

End user experience is what counts with Boston's business technology solutions

Management tools drive changes and enhance citizen services



City
of
Boston

"With HP Software, we're increasingly confident that we know how our applications are performing. We can proactively understand how our infrastructure design and choices impact end users. Eventually we will see solid improvements in our performance and availability metrics, but even today user perception of availability is improved, which is half the challenge."

—David Nero, Director of Enterprise Applications, City of Boston

HP customer case study: With citizen services increasingly dependent on new Web-based applications, the City of Boston has taken steps to improve performance, availability—and the end-user experience

Industry: Public Sector

Objective:

As its IT infrastructure becomes more complex, the City of Boston seeks ways to optimize performance and availability, thereby ensuring high standards of end user experience.

Approach:

The city has implemented key HP Software management tools.

IT improvements:

- Some WebLogic scripts run 10 times faster than expected
- IT has better visibility into infrastructure performance and availability

Business benefits:

- Improved user perceptions of system availability
- Virtualized deployment of Business Availability Center reduced capital investment costs
- Improved availability reporting helps set city IT priorities
- Foundation in place for driving improved performance and accountability



David Nero, Director of Enterprise Applications for the City of Boston, has seen his department's responsibilities mushroom in recent years. The reason: The city has been finding more ways to use business technology to manage its operations and enhance the services it offers to citizens.

For Boston's 20,000 city employees and the residents, who increasingly depend on the city's technology standards to do business with the city, that's all good. But an expanding infrastructure also means that Nero's team has to be smarter about how it manages its systems—which is why the city has turned to HP management software.

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David Nero, Director of Enterprise Applications, City of Boston



Tenfold increase in its user base

Nero, whose group is responsible for the majority of the city's applications, first recognized the need for effective software management tools when the city implemented PeopleSoft for finance and human resource management in 1999. "The technology landscape has changed dramatically since we implemented PeopleSoft," he says. "Today, we have multiple applications deployed across many different departments on various platforms. The architecture is more complicated and, in some cases, relatively new to us."

The city's technology growth comprises both inward- and outward-looking applications. Internally, it has increasingly adopted additional PeopleSoft modules as ERP tools. "We project that our PeopleSoft user population, which is around 2,000 today, could grow tenfold within the next few years," Nero says. In addition, Boston residents increasingly rely on the city's website. They use it to access municipal regulations and procedures, request permits, pay taxes and parking fines, and access public service information ranging from crime prevention tips to information on upcoming cultural events.

As the user base of the city's infrastructure grows, Nero and his team are determined to ensure those users have the best possible experience with city applications. "If we have a performance or availability issue, even if it's only once a quarter, the perception of the end user is 'the system doesn't work.' We need to be proactive and prevent issues from becoming visible to users."

Proactive measures

The city's first step toward more-proactive application management was to validate application performance prior to deployment.

When it first implemented PeopleSoft, the city contracted with HP partner Melillo Consulting, to perform this task. Melillo, Nero says, used HP LoadRunner software, part of the Performance Center software suite, to perform "stress tests" on applications before they went live.

Later, however, Nero decided to license LoadRunner so the city could test applications in-house. "As demand for applications went up, we realized we should support them in a more robust fashion," Nero says. "Having the ability to load test in-house means we're prepared to support upgrades or enhancements whenever the need arises."

Implementing LoadRunner wasn't something Nero wanted to try alone, however, so he turned to Melillo for help.

Melillo began by running a pilot to simulate 250 PeopleSoft users. The load tests revealed some configuration issues with the city's BEA WebLogic settings. Once those were fixed, the business processes ran 10 times faster than the city had expected. "It suggests we're correct in assuming that HP LoadRunner software will pay for itself in terms of improved application performance," Nero says.

Satisfied with the results of the pilot, the city worked with Melillo to implement the software and train the city's

staff. “Melillo helped us come up to speed on LoadRunner more quickly,” Nero says.

Today, the city uses HP LoadRunner software to test application performance and to analyze what impacts that performance. While it is still too soon to attribute overall performance improvements to the software tool, Nero believes it has changed user perceptions. “We’ve demonstrated our commitment to improved performance and availability,” he says. “Having LoadRunner has increased awareness about system availability and the value we place on it.”

End-to-end availability

Now that LoadRunner is helping the city’s development teams improve application performance, Nero’s next step will be to look at tools for monitoring and managing ongoing performance and availability for production applications. One of the most important steps the city is taking, therefore, is to implement HP Business Availability Center software. With time, Nero explains, this suite of tools will enable the city to monitor end-to-end application availability—an approach that will correlate its understanding of availability with end user experiences. “Ultimately, what people want to know is ‘what is the end user experience like?’ Our approach is to evolve to the point where we can answer that question.”

The city is implementing the suite incrementally. “As a public sector organization, we need to budget small changes at a time,” Nero says. “We are growing our investment in the software, and as we do so laying a foundation for a more comprehensive approach to IT monitoring.”

Melillo also helped the city address its technology budget issues, Nero adds. One challenge it faced was

that it couldn’t dedicate physical servers to implementation. So Melillo devised a virtualized deployment. “We realized we could leverage our VMware instance to implement the software on virtual servers, which meant we could avoid the capital costs of adding another three or four physical systems to our environment.”

As a result, the city is now using a number of foundation pieces of the HP Business Availability Center software suite. One is HP System Availability Management software. “System Availability Management lets us look at different layers of technology within key applications, giving us insight into our infrastructure that we didn’t have before.”

Another is the suite’s Business Process Monitor module. The city uses it to run synthetic transactions on a handful of remote desktops to simulate the end user experience. The city also uses HP Business Service Level Management software to proactively manage its service levels.

Eventually, the City of Boston will build on this foundation to monitor both its infrastructure and all of its end user transactions. The city plans, as well, to integrate Business Availability Center with HP ServiceCenter Service Level Management software; this will enable Nero’s team to quantify service levels across applications.

Data drives IT priorities

Once Business Availability Center is fully implemented, Nero continues, the city will be able to meet several key goals. One is better analysis. “We’ll have the ability to measure availability and pinpoint any outages, with 24x7 visibility into our infrastructure,” Nero says. “It’s the kind of information that is power to



Customer solution at a glance

Primary applications

- PeopleSoft ERP infrastructure
- BEA WebLogic web portal

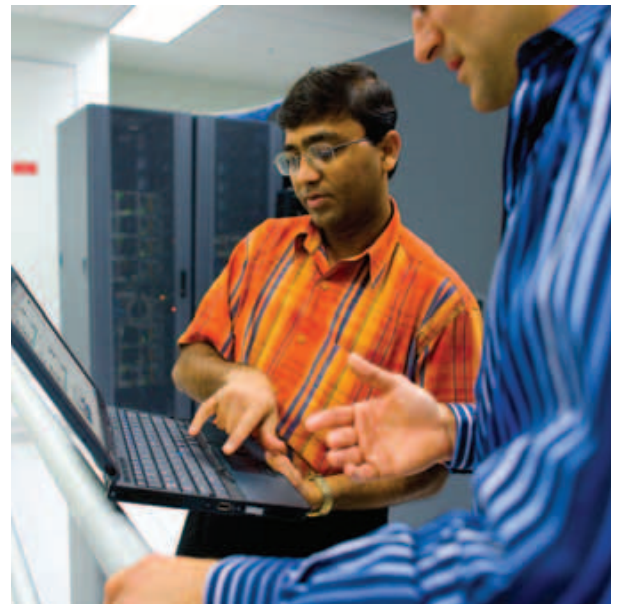
Primary Software

- HP LoadRunner
- HP Performance Center
- HP Business Availability Center
- HP Business Service Level Management
- HP System Availability Management
- HP Business Process Monitor
- VMware

an IT support organization. It will let us prioritize the city's efforts and focus our resources on initiatives that will yield the greatest improvements for our end users."

In addition, Nero expects HP software will improve his team's reporting capabilities. "Today, we're required to report on system availability on a monthly basis. With HP software, we can replace our manual reporting with automated processes. It will save us a little time, but more important, we'll have increased confidence in the validity of our data."

And most important, the tools let the City of Boston IT optimize end-user experience by supporting performance and availability across its pre-production and production environments. "Combined, LoadRunner and Business Availability Center give us the broad foundation we need to ensure continual improvement within our service delivery," Nero says. "And that's the ultimate payoff for any technology management tool."



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