

Server recommendations:

When choosing a server there are a number of things that you need to consider. First being the type of application that you will be running on the server. For database applications such as eDirectory is highly recommended to have plenty of ram complimented with CPU power.

As your database continues to grow your needs will continue to grow. The three things that you are going to want to look at are:

- Memory (ram)
- CPU (processor)
- Bandwidth (transfer space in/out)

I have ranked these in the order of importance when you are you talking about performance of a server.

MySQL databases will require a lot of requests back and forth from the database, and the more of this you can keep stored or loaded into RAM will cause the database to respond much quicker.

MySQL can also be VERY CPU resource intensive depending on the amount of hits at the same time, number of records to search through, and such. That is why it is listed as the second item in the list. As your server continues to grow you will want to add more ram, and then CPU to handle the loads you are presenting to the server.

Lastly comes the actual transfer of traffic to and from the server. Remember that each hit or visitor is BOTH an inbound and outbound request. Each search will result in both inbound and outbound traffic requests.

Given everything listed above, here are some base recommendations for a server that will handle a mid-large scale now, and could scale via upgrades from the provider of your choice to handle more as your site grows.

Minimum Recommendations

- Memory = 2GB (minimum)
- CPU = Dual Core 1.86Ghz or higher
- Bandwidth = 2000GB (2TB)
- Approx cost = \$200-300.00 a month

Suggest Recommendations

- Memory = 4GB (4000MB)
- CPU = Dual Core 2.66Ghz+ or Quad Core 1.86Ghz
- Bandwidth = 2000GB (2TB) or more
- Approx cost = \$250-400.00 a month

There are many server companies in the market at this time. They all fall into two categories;

- Fully Managed
 - Additional costs can be \$100-500.00 a month
- Unmanaged, or Ala-Carte Management
 - Additional costs can be per hour, or minimal based on ala-carte

The reason that this is important is that if you do not have a in-house staff to handle issues such as email going down, server not responding etc then a managed server is a good solution. Managed solutions usually run about 30-40% more then the unmanaged solutions.

Here is a list of a few of the industries best providers for servers in both the managed and unmanaged markets. As you will see many of the providers have very different pricing structures for the various things like RAM, CPU and BANDWIDTH.

When you are reviewing the providers ask these types of questions

- How much is a RAM upgrade?
- How much is a CPU upgrade?
- Do they offer the PRE-purchase of additional bandwidth in blocks?
- What is the cost per block of those blocks?
- What is the cost of overage of bandwidth (post pay, usually a lot more)?
- Do they offer a firewall solution?
 - Is it a hardware or software firewall?
 - A hardware firewall is the BEST option as it provides a dedicated port and is a separate piece of hardware aside from the server. This can be very good as the hardware firewall will not take CPU and RAM resources for the firewall.
- What is the cost for a firewall?
- What is the hardware SLA?
- Who are their backbone providers?
 - A backbone provider is the connection that your provider has to the internet (backbone). The better the backbone the better the speed of the internet access.
 - Global Crossing, Level3, Quest, Internap are all Tier1 (the best) providers
- Do they offer a backup solution?
- What is the cost of the backup solution?
- If it is unmanaged – what do they support?
 - Only hardware
 - Only Local Network
 - What is the cost to support server software
 - Will they help you recover from a hack attack

- Will they help or install server security software, and provide server hardening techniques (see below link to wikipedia for more info)
- If it is managed – what do they support?
 - Only hardware
 - Only Local Network
 - What is the cost to support server software
 - Will they help or install server security software, and provide server hardening techniques (see below link to wikipedia for more info)
 - Will they help you recover from a hack attack

Suggested Providers

- Serverbeach (www.serverbeach.com) = Unmanaged solutions (**highly recommended**)
- Peer1 (www.peer1.com) = Managed Solutions (**highly recommended**)
- Rackspace (www.rackspace.com) = Managed and Green (environment friendly solutions (recommended)
- The Planet (www.theplanet.com) = Unmanaged and Managed Solutions (lower cost alternative)
- Servepath (www.servepath.com) = Managed Solutions (possibly lower cost alternative)

As with any provider you need to ask as many questions as possible, and compare closely the pricing of the bandwidth and hardware. The choice to go with a managed solution is a personal choice that you need to make. Remember that all providers will support the hardware and internal network since that is what you are buying from them

Wikipedia has a good list of info on what a dedicated server is:
http://en.wikipedia.org/wiki/Dedicated_server

If you have any questions please feel free to contact us.