

THE EVOLUTION OF DATA CENTER MANAGEMENT WITH BUSINESS SERVICE MANAGEMENT (BSM) & ITIL

SUMMARY

The infrastructure in a modern corporate data center manages critical business information for the enterprise. In that sense the data center is the 'heart' of the business, and the data center is a critical corporate asset. Data centers house the power systems, networks, servers, storage, and applications that enterprise business processes depend upon. Almost every single activity in a business process, whether the process involves taking an order or involves billing for delivered products, is tied directly to the effective functioning of one or more software applications and the underlying computing/network infrastructure in the data center. Yet, data center monitoring is still focused on just measuring the technical metrics and trends of IT applications and infrastructure. This approach results in significant gaps in determining the business impact of a specific problem.

IT has also evolved from the ownership perspective – business unit managers are no longer content with IT being an independent 'black box' component within the organization. Today's business managers are demanding increased accountability, and want visibility into IT performance metrics to ensure that poor IT service does not impact end-user performance, and by extension, impact revenues. Uptime status and technical performance reports on individual routers and servers in a data center are meaningless to business managers. What they want to see are the metrics and measurements of the IT services supported by the data center infrastructure, not siloed metrics of the individual underlying components. Aligning the monitoring and management of IT infrastructure with Business Services is a necessity in today's business environment.

Data centers need to adopt management and monitoring solutions that enable operations personnel and business process owners to better understand the impact of the complex mesh of technology on the performance of business services and processes. Data center monitoring has to go beyond just looking at the performance of servers and network nodes, but has to also include a service oriented view. When a component within the data center fails, the operations team has to be able to see which business or IT services have been impacted. Operations personnel and process owners need to be provided the means to proactively monitor the status and trending of underlying IT services to prevent potential problems, or catch them early before the effect is experienced by a wider constituency.

TODAY'S DATA CENTER – INCREASINGLY COMPLEX

A number of disruptive technologies are making their way into the data center. These include unified communications, Web as 'the' platform to deliver applications, virtualization beyond simple consolidation, mashups, composite applications, and green IT. New applications that rely on Service Oriented Architecture (SOA) and Web services are much more computationally and network intensive, resulting in greater infrastructure demands. Distributed and remote workforces are placing increased performance and availability demands on centralized data center infrastructure. Data center network architectures are evolving to maximize efficiency gains using virtualization capabilities such as Multi Protocol Label Switching (MPLS) and virtual private LAN service (VPLS).

ITIL BEST PRACTICES IN THE DATA CENTER

Dealing with the increased complexity will require organizations to take a more holistic approach to managing the corporate data center and incorporate industry best practices. The Information Technology Infrastructure Library (ITIL) is a set of IT management frameworks and concepts that help organizations improve the overall quality of IT services and reduce the total cost of ownership.

ITIL has identified best practices in the data center from the very beginning – it clearly separated fault (event) management, capacity planning and trend analysis, configuration management and trouble-ticketing. All of these concepts already existed in mature data centers - in fact ITIL is just a formalization of these best practices. However, these traditional best practices were not enough to address the evolved needs of today's data center, which demands quick mean time to repair (MTTR) for services, proactive warnings for service degradation and accountability to the business managers.

Recognizing the need and demand for this in the industry, ITIL added Business Services Monitoring (BSM) as a new best practice in a recent release (version 3 released in 2007). As indicated by ITIL, enterprises need to view BSM as an integral part of an end-to-end data center management strategy and approach.

BSM – LINKING YOUR DATA CENTER TO YOUR BUSINESS

Traditional data center management systems focus on measuring and monitoring the technical metrics and trends of IT applications and infrastructure. The primary users of these systems are technicians and systems administrators in the IT operations organization. Although these systems enable the IT operations team to identify problem areas from a technical point-of-view for a given piece of the infrastructure, significant gaps exist in determining the business impact of a specific problem. If a router and a server fail at the same time, these systems offer no way for the Network Operations Center (NOC) operator to determine which of these is more critical or which business services have been impacted by the failure of these devices.

The challenge is being compounded further given the ongoing evolution of the data center. A single business process or service may be supported by a number of next-generation technologies and composite applications, all of which could be dependent on a diverse set of distributed computing and

communications elements. An isolated issue anywhere in this complex Web may impact one or more tasks in the business process. Traditional data center management systems and technology-centric monitoring approaches are incapable of determining the business impact of an issue in such a complicated infrastructure environment.

Given the disconnect that currently exists between operations personnel having a clear understanding of problems with business processes, and their view of what is going at the technical level, there is a need for solutions that bridge the information gap. Organizations need management solutions in the data center that enable preemptive or rapid identification of business issues, accurate identification of root causes in the supporting IT infrastructure and quick resolution of problems.

Organizations are recognizing the important role that Business Service Management (BSM) systems play in connecting the worlds of IT and business. They see the value in having business and IT operations personnel collaborate as BSM system users in assuring the effective functioning of IT-enabled business processes.

Within a BSM enabled data center environment, business impacting issues are dealt with proactively and rapidly, with the team remaining informed and in control of setting priorities on the problems that need to be addressed right away versus things that can be postponed. Additionally, information is presented in a way that is relevant to the user roles within the organization. The business process owner may want to see a simple dashboard view for those IT services on which his business depends. The information in this view is described in business terms. An IT operations person may want to view the detailed performance data plots for a given server cluster for example, where the data is defined in technical terms.

ZYRION'S TRAVERSE – A PRE-INTEGRATED SOLUTION

Although the case for BSM in the data center is clear, the path forward has not been an easy one given the solution options that have been available in the marketplace. Older generation data center monitoring products are not able to unify fault/event, performance management and BSM all within one system, and thus businesses are forced to deploy and integrate multiple systems to get an end-to-end view. This requires making a significant investment in the initial deployment and ongoing administrative support, resulting in extremely high TCO. This 'legacy' BSM solution approach involves linking multiple disparate applications across different layers and domains of infrastructure and business services. These solutions contain a confusing array of complicated features, require specialized application-specific expertise to install/integrate and manage, and involve execution of complex projects to complete an implementation.

What the modern data center needs is an integrated, feature-rich network management solution with advanced capabilities, such as end-to-end correlated network and application monitoring, real-time status of IT services, integrated business/technical views and SLA management. At the same time, this integrated, end-to-end solution has to be easily installable and configurable, require minimal training to use and administer, have the ability to be made operational within days, and most importantly, require less than one or two dedicated personnel to manage. Zyrion's Traverse solution meets all these requirements.

Traverse is an innovative solution that provides a differentiated value proposition where businesses are able to get advanced BSM capabilities pre-integrated with the required underlying fault/event and performance management capabilities. This ensures that the data center team has an end-to-end view of the infrastructure and processes. Traverse utilizes the concept of ‘business service containers’ for correlating network, application and IT service problems. The technology allows linking applications and underlying infrastructure to services such as ordering and payroll. Data center teams can get the solution implemented quickly and efficiently, as no complicated inter-application integration is required to get fully operational.

THE BOTTOM LINE FOR THE DATA CENTER

The increased reliance on IT for business process enablement and automation requires data center management and monitoring tools that enable business process owners and the IT operations team to collaborate in ensuring the smooth running of business services. Data centers need to deploy advanced Business Service Management (BSM) solutions that provide real-time visibility into the performance of applications and IT services. Zyrion’s Traverse is the answer and is an end-to-end, pre-integrated BSM systems that offers enterprise-class functionality at a lower implementation cost and lower ongoing operational cost.

ABOUT ZYRION, INC.

Zyrion is a provider of BSM and IT infrastructure monitoring software for mid-market enterprises. The company’s business service container technology allows mid-level enterprises to more easily and effectively manage IT-enabled business processes and services. Zyrion’s flagship Traverse solution, provides correlated, end-to-end monitoring capabilities that link underlying applications and the IT infrastructure to business services. Zyrion has its corporate offices in Sunnyvale, California. For more information, go to www.zyrion.com or call +1-877-7-ZYRION.