Created for use on www.war3pub.net
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Any changes you make are to be done at YOUR own risk. I cannot and will not be held liable for any changes that you make, that cause loss of connection, network issues, small brush fires, bad B.O, etc. Please make sure that if you are changing settings on a school / work network, that you get the permission of the Network Administrator before changing any settings. Use of this document signifies your compliance and agreement to the above statement. (In other words, you agree not to sue me or tell me I crashed your network. I don't have any money anyway, so you wouldn't be getting much. hehe)

This document is designed so that you will not have any extra steps in between the steps listed here. For the least amount of trouble, it is suggested that these steps be followed EXACTLY.

Ok, with that out of the way…

To set up a server check this document FIRST, then come back here:
http://war3pub.net/forums/viewtopic.php?t=2021

Also, if you want to "tweak" your network / internet connection, try using the files in my "tweaks" post:
http://war3pub.net/forums/viewtopic.php?t=7293

And for all the patches and everything you need:
http://www.war3pub.net/resources/files/

NOTE: *I am going to try and explain each technical term that is used, but if I forget something, and you need to know what is talked about, or if you just have a question in general please e-mail me.*

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Section i - IP Addresses

Windows 98 or ME

Click “Start”
Click “Run”

Type this in the RUN field: Winipcfg

Click “OK”

Your IP address information will be listed
(You may have to change adapters using the pull down menu at the top of the window.)

Windows NT, 2000 and XP:

Click “Start”
Click “Run”

Type this in the RUN field: cmd

Click “OK”

Type: ipconfig /all
Press ENTER

Your IP address information will be listed.

Section ii – Changing ports in the registry

NOTE: *This can be like playing with fire, so be VERY VERY VERY careful and ONLY do what is said here. If you are not sure about something, ask FIRST, then try later.*

Click “Start”
Click “Run”
Type this in the RUN field: regedit
Click “OK”

In registry navigate to this folder:
HKEY_CURRENT_USER\SOFTWARE\Blizzard Entertainment\Warcraft III beta\Gameplay

Change the value of netgameport from 6112 to {the port you are needing}
(Make sure the bullet is set to decimal NOT hexdecimal)

Section 1 - Direct Connections

Firewall on a computer that is directly connected to the Internet
(Dial-up or Broadband)

First off, I would suggest getting a copy of Kiero's Personal Firewall software from:
http://www.kerio.com.
It is VERY easy to use, and is really what is needed for basic firewall protection; that and it is free.

If you don't want to get a new firewall or if you already have Kerio, then you need to open the following ports.

6110 – 6120 - TCP and UDP

Section 2 - "Indirect" Connections

One Computer that is connecting to the Internet via another computer

This setup is normally a computer that is on a network with other computers, and all the computers connect to the Internet via that ONE machine.

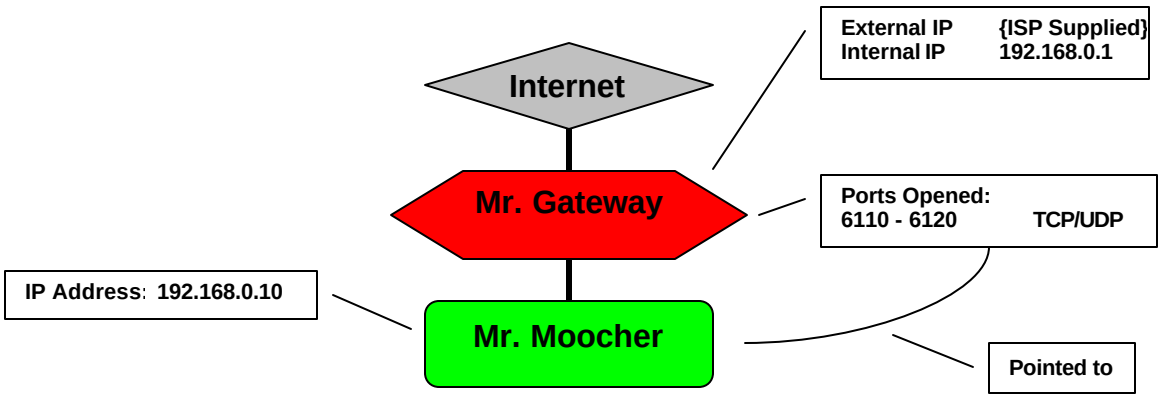
Most networks in this situation are using NAT (Network Address Translation). In most cases a proxy server and/or firewall is implemented here.

First, you need to have direct administrative access to the machine that is acting as the gateway to the rest of the Internet. (The machine that is directly connected to the Internet and you are connected to the Internet through)

You need to open the following ports and point (map) those open ports to the IP address of the machine that is playing War3.

6110 – 6120 - TCP and UDP

For example:
The computer that is connected to the Internet (NAT, Proxy) is called Mr. Gateway and his IP address is 192.168.0.1. The computer that is connecting to the Internet via Mr. Gateway (and playing War3) is called Mr. Moocher and his IP address is 192.168.0.10 .
TCP and UDP ports 6110 - 6120 are opened on Mr. Gateway and they are NOT pointed to 192.168.0.1. Instead they are pointed to 192.168.0.10 which as we all know is Mr. Moocher.



Multiple computers that are connecting to the Internet via another computer

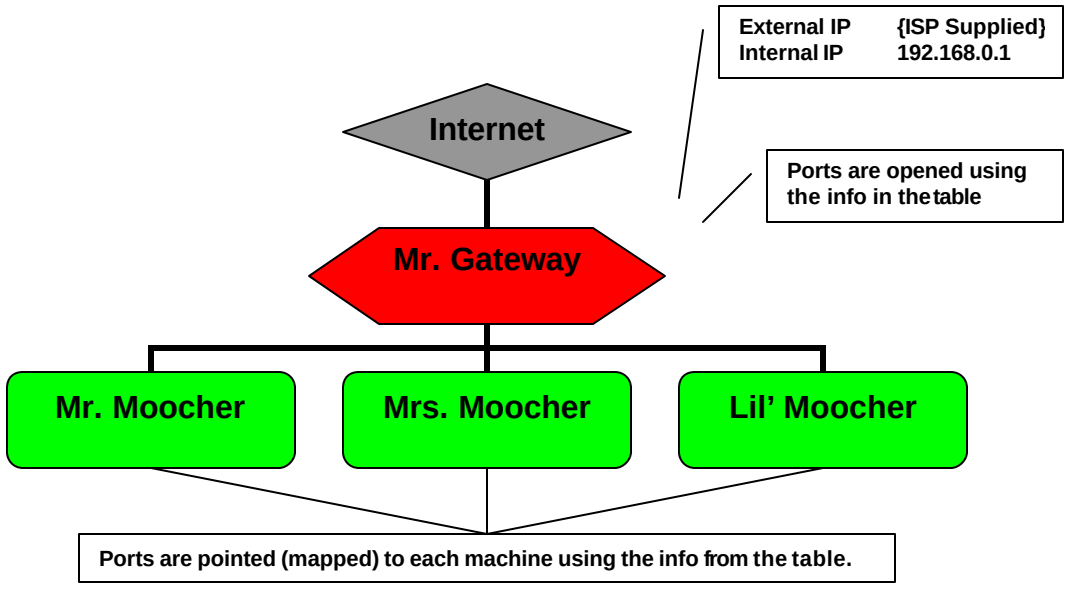
First, you need to have direct administrative access to the machine that is acting as the gateway to the rest of the Internet. (The machine that is directly connected to the Internet and you are connected to the Internet through)

Computer #	Computer IP	Ports	Assigned port in Registry
1	192.168.0.10	6110 – 6120	6112
2	192.168.0.11	6125 – 6135	6127
3	192.168.0.12	6140 – 6150	6142
4	192.168.0.13	6155 – 6165	6157
5	192.168.0.14	6170 – 6180	6172

Using the table above you need to open the range of ports on Mr. Gateway, and point (map) those ports to the assigned computer.

After that is completed, follow the instructions in Section ii to set up the registry correctly.

For example:
The computer that is connected to the Internet (NAT, Proxy) is called Mr. Gateway and his IP address is 192.168.0.1. The computer(s) that are connecting to the Internet via Mr. Gateway (and playing War3) is called Mr. Moocher (he will be hosting games) and Friends and their IP addresses are 192.168.0.10 - 192.168.0.20 .
Ports (follow the table) are opened on Mr. Gateway and they are pointed (mapped) to each computer (using the table).



Section 3 - Routers

NOTE: *This section assumes you know how to set TCP/IP settings. If you have trouble, please e-mail me.*

Also, you are going to need the DNS server(s) IP address(es) that are supplied by your ISP.
To view these open a DOS Prompt window and type: ipconfig /all
If you need assistance with this, please e-mail me.

Using a Linksys (BEFSR41) router with one computer

Download the router firmware
ftp://ftp.linksys.com/pub/network/befsr-fw1427.zip

Reset the router by pressing and holding the reset button on the front of the router for 5 seconds (or until the WAN light turns red)

Your default username is now blank.
Your default password is now: admin

Using firmware (tftp.exe) software, update the firmware (the file you need when the software asks for it is: "code.bin")

Open your Internet Web Browser
Type http://192.168.1.1 in the address bar and press ENTER.
Leave the username field blank
Type "admin" in the password field (excluding the " " marks)

Setup Tab

Host Name:	Empty
Domain name:	Empty
Firmware Version:	1.42.7, Apr 02 2002
LAN IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0
WAN connection Type:	Obtain IP Automatically

Click Apply
Click Continue

Password Tab

Password:	*It is suggested that you set a new one that you will remember!!*
UPnP:	Enable
Restore Factory Defaults:	No

Click Apply

Status tab

No settings

DHCP Tab

DHCP Server: Disable

Click Apply
Click Continue

Log tab

Access log: Disable

Click Apply
Click Continue

Security Tab

No settings

Advanced Tab

Filters Tab

SPI:	Disable
Block WAN Request:	Enable
Multicast Pass Through:	Disable
IP Sec Pass Through:	Disable
PPTP Pass Through:	Disable
Remote Management:	Disable
Remote Upgrade:	Disable

MTU Enable Setting: 1500

Click Apply
Click Continue

Section 3b

Forwarding Tab

Customized Apps:	War3Comp1
Ext. Port:	6110 to 6120
Protocol TCP:	Checked
Protocol UDP:	Checked
IP Address:	192.168.1.100
Enable:	Checked

Click Apply
Click Continue

End section 3b

Section 3c

UPnP Forwarding button

Application Name:	War3-1U
Ext port:	6112
Protocol:	UDP
Int Port:	6112
IP Address:	192.168.1.100
Enable:	Checked

Application Name:	War3-1T
Ext port:	6112
Protocol:	TCP
Int Port:	6112
IP Address:	192.168.1.100
Enable:	Checked

Apply
Continue

End section 3c

Dynamic Routing Tab

Working Mode	Gateway	
Dynamic Routing:	TX:	Disable
	RX:	Disable

Apply
Continue

Static Routing Tab

No settings

DMZ Host Tab

No Settings

MAC Addr Clone

No Settings

Section 3d

Manually set the following values in the TCP/IP protocol settings:

IP address:	192.168.1.100
Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0
DNS:	(ISP Supplied, but the values still need to be entered manually)

End section 3d

After all the above settings have been completed:

- Shut down your computer
- Unplug your router and wait 10 seconds
- Plug in your router
- Turn your computer back on

Using a Linksys (BEFSR41) router with multiple computers

NOTE: *You will need to follow the section "Using a Linksys router with ONE computer" on the first computer; then for each additional computer, use the instructions in this section.*

Setting up multiple computers using a Linksys router can be a little more involved. Just keep in mind that you need to follow these directions exactly. It can be very easy getting all these numbers mixed up, so I would suggest setting up one computer at a time, then make sure it can connect before you start on the next machine.

There is a pattern to setting up the computers' IP addresses and ports. Table A should help:

Table A:

Computer #	Computer IP	Ports	Assigned port in Registry
1	192.168.1.100	6110 - 6120	6112
2	192.168.1.101	6125 - 6135	6127
3	192.168.1.102	6140 - 6150	6142
4	192.168.1.103	6155 - 6165	6157
5	192.168.1.104	6170 - 6180	6172

In order to change the port in the registry, for each machine, per the table, you need to follow section ii.

NOTE: *All the gateway's are the same, as well as the DNS addresses, in the TCP/IP settings.*

First you need to follow section 3b. The following table shows section 3b for two computers. You should be able to identify the pattern and keep going with three or more computers.

Computer 1:

Customized Apps:	War3Comp1
Ext. Port:	6110 to 6120
Protocol TCP:	Checked
Protocol UDP:	Checked
IP Address:	192.168.1.100
Enable:	Checked

Computer 2:

Customized Apps:	War3Comp2
Ext. Port:	6125 to 6135
Protocol TCP:	Checked
Protocol UDP:	Checked
IP Address:	192.168.1.101
Enable:	Checked

Continued to next page...

After setting up all the direct ports, it is best to open the port ranges using “Table A”. That is all done by following section 3c. Once again, the first two computers are shown, and you should be able to see the pattern.

Computer 1

Application Name:	War3-1U
Ext port:	6112
Protocol:	UDP
Int Port:	6112
IP Address:	192.168.1.100
Enable:	Checked

Application Name:	War3-1T
Ext port:	6112
Protocol:	TCP
Int Port:	6112
IP Address:	192.168.1.100
Enable:	Checked

Computer 2:

Application Name:	War3-2U
Ext port:	6127
Protocol:	UDP
Int Port:	6127
IP Address:	192.168.1.101
Enable:	Checked

Application Name:	War3-2T
Ext port:	6127
Protocol:	TCP
Int Port:	6127
IP Address:	192.168.1.101
Enable:	Checked

You now need to follow section 3d making sure to increment your IP address by 1 for each machine. As above, the first two have been done for you.

Computer 1:

IP address:	192.168.1.100
Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0
DNS:	(ISP Supplied, but the values still need to be entered manually)

Computer 2:

IP address:	192.168.1.101
Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0
DNS:	(ISP Supplied, but the values still need to be entered manually)

Using a Longshine (LCS-883R-DSL-4F) router with one computer

NOTE: *You are going to need the DNS server(s) IP address(es) that are supplied by your ISP.*
To view these open a DOS Prompt window and type: ipconfig /all
If you need assistance with this, please e-mail me.

Open your Web Management Interface. (WMI)

Go to the “LAN Settings” section.

Set the following fields to match:

LAN IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
Network Address Translation (NAT)	Enable

Click Save

Go to the “DHCP Server” Section

Change “Enable DHCP Server” to Disable

Click Save

Section 3d

You now need to change your TCP/IP Settings on your computer to match the following info:

IP Address	192.168.1.100
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
DNS	{ISP SUPPLIED}

Go to the “Local Server” section.

Set the following fields to match.

Protocol	TCP and UDP
External Port No	6112
Physical IP Address	192.168.1.100
Internal No	6112

Click Add

- End 3d

Go to the “Firewall” section.

Disable the firewall.

Shut down your router, and your computer.

Power your router back up, then turn your computer back on.

Using a Longshine (LCS-883R-DSL-4F) router with multiple computers

NOTE: *This setup for this section is very similar to the setup above. Follow Section 3d, using the information from the table.*

Setting up multiple computers using a router can be a little more involved. Just keep in mind that you need to follow these directions exactly. It can be very easy getting all these numbers mixed up, so I would suggest setting up one computer at a time, then make sure it can connect before you start on the next machine.

There is a pattern to setting up the computers' IP addresses and ports. The following table should help:

Computer #	Computer IP	Port	Assigned port in Registry
1	192.168.1.100	6112	6112
2	192.168.1.101	6113	6113
3	192.168.1.102	6114	6114
4	192.168.1.103	6115	6115
5	192.168.1.104	6116	6116

NOTE: *All the gateway's are the same, as well as the DNS addresses, in the TCP/IP settings.*

In order to change the port for each machine, per the table, you need to follow section ii.

Information on Netgear routers

It has been confirmed during testing, and via Netgear's support documents located at www.netgear.com, that most Netgear routers are not compatible with online gaming and some video teleconferencing. I have personally tested this with the RT314, and the RP114. One thing you might try is to open (map) ALL ports to one specific machine on your network, and go from there. Also, if your router has a DMZ option, you might try setting that, as DMZ exposes a computer to the Web.

The routers cannot have internal machines create a game on an Internet server, and have the LAN members join. In order to play a game together, you need to connect to the internal IP address, but since you are connected to the battle.net server that is on the internet, all the computers try to connect to one another using the external IP address.

If it comes down to the fact that your router behaves just as the RT314 or the RP114, then the only way to play a game with all your computers on your LAN is to create your own server. If you were running a server behind the router, then you could make a game on your LAN and join it with all your computers.

Internet users would be able to join your games if they connected to your server as well...

If you would like instructions on setting up a server, view this post:
http://war3pub.net/forums/viewtopic.php?t=2021

Section 4 - Local Area Networks

Warcraft 3 on a LAN

NOTE: *Follow the instructions included in Section 2 (MULTIPLE computers that are connecting to the Internet), then read on...*

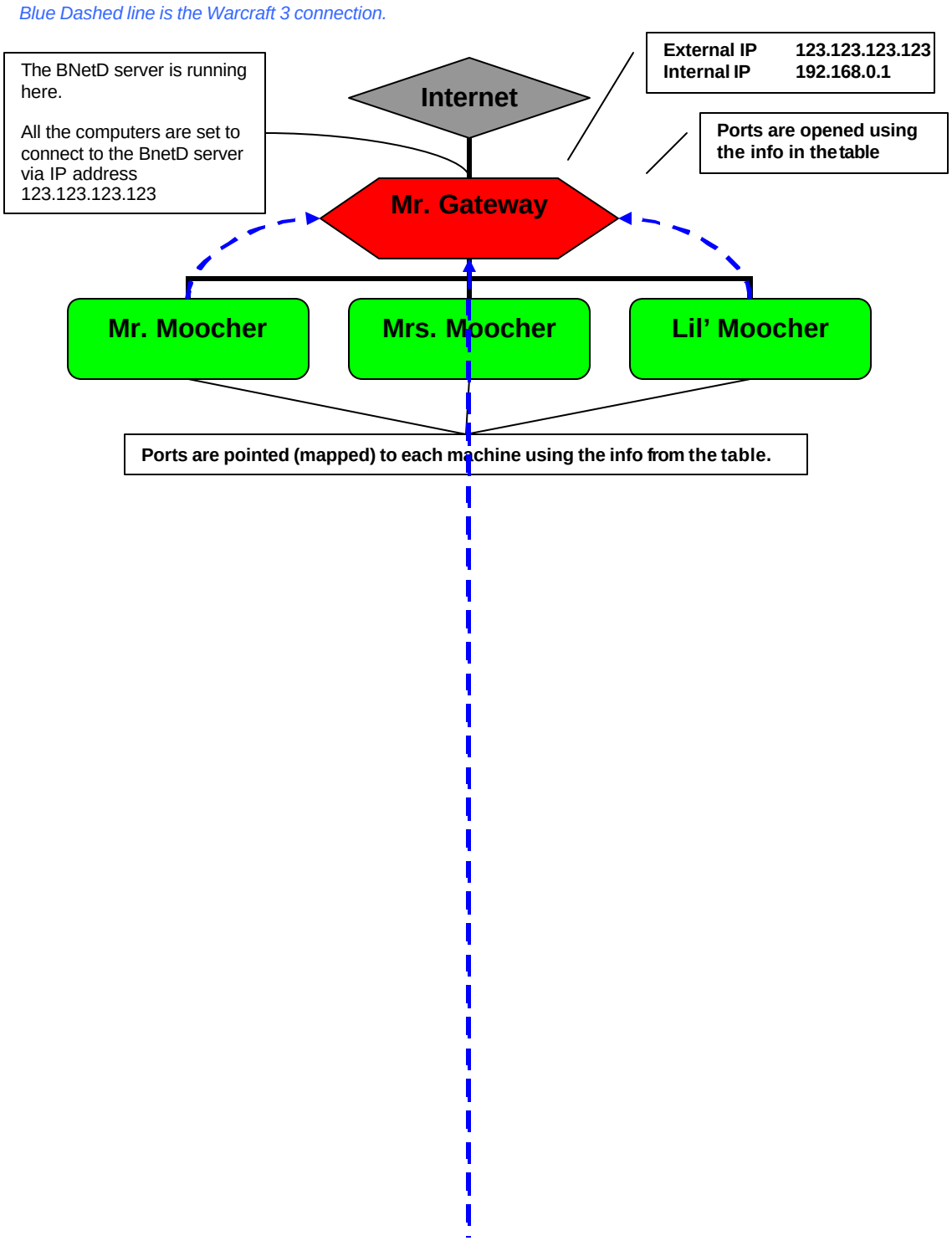
If you are wanting to play on your OWN server and want all your LAN friends to play on this server, then run the server on Mr. Gateway and then point War3 to connect to Mr. Gateway's IP address as the Battle.Net server. Then you will have that dedicated server you need since no one is using Mr. Gateway to play War3.

Warcraft 3 on a LAN including players outside the LAN

NOTE: *Follow the instructions included in Section 2 (MULTIPLE computers that are connecting to the Internet), then read on...*

First, you MUST have NAT setup correctly, and there should NOT be ANY packet filtering in place on Mr. Gateway. Now remember Mr. Gateway has TWO IP addresses. An ISP supplied address and one that is specified for the internal network.

If all is set up correctly, you need to make sure that when you specify your Battle.net server on the machines that are BEHIND Mr. Gateway (Mr. Moocher and his friends) that you use the ISP supplied IP address and NOT the internal address, using BNetConfig.exe.



Section 5 - Windows XP

Using Windows XP's firewall with a direct connection to the Internet (Dial-up or Broadband)

Note: *Contrary to popular information / belief, I would NOT suggest disabling the SSDP service. This will cause you problems if you have a network set up at your location.*

Normally Windows XP is "smart" (as are some other firewalls) and will open the ports needed when you INITIATE the connection to a server, or game, but it will not leave them open. Once you close your connection, then the ports close again. This can be a real problem if you need people to connect to your game. Here is how to open those ports:

Click on "Start"
Click on "Control Panel"
Double Click on "Network Connections"
Double Click on your Internet Connection (could be listed as a modem or a Local Area Connection)
Click on the "Properties" button
Click on the "Advanced" tab at the top of the window

There should be a text box that is labeled: "Protect my computer and network by limiting or preventing access to this computer from the Internet"

Make sure that box is CHECKED.
Click the "Settings" button on the bottom right corner of the window.

1. Click the "Add" button on the bottom left of the window
2. In the "Description of service" field type: War 3 6112 TCP
3. In the "Name or IP address" field type: 127.0.0.1
4. In the "External Port" field type: 6112
5. In the "Internal Port" field type: 6112
6. Make sure "TCP" is bulleted
7. Click "OK"

Do the same steps above but change steps 2 and 6 to the following information:

2. War 3 6112 UDP
6. Make sure "UDP" is bulleted

If you still have trouble after opening those ports, then you could try adding port 6113 to the list (some people have found this to be a solution as well).
To do that, follow the above steps again, but anywhere 6112 is listed, substitute 6113.

Using Windows XP's ICS (Internet Connection Sharing)

Note: *Contrary to popular information / belief, I would NOT suggest disabling the SSDP service. This will cause you problems if you have a network set up at your location.*

This section is just a BIT different than the above section. Instructions in this section ASSUME that you ALREADY have ICS working with two Windows XP computers.

Follow all the instructions in the previous section on the computer that is directly connected to the Internet.

NOTE: *Be SURE that you ONLY do this step on the network card that is connected to the Internet, NOT the one that connects to your other computer and/or hub/switch.*

Once that is complete, make sure that you have the firewall turned off on the computer that is not connected directly to the Internet.

You do this by:

Click on "Start"
Click on "Control Panel"
Double Click on "Network Connections"
Double Click on your Internet Connection (could be listed as a modem or a Local Area Connection)
Click on the "Properties" button
Click on the "Advanced" tab at the top of the window

There should be a text box that is labeled: "Protect my computer and network by limiting or preventing access to this computer from the Internet"

Make sure that box is UN-CHECKED.
Click "OK"

NOTE: *Please be TOTALLY sure you are ONLY doing this on the computer that is not connected directly to the Internet, but is using your other computer's connection.*

NOTE: *People will NOT be able to connect to a game that was created by a computer that is behind the computer that is directly connected to the Internet. You will need to set up some sort of "routing" software. Such as WinRoute Pro or Kerio Personal Firewall. I would suggest www.kerio.com and download Kerio Personal Firewall. It can be set up on the "gateway" machine to route packets.*

Follow the instructions in this document on how to make WinRoute Pro or Kerio work for you.

Section 6 – Firewalls

Kerio Personal Firewall (KPF)

First off, I would like to say that KPF is a VERY slimmed down version of firewall software. It is not designed to do "routing" as I will talk about later, but we can make it work. I really would suggest using WinRoute Pro as a more permanent solution, but for the rest of us who don't have extra cash to spend, KPF will work just fine.

Kerio Personal Firewall can be downloaded from www.kerio.com, and is free to home users.

NOTE: *If you are using Windows XP make sure that you disable the built in firewall that is part of your network settings.*

Section 6a – Using KPF with just one computer that is playing Warcraft 3.

Install KPF.

Once KPF is loaded…

Click "File"
Click "Admin"
The "Firewall Enabled" check box needs to be set.

Move the slider bar to "Ask me first"
This will make the program ask you if you want to do certain things, then set automatic maps to those ports. It will make your life easier.

Click the "Advanced" button

Click on the "Microsoft Networking" tab.
Uncheck "For Microsoft Networking Use These Rules Instead of Filter Rules"

Click on the "Miscellaneous" tab
The only box that should be checked is "Log Into File (filter.log)"

Click "Apply"
Click "OK"

The main settings are now set.

When you start to use a program that accesses the internet such as Internet Explorer, or Warcraft 3, a window will pop up.

It will say "Outgoing Connection Alert!"
Check the "Create appropriate filter rule and don't ask me again" box.
Click "Permit"

NOTE: *ONLY permit if you know what program is trying to access the internet. Some programs (such as viruses) try to access the Internet without your knowledge. So take it easy on the "permit" button. :-D*

The "Incoming Connection Alert!" box will open when someone / something is trying to establish a connection to your computer. In most situations you would check the "Create appropriate filter" box and click "Deny". You do NOT want to do this when you are trying to play on Battle.net. You can view the program that is trying to make the connection from that window that opens. If that program is Warcraft 3, you need to check the box and "Permit" it.

Section 6b – Using KPF on a computer that is acting as a gateway and is not playing Warcraft 3 (i.e. ICS from section 5)

Follow section 6a then continue reading.

The setup for this is pretty much the same…just a few minor changes…

Click “File”
Click “Admin”
Click the “Advanced” button

Under the “Filter Rules” tab click the “Add” button

Set the following settings:

Description:	Warcraft 3
Protocol:	TCP and UDP
Local Endpoint Section	
Port type:	Port/Range
First port #:	6110
Last port #	6120
Remote Endpoint Section	
Address Type:	Single Address
Host Address:	{IP OF MACHINE BEHIND GATEWAY}
Port Type:	Port/Range
First Port #:	6110
Last Port #:	6120
Rule Valid:	Always
Action:	Permit

Click “OK”

Once that is all set, you are ready to create games on the machine behind the gateway!

WinRoute Pro (WRP)

WinRoute Pro is an extremely robust and highly configurable firewall / NAT software. If you are not familiar with firewall / NAT software, I would suggest something like Kerio Personal Firewall.

Also, WinRoute is not designed to run on just one computer. It is designed to be run on a computer that is to act as a gateway to the rest of the Internet. I would suggest switching to Kerio Personal Firewall if you have a "one computer" configuration.

Since this program is designed for more advanced users in mind, I am going to assume that you already have the program installed, and have NAT running correctly.

On the far right of the toolbar this is a button that looks like 4 squares.
It is the "Port Mapping" button.
Click that button.

Click "Add"

Set the following settings:

Protocol :	TCP / UDP
Listen IP:	<Unspecified>
Listen Port:	Port Range
	6110 – 6120
Destination IP:	{IP Address of computer behind the gateway machine}
Destination Port:	{Should automatically fill in}

Leave the "Allow access only from" box unchecked.

Click "OK"
Click "Apply"
Click "OK"