Microsoft

Windows Server 2008 R2

Customer Solution Case Study

Manufacturer Expands Virtualization Capacity by 20 Percent, Eases Remote Access

Customer: Southern Spars
Web Site: www.southernspars.com
Customer Size: 350 employees
Country or Region: New Zealand
Industry: Manufacturing
Partner: Lexel Systems
Partner Web Site: www.lexel.co.nz

Customer Profile
Southern Spars has specialized in the design and construction of carbon-fiber yacht masts and rigging since 1990. Based in Auckland, New Zealand, the company has manufacturing sites in the United States, Sri Lanka, and South Africa.

Software and Services
- Microsoft Server Product Portfolio
  - Windows Server 2008 R2 Enterprise
- Windows 7
- Services
  - Microsoft Services
- Technologies
  - Active Directory
  - Hyper-V
  - Internet Information Services 7.5
  - Remote Desktop Services

Hardware
- HP ProLiant DL380 G5 server computers

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"With the new Hyper-V capabilities, we'll be able to keep up with business expansion and offer more services without deploying as much hardware as we would for a nonvirtualized environment."

Geoff Mears, IT Manager, Southern Spars

Southern Spars wanted to expand its virtualization capabilities and simplify remote access, so it upgraded to Windows Server® 2008 R2 and Windows® 7. By using Hyper-V™ virtualization technology, Southern Spars has capacity to deploy 20 percent more virtual servers on the same number of physical hosts and will defer costly hardware upgrades. With the DirectAccess feature, mobile users can access company resources without a virtual private network.

Business Needs

New Zealand–based Southern Spars is an industry pioneer in the manufacturing of carbon-fiber spars (masts) used for world-class yachting and racing. The company also specializes in the design and construction of high-performance rigging, booms, and other components. The company's award-winning spars grace the decks of many of the world's largest super yachts and sailing vessels that compete in grand prix yacht racing, America's Cup campaigns, around-the-world races, and Olympic campaigns.

With more than 350 employees working in offices and remotely in New Zealand, the United States, Sri Lanka, and South Africa, Southern Spars relies on high-performance technology to run applications and connect its people with mission-critical data. In July 2009, Southern Spars was running the Windows Server® 2008 Enterprise operating system on 20 virtual machines with three host computers and using the Windows® XP operating system for its 135 client computers. Mobile users, who make up about 15 percent of the company's work force, accessed the network remotely through a virtual private

Windows 7

network (VPN) process that was complicated and often required IT assistance. Southern Spars sought to expand its virtualization capacity and improve performance. It also wanted to simplify remote network access.

Solution

In August 2009, Southern Spars upgraded to Windows Server 2008 R2 Enterprise to take advantage of new features that could help it meet its business goals. The company also deployed the Windows 7 operating system on its client computers. The upgrades were a logical choice given that the company was already using Microsoft® software. "We felt this solution would provide the outcomes we wanted and would easily integrate into our existing Windows-based environment," says Geoff Mears, IT Manager at Southern Spars.

The company wanted to take advantage of the enhanced Hyper-V™ technology in Windows Server 2008 R2 for server virtualization and, eventually, client virtualization. Hyper-V now supports up to 64 logical processors on a host computer and includes the new Live Migration feature, which IT staff can use to move a virtual machine from one host computer to another without any interruption in service.

Windows Server 2008 R2 and Windows 7 also offer the new DirectAccess feature, which makes it possible for mobile users to remotely access an IT network directly, whenever they have Internet access, instead of through a VPN. "We wanted to implement DirectAccess to provide a more 'at your desk' experience," says Mears. Southern Spars engaged Microsoft Services consultants and Lexel Systems, a Microsoft Gold Certified Partner, to assist with the implementation of DirectAccess. Lexel is a New Zealand–based IT solutions provider that offers consulting, design, procurement, implementation, and support services. The team used technologies such as the Active Directory® service and Internet Information Services 7.5 to set up the DirectAccess environment, which uses Internet Protocol security (IPsec) for authentication and encryption.

After a small pilot that included users from the company's business management, sales, and IT departments, Southern Spars began deploying the solution for other business functions, including project management, research and development, production, and finance. Southern Spars expects to complete the companywide deployment by September 2010.

Benefits

By upgrading to Windows Server 2008 R2 and Windows 7, Southern Spars has realized cost efficiencies, while improving network performance and simplifying remote access. Benefits include:

- **Cost efficiencies.** Because Hyper-V in Windows Server 2008 R2 can now access up to 64 logical processors on a host computer, it means greater virtual machine ratios per physical host. "With the new Hyper-V capabilities, we'll be able to keep up with business expansion and offer more services without deploying as much hardware as we would for a nonvirtualized environment," Mears says. So far, Southern Spars has extended its virtualization capacity by 20 percent to 24 virtual machines, using the same number of host computers as before. "With the additional virtualization capacity provided by Hyper-V in Windows Server 2008 R2, we will be able to consolidate servers and push out major hardware upgrades for 18 months, which will save us approximately NZ$80,000 [U.S.$56,000]," says Mears.

  Future client virtualization, achieved through Remote Desktop Services and the Virtual Desktop Infrastructure delivery model in Windows Server 2008 R2, will also keep hardware costs down. The company will be able to deploy a full Windows desktop in a virtual environment without having to replace existing client computers.

- **Improved performance.** With the Hyper-V enhancements, Southern Spars has been able to take advantage of better system performance for increased productivity. "The improved performance of Hyper-V in Windows Server 2008 R2 lets us run more virtual machines off the host computer and increases their responsiveness," Mears says. Additionally, the new Live Migration feature makes the task of migrating servers between hosts seamless to users, so they experience no work disruption.

- **Easier remote access.** By using the DirectAccess feature in Windows Server 2008 R2 and Windows 7, Southern Spars has the capability to give all of its mobile users direct access to the company's network, which is critical. "We have people spread all over the world, including a large contingent of mobile users," says Mears. "We needed to provide a single network and make it accessible from anywhere at any time to facilitate information sharing." The new DirectAccess feature eliminates the need for the hard-to-follow VPN process that mobile users were experiencing. Mears believes this will encourage more use, reduce IT support time, and give users more time to concentrate on work. "DirectAccess will probably free up IT time by 40–45 hours annually and save each user, on average, approximately 25 hours annually," Mears says.

Windows Server 2008 R2

Windows Server 2008 R2 is the latest version of the Windows Server operating system from Microsoft. With Windows Server 2008 R2, you can create solutions that are easier to plan, deploy, and manage than with previous versions of Windows Server. Building on the features, security, reliability, and performance provided by Windows Server 2008, Windows Server 2008 R2 extends connectivity and control to local and remote resources. This means that your organization can benefit from reduced costs and increased efficiencies gained through enhanced management and control over resources across the enterprise.

For more information, go to:
www.microsoft.com/WindowsServer2008R2

Windows 7

Built on the Windows Vista® foundation, Windows 7 will help make users productive anywhere, enhance security and control, and streamline PC management. The investments in Windows 7 are shaped by the evolving needs of end users and IT professionals in the enterprise. Users are becoming more computer-savvy and expect more from the technology they use at work. They expect to be able to work from home, from branch offices, and on the road with the same level of productivity. As user needs have changed, the demands on IT professionals have increased. Today, IT professionals must provide more capability and greater flexibility for users while continuing to minimize cost and security risks.

For more information, go to:
www.microsoft.com/windows7

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