

Changes to Home Network Configuration for JCloisterZone: A Guide

by Dan Chard (May 2014)

Disclaimer: although I would consider myself reasonably IT literate I'm certainly no expert when it comes to networking. I've written this document as a guide for those who want to be able to host online games of Carcassonne using JCloisterZone and I've written it based on personal experience of what I had to do when I configured one of my home laptops to do just this. I've attempted to explain everything in sufficient detail without assuming too much of a technical background and inevitably this has made it quite a long document. Feel free to skip over anything you're already comfortable with, and please let me know if you'd like to suggest any technical corrections and/or alterations. After all, I'm still learning this stuff too!

In order for a network connection to be shared between multiple devices, most home networks will have a network router of some description. These come in all shapes and sizes, will normally include an integrated modem and in most cases will be provided by whoever provides your internet connection. Most modern routers will offer wireless connectivity but regardless of whether it's wireless or you have to plug directly into it, the router is what makes sharing your internet connection possible.

Unless you have a very specific (and probably quite complicated) network configuration at home, most people will have just one "external" IP address regardless of how many PCs/ laptops/ tablets/ phones or whatever other devices share the same internet connection. This external address will be unique for your router and is the entry point to your home network from the outside world. You can find out what your external IP address is by visiting a website such as <http://www.whatismyip.com>. If you own several devices that share the same internet connection try it from all of them and you will see that the IP address returned is the same.

Every device that shares your internet connection will also be assigned an "internal" IP address which is often in the range of 192.168.x.x. These addresses are allocated by your router to any device that connects to it. It uses a service known as DHCP ("Dynamic Host Configuration Protocol") to do this.

Your router "leases" these internal IP addresses to specific devices for a fixed period of time. When this period comes to an end/ expires the router will lease a new IP address which won't necessarily match the address the device had before the lease expired. Under normal circumstances this wouldn't matter because your internal IP address is almost irrelevant and won't affect your internet access. However, in order for a specific PC/ laptop on your home network to be used to host games via JCloisterZone its internal IP address needs to be fixed/ static rather than leased (you'll see why later on). Setting this isn't a complex process but it does require making a change to your DHCP settings on your router. Furthermore, since all routers are different it would be impossible for me to provide a detailed, step-by-step guide explaining how to make this change.

As a starting point though, you will need to know the internal IP address of your router (like every other device on your network the router also has an internal IP address) as well as a username and password that you can use to access it. These may be written on the router itself, or you may be able to find them on Google if you do a search for your make and model of router.

Once known, you should be able to enter the IP address of the router into an Internet Explorer window (or your preferred browser) and connect to it. Provided that the username and password you have are correct you should then be able to access the configuration pages for your router. Hopefully the DHCP configuration page will be obvious and might include a list of devices currently connected to your router along with the internal IP addresses it has assigned them. Individual devices may be identified by their computer name, "MAC address" or internal IP address.

Under most versions of Windows you can find the computer name of the machine you're currently using by holding down the Windows key and pressing Pause/Break. You can find the MAC address and internal IP address of the machine you're currently using by opening a Command Prompt window (Start – All Programs – Accessories – Command Prompt) and typing "ipconfig /all" (without quotes). The MAC address will be listed as "Physical Address" and should be six pairs of alpha-numeric characters separated by dashes i.e. "A4-BA-DB-FA-5F-11". The internal IP address will be listed as "IPv4 Address" and may well be something like 192.168.0.2.

As I mentioned a few paragraphs ago, it would be impossible to say exactly what you need to do to allocate a fixed internal IP address to your JCloisterZone host machine now that you've identified it. On my router all I had to do was to click a button next to it in the list of connected devices which read something like "Lease Never Expires". Hopefully it will be something similar to this on your router too. The change should be immediate although you will probably need to make sure you save this change if there is an option to do so. Be sure to make a note of the IP address that is assigned too, and don't log out.

At this point, if you have several different devices on your home network, you may be wondering how your router will know which device to send any JCloisterZone traffic to since the external IP address appears to be the same for every device. This is where "port forwarding" comes in, and this is why you've just assigned your JCloisterZone host machine a fixed/ static internal IP address...

By default, your router will ignore any unexpected data and other requests that come to your external IP address from the outside world. This is because that data could be anything and it may compromise the security of your network if the router allowed everything through. As I understand them, ports are used as a mechanism of ensuring that certain types of data are expected, and port forwarding is used to make sure that data is handled correctly depending on the port used. While you're still connected to the configuration pages of your router, look for a Port Forwarding page/ section and navigate to it, hopefully it will be obvious.

The default port for JCloisterZone is 37447 which I would recommend you use unless you have a good reason not to. On the Port Forwarding page of your router configuration it should be fairly simple to enter this port number along with the internal IP address of the machine you wish to use as your JCloisterZone host (don't forget to save this if you're given the option to). Once this is in place, any traffic that arrives from the outside world but which is using port number 37447 will be forwarded to your host machine and players from the outside world will be able to play Carcassonne against you!

You shouldn't need to make any changes to any firewalls either at the host or client side. In fact, no changes whatsoever should be required of the client, all they need to know is your external IP address and the port number you've configured for JCloisterZone traffic. As long as all players (including yourself) are using the same version of JCloisterZone and you've got it up and running, and are waiting on the "pre-game" screen then the client should be able to connect and you will see their name appear when they choose what colour they want to be.