Providing affordable IT outsourcing with the HP BladeSystem

Using HP technology, ITonCommand is positioned to accommodate rapid business growth while keeping its power and space requirements to a minimum.

"With blades that use less power from the start and plug into a regular 110-volt circuit, HP solved the power problem for us."
—Jonathan Smith, CEO, ITonCommand

HP customer case study: power and cooling, space management

Industry: technology (IT services)

Objective

Provide compact and scalable infrastructure to host customer applications using existing data center space and power

Approach

Install HP BladeSystem c3000 enclosure, a.k.a. "Shorty," and HP storage

IT improvements

- Three enclosures packed in one rack for a total of 24 servers per rack
- 50% reduction in cabling using HP Virtual Connect
- Two weeks/year reduction in IT staff time for server administration
- One week in IT staff time saved year-to-date by HP remote management tools

Business benefits

- Better ability to meet customer SLAs for application uptime
- 12-month payback per blade when assigning a full blade to a customer

Outsourced IT on a fixed budget

Information technology is essential to business today—but it's easy to wonder if the inventors and captains of industry who rose to prominence before the information revolution would have accomplished all that they did if they'd had to worry about server patches and software upgrades.

About ITonCommand

Based in Denver, CO, ITonCommand is an award-winning Microsoft® Gold Certified Partner. The company is dedicated to enabling businesses of all sizes to access the enterprise-class technology they need, but without the expense, frustration, or distraction of managing an internal IT department.

ITonCommand, a Denver-based networking and hosting company founded in 1995, is allowing small- and medium-sized businesses (SMBs) to get back to basics. The company name and the catchy slogan "Run Your Businesses, Not Your Network™" say it all: Many companies would rather pay a reasonable, per-user fee for bundled IT services and let someone else deal with the hardware and maintenance.

Since 2001, ITonCommand has offered its eponymous hosted desktop solution to companies that want to get maximum value from IT without investing precious internal resources in its day-to-day operation.

All the same airplanes

CEO and founder Jonathan Smith realized early on that standardizing on one hardware provider made sense. "We figured that most techs know HP, so around the time we launched ITonCommand, we decided to buy only HP," he says. "We wanted one platform so we could simplify training, maintenance, and systems administration. It's like Southwest Airlines—I want all the same airplanes."

Using one hardware platform in the data center is a good thing, but narrowing it down to one server line within a platform is better. In early 2008, Smith decided to run the core of his business on the HP BladeSystem, using the space- and power-saving BladeSystem c3000 Enclosure, a.k.a. "Shorty."

Making the most of 110 volts

ITonCommand is able to effectively serve the needs of the SMB market because it shares many of the same challenges as its clients, including getting the most from its IT budget and laying a solid foundation for growth. The company follows its own advice and concentrates on its core competency, which does not include maintaining its own data center. Instead, the company splits its hosting between two collocation facilities.

The HP BladeSystem c3000 appealed to Smith because it offers scalability without requiring the company to expand its server footprint or power needs at its hosting locations.

"We had considered blade servers in the past for space reasons, but chose not to go that route because they always required 220-volt power," he explains. "Most of the data centers out there want to charge you a heck of a lot more per month if you're using 220-volt power, which makes the power savings that blades offer totally irrelevant for us."

In early 2008, ITonCommand's HP reseller, CDW, suggested the c3000 enclosure. "Our CDW rep told us we should try the Shorty, and that it runs on regular 110-volt power so data centers are none the wiser," says Smith. "With blades that use less power from the start and plug into a regular 110-volt circuit, HP and CDW solved the power problem for us."

"The HP BladeSystem will make it easier for us to meet SLAs with our customers and save us money in the long run."
—Jonathan Smith, CEO, ITonCommand

Fitting 24 servers in one rack

Another important requirement for ITonCommand was more servers per rack. The company is currently using two c3000 enclosures with the maximum complement of eight HP ProLiant BL460c Server Blades and is planning to purchase one more c3000 and put all three into one rack.

"Two enclosures in a rack wouldn't have been enough," says Smith. "At the pace that we're growing—by about 36 servers a year—three in a rack gives us the density we need. I believe we'll have three c3000 enclosures up and running by December."

ITonCommand also uses HP ProLiant DL380 and DL320s Servers for application hosting and to run its LeftHand Networks SAN/iQ virtual SAN iSCSI software, as well as an HP StorageWorks SB40c Storage Blade for high-speed storage. The SB40c supports up to six hot-plug small form factor (SFF) serial attach SCSI (SAS) or Serial ATA (SATA) hard drives, providing availability and storage density to meet the growing storage needs of ITonCommand's customers.

"When high-speed direct attached storage is needed, we use the HP StorageWorks SB40c Storage Blades," Smith says. "We save on space by using the same chassis and get the ultimate in speed."

An ideal platform for rapid growth

For a company growing as fast as ITonCommand, the less time it can spend racking, cabling, and managing servers, the better. "I want everything to be scalable in my data center," says Smith. "With the HP BladeSystem, we can just shove a blade into the chassis instead of racking a server, cabling it, adding a switch part and the router—it's far easier for us to deploy servers now. Also, it's much easier to manage and service them as we scale."

By using HP Virtual Connect, ITonCommand has achieved a 50 percent reduction in cabling with the HP BladeSystem. "My question at the beginning was 'How do we scale from 200 to 2,000 servers?'" says Smith. "I didn't like the idea of adding 2,000 servers with all those cables—what a nightmare. HP Virtual Connect saves us a tremendous amount of time—probably a couple of weeks a year in man hours—and reduces the risk of downtime from

Customer solution at a glance

Primary hardware
- HP BladeSystem c3000 Enclosure
- HP ProLiant BL460c Server Blades with Intel® Xeon® processors
- HP StorageWorks SB40c Storage Blades
- HP ProLiant DL380 Servers

Operating system
Microsoft Windows® Server 2003

CDW services
Sales, consulting

Primary software
- HP Onboard Administrator
- HP Integrated Lights-Out (iLO 2) Advanced Pack
- HP Insight Power Manager
- HP Virtual Connect
- Microsoft Virtual Server
- LeftHand Networks SAN/iQ

someone tripping on a wire or pulling out a cable while they're working on a server. And these benefits become more and more important the larger we get."

Smith is looking forward to the efficiencies his company will realize by using HP remote management tools such as HP Onboard Administrator and HP Integrated Lights-Out (iLO 2) Advanced Pack. "HP remote management tools will really save us time because we won't have to get in the car or get on the phone to solve problems," he says. "Using iLO has already saved over 10 trips this year to ViaWest, our hosting partner, which amounts to a week of time. Also, HP Insight Power Manager will help us manage our power and better understand our energy usage going forward."

12 months to payback per blade

By using Microsoft® Virtual Server to run multiple virtual machines on a single blade, ITonCommand is getting the most hosting capacity from the HP BladeSystem. Smith estimates that if he assigns a full blade to a single customer, it will take just 12 months to recoup his investment on the blade server.

"HP is helping us transform from a small company into a larger organization," Smith concludes. "With the c3000, I'm under the radar in the data center in terms of power usage, but I still have a robust, scalable solution. The HP BladeSystem will make it easier for us to meet SLAs with our customers and save us money in the long run."

Technology for better business outcomes

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