Zend Server Helps Online Learning Pioneer EnglishCentral Rapidly Deploy New Functionality

CUSTOMER:

EnglishCentral is an English-language learning company that uses online videos to teach students everything from vocabulary to proper pronunciation. Students can choose from thousands of online videos and EnglishCentral provides text transcriptions that help viewers to read along. Interactive speech assessment technology offers feedback and ongoing assessments, enabling users to increase their English fluency and test scores. Students can select video courses designed for business, social, travel, English proficiency exams, pronunciation and more.

CHALLENGE:

Simultaneously test different features and product releases so that they can be deployed on a browser-based platform rapidly and frequently.

SOLUTION:

Zend Server's application deployment model and clustering features enabled EnglishCentral to automate the processes of moving application code from QA to production and scaling in the cloud. Zend Server's job queue and code tracing features gave EnglishCentral the right tools to improve application architecture and rapidly solve production problems.

Finding the Right Solution to Continuously Deliver With a Distributed Team

As a pioneer of online learning, EnglishCentral relies on the latest web development technologies to deliver its browser-based educational service. With thousands of students signed up around the globe, EnglishCentral is constantly deploying new products and updates that must function on a wide array of desktop and mobile devices. EnglishCentral hosts its website on Amazon Web Services cloud-based machines running PHP on Zend Server, along with back-end systems running Java and Tomcat.

EnglishCentral leveraged Zend Server's automation capabilities to automate application deployment, allowing the company to make rapid changes to its applications in response to frequent testing.

"We have to do a lot of testing of our service in a lot of different languages, and we need to make adjustments quickly in response to that testing. Having the ability to constantly redeploy is very important," said Jonathan Marston, EnglishCentral's vice president of engineering. "Rapid iterations on the testing servers are crucial to keep the whole process going."

EnglishCentral chose PHP to run its online service because it was faster to develop in than Java. The fact that it was open source and that there was a large body of available PHP developers to recruit from added to its appeal. Because EnglishCentral had developers working around the world, it was also crucial to take a framework based development approach to help maintain order in a globally developed codebase.

"We chose Zend Framework because we have a distributed team, and so it was important to us to have a framework that organizes how our code is supposed to be written," Marston said.

Moving Code Rapidly from QA to Production

Even before moving to Zend Server, EnglishCentral knew that an automated deployment system would be necessary for both timesaving purposes and to reduce errors that crop up with manual processes.

"I learned that you should automate from the beginning," Marston said. "It's much more difficult to change an existing manual process to be automated than it is to start automated and build from there."

With the help of Zend Server, the EnglishCentral team is able to automatically deploy its codebase for different features from remote directories onto the QA and production servers as part of the normal workflow.

"One of the key things is that with all of these different testing branches—we need to rapidly be able to deploy any of them to our QA server, and switch back and forth all the time," explained Marston. "It would not be possible to do that without automation."

As a subscription-based service, EnglishCentral is expected to continuously deliver new features to its users, and to fix any bugs that may crop up with minimal service interruptions. Leveraging Zend Server to help with deployment, the EnglishCentral team is able to handle multiple development branches at the same time, and to keep up with this high demand.

"One of the key goals of this type of workflow is to be able to release often—which with an online service is critical," Marston said. "With multiple code branches, it could take three to four times as long as expected to bring code from Continuous Integration to staging and production. However, an automated release process gives you the ability to release frequently and easily, so you're not stuck stalling the whole release because one feature isn't ready. Instead you can pick and choose what people are working on to bake together a release and get it out."

Job Queue and Code Tracing Boost Application Performance and Development Productivity

As EnglishCentral requires engineers to work on different features simultaneously, it was important to have features that would make developers as productive as possible.

"We use Zend Server's job queue to handle PHP execution within our application that needs to be asynchronous," said Marston. "It's helpful that my same developers who are writing PHP code can leverage this capability in creating their code, to enable the app to be faster by running asynchronous jobs.". The fact that this Job Queue capability comes out of the box with Zend Server, enables developers to easily design for optimal application performance.

Furthermore, Zend's code tracing capabilities help developers easily discover what causes certain applications to lag. This means less time hunting down bugs and ultimately leads to quicker releases.

Running Multiple Apps on the Same Server Reduces Costs

In the end, Zend Server's ability to handle multiple applications on the same server is more than a convenience – it's also a cost saver. Instead of using a separate server for each application that EnglishCentral is working to develop. A core capability of Zend Server is that it enables multiple applications to run in parallel on one physical or virtual (cloud) server. This result is dramatically reduced server costs, which can be a major source of savings.

"With Zend Server, you can have multiple applications running on a single server, whereas other models such as free open source PHP servers allow just one application per server. What I've found is there's definitely a cost savings there to having Zend Server."

Zend Solution for Continuous Delivery

Continuous Delivery helps companies release applications faster and with greater quality by streamlining and automating the process of bringing software from code to production. The Zend Blueprint for Continuous Delivery provides practical best practices to help companies implement each step of the continuous delivery cycle. Based on the Zend Server platform, the blueprint provides an easy way to implement these best practices through a series of patterns and plug-ins.

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