



# Cheap Cloud Hosting for Fun and Profit

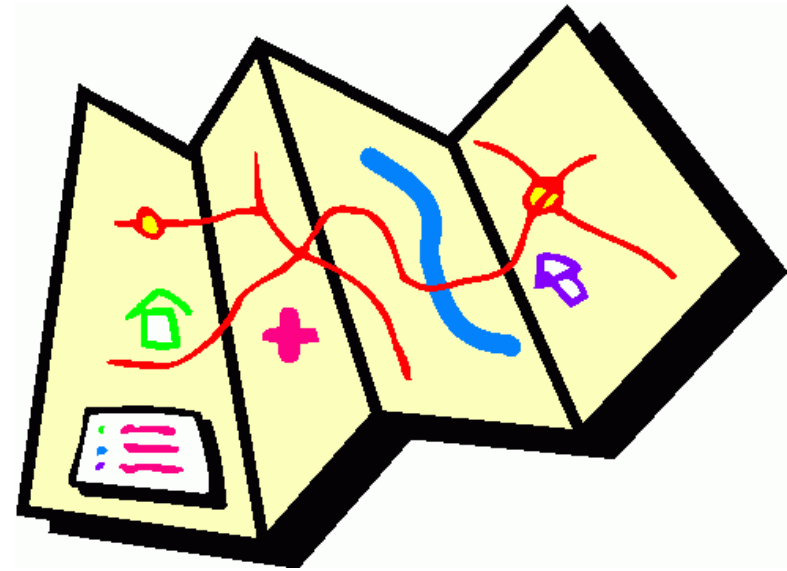
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IEEE Buenaventura Section Computer Society

# Where We're Going

- Cloud Computing Reality Check
- What Kind of Hosting?
- Web Hosting is Cloud Computing
- Key Features
- Demo
- Shopping List
- References and Help

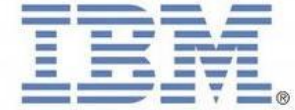


# “Cloud” Computing

- Let’s get real – it’s time sharing
  - Lowers cost of infrastructure
  - Lessens dev/deployment “grunt work”
- Three Flavors
  - Infrastructure-as-a-Service (IaaS)
  - Platform-as-a-Service (PaaS)
  - Software-as-a-Service (SaaS)



# Examples



# But ...

- Costly
  - Cloud Storage Comparison
- Need Configuration
  - AWS, IBM, RackSpace == bare machines
- Need Tools
  - MS Azure == MS Dev Tools + Cloud Bench
- Narrow
  - CRM, Bank, etc. are fine for those functions



# What We Want

- Low-cost hosting
  - web serving, web apps, files, mails, programming
  - storage, bandwidth
  - secure enough (SSL certs available)
- Flexible & expandable to future services
  - DBs, Apps, Web, FTP, Mail, Shopping, Blogs, ...
  - Home-brew and Open Source applications
- Integration services w/the 'Net
  - DNS + Subdomains, SMTP, payment engines, ...
- We're will to roll our own, but not everything

# “Web Hosting” → “Cloud Computing”

- Satisfy needs
- \$8-\$20 per month
- Secure (PCI-DSS)
- Programming
  - Scripting, DBMSes
- Tons of Tools
- Subdomains
- Virtual Servers
- Shell Access



linode.com



# IEEE BV @ HostMonster

- Domains for major Societies, Section, Guests
  - Subdomains for each Society & Permutation
  - Email/WebMail for each subdomain
- Mailing Boxes, Forwards, Distribution Lists
- Backups, cron jobs, file browsers,
- Tools
  - WordPress, site builders, CRM, eLearning, ...
  - Usage stats, spam blocking, ...

# Cost Controls

- Happy is the standard toolkit
  - Cpanel seems popular
  - Open Source LAMPP stack
  - Open Source apps written to LAMPP stack
  - MS available on some for a premium



- Host are virtualized
  - Shared web server (HOST: header)
  - Dedicated IP address
  - Dedicated VM for heavy users



# Domain Names

- Map Words onto Internet Addresses
  - e.g. “www.foobar.com” → 145.67.89.10
  - Mail, too joe@foobar.com → 145.67.89.12
  - Subdomain “test.foobar.com” → 145.67.89.11
- Buy ‘em by the dozen
  - Registrars like Network Solutions
  - General service companies like GoDaddy
  - Cloud Hosting companies

# Domain Names

- Prices
  - Varies with TLD, eg, .info is cheap, .com
  - About \$10/name/year
  - Add'l services like domain privacy are extra
- With whom do you register?
  - Use hosting co. if you plan to stay
  - Use 3<sup>rd</sup> party if you plan to move sites
  - Note: this pic is no endorsement →



# Subdomains

- Allow multiple “hosts” on single service
  - pes.ieee-bv.org, comsoc.ieee-bv.org, ras.ieee-bv.org
  - www.ieee-bv-cs.org, www.ieee-bv-embs.org
- Tie hosts to subdirectories
- Tie email addresses to subdomains
- Virtual hosting makes this cheaply feasible

# Storage and Bandwidth (“Transfer”)

- “Free, unlimited” Storage
  - They mean for web pages
  - Cloud storage can be set up via FTP, other tools
- “Unlimited Transfer/Bandwidth”
  - Insist on this feature – not all traffic is web
  - Monitor usage
- Play nice
  - Hogs get noticed



# Features

- RDBMSes
  - Some hosts permit remote connect
  - Consider security risks
- Mail
  - Prefer forwards over mailboxes
  - Limit mailboxes
  - Mail clients work well but require configuration
  - Pure mail hosting exist (Gmail, MailStreet, ...)
  - DNS MX records permit hosting mail elsewhere
    - Microsoft Exchange



# Liabilities (Anti-Features)

- **Big Data (Squadzigabytes)**
  - Use AWS S3
- **Big Crunching (Pizzaflops)**
  - Use cluster-friendly like AWS EC2/IBM
- **Big Banking (TeePeeCees)**

# BV Site Admin

- Site Login

The screenshot shows the HostMonster website administration interface for the domain ieee-bv-cs.org. The browser address bar shows the URL https://my.hostmonster.com/cgi/dm. The interface includes a navigation menu with options like cPanel, Domain Manager, Upgrades, Postini, Dedicated IP, SSL Certificates, Profile/Billing, Checkout, and HELP. A welcome message for Karl Geiger is visible in the top right.

**Action Items** [-] Hide

- No pending registration expirations

**Shortcuts**

- Register a new domain
- Transfer a new domain to your account
- Assign a domain to your cPanel account
- Select registered domains
- Manage domain redirection
- Export domain list to a CSV file.

**New Domain Search**

New domains as low as \$10 per year!  
Enter a web address below.

.com

**Available Domains**

- ieee-bv-cs.biz
- ieee-bv-cs.com
- ieee-bv-cs.info
- ieee-bv-cs.net

Domain	Exp	Type
<input checked="" type="checkbox"/> ieee-bv-cs.org	01/27/12	Primary
<input type="checkbox"/> ieee-bv-embs.org	03/23/12	Addon
<input type="checkbox"/> ieee-bv.org	03/31/12	Addon

**Please select a domain:**

**Summary**

**Domain**

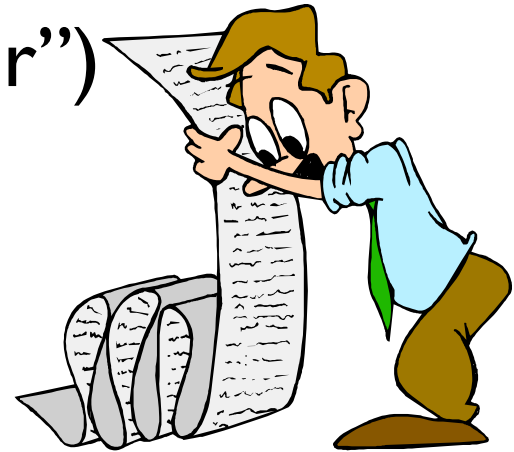
There are 3 domains on your account.

To view more information, please select one or more domains from the domain list.

- [Select 3 domains registered through HostMonster.com](#)

# Shopping List - Basics

- Low monthly rate, less than \$10-12/month
- Unlimited bandwidth (“transfer”)
- Unlimited storage
- Unlimited subdomains
- Unlimited email addresses
  - POP/IMAP desired over web-only mail
- Unlimited DB storage, 10 or more DBs



# Shopping List - Extras

- Applications environment
  - LAMPP Stack, Ruby, your tech
  - Java typically not available on shared web hosts
  - Open Source suites (shopping carts, etc.)
  - Apache .htaccess control
- Extras
  - Monitoring tools
  - Domain management toolkit
  - Advertising promotions, SEO optimizations

# A little help...



- <http://www.websitehosting.com/>
- <http://www.webhostingreviews.com/>
- <http://webhostinggeeks.com/>
- <http://www.webhostingsecretrevealed.com/web-hosting-review/>
- <http://lowcostsitehosting.com/>



# Thank You

## Questions?

# About the Speaker

- Former Dir. Enterprise Architecture, Amgen
- Working with start-ups in region
- IEEE
  - BV Section Chair, Computer Society Vice Chair
  - Senior Member
- ACM and AAAS Member
- Online at
  - [LinkedIn](#)
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