

# Hosting Strat games on Game Lobby may require Port Forwarding

By Jack Mitchell

Game Lobby is a valuable feature of Strat-O-Matic Computer Baseball that allows head-to-head play by gamers whose computers are connected via the Internet. Say, for example, that you live in Jacksonville and you have a good friend who resides in Denver. Even though you are separated by nearly two thousand miles, with Game Lobby you can play a Strat-O-Matic game as if you were in the same room.

For the most part, the technical aspects of using Game Lobby are simple and straightforward. The Help file article entitled "Game Lobby" that comes with Strat-O-Matic Computer Baseball does a good job of explaining how Game Lobby works and how to use its various features. In many cases Game Lobby will work exactly as described. However, if your computer is part of a home network in which multiple devices are connected through a router, and if you want to "host" a game played via Game Lobby on your computer, most likely you will find it necessary to forward port 6501. Although port forwarding sounds complex, in reality it is an easy process that can be done even by people who do not consider themselves to be sophisticated with respect to computer technology. This article will provide step-by-step instructions.

## A brief overview of how Game Lobby works

In order for a game to be played via Game Lobby, one of the computers must serve as the "host." The host computer controls play and stores statistical files (box scores and game result files) that are generated by the game. In order for play to occur, data must be exchanged between the two computers. Game Lobby is programmed for the host computer to receive data through port 6501.

If the host computer is connected directly to your Internet source without passing through a network router (that is, your computer connects directly to your Internet source through a cable, DSL, or telephone modem), data packets addressed to port 6501 will be directed to your computer. However, if the host computer is part of a network that is controlled by a router, the router will need to be instructed to forward data packets addressed to port 6501 to the host computer, a process referred to as *port forwarding*. Without specific instructions, the router will not know to which device on the network data addressed to port 6501 should be sent, and the data simply stops at the router. When that occurs, the two computers are unable to exchange data and Game Lobby cannot function.

Even if your computer is part of a network, you will most likely be able to play a Strat-O-Matic baseball game via Game Lobby as long as your opponent acts as host. However, if you wish to act as host, this guide should prove helpful with respect to the process of forwarding port 6501.

## Access the router set-up utility

The first step in port forwarding is accessing the router set-up utility, a program that controls the way in which the router functions. There are many brands of routers, and while the set-up utility programs vary from brand to brand, they all work quite similarly. This guide describes the port forwarding process for a typical Linksys router because that is the brand that the author uses.<sup>1</sup>

The router set-up utility is accessed from your Internet browser (Internet Explorer, in my case) by entering the IP address<sup>2</sup> for your router in the browser address bar and directing your browser to navigate to that site.

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<sup>1</sup> The principles will be the same for all routers, but the screens and headings will be different for each manufacturer

<sup>2</sup> IP Address stands for Internet Protocol Address

In all likelihood you will not know the IP address for your router. However, you can easily obtain it by following these steps:

1. Open the **Run** dialogue box from the main screen of your computer's operating system.



Figure 1. Open RUN dialogue box

2. In the RUN dialogue box type "cmd" and click on the **OK** button.

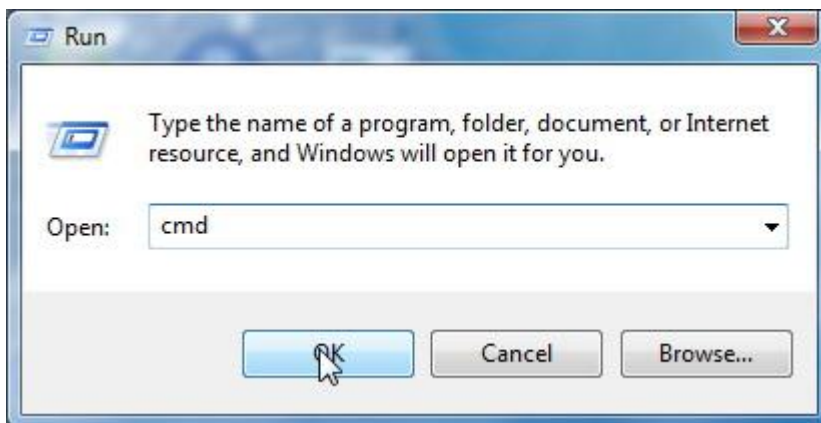


Figure 2. Enter CMD in RUN dialogue box

3. At the command prompt, enter "ipconfig" and press the **Enter** key on your keyboard.

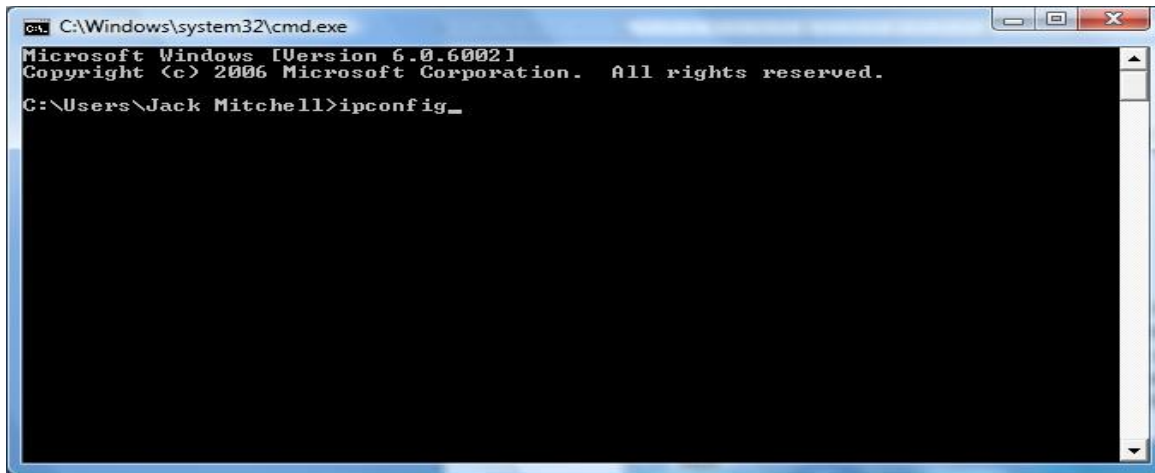


Figure 3. ipconfig

In Figure 4 you will see the Default Gateway IP address listed for the router that controls this particular network (192.168.0.1). That is the IP address I use to access the router utility set-up program.

Also note that the internal IP address for my computer is listed (192.168.0.10). When you run *ipconfig* on your computer, make a note of both IP addresses. The IP address for the computer on which you will play Strat-O-Matic baseball must be entered during the port forwarding process.

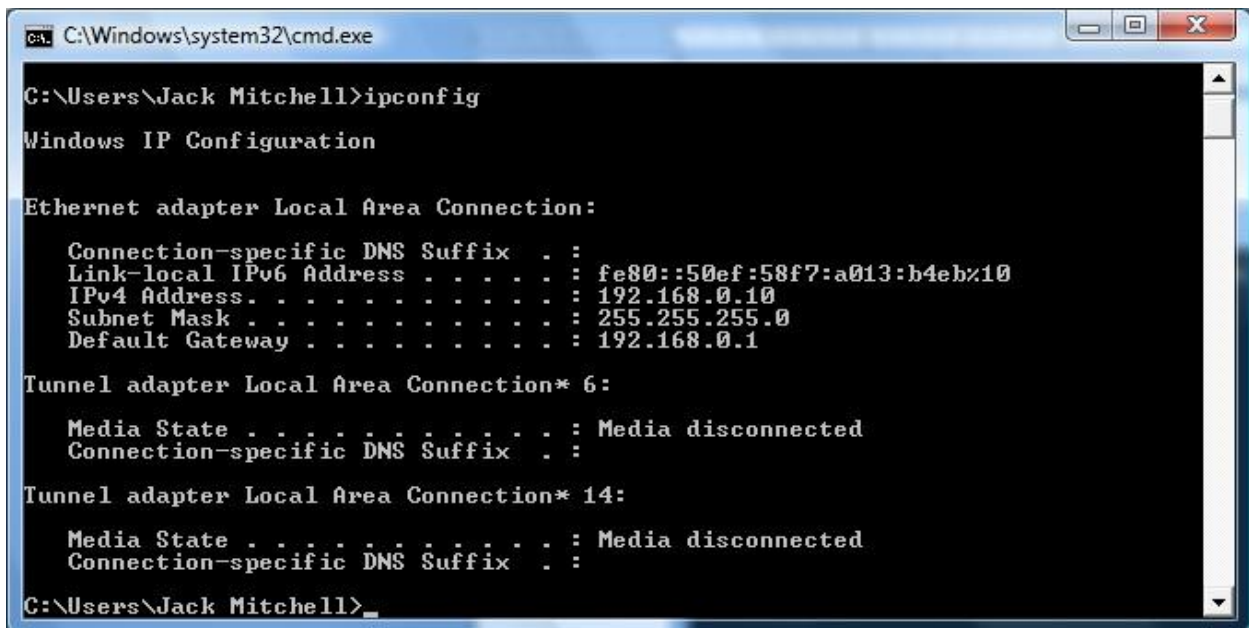
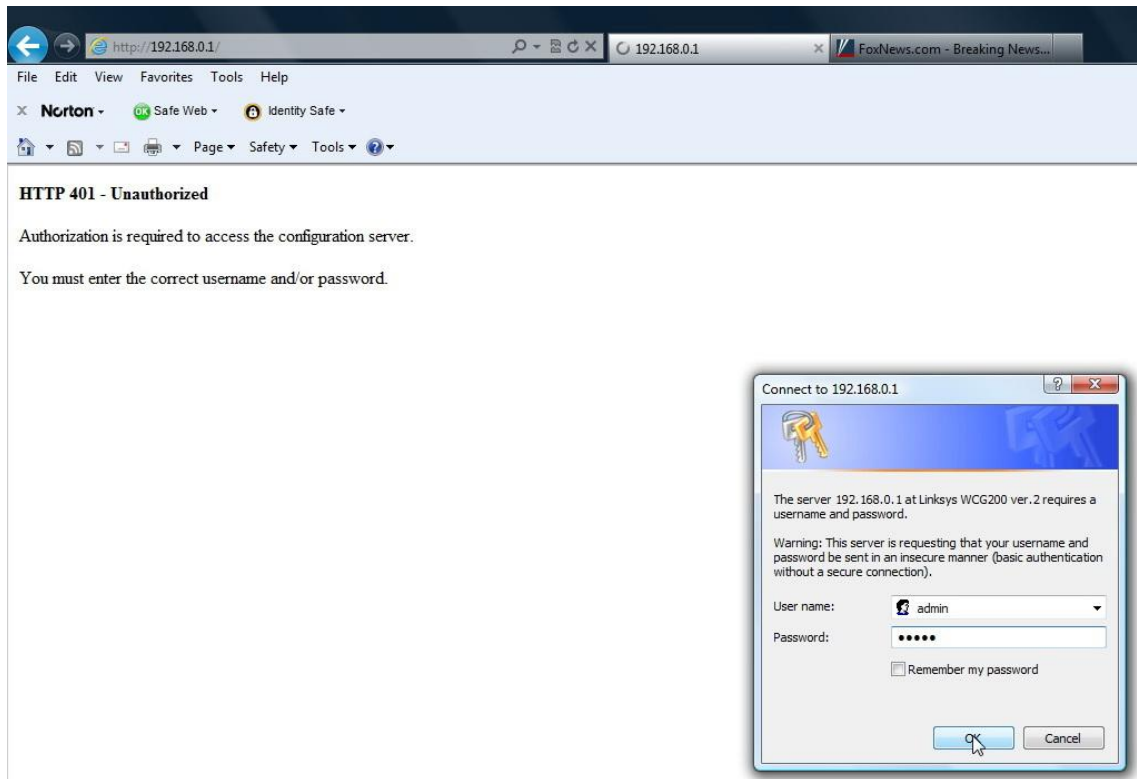


Figure 4. IP Addresses

Other options for obtaining the IP address for your router are to consult the manual that came with the router, go to the router manufacturer's website and look for information about your particular model, or visit <http://portforward.com>, where instructions are available for many brands and models of routers.

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Now that we have the router's IP address, we can log on to the utility set-up program from our Internet browser.



**Figure 5. Log on to router utility set-up program**

Once you connect to your router utility program, you will be asked to log in by entering a Username and a Password. Generally, Linksys routers are shipped from the manufacturer with the following default log-in settings:

Username = admin  
Password = admin

Other brands will have different default log-in settings. Obviously, if you or your computer technician has changed the default settings, you will need to enter the updated Username and Password.



**Figure 6. Router user name and password**

### **Making changes to the router utility set-up program**

After logging on, you will see the main status or setup page, which will look something similar to Figure 7.

Once you have logged in to the router utility program, follow these instructions carefully. Changing other settings can result in the loss of Internet connectivity, and the services of a qualified technician will likely be required to fix the problem. If you are unable to locate an Applications and Gaming section within your router utility (the name may be slightly different, depending upon the router manufacturer), seek assistance from a qualified technician.

The screenshot displays the Linksys router utility page. At the top left is the Linksys logo with the text "A Division of Cisco Systems, Inc." and the firmware version "2.0.3.5.10-0425". The page title is "Wireless-G Cable Gateway WCG200 ver.2". A navigation bar includes tabs for "Setup", "Wireless", "Security", "Access Restrictions", "Applications & Gaming", "Administration", and "Status". Below this is a sub-menu with "Gateway", "Connection", "Local Network", and "Modem Log". The main content area is divided into two sections: "Information" and "Status".

Information	Value
Standard Specification Compliant	DOCSIS 1.0/1.1/2.0
Hardware Version	2.0
Software Version	2.0.3.5.10-0425
Cable Modem MAC Address	00-1A-70-02-DE-54
Cable Modem Serial Number	KEC10G607919
CM Certificate	Installed

Status	Value
System Up Time	0 days 05h:35m:04s
Network Access	Allowed
WAN IP Address	97.82.196.111
Subnet Mask	255.255.224.0
Gateway IP Address	97.82.192.1
DNS Server(s)	24.178.162.3 97.81.22.195 24.159.64.23
WAN DHCP IP Address Lease	D: 00 H: 08 M: 00 S: 00
WAN DHCP IP Expires	Mon Jun 13 00:13:36 2011

Below the status table is a button labeled "Renew DHCP Lease".

Figure 7. Main router utility page

## Applications and Gaming

Click on the **Applications & Gaming** tab at the top of the window. This will bring you to the **Port Range Forward** page. Here is where you will provide the necessary instructions for forwarding the port or ports.

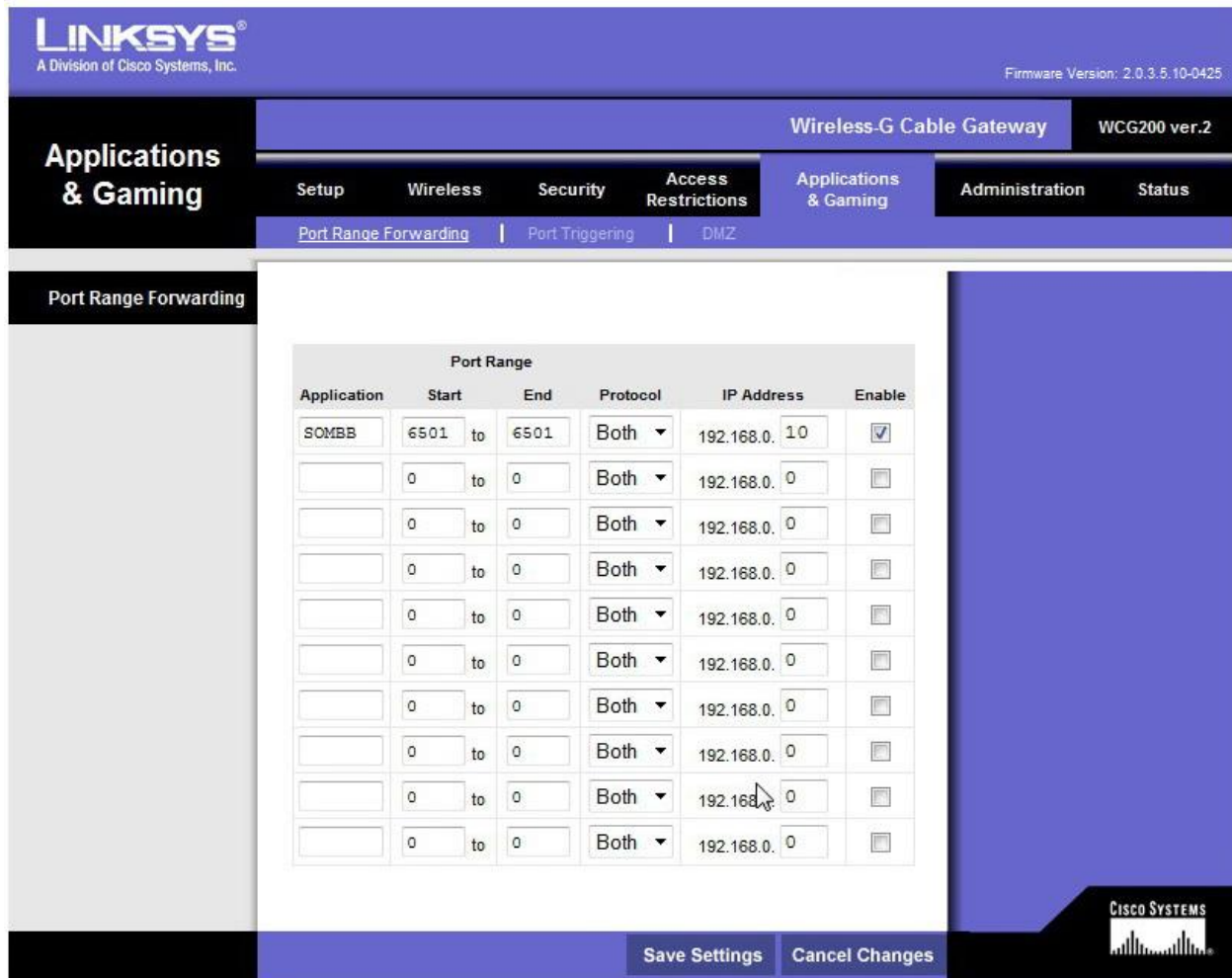


Figure 8. Port forwarding on Applications and Gaming Page

In the first box under the heading **Application**, enter a notation that will remind you later why this particular port or range of ports has been forwarded. If you are forwarding ports so that you can host Strat-O-Matic baseball games on Game Lobby, you might enter “GameLob” or “SOMBB.” What you enter in this box does not in any way affect the way your router functions. This is simply a notation for your future use so that you will recall why you entered this setting in your router utility program.

In the **Start** and **End** boxes, enter 6501—the only port that needs to be forwarded for Game Lobby.

Make sure **Both** is indicated in the box under **Protocol**.<sup>3</sup>

In the **IP Address** box, enter the IP address for the computer to which you wish the port to be forwarded (that is, the computer on which you will be running Strat-O-Matic Baseball or other application for which you need to forward a port). This is the address by which your router identifies the computer you are using on your wireless network. Every device that connects to your wireless network—desktop computers, laptop computers, smart phones, etc.—is assigned a unique IP address that allows it to exchange data with the router. Remember, we located the computer’s IP address when we ran the “ipconfig” command (see Figure 3). If you made a note of the computer’s IP address at that time, simply

<sup>3</sup> “Both” instructs the router to forward both UDP and TCP data packets through the specified port to your computer. Both types of data packets are needed for Game Lobby to work properly.



enter it now. If you did not make a note of the computer's IP address, you can repeat the process of running the "ipconfig" command.

To complete the set-up of your router for port forwarding, check the **Enable** box.

Finally, click **Save Settings** at the bottom of the page and exit out of the router utility.

**Do not change any other settings within your router utility.** You have now successfully forwarded port 6501, and you can exit the router utility set-up program.

### Confirming that port 6501 has been properly forwarded

Before you attempt to host a game on Game Lobby, you should confirm that port 6501 is open for both TCP and UDP data packets. PFPortChecker, a free utility program available for download from <http://portforward.com>, can be used to confirm that you have the proper set-up.

Download the PFPortChecker installation program and save it to your computer desktop. Close out other programs you may be open, double click on the installation program that you have downloaded, and follow the prompts. Installation will require no more than 30 seconds.

Once the program has been installed, you should find a new shortcut on your computer desktop for the PFPortChecker program (a large red PF). Click on it and the program window will appear.

Enter 6501 as the Port Number To Check. Then click the circle next to Protocol TCP and click on the **Check Me** button.

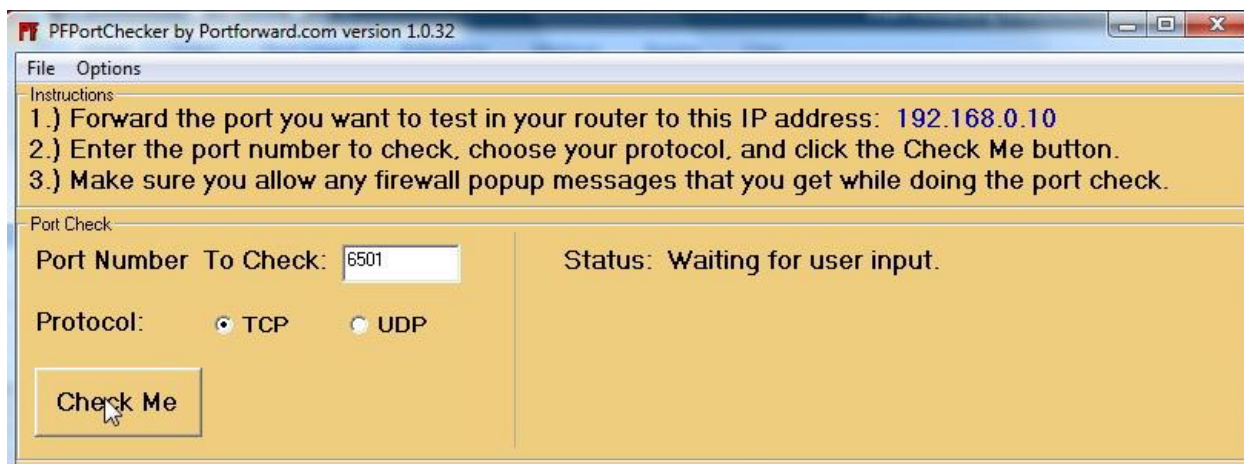


Figure 9. PF PortChecker checking port 6501 for TCP data packets

Hopefully, you will receive the following STATUS message: "Your port Is OPEN!"



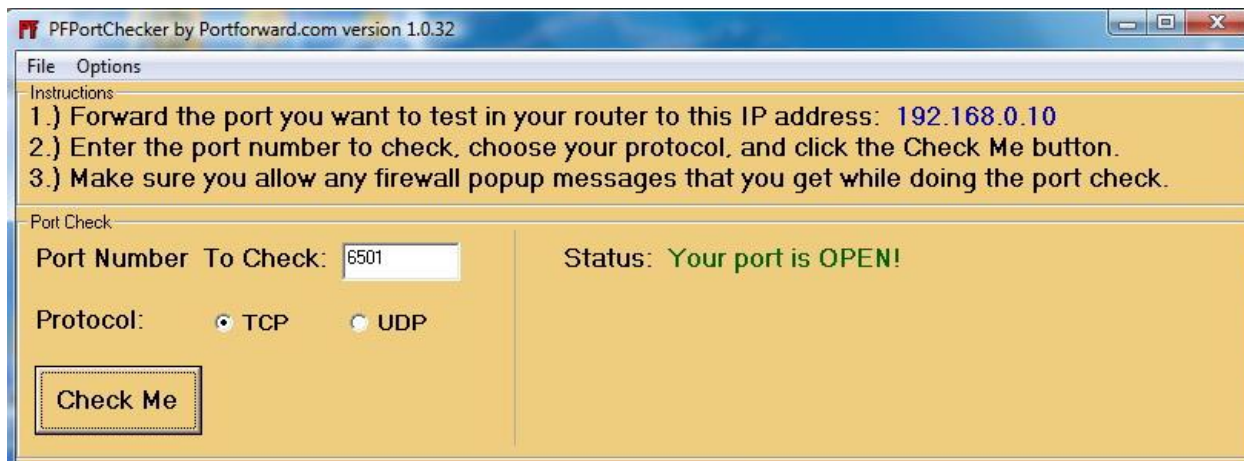


Figure 10. Confirmation that port 6501 is open for TCP data packets

Next, run the program a second time for the UDP protocol. Again, hopefully, the STATUS report will be, "Your port is OPEN!"

If you do **not** receive STATUS messages for both trials that indicate port 6501 is open, confirm that the IP address shown at the top of the PFPortChecker window is the same as the IP address you used when entering port forwarding instructions in your router utility. PFPortChecker automatically determines the IP address of your computer, and if it shows a different IP address, most likely you misread or miscopied the IP address when you ran the IPCONFIG program. In that case you will need to re-enter the router utility and correct the IP address to which port 6501 data packets are being forwarded.

In some cases the PFPortChecker program will report that port 6501 is not open when in reality it is open. This situation (a "false negative") is caused by software firewall programs (for example, Norton 360, Norton Internet Security, McAfee, Zone Alarm, etc.) that block PFPortChecker from establishing an incoming connection to your computer. Software firewalls generally create a set of security rules for each application. It is possible that your firewall security program may block PFPortChecker from functioning properly unless you manually adjust the rules for PFPortChecker within your firewall program or briefly turn off your firewall while the tests are conducted. If PFPortChecker is blocked by your software firewall, the STATUS report of your tests will be: "Your port is NOT OPEN or not reachable!"

If PFPortChecker indicates that port 6501 is not open, first confirm that the IP address to which you forwarded port 6501 is correct. If it is, turn off your software firewall (or modify the security rules for PFPortChecker within your firewall program) and re-run the tests of port 6501 for both TCP and UDP data protocols. You may find that port 6501 is actually open and that the initial STATUS reports from PFPortChecker were simply the result of being blocked by your firewall.

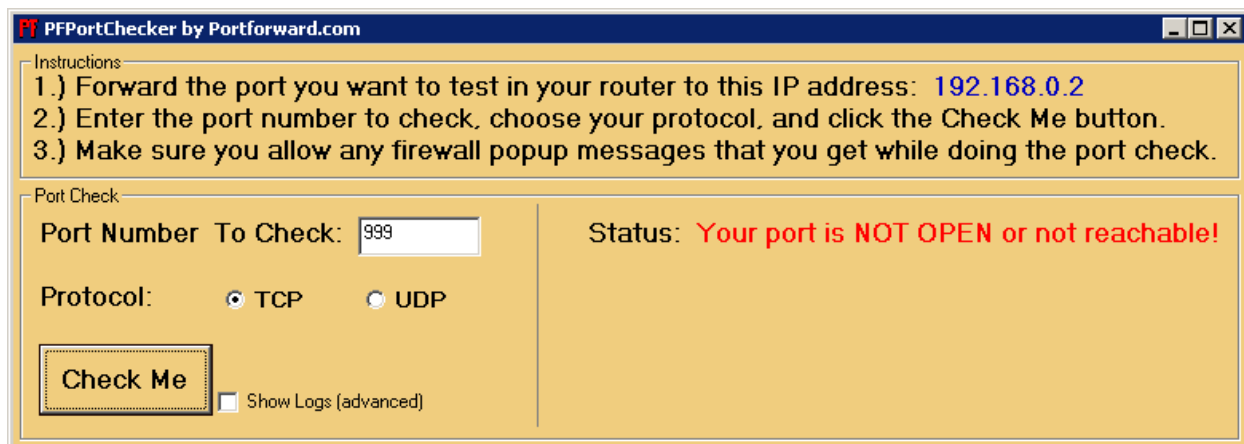


Figure 11. Port 6501 is not open for TCP data packets

If the STATUS report from either test is “Your port is NOT OPEN or not reachable!” then it is likely (but not certain) that you will be unable to host on Game Lobby.

If port 6501 is shown to be open for both TCP and UDP data packets, you can be at least 95% confident that your computer is properly configured to serve as host for a Strat-O-Matic baseball game using Game Lobby.

**IMPORTANT:** Unless you have made special arrangements to have a permanent IP address (technically, a “static IP address”) assigned to the computer on which you play Strat-O-Matic Baseball, your computer will be assigned a temporary IP address (technically, a “dynamic IP address”) each time the computer joins your network. For example, if you turn your computer off and later turn it back on, it will be assigned an IP address when it is re-booted that may not be the same IP address as was assigned previously.

This is important because if the IP address of your computer changes, you will need to re-enter your router utility program and update the IP address to which port 6501 is forwarded before you will be able to host on Game Lobby.

For this reason, I strongly suggest that every time before attempting to host a game with Game Lobby you re-run PFPortChecker to confirm that port 6501 is open. If you find that the IP address of your computer has changed, update the IP address to which port 6501 is forwarded in your router utility.

## Troubleshooting

If you encounter difficulties with Game Lobby after this procedure, try the following:

- Re-enter your router utility and confirm that your settings on the Applications & Gaming page were properly entered and saved. Confirm that the IP address to which you have forwarded the port is the same as that shown by the PFPortChecker or ipconfig program.
- Make sure you have the latest Microsoft Windows updates installed on your computer. Run Microsoft Update and install all high-priority updates.
- If after taking all these measures you find that you still cannot host a Strat-O-Matic baseball game on Game Lobby, you may need to change your firewall/security settings to permit data to pass to and from the Strat-O-Matic program (sombb.exe). There are two possible firewall/security measures that you can try:
  1. **Windows Firewall.** Windows operating systems include a built-in Windows Firewall which can be turned on or off. Click on Control Panel, then Security and check the status of Windows Firewall. If it is ON, it could be blocking the flow of data packets to and from the program sombb.exe. Try changing the settings for Windows Firewall to allow data to pass unimpeded to sombb.exe and/or to port 6501. Alternatively, you can turn off Windows Firewall during the time that you are hosting a game via Game Lobby. However, turning off your firewall could expose your computer to Internet attacks, possibly resulting in viruses.
  2. **Third-party Software Firewalls.** If you are not using Windows Firewall as your firewall, most likely you are using a third-party software firewall, such as Norton 360, Norton Internet Security, McAfee Security, Zone Alarm, etc. These programs will typically block the flow of data to and from sombb.exe unless you modify the settings to exempt sombb.exe from the default security setting. You may need to experiment with your firewall software to find the screen that allows you to change the security setting for sombb.exe. (I have successfully made this change on both Norton 360 and Norton Internet Security, and I assume all firewall programs offer the option of

making security exceptions for specific programs). Obviously, you can also turn off your firewall altogether, but that should be regarded as a last-ditch measure as it could expose your computer to security risks.

- You should use only one software firewall with your computer. If you are using Windows Firewall and a third-party software firewall at the same time, you will almost certainly experience problems with Game Lobby. If you find that you are using two firewall programs, deactivate one and create the proper settings for the other.
- Be aware that unless you have made arrangements for a permanent (“static”) IP address for your computer, your router will assign an IP address to each device on your network every time it re-joins the network (for example, when a device is turned on after being off for a time). The IP addresses may be assigned in the order in which devices are turned on and join the network. As a result, if you have multiple devices on your network, your computer may be assigned a different IP address each time it is re-booted. If your computer is assigned a different IP address, you will need to update the port forwarding set-up in your router utility. You can easily check the current IP address of your computer before attempting to host a game in Game Lobby by using the PFPortChecker program or the ipconfig program.