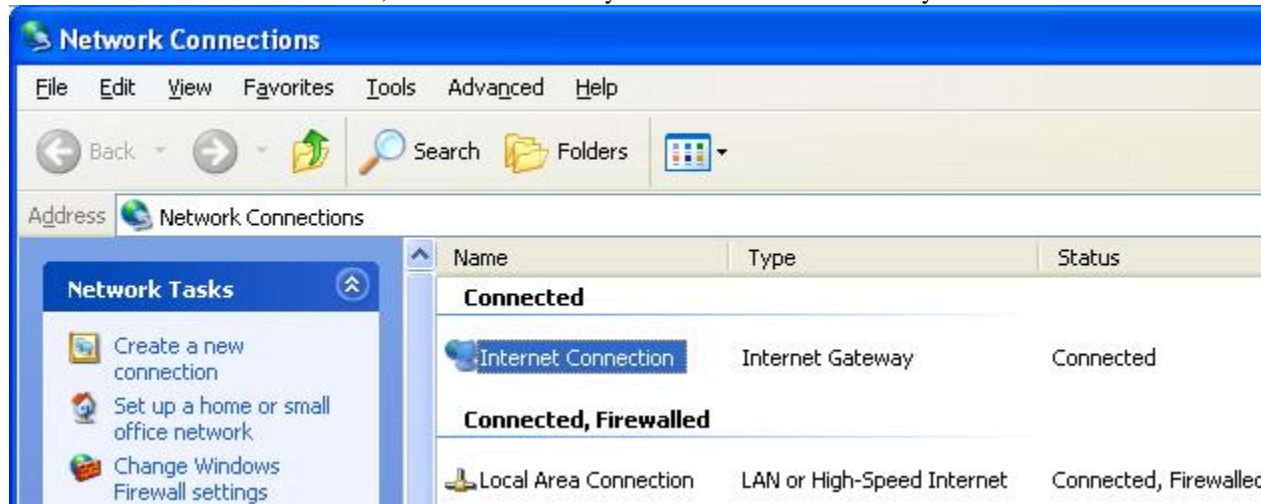


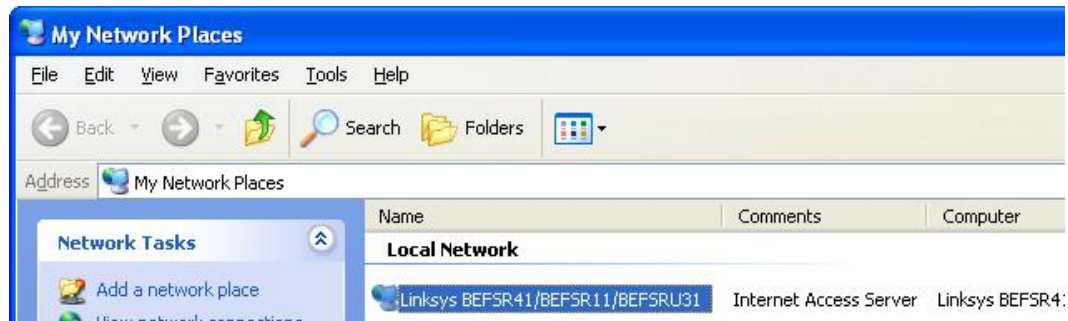
## Enabling UPnP in Windows XP

If the UPnP configuration was **not** successful, a *UPnP: Setup failed* message will show in the status bar. Assuming that you have enabled UPnP on your router, the next step is to ensure that Windows XP is set up correctly to use UPnP. Note: It is the collective experience of Windows XP users that UPnP is a bit of black magic; sometime even when it is set up correctly, it will randomly fail, or won't work until you reset your router or computer. Ironic, no?

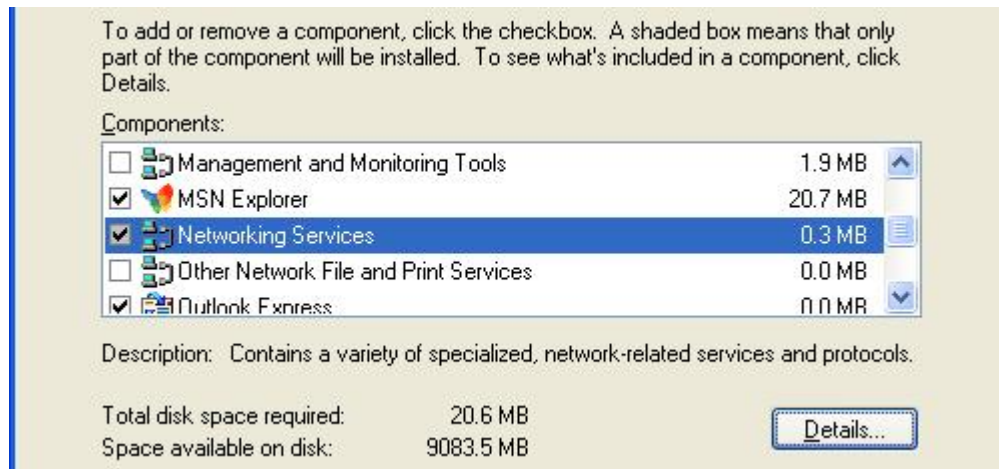
For UPnP to work in Windows XP, the Internet Gateway device must be available in your *Network Connections* control panel, as shown here:



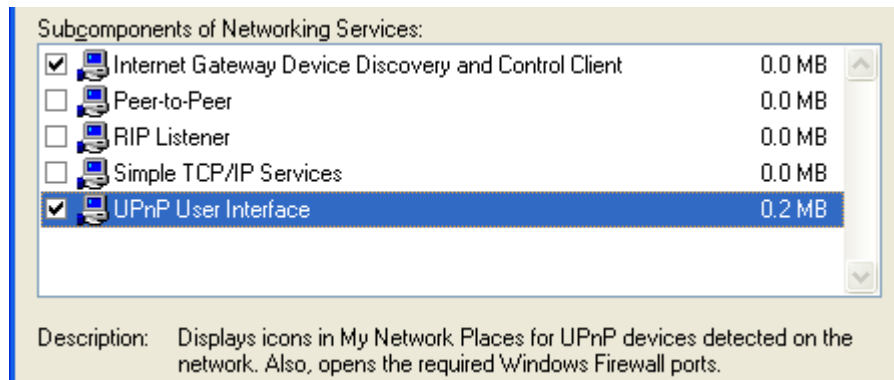
In addition, your router must be available in *My Network Places*, as shown here: (your specific model may vary)



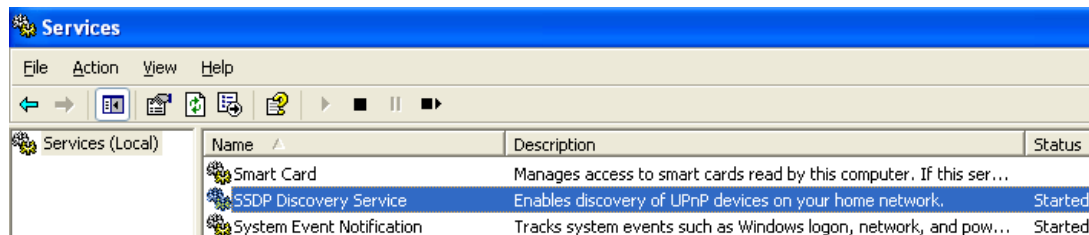
If these devices are not available, you should verify that the correct components and services are loaded in Windows XP. Open the *Add/Remove Programs* control panel, and then click on *Add/Remove Windows Components* in the sidebar. Scroll down and find *Networking Services*, highlight it, and then click *Details*.



In the Networking Services window, ensure that the *Internet Gateway Device* and *UPnP User Interface* options are checked. If they are not, check them to enable them, as shown below, and then close out back to the control panel.



Next, in the control panel, open the *Administrative Tools* and then open *Services*. Scroll down until you find the *SSDP Discovery Interface*. If the Status is not *Started*, double-click on *SSDP Discovery Interface* to open the service properties. Change the startup type to *Automatic*, then close the properties. Now, right-click on *SSDP Discovery Services*, and choose *Start* from the popup menu. The SSDP Discovery Service will then be running and start each time you boot.



After enabling UPnP and starting the SSDP Discovery Service, it may take up to 15 so 20 minutes for your router to be discovered and appear in your *Network Connections* and *My Network Places*. Once they appear, can configure your router automatically!

### Third Party Firewalls

If you are using a firewall besides the Windows XP built-in firewall, your firewall may be blocking UPnP. Your firewall must allow traffic on port 1900 (UDP) and port 2869 (TCP). If you are using Service Pack 1 or earlier, port 5000 (TCP) is used instead of port 2869. You may need to look at your firewall's advanced settings in order to add a rule to allow this traffic.

**A note about ZoneAlarm:** the free version of ZoneAlarm does not provide port-level control. You may need to lower your Internet security setting to *Medium* for UPnP to work. We do not recommend doing this unless you also use the Windows XP firewall.

#### Troubleshooting and other Tips & Tricks

You may need to reset your router and/or reboot your computer after enabling UPnP on Windows XP.

If you have multiple people using through the router at the same time, you should not use UPnP.

If you have followed all of these directions and the devices still don't appear, be patient. Depending on your model, some routers may take a while to appear, even after rebooting your computer and resetting your router.