



SCALENT™

Scalent Systems
www.scalent.com

Overview

Scalent makes software for *real-time* data center management, automation, and virtualization: rapidly changing physical machines' software and connectivity to network & storage.

Key Business Needs

IT environments need fast recovery times in the event of a failure. It takes significant time and resources to set up new physical machines, cabled to the right networks and storage, running the right ESX version—but unused standby infrastructure is wasteful. Ideally *physical* ESX hosts *and* connectivity would be created in real-time, as needed.

Key Business Benefits

Only Scalent can provision physical infrastructure with full software stacks *and associated network & storage topologies*—traditional operating systems or VMware ESX—*without* physical preparation, installation and configuration.

Moreover, Scalent's P2V2P Infinite Transition™ feature means even bare-metal servers can seamlessly make the transition into or out of ESX. All in real-time.

Business Results

Scalent's software enables cost-effective failover and automation solutions while reducing server counts, simplifying manageability, and increasing reliability.

Scalent and VMware

Only Scalent enables *real-time* deployment and recovery of ESX on physical machines *with* associated network and storage connectivity, virtual machines, and transparent P2V2P of bare-metal servers.

Products

Scalent V/OE has been tested with VMware ESX 3.x and higher attached to NAS and SAN, and is compatible with VirtualCenter / VMotion and other related products.

Scalent V/OE is available directly and through VMware partners HP, EMC, and Unisys.

Partner Products

Scalent V/OE Software

Real-time, bare-metal recovery of VMware ESX, network, and storage connectivity

Make *any* physical machines & topology into *any* correctly connected ESX cluster.

Industry Overview

Is your physical infrastructure getting in the way of your virtual deployment and recovery?

Many companies are seeking the benefits of virtualization, but are challenged by their physical infrastructure's limitations.

Pre-virtualization, physical machines must be loaded with ESX, connected to the correct networks, and allowed access to the right storage. Servers running on "bare metal" (unvirtualized) may also need to be moved into virtual machines.

In a recovery situation, all of this must be done especially quickly and reliably.

Solution Overview

Scalent removes the underlying physical barriers to virtual deployment and recovery.

Scalent can instantly, remotely, and automatically turn any physical machines into any ESX server or cluster.

Each physical machine is given the correct network connection and storage access; bare-metal operating systems are seamlessly moved into virtual machines.

Even across multi-tier hierarchical switch environments, this can all be done in real-time.

Solution Benefits

Fully compatible with VMware ESX, VirtualCenter / VMotion, VMware Site Recovery Manager and other virtual products, Scalent operates on the underlying physical infrastructure to provide:

- **Real-time recovery of full ESX hosts, VMs, and underlying network & storage connectivity—faster, safer, and without any pre-planning:** Physical hosts and topology are created as-needed, in real-time: no reconfiguration needed.

- **Increased efficiency and flexibility of ESX host physical machines & networks:** Scalent alleviates the need to have running, standby physical machines—bare-metal or ESX clusters. Machines can be used for other bare-metal tasks, then instantly repurposed into ESX host machines.
- **Reduced risk and increased performance of physical / virtual transitions (P2V or V2P):** Scalent's P2V2P Infinite Transition™ feature enables workloads to be run on bare metal, then moved into virtual machines as-needed, in real-time, without "P2V conversion"—protecting the workloads in a failover situation. Scalent also enables VMware ESX hosts to failover to new physical machines without pre-planning, pre-installation, or pre-configuration of software or connectivity.

Scalent and VMware

No other solution—only Scalent—supports real-time deployment and recovery of ESX *and* associated network & storage connectivity.

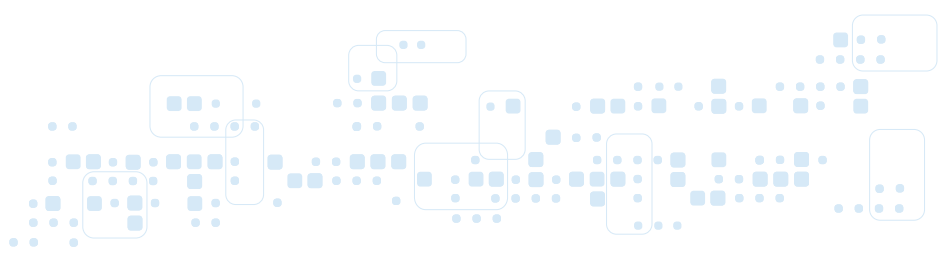
Only Scalent ensures that if physical machines running VMware ESX fail, the *exact* copies of VMware ESX at the point of failure, with the *same* configuration, same network address, and same storage access, will be restored, in real-time, to the same cluster—even across switches.

With VMware Site Recovery Manager, Scalent adds additional efficiency: organizations can use ESX hosts created by Scalent V/OE in real-time, instead of running "hot standby" ESX hosts.

Scalent is not in the data path, so it's risk-free: even if Scalent failed, all operating ESX servers would remain fully accessible.

Scalent is a VMware Community Source partner: Scalent-contributed code is in all ESX 3.x and higher.

If your physical infrastructure is getting in the way of your virtual deployment and recovery, you need Scalent.



Better Business Continuity with VMware Infrastructure and Scalent Systems

Current Business Continuity Challenges

Implementing plans to ensure business continuity for key IT services and business critical applications is an essential requirement for organizations today. Downtime of important applications is a costly proposition and extended downtime can even be fatal—industry research finds that a significant number of companies that experience extended interruption to IT services soon go out of business.

While most organizations recognize the importance of business continuity, their ability to provide high availability and disaster recovery for key applications in a physical (non-virtualized) environment is often constrained by the following challenges:

- **High costs.** Many solutions require significant investment in additional hardware, software and services. Disaster recovery plans in particular often require duplicating data center infrastructure, resulting in a proliferation of under-utilized servers.
- **High complexity.** Most traditional business continuity solutions add significant complexity to data center environments. Acquiring and managing additional servers, use of complex cluster tools, implementing and maintaining specialized software and processes all contribute to this complexity.
- **Failure to meet recovery time and availability goals.** Due to the cost and complexity of business continuity solutions, organizations are often forced to compromise on solutions that are unlikely to meet goals for availability and recovery time objectives.
- **Insufficient reliability.** Testing existing complex business continuity solutions is challenging and requires significant equipment, expertise and personnel resources. The complexity of these specialized solutions also makes them difficult to maintain.

Higher Availability with VMware Infrastructure

Industry-leading VMware[®] VMotion[™] technology allows IT administrators to move running virtual machines from one physical server to another without downtime. This capability makes it possible to conduct zero-downtime hardware maintenance by simply using VMotion to move running applications to other physical servers as needed.

VMware Distributed Resource Scheduler (DRS) can reduce unplanned downtime by automating the process of using

VMotion to migrate running applications away from servers that cross utilization thresholds or moving virtual machines non-disruptively to servers that have the needed compute resources.

VMware High Availability (HA) provides easy to use, cost effective high availability for applications running in virtual machines. In the event of server failure, affected virtual machines are automatically restarted on other physical servers that have spare capacity.

Better Disaster Recovery with VMware Infrastructure

VMware virtual machines are hardware-independent so any physical server can serve as a recovery target for any virtual machine. Organizations can significantly reduce the cost of hardware for disaster recovery by repurposing underutilized existing servers for recovery targets and disaster recovery testing.

VMware Infrastructure also simplifies and accelerates recovery, helping IT organizations meet their time-to-recovery targets. Complex multi-step procedures using specialized software for bare-metal recovery and operating system recovery can be simplified to single-step file recovery because virtual machines are completely encapsulated in a small number of files and can be restored to any hardware.

Finally, VMware Infrastructure simplifies testing of disaster recovery plans and makes training personnel in disaster recovery procedures easier.

Benefits of VMware Business Continuity Solutions

Customers who use VMware Infrastructure to improve their business continuity plans experience numerous benefits, including:

Downtime reduction by eliminating planned downtime due to maintenance, or reducing un-planned downtime through economical sharing of fault-tolerant hardware features, and automated rapid restart of virtual machines.

Lower costs by implementing better business continuity at a lower cost, eliminating the need for additional hardware and specialized software.

Simplified processes by removing the complexity of maintaining duplicate physical systems for disaster recovery.

Learn More

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