# Google App Engine

Advantages & Disadvantages

# Google App Engine



Run your web applications on Google's infrastructure.

Google App Engine enables developers to build web applications on the same scalable systems that power our own applications.

### Features

- Scalable
- Easy to deploy Load 'n go!
- Dev Web Server
- Free, up to an extent
- Python based
- Useful APIs:
  - Datastore
  - o Images
  - Mail
  - o Memcache
  - o URL Fetch
  - o Users

# Quotas

Application Quotas ③	24-hour moving window
CPU Used	0.00 of 199608.00 Gigacycles (0%)
Data Sent	0.00 of 2048.00 Megabytes (0%)
Data Received	0.00 of 2048.00 Megabytes (0%)
Emails Sent	0.00 of 2000.00 Emails (0%)
Megabytes Stored	0.00 of 500.00 Megabytes (0%)
Data Sent (HTTPS)	0.00 of 2048.00 Megabytes (0%)
Data Received (HTTPS)	0.00 of 2048.00 Megabytes (0%)

### Scalable?

- Number of users scalable
  - o 1 to 1000....
- Complexity of your application not scalable
  - Respond in seconds
  - Various datastore limitations
  - No streaming
  - No cron jobs....etc

Current Load ③			
URI	Requests last 14 hrs	Avg CPU last hr	% CPU last 14 hrs
/ajax/getpic	68	24074 🗘	87%
/ajax/status	67	220	2%
/ajax/newgame	67	1086	10%
/game	58	0	0%
/favicon ico	46	QE .	0%

## Easy to deploy

- One click deployAlmost always
- One way transfers development
- Version Control?

#### **Datastore**

- Easy to use
- Not a relational database
  - No joins
  - No aggregate functions
  - Counting is surprisingly difficult
  - Expensive process
- Memcache helps

### Conclusion

- Excellent for web developers looking to scale their simple (relatively) app in terms of users.
- A preview release, looking forward to:
  - Multiple languages
  - Additional Datastore functions:
    - count, rand, join?