

BMC Virtualizer Family



Key Benefits

- > Enables datacenter consolidation of rack and blade-server architectures to provide greater control, reduced costs, and improved operational efficiency
- > Enables automatic, on-demand allocation of IT resources
- > Significantly improves application service availability, as well as scalability and performance
- > Reclaims unused server capacity, increasing cluster utilization
- > Automates server provisioning, reducing time-to-intervention and potential human error
- > Extends regulatory compliance with government regulations such as Sarbanes-Oxley, Basel II, and HIPAA.

BMC Virtualizer solutions allow organizations with server clusters large or small to provide high levels of service availability and performance – and capacity on demand – through datacenter virtualization, intelligent policy-based orchestration and the automated provisioning of applications, servers, networks, and storage. As a result, companies can achieve infrastructure cost savings of 40 percent or more, while improving their ability to comply with government regulations such as the Sarbanes-Oxley Act, Section 404 in the U.S. and Basel II in Europe.

BUSINESS CHALLENGE

Whether starting with large numbers of under-utilized servers, or proprietary large-scale servers, many companies are eager to take advantage of the commodity economics associated with high-density rack and blade server architectures. A key challenge in doing so has been provisioning and managing these complex new environments to assure cost-effective, highly available service. For example, to compensate for dynamic spikes in user load that could result in application downtime, IT managers often try to ensure high availability by over-provisioning application server farms by as much as 500 percent. And when individual servers inevitably fail, the process of bringing replacements online is complex and time-consuming. Typically a manual exercise, it consumes additional resources, is subject to error, and further reduces system availability.

Preemptive over-provisioning and inefficient failover approaches not only drive up costs and reduce application availability – they ultimately defeat companies' strategies to consolidate their datacenters.

SOLUTION

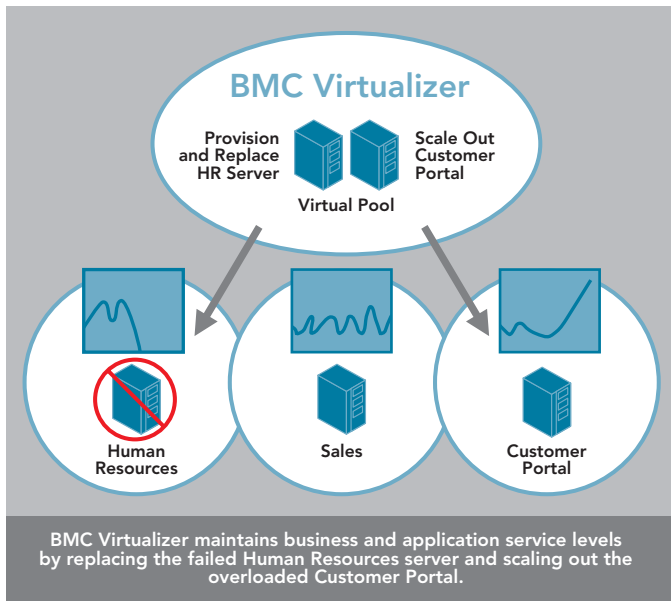
Automated policy-based management and virtualization

BMC Virtualizer solutions help companies achieve datacenter consolidation, optimization, and higher availability in three ways, by:

- > virtualizing datacenter resources
- > orchestrating applications and resources
- > enabling the automated policy-based provisioning of additional capacity on-demand for applications operating on virtual machines or physical rack-optimized servers.

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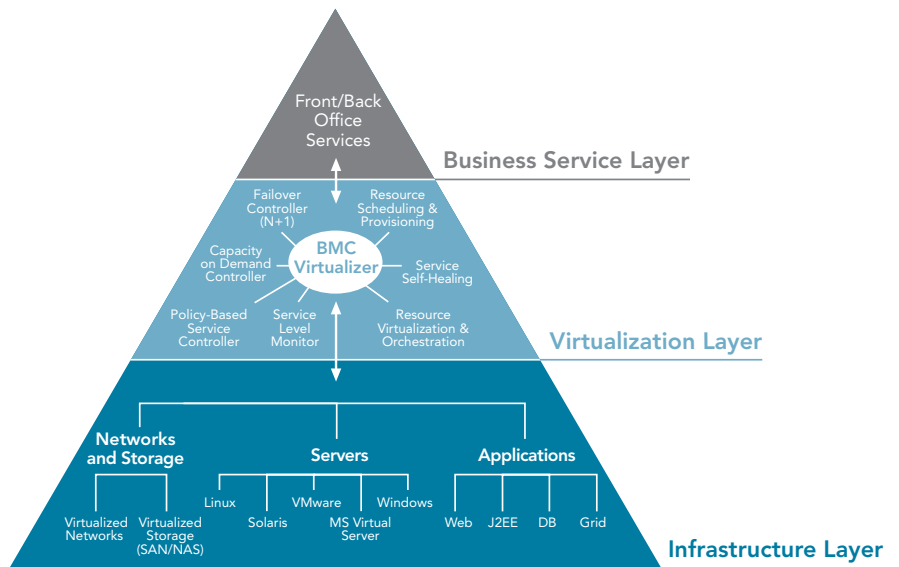
The two products in the family – BMC Virtualizer for High Availability (HA) and BMC Virtualizer for Capacity on Demand (COD) – leverage policy-based management to help ensure high system availability, simplify complexity, and assure application service levels while reducing administration time and eliminating dedicated redundant servers.



BMC Virtualizer for High Availability: Core capabilities for enterprise clusters

Designed to ensure up to 99.999 percent (“five 9s”) service availability for most applications with a fraction of the previously required resources, BMC Virtualizer HA is ideal for significantly reducing redundancy in stand-alone enterprise application servers. It offers powerful capabilities in three key areas:

- > **Observational Monitoring:** Leveraging out-of-the-box observational capabilities or easily integrated with any existing infrastructure resource monitor, BMC Virtualizer HA observes each cluster’s CPUs, network, and storage utilization.
- > **Failover and Recovery:** BMC Virtualizer HA enables sub-minute application server failover and recovery automation; any faulty Windows, Solaris, or Linux application server will be automatically replaced with a server from the utility pool managed by BMC Virtualizer HA. In addition, its proactive resource replacement capability can be used to handle imminent resource failures.
- > **High Availability Utility:** BMC Virtualizer HA offers a wide range of additional availability-enhancing capabilities, including:
 - Automated orchestrated provisioning of servers, networks, and storage
 - Resource pooling to provide a many-to-one failover capability
 - N-way failover with multi-server high availability.



BMC Virtualizer maintains business and application service levels through policy-based provisioning, virtualization, and orchestration.

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By minimizing dedicated redundant servers – and their associated power, cooling, licensing, and management costs – BMC Virtualizer HA can dramatically reduce overall server-related IT costs while simultaneously helping to ensure higher availability of mission-critical enterprise applications.

BMC Virtualizer for Capacity on Demand: Enterprise-class power

For multi-server clustered environments such as in Oracle 10g, Apache, and Microsoft IIS, BMC Virtualizer COD automates service availability to reduce costs, improve service levels, and increase infrastructure utilization. BMC Virtualizer COD extends BMC Virtualizer HA capabilities, delivering:

- > **Dynamic Scalability:** When resource demand spikes, BMC Virtualizer COD allows application server scale-out on demand, automatically provisioning and bringing online additional resources from the server resource pool, typically in less than five minutes. It enables any Windows, Solaris, or Linux application cluster to be seamlessly scaled out.
- > **Scheduled Capacity:** To accommodate one-time or recurring events that result in demand spikes – such as month-end financial closings or a new promotional offer – BMC Virtualizer COD can schedule automatic allocation of additional server resources in advance, ensuring that adequate capacity will be available.
- > **Scale-out Prioritization:** Policy-based, automated orchestration means that servers, networks, and storage are dynamically provisioned according to their relative priority and service demands, eliminating the over-provisioning of dedicated servers, with their associated costs.

In enterprise IT environments with large and growing clusters, BMC Virtualizer COD helps companies realize their goal of datacenter consolidation by dramatically improving overall resource utilization and lowering costs.

Improves regulatory compliance

BMC Virtualizer solutions provide application and infrastructure change management capabilities that help public corporations in the U.S. and Europe to comply with regulatory acts such as Sarbanes-Oxley, Basel II, and HIPAA.

For example, the Sarbanes-Oxley Act states that executives must design, implement, maintain, and assess an internal control structure, and external auditors must attest to management assertions. Both BMC Virtualizer HA and BMC Virtualizer COD automatically track and report change activity on material financial application servers.

Support for VMware

VMware, a BSM Technology partner to BMC Software, and BMC Software, a Global Software Partner to VMware, are integrating their technologies to meet the needs of joint customers. BMC Virtualizer solutions utilize and support VMware server virtualization offerings, enhancing the return on investment companies receive from existing VMware investments.

BMC VIRTUALIZER SOLUTIONS SUMMARY

Feature	HA	COD
Observational Monitoring	X	X
Failover and Recovery	X	X
High Availability Utility	X	X
Dynamic Scalability		X
Scheduled Capacity		X
Scale-out Prioritization		X



About BMC Software

BMC Software, Inc. [NYSE:BMC], is a leading provider of enterprise management solutions that empower companies to manage their IT infrastructure from a business perspective. Delivering Business Service Management, BMC Software solutions span enterprise systems, applications, databases and service management. Founded in 1980, BMC Software has offices worldwide and fiscal 2004 revenues of more than \$1.4 billion. For more information about BMC Software, visit www.bmc.com

To learn more about datacenter virtualization solutions from BMC Software, visit us on the Web at www.bmc.com/virtualizer or call 1-800-278-4262.