

To Move Or Not To Move

GROWGOOD PUBLISHERS

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Present Scenario

- Publishes newspaper and 3 magazines
- Readership of about 50000 people
- 10 Workstations and a server running Windows Server 2008
- Company Website that is updated regularly
- Regular upload of the weeks' key events on Fridays
- Weekly hit of about 75000

New Proposal

- Dynamic Web pages that can be searched using keywords
- To publish a web version of the paper and magazines the same time the paper version hits the stands
- To propose a new pricing for the newspaper based on the day of the week
- To identify « Hot » articles that can be sold to outside publications

Outright Purchase

- A couple of web servers
- Mail and database server
- 3 or 4 more additional workstations
- A Mac computer for graphics work
- A good antivirus and firewall software
- A good sturdy printer for drafts and proofs
- New software for Web publishing
- A database to keep track of articles and subscribers

Additional Cost

- Network/ Systems Administrator
- Backup strategy and backup hardware
- Staff training
- New staff to handle Web page design and uploads

Timeframe

- Purchase of hardware
- Delivery and installation
- Installation of software
- Licensing agreements
- Recruiting new staff
- Training of existing staff
- Test run Web application

Time available: 3 weeks

Cloud: Benefits

- Sign up for 5 Web Servers initially
- Use SAAS and avoid additional software licenses
- Back up our publications on the Cloud storage
- End-to-end setup in a few days time.
- Different configuration for weekdays and weekends
- Increment the number of Web Servers when the usage increases
- Hardware upgrade, software versions and plugins

Cloud: Challenges

- Privacy
- Security
- Location of data
- Clearance with DPC
- Availability
- Disaster Management

Cloud: Strategy

- SLAs to include privacy and security concerns
- Encryption of data
- Disaster recovery and business continuity plans
- Audit clause
- Information Security Council

Dilemma

- Purchase hardware & software
 - Exact quantity of the requirement
 - Optimal use of the hardware
 - Idle time justification
 - ROI
 - Timeframe to order, setup and train
- Move to Cloud
 - Too many providers
 - Privacy and security issues

Decision

- Move to Cloud
 - Low investment
 - Scalable
- Security is still a concern
 - Sensitive data in in-house servers
 - Subscriber's data
 - Investigative journalism
- Choice of provider
 - Well-known
 - Amazon? Google? Microsoft?

Comparison: Amazon

- Create virtual machines for processing and storage
- Pay hourly: the time the VM runs; includes idle time
 - Machine usage: \$0.085 to \$3.16 /hr
 - Windows machines more expensive
 - Windows software costs additional
- Relational & non-relational storage: Simple DB, S3, RDS
 - CPU usage cost \$0.14 - \$0.154/hr
 - Storage cost \$0.25 - \$0.275 per GB/month
 - Data transfer cost \$0.1 - \$0.17/ GB
- **EU facility available**

Comparison: Google

- Have to write the app in Java or Python
- CPU usage pay hourly – idle time excluded
 - \$0.10/hr – 6.5 hrs free
- Only non-relational storage
 - CPU usage for data I/O \$0.10/hr – 60 hrs free
 - Storage cost \$0.15 per GB/month – 1GB free
 - Bandwidth usage \$0.10-\$0.12/ GB - 1GB free
- **There is a free quota for each component**

Comparison: Microsoft

- Development is on Visual Studio platform
- CPU usage pay hourly – idle time excluded
 - \$0.12/hr
- Only non-relational storage
 - CPU usage for data I/O \$0.10/hr
 - Storage cost \$0.01 per 10000 transactions
 - Bandwidth usage \$0.10-\$0.15/ GB

Final Decision

- Microsoft Azure
 - Comparable cost
 - Known platform
 - Less learning time
 - Easy transition
 - Cloud as an extension to on-premise apps

The Next Step

- Create a central content & ads repository
- News in Blobs, IDs in message queues
- Worker roles to upload images to Blobs
- CDNs to cache the images for easy access
- FAST Search Server to improve search
- User-designed layout for the e-paper
- Single searchable index
- Multiple version of stories
- Service bus to provide secure connectivity
- Adaptation to mobile version in future

Cumulative Effect

- Better productivity
- Single standardized content management
- Mobile reporters
- Reduced infrastructure
- More effort on revenue generating activities
- Increased access time for subscribers

Outcome

- Management satisfied
- Reporters happy
- CEO thrilled
- Subscribers happy with the layout and access
- Hits from all over the world
- Articles sold already
- GrowGood Publishing soaring high
- Scaled up to meet the demand