

Nominee: Google

Nomination title: Google App Engine

Developers want to get their apps in the hands of users as soon as possible and scale quickly as demand grows. Most don't want to deal with infrastructure, and would much rather focus on the code they're writing. Google App Engine allows developers to build on customizable infrastructure that can scale up to billions of requests per day and automatically scale down when traffic subsides.

Google App Engine is designed to help developers create a flexible and fluid infrastructure that developers don't have to lose sleep over. It's build so that, once in place, developers don't have to worry about it at all. They can focus on building the next big thing.

Google App Engine enables developers to:

- Write applications in some of the most popular programming languages: Python, Java, PHP and Go. Use existing frameworks such as Django, Flask, Spring and webapp2. Develop locally with language-specific SDKs. Pair your applications with Compute Engine to integrate other familiar technologies such as Node.js, C++, Scala, Hadoop, MongoDB, Redis and more.
- Let Google worry about database administration, server configuration, sharding and load balancing. With Traffic Splitting, you can A/B test different live versions of your app. Multitenancy support lets you compartmentalize your application data.
- Choose the storage option you need: a traditional MySQL database using Cloud SQL, a schemaless NoSQL datastore using Cloud Datastore, or object storage using Cloud Storage.
- Be more productive by eliminating the need to write boilerplate code. Managed services, such as Task Queues and Memcache give you powerful tools for building your applications quickly and with high reliability.
- Use the tools you know, including Eclipse, IntelliJ, Maven, Git, Jenkins, PyCharm and more. The App Engine SDK allows you to test applications locally in a simulated environment and then deploy your app with simple command-line tools or the desktop launcher.
- Scale up to 7 billion requests per day and automatically scale down when traffic subsides.

As a result, Google App Engine has enabled a plethora of customers to scale and innovate in their respective industries. For example, one website was able to scale with only three engineers and no funding from zero to 12 million monthly active users in less than two years.

A prime example is “Angry Birds” creator Rovio, who needed a platform to build and scale the online version of the game that would be ready to scale on a moment’s notice. With the mobile app scaling to more than 140 million downloads so quickly, the team expected demand for the free online version to be overwhelming. Rovio also wanted a low-maintenance system that would make it easy to update features and bring new games online.

“Google App Engine allows us to launch games very quickly with teams of one or two developers per game,” says Stefan Hauk, Rovio’s lead server developer for web games. “Because Google manages all the servers, there is little required of us in terms of maintenance.”

App Engine allows the developers to add new features easily and continuously improve the games for users. They can deploy new versions with a single command and switch back to the previous version if needed. They can also rely on App Engine to scale automatically to support heavy demand from the moment the games launch.

“Because our web games are popular immediately, we don’t have the option of scaling them over time,” Hauk says. “Google App Engine makes the process painless, since it can instantly launch as many servers as we need and scale back down when a game has passed its usage peak.”

Millions of gamers have flocked to Rovio’s web games since launch. The company’s most popular offering, the Facebook game “Angry Birds Friends,” logs more than 13 million users every month. Since the developers don’t need to install or maintain hardware, they can devote their attention to enhancing the games, which have received overwhelmingly positive reviews.

Another good example is cloud-based web development platform Wix. Wix originally ran its service in one managed hosting environment, but as it scaled it was forced to add additional data centers managed by different hosts. As the amount of data continued to increase, requiring more communication between the three data centers, the ring would break when one data center went down for a long time or fail completely. This made disaster recovering nearly impossible.

Wix decided to move data to Google Cloud Platform to increase availability and improve disaster recovery. Taking advantage of the features provided by App Engine, Wix was able to complete the migration in a very short time, which immediately freed their team from the chore of writing scalability and fault tolerance-related code. They were able to solve their business problem quickly and seamlessly, while also preparing for future growth.

App Engine provides customizable infrastructure to help companies like Wix and Rovio ease the infrastructure complexities that come with fast-paced growth, while also preparing for future scalability.

Why nominee should win

- **It's designed to help developers create flexible and fluid infrastructure that, once in place, developers don't have to worry about it at all.**
- **It enables productivity by eliminating the need to write boilerplate code. Managed services such as Task Queues and Memcache provide powerful tools for building your applications quickly and with high reliability.**
- **It's scalable up to 7 billion requests per day and automatically scale down when traffic subsides.**
- **Write applications in some of the most popular programming languages, use existing frameworks, develop locally with language-specific SDKs, pair applications with Compute Engine to integrate other familiar technologies.**