

# VERTEKS CONNECTION



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## A WISE CHOICE

A new end-to-end technology solution from Verteks Consulting delivers immediate bottom-line benefits for Bailey Industries.

The economy is in a recession and businesses of all sizes are cutting back. In this environment, a small firm in the home building products sector decided to upgrade its data network with all new, state-of-the-art technology. Sound crazy?

Yeah, crazy like a fox.

With help from Verteks Consulting, Bailey Industries utilized virtualization to replace 13 aging servers with four new systems, and implemented up-to-date storage and security solutions. The company has enjoyed numerous bottom-line benefits, including increased productivity, improved reliability and reduced risk. They've even cut their electric bill.

"We're doing more with less of a footprint, and we're better for it," said Tom Shearon, IT Manager, Bailey Industries. "We're more secure, we're more productive and we're saving money. When you look back, you think it sounded too good to be true. But when it was all said and done you realize that it has delivered all we had hoped for and more."

### Shrewd Decision

Bailey Industries employs about 50 people in its Leesburg, Fla., headquarters, and operates 11 Design Centers across the country with two to 10 people each. Shearon came on board in mid-2008 to manage the company's IT infrastructure.

"The first thing I did was to assess what type of equipment we had, how



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old some of this stuff was, where our bottlenecks were and what problems we were having,” he said. “And immediately I realized we were running 13 servers, which is a lot for a company our size. They were each doing one job and not being fully utilized. But they were also very old. So I didn’t want to combine services on old boxes that might fail any day.”

Consolidating the servers using virtualization was clearly the answer, but Shearon first needed new equipment. He also needed expertise. His next step was to find a partner who could assist with the project while he kept up with the company’s day-to-day IT needs.

“I looked at several companies but couldn’t find a fit — I didn’t think they were in touch with the needs of the small to midsize business,” he said. “I was getting kind of discouraged. I thought, I’m going to have to do this myself and I didn’t want to because I also have to support the business. It would be a lot for one person to handle.”

Then he found Verteks Consulting.

“My 3Com rep told me about these guys in Ocala who do a lot of work with companies our size. So I decided to talk to them,” he said. “They came in and just blew my socks off. They understood how I wanted to use virtualization to save money and take advantage of the disaster recovery features. They also understood that we didn’t have the budget to go with a high-end virtualization solution. We hammered out a solid project plan and put it in front of management. And they said, ‘It looks good. Make it happen.’”

## Cunning Strategy

The Verteks team helped Shearon consolidate 13 servers onto four new HP boxes, two of which are running Windows Server 2008 with Hyper-V virtualization technology. Hyper-V is built into Windows Server 2008, provid-



### SOLUTION SUMMARY

- ◆ HP servers running Microsoft Hyper-V virtualization technology consolidate 13 servers into four, improving reliability, reducing management headaches and cutting electricity costs.
- ◆ Networked storage solutions improve storage utilization, streamline management and improve remote access to files.
- ◆ Off-site replication of critical data enables disaster recovery while eliminating the need to manage backup tapes.
- ◆ Unified threat management solution provides comprehensive security with flexible support for branch offices.

ing Bailey Industries with the benefits of virtualization at no additional cost.

“On top of the simplified management and improved performance we get from virtualization, our power bill is down, simply because we went from 13 servers to four,” Shearon said. “The first month we saved over \$200, just in electricity. That’s a big deal.”

Verteks also implemented an HP storage-area network to improve storage utilization, as well as a distributed file storage system to streamline storage management and give remote users faster access to local file stores. Off-site replication of critical data enables disaster recovery while eliminating the need to manage backup tapes.

“I can’t even explain how huge that is,” said Shearon. “I don’t have to worry about my data. It’s the exact solution I had in mind but I thought it would be difficult. Yet Verteks had it implemented in a short amount of time.

“I would have had to research all of

these new technologies, but Verteks has implemented these solutions already. That kept us from experiencing the rough patches that often come up in a project of this scope. On top of that, they monitored our existing environment and took care of many issues that came up. There wasn’t any additional charge — it’s just part of what they provide.”

## Very Clever

To improve security, Verteks replaced an inadequate freeware firewall with a WatchGuard unified threat management solution. The WatchGuard solution creates a multi-site VPN with a core firewall in the main office and edge firewalls at each remote site. In addition, an anti-spam solution minimizes the amount of junk e-mail traveling across the network.

“You get what you pay for, and the free firewall just wasn’t adequate for our needs,” Shearon said. “It was difficult to support and wasn’t customizable — you couldn’t set the priority of the data coming into your network, for example. We needed a high-quality unified threat management solution, and the WatchGuard product provides us with that.”

Best of all, Verteks Consulting took the risk out of making the leap toward new technology. The Verteks team helped Bailey Industries maximize the return on its investment and quickly see the wisdom of its decision.

“When you’re a network administrator, you don’t overhaul your environment very often. So if you’re a one-man show and you have to be operational, you better have some backup,” said Shearon. “Verteks does this every day, so it just makes good sense to rely on their expertise. We touched everything — servers, storage, security — to get down to a smaller, cost-effective hardware footprint. Verteks made it all work seamlessly without interrupting our business. I’m very pleased.”

## Green IT Gains Momentum

Senior business executives and IT decision-makers around the world are becoming more deeply involved in their companies' green-based initiatives, according to IDC's latest global Green IT survey.

IDC polled more than 1,500 C-level business and technology executives across 10 industrial countries to understand what Green IT activities were important to them and why. Energy costs continue to be the most pressing factor driving Green IT adoption, even as oil prices drop. Globally, 71 percent of the respondents identified this as their highest priority. Among U.S. respondents, 77 percent identified energy as the most important factor behind green adoption in their companies, while 74 percent of European respondents saw energy concerns as the number 1 driver of green initiatives.

"The cost savings associated with reducing power consumption is definitely capturing the attention of IT decision makers around the world," said Vernon Turner, senior vice president, Enterprise Infrastructure, Consumer, and Telecom Research at IDC. "Buyers understand that energy efficient, recyclable products do contribute to lowering operating costs."

## Notebooks Outpace Desktops

Global notebook PC shipments exceeded those of desktops on a quarterly basis for the first time ever in the third quarter of 2008, marking a watershed event in the history of the industry, according to iSuppli Corp.

Notebook PC shipments rose almost 40 percent in the third quarter of 2008 compared to the same period of 2007 to reach 38.6 million units. Conversely, desktop PC shipments declined by 1.3 percent for the same period to 38.5 million units.

### Verteks Connection

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## The Server UNLEASHED

Microsoft and HP are collaborating to help customers maximize the business benefits of virtualized environments.

An integral feature of Microsoft's Windows Server 2008 operating system is Hyper-V — a bare-metal, hypervisor-based server virtualization product — and HP has pledged strong support for the technology. In fact, HP ProLiant servers were used as the development platform for Hyper-V.

In addition to HP ProLiant, HP BladeSystem servers and StorageWorks storage broadly support Microsoft virtualization technologies.

Customers will be the big winners, as the HP-Microsoft collaboration will help you consolidate hardware, improve server utilization, increase server automation and enhance system portability — while also cutting infrastructure costs and power consumption.

Contact your Verteks representative  
today to learn more!



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# Into the Breach

**Unified threat management appliances help organizations plug security holes.**

Remember the Little Dutch Boy who stuck his finger in the dike and saved the countryside from flooding? In many ways, he has become the role model for the evolution of network security. The traditional approach to defending systems has been to deploy a new dedicated security point product each time a security hole opens up.

The problem, of course, is that sooner or later you're going to run out of fingers.

Given the growing complexity of modern-day security threats capable of simultaneously exploiting multiple vulnerabilities, there aren't enough kids in all of the Netherlands to keep the flood of spam, malware and other threats from pouring in. That's why many organizations and solution providers

today are looking to stem the tide of network threats through a consolidated solution.

## Integrated Approach

Unified threat management (UTM) devices are all-in-one systems that combine firewalls, anti-malware software, intrusion protection systems, content filters and more into one unit that can be easily managed through a single console. These devices offer integrated management, monitoring and logging capabilities, and streamlined deployment and maintenance that can be tailored to keep up with evolving security threats. Single-console management makes it easier for administrators to enforce detailed security policies throughout the enterprise, and eliminates the need to investigate multiple alerts generated by various systems from a single event.

"UTM devices allow organizations to enjoy end-to-end security at a fraction of the cost and complexity of other solutions," said Don Gulling, President, Verteks Consulting. "Solutions such as Watchguard's FireBox X UTM give you everything you need to protect against malware, spam, Web-based exploits and other threats."

With the integration of multiple security engines into a single appliance, UTM also makes it possible to detect blended threats that employ a combination of attacks — such as a mix of viruses, worms, Trojans and denial-of-service attacks — crafted to circumvent a single line of defense. With UTM solutions, the integrated security engines work together, enabling the system to inspect real-time traffic from multiple vantage points. For example, a seemingly harmless e-mail that would pass through any anti-virus system could contain an HTML-based attachment that ultimately points to a Trojan. Because a UTM solution can use a combination of anti-spam, anti-virus, anti-spyware and other security engines, it can detect such blended threats more readily.

## Controlling Costs

It has been largely unavoidable that most organizations would wind up with a security infrastructure composed of numerous, disparate, disconnected countermeasures. Denial-of-service attacks and worms led to intrusion prevention and vulnerability management systems. Firewalls and anti-virus drove the need for virtual private networking. Soon came instant messaging, P2P file sharing, and a dramatic rise in spam. Now there is information leakage, phishing and spyware.

A patchwork approach to security is simply not sustainable, however. Operating, maintaining and coordinating multiple security products leads to runaway operating costs. And since

products are configured separately, conflicting or incomplete rule sets can result in significant network security gaps.

A UTM implementation can achieve consolidation, reduce complexity, improve intrusion detection and provide load balancing integrated into a single system supporting multiple applications. It can also lower operating costs and standardize the security platform across even dispersed organizations.

“WatchGuard’s FireBox X UTM provides organizations with award-winning security technology in money-saving bundles that are cheaper than buying each solution separately,” said Gulling. “You can also reduce overhead by eliminating the need to manage multiple vendors and multiple configurations — one license key manages all your security subscriptions and one support contract covers all aspects of your network security.”

### Not Just for SMBs

Small to midsize businesses (SMBs) have been among the first to adopt UTM appliances due to their all-in-one functionality, easier management and attractive price points; enterprise organizations have been slower to adopt them. With more IT staff and larger budgets, enterprises are better positioned to absorb the costs of managing multiple best-of-breed security products.

Enterprise organizations have also had other reasons to snub the earliest versions of UTMs. For one, the first UTMs could be bandwidth hogs, reducing network performance by 10 percent or more when the full set of security services were in use. Another concern was the impact of packet inspection and reassembly on VoIP traffic.

However, the latest generation of UTM devices addresses those concerns.

Enterprise-class appliances from several vendors now provide gigabit throughput with capacity for hundreds of concurrent VPN connections. Newer solutions also fully support VoIP and overcome latency issues by reassembling packets once for multiple security engines rather than reassembling the content for each product individually.

Although unified threat management can increase security, reduce costs and streamline management, it isn’t a panacea. IT security will never be a set-and-forget proposition. It requires constant vigilance, continual assessment and continuing education. But with today’s UTM appliances, organizations have another powerful tool for holding back the rising tide of security threats.



## Powerful security in a dangerous world

### Stay safe with Firebox® X UTM Bundles

WatchGuard makes it easier than ever to bring unified threat management solutions to your network, bundling everything you need for robust, multi-layered security in one convenient package. With one purchase you will have a powerful solution, protecting against viruses, worms, bots, spyware, spam, trojans, Web-based exploits, and blended threats.



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# STRATEGIC VIRTUALIZATION

**Six best practices to consider when creating a virtual server environment.**

**V**irtualization will be the most important IT infrastructure trend through 2012, according to Gartner, Inc., dramatically changing how organizations plan for, buy, deploy and manage IT. Ultimately, virtualization can help organizations optimize their IT assets by presenting them in a way that maximizes their value to end-users and applications — rather than by device, configuration or location.

"Virtualization is hardly a new concept; storage has already been virtualized — albeit primarily within the scope of individual vendor architectures — and networking is also virtualized," said Philip Dawson, vice president and distinguished analyst at Gartner. "However, as both server and PC virtualization become more pervasive, traditional IT infrastructure orthodoxy is being challenged and is changing the way business works with IT."

## Key Trends

According to Gartner, the leading edge of this change is server virtualization, which promises to unlock much of the underutilized capacity of existing server architectures. Gartner analysts predict that more than 4 million virtual machines will be installed on x86 servers by 2009.

The use of PC virtualization is also set to increase rapidly. The number of virtualized PCs is expected to grow from less than 5 million in 2007 to 660 million by 2011. On the PC, the decoupling technology that breaks the close ties and dependencies between hardware and software occurs at two levels: between hardware and the operating system (machine virtualization) and between the operating system and applications (application virtualization).

Although application virtualization is gaining considerable interest, Gartner claims machine virtualization will have a more long-term impact, making personal computing more manageable, flexible and secure by allowing multiple individual footprints to be defined on the same device.

"Essentially, virtualization creates a fork in the road for operating systems," said Thomas Bittman, vice president and distinguished analyst at Gartner. "Traditionally, the operating system has been the center of gravity for client and server computing, but new technologies, new modes of computing, and infrastructure virtualization and automation are changing the architecture and role of the operating system. The days of the monolithic, general-purpose operating system will soon be over."

## Best Practices

While the return on investment (ROI) is compelling, virtualization can be implemented badly in terms of costs, management strategy, approach, architecture and software. Many of these problems can be avoided if organizations make the proper assessments before they virtualize their machines. Gartner has identified the six best practices organization should consider as they prepare to virtualize their servers.

**START SMALL, THINK BIG.** From a cost, management and cultural point of view, starting small is the right way to go. However, it is also important to consider the big picture. There are two very different phases to server virtualization deployments. The first phase focuses on server consolidation, cost savings and increased hardware use. The second phase is more strategically important, more complex to implement and provides far more value for the customer. In this phase, the focus shifts to delivering new services or improving the quality and speed of service.

**REQUIRE A RAPID ROI.** Because the virtualization market is evolving rapidly, organizations need to build a business case with a rapid return on investment. The majority of virtual machines today are deployed in production roles, usually less-critical servers but increasingly in mission-critical roles.

**VIRTUALIZE THE RIGHT APPLICATIONS.** Not every application is a good choice for virtualization. In particular, applications with high input/output needs can be inefficient on virtual machines, and applications that are effectively utilizing established hardware are not going to generate savings. The best applications to focus on tend to be older, smaller, packaged applications.

**DEFINE YOUR STORAGE STRATEGY.** Deciding how and where to store virtual images and application data are critical factors in determining how much agility companies get from virtualized deployments. For example, if organizations store virtual images on direct-attached storage, they will limit their ability to replicate or recover those virtual images, especially in the event of a failure. If the images are stored on a central storage system, organizations have the flexibility to access virtual images from any server connected to the storage system.

**UNDERSTAND SOFTWARE ISSUES.** Virtualization has been such a rapid market trend that many software vendors are evolving their pricing, licensing and support policies for virtualized environments. Organizations should seek to understand vendors' policies in as much detail as possible.

**COMBINE VIRTUAL MACHINES EFFECTIVELY.** It is much more important to come up with a flexible process for dynamically reallocating server capacity than to devise a perfect static consolidation mapping. Workloads change, and being able to deal with these changes dynamically is a key goal, particularly in the early stages of virtualization.

"With the right virtualization approach and strategy, and with a long-term plan on the changes that virtualization will make to server management processes and tools, enterprises will effectively leverage virtualization now and will re-architect their servers to become a more efficient, fluid pool of dynamic capacity," said Bittman. "Not only will data center space and power problems be resolved, at least temporarily, but IT will become a much more efficient and flexible provider of server capacity to its customers."



## PICTURE THIS

The new, video-enabled ShoreWare Professional Call Manager is at the center of what's new in ShoreTel 8.1. The Professional Call Manager opens the door to advanced collaborative applications with industry-leading high resolution video — ideal for bringing together geographically dispersed experts for mission critical activities, such as state-of-the-art telemedicine and design manufacturing.

In addition, ShoreTel has integrated its Converged Conferencing 7.1 solution with the ShoreTel 8.1 Call Manager. The combination dramatically improves day-to-day communications by letting users quickly host meet-me audio and web conferences, chat securely via IM, and instantly share documents — all with a single mouse click from the same interface they use for voice communications.



**Contact VERTEKS CONSULTING today to learn more about how ShoreTel's Pure IP Unified Communications solutions can transform your business**



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