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TRAFICON

Meets Growing Customer Demands with Spring

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TRAFFIC VIDEO DETECTION

SPRINGSOURCE RESULTS

Spring delivers the following business results to Traficon:

- Greater Scalability
- Easy Integration
- Focus on Business Objectives
- Rapid and Reliable Debugging
- Enhanced User Experience
- Faster System Responsiveness
- Rapid Developer Ramp Up

TESTIMONIAL

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Traficon

Traficon, based in Belgium, is a world leader in traffic detection based on video image processing. Traficon systems detect vehicles and traffic incidents in real time via video cameras and sophisticated algorithms that process the video images. The Traficon system is an end-to-end solution from the camera to the traffic control center. With a rapidly increasing need for these types of intelligent transportation systems, Traficon must keep up with growing customer demands.

Challenge

In terms of Traffic Management Software, Traficon was faced with a rising scalability problem prior to using Spring, the de facto standard platform to build, run and manage enterprise Java applications. The Traficon R&D team found it impossible to upgrade their application to scale higher, using the existing EJB2 platform. With upcoming gigantic projects all over the world requiring thousands of cameras, Traficon had to find a new platform on which they could build a much more scalable application.

Scalability of processing power was also an issue. Traficon AID (Automatic Incident Detection) Systems were expanding and the event processing had to be completely redesigned to meet these new requirements. The new application had to be able to handle data collection from any number of cameras every minute or even every ten seconds – whatever the customer required.

Another scalability issue was system configuration. One of the greatest concerns of Traficon users is the initial system setup, a previously difficult process which involved tricky configuration of all the individual cameras.

Development was also a problem because the Traficon development team had to spend too much time writing infrastructure code, which was not their core competency and detracted from concentrating on the core business of the application.

"In addition, the code in the EJB2 environment was not unit testable," says Wim Deblauwe, R&D Engineer for Traficon. "We could not test anything in isolation. We always had to run the complete system to test anything, which takes too long and is always hard to debug. All the parts were tangled together. That was one of the major problems."

"The only testing we could do was integration tests afterward," adds Tim Landuyt, Traficon R&D Developer, "and we found too many programming problems. This was an issue we needed to change."

Solution

Traficon switched to Spring to streamline development of an application with much more flexibility, no limitations on scalability, and greater integration with third-party applications.

Service

Traficon engaged SpringSource, the company behind Spring, for consulting. SpringSource experts, including original developers of Spring, helped Traficon solve many of the issues they faced when building their new system. “We were able to talk to the top people at SpringSource,” says Deblauwe. “They helped us get the design and architecture right and showed us how best to use Spring.” Landuyt adds, “The SpringSource team has in-depth knowledge of every related technology. They were able to put us in contact with experts on other technologies, such as GridGain, which was a great help to us.”

Benefits

SPRING DELIVERS THE FOLLOWING BUSINESS RESULTS TO TRAFICON:

Greater Scalability

Building the application in Spring and using GridGain, a third-party application that integrates with Spring, has given Traficon much greater scalability on two fronts. First, the flexibility provided by Spring enables Traficon to add thousands of cameras to a single system, to accommodate customers with large urban areas. Second, Traficon is able to add processing nodes to gain more processing power to handle any customer request. “We now have unlimited scalability,” Landuyt explains, “Theoretically we can go up to hundreds of thousands of detectors with a single system. This capability makes our company more competitive.” Deblauwe adds, “We can scale independently for both gathering and processing data, which is even more than what we dreamed of before.”

Easy Integration & Focus on Business Objectives

Traficon has to integrate with many third-party applications, and Spring made it very easy for Deblauwe to design a plug-in architecture – created in one day – to enable easy integration with other systems. With Spring handling the infrastructure, the Traficon R&D team spends less time writing infrastructure code and has more time to concentrate on the business goals of the application.

Rapid and Reliable Debugging

“We can fix bugs much faster in Spring,” says Deblauwe. “It takes significantly less time because it is easier to isolate the problem with the unit testing. A real-time application has a lot going on and is hard to debug. All kinds of things can go wrong. It is a great advantage to have the unit testing in Spring to quickly narrow down the possible sources of error.”

Enhanced User Experience

Traficon engaged Christophe Herreman, Senior Consultant with Boulevart, to help them utilize new Flex Flash technology within Spring to create a web-based interface that enhances the user experience for Traficon customers. The system is much easier to configure, with intuitive drag and drop capabilities that streamline the configuration process.

Faster System Responsiveness

In addition, the new system is much more responsive, allowing users to utilize remote connections such as VPNs. “Our users are dealing with real-time safety issues, and they need a system that enables them to respond fast,” says Deblauwe. “If there is a fire in a tunnel, for example, they have to know immediately. Spring and Flex/Flash technology allowed us to develop a much more responsive system.”

Rapid Developer Ramp Up

When Traficon adds new developers or consultants, they can ramp up on the project faster because almost everyone knows Spring. In addition, Spring is easy to learn for the few who are unfamiliar. “The learning curve is not high for Spring,” Landuyt concludes. “Someone who didn’t work with Spring before can learn it in no time. This helps when we bring in other developers.”

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.

springsource
A division of vmware

North & South America
+1 877-486-9273

Europe/Middle East/Africa
+44 1276 414300

Asia Pacific
+61 284040150

SpringSource, A division of VMware. 71 Stevenson Street 13th Floor San Francisco CA 94105 USA Tel 877-486-9273 Fax 650-427-5001 www.springsource.com www.vmware.com