

IST Platform Services and Web Hosting Options

**Micronet Meeting
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**Don MacLeod
IST UNIX Services**

Agenda

- Introduction (Walt Hagmaier)
- Some definitions
- A Brief History lesson
- Present state of affairs
- Perspectives on future directions (ITAC; SAC – Gabriel Gonzalez)
- Questions

Introduction

Walt Hagmaier
Manager, Platform Services

Definitions

Full-featured hosting

Dedicated hosting service, also called managed hosting service, where the hosting service provider owns and manages the machine, leasing full control to the client. Management of the server can include monitoring to ensure the server continues to work effectively, backup services, installation of security patches and various levels of technical support.

Virtual private server, in which virtualization technology is employed in order to allow multiple logical servers to run on a single physical server.

Colocation facilities, which provide just the Internet connection, uninterruptible power and climate control, but let the client do his own system administration.

Cloud hosting, in which the user only pays for the system time and space used, and capacity can be quickly scaled up or down as computing requirements change.

Definitions

Other Hosting Services

Limited or application-specific hosting services include:

[Web hosting service](#)
[E-mail hosting service](#)
[DNS hosting service](#)
[Game servers](#)
[Wiki farms](#)

Definitions

Web Hosting Services

Free web hosting service: limited services, sometimes supported by advertisements

Shared web hosting service: one's website is placed on the same server as many other sites, ranging from a few to hundreds or thousands.

Reseller web hosting: allows clients to become web hosts themselves. Many resellers provide a nearly identical service to their provider's shared hosting plan and provide the technical support themselves.

Dedicated hosting service: the user gets his or her own Web server and gains full control over it, however, the user typically does not own the server.

Managed hosting service: the user gets his or her own Web server but is not allowed full control over it, however, they are allowed to manage their data via FTP or other remote management tools.

Definitions

Web Hosting Services (cont.)

Cloud Hosting: is a new type of hosting platform that allows customers powerful, scalable and reliable hosting based on clustered load-balanced servers and utility billing. Removing single-point of failures and allowing customers to pay for only what they use versus what they could use.

Clustered hosting: having multiple servers hosting the same content for better resource utilization. Clustered Servers are a perfect solution for high-availability dedicated hosting, or creating a scalable web hosting solution. A cluster may separate web serving from database hosting capability.

Grid hosting: this form of distributed hosting is when a server cluster acts like a grid and is composed of multiple nodes.

A Brief History Lesson

Socrates and Arachne

- **General time-sharing**
- **Shared web hosting service**
- **Thousands of users**
- **Hundreds of web sites**
- **Limited support options**
- **Poor security**
- **Low cost**

Present state of affairs

AFS website

CalWeb IIS (Windows)

CalWeb Pro (Unix)

CalWeb Windows Webfarm

Unix Webfarm

Dedicated VM plus web stack

Present state of affairs

AFS website

Shared file sharing service

Prod only

Not highly available

Good for simple web pages

Access via dedicate AFS client or WebDAV

Does not support dedicated website names

Least cost

Present state of affairs

CalWeb IIS (Windows)

Shared web hosting service

Prod only

Not highly available

Good for simple web pages

Designed for user tools such as Dreamweaver and FTP access

ASP, .Net1.0, .Net2.0, Serverside Includes

Least cost

Present state of affairs

CalWeb Pro (UNIX)

Shared web hosting service (plus Dedicate, Managed & Clustered hosting capabilities)

Prod only

Highly available (load balanced cluster)

Good for simple web pages w/ limited programmatic content

Web proxy model gives users control of a local Apache server

PHP, Perl, Python, CGI, Serverside Includes

Low cost

Present state of affairs

CalWeb Windows Webfarm

Shared web hosting service (plus Managed & Clustered hosting capabilities)

Prod/QA/Dev

Highly available

Good for complex web pages w/ significant programmatic content

.Net1.0, .Net 2.0, PHP-Pear, ColdFusion 7, Serverside Includes

Higher cost

Present state of affairs

UNIX Webfarm

Shared web hosting service (plus Dedicate, Managed & Grid hosting capabilities)

Prod/QA/Dev

Highly available (load balanced multi-node grid)

Good for complex web pages w/ significant programmatic content

Web proxy model gives users control of a local Apache server

PHP-Pear, Perl, Python, CGI, Ruby-onRails, Tomcat, Serverside Includes

Higher cost

Present state of affairs

Dedicated VM plus web stack

Dedicate/Managed hosting option

Prod/QA/Dev available at additional cost

Highly available (load balanced) at additional cost

Good for complex web pages w/ significant specialized programmatic content

Customized development environments can be provided at additional cost

Performance can be scaled to need

Highest cost

Perspectives on future directions

- ITAC
 - Developer/Architecture focused
 - Java/JBoss
 - Ruby/JRuby
 - PHP
- SAC – Gabriel Gonzalez

Questions

Are separate Prod/QA/Dev web environments worth the expense?

Is high availability worth the expense?

Is there value in a local, low cost, basic web service?

Is configuration control of the web server important?

What development environments do you use (e.g. Java, PHP, etc.)

Is SSH or FTP site access sufficient?

Is a shared service sufficient for your needs or do you require higher level separation (e.g. dedicated VM)?

Contact Information

Web: ist.berkeley.edu/services/catalog/web

E-mail: TAM@berkeley.edu

Don MacLeod

Manager, UNIX Services

dmacleod@berkeley.edu