Successful Web Based Business Web Sites

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Before We Get Started...
> Feel free to blog...

> Blog / photo tag: www2006 + jeffbarr ...

> Q&A at end...

> Time for 1-on-1 discussion afterward...

Introduction & Background
> Software development background
> Veteran of several startups
> Visual Studio team at Microsoft
> Nearly 4 Years with Amazon
> Amazon Web Services Developer Relations Team
> Web Services Evangelist

Goals
> Introduce our services
> Explain how they are used to create businesses
> Show you some successful applications
> Get you thinking about creating your own business

What Is Amazon?
> Online Retailer
  • Over 57 million active customer accounts
  • Seven countries: US, UK, Germany, Japan, France, Canada, China

> Technology Consumer
  • Multi-National Web Sites
  • Vast Data Warehouse - 25 TB of business / historical data
  • World-Class Logistics - Multi-national fulfillment centers; 10.2 million ft²

> Technology Provider
  • Hundreds of thousands of Amazon Associates
  • Over 1,080,000 active seller accounts
  • Over 140,000 software developers registered to use Amazon Web Services

What Is Amazon Web Services?
> Amazon Web Services = AWS
> APIs that give developers programmatic access to Amazon’s data and technology:
  • Building-block web services
  • Web-scale infrastructure
  • E-commerce capability
  • Content, data, and information
  • New business models
Amazon Web Services History

- Pre-2002: Outside calls to open up and to share data
- Early 2002: Decision made to “open up”
- Mid-2002: First beta release
- Fall 2002: First service (ECS) released
- Fall 2002: Developer program rolled out
- 2002-2004: Multiple releases of ECS
- 2005-Present: 7 additional services released or in beta
- 2006: 160,000 developers registered

AWS Product Family

- Amazon Mechanical Turk
  - API to Human Intelligence
  - Paid Internet-scale workforce
- AHP - Amazon Historical Pricing
  - Data warehouse access for product pricing
- SQS - Simple Queue Service
  - IT building block
- Alexa Top Sites
  - Top sites by Alexa traffic rank
- AWIS – Alexa Web Information Service
  - Data warehouse access for web crawl data
- AWSP – Alexa Web Search Platform
  - Roll your own search engine
- ECS – E-Commerce Service
  - Direct access to Amazon’s product catalog
- Amazon S3 – Simple Storage Service
  - Storage for the Internet

AWS Business Models

- Free:
  - 1 call per second
  - send us traffic
- Fixed Monthly Fee
- Usage / Resource Based:
  - Data transfer
  - Data storage
  - Per call
  - CPU time

Amazon E-Commerce Service (ECS)

- 4th release
- Complete access to the Amazon product catalog
  - Millions of products
  - Rich data schema
  - Product images
  - Reviews
- Shopping cart
- Wishlists
- Link to Amazon Associates program

Successful ECS Applications

tvmojo.com  associate-o-matic.com

Business Model: Click Sharing

- Developer’s Associate ID
- Site Operator’s Associate ID
- Associates Commissions
  - 10% to Developer
  - 90% to Site Operator
Amazon S3 – Simple Storage Service

> Storage for the internet - web service to read and write data
> Private and public storage
> Scalable, reliable, cost-effective, and simple!
> BitTorrent interface

Amazon S3 Properties

> Web-scalable
  - Scalable to support unlimited number of applications
  - Use scale to increase reliability
> Reliable – 99.99% availability
  - Managed replication
  - Self-repairing
  - “Just works”
> Cost-effective
  - Pay for what you use – storage and bandwidth
  - 15 cents per Gigabyte-Month to store data
  - 20 cents per Gigabyte to access data
  - Amazon datacenters with industry-leading operating costs
> Simple
  - Built for use in any application
  - Focus on innovation, not figuring out storage

Successful S3 Applications

- Smug Mug
- Ookles
- Chicago Crime

Man Versus Machine

But Not Really
Easy for a Human, Tough for a Computer

- Image recognition
- Approximation
- Speech processing
- Subjective evaluation
- Rendering an opinion

Amazon Mechanical Turk

Provide a Web Services API to allow developers to easily integrate human intelligence directly into their processing!

Put The Human In The Loop

while (read (photo))
{
    ContainsHuman = CallMechanicalTurk("Contains Human?", photo);
    if (ContainsHuman)
    {
        acceptPhoto(photo);
    }
    else
    {
        rejectPhoto(photo);
    }
}

How It Works

What This Means

For Software Developers
- Solves problem of building applications that until now have not worked well without human intelligence

For Businesses
- Efficiently, effectively and inexpensively complete millions of tasks that require human intelligence
- Previously unimaginable business ideas are now feasible…

For Anyone
- Make money using the skills you already have whenever your schedule allows

Sample Mechanical Turk Application – Casting Words
Podcast transcription service provider
- Transcribes audio into high-quality text
- Amazon Mechanical Turk
  - Workers transcribe podcasts and index text within search engine
- Amazon S3
  - Storing the podcasts and related files
Successful Mechanical Turk Applications

- The Sheep Market
- Art Project
- 10,000 sheep
- 2 cents/sheep
- Cost of $220
- 11 SPH

Getting Started With AWS

- Register as a developer, get a Subscription ID (free)
- Developer Portal: http://aws.amazon.com
- Mechanical Turk: http://www.mturk.com
- AWS Blog: http://aws.typepad.com

Questions?

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