

# Google App Engine



Sean Sullivan  
Portland Java User Group  
August 18, 2009



- turn on your phone
- turn on your ringer
- ask questions!

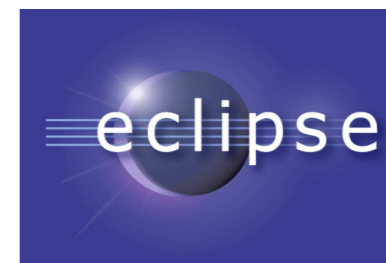
Google™



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**Google code**    
e.g. "templates" or "datastore"



## Run your web apps on Google's infrastructure.

Easy to build, easy to maintain, easy to scale.

### Java™ Language Support

App Engine recently unveiled its second language: Java. This release includes our Java runtime, integration with Google Web Toolkit, and a Google Plugin for Eclipse, giving you an end-to-end Java solution for AJAX web applications. The Java runtime is now available for anyone to use, so please give it a try and send us your feedback.

### Getting Started

1. [Sign up](#) for an App Engine account.
2. [Download](#) the App Engine SDK.
3. Read the [Getting Started Guide](#).
4. Check out sample apps in the [App Gallery](#).

### Watch and Learn



Developing and deploying on Google App Engine. [Watch Now](#)

### Recent Articles

Hiding in Plain Sight, Google Seeks More Power - New York Times

http://www.nytimes.com/2006/06/14/technology/14search RSS Google

Hiding in Plain Sight, Google Seek...

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# Hiding in Plain Sight, Google Seeks More Power



Melanie Conner for The New York Times

Google is building two computing centers, top and left, each the size of a football field, in The Dalles, Ore.

By JOHN MARKOFF and SAUL HANSELL  
Published: June 14, 2006

**THE DALLES, Ore., June 8** — On the banks of the windswept Columbia River, [Google](#) is working on a secret weapon in its quest to dominate the next generation of Internet computing. But it is hard to keep a secret

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# Cloud computing

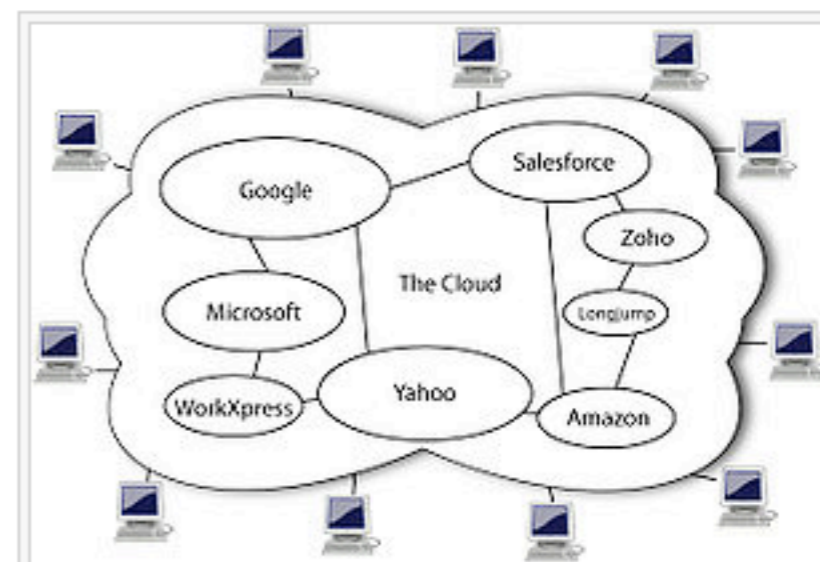
From Wikipedia, the free encyclopedia

**Cloud computing** is a style of computing in which dynamically [scalable](#) and often [virtualized](#) resources are provided [as a service](#) over the [Internet](#).<sup>[1][2]</sup> Users need not have knowledge of, expertise in, or control over the technology infrastructure in the "cloud" that supports them.<sup>[3]</sup>

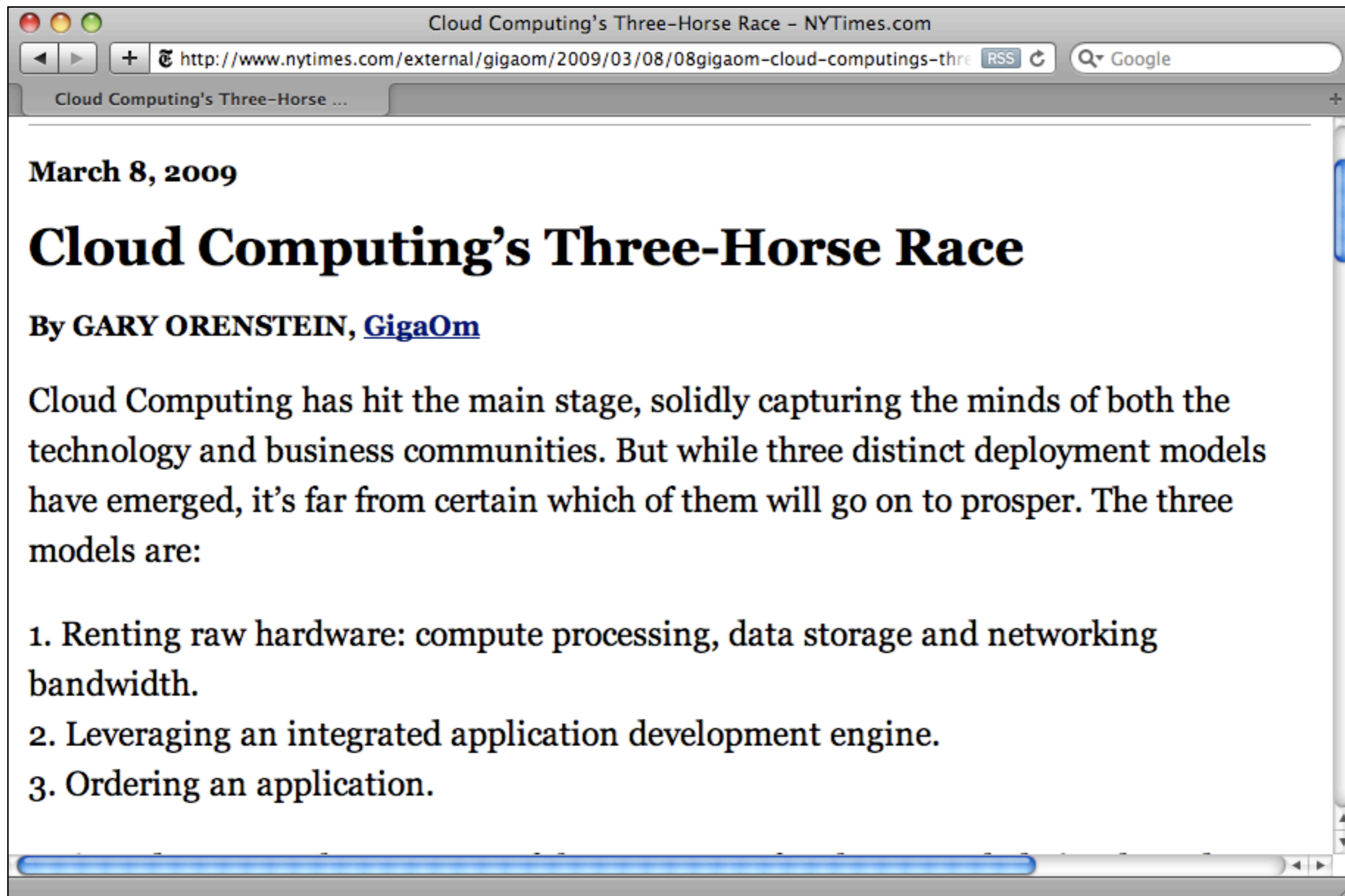
The concept generally incorporates combinations of the following:

- [infrastructure as a service](#) (IaaS)
- [platform as a service](#) (PaaS)
- [software as a service](#) (SaaS)
- Other recent (ca. 2007–09)<sup>[4][5]</sup> technologies that rely on the Internet to satisfy the computing needs of users. Cloud computing services often provide common [business applications](#) online that are accessed from a [web browser](#), while the [software](#) and [data](#) are stored on the [servers](#).

The term *cloud* is used as a [metaphor](#) for the Internet, based on how the Internet is depicted in [computer network diagrams](#) and is an [abstraction](#) for the complex infrastructure it conceals.<sup>[6]</sup>



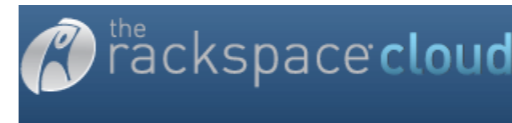
Some of the vendors providing Cloud computing services



source: [www.nytimes.com](http://www.nytimes.com)



# Infrastructure as a Service



# Platform as a Service



# Software as a Service



Slashdot | Google Previews App Engine

http://tech.slashdot.org/article.pl?sid=08/04/08/1218230

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## Google Previews App Engine

Posted by [Zonk](#) on Tue Apr 08, 2008 09:12 AM  
from the [what's-not-to-like](#) dept.

An anonymous reader writes

"Google is giving a handful of web programmers the opportunity [to create and run their own Web applications](#) on their servers. [Today's launch of a preview release of Google App Engine](#) signals a new era of collaboration with third-party software developers. The goal is to make it [easy to get started with a new Web app](#), and then make it easy to scale when that app reaches the point where it's receiving significant traffic and has millions of users," said Google product manager, Paul McDonald in a blog post.



internet software django tech google story

## Related Stories

[Firehose:Google previews App Engine](#) by Anonymous Coward

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Password

Public Terminal

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http://

Log in with OpenID

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April 2008

Google App Engine Blog: Seriously this time, the new language on App Engine: Java™

http://googleappengine.blogspot.com/2009/04/seriously-this-time-new-language-on-app.html

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# Google App Engine Blog

News, notes, tips and tricks from the Google App Engine Team

Tuesday, April 7, 2009

## Seriously this time, the new language on App Engine: Java™

Today, we're very excited to announce the availability of a new programming language for Google App Engine. Please welcome the Java runtime!

When the two of us first heard the promise of Google App Engine, we realized that the chance to bring this kind of simplicity to Java developers was too good of an opportunity to pass up. When App Engine launched publicly, we were excited to see that Java language support was both [the first and the most popular request](#) filed in the Issue Tracker. We were also thrilled to see that this enthusiasm extended beyond the Java language to all of the [various programming languages](#) that have been implemented on top of the Java virtual machine -- not to mention all of the popular web frameworks and [libraries](#).

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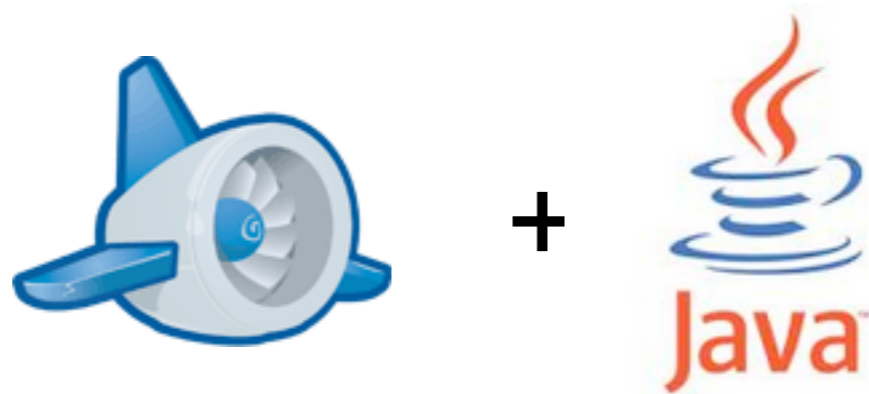
### Stuff we read

- [Google App Engine](#)
- [Google App Engine Docs](#)
- [Google App Engine Group](#)
- [Google Code](#)
- [Ann Gallery](#)

Message (1) processing took 172 ms

April 2009





The Java Servlet Environment - Google App Engine - Google Code

http://code.google.com/appengine/docs/java/runtime.html

Google code  Search  
e.g. "templates" or "datastore"

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**Getting Started**  
[What Is Google App Engine?](#)  
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[Python](#)

**Java**  
[Overview](#)  
**Servlet Environment**  
[Storing Data](#)

## The Java Servlet Environment

App Engine runs your Java web application using a Java 6 JVM in a safe "sandboxed" environment. App Engine invokes your app's servlet classes to handle requests and prepare responses in this environment.

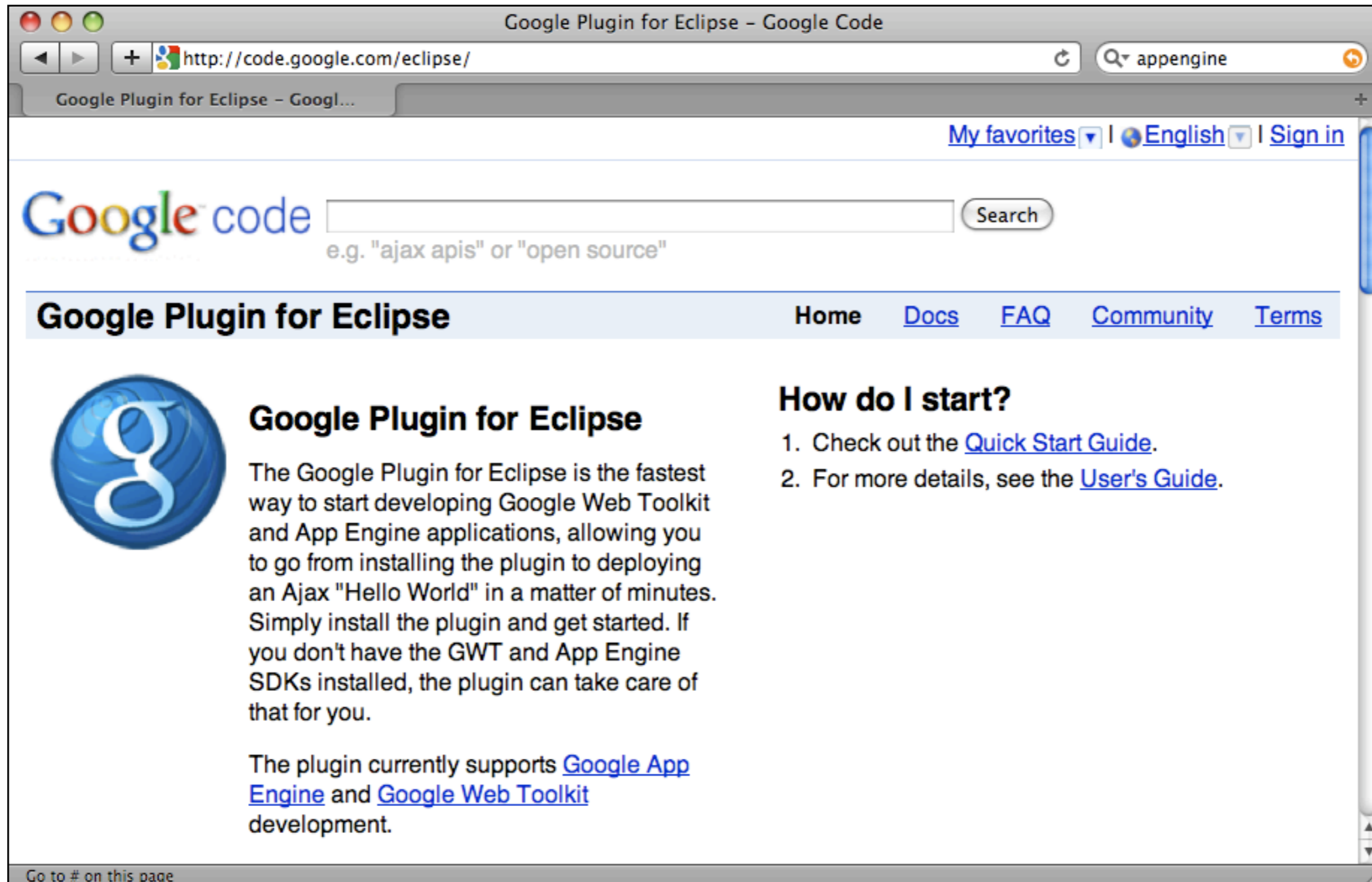
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- [Requests and Domains](#)
- [Requests and Servlets](#)
- [Responses](#)
- [The Request Timer](#)
- [The Sandbox](#)
- [The JRE White List](#)
- [Logging](#)
- [The Environment](#)
- [Quotas and Limits](#)

One error in opening the page. For more information, choose Window > Activity.

# App Engine services

- Memcache
- URL Fetch
- Mail
- Images
- Data Store
- Google Accounts

# Google Plugin for Eclipse




The screenshot shows a web browser window with the title "Google Plugin for Eclipse - Google Code". The address bar contains "http://code.google.com/eclipse/" and the search bar contains "appengine". The page features the Google Code logo, a search bar with the text "e.g. 'ajax apis' or 'open source'", and a navigation menu with links for "Home", "Docs", "FAQ", "Community", and "Terms". The main content area includes a blue globe icon with a white 'G', the title "Google Plugin for Eclipse", and a paragraph describing the plugin's purpose. A "How do I start?" section follows with two numbered steps: "1. Check out the [Quick Start Guide](#)." and "2. For more details, see the [User's Guide](#)." The footer contains the text "Go to # on this page".

Google Plugin for Eclipse - Google Code

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Google code  Search  
e.g. "ajax apis" or "open source"

**Google Plugin for Eclipse** Home Docs FAQ Community Terms

 **Google Plugin for Eclipse**

The Google Plugin for Eclipse is the fastest way to start developing Google Web Toolkit and App Engine applications, allowing you to go from installing the plugin to deploying an Ajax "Hello World" in a matter of minutes. Simply install the plugin and get started. If you don't have the GWT and App Engine SDKs installed, the plugin can take care of that for you.

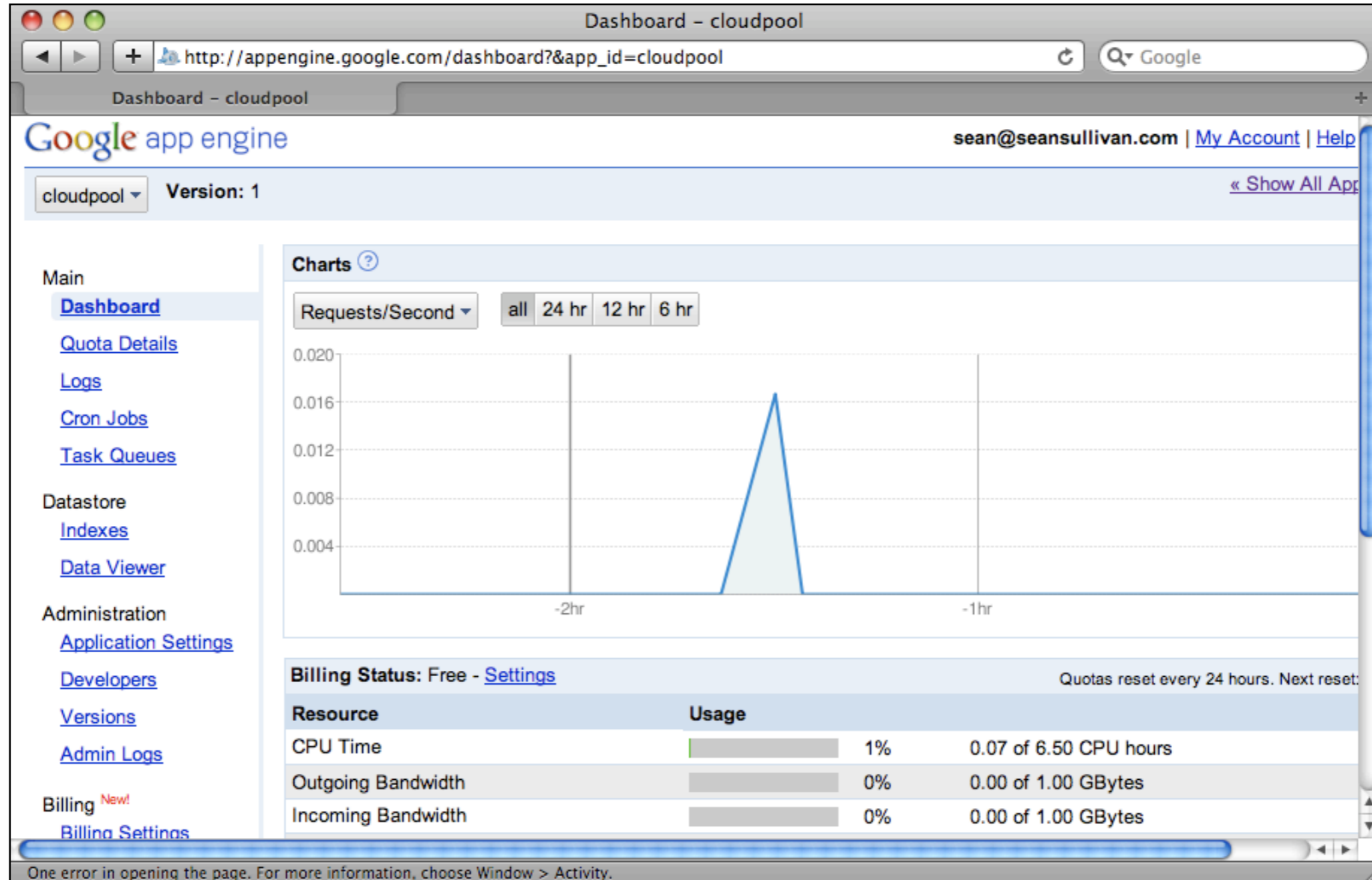
The plugin currently supports [Google App Engine](#) and [Google Web Toolkit](#) development.

**How do I start?**

1. Check out the [Quick Start Guide](#).
2. For more details, see the [User's Guide](#).

Go to # on this page

# App Engine dashboard





# App Engine dashboard

The screenshot shows the Google App Engine dashboard for a cloudpool application. The browser address bar displays the URL: `http://appengine.google.com/logs?&app_id=cloudpool&version_id=1.335700884241566716#`. The page header includes the Google App Engine logo, the user email `sean@seansullivan.com`, and links for `My Account`, `Help`, and `Sign out`. A dropdown menu shows the application name `cloudpool` and the version `Version: 1`, with a link to `Show All Applications`.

The left sidebar contains navigation links for `Main` (Dashboard, Quota Details, Logs, Cron Jobs, Task Queues), `Datastore` (Indexes, Data Viewer), `Administration` (Application Settings, Developers, Versions, Admin Logs), and `Billing` (Billing Settings, marked as `New!`).

The main content area features a `Filter Logs` section with a `Minimum Severity` dropdown set to `Error` and an `Options` link. A tip states: `Tip: Click a log line to show or hide its details.` with an `Expand logs` link. The log entries are paginated, showing `1-20` of `20` logs. The first log entry is a 500 error:

```
08-17 09:38PM 38.061 /cloudcampdxwebapp/twilio?AccountSid=AC4964a7176c594818edd2022800940d78&Call
75.101.174.1 - - [17/Aug/2009:21:38:42 -0700] "GET /cloudcampdxwebapp/twilio?
AccountSid=AC4964a7176c594818edd2022800940d78&CallStatus=in-
progress&Called=5039804632&CallerCountry=US&CalledZip=97071&CallerCity=PORTLAND&Calle
r=5033133371&CalledCity=WOODBURN&CallSegmentGuid=&CalledCountry=US&CallerState=OR&Cal
lSid=CAea28f413312a21b163b9ebcc09604fc8&CallGuid=CAea28f413312a21b163b9ebcc09604fc8&A
ccountGuid=AC4964a7176c594818edd2022800940d78&CalledState=OR&CallerZip=97222
HTTP/1.1" 500 0 "https://cloudpool.appspot.com/cloudcampdxwebapp/twilio"
"TwilioProxy/0.6,gzip(gfe)" "cloudpool.appspot.com"
```

The second log entry is an information message:

```
08-17 09:38PM 41.893
twilio.servlet.TwilioServlet doTwilioRequest: doTwilioRequest called

HTTP request URL: http://cloudpool.appspot.com/cloudcampdxwebapp/twilio?
AccountSid=AC4964a7176c594818edd2022800940d78&CallStatus=in-
progress&Called=5039804632&CallerCountry=US&CalledZip=97071&CallerCity=PORTLAND&Cal
```

A footer message at the bottom of the dashboard states: `One error in opening the page. For more information, choose Window > Activity.`

# Demo

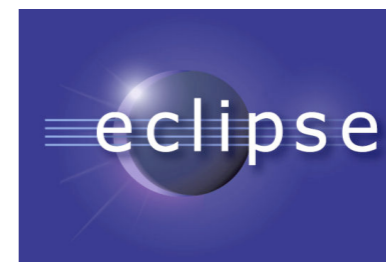
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# Telephony in the cloud



<http://www.twilio.com>

# Telephony in the cloud



<http://code.google.com/p/twilio-java-client>

# Questions?



# Thank you

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