



Server Consolidation and Containment with Virtual Infrastructure and Certeon

Computing Challenges Today

To meet the constant demand to deploy, maintain and grow a broad array of services and applications, IT organizations must continually add new servers. However, as a consequence of purchasing more and more servers, organizations face a growing server sprawl, presenting challenges that include:

- **Rising costs.** In addition to the expense of adding new hardware, organizations pay more for power, cooling, network infrastructure, storage infrastructure, server administration, data center upgrades and new data centers.
- **Poor return on investment.** The common practice of dedicating a single server to each x86 application and sizing it for peak loads has led to severe underutilization of server assets in most data centers.
- **Decreasing manageability.** Managing servers becomes increasingly difficult as the number of servers grows and the number of applications continues to multiply.
- **Reduced efficiency.** As server sprawl increases, IT organizations are forced to spend more time on reactive tasks such as server provisioning, configuration, monitoring and maintenance.

Consolidating and Containing Servers

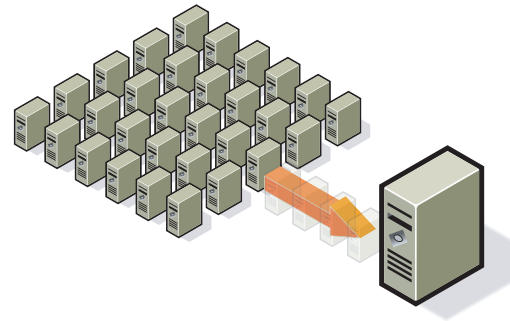
VMware® Infrastructure meets the challenges of server sprawl and underutilization by reducing hardware and operating costs by as much as 50%. A virtual infrastructure also simplifies server deployment and automates resource management to optimize capacity and infrastructure management.

VMware virtualization technology makes it possible to package a complete x86 server into a portable virtual machine package. Multiple virtual machines can then run simultaneously and independently on a single x86 server with consolidation ratios often exceeding five virtual machines per host processor.

Benefits of Server Consolidation and Containment

Over 20,000 VMware corporate customers are realizing numerous benefits on a daily basis from implementing a VMware server consolidation solution, including:

- **Dramatically lower costs.** IT organizations can reduce hardware and operating costs by as much as 50% from



implementing a VMware server consolidation solution. Fewer servers also means lower costs for administration, power, cooling and data center infrastructure.

- **Boosted utilization and availability.** VMware Infrastructure aggregates x86 server resources into pools that can reliably support CPU utilization exceeding 80% with the continuous load balancing provided by VMware DRS. If a physical server goes down, all the virtual machines on that hardware will migrate automatically and restart upon another physical server within the resource pool, via VMware High Availability (HA).
- **Improved manageability and reliability.** VMware Infrastructure reduces data center complexity by reducing the number of servers that IT organizations need to manage. Meanwhile, the VMware hypervisor sets the standard for reliability. Instances of VMware ESX have been running in production customer environments for more than three years without a second of downtime.
- **Simplified server provisioning.** IT departments can reduce the time it takes to provision new servers by 50-70%. Virtual machines are as easy to copy as software files and are hardware independent, so deploying new workloads takes minutes instead of days.
- **Increased IT efficiency.** A VMware solution streamlines and eliminates common administrative tasks enabling IT organizations to manage a growing server environment with existing resources.
- **Improved ability to handle future growth.** Because a VMware solution eliminates the need to dedicate a physical server to each workload (or server application), organizations can more effectively monitor growth in relation to utilized capacity.

Learn More

To learn more about VMware solutions and products, visit <http://www.vmware.com> or call 1-877-4VMWARE.



Certeon Inc.
www.certeon.com

ISV Overview

Certeon aCelera is the first VMware virtual appliance designed for application acceleration—reducing application response time over the WAN by 95%.

Key Business Needs

Certeon solves the performance problems created by delivering centralized applications and file access to remote users over the WAN. With aCelera, organizations can maximize ROI from server consolidation and virtual infrastructure. aCelera delivers a more manageable, scalable, and flexible environment for users and IT managers.

Key Business Benefits

aCelera software delivers a 95% reduction in application response time when accessing applications over the WAN. aCelera's optimal performance is delivered from inside the virtual infrastructure with less than 50% of the server overhead of proprietary hardware appliances. aCelera enables IT managers to easily deploy, manage, and scale application performance to remote users.

Business Results

aCelera provides remote users access to more applications faster, increasing overall productivity. IT managers are able to easily and quickly deploy VMware and application acceleration to branch offices over the WAN. aCelera enables businesses to maximize their system resources and available network bandwidth, facilitating huge savings in overall TCO.

VMware and Certeon

Certeon's aCelera, the first VMware certified virtualized appliance for application acceleration, reduces application response time over the WAN by 95% without using proprietary hardware appliances.

Products

aCelera Virtual Appliance for VMware® ESX and ESXi

Certeon aCelera—The Industry's First Virtual Appliance for Application Acceleration

The only VMware virtual appliance to reduce application response time by 95%

Industry Overview

Certeon solves the performance problems of delivering access to centralized applications and services to remote users across company WANs. The WAN introduces network congestion, latency, and packet loss that can dramatically slow remote end user response time. Virtualization increases the consolidation of applications at the data center and facilitates access to those applications from remote branches. Remote access puts even more strain on the corporate WAN and can degrade end user response time even further.

Solution Overview

Certeon's aCelera is the industry's first virtual appliance for application acceleration. aCelera virtual appliance software reduces remote application response time by 95%. aCelera is a flexible, scalable, and manageable solution for enterprises deploying VMware in the data center and to remote offices. aCelera combines the high performance of application acceleration with the cost-savings of virtualization without the use of proprietary hardware. aCelera runs as a virtual appliance within VMware Infrastructure 3 and significantly reduces the amount of network traffic between virtual machines. As a certified VMware virtual appliance, aCelera makes use of VMware Infrastructure components for easy deployment, management, scalability, and high availability.

The aCelera solution greatly benefits IT managers within distributed enterprises who need to provide immediate access to applications and files for a growing number of remote users, while at the same time, reduce operational costs. aCelera allows IT managers to maximize system, application, and network resources while providing greater application performance to remote users. With aCelera, IT managers can deploy VMware Infrastructure and virtualized applications to remote branch offices faster and easier, bringing greater productivity to all users.

Solution Benefits

Today's enterprises are implementing server consolidation initiatives to reduce data center hardware that is consuming ever-increasing amounts of space, energy, and IT dollars. IT managers have multiple systems and proprietary appliances, including application acceleration appliances, co-located in data centers and branch offices, requiring separate and costly maintenance and management. This proprietary, single-purpose hardware approach to supporting applications is inefficient, hard to manage, and expensive. Certeon's aCelera Virtual Appliance delivers application acceleration in software. aCelera provides a more scalable, flexible, cost-effective, and manageable solution for IT managers than traditional proprietary application acceleration.

aCelera reduces application response time to remote users within a VMware environment by more than 95%, while consuming less than 50% of the system resources typically consumed by proprietary hardware appliances. aCelera software enables IT managers to consolidate their system resources (a cost savings of \$12,000 per server over three years), eliminate the need for proprietary WAN optimization appliances, and maximize available network bandwidth.

Certeon and VMware

aCelera's tight integration with VMware enables IT managers to build high performance, scalable, and manageable VMware infrastructures and quickly deploy mission-critical applications to branch office locations, in enterprise, business continuance, and disaster recovery environments.