# HSS Networking Guide – Windows XP

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**Introduction**

Networking any application and set of computers is always challenging. Before you can expect to successfully set up HSS for multi user operation you must ensure that your network is operational. This document is not intended to teach you how to connect and configure a computer network. It is however intended to show you how to configure HSS to operate on a network that is already operating correctly.

As of January 2011, HSS uses a new network server engine leveraging the latest technology from Microsoft. Use of the former “DCOM” technology has been deprecated in favor of Microsoft WCF (Windows communication framework) technology and the Microsoft .Net framework.

HSS server starts up automatically and in general requires no manual intervention. An icon located in the system tray (right side of the Windows task bar) allows access to the HSS server component in order to monitor activity and to start / stop the server if necessary.

**Setup**

Simply run the HSS setup program (Usually named HSSsetup.exe). HSSsetup will create the appropriate share and apply firewall settings to your PC. On the server computer you may need to adjust some settings as noted below:

1. In Windows Vista and Windows 7 the network should be configured as a “HOME” or “WORK” network. Do NOT choose “PUBLIC” as this network setting will prevent communication.

2. In Windows Vista and Windows 7 you should “Turn Off Password Protected Sharing”. This can be done in the Windows 7 Networking Control center. Alternatively, you will have to setup matching user names and passwords on your server and client computers.

Access the network settings using the following sequence in Windows:  
*Start button / Control Panel / Network & Internet / Network sharing center / Change Advanced Sharing Settings*

On the advanced sharing settings, ensure you are configuring the “Work” or “Home” network settings. The following screen shot shows the recommended network settings (highlighted in yellow) for
Windows 7 and Vista:

**Figure 1 - Network settings in Windows 7 and Vista**

- **Network discovery**
  - Turn on network discovery
  - Turn off network discovery

- **File and printer sharing**
  - Turn on file and printer sharing
  - Turn off file and printer sharing

- **Public folder sharing**
  - Turn on sharing so anyone with network access can read and write files in the Public folders
  - Turn off Public folder sharing (people logged on to this computer can still access these folders)

- **Media streaming**
  - Media streaming is on
  - Choose media streaming options...

- **File sharing connections**
  - Use 128-bit encryption to help protect file sharing connections (recommended)
  - Enable file sharing for devices that use 40- or 56-bit encryption

- **Password protected sharing**
  - Turn on password protected sharing
  - Turn off password protected sharing

- **HomeGroup connections**
  - Allow Windows to manage homegroup connections (recommended)
  - Use user accounts and passwords to connect to other computers
3. The HSS Setup program will apply sharing settings and firewall settings required for HSS to communicate across your network. In some cases anti virus software may prevent the setup program from properly applying the proper settings.

4. A firewall exception (IE: open port) is automatically created by the HSSsetup program to allow communication on port 9000. If you are using non-standard firewall software you may need to adjust your firewall to allow communication on this port.

Wired versus Wireless networking:

We do not recommend using wireless networking for use with HSS. We strongly recommend that you use standard Ethernet 100mb or 1Gb cables, routers / switches in order to ensure reliable communications. You will find wired networks considerably faster and much more reliable.

Network basics:

Unless you are familiar with networking computers you should delegate the setup of your computer network to a qualified technician. You can use the following general recommendations when setting up your network:

1. The network should be setup within the same workgroup name or domain.
2. The workstations should be in the same subnet (usually 255.255.255.0)
3. We recommend you manually assign an appropriate IP address to computer(s) that will be acting as an HSS server to avoid confusion if the IP address were to change. The most common address range for private networks are in the range 192.168.1.1 through 192.168.1.254.
4. When naming computers, give them a short concise name
5. Avoid long user names or user names with spaces – it just creates confusion
6. If you are connecting to high speed internet, use a cable / DSL router. They act as a firewall and usually provide DHCP service as well which makes IP address assignment easier.
7. The C:\HSSV3 folder MUST be shared. Further, the share MUST allow full access. Manually creating the share is usually quite simple – just right click on the C:\HSSV3 folder in windows explorer, click “Sharing” and follow the prompts. The HSS Setup program will automatically create this share unless you indicate otherwise during setup. You can manually create the share if preferred.

Firewalls and Internet Security Programs

HSS must be able to communicate with the HSS server. Firewall software installed on a computer, particularly the computer acting as the HSS server, can prevent workstation computers from connecting to the server.

When in doubt, you can disable the firewall to allow proper communication. We recommend that you have a separate internet router / firewall appliance to safeguard your network if you are connecting to the internet. HOWEVER, the Windows Firewall allows you to enable the firewall on dialup connections and each LAN card individually. This allows you to disable the firewall on your local network, but leave it enabled on other connections to the outside world.

If you cannot connect to the HSS server from a client PC, try disabling the firewall to see if that alleviates the problem.
Accessing the HSS server from client workstations:

HSS allows you to work with a database located on the local workstation or on any PC that has HSS installed on your network.

Follow these steps to access the desired HSS server on your network:

1. Start HSS on the client PC
   - Note: HSS may indicate that no show exists yet and ask you if you want to create one. If it does, simply reply “NO” since it is asking if you want to create a new show on the local PC.

2. In the “Open Show” form, click the “Change Server” button. This will allow you to tell the workstation PC what the address is of the HSS server you want to access.

3. When you are prompted for the server address, enter the IP address (or optionally the name) of the Server computer. We recommend you enter the IP address of the server computer rather than the name to ensure you are connecting to the wired (rather than wireless) port on the server.

4. **IMPORTANT TIP:**
   If your server computer is a laptop or PC that has both wireless and wired network connections (laptops usually have both), you should choose the IP address of the WIRED connection to connect to, otherwise you will be communicating on a much slower / unreliable connection.

   On the server computer, the IP address(es) that you can connect to are listed in the HSS server component’s screen.

Figure 2 - Selecting the HSS server to connect to
HSS Server

HSS Server is a component that runs on each PC. HSS Server processes database updates and requests from HSS running on each computer.

You can open the HSS Server component by clicking on its icon in the Windows taskbar system tray.

Figure 3 - Opening the HSS Server screen

The HSS Server screen displays network information for the PC it is running on. If your computer has multiple network cards (EG: Wired and wireless), you may see multiple IP addresses listed.

Figure 4 - HSS Server screen
There are also buttons that allow you to stop / start the server. It is imperative that HSS Server is running at all times otherwise HSS will not be able to connect to the database and other network services. In general, you can just leave HSS Server running in the background.