

# Logical Partitioning on Intel Servers

By John Krystynak  
Director of Product Marketing  
VMware Inc.

## What is logical partitioning?

Logical partitioning lets you divide a single server up into multiple units, or partitions, each with its own CPU, memory, disk, networking, operating system and applications. By partitioning your servers, you can make better use of server resources and improve server management at reduced cost. Logical partitioning has been available on mainframes and high-end Unix servers for many years; however, recent technology from VMware finally brings logical partitioning to Intel servers.



## What does it mean to you?

Logical partitioning is a way to take industry standard Intel-based servers and use them more effectively. By dividing up larger, more powerful servers into two or more logical partitions, you get multiple environments on a single system, each of which has its own operating system, applications, identity, network address, etc. VMware software allows you to create these partitions in virtual machines.

Logical partitioning with virtual machines offers several benefits for the IT teams managing servers:

- Better utilization
- Faster deployments
- More reliable services
- Flexible management of resources

From the business point of view, virtualization means that companies have:

- Lower capital expenses
- Reduced operating costs
- More flexibility to adapt infrastructure to business needs

With more control over your computing resources, you can manage them easily and more cost-effectively. Virtualization on Intel-based servers has proven to lower total cost of ownership for IT infrastructure.

## What infrastructure initiatives benefit from logical partitioning?

Many companies see logical partitioning on Intel-based servers beneficial in the following areas

- **Server consolidation in the datacenter** – By partitioning a single server and running several virtual machines you save on space, hardware, and power. VMware software allows companies to consolidate servers by a factor of at least 4 to 1.
- **Better manageability of servers** – Virtualization provides a uniform layer on which to deploy and manage applications. Logical partitions in virtual machines can easily be moved across different Intel-based hardware, reducing time spent installing and configuring machines.
- **Disaster recovery and high availability implementation** – Logical partitioning enables cost effective availability and disaster recovery. More applications and services can be clustered on fewer machines using VMware software. For disaster recovery (DR), key elements of the DR plan can be implemented in virtual machines, lessening the need to depend on physical backup hardware.
- **Development and testing** – Developers and testers always need more hardware, and logical partitioning can give them the accurate development and test environments they need without constant purchasing of new servers.

## How can I get the most out of logical partitioning and virtualization today?

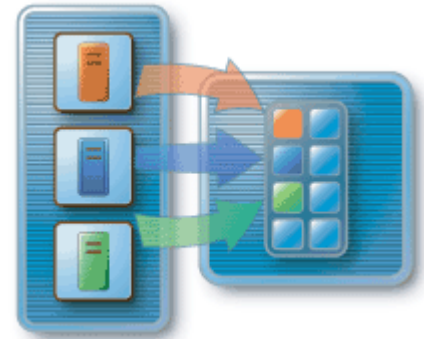
To take advantage of logical partitioning today, look for applications that are easy to consolidate and are common in many datacenters. Applications well suited for consolidation using VMware ESX Server include:

- File and print services
- Domain controllers

- Web services and application servers
- Web front-end consolidation
- Small to mid-sized databases
- Lotus Notes and WebSphere
- Middleware running on 1 and 2 CPU dedicated servers
- ERP applications and interface servers
- CRM applications and middleware
- Terminal services and Citrix servers
- Development and testing servers
- Training environments

These applications often under-utilize today's Intel-based hardware, but are hard to consolidate because they require dedicated machines to run reliably. VMware ESX Server offers a way to take these applications and put them together safely and securely in virtual machines. By logically partitioning two, four, and eight-CPU Intel servers, the IT organization can quickly realize the cost and management benefits of consolidation.

Smart companies are adopting VMware virtualization so their IT infrastructure can quickly respond to business demands. The VMware approach to logical partitioning means agility: faster provisioning, easier change management, better utilization, and dynamic control of resources. VMware technology takes Intel-based computing to another level of flexibility and power.



#### **About VMware, Inc.**

VMware, Inc. is the global leader in virtual machine software for Intel-based systems. With more than 5,000 customers worldwide and 80% of the Fortune 100 companies, VMware provides companies with a proven set of enterprise products and solutions to consolidate their server infrastructure, improve software lifecycle management and provide application compatibility in mixed operating system environments. Based on the company's patented technology, VMware's products enable companies to flexibly scale and control their infrastructure to quickly respond to business demands, improve return of investment and dramatically reduce total cost of ownership.