



SAS® IT Intelligence For VMware Infrastructure

Maximize the power of virtual data centers across the enterprise

Overview

Virtualization technology gives organizations the opportunity to drive capital and operational efficiency. As more customers adopt VMware Infrastructure as their primary platform for mission-critical applications, the need for IT resource utilization, performance monitoring and capacity planning increases. Customers want to track compliance and accounting down to the minute, and they need a system that can predict needs and outcomes, enabling them to quickly make changes to service level agreements and costing models.

SAS and VMware have collaborated to provide a solution that enables IT to manage and optimize all physical and virtual IT operations. SAS IT Intelligence for VMware Infrastructure gives organizations the insight and foresight to determine how, where and when IT resources should be optimally deployed, while also providing an enterprise solution in a virtual environment for tracking and managing IT costs. This solution integrates both virtual and physical IT environments, providing a common view for forecasting and planning future IT infrastructure needs.



Challenges

- Tracking and optimizing physical and virtual resources.** Today's complex data centers must manage thousands of systems, and existing methods for tracking resource utilization are intensive and time-consuming.
- Measuring use, availability and performance of IT resources.** Data from multiple sources must be manually consolidated and analyzed to quantify and demonstrate IT's value.
- Managing IT costs.** Often viewed as a cost center, IT faces pressure for accountability, financial justification and regulatory transparency. A system is needed to track costs and implement chargebacks across physical and virtual environments.
- Finding time for innovation.** IT runs the risk of being marginalized if it cannot contribute to innovation and growth in the organization. A centralized view of physical and virtual resources is needed to deliver IT services in credible manner and to optimize infrastructure to meet business demands.



Manage and optimize all physical and virtual IT operations

The solution

SAS IT Intelligence for VMware Infrastructure links virtual and physical IT resources, service processes and financial data to provide a single, centralized view of IT resources and services across the enterprise. It enables IT to streamline virtual and physical resource utilization to deliver services and resources in a predictable manner and provide foresight into planning scenarios. The solution includes:

- Access to VMware Infrastructure data.
- Interactive data integration environment with IT-specific warehousing tools and wizards for creating, organizing, and managing IT data marts.
- Web-based query and reporting along with data visualization techniques and dashboards for easily viewing, interacting with and distributing relevant information and metrics.
- Multidimensional analysis of IT resource performance, capacity planning and costing data.
- Financial management capabilities tie utilization directly to cost and enable accurate chargeback for resources.
- Support for a variety of accounting methodologies for IT costing and chargeback.
- Automated calculation and reporting of service level agreements.

Why SAS and VMware?

VMware customers have harnessed the power of VMware Infrastructure to drive down costs, increase application availability and provide operational flexibility to better manage IT capacity. Now they need a system that provides transparency into the performance and capacity utilization information so they can accurately apply chargeback costs, predict availability of IT resources and make changes on the fly to maximize service level agreements (SLAs).

SAS IT Intelligence combined with VMware VirtualCenter™ (the management component of VMware Infrastructure) enables your data center to run, manage, account and predict IT needs. SAS IT Intelligence for VMware Infrastructure integrates information from VMware VirtualCenter, physical hardware and accounting structures, and runs it through analytic algorithms to produce the intelligence needed to support key business decisions. It can direct VirtualCenter to deliver services in a reliable manner, account for IT services down to the hour or minute, and feed the information into internal and external billing or revenue systems. The solution enables IT to better understand who is using certain IT resources and charge back accordingly.

Benefits

Consolidate, measure and manage all IT resources and services in virtual and physical environments

The first order of business for IT Intelligence is getting past the perennial roadblock of disparate, heterogeneous data sources, including IT infrastructure, network systems, transactional systems, databases, financial sources and workflow engines. Without the ability to extract, transform and load infrastructure data on an enterprise scale, apply predictive analytics and produce meaningful intelligence in a consistent, reliable manner, the measurement and management of IT resources will be nonexistent or suboptimal.

With SAS IT Intelligence for VMware Infrastructure, you can gather and consolidate all IT resource measurement data. This solution stages, standardizes, transforms, aggregates and delivers analysis and report-ready performance data from both physical and virtual data sources. It provides everything needed to analyze IT resource performance data for capacity planning, resource forecasting and performance summaries. It gives decision makers the information they need for quick and accurate analysis of all IT resources to streamline the delivery of IT services.

Anticipate demand on physical and virtual resources and optimize use of all IT resources

With SAS IT Intelligence for VMware Infrastructure, you can understand resource utilization and consumption in granular detail. It enables workload profiling, peak period analysis and capacity forecasting, helping you predict when you might exceed resource capacity so you can plan for the additional IT resources that will be needed. It provides the insights needed to effectively manage and optimize physical and virtual IT operations.

Dynamically size your IT infrastructure and identify applications to virtualize

Concise reporting of IT resource performance data helps identify underutilized IT resources that can be redirected to better meet business needs. Using SAS analytics, you can profile and optimize the distribution of business-critical applications and workloads, and identify which applications can be virtualized.

Make reliable information available to support IT costing, budgeting and profitability analysis

SAS IT Intelligence for VMware Infrastructure includes powerful query, reporting and analysis functionality. Dashboards and a Web-based interface enable different types of users to easily view, interact and distribute

resource performance information. Reporting and data visualization capabilities provide a centralized view of IT resources and services to help decision makers understand capacity, service levels and costs in business terms.

Accurately charge business units based on consumption

Different organizations have different objectives in setting up chargeback mechanisms for IT. SAS IT Intelligence for VMware Infrastructure supports a wide variety of accounting methodologies, providing flexibility to meet needs now and as your IT organization changes.

Reduce IT costs through better use of resources

With a fact-based approach to managing your IT resources, SAS IT Intelligence for VMware Infrastructure enables efficient IT procurement processes, deployment planning and operational activities that are required to effectively deliver IT services. Information from this solution enables IT organizations to uncover bottlenecks and address poor service level delivery. Through effective use of information and proper planning, personnel, facilities, hardware and general IT operating costs will be reduced.

The SAS® difference

SAS IT Intelligence for VMware Infrastructure enables IT to understand and demonstrate the value of their physical and virtual resources to support evolving business needs. Only SAS enables organizations to gain:

- **An enterprise view of all IT resources and services.** Integrate your VMware performance and capacity utilization information with other IT resource measurements to monitor, analyze and anticipate utilization and performance of your entire IT infrastructure.
- **Operational effectiveness.** Determine which virtual machines should be deployed on which physical servers to maximize licensing and service agreements.
- **Foresight into planning scenarios.** Gain insights into demand, capacity and licensing scenarios needed to support future growth.
- **Accurate chargeback mechanisms for IT.** Make reliable cost information available for chargeback based on actual consumption of IT resources.
- **Improved levels of service.** Being tuned to business priorities enables IT to deliver services and resources in a predictable and timely manner.
- **Credibility.** Establishing the value and efficiency of IT resources and services supports faster, better decisions.

About SAS

SAS is the leader in business intelligence and analytical software and services. Customers at 44,000 sites use SAS software to improve performance through insight from data, resulting in faster, more accurate business decisions; more profitable relationships with customers and suppliers; compliance with governmental regulations; research breakthroughs; and better products and processes. Only SAS offers leading data integration, storage, analytics and business intelligence applications within a comprehensive enterprise intelligence platform. Since 1976, SAS has been giving customers around the world THE POWER TO KNOW®.

About VMware

VMware (NYSE: VMW) is the global leader in virtualization solutions from the desktop to the data center. Customers of all sizes rely on VMware to reduce capital and operating expenses, ensure business continuity, strengthen security and go green. With 2007 revenues of \$1.3 billion, more than 100,000 customers and nearly 14,000 partners, VMware is one of the fastest growing public software companies. VMware is headquartered in Palo Alto, California, and on the Web at www.vmware.com.



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