TOP 10

Benefits to Integrating Capacity Management with Application Performance Management

There are few concerns more critical to the success of an enterprise than the performance of its applications. Business applications are the engines that keep the business moving, representing both the touch points for customers as well as the means of interaction among employees. If the performance of critical applications is restricted in any way, the business can suffer irreparable damages.

For IT professionals managing today's highly complex environments, delivering optimal application performance is not only one of their most critical responsibilities, but also one of their most challenging. Today's composite applications are inextricably linked to one another, creating integration issues that can make it difficult to identify and remedy performance problems. Many of these applications also span physical, virtual, hybrid cloud and legacy mainframe environments, increasing their management complexity and making them more vulnerable to performance issues if the right management tools are not in place.

Making the challenge of delivering airtight application performance even more difficult is the reality that IT budgets are not unlimited and just adding more hardware to ensure performance is not an option. In fact, business and IT leaders these days are focused on consolidation and optimization, so IT departments are likely to be charged with delivering maximum application performance while also supporting cost-reduction initiatives.

As such, the goal for IT organizations is to achieve a state of "predictive reliability," whereby IT can deliver an exceptional end-user experience under virtually all conditions without having to overprovision the IT infrastructure. This means proactively identifying, diagnosing and remedying application performance problems by monitoring all transactions. It also means assessing current capacity requirements while reliably predicting future growth.

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How can IT deliver on this promise of predictive reliability? One of the key steps is to leverage application performance management (APM) solutions with capacity management. By integrating these two functions, IT can deliver a right-sized infrastructure to support the performance of business-critical applications, thereby reducing risks, optimizing costs, ensuring quality of service and positioning the organization to effectively manage future growth of business services and transactions.

Why is the integration of APM and capacity management critical to achieving predictive reliability? Here are 10 key reasons:

#1. Reduce costs

Many IT organizations overprovision infrastructure resources to account for spikes in demand for services, such as for retail and online sales on Black Friday. This means the organization is spending money to have servers sitting around idly waiting for peaks in demand. Even with virtualization, servers may be utilizing only about 20% to 30% of their available processing power.[1] With predictive reliability solutions from CA Technologies, customers have been able to reduce the costs of hardware and software by a minimum of 15% to 25%, while reducing their data center footprint by an average of 30%.

#2. Minimize risk

With APM and capacity management working together in an integrated manner, IT can build capacity planning models based on real application performance data. The organization can build more accurate models and run an unlimited number of what-if scenarios to understand how applications will perform under different real-world conditions. This way IT can reliably predict how load increases will function, so the organization can deploy the right combination of hardware and cloud services to meet business needs under all circumstances. The more accurate performance data you provide the solution, the smarter it gets and the more dependable your models become. The risk of downtime is minimized, as are the risks of demand spikes negatively impacting performance.

[1] "Data Center Servers Suck — But Nobody Knows How Much," *Wired*, Oct. 8, 2012

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#3. Proactively manage application performance

The last thing IT needs is an unexpected incident that could impact application availability and thus the bottom line. With APM solutions, organizations can proactively identify, diagnose and resolve potential problems through 360-degree visibility into all user transactions across the entire infrastructure. With this proactive warning system in place, capacity management can then be used to build a solution for the problem. CA Technologies customers have been able to utilize the combination of APM and capacity management to reduce from days to just hours the amount of time it takes to analyze the root cause of a problem.

#4. Improve the quality of applications

Capacity management software provides predictive analytics so that developers can simulate the real-world impact of specific applications and infrastructure components during the development cycle. When combined with APM, the software ensures that applications will be of a much higher quality on release in terms of meeting user expectations for performance and ease of use. Developers can reduce the time it takes to code and recode applications while also improving quality assurance.

#5. Speed up time to value

With higher quality applications, there will be fewer performance issues when an application is released to users. This means applications will be in production faster and deliver value to the business more quickly. CA Technologies customers have been able to reduce performance defects by 20% and reduce time to effectiveness by 60% using APM in combination with capacity management.

#6. Continually monitor and right-size your applications

IT infrastructures and applications are anything but static, particularly in today's environment. Organizations are creating more data than ever in different formats, conducting ever-increasing numbers of transactions and continually adjusting their IT environments to reflect increases in virtualization, cloud services, support for mobility and myriad other activities that impact application performance. Once you have deployed an integrated solution for predictive reliability, you have the tools in place to continually monitor changes to your workload and environment, and to make the appropriate decisions to adapt to those changes.

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#7. Manage for future growth and scale appropriately

Not only can you right-size your applications for current needs, but your capacity management solution can take performance data from the APM production environment to perform workload scale-out analysis to determine future needs. Organizations can perform scenario analyses simulating a variety of architectural options and variables, such as hardware configurations, hypervisors, databases and operating system versions. IT can build the right infrastructure based on the planned workload and determine workload-sharing opportunities, new procurement requirements and the amount of cloud burst capacity required based on real-world workload simulations.

#8. Support key strategic business initiatives

Applications have to keep up with changing business requirements and support key business initiatives. One of the big trends in the industry is the consumerization of IT, which means customers and employees are expecting the same level of speed, agility and ease of use from their business applications as they get from their consumer applications. For instance, applications today have to support mobility and mobile users. In order to do that, however, IT must understand the impact those mobile transactions have on performance and ensure that the right infrastructure is in place to support the workflows engendered by these new initiatives.

#9. Align IT more closely to the business

By using APM in combination with capacity management, you will not only be able to monitor every business transaction, but also have the tools in place to predict the impact of each transaction. The solution ties IT infrastructure into business activities in a way that has never been achievable before, where the infrastructure is designed to meet the specific needs of the business based on predictive analytics. As the business changes, IT has the tools in place to anticipate what it may or may not need from an infrastructure standpoint, and to make decisions based on business needs. This leads to a much more strategic way of deciding upon the deployment of IT resources — for instance, using analytics to determine when it makes sense to deploy a specific application through a cloud service provider or a private cloud.

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#10. Sleep better and worry less

CA Technologies has been a leader in delivering predictive reliability to enterprises through the combination of its CA Application Performance Management and CA Capacity Management solutions. The predictive reliability enabled by the integration of these solutions has delivered measurable improvements for customers: planning times that are improved by five to 10 times, highly accurate projections within 3% of actuals, reductions in manual tasks and, as noted, reductions in costs, performance defects and time to effectiveness. For IT professionals, this means more peace of mind from knowing that the tools are in place for reliable capital expenditure planning, service-level commitment and IT service delivery.

Learn more about what predictive reliability can do for your enterprise through CA Application Performance Management and CA Capacity Management.