

# CA Virtualization Management

CA Virtualization Management solutions provide integrated end-to-end management, business-driven automation and security. As such, CA facilitates virtualization's promise of cost reduction and efficiency gains through consolidation, standardization and lower energy consumption, which drive better business outcomes.

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## Business Value

Virtualization is a compelling solution that meets many of the challenges and requirements of enterprise IT divisions today. Many enterprises are nearing 100% capacity (physical space and power) in their data centers, and at the same time, using less than one third of their computational resources. Virtualization allows organizations to consolidate servers and deliver:

- More effective resource utilization
- Reduced power and space costs
- Reduced IT administration effort and costs

In spite of these huge benefits, Forrester research reports that only 31% of x86 server instances operate as virtual servers. (The State Of Emerging Enterprise Hardware Trends: 2008 To 2009, Frank Gillett, Forrester, February 27, 2009). This is mainly due to the challenges and potential risks associated with virtualization, including virtual server sprawl and security issues.

In addition, there are a host of operational concerns, including a perceived lack of control over where applications are running and critical data is stored, as well as how to obtain visibility into the virtual environment. Also, they are concerned about the difficulty performing timely problem resolution in complex, hybrid physical and virtual environments.

CA solutions help organizations realize the promised benefits of virtualization by overcoming these risks and challenges.

## Solution Overview

CA provides comprehensive and integrated end-to-end management, including infrastructure management, service management, applications performance management automation and security.

- CA's infrastructure management solutions offer deep visibility and insight into the health and performance of servers, networks and databases across the physical and virtual infrastructure. CA Spectrum Infrastructure Manager and CA eHealth Performance Manager, coupled with CA Virtual Performance Management, discovers and monitors the various elements of the physical and virtual infrastructure, and provides performance metrics and alerts. These solutions help customers identify performance problems, determine root cause and proactively respond, in order to meet SLAs.
- CA's application performance management solutions present a consolidated view of transactions spanning both physical and virtual environments. This provides customers with the ability to quickly pinpoint application performance issues, prior to end-user impact, promoting a positive experience.
- CA's automation solutions were specifically architected for virtualization. They provide the ability for customers to centralize and automate their operational processes for both physical and virtual environments, including configuration management and change detection, and provisioning. This helps customers operate more efficiently, save labor costs and enable higher service quality and responsiveness.
- CA's security offerings help alleviate the security risks introduced by virtualization. Physical and virtual enterprise computing and information assets are safeguarded against accidental or malicious acts. Access and activities are controlled, monitored and reported, based on the identity or role of the user — even the most privileged users. Our offerings help you manage and audit compliance with regulatory requirements. Security controls and passwords can be managed centrally and can be applied uniformly across a wide variety of platforms and systems, or tailored for specific environments.

CA offers a comprehensive portfolio of solutions to manage, automate, secure and govern across physical and virtual environments.

## Delivery Approach

To help you achieve faster time-to-value from your virtualization projects, CA Services can help you assess your current IT situation, define your goals and implement solutions to gain measurable results. To address immediate problems and get virtualization providing benefits quickly, CA provides a *Rapid Implementation Service*. Alternatively, CA also delivers a more detailed *Solution Implementation Service* with additional flexibility in scope or scale to address unique business requirements.

## Solution Highlights

CA Virtualization Management provides a solution to virtualization challenges, while unlocking the untapped business potential of this dynamic technology. Our solutions manage, automate, secure and govern across physical and virtual environments. Highlights include:

- **CA Spectrum® Automation Manager** — Provisions resources and helps optimize their usage across virtual and physical environments in real time, based on business policies; automates and helps simplify the management of heterogeneous virtualized server environments. Provides insight to identify resources that are candidates for virtualization and consolidation.
- **CA Spectrum® Infrastructure Manager** — Offers deep visibility, rapid fault isolation and out-of-the-box root cause analysis for virtualized environments, based on a patented, real-time, operational model of the infrastructure. Provides an automated approach to discovering, monitoring and managing host physical servers and their guest virtual machines, and extends the value of an existing infrastructure management solution to eliminate the need for a domain- or vendor-specific tool.

- **CA eHealth® Performance Manager** — Proactively monitors the performance of physical and virtual infrastructure through both real-time dashboards and historical views. Provides extensive reporting of performance to baseline, tracks trends, determines allocation of resources, helps improve utilization rates and aids in capacity planning.
- **CA Spectrum® Service Assurance** — Provides a centralized, consolidated dashboard, enabling IT Operations to manage infrastructure top-down in context to the service it supports. Provides new SLA reporting, along with service modeling and service impact analytics, across physical and virtual infrastructure.
- **CA Insight™ Database Performance Manager** — Proactively monitors database performance and provides alerts (within one solution) for databases located in physical, virtual and cloud environments. Designed to provide continuous monitoring of databases in VMware environments, even across VMware hot migrations (vMotion), without user intervention.
- **Cross-Enterprise Integration** — The integration of CA Wily APM and CA SYSVIEW provides best-of-breed, real-time monitoring of transactions and applications across distributed, mainframe and virtualized environments. As the view into infrastructure components becomes abstracted by virtualization, enterprise-wide transaction visibility is the constant in measuring service quality levels and enforcing SLAs.
- **CA Access Control (AC)** — Provides privileged user management (PUM) of virtualized systems/applications. CA has been providing virtual management-aware PUM since 2004. CA helps protect access to a large variety of hypervisors and privileged partitions.
- **CA Enterprise Log Manager** — Helps simplify IT security activity compliance reporting and delivers comprehensive log management across distributed, mainframe and virtualized environments.
  - Data Loss Prevention helps prevent the inappropriate (accidental or malicious) redirection of data in physical and virtual environments and provides the logging of data flows between physical and virtual.
- **CA ecoMeter & CA ecoGovernance** — Allows customers to evaluate overall energy consumption and eliminate waste by easily comparing, analyzing and tracking energy expense and resources across the organization.
- **Service Desk Manager** — (Including CMDB), allows customer to implement robust incident, problem and change management capabilities, as well as change impact and root-cause analysis for virtualized systems.
- **Service Catalog and Accounting** — Service Catalog provides customers with a streamlined front-end to enable self-service resource provisioning. Service accounting tracks costs of requests associated with virtualization and associated services, and enables chargeback for insight and behavioral change.
- **IT Client Manager** — Provides detailed inventory and deployment of virtualized applications (VMware ThinApp, Microsoft AppV), as well as inventory and relationship management of Virtualized Images.
- **IT Asset Manager** — Helps customers manage their vendor relationships and gain greater awareness of the terms and conditions of licenses governing the use of software in virtualized environments. ITAM also manages IT assets from a cost, contract and inventory perspective.

## Benefits

Until now, virtualization has remained largely unproven in production, due to concerns about reliability, complexity and security.

CA Virtualization Management helps organizations transform virtualization from a back-room experiment to a front-line business asset, providing the following key benefits:

- **Faster Time-to-Market:** by accelerating the time taken to get critical applications into production and reducing the manual, error-prone activities that compromise agility.
- **Operational Excellence:** with extreme visibility into business transactions and how performance affects customer service. Discover, classify and manage change across physical and virtual assets.
- **Reduced Risk:** customers gain the ability to secure virtualized environments in the same manner as they secure their physical environments, by using access control to help protect virtual assets and data.

## Why CA

No technology, however dynamic, can truly be transformational until it can be incorporated within the existing fabric of business computing. This fabric isn't one single technology, but rather, an interconnected mesh of investments, supporting complex business processes and customer-facing applications.

CA helps organizations confidently deploy and run virtualization for optimal business benefit. We do this by providing modular, integrated solutions with controls that can effectively manage a combined physical and virtual infrastructure. Our goal is simple — to provide the levels of reliability, efficiency and security our customers demand — making virtualization work for the business, in the fastest timeframes possible.

[www.ca.com/virtualization](http://www.ca.com/virtualization)

### SINGLE PANE OF GLASS

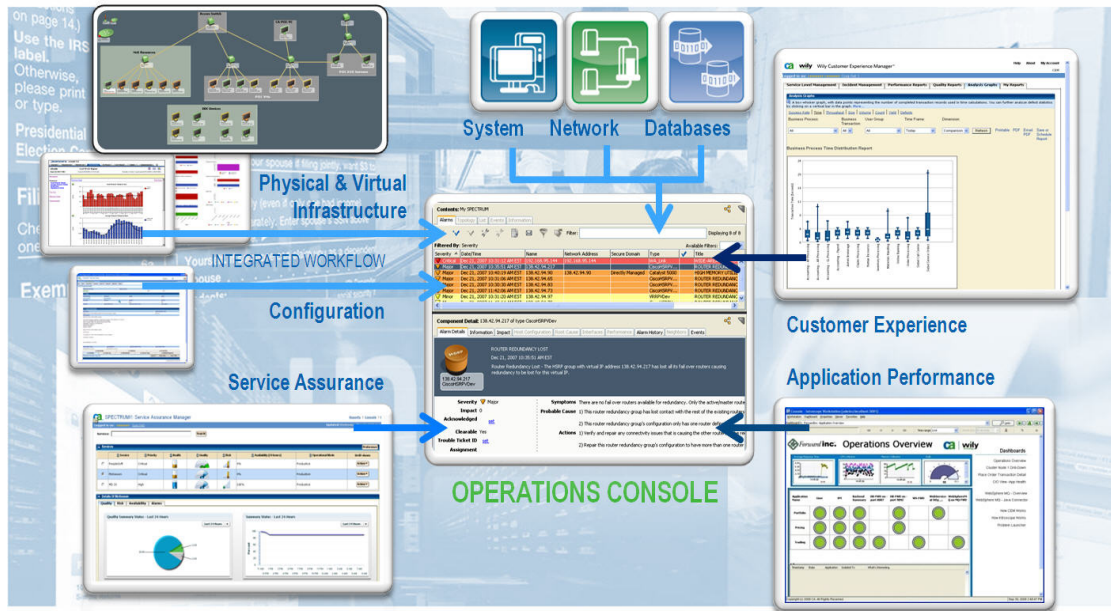


FIGURE A: INTEGRATED END-TO-END MONITORING AND MANAGEMENT ACROSS HYBRID PHYSICAL & VIRTUAL ENVIRONMENTS

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