



Harris County I.T. Center

- » BMC helps save taxpayer dollars
- » BMC reduces costs by increasing accuracy of resource planning

BEFORE

- » Manual projections lacked accuracy
- » No “what-if” modeling for capacity planning

AFTER

- » Accurate forecasts postpone costly upgrades
- » Automation boosts staff productivity
- » Modeling zIIP/zAAP workloads frees mainframe MIPS
- » Incorporation of business metrics tightens IT/business alignment
- » Single solution across platforms minimizes training

GEOGRAPHY

United States

INDUSTRY

Public Sector

SOLUTIONS

BMC Performance Assurance for Mainframes

The pressure to meet customer needs while improving efficiency, driving down costs, and focusing IT resources on strategic new initiatives isn't limited to the private sector. The public sector is under intense pressure to deliver critical government services around the clock while ensuring that they squeeze maximum value from every taxpayer dollar they spend.

Harris County, Texas, takes that job seriously. This rapidly growing county already has more than four million residents and is the third-largest county in the United States. Ensuring that its citizens get speedy access to efficient, cost-effective government services is a top priority for the county's Information Technology Center.

The county's Justice Information Management System is just one example of the type of services the Information Technology Center provides. The system is the largest integrated justice system of its kind in the United States. It tracks an individual's involvement throughout the criminal or civil justice system.

The Information Technology Center implementation of BMC Performance Assurance for Mainframes helps the staff accurately evaluate the daily performance of the system and other applications. Performance information also feeds into strategic capacity planning, allowing the staff to accurately predict future infrastructure requirements. As a result, infrastructure upgrades are made at precisely the right time; not too early, which would waste taxpayer dollars, and not too late, which could cause serious performance problems.

“BMC Performance Assurance provides day-to-day performance management functionality coupled with long-term capacity management,” explained Jerrl Evans, managing director of infrastructure and network services for the Harris County Information Technology Center. “The performance management capabilities enable us to make the best use of the resources we already have. Capacity planning features allow us to plan for the future and acquire additional computing power precisely when we need it.”

KEEPING UP WITH THE LATEST TECHNOLOGY

Initially developed in the 1970s, the Justice Information Management System has gone through multiple iterations. The most recent one leverages Java™ and IBM WebSphere® with IBM DB2® as the backend database. Today, the system holds more than 400 million records and has about 10,000 users, including employees of the judicial system, sheriffs, district attorney staff members, county and district court employees.

As the application evolved and the volume of data grew, the mainframe capacity required to run it also increased. “Mainframe upgrades often cost millions of dollars,” Evans said. Getting funding approved for an upgrade requires planning and extensive justification.”

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JERRL EVANS
MANAGING DIRECTOR OF INFRASTRUCTURE
AND NETWORK SERVICES

In January 2007, the county sought to expand its processing power and lower its overall costs by incorporating IBM System z Integrated Information Processors (zIIPs) and IBM System z Application Assist Processors (zAAPs) into the infrastructure. These specialty processors enable organizations to offload data and processing from the general purpose processors to these lower-cost specialty engines. At the same time, because these specialty processors don’t incur software costs, the county could get the extra processing power it needed without increasing the software license fees for Java, WebSphere, and DB2

Initially, determining how much of the workload could be moved to these specialty engines was not possible Evans said.

“The only way we could figure out the incremental workload would have been to bring in a consultant and pay a hefty fee. Because these processors are relatively inexpensive compared to general purpose processors, there was some interest in deploying them. But we wanted to avoid overbuying.” He added that the staff also figured that the price would decline over time, so postponing a purchase even for a short time would translate into a big savings.

“As usual, BMC came through for us,” Evans said. “For the 20-plus years we’ve partnered with BMC Software, the company has continued to evolve its solutions to keep up with the latest technologies. The company enhanced BMC Performance Assurance, adding support for the IBM specialty performance engines. As a result, we can model the movement of workloads off the mainframes to zIIPs and zAAPs and very quickly determine the impact on the environment.”

Evans says that BMC has also continued to refine and simplify the user interface. “In the early days, you had to be a skilled capacity planning analyst to use the tool. Over the years, the tool has become increasingly easier to use. Right now I’m training someone who doesn’t have any capacity planning experience. We are moving into an era where the tools provide the information and people can get the job done without having an in-depth knowledge of the underlying infrastructure.”

THE LANGUAGE OF BUSINESS

BMC Performance Assurance is part of the Information Technology Center’s Business Service Management (BSM) strategy, the purpose of which is to align technology more closely with the needs of county departments. That involves gaining a thorough understanding of what the departments need on a day-to-day basis and translating those needs into IT resource requirements.

The newest version of BMC Performance Assurance supports this strategy by enabling the Information Technology Center staff to associate business metrics with IT data to predict and model the environment. “We need to talk to county employees in terms they understand,” Evans explained. “That means talking about the total number of open cases, the number of cases brought to trial, and the number of plaintiffs or attorneys involved. If the number of cases is rising, I have to show business users what that will mean in terms of the technology investment needed to ensure that the capacity is there to support the increase.”

The newest version of BMC Performance Assurance allows the Information Technology Center to incorporate county-specific business metrics into the tool. “We will be able to show how an increase in cases will consume more resources,” Evans said. “We might also be able to show that by making changes to the system and the workload we can make better use of the resources we have — so that even if case volumes are rising, we’re being good stewards and supporting growth without a corresponding increase in resources.”

CUSTOMER’S FINAL WORDS

“Managing critical business functions that support justice and court systems requires IT availability 24 hours a day,” Evans concluded. “Working with BMC Performance Assurance for Mainframes allows us to reduce technology performance outages and optimize IT performance to ensure our customers receive the best service possible in a timely manner. We haven’t missed a forecast since we first installed the product more than 20 years ago. That’s what BMC has done for us.”

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ABOUT HARRIS COUNTY INFORMATION TECHNOLOGY CENTER

Supporting the third most populous county in the United States — which is seated in Houston — Harris County Information Technology Center provides information and communication services for the daily operation and growth of Harris County departments. The center functions as a complete information utility, providing evaluation and implementation of advanced data, applications, teleprocessing, and radio systems.

BUSINESS RUNS ON IT. IT RUNS ON BMC SOFTWARE.

Business thrives when IT runs smarter, faster and stronger. That's why the most demanding IT organizations in the world rely on BMC Software across both mainframe and distributed environments. Recognized as the leader in Business Service Management, BMC offers a comprehensive approach and unified platform that helps IT organizations cut cost, reduce risk and drive business profit. For the four fiscal quarters ended September 30, 2008, BMC revenue was approximately \$1.83 billion. Visit www.bmc.com for more information.



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