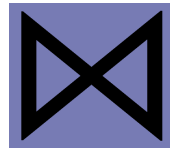


Hosting Drupal – Getting Started!



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SandCamp 2010





Drupal Requirements

- LAMP stack



Drupal Requirements

- LAMP stack
 - **L**inux (Redhat, CentOS, Ubuntu) - OS
 - **A**pache (lighttpd, Nginx) - Webserver
 - **M**ySQL (PostgreSQL) - Database
 - **P**HP – Hypertext Preprocessor



Drupal Requirements

- LAMP stack

This eliminates general webhosting services that only have a webserver running to serve static content – html or javascript files.



Shared Hosting

- What is it?



Shared Hosting

- What is it?

Everything about the server is shared among many websites.



Shared Hosting

- What is it?

Everything about the server is shared among many websites.

- CPU
- Memory
- Disk I/O
- Disk Space
- Internet Connection



Shared Hosting

- How does it work?



Shared Hosting

- How does it work?
 - Name Based
 - IP Based



Shared Hosting

- Pros of shared hosting...



Shared Hosting

- Pros of shared hosting...
 - Low cost
 - All system administration handled by hosting company
 - Requires less system administration expertise
 - All LAMP software installed, ready to go
 - Web based control panels
 - Easy to get started – relatively
 - Plenty of hosting companies to choose from



Shared Hosting

- Cons of shared hosting... Part 1
 - Low cost
 - All server resources are shared across many websites
 - Little to no performance tuning allowed
 - Run extra software not needed by Drupal

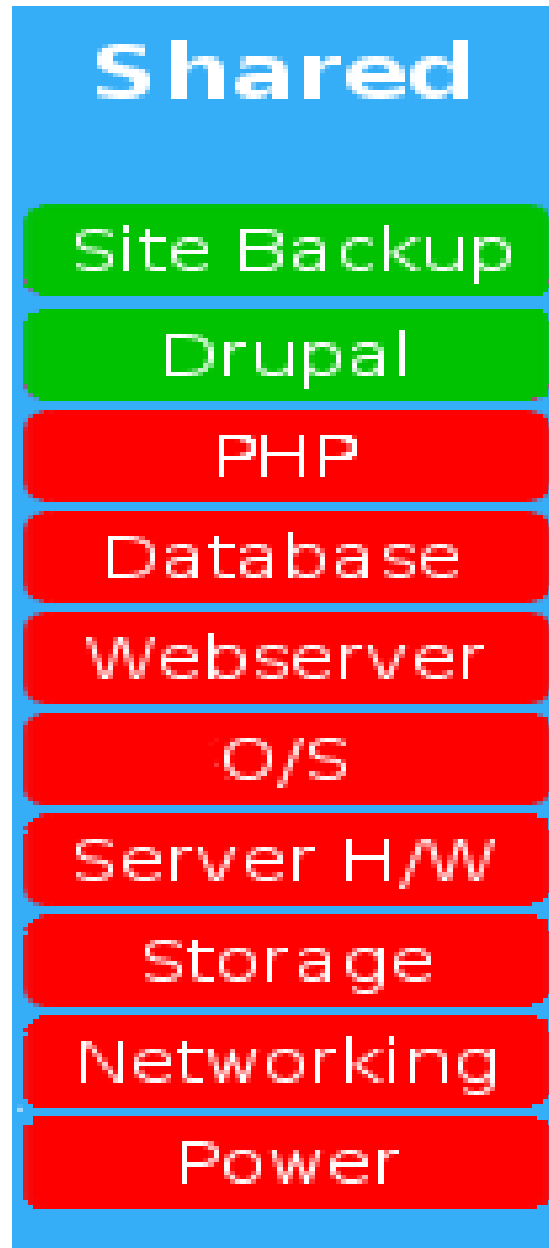


Shared Hosting

- Cons of shared hosting... Part 2
 - Hostname based hosting doesn't support SSL/TLS
 - DNS problems will break hostname based hosting
 - Security due to misconfigured file permissions
 - Shared hosting aims for middle ground to run other CMS
 - Can't use different OS, webserver, or database software



Shared Hosting





Shared Hosting

Site backups??

- *Don't pull an Atwood!*



Virtual Private Server

Also called

- VPS
- Virtual Dedicated Server (VDS)



Virtual Private Server

- What is it?



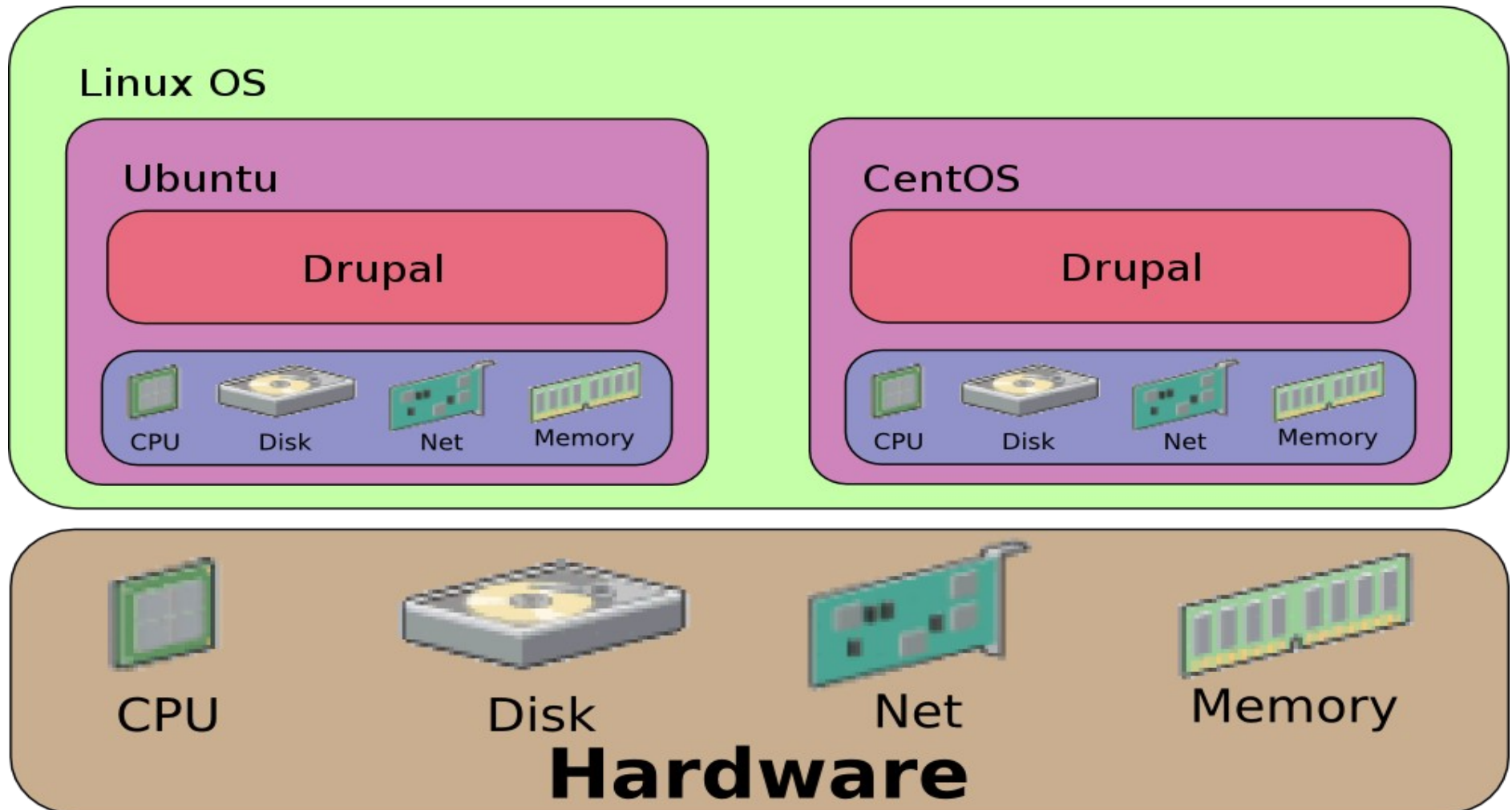
Virtual Private Server

- What is it?
 - It's between shared and dedicated hosting
 - Can be unmanaged or fully managed



Virtual Private Server

How does it work?





Virtual Private Server

- Pros of VPS... Part 1
 - Choose OS – Redhat, Ubuntu, Debian
 - Choose any combination of webserver, database, or PHP to run Drupal
 - Virtual hosts can be “resized” on the fly
 - Resources can be Fair Shared
 - Full root access



Virtual Private Server

- Pros of VPS... Part 2
 - Performance can be burstable
 - Minimum or maximum performance guarantee
 - Hardware & O/S managed by hosting company
 - No one else on your VPS
 - Server cloning



Virtual Private Server

- Pros of VPS... Part 3
 - Drupal performance tunable to your exact needs
 - Hosting provider may provide entire server snapshots
 - Less complexity
 - Higher performance than shared hosting



Virtual Private Server

- Pros of VPS... Part 4
 - Hosting provider may have Service Level Agreements
 - Dedicated IP address allows SSL certificates
 - Run multiple Drupal sites on single VPS



Virtual Private Server

- Cons of VPS...
 - Higher level of technical skills
 - Responsible for 100% system administration
 - Higher cost
 - Server fault & performance typically not managed
 - You break it, you fix it!



Virtual Private Server





Dedicated Server

- What is it?



Dedicated Server

- What is it?
 - Entire server is YOURS!!
 - Hosting owned or private owned
 - Different kinds
 - Fully Managed – Totally hands off
 - Managed – Medium level
 - Self Managed – Possibly all software, no hardware
 - Unmanaged – 100% yours to manage



Dedicated Server

- Pros of Dedicated Server?
 - Ultimate performance
 - Absolutely no one on your server
 - You pick datacenter location
 - You pick all the hardware
 - Multi-server Drupal



Dedicated Server

- Pros of Dedicated Server?
 - Ultimate Flexibility
 - Different server hardware for webserver or database server
 - Different OS for webserver or database server
 - Introduce dedicated cacheing layers
 - Scale up or scale out



Dedicated Server

- Cons of Dedicated Server?
 - Highest cost
 - Initial purchase
 - Depreciation
 - Upgrades



Dedicated Server

- Cons of Dedicated Server?
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 - Highest level of technical skills
 - Hardware & software



Dedicated Server

- Cons of Dedicated Server?
 - Highest cost
 - Initial purchase
 - Depreciation
 - Upgrades
 - Highest level of technical skills
 - Hardware & software
 - Fault & Performance Management



Dedicated Server

Dedicated

Site Backup

Drupal

PHP

Database

Webserver

O/S

Server H/W

Storage

Networking

Power



Content Delivery Networks

- What are they?



Content Delivery Networks

- What are they?
 - Content Delivery Networks (CDN) are used to move bandwidth intensive files off your Drupal hosting server and put them closer to end user computers.
 - Content can be audio, video, photos, software, other documents, or static files.



Content Delivery Networks

- Popular CDNs
 - Akamai
 - Amazon Cloudfront
 - Amazon Simple Storage Service (S3)
 - CacheFly
 - Many more...



Content Delivery Networks

- Why use a CDN?
 - Performance
 - This allows many more concurrent users to access bandwidth intensive files than a single Drupal server can support.
 - Fantastic for downloading or streaming audio and video files



Content Delivery Networks

- Why use a CDN?
 - Performance
 - This allows many more concurrent users to access bandwidth intensive files than a single Drupal server can support.
 - Fantastic for downloading or streaming audio and video files.
 - Mass Storage
 - Nearly unlimited storage for your files



Content Delivery Networks

- When to use a CDN?
 - Performance
 - Large audio/video files make your Drupal server internet connection a bottleneck.
 - Many smaller files frequently accessed bottleneck your Drupal server internet connection.
 - Your Drupal server can't stream audio or video successfully.
 - Mass Storage
 - You're running out of storage on your Drupal server.
 - You don't want to store very large files in your Drupal directory structure.



Content Delivery Networks

- Drawbacks using CDNs?
 - Added complexity
 - More things to break
 - Additional administrative overhead
 - Drupal can't make using CDNs all automatic
 - Works for you, but not for others
 - Dynamic content
 - Can't be used for database storage
 - Outside Drupal security



“The Cloud”





The “Cloud”

- What is that?
 - The “Cloud” provides a platform, or infrastructure as a service.
 - New application of existing technology
 - Instead of many websites on a single host like shared hosting, there are many websites spread across many servers or “clusters”.



The “Cloud”

- What are clusters?

Clusters are simply multiple web servers, database servers, or PHP servers configured to act as one large, powerful server.



The “Cloud”

- What does it mean?
 - Infrastructure as a service means you don't have to worry about the hardware or software your Drupal site runs on.
 - The infrastructure is built on a large number of web and database servers working together in clusters.



The “Cloud”

- How do they work?
 - Register for an account
 - Transfer your Drupal files
 - Transfer Drupal database
 - Configure DNS



The “Cloud”

- How do they work?
 - Register for an account
 - Transfer your Drupal files
 - Transfer Drupal database
 - Configure DNS

Same as any other hosting service.



The “Cloud”

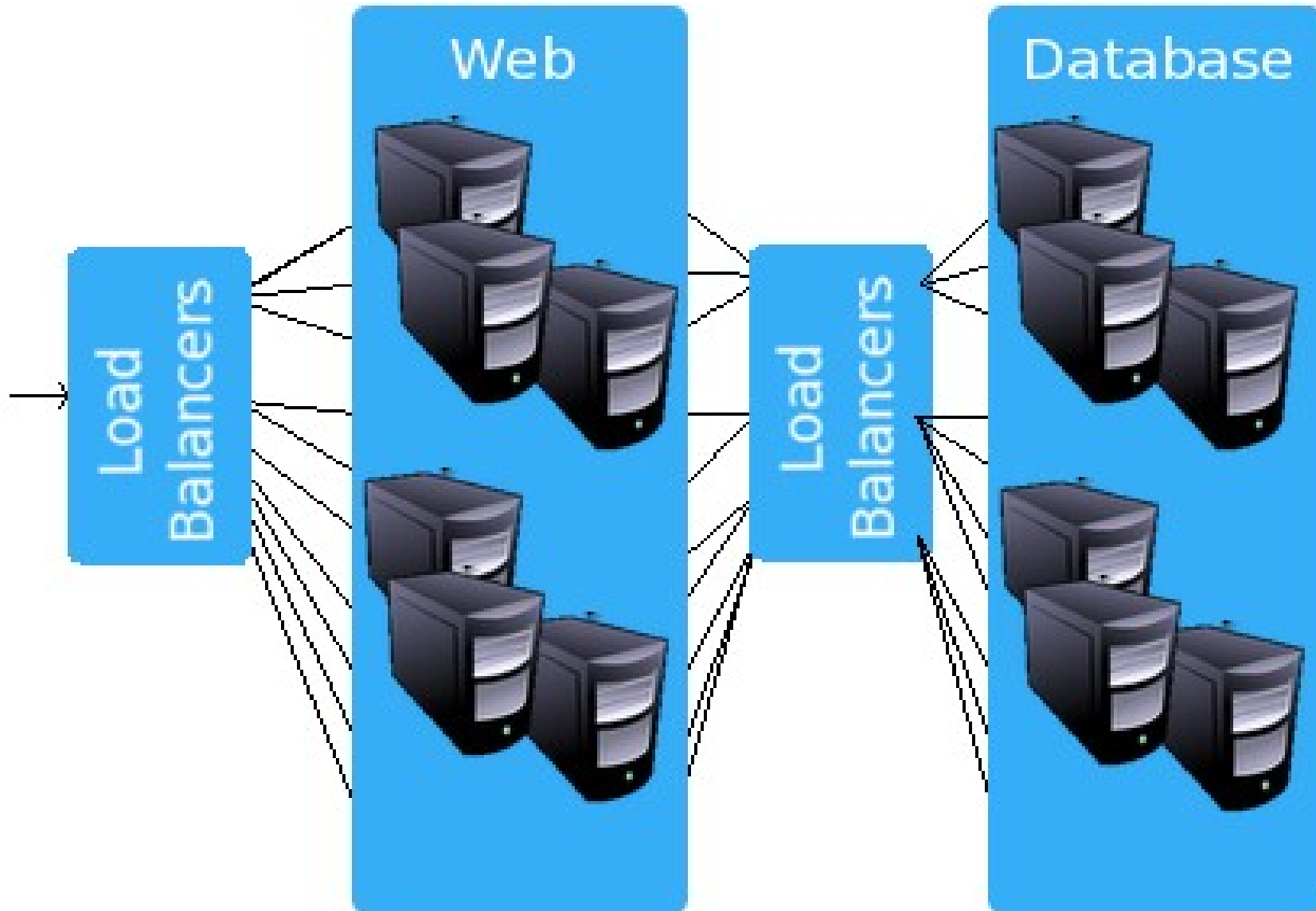
- Benefits of the Cloud?
 - Scalability
 - High redundancy
 - Utility pricing, pay as you go



The “Cloud”

- Cons of the Cloud?
 - You have to make sure everything works on the cloud platform.
 - No performance tuning
 - Latency issues between clusters
 - Cloud component upgrades could break Drupal
 - May not be cost effective for smallish sites
 - Security

The “Cloud”



Slides of this talk available on:
<http://www.thetajoin.com> - SandCAMP



Thank you for attending my SandCAMP 2010 session. I hope you enjoyed the session as much as I did preparing and presenting.

For attendees of my sessions & people who download my slides, I'm offering a free Drupal performance analysis of your site! I have to limit this offer to a single site only, so pick your worst! Just email or call to setup an appointment.

Hope you had a great time at SandCAMP 2010!

Regards,
Mark Schoonover

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Email: mark@thetajoin.com :: Voice: 619-928-4473 :: Fax: 619-374-3130

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