

# Software Firm Slashes App Development Time in Half with Google App Engine and Google Cloud SQL



## At a Glance

### What they wanted to do

- Build and deploy cloud-based apps with an easy-to-use database management service
- Reduce the time and resources it took to develop apps
- Use a scalable system that automatically accommodated spikes in usage

### What they did

- Switched to Google App Engine so they could build, test and deploy applications more quickly
- Added Google Cloud SQL to gain indexing and dynamic filtering capabilities and to reduce the time required to manage databases

### What they achieved

- Save up to 80 hours a month in building, testing and deploying apps and managing databases
- Student Information System, to market in half the time
- Can now easily accommodate usage fluctuations with automatic scalability

## Organization

Daffodil Software Ltd. is an India-based information technology services company with 180 employees and satellite offices in the US, Singapore and the United Arab Emirates. Its product: a suite of web-based applications, including a business customer relationship management (CRM) program and an enterprise resource planning (ERP) app for schools.

## Challenge

Daffodil needed a cloud-based hosting platform for its applications that would save money and time over in-house hosting. The company tried Amazon Elastic Cloud Compute (EC2) with MySQL to manage the databases that its applications depended on. The potential was there, but building, testing and deploying the applications took too long, and scalability was also an issue.

“The old system provided the option to scale up if many users accessed our applications at the same time, but we had to do this manually,” says Gaurav Sharma, assistant head of Daffodil’s product team.

In September 2010, Daffodil switched to Google App Engine, which allows businesses to build and host web apps on the same infrastructure that powers Google applications. Integration with Google App Engine lets Sharma and his team quickly build, test and deploy applications and allows them to automatically accommodate fluctuations in the number of users so they don’t have to manually manage the system when demand increases. Although App Engine’s built-in Datastore was useful, they found that they wanted more SQL-like functionality for their data-driven programs.

## Solution

At Google’s suggestion, Daffodil migrated to Google Cloud SQL three months later as a beta tester to take advantage of the system’s database indexing and dynamic filtering abilities, which speed up data sorting for Daffodil’s end users.

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*—Yogesh Agarwal, CEO, Daffodil Software*

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Besides indexing and dynamic filtering, Google Cloud SQL has simplified database management for the Daffodil team. Sharma can easily import their databases and administer them through an intuitive interface, while Google handles back-end maintenance and administration.

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## About Google App Engine

Google App Engine allows businesses to build and host web apps on the same infrastructure that powers Google's applications, offering fast development and deployment. Google Cloud SQL provides a simple way for developers using Google App Engine to build database-driven cloud applications. Google Cloud SQL offers high reliability and availability and easy management and administration.

For more information about Google App Engine, visit [www.code.google.com/appengine](http://www.code.google.com/appengine)

For more information about Google Cloud SQL, visit [www.code.google.com/apis/sql](http://www.code.google.com/apis/sql)

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—Yogesh Agarwal, CEO, Daffodil Software

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Google Cloud SQL replicates data among multiple geographic regions, giving Daffodil CEO Yogesh Agarwal peace of mind that users' data held by the applications is protected.

"The safety of our customers' data is a major concern, so we appreciate that we don't need to worry about data loss," he says.

## Results

With Google App Engine and Google Cloud SQL, the Daffodil team is saving about 80 hours of development time every month because of easier deployment, no active management for scaling and simplified database management. They have also slashed the time it takes to bring new products to market.

"Using Google App Engine and Google Cloud SQL make our applications go live in half the time and have provided us with hassle-free control over all processes, such as development, deployment and monitoring," Agarwal says. "We're able to deploy our applications much faster and spend less time managing them."

Going forward, the Daffodil team plans to add other Google services to their applications including Google Prediction API, which allows CRM application users to better predict the probability of a lead becoming a customer, and Google App Engine's Full Text Search API, which helps users retrieve customer data more easily.

Agarwal is happy with the move to Google App Engine and Google Cloud SQL. "The shift has allowed us to focus on making our applications even better," he says.

