

Availability and more

End-to-end monitoring helps IT add value from the business user's point of view



“We implemented HP Business Availability Center software to enable end-to-end performance monitoring, and this has delivered operational benefits to our bank.”

—Systems Architect for a leading U.S. Bank and Securities Institution

HP customer case study: A large bank and securities institution uses HP Business Availability Center software to ensure the performance of its IT infrastructure is optimized to meet the needs of its business users

Industry: Banking

Objective:

Monitor IT availability more proactively and optimize business services from an end-to-end perspective that emulates the end user's experience.

Approach:

The bank uses HP software, including HP Business Availability Center, to populate a dashboard that monitors business service availability and performance and that can drill down to the various components supporting the business process across its enterprise.

IT improvements:

- IT availability improved to more than 99 percent
- Pre-production software troubleshooting easier, more effective
- Pre-production bugs detected, fixed more quickly
- Bank now able to proactively monitor IT performance.

Business benefits:

- End-to-end process monitoring ensures IT resources aligned to business user needs
- IT can monitor performance from perspective of business user experience
- Faster trouble-shooting reduces risk that performance issues will impact business users or business processes
- Data collected provides foundation for additional business value, such as provide real-time transaction data to business users.



About three years ago, a leading U.S. bank with global operations decided to transform the way it managed the availability of its IT infrastructure. Today, it's preparing to leverage that initiative in innovative ways to deliver new kinds of business value.

The bank's challenge was a familiar one to many corporations. Its IT environment, which evolved in part through corporate mergers and acquisitions, was both large and heterogeneous. Comprising mainframes and about 15,000 distributed servers, the bank's infrastructure spans three major data centers and 14 regional server installations in North America, Europe, Asia, the Pacific Rim, and Africa. The systems run a broad mix of software, including enterprise business applications, such as Oracle PeopleSoft; major industry applications, such as securities trading software; middleware; and desktop applications.



The bank already had monitoring software in place. Those tools, however, operated at a component level and were reactive rather than proactive—which put the bank’s IT organization at a significant disadvantage. “We could set our alerts to specific criteria, but by the time a notification was triggered, the threshold was already met,” says the systems architect responsible for the bank’s availability management protocols. “Depending on the incident, a server might be down already by the time an alert was displayed.”

The bank decided to take a more sophisticated approach to availability monitoring, he says, and as a result “today our availability has improved significantly, to well over 99 percent.”

One reason for the improvement: choosing HP Business Availability Center (BAC) software as one of its standard operational tools.

Careful selection pays off

The bank took close to six months to select an availability management tool. “We evaluated several large vendors,” says the systems architect. “The HP solution stood out for several reasons.” One was the commitment behind the software.

Another was the software itself. One incident, in particular, proved to be a turning point in the decision-making process.

“We were implementing a new trading application suite and started running into performance issues. The database was locking. At first it looked like it was a database issue, then a network issue, then possibly a connectivity issue between them. We were going all over the place.”

The bank and HP deployed the BAC software with End User Management and Diagnostics and created a war room, bringing in experts on every piece of the infrastructure.

“We ran the software’s transaction analysis tool on a big screen and just sat and watched while it continually updated. Then as thresholds started to breach, we opened a bridge line and started taking action.”

That real-world demonstration of HP Software’s capabilities sold the bank on the solution. “When we put the new trading suite into production, Business Availability Center was the performance and availability management tool of choice.”

The software showed its worth again, shortly after it was implemented across the bank’s enterprise.

“We were getting ready to launch a web-based online banking application and during testing, a sporadic issue kept cropping up—a bug that returned a ‘page unavailable’ error.”

The team put several Business Availability Center scripts in place, and within a couple of hours was able to capture the incident, including grabbing relevant screen shots and correlating the incident with underlying IT system activity.

“We were able to provide our developers with precise information about the sequence of steps that was causing the error, and within a couple of hours the bug was fixed.”

Cutting edge implementation

Troubleshooting the root cause for performance and availability problems is a clear benefit of using

Business Availability Center. However, the bank's vision encompassed more than improvements to IT availability. It also leveraged Business Availability Center software to optimize end-to-end business service performance.

"The software also lets us frame the performance of our IT transactions according to the effect they have on our bank's business processes. In this way, it helps us enhance the business value of our bank's IT initiatives."

Systems Architect for a leading U.S. Bank and Securities Institution

"We defined what we call 'channels' based on the banks' lines of business," the system architect says. Examples include brokerage account management, wealth and retirement client management, bill pay systems, an external authentication processes. "Under each channel are the applications that support that business organization, and under that are the pieces of the IT infrastructure—for example servers and databases—and IT events, like batch processing it takes to deliver the service."

Once the channels were articulated, the team used them as the basis for designing a business services dashboard. First, the bank configured its Business Availability Center software to monitor end-to-end processes according to channel. Then it set the software up so that, at an aggregate level, the performance of each channel's underlying IT systems would be displayed on the dashboard.

Color codes now allow the team to monitor business service status at a glance. If performance starts to degrade, the team can drill down to examine the

various components supporting the channel in question to determine the cause of the degradation.

The business services dashboard, says the systems architect, ensures that his team is viewing the bank's IT performance from the perspective of its end users. That, in turn, means that the team's actions are aligned to the bank's business needs. "Our availability processes parallel our business processes," he says. "It virtually ensures that the decisions we make have a business value to the bank."

The design of HP Business Availability Center lends itself to this approach: it compiles availability and performance data into end-to-end views that emulate the end user's experience. Another important factor—the software integrates with other HP management tools. The bank uses HP SiteScope software, for instance, as a web-based performance monitoring tool across its enterprise, and HP Network Node Manager software to monitor its network components.

"We've been able to show that implementing Business Availability Center software delivers true value to the business. We've not only justified our investment in the software, but demonstrated that we're proactively identifying tools that meet our business users' needs. The reaction has been overwhelmingly positive."

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A range of integrated management solutions

The breadth of HP's software management portfolio, in fact, is a significant benefit to companies seeking more sophisticated availability and end-to-end business services performance solutions, says the bank's systems

Customer solution at a glance

Primary applications

Availability and performance monitoring

Primary software

- HP Business Availability Center software
- HP SiteScope software
- HP Network Node Manager software
- HP Universal CMDB and Discovery and Dependency Mapping software
- Components from other HP software centers, including HP Service Management Center software, HP Network Configuration Manager software, HP Enterprise Discovery software, HP PPM Demand Management End User module, and HP Performance Center software

HP Services

- Availability software implementation service

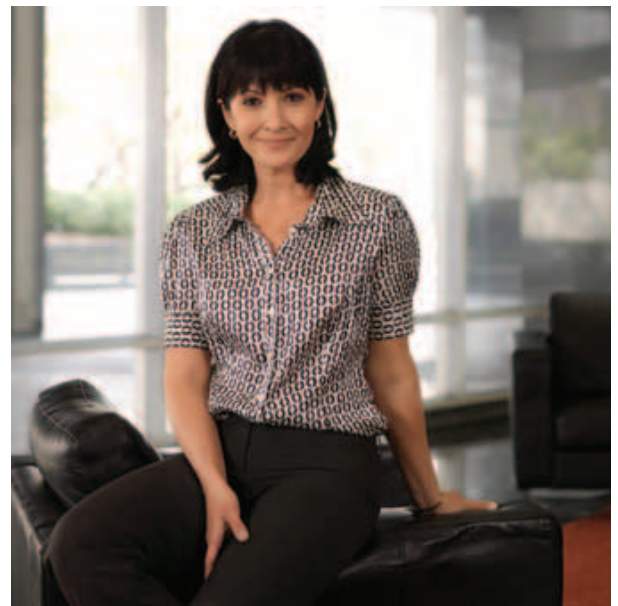
architect. "We're using pieces from many of HP's solution suites to integrate a broad range of capabilities across the enterprise." The bank uses HP Service Management Center software, HP Network Configuration Manager Software, HP Enterprise Discovery software, HP PPM Demand Management End User module, and HP Performance Center software.

Some of those tools will be leveraged by the bank in a planned Universal Configuration Management Database (UCMDB). This repository, explains the system architect, will not be a "huge monolithic configuration database" but multiple federated "systems of record" that keep track of infrastructure and application elements, their configurations and the relationships between them. Currently, working groups have been established to determine which tools will be used to provide data to various systems. It's likely that Network Node Manager and HP Application Mapping software will play a role once the database is implemented.

A vision for enhanced business value

The bank also envisions using its Business Availability Center to provide information directly to business users. The plan is to use the software to create key performance indicators (KPIs) relevant to the business, and then give the bank's business users the ability to view them.

In the securities trading channel, for example, KPIs could be designed to display the number of trades in the queue, the dollar value of those trades, the rate of trades being processed, and analysis to indicate the likelihood that the trades could be completed before the market close. Should the bank experience higher-than-normal trading volumes, the KPIs could be used to make real-time decisions to ensure the trades were processed in time. For example, critical trades could be called in by phone. Or the IT organization could



tweak the system—by bringing on additional server capacity, for instance—to speed up trade processing rates.

Indeed, the bank's systems architect has been demonstrating these kinds of capabilities within the bank to raise awareness about the ways IT is delivering more value to the business—and generating a great deal of enthusiasm within the bank's business user constituency. It helps, he notes, that Business Availability Center software supports the JSR 168 Java Portlet Specification. Views can be published to an enterprise portal and displayed as web pages, a usability feature that the bank's business stakeholders appreciate.

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