

TRAVERSE: VIRTUALIZATION AND PRIVATE CLOUD MONITORING

SUMMARY

Given recent advances in distributed computing, virtualization and private-cloud technologies, enterprise datacenters have effectively become internally service providers that are required to meet the needs of a broader set of internal 'customers' across the entire organization. Moving away from dedicated infrastructure specific to particular departments or user groups, to a virtualized and shared infrastructure is enabling IT organizations to become more agile and efficient in the delivery of IT solutions and services to their constituents.

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- Next-Generation Distributed, Scalable and High-Availability Monitoring Architecture
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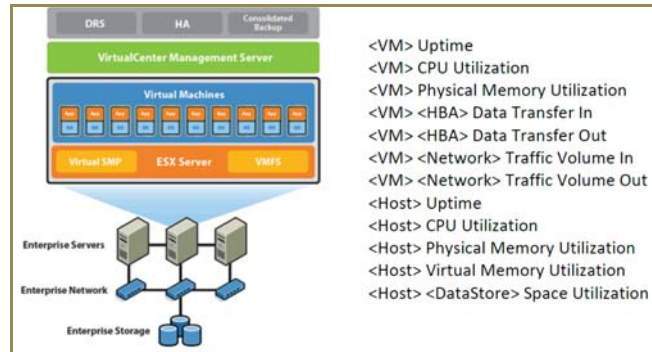
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IT organizations have in effect set up private cloud-computing environments to provide on-demand computing resources, software and information to their internal customers. This transformation though is creating a new set of network monitoring challenges that traditional network management tools are unable to address. Beyond supporting monitoring of virtualized components, ensuring the smooth running of business operations in virtualized and private cloud environments requires that network management move away from point monitoring of IT infrastructure to instead monitoring business service availability and performance. Zyrion's Traverse solution enables network management to go beyond just looking at the performance of individual nodes or components through providing business service monitoring capability that offers a holistic service-oriented view of the performance of virtualized and private cloud-computing infrastructure.

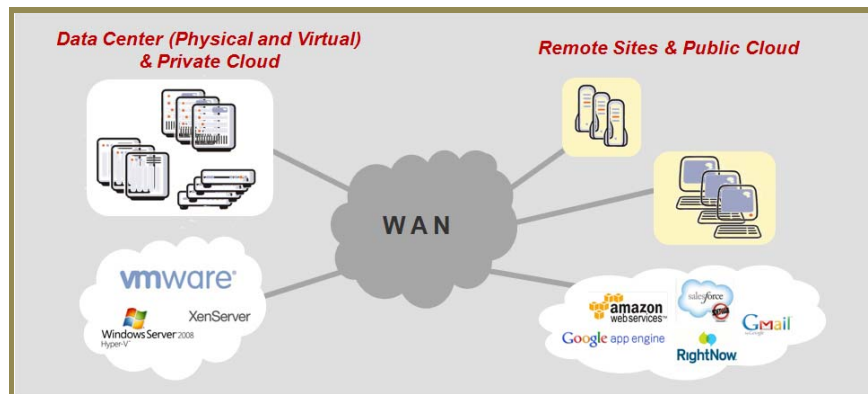
VIRTUALIZED AND PRIVATE CLOUD REQUIRES A DIFFERENT APPROACH

A typical business system depends upon the effective performance of multiple layers of technology, including, client components, applications, databases, servers, storage and a host of network devices. Within a virtualized environment, users on different network segments may be accessing a business system requiring multiple virtual servers, which in turn are connected to a virtualized database that uses SAN storage. How does the organization ensure the effective performance of this business system that may be enabling one or more critical business services?

Traditional network management tools focus on measuring and monitoring technical metrics and trends of individual physical nodes and components in the infrastructure. The first step in the new approach is to seamlessly enable monitoring of virtual components, including tracking these virtual components as they get re-hosted on different physical systems.



But, stopping at virtual component monitoring is not enough. Given that an isolated issue in the complex web of new technologies may impact one or more areas of a business service, component-centric monitoring approaches are incapable of determining the business impact of such a problem. The dynamic nature of virtualized environments makes the current status-quo even more untenable, as it is critical that monitoring systems maintain mappings and relationships between services and underlying components to assure service performance.



In order to ensure the smooth running of business operations in a virtualized environment, network management must move away from component-centric monitoring of IT infrastructure to instead monitoring business service availability and performance. Network monitoring must go beyond just looking at the performance of individual nodes or components, and must now include a service-oriented view that provides end-to-end visibility.

BSM LINKS THE VIRTUALIZED INFRASTRUCTURE TO BUSINESS OPERATIONS

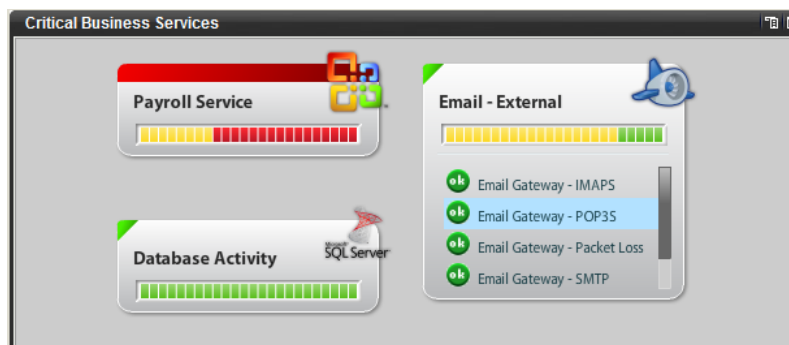
Next-generation Business Service Management (BSM) systems leverage a number of critical technical advantages that enables them to effectively support virtualized and private cloud-computing

environments. Open and extensible APIs or data-capture plug-ins for integrating with external applications or systems allow for the easy addition of custom monitors to capture availability and performance data from any element within the virtualized infrastructure, whether it's an application service or a virtual machine.

The key enabling technology for creating many-to-many and contextual mappings between the underlying virtual/physical components and services is that of 'Business Service Containers'. These are flexible, automated objects which represent business services in an organization. They allow an organization to create logical, business-oriented views of the overall physical and virtualized computing network. Users can define different SLAs for different containers, create fault-tolerant redundant models within a container, and have nested containers with cascading alarms. The ability to link applications and the virtual/physical infrastructure with business services using containers enables enterprise network administrators to monitor multiple elements of the infrastructure, generate reports on service containers, get uptime information and real-time status for services, and receive alerts if services fail or exceed defined degradation thresholds.

Traditional network monitoring products have made the implementation of business service monitoring a challenge. Older generation network monitoring products are unable to integrate fault/event, performance management and BSM within a unified system, and thus businesses are forced to deploy and integrate multiple systems to get an end-to-end view. This cumbersome approach involves linking multiple disparate applications across different layers and domains of infrastructure. 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.

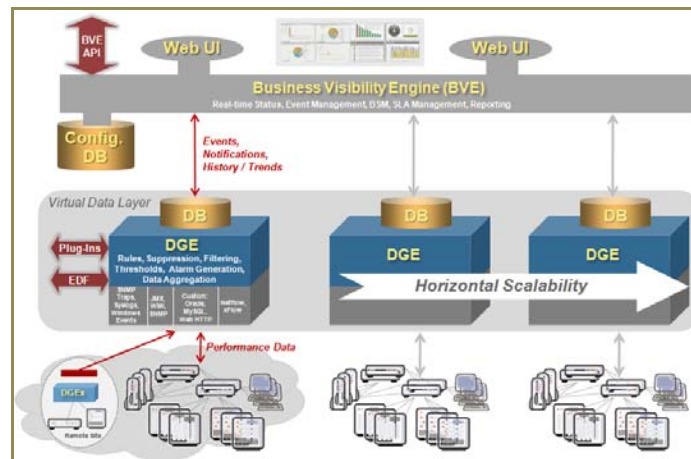
Zyrion Traverse on the other hand delivers the advanced BSM capabilities required by businesses, pre-integrated with the necessary underlying fault/event and network performance management capabilities. Traverse manages virtual machines, guest OS, and server workloads, along with physical servers and network devices to provide a full solution for monitoring virtualized environments. Traverse tracks configurations and relationships between all the elements, both virtual and physical, and determines the impacts on supported business services when performance of any piece of the infrastructure degrades.



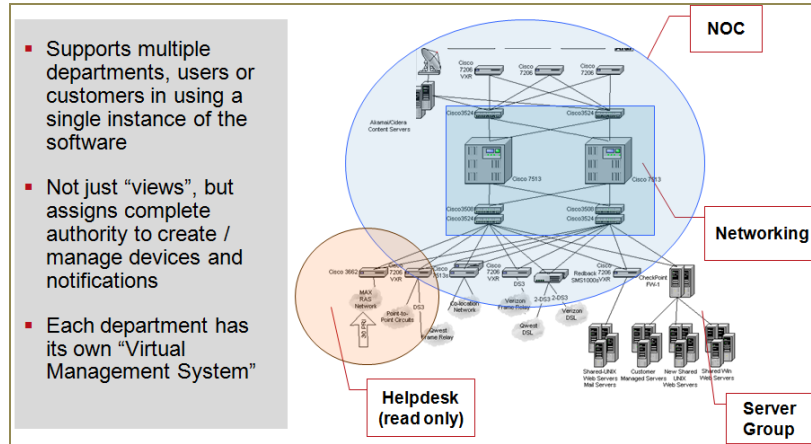
ZYRION'S TRAVERSE – A UNIFIED MANAGEMENT SOLUTION

Zyrion Traverse is an integrated, feature-rich BSM and 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, Traverse is easy to install and configure, requires minimal training to use and administer, has the ability to be made operational within days, and most importantly, and does not even require a full-time dedicated resource to manage.

Traverse is built on a powerful, fully-distributed architecture featuring two primary components, Data Gathering Engines (DGE) and the Business Visibility Engine (BVE). What is unique about Traverse is that there is no centralized data warehouse, unlike competing solutions that have to centralize their data to generate reports. Traverse has distributed data collection capability AND a distributed database architecture, which allows the system to scale to very large environments with standard hardware. The DGEs are data collectors that can be located in each datacenter or remote location, or as a centralized component. As the infrastructure expands, one or more additional DGE can be added. DGE Extensions enable capturing performance data from closed or secure networks by eliminating the need for inbound connections from the primary data aggregation point. The BVE layer is responsible for correlation, reporting and other data management functions. When the Traverse end-user logs in via the Web UI, the data is automatically fetched from the distributed DGEs and presented in a unified, correlated view.



Traverse has a built-in federated security model which supports multiple departments, users or customers in using a single instance of the software. The flexible security model allows creating read-only or read-write users, administrative users within a department/domain, or administrative users across departments/domains. Each department or user group can be viewed as having their own “Virtual Network Management System (NMS)” where they can add their own devices, thresholds, alarms, etc. Additionally, a higher-level account can be created that spans multiple departments or customers. These are not just views like in other products, but a fully functional Virtual NMS.



THE BOTTOM LINE

Business processes are increasingly dependent on a complex mix of IT infrastructure and applications within both virtualized and physical environments. A new set of IT management challenges have emerged in light of the rapid adoption of virtualization and private cloud-computing technologies. To ensure smooth business operations, organizations need to deploy advanced BSM solutions like Traverse that overcome the limitations of legacy network management tools by providing real-time visibility into the availability and performance of business services.

ABOUT ZYRION, INC.

Zyrion is a provider of Business Service Management (BSM) and IT Infrastructure Monitoring Software for enterprises, service organizations, governmental agencies and MSPs. The company’s business service container technology allows enterprises to more easily and effectively manage IT-enabled business processes and services. Zyrion’s flagship Traverse solution provides correlated, end-to-end network and server monitoring capabilities that link underlying applications and the IT infrastructure to business services. Zyrion has corporate offices in Sunnyvale, California. For more information, visit www.zyrion.com or call +1-877-7-ZYRION.