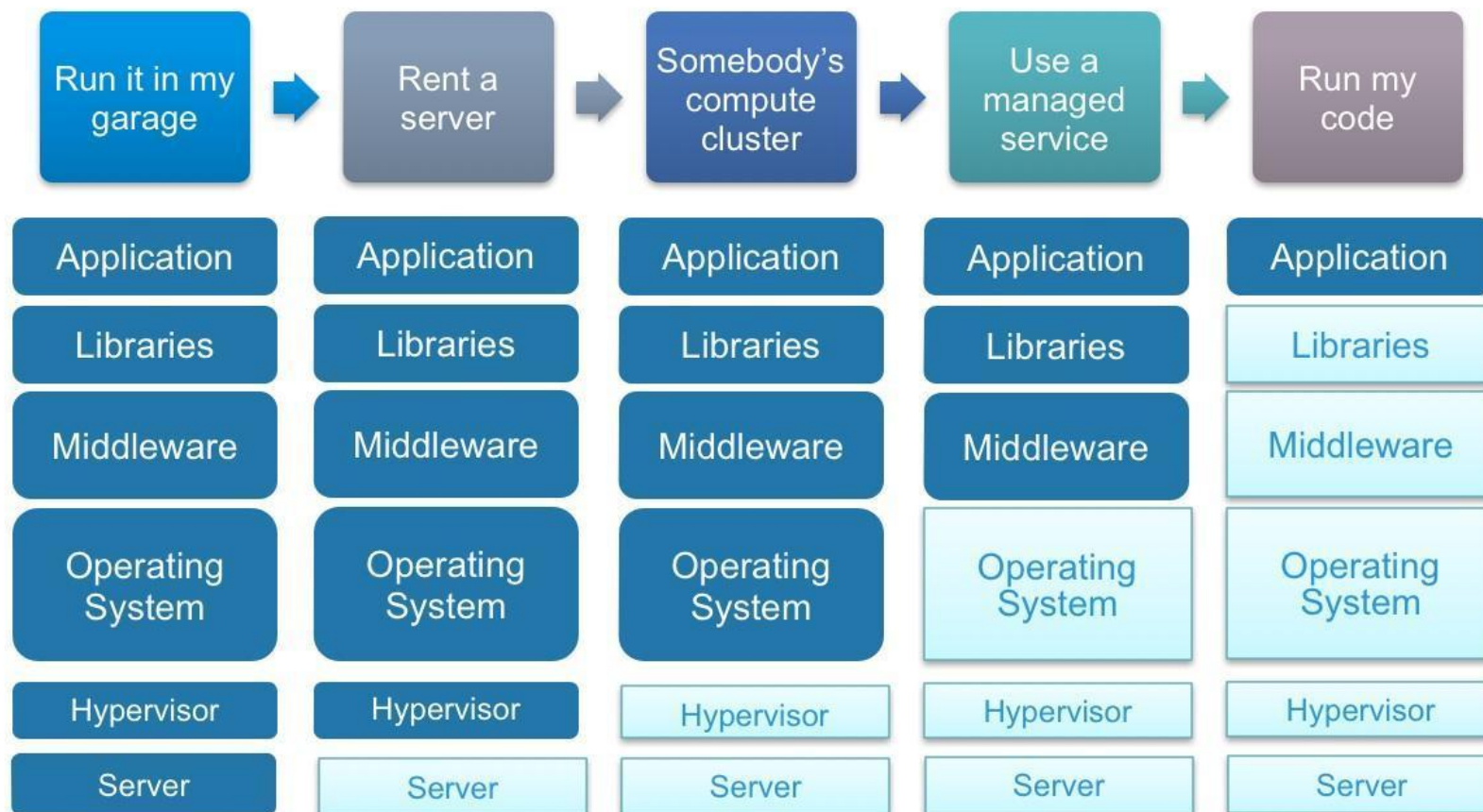# Google App Engine

Alexis Moussine-Pouchkine
Developer Relations
Google
alexismp@google.com

Didier Girard
COO
SFEIR

Life-cycle of a start-up

Google

Google App Engine - Pricing and Features

Create apps on Google's platform that are easy to manage and scale at a low total cost.

	Free	Paid	Premier
Platform fee	Free	$9/app/month	$500/account/month
Dynamic scaling	✔	✔	✔
Java Runtime	✔	✔	✔
Python Runtime	✔	✔	✔
Go Runtime	✔	✔	✔
Usage based pricing		✔	✔
Infinitely scalable		✔	✔
SLA		✔	✔
Operational support			✔

Tools

	Free	Paid	Premier
Google Plugin for Eclipse	✔	✔	✔
Code upload/download	✔	✔	✔
Graph History	✔	✔	✔
Request Logs	✔	✔	✔
Developer Access Control	✔	✔	✔

Hosting

	Free quota per app per day	Price
On-demand Frontend Instances	28 free instance hours	$0.08 / hour
Reserved Frontend Instances		$0.05 / hour
High Replication Datastore	1G	$0.24 / G / month
Outgoing Bandwidth	1G	$0.12 / G
Incoming Bandwidth		Free

APIs

	Free quota per app per day	Price
Datastore API	50k free read/write/small	$0.10/100k write ops $0.07/100k read ops $0.01/100k small ops
Blobstore API	5G	$0.13 / G / month
Email API	100 recipients	$0.01 / 100 recipients
XMPP API	10k stanzas	$0.10 / 100k stanza
Channel API	100 channels opened	$0.01 / 100 channels opened
Image Manipulation API	✔	✔
Memcache API	✔	✔
Users API	✔	✔
Task Queue	✔	✔
Files API	✔	✔
URL Fetch API	✔	✔
Cron	✔	✔
Prospective Search API (experimental)	✔	✔

https://developers.google.com/appengine/docs/billing

Google

Security

Question: can your company afford to invest more in security than Google already does ?

- SAS70, SSAE-16, and ISAE3402-certified
- Google invests heavily in R&D and in security. Everyday.
- White paper :
  http://www.google.com/about/datacenters/inside/data-security.html

Google

9 months in the life of App Engine

Out of Preview
MapReduce (Exp)
99.95% SLA
Python 2.7 (Exp)
Premier Accounts

1.6.0 [11/2011]

HRD Migration Tool
Log Reader API
(Exp)
Frontend Instance
Classes

1.6.1 [12/2011]

Backup/Restore
(Exp)

Django + Cloud SQL

1.6.2 [01/2012]

Python 2.7 (GA)
Traffic Splitting (Exp)
Expanded Logs
Storage

1.6.3 [02/2012]

Thread Support
Memcache viewer
NDB for Python
(GA)

1.6.4 [03/2012]

Projection Queries

Task Queue Stats

1.6.5 [04/2012]

Search API (Exp)

1.6.6 [05/2012]

EU Datacenters
SSL for Custom
Domain (GA)
Cloud Endpoints
Cloud SQL Open
PageSpeed

1.7.0 [06/2012]

Google

7.5B hits/day

Google App Engine
in a month:

500,000 active applications

2 trillion datastore operations
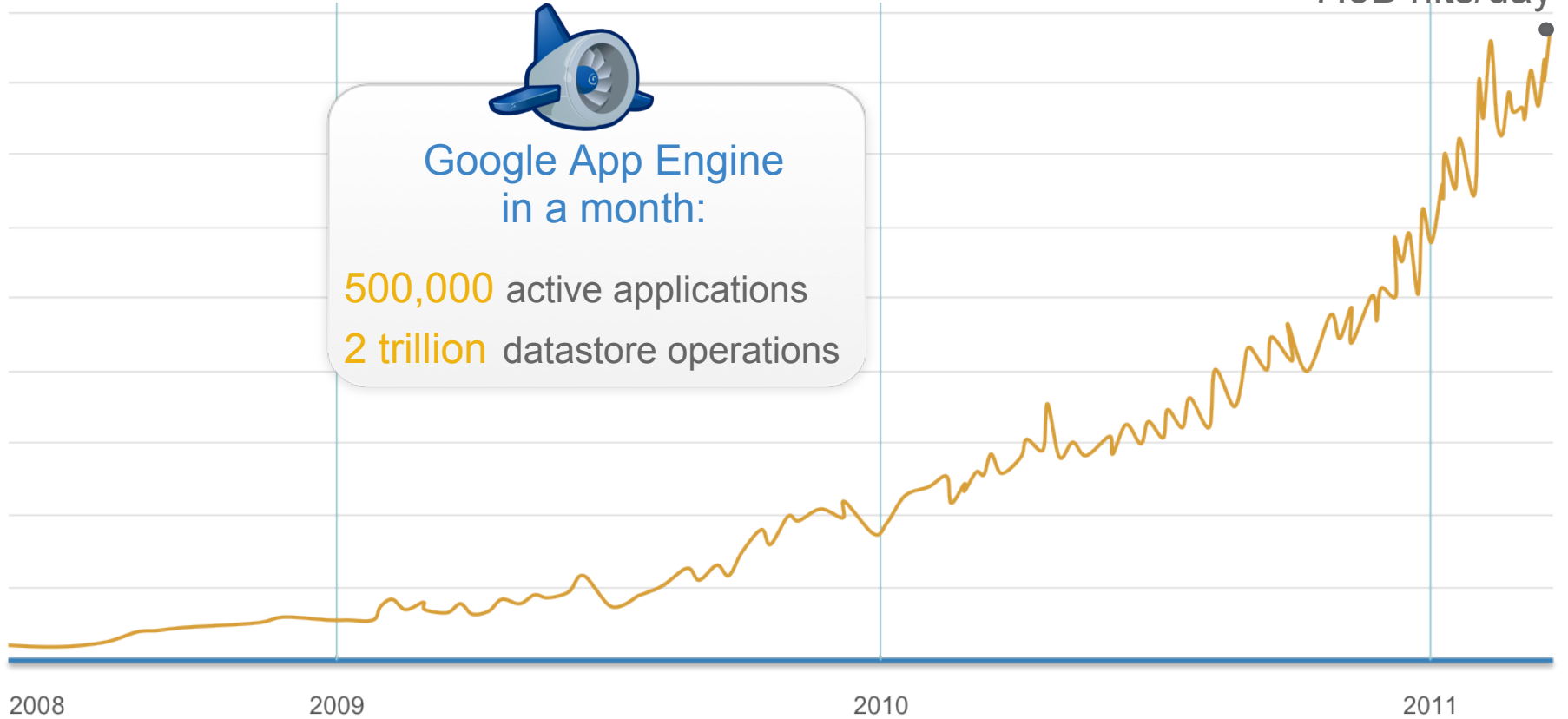
2008   2009   2010   2011

App Engine	Batch write/read	Java	Task Queues	Blobstore	Multitenancy	Hi-Replication
Launch	Https	DB Import	XMPP	Appstats	Instance Console	Datastore
Python	Status-	cron	incoming email	cursors	Always On	Channel API
Datastore	Dashboard			Mapper	hi-perf imag	Files API
Memcache					10 min tasks	Remote API
logs export						Search API

Google AppEngine :
A Cloud Application Server

CloudSQL

- Fully-managed, highly-available relational DB

- Developer Console

- Synchronous replication over multiple Data Centers

- Google AppEngine integration (JDBC, JPA 2.0, ...)

- MySQL Import/Export, Scheduled backups

- Co-exists with Datastore

- Support in Google Eclipse Plugin

- Requires explicit authorization of AppEngine apps

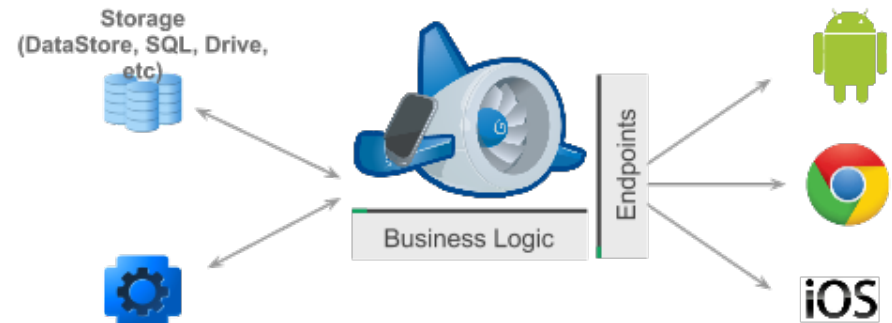- Now fully available and supported

(Full-Text) Search API

- "Google" queries over non-structured content
  - Find an email
  - Find a document
  - Navigate an activity stream
- Index content as documents
  - Index creation
  - Natural or explicit ordering
- Build and execute queries
- Present results
  - Sorting options
  - Cursors and pagination

Recent improvements

AppEngine
EU Datacenters

Google
page speed

Storage
(DataStore, SQL, Drive, etc)

Business Logic

Endpoints

Web APIs

Google Cloud Endpoints

cloud–ide.com/cloud/ide.jsp

Run Git PaaS Window Help

CloudBees
CloudFoundry
Heroku
OpenShift
Google App Engine

appengine-web.xml

version="1.0" encodin

Update Application
Create Application...
Logout

4
5
6

CloudBees CloudBees Jenkins for Google App Engine
Continuous integration in the cloud for Java and Python applications

About   DevResources
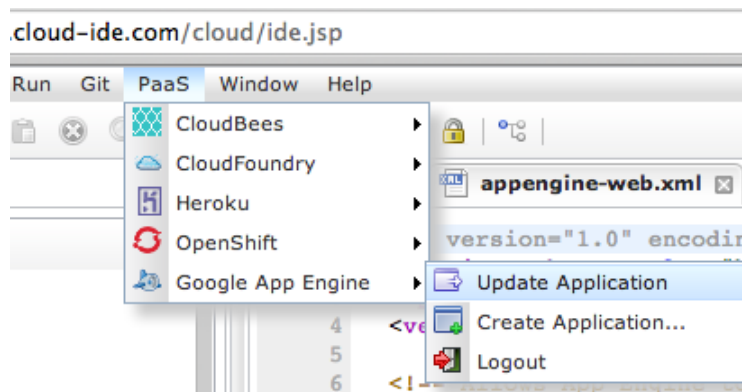
We're only getting started...

- Supported Product (November 2011)
- 99.95% SLA
- Fully-managed with dedicated reliability staff
- Security
- Strong growth !
- Now with an IaaS sister project !
  - Google Compute Engine

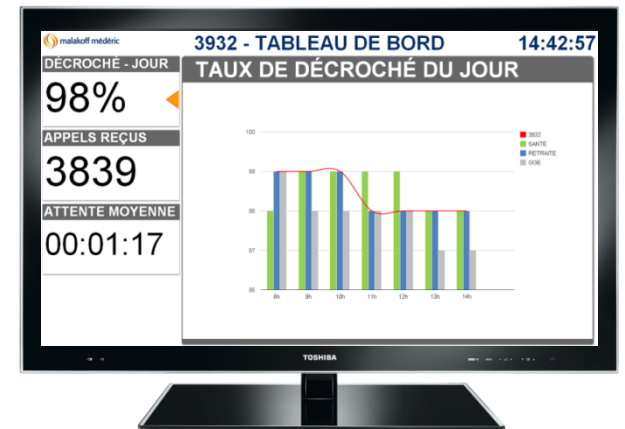# Conférence des Évêques de France

Malakoff Mederic

WEB

Smartphone

Tv

Java sur le Cloud, la fin des standards ?

Google

Doit-on avoir un Java Cloud Edition ?

Google

Java EE (~~7~~ 8)
a-t-il un intérêt ?

Google

Est-ce que Java est le bon langage pour le Cloud ?

Google

Qu'est ce qui vous retient de faire du Java dans le Cloud ?