



Power of Convergence:

Dell VRTX empowers small, remote and mobile environments with purpose built platform

Executive Summary

The phrase “going mobile” is taking on new meaning. Businesses are intently focused on being nimble, innovative and cost effective—without compromise. This premise rings true in what businesses demand from the next-generation data center. The answer for today’s small, remote or mobile business: a converged infrastructure with a simple, versatile and efficient platform. These organizations are looking to modernize their data centers as they embrace a paradigm shift in the way they manage and provision infrastructure—all with a keen eye toward simplicity and cost-efficiency. This paper will zero in on the pain IT leaders are currently experiencing and provide practical, actionable guidance toward alleviating that pain with the right set of tools.



Evolving atmosphere

Mobility is no longer a buzzword—nor does it simply apply to road warriors. Smartphones and tablets in particular have introduced a new level of consumerization and a mind-set of being able to operate in any environment without limitations. As such, businesses are rethinking how a “mobile mind-set” can positively impact all aspects of the operation.

For small business, remote office and mobile environments, the traditional data center status quo is no longer acceptable. Instead, business leaders are hungry for solutions that meet their need for efficiency, simplification and cost effectiveness. Businesses need tools that address the growing need to easily service customer demands. To manage this transformation, companies are looking to technology as an enabler.

Fortunately, this paradigm shift is making an impact across the industry. This is quite clear in NetworkWorld’s 2012 “State of the Network” study. When asked about technology objectives, 51 percent of survey respondents cited identifying new ways IT can better support business objectives as critical.

Understanding pain points

Oftentimes, small businesses, midsize offices and remote branches fall prey to force-fit data center solutions that are complex as well as inefficient and rigid. They include the combination of mismatched parts, disparate management tools, inconvenient support models and specialized power requirements. Systems are often large, expensive and noisy, made of older technology with restrictive configurations.

In such settings, the complexity of the environment and the disparate level of equipment involved can be quite frustrating. Picture, for instance, the typical IT closet with point-of-sale (POS) controllers, databases for price lookup codes (PLUs), multiple servers for redundancy, a storage array, external switches, extensive cabling, etc. It doesn’t take long to overwhelm. Plus, even in branch office equations, it’s important

that everything happens on the local site because no one can risk a lost connection with a centralized data center, eliminating the ability to process transactions at the local level.

Keeping costs to a minimum is a must as well within any small business or remote branch office environment. Often running as profit centers, these environments do not have the CAPEX budgets to invest heavily in expensive systems. After all, individual components are often quite costly, cabling adds up fast and software requirements can prove crippling to already stressed budgets. In many instances, there is a lack of dedicated IT professionals in small business environments as well.

One of the greatest competitive advantages a small business can offer the customer is its inherent ability to change rapidly. Whether or not the business is able to depend on deployed solutions to scale with evolving needs often defines its ability to compete.

As a result, the ability to handle complex provisioning and deployment equations often forces businesses to find acceptable ways to make do with the technology the main office has deployed. Unfortunately, this ultimately means making sacrifices that hinder the location’s ability to excel. Not having IT staff in-house can also result in added costs for contracting service professionals to help with complex provisioning.

Many businesses also face an inability to scale outdated equipment. However, scalability is a must. After all, one of the greatest competitive advantages a small business or remote location can offer the customer is its inherent ability to change rapidly. When it comes to technology, whether or not the business is able to depend on deployed solutions to scale with evolving needs often defines its ability to compete.

Alleviating issues

When faced with such a wide array of issues, businesses need solutions to help manage and provision infrastruc-



ture without all the complexity; that is, solutions offering unified and agent-free systems management, plus great application performance with state-of-the-art blade servers. In addition, data storage needs to be easy to scale and manage, with built-in networking capabilities that do not require extensive IT expertise. A realistic solution also needs to offer extensive scalability within a single, stable platform as well as technology that is easy enough for small business leaders to deploy confidently and operate smoothly in their existing environments.

Dell's VRTX server is a prime example, explains Tony Logan, director, global enterprise strategists for Dell. "With VRTX, it's possible to realize the advantages of a converged infrastructure in a small office environment with a simple, versatile and efficient platform," he says. VRTX offers the following features:

SIMPLICITY. Rather than trying to piece together technology in an IT closet or room, businesses need solutions small enough to fit under a desk, yet powerful enough to handle data processing and storage requirements common in a dynamic business environment. As a true desk-side data center with office-level acoustics, there is no need for separate IT/data closet environments with VRTX. The solution further reduces environmental complexity by converging the management of server nodes, storage, networking and power into a unified tool, presented in a single console. Equipped with four two-socket servers, 12/25 hard drives, eight PCIe slots and an Ethernet switch, VRTX also features an intuitive, easy-to-use GUI, which significantly reduces the potential for error, while providing quick links to specific server information and actions.

VRTX is a shared platform designed to provide simplicity. It can also be deployed and managed remotely, so there is no need for on-site IT personnel. VRTX takes the multiple servers that provide POS support and PLU storage and puts everything into a single chassis. And VRTX incorporates all of the storage and switches inside one box—meaning the mess is gone. What's more, VRTX is

consistent with Dell's CMC (data center chassis management controller), which allows IT administrators to use what they already know, reducing training time.

COST-EFFECTIVENESS. Cost is a top concern in any data center environment. When embracing VRTX, the cost savings are multipronged. For instance, businesses eliminate the need for specialized power since VRTX runs on 110 volts. There is no need for custom cooling since the system is designed for fresh-air operation. VRTX also eliminates the need for extensive cabling, and its single-chassis configuration comes in at a lower price point than disparate components.

VRTX even costs less than the use of traditional servers, appliances or modular alternatives because it uses standard disk drives, standard PCIe expansion and standards-based server nodes.

MANAGEABILITY. VRTX offers simplicity of management and velocity in infrastructure provisioning, and dramatically improves depth and breadth of management capability and scalability. For instance, VRTX's global geographical view provides rapid, at-a-glance identification of remote system location and health status via color-coded icons. VRTX also provides native hardware management through Microsoft SCOM/SCCM, VMware vCenter, BMC BladeLogic, SolarFlare, Altiris and other software consoles. Small business leaders can man-

PowerEdge VRTX

- Optimized for office environments
- Converged servers, storage and networking
- Supports up to four 2-socket, half-height M620 and M520 server nodes
- Up to 8 PCIe slots
- Up to 48TB storage capacity inside the 5U chassis
- Simplified systems management



age VRTX as a single tool. Or, in branch equations, IT can manage the distributed location through Dell's OpenManage Essentials.

VRTX simplifies storage management as well by integrating shared storage management with server management. As such, there is no need for separate storage software or additional equipment.

SCALABILITY. Unlike an appliance, the ideal solution for businesses within this space needs to be both scalable and capable of working well with existing products. From both a storage and I/O perspective, VRTX offers scalability, including the use of either 2.5" or 3.5" drives and up to 48TB internal storage, which is an extensive amount of capacity within a single unit. It also includes the scalability associated with PCIe I/O rather than switches only. This means business leaders have the freedom to set up and map PCIe slots through the CMC.

"VRTX is a great next step for branch/small offices that are currently using or are considering tower servers but need more room to grow. VRTX does it simply and without additional IT resources," says Logan.

Seizing opportunities

When a product can alleviate all of the pain points in one box, the opportunity arises for unique and differentiated applications, explains Logan. "That box rapidly becomes a remote/mobile data center, an application hub, a departmental lab where people can deploy valuable solutions without waiting for routine operational hurdles," he says. VRTX can be separated and secured away from everything else and become a means of deploying an IT solution that can be managed remotely while providing a deterrent from going to the cloud.

In many ways, the potential the VRTX solution presents parallels how mobile devices have changed the business environment. While these devices started as simply phones or tablets, they rapidly evolved into POS opportunities, and a new ecosystem for development, explains Logan.

"From an enterprise perspective, VRTX has the same potential," he says. "This was not a repackaging of some-

thing we already had in place. Instead, it was an intelligent assemblage of intellectual property. As a result, what we are offering is the iPad of the server industry, and as people integrate VRTX into their environments, they will figure out exciting new ways to use this tool—ways that we have not even imagined."

To learn more visit

www.dell.com/vrtx

