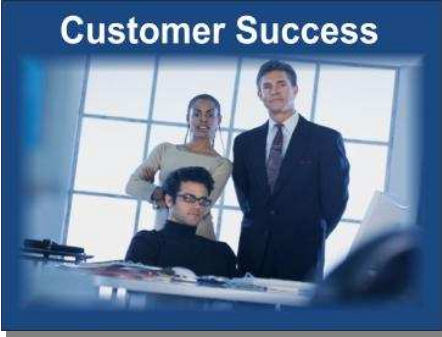


Customer Success



Predictive Performance Management in the Health Care IT Market: The Human Side of Performance Management

Summary:

- 1. Application and Database performance not about technology. It's about achieving business goals.**
- 2. Business dependency on critical applications has increased the stakes on performance management. Slow performance in more than an inconvenience when patient health is involved**
- 3. Service predictions which alert on future performance breaches allow better utilization of personnel: business and IT.**
- 4. Modeling the effect of changes on performance before they're implemented, saves reacting after the fact, reduces cost, and ensures good service.**

"Reacting to surprises is not an acceptable way of dealing with change".

Mike S.
Team Lead

About the Business

This Health Care Organization is driven by a mission of excellence in the provision of healthcare services to communities in the western US. Their mission includes a commitment to provide care to those who live in communities within the region who have a medical need, regardless of ability to pay.

The organization aims to deliver "extraordinary care in all its dimensions" through a combination of the best clinical practice delivered in a consistent and integrated way at the lowest possible cost. They also strive to deliver a positive service experience with genuine care and concern that focus on the welfare of patients, their families and each other.

When Good Service Is Not Optional

The Clinical Systems Technical Analyst Team is primarily responsible for dealing with all of the applications, development, and support that are specific to the organization's surgical services. This group supports all of the processes and applications that track the myriad details of a surgical patient from the time he walks through the front door until the time he is discharged and on his way home. According to Mike S., who is the Team Lead, "To my team excellent service delivery means excellent performance. Performance management is a critical factor in our goal of excellent patient care and experience. Reacting to surprises is not an acceptable way of dealing with change." They use BEZVision to regularly examine service delivery to their major application, to assess performance bottlenecks in different areas across the server network and to give them a good predictive analysis of where they are heading in the future.

Slow Service Tried Their Patience

Mike and his team take reports of applications "running slow" very seriously. Slow performance is one of those things that put a damper on people's ability to get their work done. Mike pointed out that if it takes users a full eight-or ten-hour shift to get their work done due to the slowness of the system, they can get BEZVision predictive analysis or current state of affairs analysis to see what the system is doing, helping them fix the bottlenecks, either through tuning the Oracle database or by enhancing the application code, and thus give them the ability to say, "this task that took five minutes to complete, now takes one minute. I'm more efficient and I can spend more time doing other things with the time I save waiting for the system to respond".

The organization wanted to use BEZVision to measure the existing infrastructure, compare it to future requirements, adjust server resources available to the system and determine the proper allocation of new resources in order for them to sustain the anticipated increase in workload. By utilizing BEZVision, they anticipated alleviating performance and capacity risk during future clinical user growth (along with a new site coming online in the future) and to ensure acceptable levels of database service delivery.

BEZVision Saves Time and Effort while Calming Patient's Fears

Mike and his team are now preparing to employ some of the more advanced features of BEZVision, including a move from measuring individual users to a more stratified analysis using different workload combinations. Workloads are the basic analytic building blocks within BEZVision that allow Mike and his staff to view application performance in business-oriented terms and can be composed of, for example, users at a specific site or geographical location or all users with similar resource consumption patterns. This makes it easier for Mike and his team to be more proactive and help eliminate small performance problems before they become major performance crises.

A real advantage of BEZVision comes from being able to look at resource consumption from a one-workload perspective and then 'on the fly' switch to an entirely different workload perspective, while pulling out different analytics and graphics. Sometimes problem areas are from specific applications and sometimes they're from specific locations. If bottlenecks appear to be based on sites, Mike's team can focus their efforts to determine if something strange is happening there. According to Mike, "We've seen funny spikes in the graphs from specific locations and realized that one or more users ran rogue searches where they didn't put in limiting parameters, and so we have to call up and say, please don't do that any more".

A recently completed predictive analysis provided Mike and his team with a comprehensive picture of where the system appeared to be going in the future based on growth patterns that the team was seeing, and BEZVision predictions were able to give them the time and data necessary to avoid any negative performance impact and anticipate when another server would be needed to absorb the growth. In this particular instance, the initial predictive analysis led them to add a new server at the end of last year. According to Mike, "It wasn't cheap, but we were able to stave off any performance or capacity issues in the foreseeable future. Our goal now is to work on a little more improvement within the application, and fix it from that end, rather than keep propping it up with more hardware."

The team also used BEZ data to make some performance improvement suggestions to the development team for their third party application. In fact, Mike told mentioned that they are going to refresh their production hardware and when they do they are going to take the current production hardware and make it their test environment. After they do this, they are going to put BEZ on the test box so they can analyze new versions of the application before they put it into production. Recently, the application vendor asked them if the changes that they had requested resulted in the improvements they expected.

ROI Can Go Beyond Just Dollars and Cents

Right now, it appears that the healthcare industry is moving toward a pay-for-performance business model. People have always been a little reluctant to say, "my pay is tied to my performance", and yet, it is in just about every profession. You perform well and get high marks and that usually means that you can expect to get high compensation. In order to pay the highest compensation to the people who perform the best or have the best outcomes, the only way to really quantify that is electronically.

That's where Mike believes his return is going to come. Once they get their new server up and running, it's going to give them the ability to electronically document the things that they do as a corporation. They will extract the data, generate reports and analyses of outcome scenarios, and then meet those high levels of performance that will, in turn, ensure that they're continuously compensated at the appropriate level.

"To my team, excellent service delivery means excellent performance."

Mike S.
Team Lead

ROI: Don't Forget the Patients

Mike also explained how patient care is always a major issue, so ROI is not always just about the business of healthcare, although he knows that's a big part of it. ROI can also be measured in terms of taking care of patients in a fashion that meets their needs and gets them back to their loved ones quickly. One recent example Mike mentioned was using an application to track a new colon surgery protocol. Research nationally shows that if there are certain things done for colon surgery patients that are a little more aggressive and a little more progressive, they can actually get out of the hospital quicker. That lowers costs in inpatient care and staff. They've added the ability to track whether these patients are enrolled in that program and are going to be part of that protocol through one of their applications. But if the application isn't performing up to par people aren't going to use it, they're not going track it, and ultimately, patient care suffers.

The team plans to use BEZVision to address issues such as determining if the application is functioning well, is it healthy, do they need to do some things to prop it up some more or make changes to improve performance. According to Mike, "Based on the information we get from BEZVision, we know how to keep the application running well and provide the service needed to support the hospitals". Mike's team has always been encouraged to make suggestions and roll out additional functions of their major applications that make them better providers of care. But, they are the first to admit that the only way to really monitor that right now is through tools like BEZVision.

Next Steps

Mike is planning to use the BEZVision multiple workload stratification that will enable the team to look at performance from perspectives that are different each time and make them more proactive by identifying minor issues before they become major problems.

Mike's team has, so far, been pleased with BEZVision. They are eager to get it into their test environment too, because at least one of their major vendors has been asking for feedback from BEZVision analyses regarding the performance of their application, where the bottlenecks are, and if there are any I/O problems. Mike stated that, "Until now, that's been a little bit of a problem, because the only way to give them a true performance analysis is to roll it into production, which means that sometimes we're six or so months on validation before we're able to do that. Once we get BEZVision in our test environment, we should be able to speed that up considerably."

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About BEZ Systems

BEZ Systems is an innovator in the emerging market for Proactive Performance Management (PPM) solutions. PPM provides a line-of-business view of application and database resource utilization that allows the enterprise to accurately profile both current and future application performance, compare change and growth alternatives, forecast results to set expectations and verify actual performance results versus predictions. BEZ Systems empowers IT to manage change, set realistic expectations, justify provisioning actions and ensure the delivery of consistent, uninterrupted data service to the business at the lowest cost.

BEZ Systems ♦ 345A Summer St. ♦ Boston, MA 02210 USA
617.532.8800 ♦ info@bez.com ♦ www.bez.com

