CHALLENGE

Handle fluctuating customer demand that can increase by 1,000% seasonally across multiple applications, while reducing infrastructure maintenance overhead.

SOLUTION

Use RUN@cloud from CloudBees to simplify project set up and deployment, and to automatically scale infrastructure based on current requests.

RESULTS

- >> Project set up accelerated by a factor of 10
- >> Time spent resolving infrastructure issues reduced by 80%
- >> Scalability streamlined, simplified, and automated

SERVICES

- >> RUN@cloud
- >> MongoHQ
- >> New Relic

Universal Places Serves Up Dream Vacations with the CloudBees Platform

For more than 25 years, the Universal Places team has been helping travelers find hotels, resorts and bed-and-breakfasts (B&Bs) in Spain and Portugal. The company's web application at www.universalplaces.com features more than 5,000 seaside destinations and another 4,000 in the countryside. Traffic at the beach and B&B portals is very seasonal, with the high season bringing about 10 times the number of transactions per day as the low season.

To handle large fluctuations in demand, and to enable its team to focus on agile development instead of infrastructure issues, Universal Places relies on the CloudBees RUN@cloud™ Platform as a Service (PaaS) solution. "With CloudBees we have shortened time to market because we are spending 80% less time resolving infrastructure issues," says Juan Rodriguez Feria, CTO at Universal Places and lead architect of the company's Internet platform. "RUN@cloud automatically scales, so we always have enough servers to meet traffic demands in the high season, but we're not paying for servers when we don't need them. Never has it been easier to manage a Java™ IT infrastructure and deploy to production."

Challenge: Reduce infrastructure maintenance overhead while handling seasonal demand

When Universal Places launched its web app, the company faced two challenges: limited scalability and diminished developer productivity.

In addition to scaling to meet the needs of its growing customer base, Universal Places must efficiently scale its infrastructure to manage traffic as it ebbs and flows substantially throughout the year between its two main portals. "Our seaside hotels portal sees increased business from April to September, whereas our B&B countryside portal's busiest months are from October to May," says Feria. "So we needed a deployment platform with support for simple configuration, rapid deployment and easy scaling."

The company initially hosted the portals on a traditional infrastructure that they set up in-house. They rapidly outgrew this setup, and migrated to Amazon Web Services (AWS). "Improved scalability on AWS was a big help, but we found that our developers were still spending too much time each week on non-development activities. We needed to reduce the time spent in infrastructure configuration and deployment. Moreover, we wanted a flexible pricing model that adjusts our cost to traffic and business volume," Feria adds.

A deployment solution for increased developer productivity and improved scalability

After evaluating several PaaS solutions, the Universal Places development team selected RUN@cloud for its ease of use, configurability, extensive partner ecosystem and one-click deployment and rollback.

From the start, RUN@cloud fit well with the team's agile methodology for rapid development and continuous delivery of Java applications with Grails. "We installed the CloudBees Grails

"RUN@cloud delivered everything we were looking for in a PaaS, including the ability to scale effortlessly and a complete set of ecosystem services. Just as importantly, it has enabled our developers to focus on development, instead of spending more than a third of their time tending to infrastructure issues."

>> *Juan Rodriguez Feria, Universal Places*

plugin, configured some parameters and the database, and in minutes we had our first app running on RUN@cloud," says Feria.

The team then completed a larger-scale proof-of-concept with the free version of RUN@cloud. For this Grails project, the team pushed the application code to a Git repository, and configured MySQL and MongoDB databases. After using this setup to verify that RUN@cloud would meet the company's need for configurability and ease-of-use, the team migrated their four major production applications to RUN@cloud over the next few days.

The team's previous deployment process required numerous manual steps, including uploading of the WAR file via FTP, backing up databases, starting and stopping application servers and redirecting web servers. Reverting to a previous version of the app was equally arduous.

With RUN@cloud, the process has been greatly streamlined. "The database backup is done in one click. Another click sends the request to the CloudBees Grails plugin to deploy. If there's a problem, we can restore the database and rollback to the previous version of the app just as easily, all in a few minutes."

In production, the team uses New Relic, the application performance management (APM) tool from a CloudBees Ecosystem partner, to monitor availability, memory usage and CPU usage as well as to help track down memory leaks.

They also use MongoHQ, a hosted database solution and another Ecosystem service, to take advantage of the geospatial features of MongoDB for accessing location information on beaches and hotels.

To handle the seasonal shifts in traffic among the company's sites, the team uses the RUN@cloud automatic scaling feature, which ensures server capacity remains in line with transaction rates by automatically scaling up or down when the per-server request count passes customizable thresholds.

The development team has plans in place to incorporate continuous integration (CI) in their development process using the CloudBees DEV@cloud services, powered by Jenkins.

Results

- **Project set up accelerated by a factor of 10.** "Compared to our previous approach, our initial project set up with CloudBees, including Tomcat and Apache configuration, was about 10 times faster," says Feria. "That is an important first step in achieving a shorter time to market."
- **Time spent resolving infrastructure issues reduced by 80%.** "We used to spend about 16 hours a week on non-development tasks related to our infrastructure; since we started using RUN@cloud we spend about 30 minutes," notes Feria. "As a result, we can focus 95% of our time on application development instead of about 65%, as we did previously."
- **Scalability streamlined, simplified and automated.** "In the past, scaling meant cloning servers and reconfiguring the load balancer; now we manage it all with a few settings on the app configuration tab of RUN@cloud," says Feria. "We've set up automatic scaling, so that our costs are always adjusted to our current business volume, which is essential for a seasonal business."

Learn More About Universal Places:

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