IBM

Moving beyond data center crisis management to end-to-end infrastructure transaction management

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Here we go again

It's the third crisis this week. Everyone is summoned back to the war room. There's the IBM CICS® expert, the IBM IMS™ expert, the database expert, the Windows® expert, the Web expert and the application expert. It turns out that disgruntled customers are calling to report that they can't access their accounts. Everyone in the room is thinking the same thing: It's going to be another late night—because for every customer who calls to complain, scores of others will simply give up and move on to the competition. With visions of lost bonuses racing through their heads, the entire team frantically tries to recreate and understand the problem by accessing their personal accounts. Some are successful, others are not. It worked fine yesterday. What changed? Is it the database or the Web interface? The problem could be anywhere in their huge, complex infrastructure.

More, more, more

This scenario is all too common in today's highly complex, transaction-intensive world. Businesses are increasingly dependent on their IT infrastructures for revenue and profitability, which makes downtime costlier than ever. With more options to choose from, customers are becoming more demanding—and more likely to bolt to the competition when they're dissatisfied. At the same time, the volume of transactions and the variety of applications make it harder to achieve optimum levels of performance. The number of daily COBOL and Java™ transactions is now in the billions—and they continue to grow as more users and customers access business applications from all sorts of entry points, such as the Web, cell phones, ATMs, business-to-business partner portals and the ubiquitous PC. What's more, a single composite transaction travels across a disparate array of systems, networks and databases comprised of various technologies, including proprietary applications and packaged ones such as Siebel, PeopleSoft

and SAP. A typical IT team manages this complicated enterprise with tools from 15-to-20 different vendors, which don't use comparable metrics and don't talk to each other. The result? An overburdened and fragmented IT management infrastructure that undergoes one crisis after another.

The stakes are high, and the pressure is rising. On one hand, revenue and customers are lost when systems break down. On the other, there are higher operational costs and limited IT budgets. The good news is, help is on the way. Several IBM customers are tackling these challenges by deploying end-to-end infrastructure management systems to optimize the performance of key applications in complex enterprises. Instead of struggling to manage a diverse portfolio of individual IT resources, these companies are taking a holistic approach to application management by monitoring the flow of critical transactions end-to-end across the enterprise. End-to-end means from the time users hit the enter key to the time they receive their final onscreen confirmations—no matter whether the transaction touches down on IBM WebSphere®, BEA WebLogic, CICS, IBM DB2®, IBM z/OS®, IMS, Linux™, UNIX®, or third-party applications from vendors and trading partners.

Transactions before technology

By monitoring business transactions—instead of specific technologies—these companies are able to identify potential problems and address them before they impact customers, rather than reacting to problems after unhappy customers call about them. For example, a worldwide leader in online banking recently implemented an end-to-end transaction-based monitoring system using Tivoli® OMEGAMON® and WebSphere Studio Application Monitor (WSAM). With better visibility into the performance of their business transactions, the bank's support analysts can quickly check if a line of business and all its supporting systems are meeting service-level targets. If not, the support staff has the right tools in place to quickly locate the source of the problem. Armed with the right information and the right tools, technicians can immediately drill down to the specific resource that's causing the problem and fix it, often before service levels and customer satisfaction are impacted. The result? Not only does the bank respond to problems more rapidly than before, it has reduced its monitors, consoles and related floor space by almost 50 percent,

and reduced control room staff by more than 30 percent. That means savings of up to US$1.5 million in operating costs a year.

Another success story involves a major U.S. insurance company that implemented an end-to-end infrastructure management system based on OMEGAMON for CICS, WSAM and Tivoli TMTP. When response times began slowing down in an application used by the field to sell policies, IT operations was immediately alerted that key transactions were beginning to perform outside of service-level parameters. After quickly isolating the problem to a memory leak in a WebSphere application, technicians pinpointed the exact segment of code causing the problem and deployed a patch that kept the problem from spreading to other applications on that server. Best of all, IT operations did all of this before agents began calling the support desk. A third success story is a worldwide package transport company shipper that implemented end-to-end infrastructure management to control applications, transactions and databases that track each step in the shipping process—even though these applications run on parallel data systems located in two distant cities.

End to end is now

All three of these companies took advantage of IBM products and expertise to design and build end-to-end infrastructure management systems that slashed downtime and improved customer satisfaction. A longtime innovator and champion of mainframe computing, IBM is spearheading a company wide effort to improve performance management capabilities for IBM zSeries® customers. This includes investment in new products to manage key zSeries resources, enhancement of existing IBM monitoring solutions, integration of key products within the IBM portfolio and acquisition of companies with solutions that complement solutions offered by IBM.

The recent acquisitions of Candle® Corporation, developer of the OMEGAMON suite of monitoring solutions, and Cyanea, developer of a suite of Web management solutions, expand IBM Tivoli's portfolio of highly integrated systems management solutions for the end-to-end infrastructure. As shown in the success stories above, the OMEGAMON XE suite of solutions help IT specialists quickly diagnose and resolve complex problems anywhere in the zSeries infrastructure, while also monitoring multiple systems and their interactions with other components. OMEGAMON DE

presents operations managers with a unified dashboard that integrates multiple OMEGAMON XE monitors to show application performance and resource usage across the end-to-end zSeries environment. Cyanea's suite of Web management solutions monitor transactions across MQ and other gateway systems to CICS and IMS, enabling complete end-to-end monitoring of composite business transactions.

At the same time, IBM is building a track record for successfully implementing these end-to-end solutions. Working closely with clients, it helps to break down the silos of proprietary hardware and software that hinder the flow of transactions across systems. It then helps integrate environments, automate processes and merge them into applications that support the new on demand business. The result is a new flexibility that allows businesses to manage their constantly changing environments so they can react on demand. This, in turn, will help them achieve better performance and faster deployment of applications and integrated applications.

It all adds up to a comprehensive set of end-to-end, business-service management solutions for zSeries customers within mainframe, distributed, Web and client-server environments. Companies with these systems are saving time. They're saving money. They're keeping their customers happy. And they're turning their war rooms into recreation centers.

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