



CGI, Inc.

CGI Group Inc. Turns to BMC Application Problem Resolution to Improve Customer Satisfaction for Top Telecommunications Client

Geography

North America

Industry

Information Technology

Business Need

Improve process for resolving application problems for CGI's top client, one of the world's largest telecommunications companies.

Solution

Use BMC Application Problem Resolution to quickly reveal root causes of problems, otherwise understood only symptomatically.

Results

- > Increased throughput in client's mission-critical J2EE application by 50 percent
- > Increased system resource usage by 32 percent
- > Cut cell phone activation time in half
- > Transformed QA group's experience from "just knowing we had a problem" to seeing the root causes — all pinpointed on one screen

CGI Group Inc. was called upon to help an important telecommunications client improve customer satisfaction by speeding the process through which customers activated new wireless accounts. CGI was able to meet its client's requirements — within specified service level agreements (SLAs) — by using the BMC Application Problem Resolution to find the root cause of the issue causing the delay — and quickly fixing it.

As a rule, cell phone customers are not big on delayed gratification — especially when they've just signed a new contract and are trying to get the phone activated so they can place their first call. In this instance, every minute feels like an eternity. So, when one of the world's largest telecommunications companies found that its new wireless service activation software threatened to make customers wait an average of 18 minutes for activation, they knew there was room for improvement.

Finding the root cause of this issue and fixing it fell on the shoulders of the 75 testing professionals in the Centre for Testing and Quality at CGI Group Inc. (Montreal, Canada), the IT consulting firm supplying the activation application.

Fortunately, CGI had recently added a robust application problem resolution solution to its arsenal: BMC Application Problem Resolution. As David O'Leary, director of CGI's Centre for Testing and Quality, explains, "The business-critical applications we develop are highly integrated, and are used by nearly 1,000 telecommunications customers every hour, so it's vital that we deliver the best possible software and quickly fix any problems that do arise once they are deployed. In this complex environment, it's often difficult to determine how much of a problem's root cause lies within any particular application. Using BMC Application Problem Resolution, we are able to pinpoint the root cause of trouble all the way down to the code, allowing us to quickly resolve the situation and meet our service level agreements."

REAL-TIME REVELATIONS

CGI's experience with BMC Application Problem Resolution started in late 2003 with the Microsoft Windows version of the product, which they used for extensive testing of a CGI-built Telecom Customer Care application. This system is the lifeblood of their client's order processing process, supporting 10,000 online users, and is a key business system for their account service representatives. Any downtime whatsoever has a direct impact on the bottom line. BMC Application Problem Resolution was instrumental in reducing component outages through quicker analysis of problems and anomalies. "Our success with BMC Application Problem Resolution for Windows led us to invest in the J2EE version," says O'Leary.

In 2004, armed with BMC Application Problem Resolution for J2EE, CGI undertook the task of increasing throughput in their client's wireless account service application. In this case, the application in question ("PhoneFast") was a highly-integrated, mission-critical J2EE application enabling the provisioning and billing of wireless service orders. PhoneFast integrates applications for the telecommunications company's dealers, telesales group, customer sales group, and service representatives into the company's customer relationship management (CRM) and

billing systems, as well as into the cell phone usage management system and other management consoles. PhoneFast typically handles 800 personal phone activations per hour, in addition to business phone activations, mobile number changes, phone changes, CRM queries, and customer profile changes.

BETTER TESTING MAKES BETTER APPLICATIONS

"An application like this is so highly interconnected and on so many platforms that when something fails four links upstream, it's hard to trace the cause and then recover," says CGI's Dalim Khandaker, manager, Enterprise Application Performance and Tuning. "Using conventional load testing tools didn't help us much in this case. Our load performance and stress tool, which displays information on CPU usage, memory, and the top ten transactions, works well in a pre-production environment, but you can't really drill down and do a root cause analysis when several applications are interfacing with one another. We knew that there was a problem, but not how much of the root cause was due to any particular aspect of PhoneFast. BMC Application Problem Resolution consolidated all the relevant information from several levels onto one screen so that we could see a backlog of pending requests and understand the need to increase the number of threads."

Based on the insight provided by BMC Application Problem Resolution, Khandaker's group was quickly able to increase PhoneFast's end-to-end throughput by 50 percent while slashing average phone activation times from 18 minutes to nine minutes.

THE PRODUCTION ENVIRONMENT CHALLENGE

According to O'Leary, no matter how devoted you are to testing, you're going to discover problems in production that, legitimately, you just can't test for. "Performance tests are challenging because it's very expensive to set up a true mirror of the production environment. So, companies often test in scaled-down environments that don't allow you to get an accurate picture of how the application will behave in production — not to mention the wildcard of what real customers and end users may do with it. BMC Application Problem Resolution allows us to analyze production problems we'd never find through performance testing and a traditional QA process, so we can recover quickly and continually deliver the highest quality applications to our clients."

LIFECYCLE SOLUTION FOR ROOT CAUSE ANALYSIS

CGI is rapidly broadening its use of BMC Application Problem Resolution. For instance, before rolling out an integrated CRM/point-of-sale application to the telecommunications company's retail stores, CGI found that certain transactions were taking an unacceptably long time. BMC Application Problem Resolution revealed code-level problems that were causing excessive servlet reloading, enabling the testing and quality team to take corrective action and make sure that the code was as efficient as possible before launch. Encouraged by its success, CGI is now taking steps to roll out BMC Application Problem Resolution across its portfolio of supported applications in the telecommunications client account, making it CGI's enterprisewide solution for problem resolution throughout the application lifecycle.

"BMC Application Problem Resolution allows us to analyze production problems we'd never find through performance testing and a traditional QA process, so we can recover quickly and continually deliver the highest quality applications to our clients."

— David O'Leary
Director

CGI Centre for Testing and Quality

Key Products Used:

> [BMC Application Problem Resolution](#)

About CGI Group, Inc.

CGI Group Inc. is one of the largest IT and business process service firms in North America. The company has 25,000 employees and \$3.1B in annual revenues.

About BMC Software

BMC Software delivers the solutions IT needs to increase business value through better management of technology and IT processes. Our industry-leading Business Service Management solutions help you reduce cost, lower risk of business disruption, and benefit from an IT infrastructure built to support business growth and flexibility. Only BMC provides best practice IT processes, automated technology management, and award-winning BMC Atrium technologies that offer a shared view into how IT services support business priorities. Known for enterprise solutions that span mainframe, distributed systems, and end-user devices, BMC also delivers solutions that address the unique challenges of the midsized business. Founded in 1980, BMC has offices worldwide and fiscal 2007 revenues of \$1.58 billion. Activate your business with the power of IT. www.bmc.com.



To learn more about how BMC can help activate your business, visit www.bmc.com or call 1 (800) 841-2031

BMC, BMC Software, and the BMC Software logo are the exclusive properties of BMC Software, Inc., are registered with the U.S. Patent and Trademark Office, and may be registered or pending registration in other countries. All other BMC trademarks, service marks, and logos may be registered or pending registration in the U.S. or in other countries. All other trademarks or registered trademarks are the property of their respective owners. © 2008 BMC Software, Inc. All rights reserved. Origin date: 06/08



* 8 3 8 7 4 *