



## Mutual of Enumclaw Maximizes Return on IT Investments With VMware ESX Server

Virtual machines help customer-focused insurance company boost IT availability, service levels, and security while reducing IT spending

### RESULTS

- A reduction in IT spending, thanks to savings on maintenance, power, cooling, and hardware purchases
- Near-immediate restoration of virtual servers, slashing the disaster recovery window to as little as five minutes
- A 7:1 server consolidation ratio, significantly reducing server sprawl
- Dramatically shortened development and testing cycles with the help of virtual production and test server clones
- Elevated overall systems availability by eliminating outdated hardware
- Tightened server and network security by taking down virtual servers immediately to stop a would-be intruder's progress

### Server Consolidation Proves Valuable for Entire IT Network

Few companies know the value of efficiency like Mutual of Enumclaw. This 106-year-old Washington state-based insurance group has built a business providing protection for customers' valuable assets—a task that frequently requires striking the most efficient balance between cost and risk. Not surprisingly, Mutual of Enumclaw approaches its IT organization with the same scrutiny. When its growing hardware base began exceeding space limits and outlasting maintenance warranties, the company investigated how to make IT more efficient through server consolidation. Mutual of Enumclaw hoped to prevent the onset of server sprawl in its data center, and sought to reduce IT expenses for all 15 of its Washington-, Oregon-, Utah and Idaho-based branches.

Previous experience deploying VMware® Workstation™ software made IT Director John Weeks aware of the advantages of virtualization. "Our software development team has been using VMware Workstation for development and usability-testing of our Web applications," he explains. By enabling the team to run multiple applications and operat-

ing systems—each in an independent partition, or *virtual machine*—on the same physical hardware, VMware software had helped Mutual of Enumclaw reduce its required number of physical workstations. In turn, the VMware workstation virtualization software helped speed development cycles and improve staff productivity, while lowering total cost of ownership (TCO) of the hardware.

Naturally, Weeks wanted a similar outcome for the Intel®-based server consolidation project. A technical seminar and follow-up research led him to discover VMware ESX Server™ software. Impressed by the possibilities of this enterprise-scale server virtualization product, Weeks's network team deployed the VMware platform and was pleased when initial testing provided a wealth of unexpected benefits. A virtual-machine network—in particular, one leveraging the advanced administration and resource allocation capabilities of ESX Server—could do more than replace a mass of outdated hardware with fewer, more powerful servers. It also could tackle specific challenges critical to success in the competitive financial industry: uptime, disaster recovery, and security.

**"VMware software lets us be more responsive to business needs with less hardware. When we marry our critical applications to virtual machines, we reduce our costs, maximize use of our server resources, and improve overall TCO. And we end up spending less on our IT budget—which makes everyone happy. I would recommend getting into server virtualization as soon as you can."**

*John Weeks  
IT Director  
Mutual of Enumclaw*



#### VMWARE ESX SERVER AT WORK

- VMware ESX Server deployed on IBM® eServer® xSeries® 440 servers
- Two 8-processor IBM xSeries 440 servers with up to 64 GB RAM, connected to a storage area network (SAN). Also provisioning an IBM blade server solution to manage Citrix® server farm
- Host operating system: VMware ESX Server
- Guest operating systems: Microsoft® Windows Server™ 2003, Windows® 2000 Server, Windows NT® Server, and Linux®
- Applications: Microsoft Exchange 2000, directory services, Windows Internet Naming Service (WINS), Domain Name System (DNS), file servers, print services, home and profile servers for Citrix network configurations

### VMware Helps Mutual of Enumclaw Consolidate Servers 7:1 to Improve Overall IT Efficiency

“We have discovered that virtualization provides additional benefits beyond reducing the number of physical servers,” says Weeks. “We now regard VMware and the associated technologies as core components of our infrastructure strategy as well as a key component of our disaster recovery solution.”

Not only did the implementation of VMware ESX Server help Mutual of Enumclaw succeed in its objective to limit the number of active physical servers, but the server virtualization approach also triggered greater efficiency throughout the company:

- **Significantly reduced IT spending** “VMware ESX Server enabled us to consolidate servers at a 7:1 ratio, with one physical server running seven virtual machines,” says Weeks. By allowing the re-deployment of many older servers, VMware ESX Server helped Mutual of Enumclaw regain valuable space in the data center and cut costs for power, cooling, administration, and maintenance. In addition, the company leveraged the use of virtual machines running multiple operating systems on the same physical server to purchase less new hardware while maximizing existing software licenses. “We now purchase fewer pieces of more powerful hardware—and we don’t waste the older servers,” says Weeks. After consolidating critical applications onto virtual machines, Weeks repurposes old hardware for disaster recovery backup or development and test environments. By extending server life, VMware software can help ensure a high return on hardware investments.
- **Enhanced availability and development capabilities.** VMware ESX Server also helps improve corporate efficiency by boosting uptime and accelerating critical development and testing cycles. Consolidating vital applications onto fewer, more robust physical servers reduces the likelihood of unplanned downtime caused by failures in older hardware. Moreover, seamless integration between VMware server virtualization software and Mutual of Enumclaw’s existing server failover equipment helped to improve availability dramatically for critical business applications. Developers, too, can enjoy the benefits of greater uptime. By leveraging VMware ESX Server to create production server clones, developers eliminate the need for live production testing—and the resultant downtime it often requires. They also benefit from shortened production cycles for creating and using test environments because virtual machines can run multiple test scenarios on a single physical server, and can be restored to a clean state quickly if a test scenario fails.
- **Higher-quality customer service.** Ultimately, reduced costs and improved corporate efficiency give Mutual of Enumclaw a more attractive value proposition to customers: a higher level of service. Likewise, Mutual of Enumclaw is rewarded with increased customer loyalty and an improved competitive edge.



## Mutual of Enumclaw Uses VMware to Forge Stronger Defenses Against Disaster

A particularly powerful advantage to using VMware ESX Server is the ability it gives Mutual of Enumclaw to improve disaster recovery capabilities. In the financial industry, companies must be able to restore valuable data and applications as quickly as possible to best serve customer interests, protect investments, and maintain relationships. VMware ESX Server, in conjunction with a storage area network (SAN), helps promote faster, more advanced disaster recovery by significantly simplifying application and data restoration in the event of an outage.

"VMware ESX Server offers outstanding, rapid recovery from outages," says Weeks, "because it allows us to potentially recreate our entire fleet of servers in virtual machines. Top-priority applications and servers can be brought up anywhere, on any hardware—same IP addresses, same server names, and just a few quick adjustments to switches and firewalls." Without virtualization, the company would have to reconfigure each downed server, a process that could take four hours or more. "Now, depending on the server, the restoration process can take as little as five minutes," says Weeks.

In addition to improving disaster recovery, VMware ESX Server also helps Mutual of Enumclaw fortify its defenses against security threats—another urgent requirement for financial companies. "We have a security solution to monitor activity on our network," Weeks says, "but if an intruder were to break through and corrupt one of our Web servers, VMware ESX

Server gives us the tools to minimize the downtime or potential damage to the server." Restoration is much easier using virtual machines because a compromised virtual server can be flattened immediately to erase the intruder's progress, and then a duplicate can be rebooted just as quickly to restore applications while the IT staff focuses on repairing any security breaches. "Every minute down costs money," says Weeks. "With VMware ESX Server, we have reduced the potential for devastating outages. Using VMware software gives us an overall increase in uptime."

Mutual of Enumclaw is especially interested in maximizing its uptime through enhanced security and disaster recovery because it is in the process of implementing service level, or operational level, agreements with its customers. "In most cases, using VMware we can bring our critical servers and applications back up in just 15 minutes," Weeks says. "VMware ESX Server helps us accomplish this increase in service quality because of the ease of restoring virtual machines."

Clearly, the server virtualization approach has proven to be a dramatic success for Mutual of Enumclaw. "VMware software lets us be more responsive to business needs with less hardware," says Weeks. "When we marry our critical applications to virtual machines, our small staff of highly skilled network administrators are able to keep our commitments for uptime and performance to the business. And we end up spending less on our IT budget—which makes everyone happy. You really want to get into server virtualization as soon as you can."

[www.vmware.com](http://www.vmware.com)

VMware, Inc. 3145 Porter Drive, Palo Alto, CA 94304 USA  
Tel 650-475-5000 Fax 650-475-5001