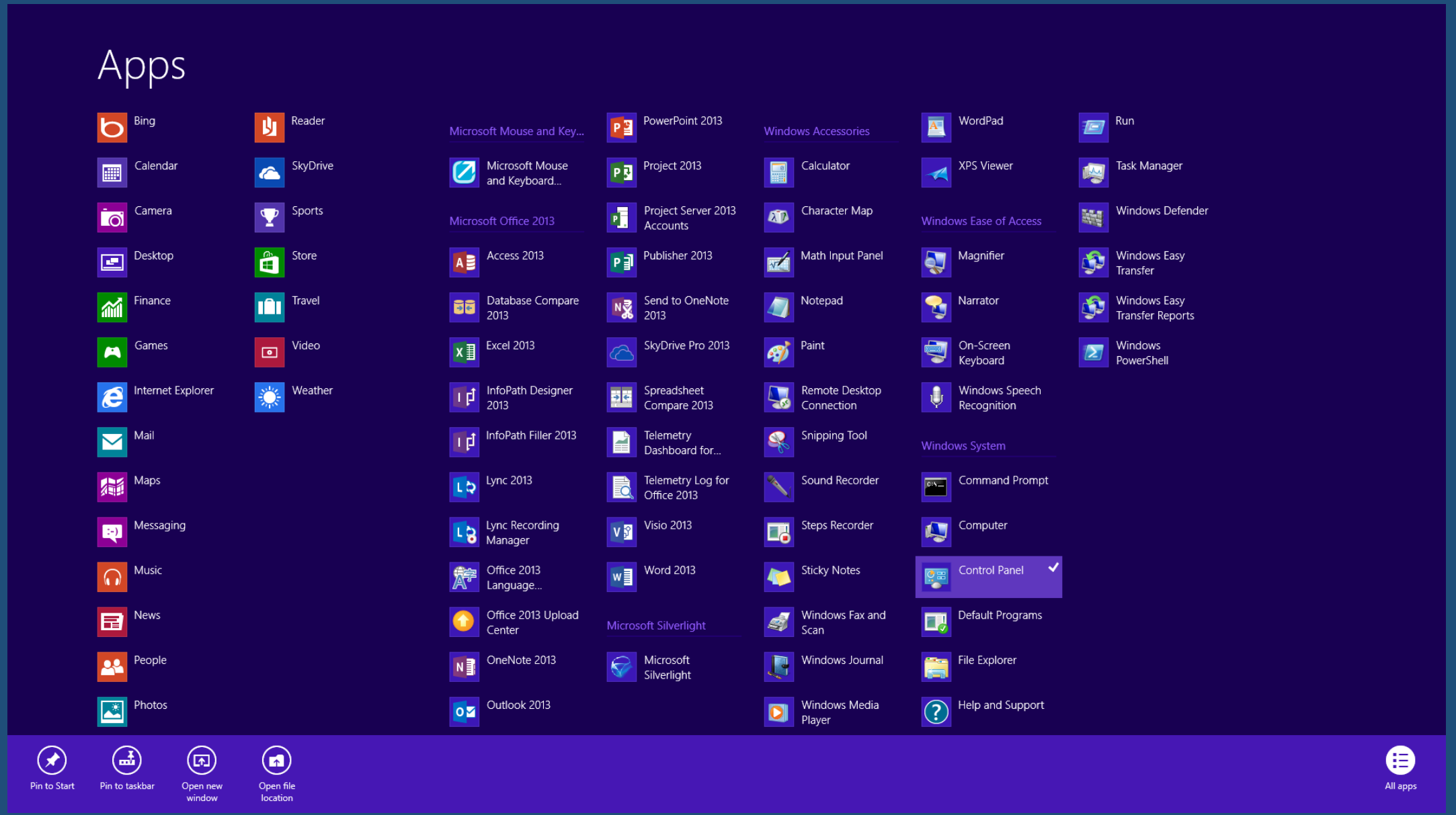
- Windows 8 Apps appear on left
- Windows Desktop applications appear the right
- ‘Flattened’ Windows 7 Start Menu, complete with program groups



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’:

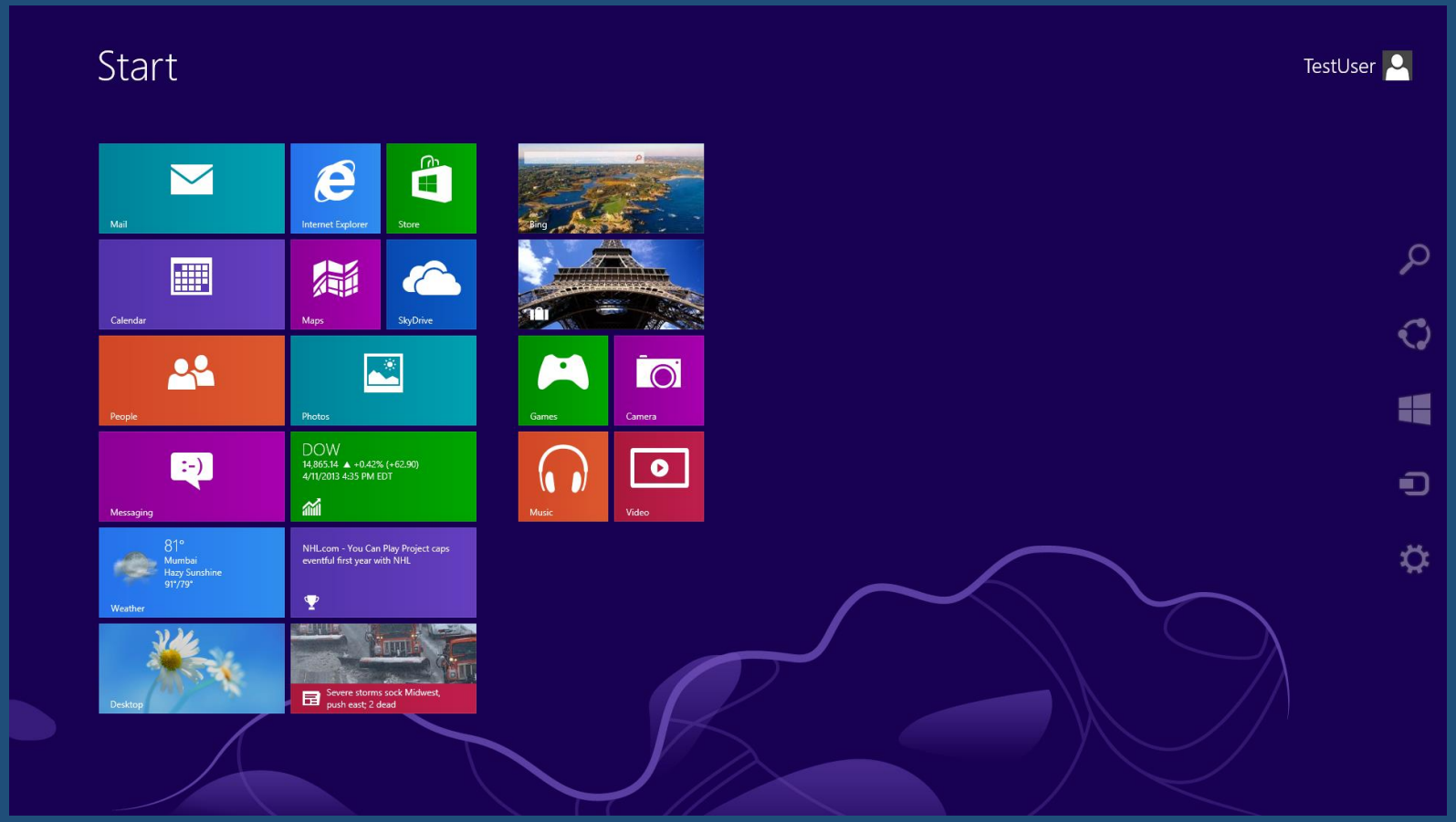


Calling up the Start Screen:

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:

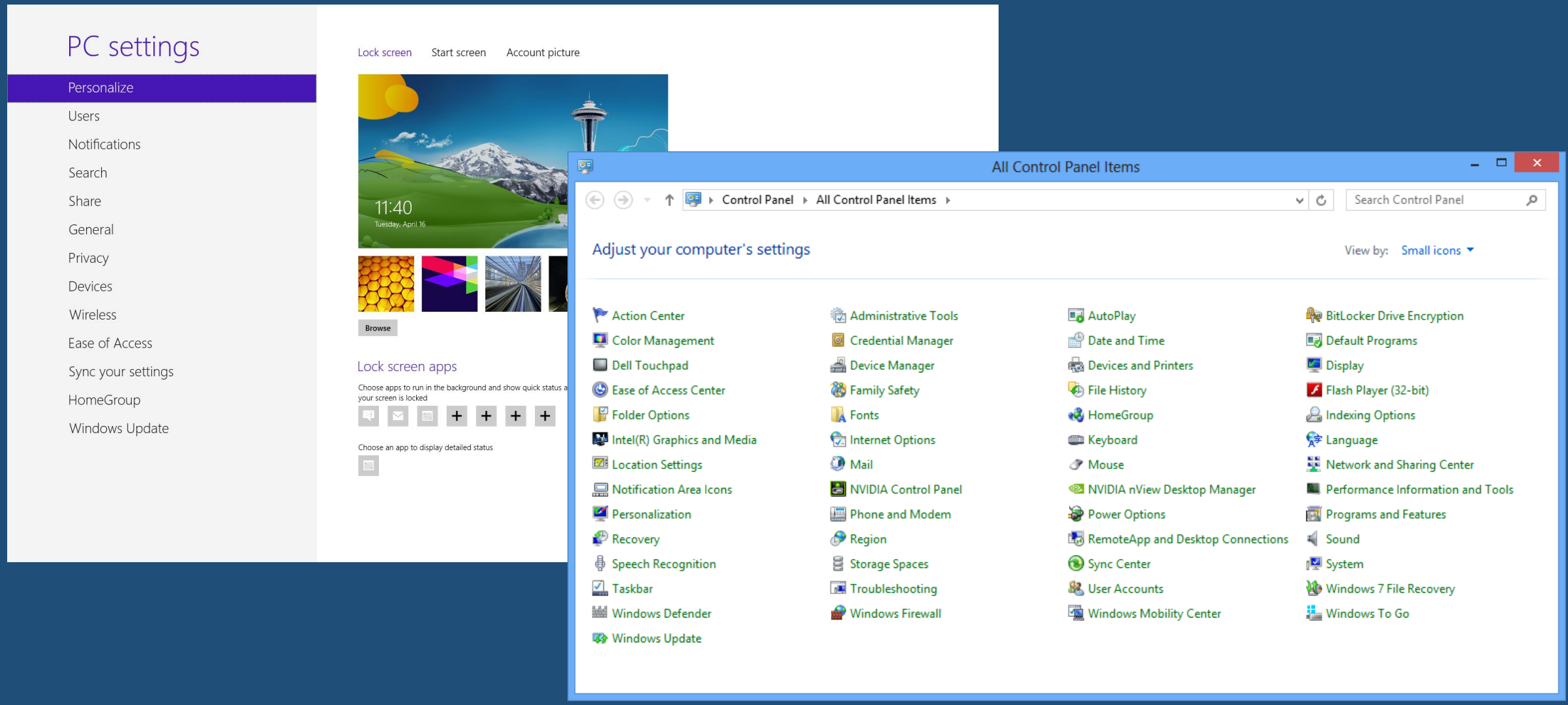
- Win – switch between Start Screen and the last App or application
- Win+D – bring up the Desktop
- Win+R – Run
- Win+X – bring up the eXpert menu (an abbreviated Start Menu)
- Win+Tab – scroll between open Apps
- Alt+Tab – scroll between both open Apps and applications

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’:



Shutting down[1]:

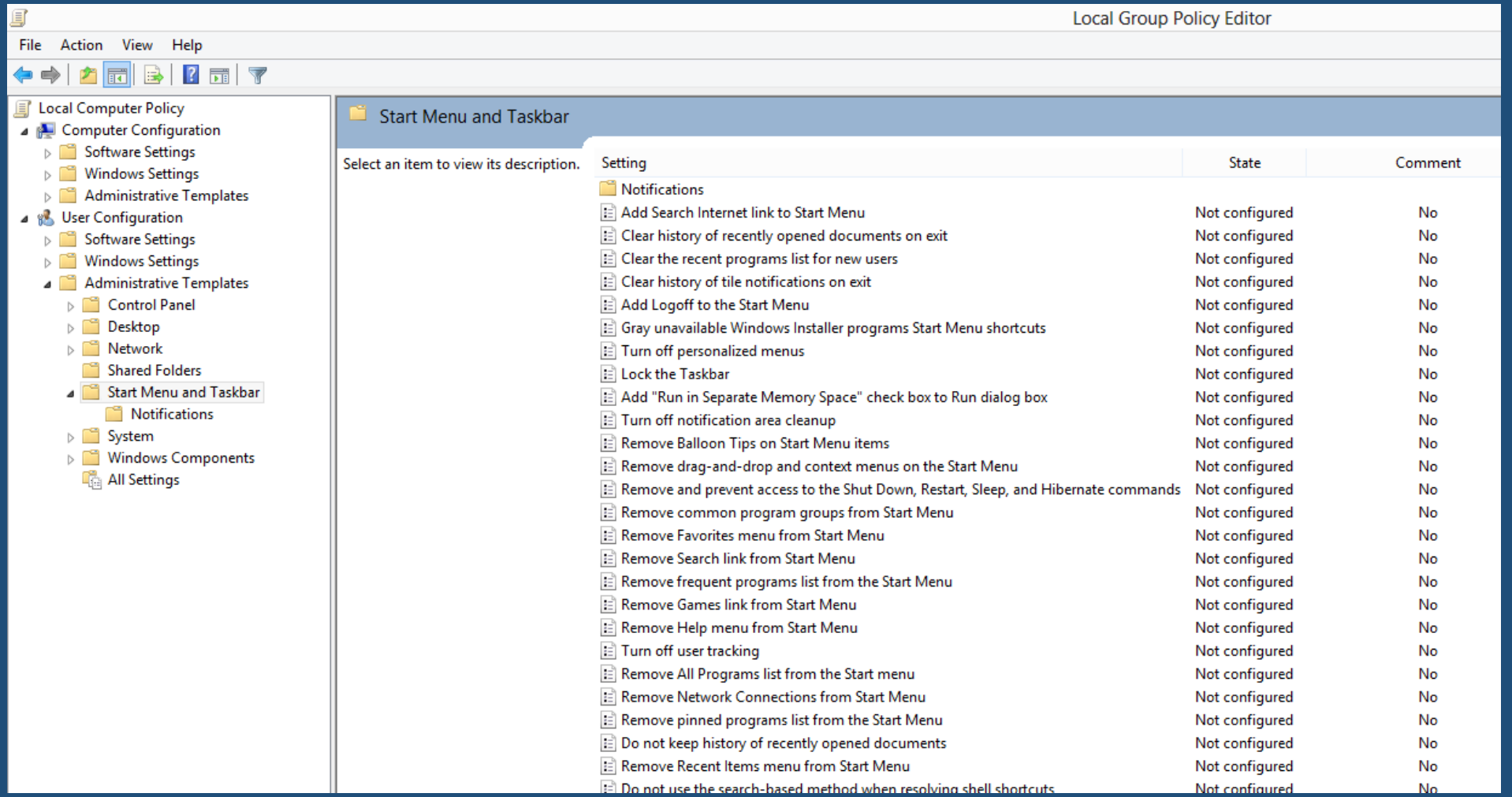
- Settings Charm (3 clicks)
- Win+i (2 keys, then two clicks)
- Control+Alt+Delete (3 keys, then two clicks)
- Shutdown command (lots of clicks and keys)
- Use PowerShell to create Shutdown, Restart, and Logoff Tiles (http://gallery.technet.microsoft.com/scriptcenter/Create-a-ShutdownRestartLog-37c8111d)

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

Managing Windows 8 in the enterprise:

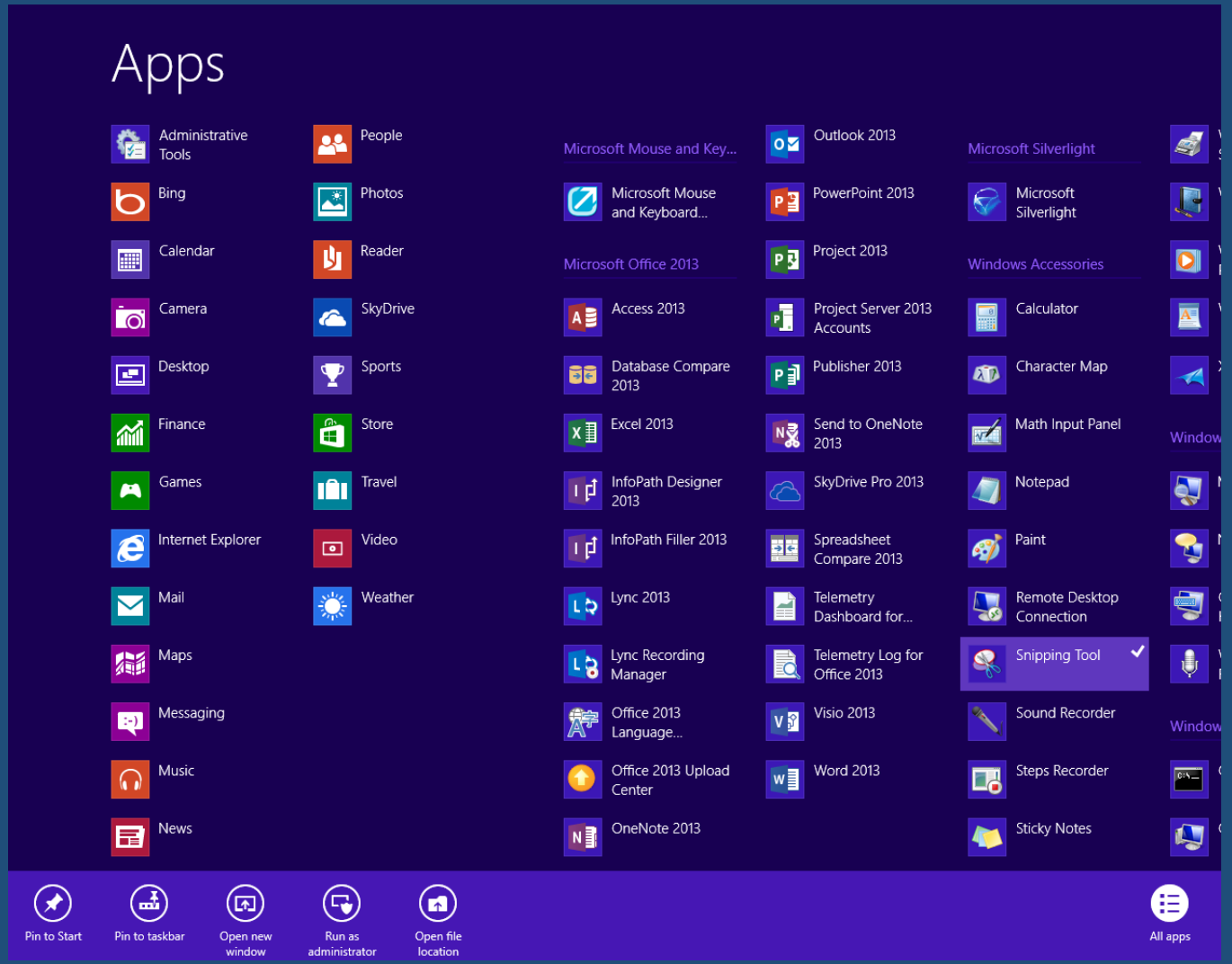
Managing the ‘All apps’ screen, and Taskbar with Group Policy:

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



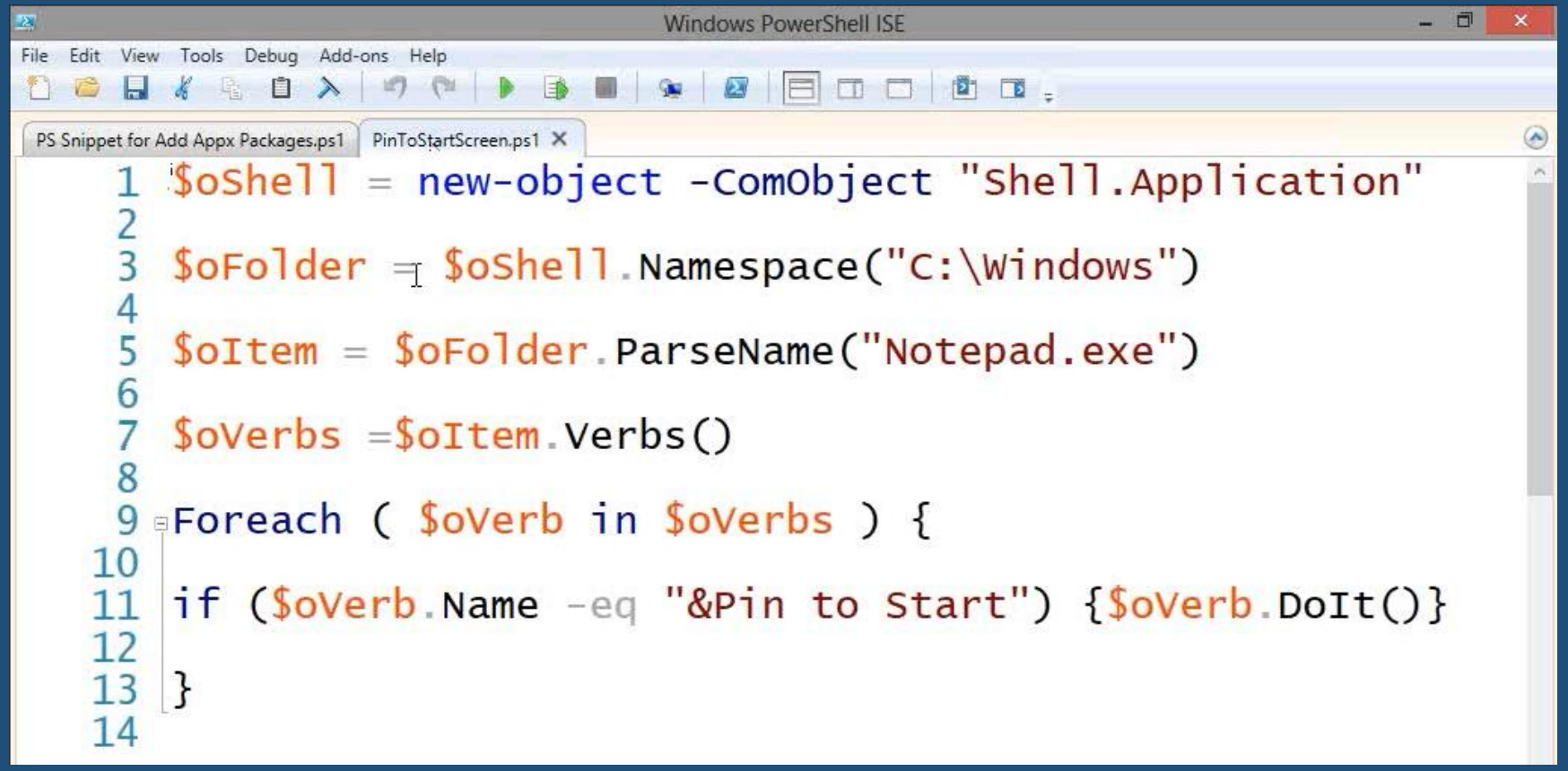
End-users can customize their Start Screen, and Taskbar:

- 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.

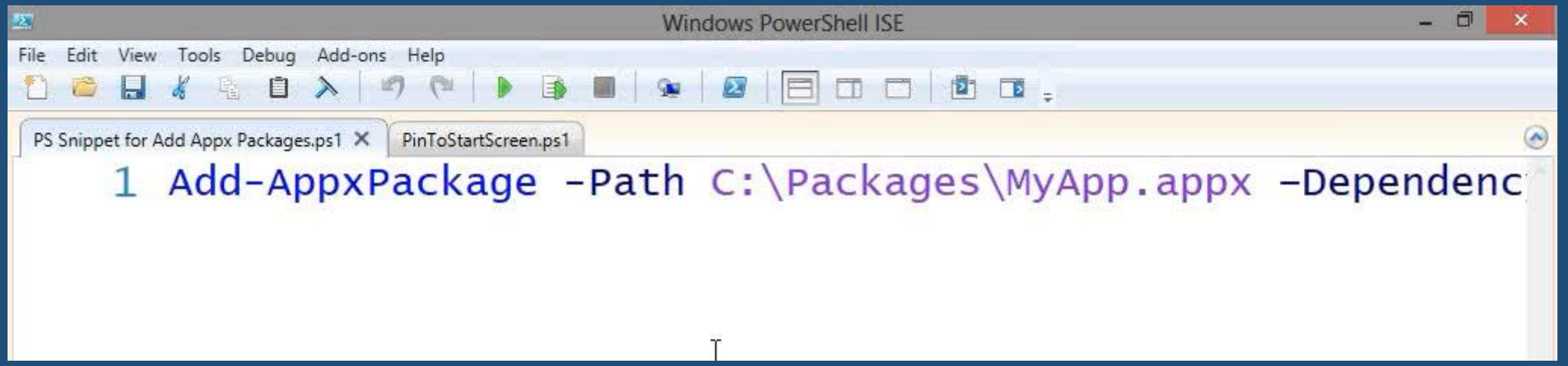


Deploying applications:

- 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.

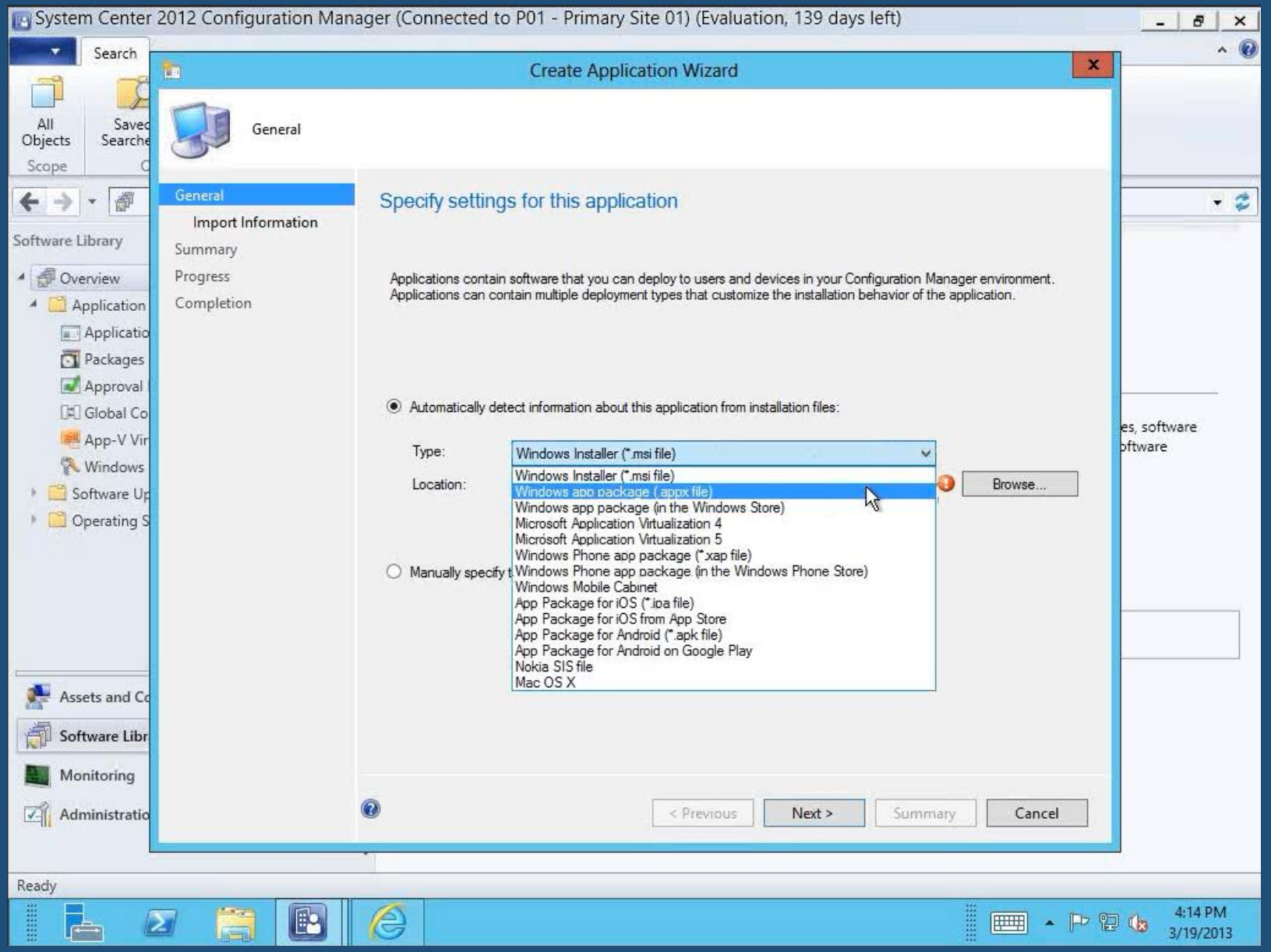
Deploying Apps with PowerShell:

- 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).



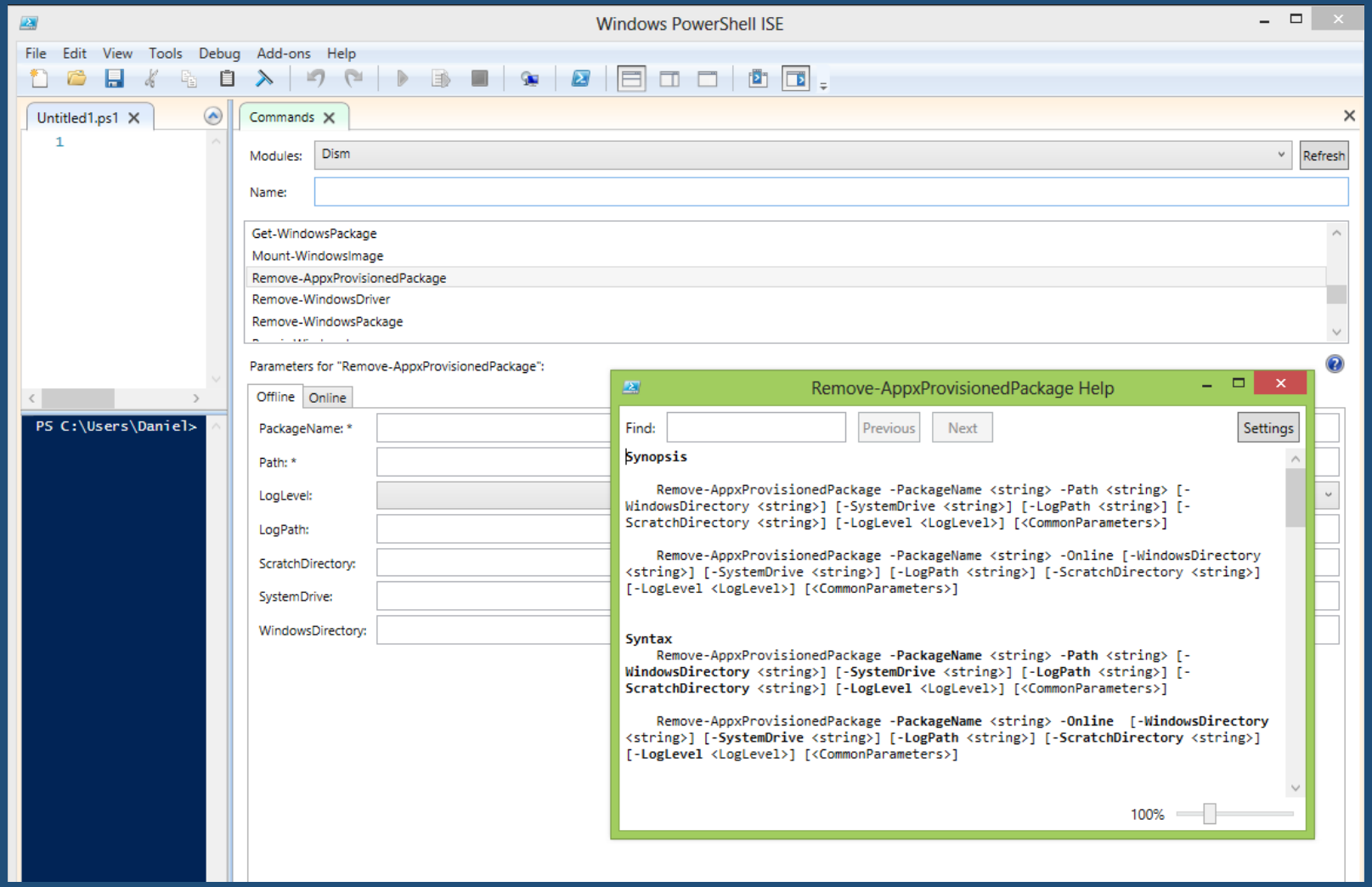
Deploying Apps with SCCM 2012:

- 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:

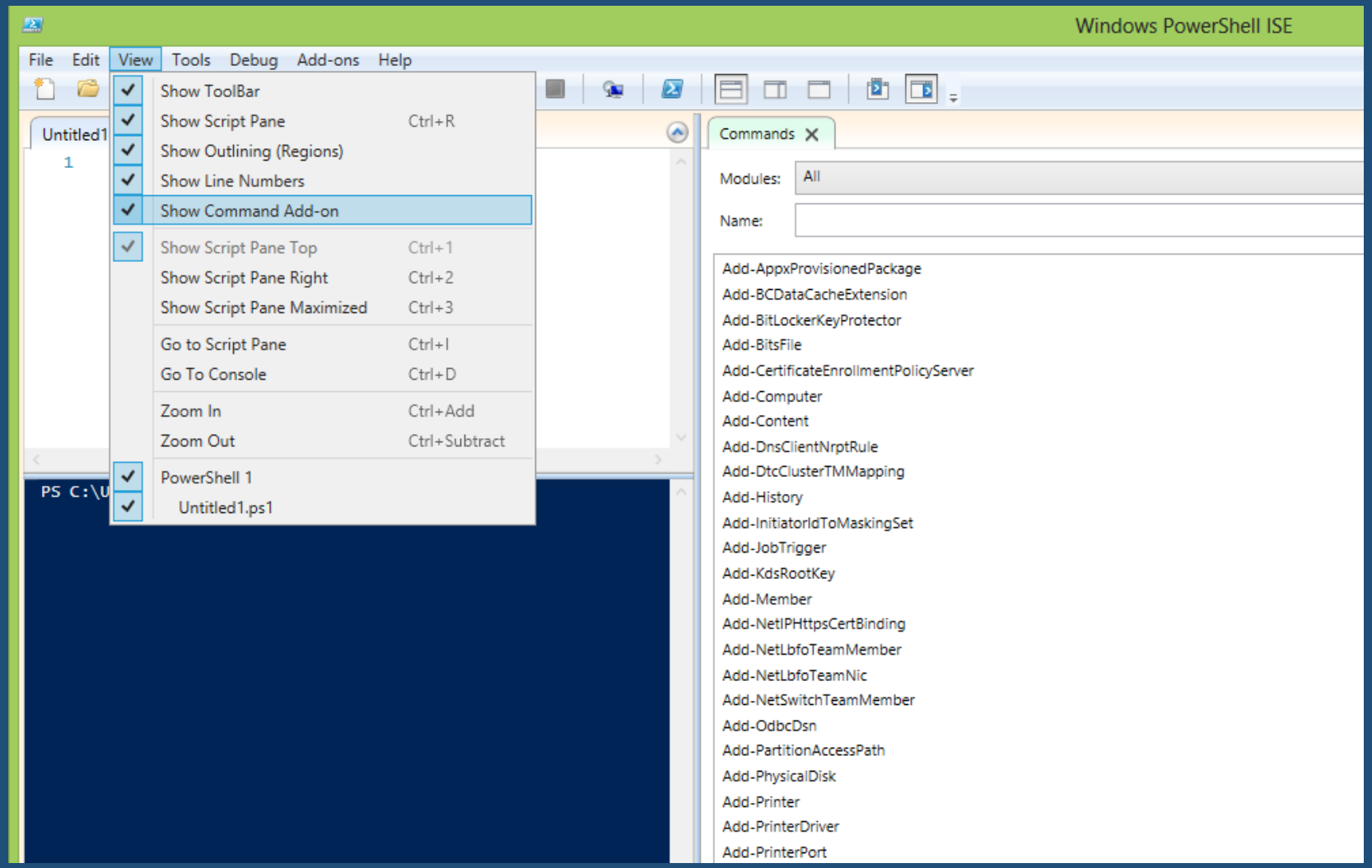
- Apps can be added / removed from Windows 8 deployment images using DISM and/or PowerShell's DISM module (Deployment Image Servicing and Management).
- For more info on DISM, lookup Mitch Tulloch.



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:



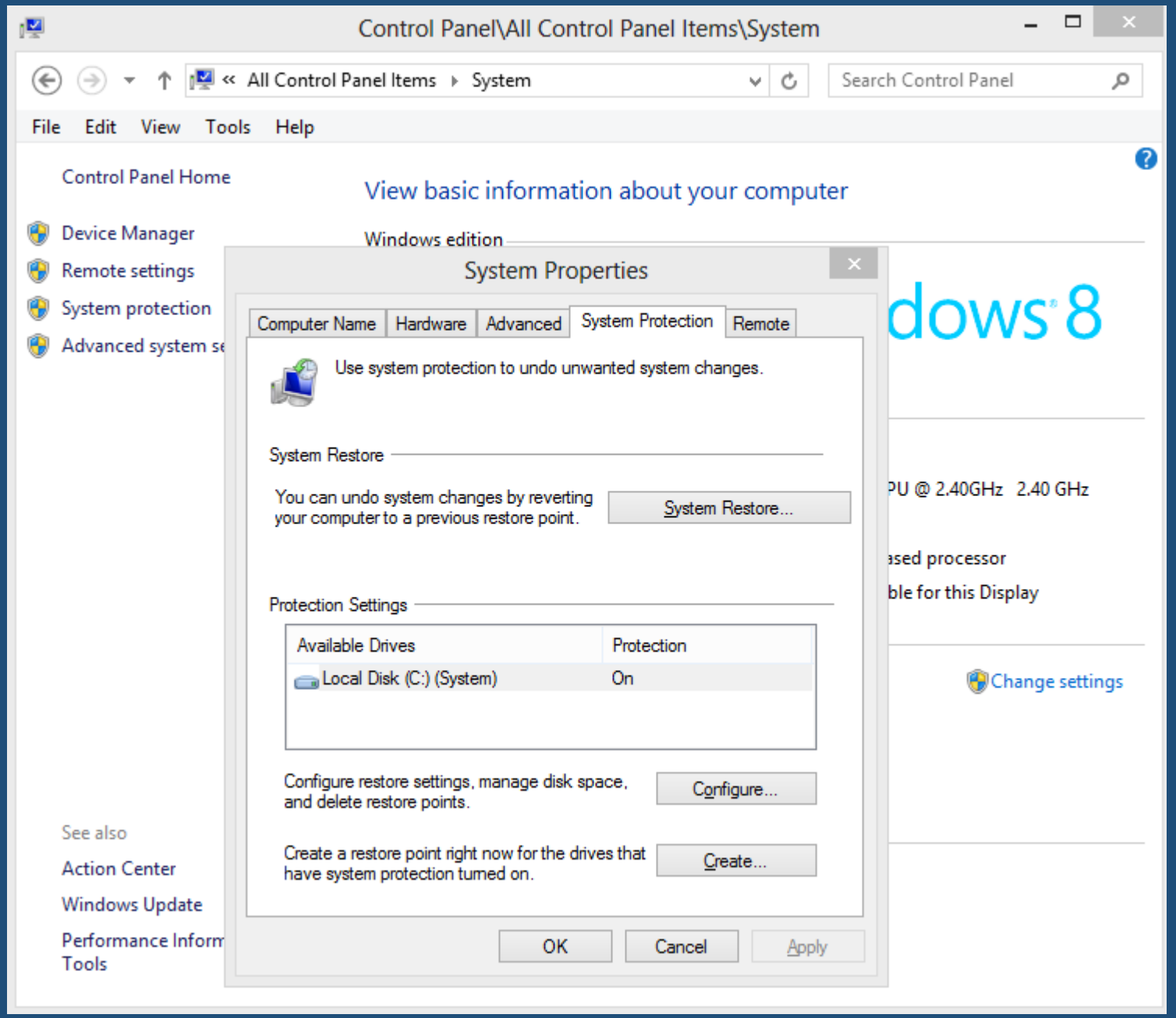
- Windows 8 comes with PowerShell 3.0, which has over 400 cmdlets out of the box[1] (PSh 1 had about 130, PSh 2 had about 240).
- Modules bring the count above 2,500
- Note the ‘Show Command Add-on’ feature in ISE.

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

Windows 8 features:

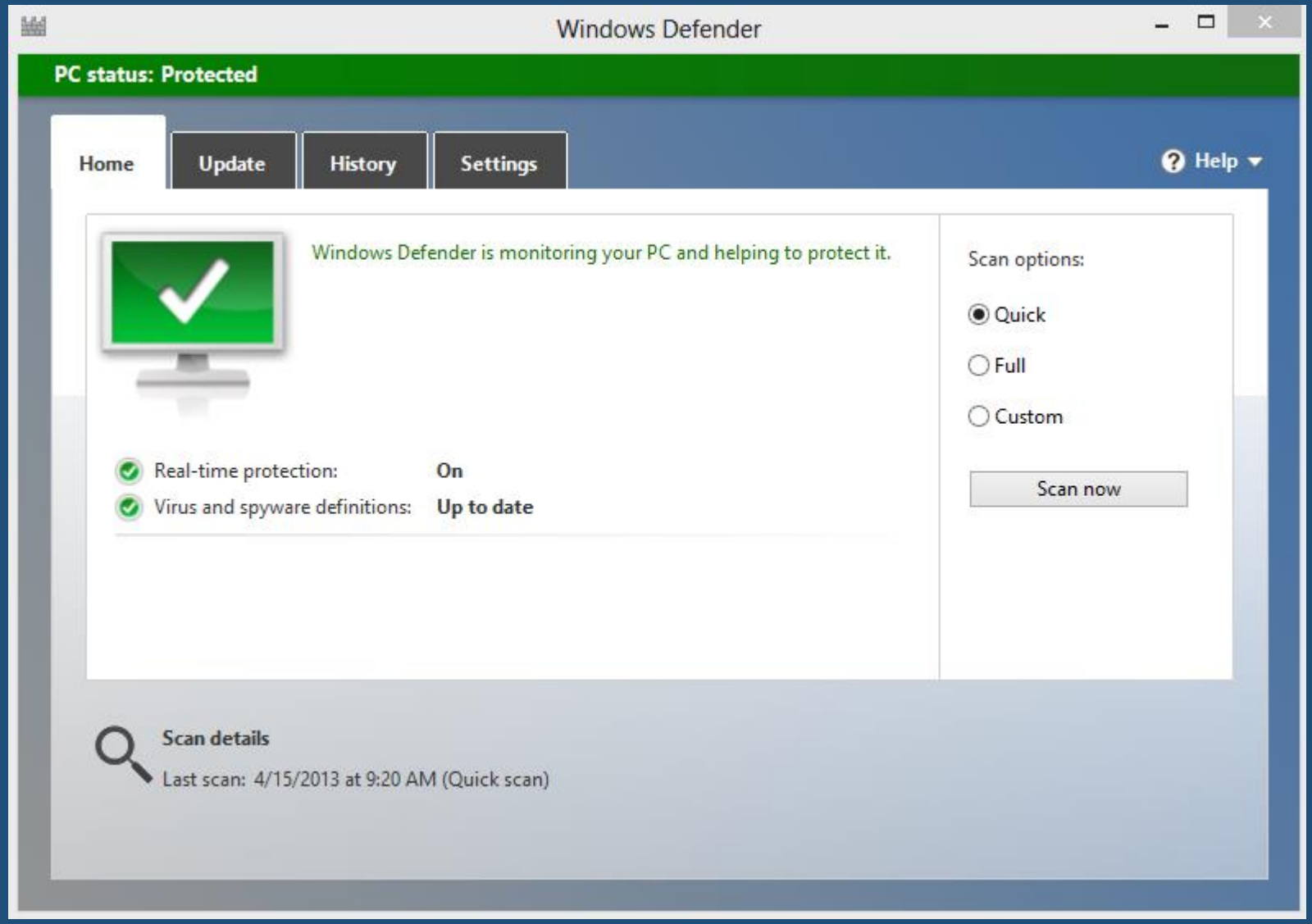
Restore Points:

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



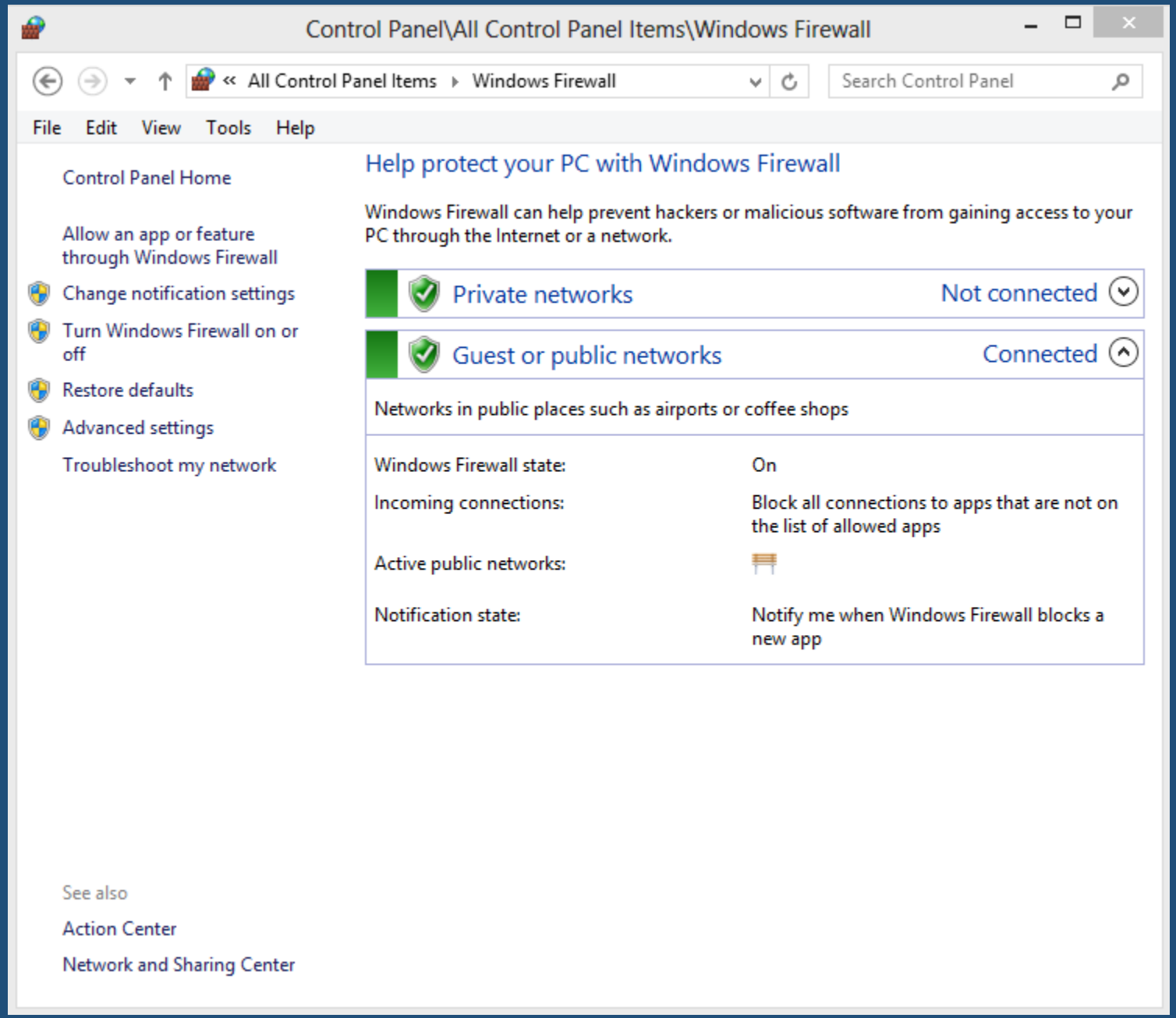
Windows Defender:

- 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.



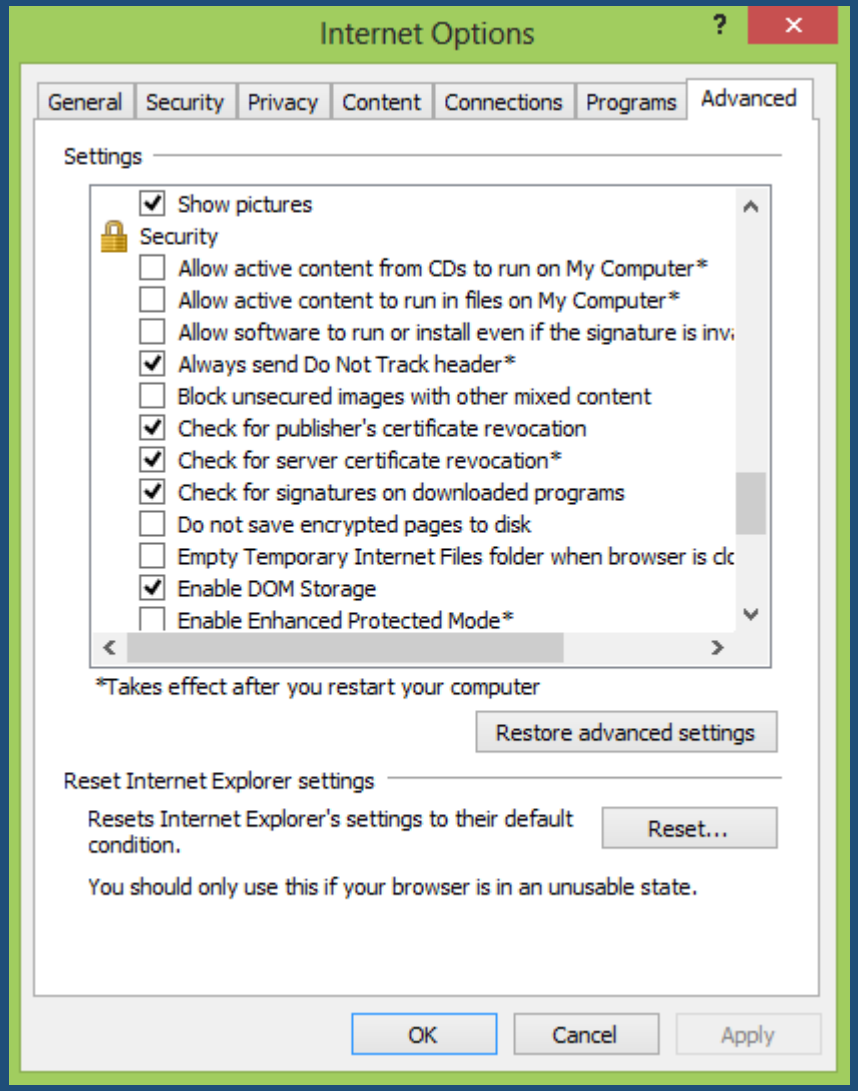
Firewall:

- 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)



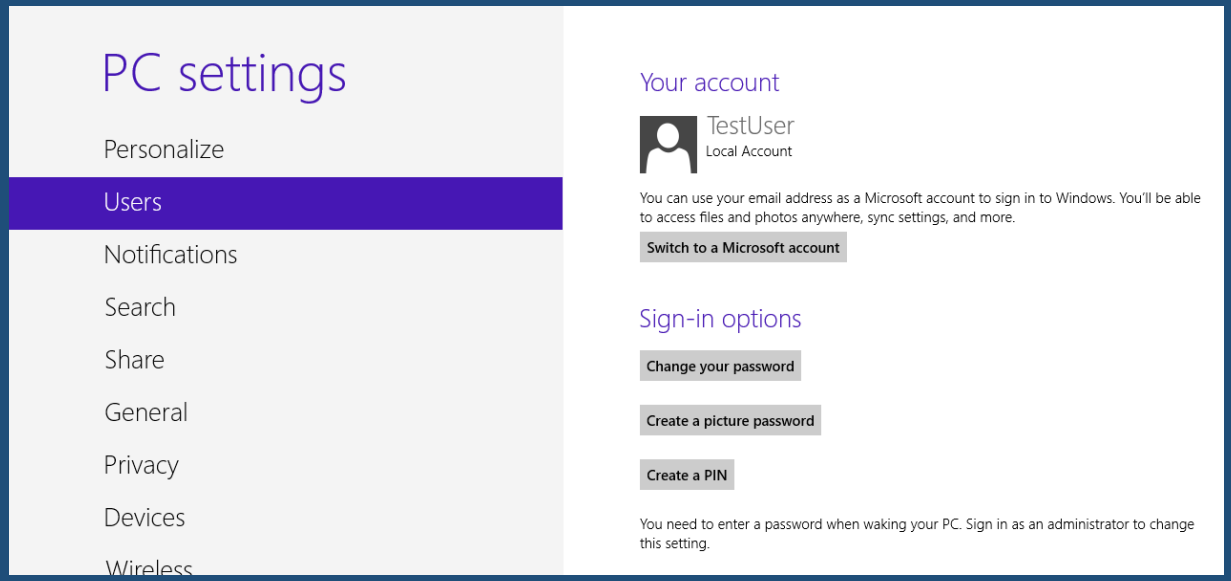
Fast startup (because of hybrid shutdown):

- By default, when Windows 8 shuts down it closes the user sessions and hibernates[1] 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.

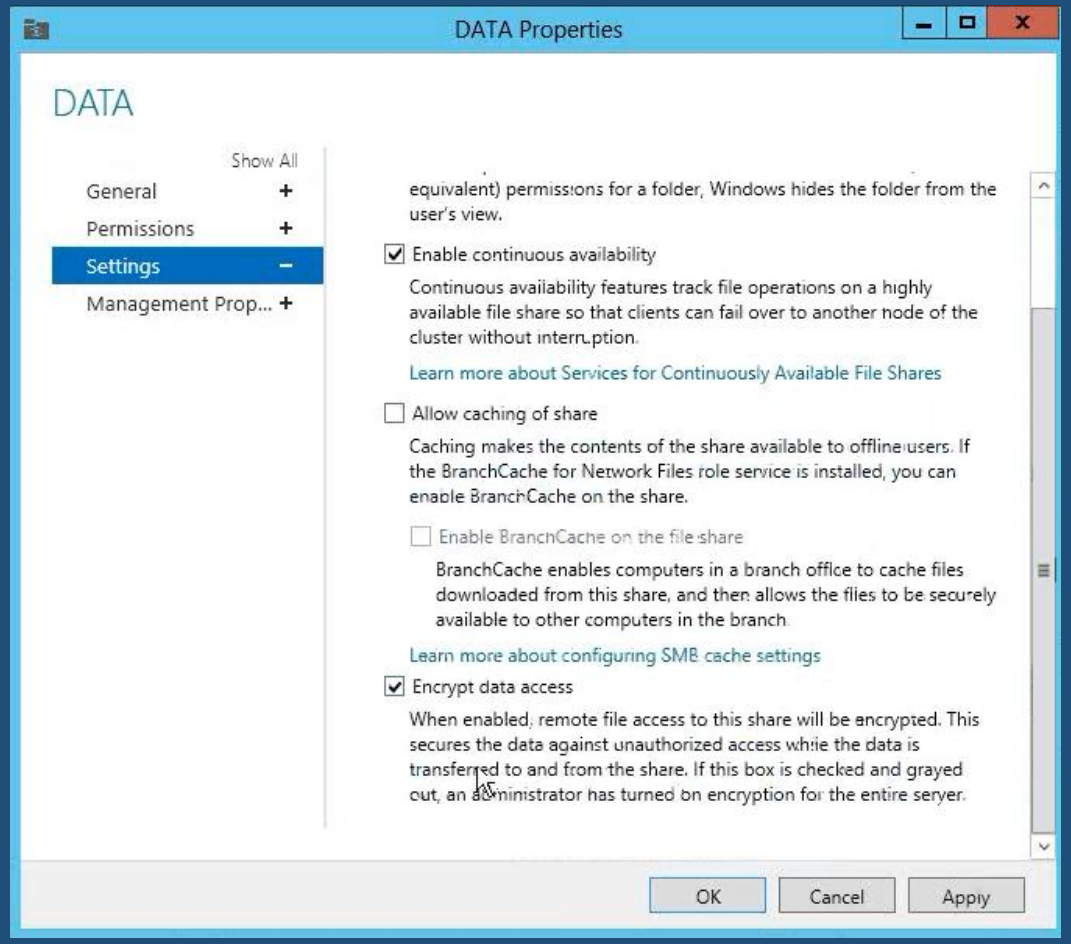


IPv4 and IPv6 dual stack:

- 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.

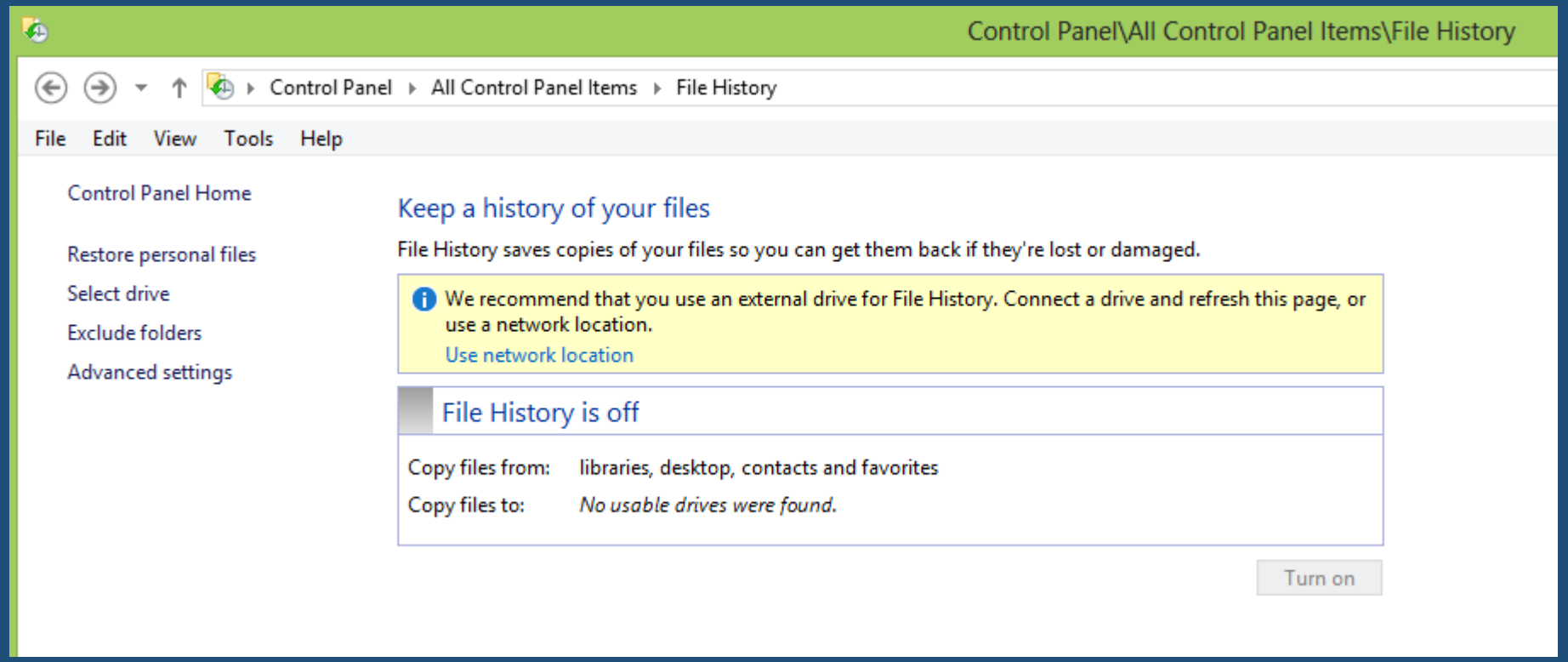
SMB (Server Message Block) 3.0:

- 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

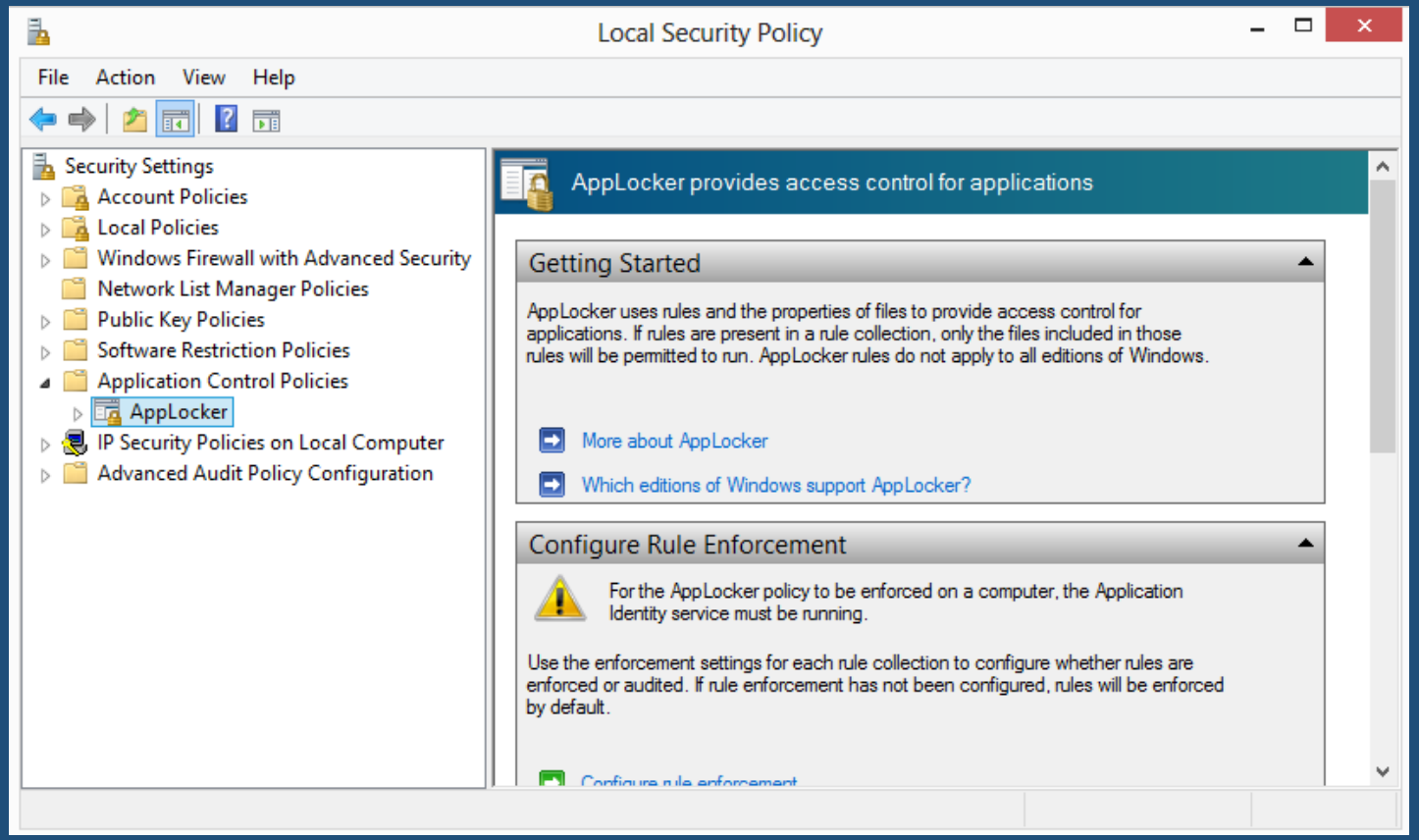


File History:

- 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)



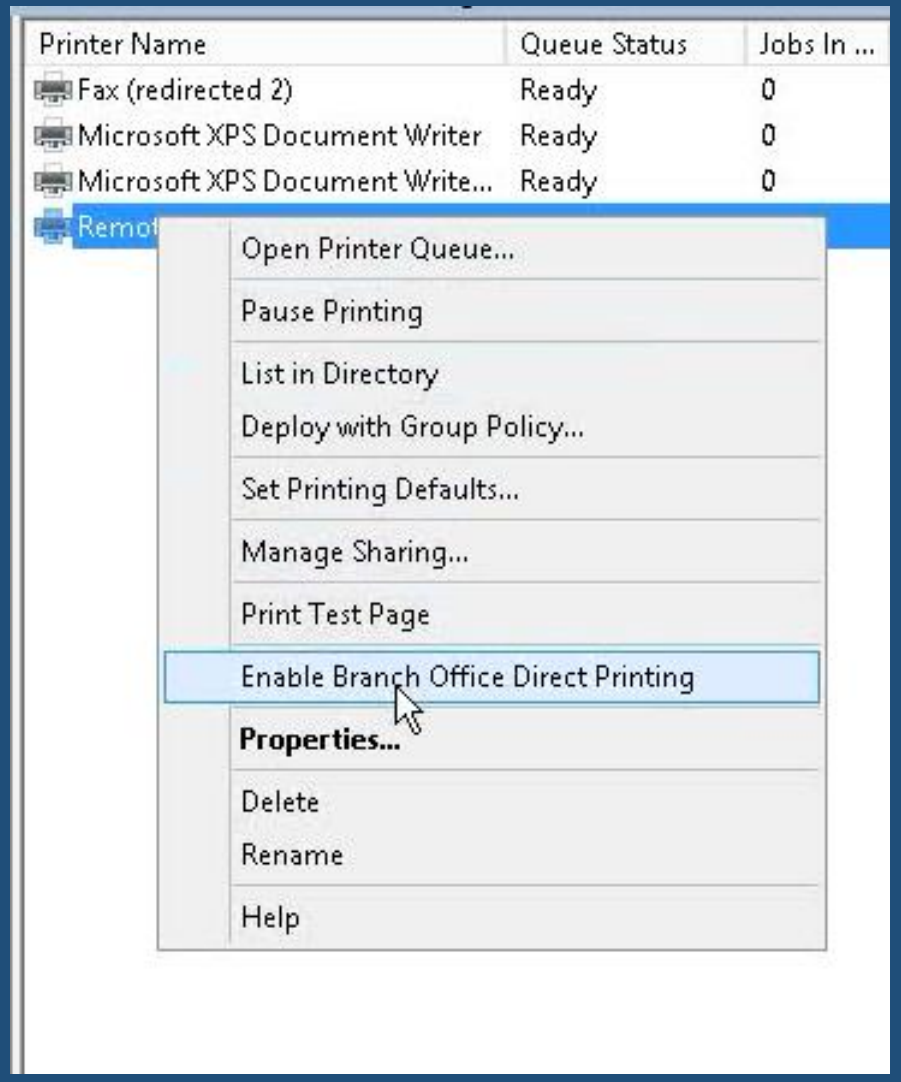
AppLocker:



- 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.

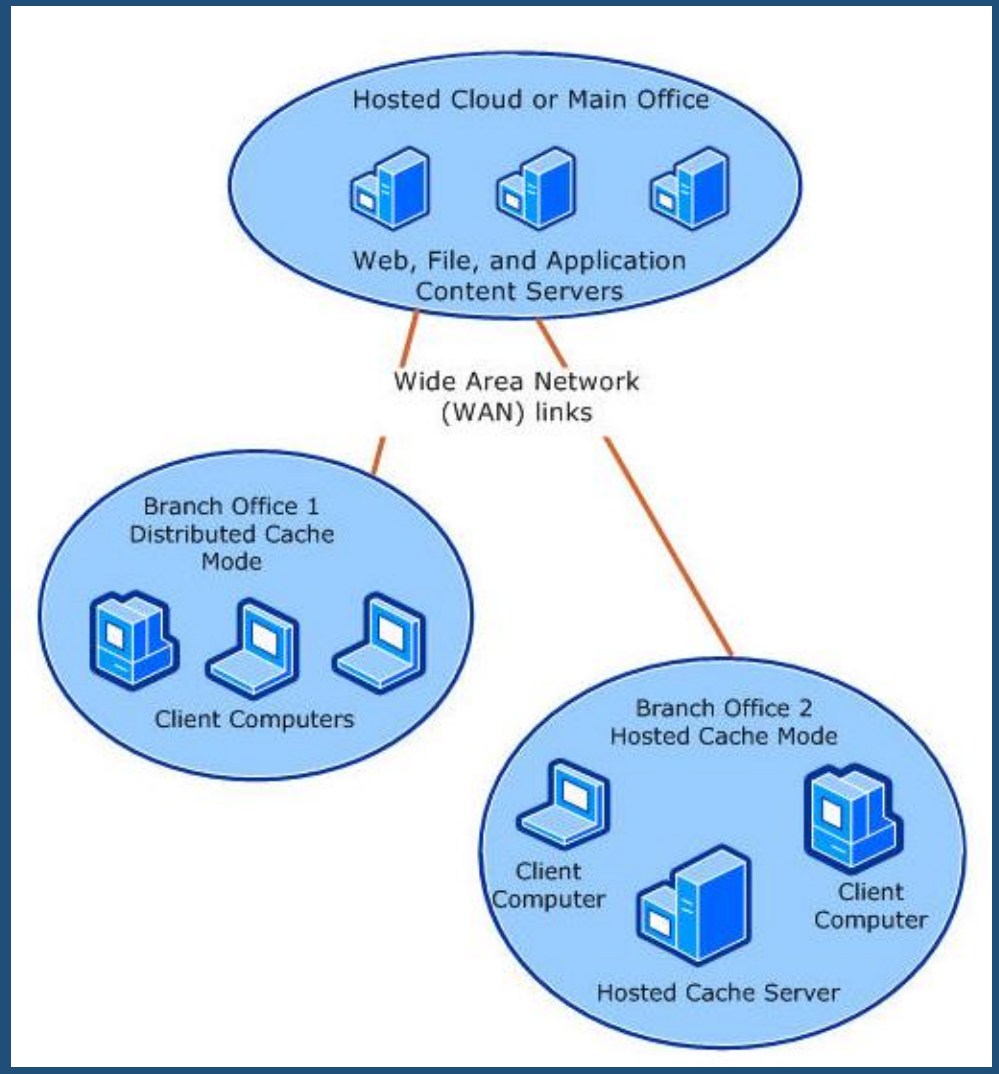
Branch Office Direct Printing:

- 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.



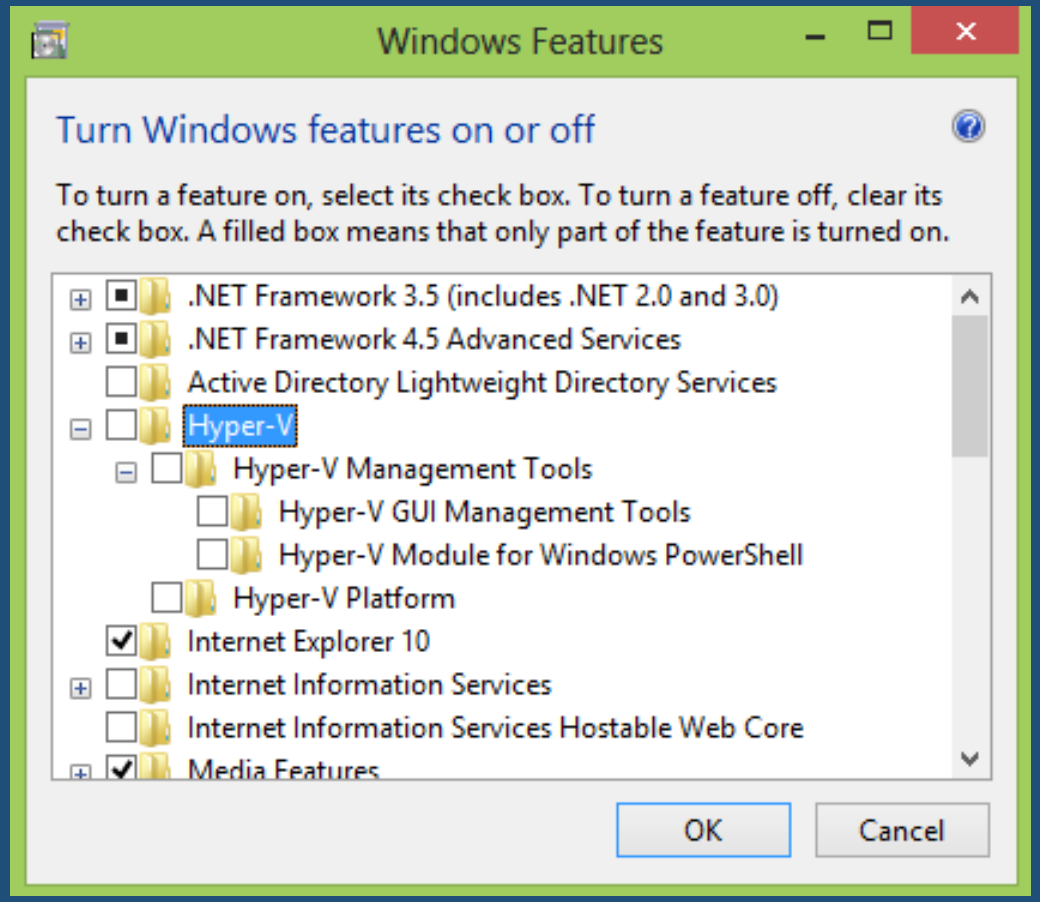
BranchCache:

- 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 will 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.

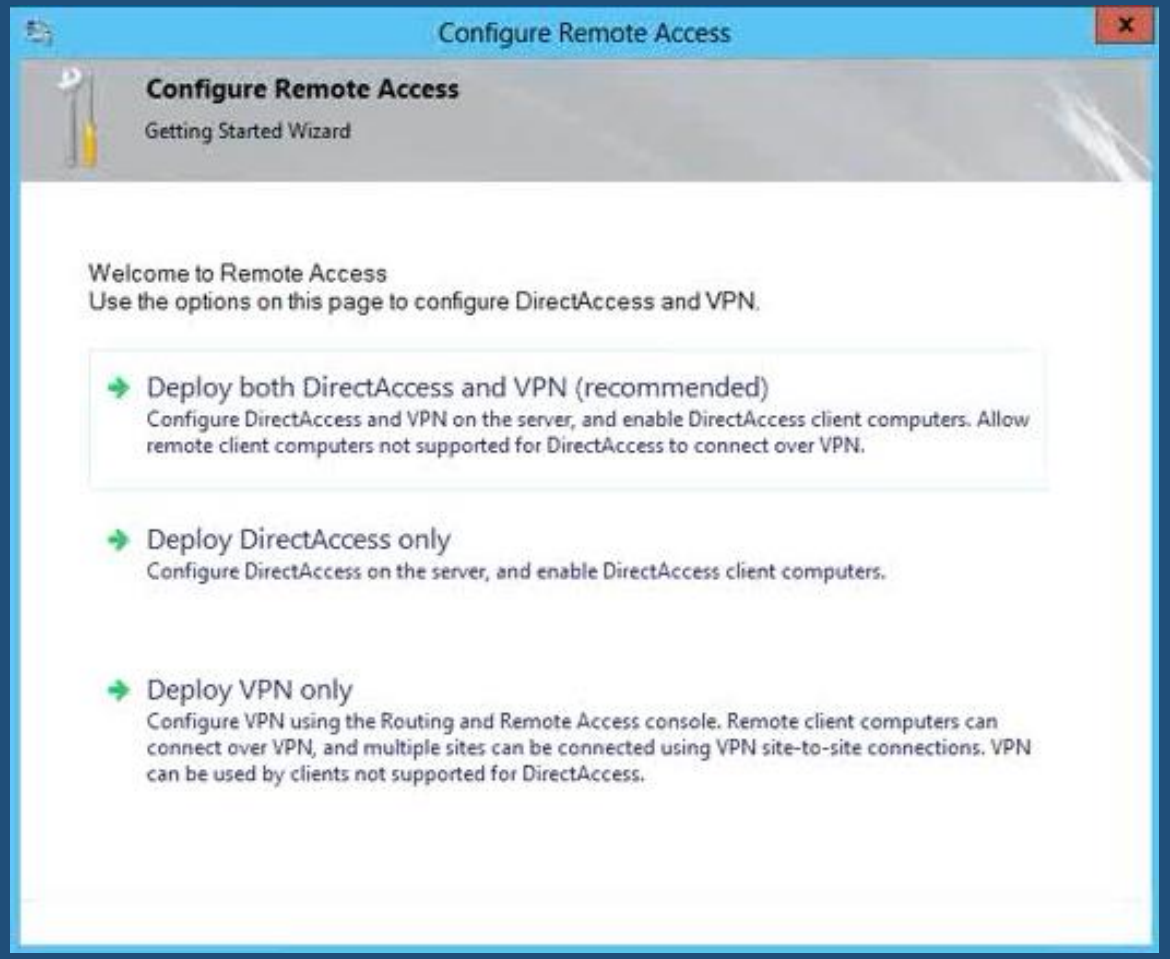


Client Hyper-V:

- 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!