

# How to make a cheap File Server in Mac OS X

All you need is a weekend, and a little money. If you already have an old Mac sitting around, you've won half the battle. Anywhere from \$50-300+ should leave you with a Mac Server (though better quality things tend to lean on the more expensive side of the fence).

Supplies needed:

- A G4+ Mac Computer. Although you can make servers running other OS's and with different machines, this is about using Macs, and being cheap at the same time.
- Mac OS Tiger (the OS my server is running, may or may not be necessary if you try a bit you may be able to do it without Tiger. My guide is based on Mac OS Tiger 10.4)
- A little computer knowledge (or the ability to read this)
- Multiple 100GB+ Hard Drives (recommended if you want a useful Server for all/a large amount of your data). **WARNING: The PowerMac G4 "Sawtooth" AGP Graphics Model can only see 128GB of data. If you have a bigger Hard Drive plugged in, you will only be able to interact with 128GB of it.**
- Another Mac to Remotely Access your Server
- A LAN (Local Area Connection) for your Server to be shared with all your other networked computers. Even your PC's can take advantage of a Server sharing a iTunes library.

**Step 1: Buy your Mac!** This may be the longest, or shortest step, depending upon your patience and your budget. Check craigslist for deals. Typically you can find G4-G5 Macs around \$50-200.

**I got my G4 "Sawtooth" AGP Graphics machine for \$30 dollars on craigslist!**

**Step 2: Whoo you've got your Mac!**

Make sure it has at least 256MB of RAM by checking in the System Profiler. If it doesn't have 256MB you *can* continue, but you really want at least 256MB. It's **really really** cheap online.

***If you get a older PowerPC based Mac, just max out the RAM and be done with it. It's cheap. :)***

You can buy System-Specific Memory at OWC (Other World Computing):

<http://bit.ly/3ooc>

**Step 3: Your Mac is almost ready for Primetime!** Once you're sure you have a substantial amount of RAM, the spending money part is pretty much over from here on out, unless you need/want to buy more Hard Drives to share via your server.

**If you plan on using a large amount of Hard Drives, I recommend getting a PCI, PCI-X, or PCI-E SATA card(s). You can typically add 2-4 drives with each card you add, assuming your power supply can power everything. MAKE SURE THEY ARE MAC FRIENDLY, MORE SPECIFICALLY 10.4+ FRIENDLY.**

You can buy a huge range of Hard Drive types and sizes at OWC (Other World Computing):

<http://bit.ly/7PjVLu>

## PERSONAL RECOMMENDATION:

Be sure to scavenge through your old machines for Hard Drives before buying new ones (unless you just want new stuff :P) to save some cash! Even a 100GB HD is a modest amount of space for an iTunes library or Time Machine backup location.

**Please note: Time Machine is a computer application included with all Macs running OS X 10.5+. You cannot run Time Machine on any pre Mac OS X 10.5 release.** If you want to back up a machine running a pre 10.5 release, I recommend using Carbon Copy Cloner, which makes disk images of anything you tell it to, including whole Hard Drives, USB Drives, FireWire Drives, etc.

It can incrementally add to the disk image, similar to the way Time Machine backs up newer/more up-to-date Macs, or you can make individual backups each time you back up. Whatever you prefer. I use *both* CCC and Time Machine myself, I run Time Machine every day (hourly), and CCC every week, to ensure I never lose data.

You can get CCC here....

For 10.2+10.3: <http://bit.ly/pEarkF>

For 10.4-10.6: <http://bit.ly/pvfKzt>

Latest Release (10.7 Lion I assume): <http://bit.ly/3IX2WH>

**Step 4: Once you have your Mac completely personalized/upgraded on the inside, plug-in your Monitor, Keyboard and Mouse.**

**Step 6: Install Tiger.** If you lucked out and your Mac came with Tiger or better, skip this step. Depending on your machine, you'll either load the OS CD by CD until Tiger finishes installing (4 CD's for PPC), or load your single DVD in if you're fortunate enough to have a more modern Mac.

**Please don't pirate Mac OS X, just buy a copy online or via craigslist.**

**Step 5: Go through the first-boot setup screens, enter info and register your Mac if you wish.** If you have a PPC, your machine isn't going to be under warranty anyways, skip that step to save time. Just type gibberish and be done with it because you can't skip the damned thing.

**Step 6: Run Software Update on your Mac Server, so you aren't interrupted later when you're setting up your server by a Software Update pop-up window.**

**Step 7: Inside System Preferences on your Server, Set-up Screen Sharing, so you can see/interact with your server's Desktop at another Mac.** This will save you

the time and effort of going to your server every time you want to interact with it, and saving you money by not having to power a monitor with along your server (powering a server with monitor 24/7 would be a waste of energy/money).

**Write down the IP Address that Screen Sharing says your Desktop is accessible via other Macs.** Login with the credentials you use on the server machine to gain Remote Access of it. For instance, if the credentials you used when you set-up your server were:

Username: Admin

Password: 1234

You would provide those credentials when accessing your server from another Mac.

**Step 8: Once you've got your Screen Share set-up and you've disconnected and re-connected to your server 4-5 times from another (or multiple) Mac(s), unplug your monitor and keyboard from your server. You won't be needing them anymore. Place your 'new' HomeServer wherever you want it to be for it's duration of service.**

**Personally,** I believe that the best place for a server is plugged in via Ethernet sitting next to your home router, or a Ethernet switch/port that is plugged directly into your router. Although some older Macs had AirPort Cards, a wired connection is always faster and more reliable for server/streaming purposes. Wired is always better than wireless when it comes to speed and reliability in any category, and don't let anyone tell you otherwise.

Fun Fact: A Ethernet wire is faster than Wireless N.

**Step 8.5 (information):** Leave your server Powered-on when you want it to be accessible to the Network for File Sharing and Management (via Screen Sharing). You can manually turn it off via Screen Sharing when you/others don't need it, or set a time in Energy Savings (inside System Preferences) on your server, telling your machine to auto-shutdown at a indicated time (you can also set a auto Sleep time, and/or a auto-wake time).

**Make *sure* that your server does a auto-login to the dedicated account on it at bootup, so you don't have to walk over to your server, plug in your Monitor, Keyboard and Mouse, and *then* type credentials into it to use it after every Shut Down or Reboot.**

You just want a server. Not something you have to interact with very much. If you get to messing with settings and don't know what you're doing, you could really screw some things up (good things you do those CCC backups of your server to a external device right? :P)

**Step 9: Inside System Preferences on your Server, Set-up File Sharing. Finally we're getting somewhere.** Indicate what drives/partitions (inside or outside) your Server you want to share, then write down the [afp://xxx.xxx.x.x](http://xxx.xxx.x.x) IP address shown inside the File Sharing window. then

**Step 10: Go to each Mac you own (or each Mac you want to have access to the Server's files), Open Safari, and type afp://xxx.xxx.x.x (your Server IP) in the URL bar.** If your server is setup correctly, once you press Enter in Safari you will be prompted to type Login credentials to Mount/Access the Server.