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Video Game Maker Leaps onto the Web with Google App Engine and Google Cloud Storage

Organization

Developers at video game maker Ubisoft needed to build a web-based version of the company's popular "From Dust" game to reach new customers. Despite the company's reputation for state-of-the art gaming, the process was a bit challenging since the team had never built a web-based game before. The Montpellier, France-based team also wanted a system that would scale to support a large number of online gamers. Using Google App Engine with Google Cloud Storage provided the ease and scalability the developers needed.

Challenge

Ubisoft game producer Cyril Erbin and lead programmer Julien Richard had limited web development experience when they set out to create a version of their popular console game "From Dust" for the Google Chrome browser. As they searched for the best way to create the web-based game, they wanted to be sure what they built would be top-notch and able to handle whatever users demanded of it.

Erbin and Richard were eager to target the growing number of Google Chrome users, so they placed high priority on a system that they could learn quickly. They also didn't want to worry about maintaining servers or adding hardware as the number of players grew.

"We wanted to focus on creating the best possible experience for users, so we looked for a solution that would take care of everything needed to support the game," Erbin says.

"It was a huge challenge and a great achievement to get the game up and running on the web browser. Google App Engine and Google Cloud Storage played a significant part in our success."
—Cyril Erbin, game producer, Ubisoft

Solution

The developers signed up for Google App Engine shortly after hearing about it in February 2012. Despite their limited web development experience, they built the Chrome version of the game in just two months. This enabled them to quickly roll out a trial version of the game.

They took advantage of Google Chrome's Native Client feature, which allows the browser to run the computer languages typically used to create console video games. This delivers a fast, visually rich playing experience for users.

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At a Glance

What they wanted to do
- Develop a web-based version of the popular downloadable console game "From Dust"
- Find an easy-to-use system so developers could focus on the user experience
- Scale effortlessly to accommodate a fast-growing number of players

What they did
- Used Google App Engine to build the game quickly and easily
- Took advantage of key App Engine features, such as the Datastore to hold user profile data and the intuitive administration console to monitor performance
- Used Google Cloud Storage to securely store and serve game data

What they accomplished
- Scaled effortlessly to support user growth, including a nearly 10-fold increase in just a few days
- Avoided hiring additional staff members to maintain servers and resolve technical problems
- Maintain consistently high performance with Google Cloud Storage

About Google App Engine

Google App Engine enables businesses to build and host web apps on the same systems that power Google applications. It offers fast development and deployment, effortless scalability and simple administration, with no need to worry about hardware, patches or backups.

For more information, visit
http://cloud.google.com/appengine

About Google Cloud Storage

Google Cloud Storage allows companies to store and access their data in Google's highly scalable storage and networking infrastructure. Developers can store objects of any size and manage access to their data on an individual or group basis.

For more information, visit
http://cloud.google.com/products/cloud-storage.html

"With Google App Engine and Google Cloud Storage, we're sure the game will remain available no matter what the demand."
—Julien Richard, lead programmer, Ubisoft

They also used several Google App Engine features to improve the game, including:

- **Google App Engine's Datastore** – to keep player profile information, which allows users to begin playing on one computer and resume on another
- **The Users Python API** – to authenticate users through their Google user names and passwords, which helps provide a seamless experience when buying the game or downloading the trial version
- **Administration console** – to monitor the game's performance and view response times, error logs and other data

Erbin and Richard also take advantage of Google Cloud Storage for secure, scalable storage for their game data. Google Cloud Storage serves up data quickly to users, helping ensure consistently high performance.

"The transfer rates are very high for different parts of the world," Richard says. "This helps enhance the user experience."

Results

Google services provided the infrastructure Erbin and Richard needed to create a smooth, immersive user experience that has drawn widespread praise.

"It was a huge challenge and a great achievement to get the game up and running on the web browser, particularly since we had little web development experience," Erbin says. "Google App Engine and Google Cloud Storage played a significant part in our success."

When "From Dust" officially launched on the Chrome Web Store in May 2012, the number of users jumped from 11,000 to 100,000 in just a few days. The platform handled the spike without a hitch. By hosting the game on Google App Engine, Ubisoft avoided hiring staff members to maintain servers and resolve technical issues.

"With Google App Engine and Google Cloud Storage, we're sure the game will remain available no matter what the demand," Richard says.