App Developer Helps Companies Simplify Scheduling with Google App Engine

At a Glance

What they wanted to do

- Develop a robust leave management application that integrates with Google Apps for Business
- Use a flexible platform that would allow developers to build the app quickly and add features on the fly
- Support a growing user base

What they did

- Chose Google App Engine to develop the service on Google's scalable infrastructure
- Integrated features such as the High-Replication Datastore and Task Queues to store data securely and improve application performance
- Managed the service easily through an intuitive web-based console

What they accomplished

- Created a full-featured, easy-to-use product that has received a perfect rating in the Google Apps Marketplace
- Achieved consistently reliable performance for users
- Gained effortless, automatic scalability to support user growth

Organization

Appogee, a technology consultant and application developer, used Google App Engine to build a robust system to help companies manage employee vacations and other office absences using Google Calendar and other Google Apps tools. App Engine provides a flexible, scalable platform that lets developers at the London-based firm keep improving their product while supporting a growing number of users, including Trinity Mirror, Britain's largest newspaper group.

Challenge

With the Google Apps suite becoming more popular, Appogee knew integrating a leave management system with the suite could help companies save time overseeing employees' schedules. Users could schedule days off as well as view the availability of colleagues through the Google Calendar interface, while managers could receive automatic Gmail notifications when team members requested time off. The need was especially strong at firms with multiple locations, such as Trinity Mirror, whose 260-person IT department is split among 30 offices.

"Many of our staff members work closely with employees in different offices, so knowing who's available on any given day is important," reports Ed Rios, IT Development Manager at Trinity Mirror. "Because our staff relies heavily on Google Apps, it was crucial that any leave management product we chose be integrated with that platform."

Appogee software developer Gwyn Howell needed an easy-to-use, flexible platform that would let him build the application quickly and make changes on the fly. He also wanted a system that could scale to accommodate any amount of registered users.

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—Gwyn Howell, software developer, Appogee

Solution

Google App Engine emerged as the natural choice to build the service, called Appogee Leave, because of its easy integration with Google Apps. Howell had worked with App Engine previously and knew it offered the ease of use and flexibility the company sought.

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

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The team used a number of App Engine features to enhance the service, including:

- **The High-Replication Datastore** to provide secure, scalable data storage
- **Task Queues** to direct certain resource-intensive operations, such as Google Calendar synchronization, to run in the background, which improves the application's responsiveness to users
- **Open ID/OAuth** to allow users to log onto the service using their Google Apps credentials and to assign role-based functions, such as one that allows managers to approve time-off requests

The developers launched the application in June 2011 and have found it quite easy to manage. They can monitor performance and view server requests, error logs and other data through App Engine's intuitive, web-based administration console. It's also easy to add new features since developers can deploy multiple versions of the code at the same time and test new functions before going live.

"This allows us to continuously update the application and incorporate feedback from customers, which means we can serve them better," Howell says.

Results

Appogee Leave is now used by companies, universities and nonprofit organizations in more than 50 countries. App Engine's rich capabilities and dependable performance have helped the application achieve a perfect five-star rating in the Google Apps Marketplace, where it is primarily sold.

"We're now able to track time away much more easily than we could with our old spreadsheet-based system, which could be time-consuming and not very transparent," reports Rios of Trinity Mirror. "Appogee Leave also allows us as a department spread out across a number of offices to have a consistent approach to logging, tracking and approving holidays. Because the product is hosted on Google's infrastructure, we know we can continue to expect good performance, reliability and accessibility."

Appogee Leave users have not experienced any downtime since its launch, Howell says. As the service gains more users, he is confident App Engine will support the increased demand effortlessly.

"App Engine has helped us create a system capable of scaling beyond the huge growth we have already experienced, all without having to manage servers or plan for increases in infrastructure," Howell says. "We can pass these benefits along to our customers, since they know the service will remain available and will continue to evolve to meet their needs."

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