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CORNELL UNIVERSITY

Spring Helps Cornell University Quickly Scale Application For Multiple Web Portals

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Cornell University

SPRINGSOURCE RESULTS

Spring delivers the following business results to Cornell:

- Rapid Website Customization – from four weeks down to one day
- Fast Website Changes
- Responsive Customer Service
- More New Featues and Functionality
- Reduced Development Costs

TESTIMONIAL

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"Spring enables us to provide more responsive service to customers because all portals get new features as soon as they are available."

"When our time investment and developer resources on portal development are minimized due to Spring, this helps our bottom line and we can serve more organizations and reach more people."

Cornell University

Cornell University, one of the top universities in the US, operates the Cornell Lab of Ornithology. The lab's mission is to interpret and conserve the earth's biological diversity through research, education, and citizen science focused on birds.

One of the Cornell Lab of Ornithology's primary projects is eBird, a website designed to engage birders to collect scientifically meaningful observations of birds across North and South America. The lab has developed the main www.ebird.org website, and also sells customized, co-branded versions of the site that function as regional portals. For example, the lab has developed sites for California and New York, as well as Canada, Mexico, Costa Rica, Colombia and the Caribbean.

Challenge

"We had to build and run separate Java applications for each portal – that was not sustainable," recalls Paul Allen, Assistant Director of Information Science at the Cornell Laboratory of Ornithology.

Before the lab switched to Spring, the de facto standard platform to build, run and manage enterprise Java applications, all the work on the ebird.org website and portals was manually coded without any application framework. For the portals, the lab's five-person development team copied the eBird application, customized the site per the regional organization's requirements, and made manual text translations as needed. It took several weeks for a developer to customize a portal for a new customer. "Soon it became clear that we could not continue supporting this method," says Allen. "The portals were hard to produce, painful to maintain, and they took up a lot of server resources because each portal was an independently deployed Java Web application."

"When there was a critical change, we had to rebuild and redeploy all those applications," Allen continues. "It became a nightmare. We ran into this problem several times."

Similarly, when the lab made upgrades and improvements to the main site, it took a long time for the changes such as new functionality to reach the portals because each change had to be made separately. Some portals never even received the full complement of features. "We would make the improvement on the primary portal and it took a special effort to get that feature deployed on relevant customer portals," Allen remembers. "For minor features, the portals never got updated. We just didn't have the time."

"The multiple websites were also very resource intensive," he adds. "It was clear that the server side resources were going to become a problem quite soon if we didn't change our ways."

Solution

The Cornell Lab of Ornithology switched to Spring, which allowed them to run a single Java Web application to serve the main site and the custom portals. The lab designed the application to provide a custom look and content for every individual portal, all running within one Web application. As an added advantage, the lab was able to migrate the application to Spring without having to rewrite all the code.

Benefits

SPRING DELIVERS THE FOLLOWING BUSINESS RESULTS TO CORNELL:

Rapid Website Customization

"Before, we had to build separate applications for each eBird portal," explains Allen. "Now, eBird is just one application which can be customized for each portal. It used to take us up to four weeks of developer time to produce a portal and now it's down to a day with Spring."

On average, the lab produces about one new portal every month, so the time savings is critical to the institution.

Fast Changes to Websites

Not only can the lab's development team generate portals faster with Spring, but they can also make changes faster. Previously, the lab had to make each change separately at every site. Now, when they make a change, they only have to deploy the one application, and all the sites get the change right away. Similarly, in the case of bugs, the lab only needs to make a single universal bug fix, and all the portals get the fix without having to redeploy each site individually.

Responsive Customer Service

"Spring enables us to provide more responsive service to customers because all the portals can get new features once they are available, without having to wait," Allen explains. "Our customers are much happier now that they have access to all the new features. Our customer's goal is to serve their users' needs, and when some new cool feature wasn't pushed out to a particular portal, the customers would let us know that they wanted that feature for their users. We have done away with those complaints by using Spring."

More New Features and Functionality

"Once we moved to Spring and significantly reduced the effort involved in producing a portal, we freed up time to start working on the eBird site itself again and adding new features," Allen says. "With Spring, we are able to focus more on the advancement of the site as opposed to the technical aspects of deploying the portals. In addition, Spring makes new functionality much easier to develop."

Reduced Development Costs

The Cornell Lab of Ornithology is a non-profit organization serving other non-profit groups, so they need to maintain the lowest development cost possible. One important factor that can lower the cost is to keep the development time investment on individual portals to a minimum. In many cases, the amount the lab charges customers for portal development does not even cover the entire cost of the portal, which makes the effort to reduce development costs even more vital.

"We could never charge our customers what it actually costs to develop and maintain a portal," Allen concludes. "Part of our mission is to make these tools available to other conservation organizations, so we are happy to absorb some of the cost, but when our time investment and developer resources on portal development are minimized due to Spring, this helps our bottom line and we can serve more organizations and reach more people."

About SpringSource

SpringSource, a division of VMware, Inc., (NYSE: VMW) and the leader in Java application infrastructure and management, provides a complete suite of software products that accelerate the entire build, run, manage enterprise Java application lifecycle. SpringSource employs the open source leaders who created and drive innovation for Spring, the de facto standard programming model for enterprise Java applications. SpringSource also employs the Java and Web thought leaders within the Apache Tomcat, Apache HTTP Server, Hyperic, Groovy and Grails open source communities. Nearly half of the Global 2000, including many world's leading retail, financial services, manufacturing, healthcare, technology and public sector clients are SpringSource customers. For more information visit: www.springsource.com.

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