

## WFS Presentation

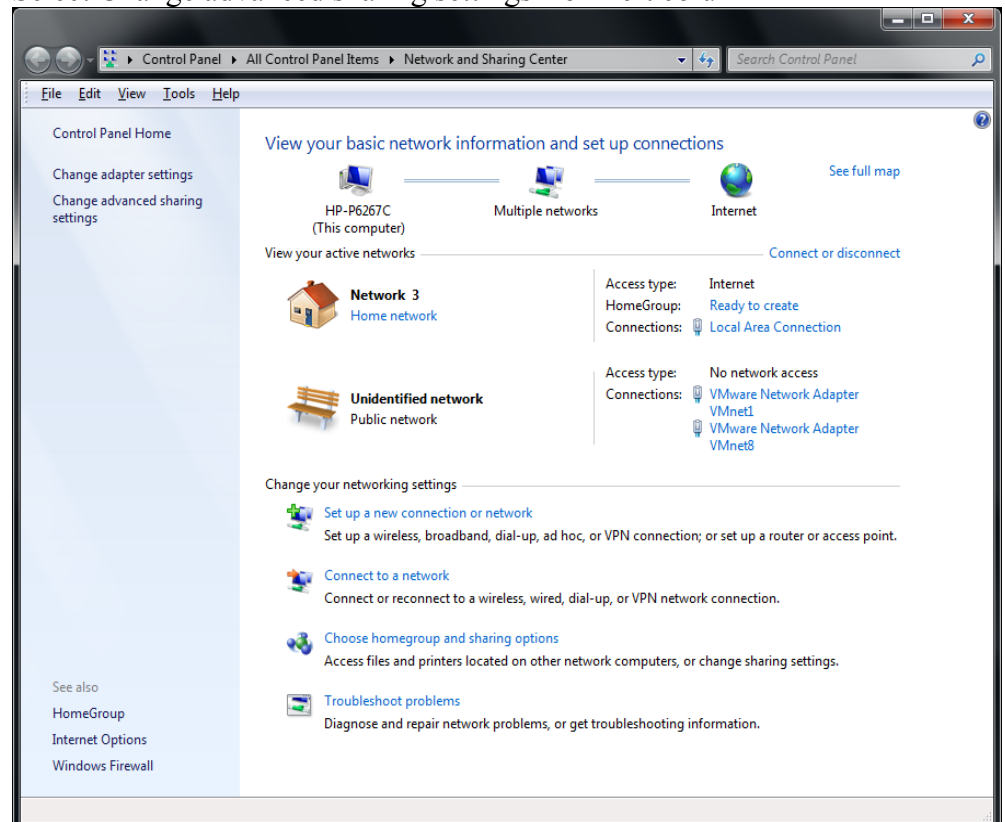
1. Focus is on Vista & Windows 7 since they share similar GUI's
  - Focus on file & folder sharing
  - Not on printer or other device sharing
2. Windows 7 Home Group will NOT be covered as it does not support connectivity with other OS's
  - Portable computers are not easily networked with other networks when away from home
  - Visitors to your home may not easily network if they use portable computers with different OS's
3. Activate Network & Computer icons to display on desktop
  - Method 1: Desktop right-click method
  - Method 2: Start | Search "icons"
4. Right-click Network icon & select Properties
  - Vista

Customize your wireless Sharing & Discovery settings for

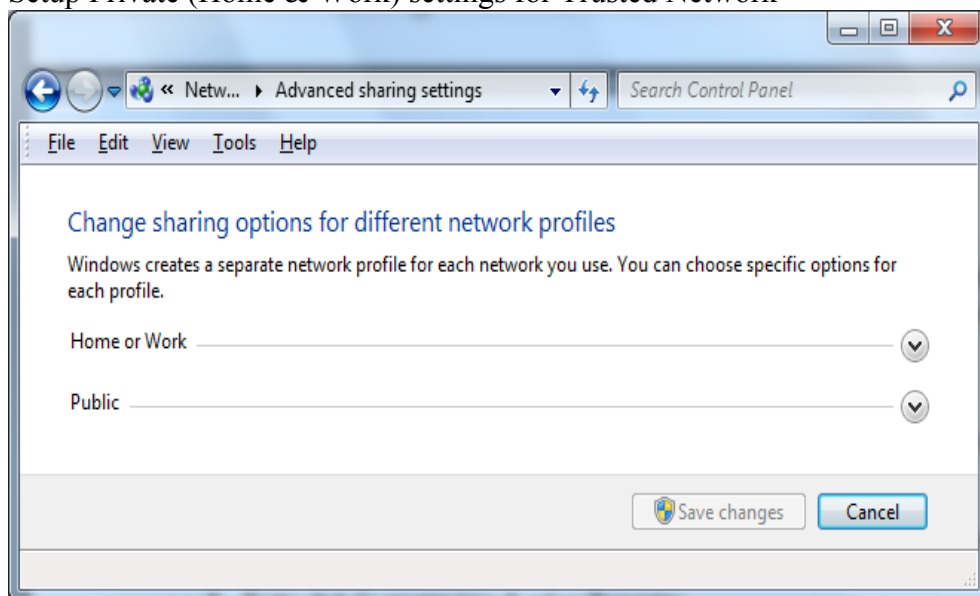
- Public (untrusted network)
- Private (trusted network)
- NOTE: You can toggle using the Customize option between the 2 types of networks & your Sharing & Discovery settings will change appropriately

- Windows 7

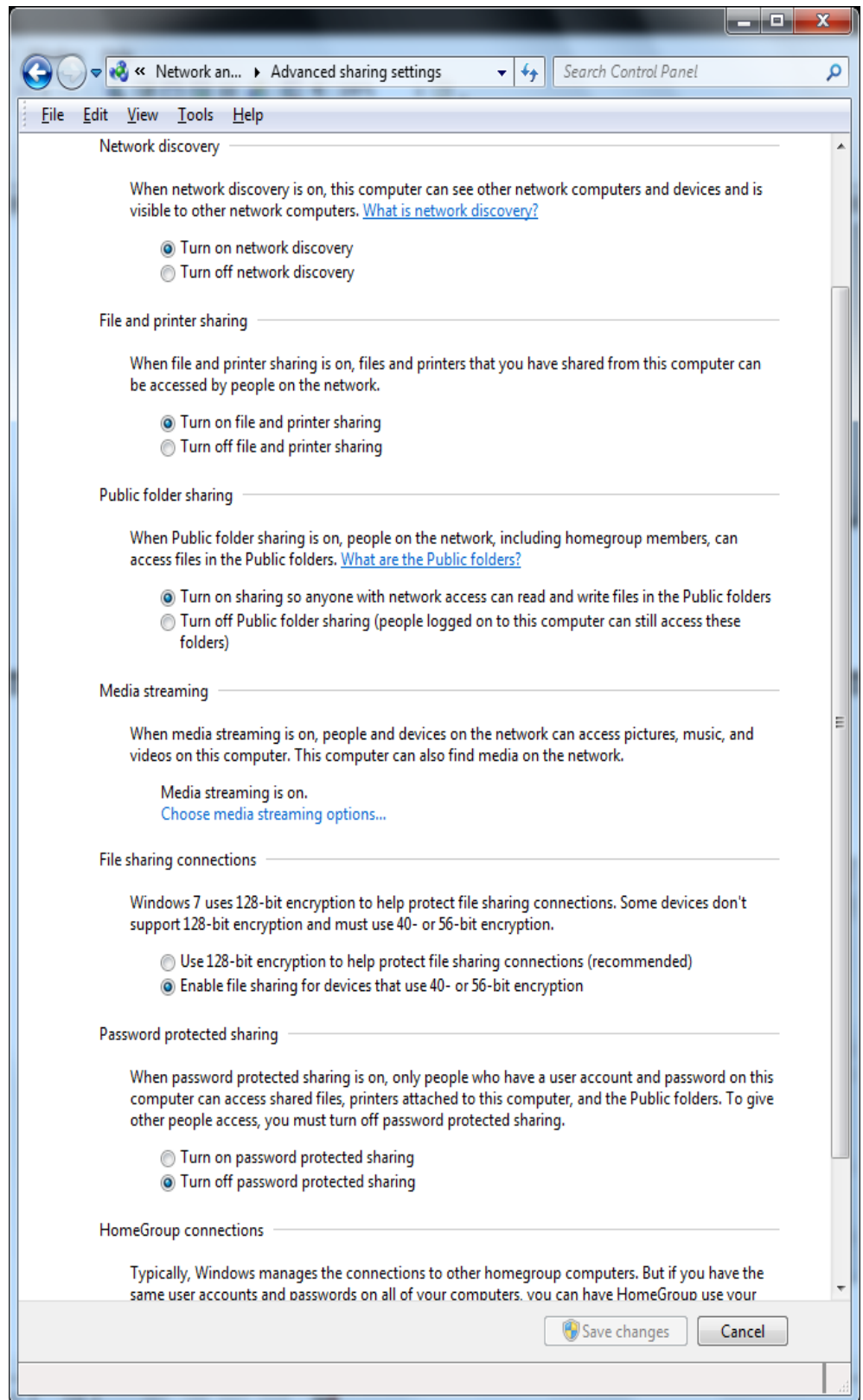
Select Change advanced sharing settings from left column



## Setup Private (Home & Work) settings for Trusted Network



by opening drop down menu in above picture...



- Want to consider who else has access to your network & make appropriate settings

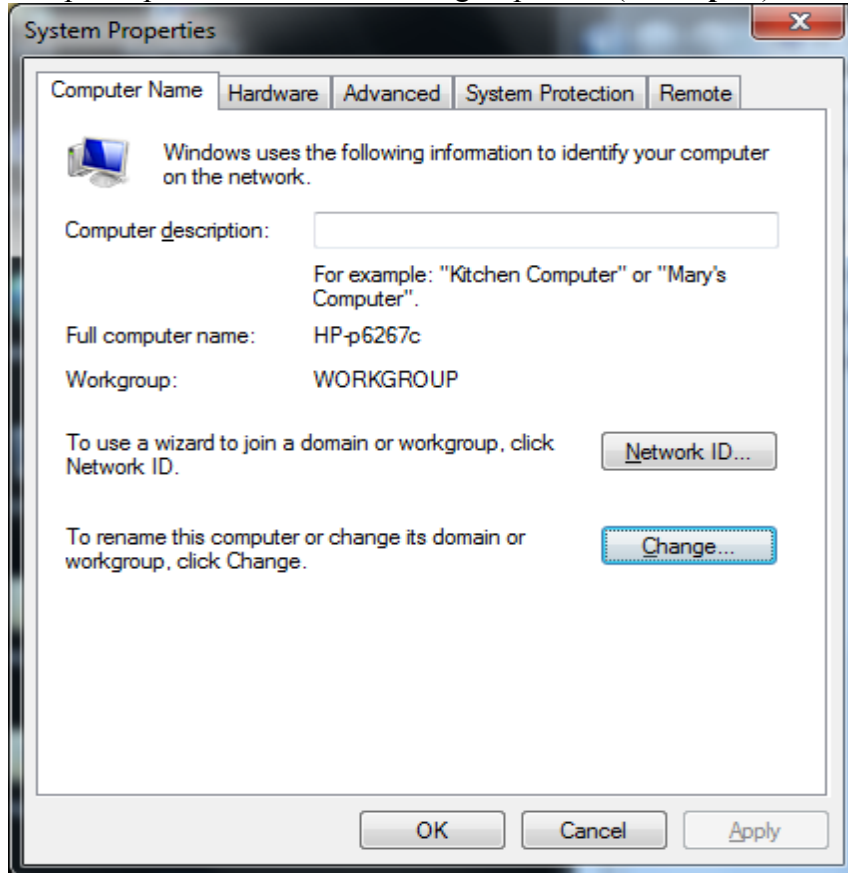
- Are you a single user household?
- Do you trust family members?
- Do guests or outside users access your network
- Is your Wi-Fi system open or secured?

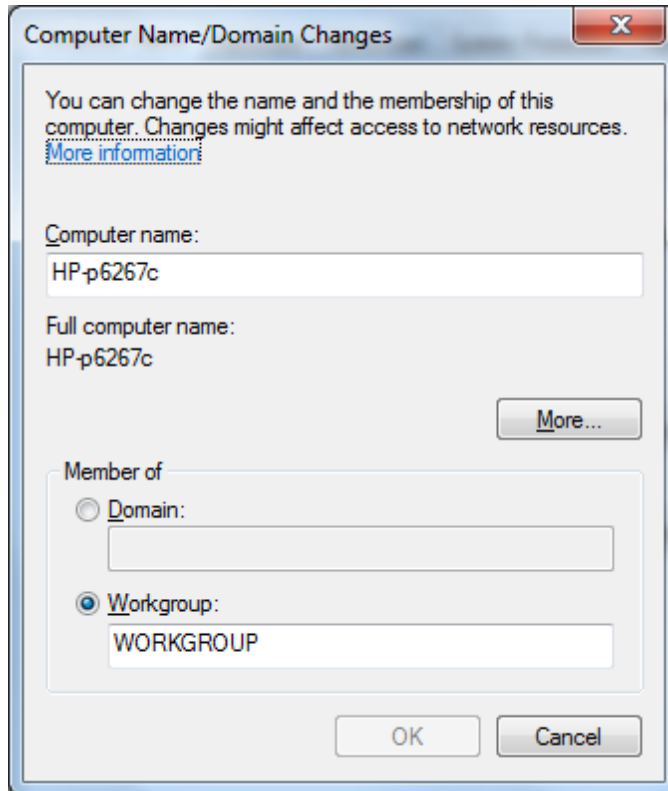
Setup Public settings for Un-trusted Network

- Generally turn off sharing & turn on max encryption & passwords

5. Right-click Computer icon & select Properties

- Select Advanced System Settings
- Setup computer host name & workgroup name (**Win7 pics**)





Note: WINS servers are typically used in a corporate work environment & can be ignored in Home use; WINS is associated with a Domain setup with a designated Windows Name Server = WINS

Note: Workgroup name needs to be the same for all computers to facilitate sharing; Workgroups use a Master Browser as name server

- Note: a Name Server acts like old fashioned Telephone Operator to convert names to phone numbers. In this case, Name Server converts Host Name to IP address. Example: say a computer has name of BootCamp & IP address of 192.168.1.200. Master Browser or WINS knows to associate name & IP. So, similar to phone book or old fashioned Telephone Operator.

Default workgroup name is typically "Workgroup" or "MSHome" & typically best left as WORKGROUP as many network printers, set top Linux based devices, etc use this

Each computer Host Name needs to be unique - no 2 computers should have the same name or only one will be visible on the network

Consider relatively short names to be compatible with older OS's - 8 to 10 characters max - longer names may elicit a warning  
May use alpha numeric names - refrain from using symbols & punctuation

## 6. Your network connection

- Consideration: number of network connections per computing device should be one - avoid using both an Ethernet & Wi-Fi connection at the same time
- Ethernet connection - just plug in
- Wi-Fi connection - set to public (un-trusted) when used in airports or coffee houses or private (trusted); needs to be a Private (TRUSTED NETWORK) setting for sharing
  - Note: Wi-Fi radio can be disabled completely to conserve battery & improve security; go to Windows Mobility Center in Control Panel (Mobility Center not accessible on desktop computers, only on portables)
  - Go to Network & Sharing Center in Control Panel to Customize connection type - Public or Private (Work & Home)

7. Setting up user shares for folders & files

- Use right-click method to access folder Properties & Sharing tab
- Sharing options

8. When things go wrong

- When working correctly Hosts should be visible in Network Group ONLY(?) if they have something to share & accessing a host should reveal shared folders & files & printers
- When host doesn't show & it should

Possible failed network connection

Possible wrong workgroup or bad name

Possible duplicate host name or bad name

Possible multiple Master Browsers

Suggest simplest check for average user is to run Belarc Advisor

- Advantage: pretty thorough info & easy to do
- Disadvantage: relatively slow, possibly not 100% accurate master browser ID
- Results show IP address, device type, device details including Host Name & Workgroup association & manufacturer, and device roles or Services including whether acting as Master Browser (name to IP translation service for Workgroup)

run LANSCAN for Master Browser check (intermediate user)

- <http://scottiestech.info/2009/02/14/how-to-determine-the-master-browser-in-a-windows-workgroup/>
- Advantage: faster check for Master Browser
- Disadvantage: does not always run successfully
- Command line execution (CLI)
- lanscan results include host name, IP address, MAC address, workgroup name, ID's master browser(s)

Advanced users: might consider running FREE NMap utility to confirm if ports 139 & 445 are active on host

- <http://nmap.org/>
- port 139, NetBIOS, <http://en.wikipedia.org/wiki/NetBIOS>

- port 445, SMB, [http://en.wikipedia.org/wiki/Server\\_Message\\_Block](http://en.wikipedia.org/wiki/Server_Message_Block)
  - Possible fixes & work-arounds
    - fix network connection
    - fix bad Host or Workgroup names
    - restart network to re-establish a single Master Browser per Workgroup - best to select host that is most often actively connected to network as first restart
      - if master browser problems persist, you may consider disabling Computer Browser service in Windows Services
      - if you run a Static IP LAN, you could consider using LMHOSTS file. See:
        - [http://www.jakeludington.com/windows\\_7/20100924\\_how\\_to\\_edit\\_windows\\_7\\_lmhosts\\_file.html](http://www.jakeludington.com/windows_7/20100924_how_to_edit_windows_7_lmhosts_file.html)
        - <http://en.wikipedia.org/wiki/LMHOSTS>

Work-around: "force" connection using Start | Run... option

- \\hostname (example, \\boxeebox)
  - Disadvantage: dependency on Master Browser or LMHOSTS name server lookup translation to IP
- \\IP\_address (example, \\192.168.1.206)
  - Advantage: IP address bypasses any name lookup translation issues