

Airport Extreme and Xbox Live

So I've got the Airport Extreme base station from Apple. If I had eyes into the future I probably would have never bought it. It seems to be much less configurable than your standard Linksys or Netgear router, but I digress. The problem that I have is when I try to play a game on XBOX live, a lot of times I couldn't connect to the game or I'd get the error saying "The match you requested is no longer available".

Turns out that it wasn't REALLY my Airport Extreme, but more my Motorola 2210 DSL cable modem. I don't know the specifics of the issue, but from what I understand the 2210 also has a built in DHCP server. So as a result of this you end up becoming double NAT'd. The DHCP server inside the Motorola modem assigns a NAT address to the Airport Extreme and the Airport Extreme does the same to the client machine, most notably the XBOX 360. As a result this causes your XBOX live to fail it's NAT section of the XBOX Live test. (It doesn't actually fail, but reports back a status of STRICT as opposed to OPEN) To fix this we need to get a Public IP assigned to the Airport Extreme Base Station. (AEBS)

The Easy Fix

The easy fix is to go into your modem configuration and to change a particular setting. First connect to your modem by connecting to <http://192.168.1.254> This should bring you to your Motorola configuration page. Go to the Configuration page and look for an option called "Let LAN device share Internet address?". In some setups that's it, finished. Save the changes, restart the cable modem, AEBS and XBOX and you could be golden. An easy way to check is to run your XBOX Live test again from the XBOX dashboard. Your NAT test should report "OPEN". If it doesn't then chances are you need to do the following steps.

The Hard Fix

The hard fix is to force your AEBS to handle the PPPoE authentication, which will allow it to be assigned a public IP with an open NAT translation. You have to know your AT&T login and password before you go any further. If you don't have it, don't continue.

Login to the Motorola modem and set your modem to Bridged Ethernet mode. This will basically turn the cable modem into a forwarding device, with the endpoint being your AEBS. Now connect to your AEBS system and configure it to use PPPoE, with your AT&T username and password as the authentication options. Make sure you DON'T specify DNS servers or Domain Names. Restart the cable modem, restart the AEBS and you should be golden. Just hit www.google.com real quick to make sure the connection is good. After that run your XBOX test again and the NAT should return as OPEN.

Port Forwarding

In some rare cases you may need to do some Port Forwarding as well. The ports you'll need to forward are:

- UDP 88
- UDP 3074
- TCP 3074

You'll probably want to reserve a DHCP address for your XBOX however. Anytime the AEBS gets updated it reboots and as a result loses the DHCP client table. This results in your XBOX getting a new IP Address every time the AEBS gets rebooted. Which subsequently is required in order to do Port Forwarding so it's a vicious catch 22. You'll probably want to use your XBOX's MAC address. Easiest way to get this is to check your XBOX's IP address and then in the AEBS configuration under Advanced, in the Logging Tab and clicking the Log and Statistics button. Then click the DHCP Clients list and find the XBOX's IP Address and jot down the MAC address.

This was just a brain dump while it was fresh. I'm sure I missed something. Feel free to drop me a line if you need more help.