



Cloud-Powered Social Gaming

Jeff Barr

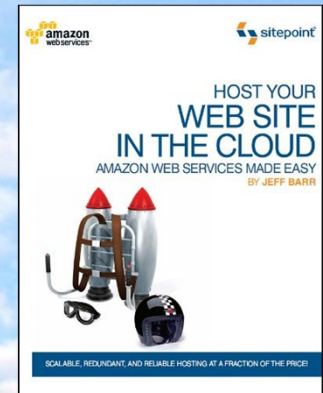
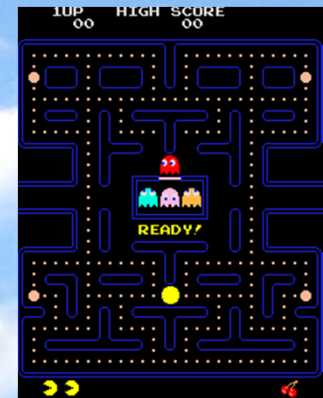
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Introduction

- Based in Seattle
- Frequent visitor to Japan
- Career path:
 - Startups
 - Microsoft
 - Consultant to VCs and startups
 - Amazon Web Services – 2002 – Present
- Gaming:
 - Pac-Man Player since 1980
- Author of “Host Your Website in the Cloud” (SitePoint, September 2010)



Goals

- Introduce you to cloud computing
- Make you curious about it
- Have you consider a move to the cloud
- Entice you to attend my second presentation ("How to Use AWS to Develop Social Games")

This Is The Topic



A word cloud centered on the text "Cloud Computing". The words are arranged in a circular pattern around the central text. The words include: database, processing, economical, scalability, elasticity, infrastructure, reliable, storage, messaging, redundancy, utility, and cloud. The words are in various colors (brown, dark blue, red) and orientations (vertical, horizontal, diagonal).

database
processing
economical
scalability
elasticity
infrastructure
reliable
storage
messaging
redundancy
utility
cloud

You Are Here



You Want To Be Here




























Own These



And End Up Here

Top 25 Facebook Games for April 2010

Rank	Game	Monthly Actives	Developer	MAU Change	(Last Month)
1	 FarmVille	82,794,001	Zynga	-210,460	83,004,461
2	 Birthday Cards	39,855,951	RockYou	-7,208,848	47,064,799
3	 Café World	30,284,720	Zynga	-363,845	30,648,565
4	 Texas HoldEm Poker	28,976,467	Zynga	2,092,637	26,883,830
5	 Mafia Wars	25,302,262	Zynga	139,403	25,162,859
6	 Happy Aquarium	23,794,134	CrowdStar	-2,361,074	26,155,208
7	 FishVille	22,483,907	Zynga	-1,884,386	24,368,293
8	 MindJolt Games	21,131,794	MindJolt.com	2,016,229	19,115,565
9	 PetVille	20,778,925	Zynga	1,356,912	19,422,013
10	 Pet Society	19,594,691	Playfish	441,828	19,152,863
11	 Zoo World	19,404,406	RockYou	-955,996	20,360,402
12	 Restaurant City	15,849,506	Playfish	1,037,261	14,812,245
13	 YoVille	12,524,254	Zynga	-791,025	13,315,279
14	 Happy Island	11,714,152	CrowdStar	-497,624	12,211,776
15	 Bejeweled Blitz	10,576,622	PopCap Games	166,052	10,410,570
16	 Farm Town	9,665,616	Slashkey	-1,481,164	11,146,780
17	 Happy Pets	9,398,328	CrowdStar	-735,337	10,133,665
18	 Country Life	9,271,251	Country Life	835,164	8,436,087
19	 Island Paradise	6,876,941	Meteor Games	-732,743	7,609,684
20	 Bumper Sticker	6,232,475	LinkedIn	-634,340	6,866,815
21	 Sorority Life	5,183,798	Playdom	-633,885	5,817,683
22	 (Lil) Farm Life	4,650,908	Playdom	-1,245,120	5,896,028
23	 Ninja Saga	4,628,765	Ninja Saga	N/A	N/A
24	 Fish World	4,321,989	TallTree Games	N/A	N/A
25	 Country Story	4,296,285	Playfish	N/A	N/A

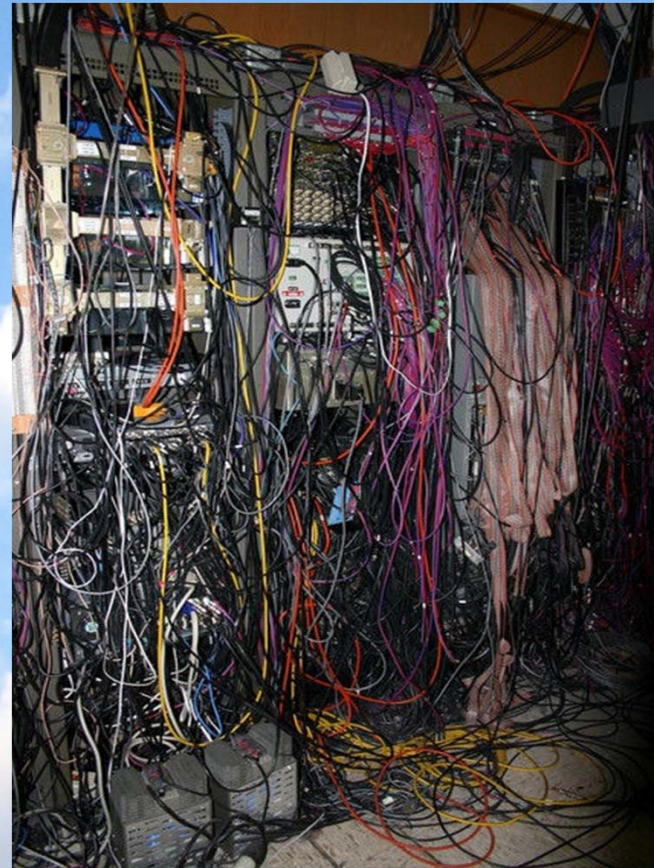
<http://www.insidefacebook.com/2010/04/01/top-25-facebook-games-for-april-2010-see-mixed-traffic-results/>

You...

Want to Focus On



Want to Ignore



<http://www.epic-blog.com>

Benefits of Cloud Computing

- **Sophisticated Platform**
Leverage many man-years of work that has already been done.
- **Focus on your Game**
Use your unique skills to build a better product. Don't waste resources on low-level system-building activities.
- **Reduced Time to Market**
Use powerful services to create a great application more quickly.
- **Think Big Thoughts**
What if you have 1,000 or 1,000,000 or 1,000,000,000 users? What if the whole world shows up at your front door on the week of your launch?
- **Pay As You Go**
Use a scalable architecture, but get the actual resources only when you actually need them. Don't spend money until you need to.

Attributes of Cloud Computing

- **Global Scope and Scale**
Enough resources to satisfy the needs of very demanding applications.
- **Cost-effective**
Low cost, pay-as-you-go.
- **Highly Reliable**
Built-in redundancy. Tools to automate scaling, failover, and monitoring.
- **Highly Scalable**
Scale up or down on an as-needed basis, adding or removing resources in a matter of minutes.
- **Reduced Development Cost**
Better games more quickly and at lower cost.

My Messages to You Today

- Don't Fear Success
- Don't Fear Failure
- Don't Fear the World
- Don't Fear the "Muck" (low-level system work)



Don't Fear Success

- Old Model:
 - Design game
 - Attempt to predict usage
 - Get big pile of money
 - Get enough hardware
 - Launch & cross fingers
 - Watch metrics
 - Panic
 - Repeat weekly



Don't Fear Success

- New Model
 - Design for scalability
 - Test up front
 - Invest in content
 - Auto-scale for traffic
 - Focus on business
 - Relax
 - Innovate



Don't Fear Failure

- What if no one shows up for the party?
- Old Model:
 - Oh No!
 - We have failed!
 - What do we do with all that hardware?
- New Model:
 - Not a problem
 - Shut down resources
 - No continued burn (resource expenditure)
 - Let's try something else
 - Keep trying



Don't Fear The World

- One Data Center:
 - High latency for most of the world
 - Poor experience for some
 - Single point of failure
 - Unhappy users
- Cloud:
 - Scale
 - Content distribution
 - Multiple geographic locations with ease
 - Intrinsic redundancy
 - Happy users
 - And lots of them



Don't Fear the Muck (Low-level system work)

- Muck:
 - All the stuff that you *have* to do, but don't *want* to do, to keep your game up and running.
- Cloud:
 - Takes care of the muck
 - You get to focus



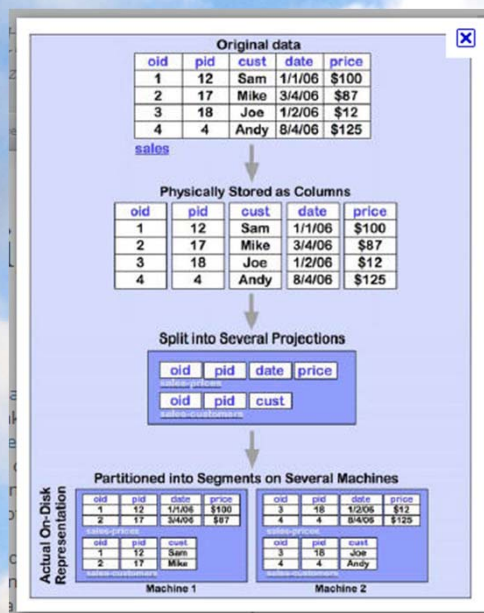
Cloud Applications

- Hosting static content
- Hosting downloadable files
- Hosting server-based games
- Large-scale database storage
- Analytics



Cloud-Based Analytics

- "The secret behind each developer's success is the ability to analyze data in ways they couldn't before, thereby gaining previously unattainable insight into players' needs, behaviors and usage patterns."



-- Vertica

Amazon Web Services

- Compute / Processing / Hosting – EC2
- Storage – S3
- Database – SimpleDB, RDS
- Messaging – SQS, SNS
- Networking – Virtual Private Cloud
- Content Distribution - CloudFront
- Human Intelligence – Mechanical Turk



Cloud-Powered Success Stories (US and Japan)

- Zynga
- Playfish
- So-net
- AQ Interactive
- gumi
- dango
- HEROZ



株式会社AQインタラクティブ



Cloud Success: Zynga

- FarmVille:
 - Added 1 million users/week for 26 weeks
 - Now over 70 million MAU
- EC2 + Zynga data center
- Add capacity to serve 10 million users in 1 day
- Pre-built environment and gaming platform



Cloud Success: Playfish

- Growth in 2009: 22 million to 55 million MAU
- Restaurant City: 4 million users in 8 weeks
- 100% on AWS
- Focus on business
- Reduce operational overhead
- Games designed for cloud
- Acquired for \$275 million



Cloud Success: So-net

- NINJA SPIRITS
 - Available on Mobage-town(DeNA)
 - Social game for Japanese feature phone
 - Other 2 games are also available
- 100% on EC2



Cloud Success: AQ Interactive

- Browser 3gokushi
 - Available on mixi
- One of the largest mixi games
 - 800,000 users
- Play with friends in mixi



Cloud Success: gumi

- One of top social applications providers in Japan
 - 50,000,000 PV/Day
 - 10,000,000 users
 - Available on mixi, GREE, and Mobage-town(DeNA)
 - ELB + EC2 + RDS



Cloud Success: HEROZ

- Over 20,000,000 users
- Providing social applications to multiple platform – mixi, GREE, and Mobage-town(DeNA)



Cloud Success: dango

- Providing social games to multiple platform – mixi, GREE, and Mobage-town(DeNA)
- Running on EC2



And That's All!

- Thanks for listening, and please feel free to follow up.

–Jeff Barr

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