

SHARING YOUR INTERNET CONNECTION

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ABSTRACT

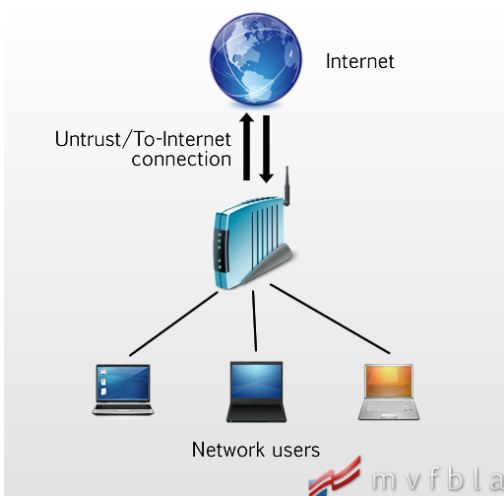
This document discusses how to set up your computer and router to share a single hotel Internet connection wirelessly between all members of the rooming group.

Special Note of Caution: This guide is intended for use with a Microsoft Windows machine. It does not contain instructions for using a Linux or Macintosh environment as the host machine.

MATERIALS AND SUPPLIES

Host laptop with active **wireless** Internet connection and a **free** LAN port, Wireless Router, LAN Cable

ROUTER BASICS



Before reading on you should know some basics about how a router works.

The router facilitates the flow of information with a network. In our case the router will facilitate the flow of information from the Internet to the computers on the network.

For Internet sharing, a single computer serves as the **host** connected to the Internet already. The router connects through the **untrust** connection to the host and through the host to the Internet.

Network users are connected to the router through **trusted** connections and communicate using the router with the Internet.

Also note that **bitrate** is used to measure the speed of a connection, expressed in $\text{bit}\cdot\text{s}^{-1}$ (a.k.a. “bps”). Note that 8 bits (b) are equivalent to one byte (B) – bytes are what we commonly use to measure file sizes (ie. an mp3 is 4MB). An $8\text{Mb}\cdot\text{s}^{-1}$ connection is **not the same** as a $8\text{MB}\cdot\text{s}^{-1}$ Internet connection ($8\text{MB}\cdot\text{s}^{-1} = 64\text{Mb}\cdot\text{s}^{-1}$).

PROCEDURE

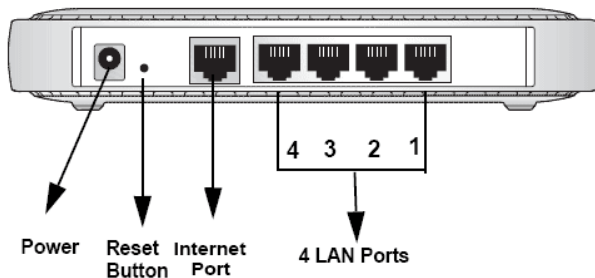
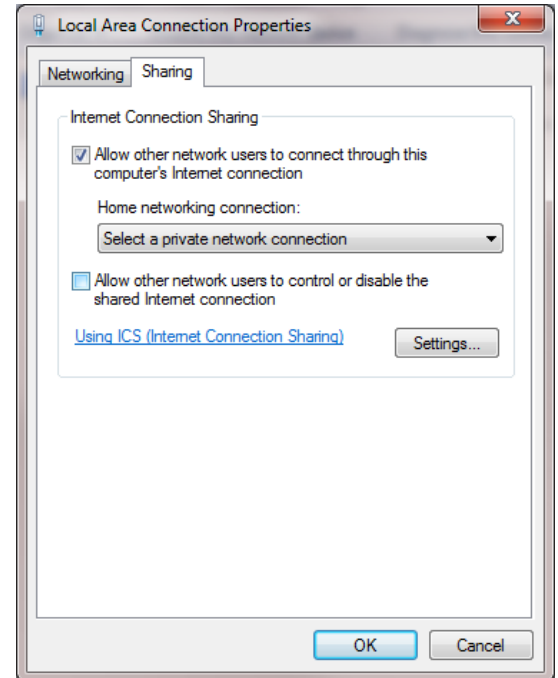
1. Connect to the hotel Internet using your laptop's wireless Internet connection. Do **not** use the wired connection, as you will need the LAN port to share the Internet. If your laptop has two LAN ports, you can use a wired connection.

2. After you are connected to the Internet, **share the connection**.

A. To do this, open the **Control Panel**, select **Network and Internet**, access the **Network and Sharing Center**, and then click on **Manage Network Connections**.

B. Right-click on the **active, wireless network connection**, and select **Properties**.

C. Click the **Sharing** tab and check **Allow other network users to connect through this computer's Internet Connection**.



3. Plug one end of the LAN Cable into the free LAN port on your laptop, and plug the other end into the **Untrust or Internet** port on your Router.

4. Refer to your router's documentation for procedures on setting the SSID (network name) and Network Password so that other computers can connect wirelessly to your network.

5. If other users in the room cannot connect wirelessly to the new network, they can use additional LAN Cables to connect to one of four LAN ports on the router to obtain Internet access.

SPECIAL NOTES

- Most hotels will only give you Mb-s⁻¹ Internet speed for the host computer, and this bit rate is to be shared among all computers using the router as their Internet access point. Thus, video streaming sites such as Youtube and Hulu will significantly decrease the Internet enjoyment of others on the network, which is why it is recommended to have 1 shared Internet connection **per room** as to not overload the network.
- If the host machine (the one with the active wireless Internet connection) is turned off or in standby mode, the Internet connection for **all users** on the router network will die.