

UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN • CHICAGO • SPRINGFIELD

“tc Server helps us reduce the number of potential problem sources and focus on the areas where the issue might exist, saving us hours on troubleshooting a problem.”

—Nyle Bolliger,
Director of Application
Development and Support,
University of Illinois

RESULTS

VMware vFabric™ tc Server delivers the following business results to the University of Illinois:

- More Productive Application Management
- Faster Troubleshooting – hours saved on each issue
- Reduced Planned Downtime
- More Accurate Configuration Updates
- Improved Application Quality

The University of Illinois identifies and solves issues with VMware vFabric tc Server

The University of Illinois is the premier public university in the state, operating campuses in Chicago, Springfield and Urbana-Champaign.

The school is also the state’s largest educator with 70,000 students. In addition, the University of Illinois is a world leader in research and discovery, with an internationally renowned faculty.

Challenge

The University of Illinois created the HR front-end that handles processing human resources tasks for the University’s 25,000 employees across all three campuses. Other enterprise J2EE applications had been deployed on Apache Tomcat, and the University was looking for a way to increase its monitoring and management capabilities.

“We were missing the ability to see how the application is running, so we were spending a lot of time trying to guess what was going on,” recalls Nyle Bolliger, Director of Application Development and Support, University of Illinois.

“We managed our server instances through the standard command line interface and ran it with six servers in a cluster, which was a hassle to manage,” Bolliger explains. “We were maintaining many different configuration files and trying to keep up.”

Error detection and log mining were troublesome for the University as well. In the past, they had to consolidate log files to pull them into different tools to mine the logs. Then developers had to sift through logs, trying to figure out the cause of a problem.

“Thread analysis has been a real tough spot for us,” adds Bolliger. “It is extremely difficult to analyze the threads and understand what the application is doing. We had developers spend hours trying to sort through the threads and get nowhere. We were not even sure what we were looking at.”

Solution

The University of Illinois upgraded to VMware vFabric tc Server to host the HR system and gain greater insight into the application. tc Server – the enterprise version of Apache Tomcat, the world’s most widely used open source application server – is a lightweight server offering operational management, advanced diagnostics, and mission-critical support capabilities.

Benefits

tc Server delivers the following business results to the University of Illinois:

More Productive Application Management

tc Server streamlines application management because it provides the University of Illinois IT team with a central console where they can manage all their servers as a group, at the application level. “With tc Server, we are able to manage the application as a whole, as

“With tc Server, we are able to manage the application as a whole, as opposed to trying to manage servers individually to make sure they are up and running and configured properly... That is a time savings.”

“By using information provided by tc Server, we can make improvements to the quality of our HR application... and the quality of our other applications improves too.”

—Nyle Bolliger,
Director of Application
Development and Support,
University of Illinois

opposed to trying to manage servers individually to make sure they are up and running and configured properly,” says Bolliger. “That is a time savings because it can take 20 minutes for our application to restart, and we have to run through each server one by one.”

Faster Troubleshooting

tc Server has improved diagnostics by providing insight into application and server performance, helping identify problem sources fast while eliminating the time-consuming task of log preparation for analysis in multiple tools. “tc Server gives us a way to get more information and really see what is happening with the application,” says Bolliger. “tc Server helps us reduce the number of potential problem sources and focus on the areas where the issue might exist, saving us hours on troubleshooting a problem.”

“Sometimes problems occur that we don’t even realize,” Bolliger continues, noting that tc Server allows the University to leverage JMX to communicate with applications. “With tc Server, the application can alert us when it is experiencing issues. The ability to catch those problems before we start getting calls from users is very valuable.”

Reduced Planned Downtime

“By enabling us to make changes on the fly, tc Server reduces outage time, when we have to bring the application down for maintenance and making changes,” Bolliger explains.

More Accurate Configuration Updates

tc Server provides the University IT team with the unique capability to view the application configurations via a single dashboard, simplifying procedures such as the University’s recent Java upgrade. “Going through all the various config files and trying to understand what is running where, and what version of Java the application is using – that is a significant effort,” says Bolliger. “Each application has its own configurations and its own Tomcat instance. tc Server helps us consolidate all that information, making it a more accurate process with less time searching through directories and trying to figure out everything out manually.”

Improved Application Quality

tc Server helps improve application performance and stability by enabling the University of Illinois IT team to identify defects or bugs in the application that are difficult to detect through code reviews or unit testing but show up in production with a large volume of users. The team can utilize tc Server to see what is happening within the application which helps determine the source of a performance or stability issue. According to Bolliger, the first essential step in solving these issues is knowing whether or not the application is the cause.

“By using information provided by tc Server, we can make improvements to the quality of our HR application,” Bolliger says. “However, our other applications improve too. We use a number of different frameworks, and tc Server allows us to identify and fix problems in those frameworks, which in turn improves the quality of all our applications.”

About VMware

VMware, the global leader in virtualization and cloud infrastructure, delivers customer-proven solutions that reduce IT complexity while significantly lowering costs and enabling more flexible, agile service delivery.

About VMware vFabric

VMware vFabric is the ideal application platform environment to run and manage custom Java applications – in the datacenter, virtualized environments, or the cloud.

Find Out More

For more information or to purchase VMware products, call 1-877-4-VMWARE (outside of North America dial +1-650-427-5000) or visit www.vmware.com.

