



The New Infrastructure Expansion

How Virtual Private Data Centers (VPDCs) Can Reduce Costs, Speed Time to Market, and Encourage Global Expansion

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Executive summary

With IT directors at small to medium size businesses (SMBs) caught between the need to upgrade aging infrastructure and shrinking IT budgets, they are witnessing a dramatic change in the way they provide IT services to their stake holders. As their companies demand flexibility and scalability – but are wary of the public cloud – IT directors look toward new ways of augmenting their data center's infrastructure with less cost to the company.

A large capital investment in more infrastructure isn't on the horizon for most SMBs, yet the demand for IT directors to stretch the infrastructure further, scale to meet changing business requirements, and keep up with changing technology is more prominent than ever. Additionally, rolling out a private cloud, and upgrading legacy systems just isn't in the budget, nor do SMBs have the manpower or, in some cases, physical space to undertake these initiatives. While the public cloud may seem like a viable solution, it actually isn't secure and flexible enough, nor does it have dedicated server space, resulting in "noisy neighbor" syndrome. Finally, for companies operating in multiple countries, they often need a colocation agreement that can be difficult to obtain.

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How can IT directors stay on budget while still providing scalable, flexible infrastructure that meets their company's demands? Is there a way to leverage the cloud while still providing the performance and security that their business needs?

Many SMBs are turning to virtual private data centers (VPDCs) to address these challenges. These solutions help IT directors lower the total cost of ownership (TCO) while providing a secure, flexible, and scalable infrastructure. VPDCs leverage the cloud with secure, dedicated server space, reducing network chatter and aiding compliance, and require no up-front investment or increased staff. Best of all, they can be provisioned in a matter of hours and provide unprecedented disaster recovery and colocation services.

This white paper will examine the infrastructure challenges faced by IT directors and survey the many benefits of VPDCs.

Changes in SMB Infrastructure Needs

Providing scalable cloud infrastructure is becoming more difficult than ever. Tight budgets, rapidly changing technology, hesitation toward public cloud adoption, and a shortage of cloud engineers are requiring IT directors to reexamine how they provision services.

The first trend is the need to extend the life of existing infrastructure due to budgetary constraints. According to research firm Gartner, data center spending will only be up 2.1% in 2013.¹ SMBs in particular are pushing off new hardware purchases and

¹ <http://www.gartner.com/newsroom/id/2537815>

adding just enough capacity to get by because the alternative, refreshing hundreds of physical servers, is just too costly. SMBs are seeking ways to upgrade and add on to that infrastructure without a large up-front capital investment.

Yet rapidly changing marketplaces and technology developments mean that more SMBs need their infrastructure to scale up, down, or into global markets. Companies will frequently need to add web and mobile applications to compete.

Cloud computing may seem like the logical solution, but SMBs shy away from public cloud services because they want more flexibility and control over their cloud computing environments and are concerned about security. Yet “cloud” is on the tip of every executive’s tongue, according to research firm IDC.²

This leaves SMBs with the option of deploying and managing their own private clouds. However, a shortage of trained and experienced cloud engineers means that even if SMBs had the budgets for hiring new IT staff, they would be challenged to find the right skill-set to manage this cloud. A searchCloudProvider.com survey revealed that 43 percent of respondents struggle to fill developer and engineer positions with experienced personnel.³

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To continue to be successful, IT directors need the ability to provide infrastructure for new applications while keeping costs predictable.

Seven Infrastructure Changes That IT Directors Must Overcome

IT directors face seven primary challenges with both private and public clouds, ranging from costs for software and staff to security and flexibility concerns.

Costly Infrastructure Upgrades

Many SMBs built out their infrastructure six or seven years ago. As it comes time to update hardware, many IT directors are being pressured to extend what they already have, adding new applications to dated infrastructure to meet the business needs. Purchasing new infrastructure and upgrading legacy systems is too costly, leading most IT directors to complicated workarounds that hinder performance.

Public Cloud Security and Flexibility Concerns

While multitenant public cloud offerings are relatively inexpensive to some, they come with a dose of uncertainty. While the offerings can be scaled, the service level agreements of some providers

² <http://www.idc.com/getdoc.jsp?containerId=prAU23667012>

³ <http://searchcloudprovider.techtarget.com/feature/Cloud-training-options-How-providers-can-develop-a-talent-base>

may set unacceptable limitations regarding availability and quality. Additionally, some public cloud offerings still raise security concerns, including encryption and tokenization. For compliance purposes, this can run SMBs afoul of regulators.

Provisioning New Infrastructure Takes Time

With time at a premium in most SMBs, IT directors often don't have the luxury of waiting months – or even weeks – to provision new servers. The typical lifecycle of a new server, from start to finish, begins with four days to get a quote, then segues to four days to be approved by purchasing, two and a half weeks to be delivered, and several days adding the server to the cluster. Even when this is a smooth process, it takes away time from strategic initiatives and delays time to market with new applications.

Foreign Countries Require Colocation Agreements

As more SMBs expand globally, it becomes necessary to offer applications in foreign countries. However, using a data center in New York may not provide a responsive solution for a customer in Tokyo. Countries in the Asia Pacific region frequently require a physical presence, and entering into a colocation agreement, shipping equipment, dealing with customs, and provisioning infrastructure can take months. For SMBs, those months can be the difference between keeping the customer – or losing revenue – and puts unnecessary strain on already limited IT resources.

Public Clouds Include Noisy Neighbors

While public cloud offerings are economical, many don't have dedicated hardware resources for their customers. This results in resource hogs causing the “noisy neighbor” phenomenon, degrading the experience and causing application hiccups.

In-House Private Clouds Require Dedicated Resources

Private clouds hosted in-house may seem like the next viable solution, but IT directors know that they will require more resources, both financial and human. Setting up and maintaining a private cloud requires more infrastructure, dedicated staff, and floor space, all of which are scarce at SMBs. There is rarely enough of an IT budget to finance this kind of initiative.

Qualified Cloud Engineers Are Scarce

Even if IT directors were able to secure funding for a new in-house project, finding the dedicated staff to provision and maintain an in-house private cloud would be difficult. Qualified, experienced cloud engineers are in demand, especially since there is a shortage of those with the skills to meet the needs of SMBs.

The Solution: Virtual Private Data Centers

Faced with these challenges, IT directors are turning toward virtual private data centers (VPDCs) that allow them to extend their existing infrastructure without adding staff or requiring up front capital expenditures.

VPDCs provide scalable multi-tenant infrastructure with all the features of a large enterprise computing environment, including operating resilience and performance, qualified engineers, and 24/7 support. For SMBs seeking hybrid cloud environments, application development environments, application-specific environments, testing and proof-of-concept sites, back-up sites, and qualified engineers, VPDCs can meet their needs perfectly.

The Benefits of VPDCs

Using a VPDC offers many benefits to IT directors, including:

- A predictable monthly fee for Infrastructure-as-a-Service to avoid up-front capital expenditures and become part of the operating expenses of an SMB or enterprise
- Dedicated physical resources to guarantee performance and uptime and avoid “noisy neighbor” syndrome
- Enabling IT directors to provision infrastructure in a matter of hours, not weeks, to meet changing business needs
- Global data center locations, which eliminates the need for SMBs to execute colocation agreements and speeds time to market overseas
- Security and flexibility, allowing companies to meet compliance requirements and scale infrastructure nimbly
- Minimal staffing, as VPDC providers already have qualified, experienced cloud engineers on hand
- Best-in-class software to create self-service portals, provision resources, and monitor VPDC usage

What to Look for in a VPDC Provider

When evaluating a VPDC provider, consider these important requirements:

Focused on the Total Value Proposition: Seek out a provider that is focused on the total value proposition of a VPDC. This gives SMBs a straightforward pricing structure, neatly augments existing infrastructure, and requires no extra staffing. It also includes software to provision role-based access control, identity management, segmentation on the network for multi-tier networking, as well as security, load balancing, and firewalls.

Full-Service Data Center: Choose a VPDC provider that is a full-service data center with a large dedicated server business. Having a data center focus means that the customer receives

higher service levels, better support quality, and an overall better experience with the VPDC so that it seamlessly integrates into existing infrastructure.

Leverages Buying Power to Extend Cost Savings: Pick a VPDC provider that leverages its buying power and partnerships to extend cost savings to its customers. A provider that can purchase extra servers at a discount or negotiate better rates on software is a provider that will pass along savings to SMBs, ensuring that they receive the best pricing on VPDC solutions while meeting their budgets.

A Disaster-Free Location: Seek out a provider with at least one “disaster-free” location for its physical infrastructure, such as Phoenix, as well as redundancies. This will prove invaluable for SMBs located in areas where hurricanes, tornadoes, or earthquakes could damage infrastructure and result in data loss. A provider located in a disaster-free zone will be able to recover its customers’ data quickly in an emergency.

Heavy Involvement in Products Sold: Search for a provider that is heavily involved in the products they offer to their customers. Ideally, a VPDC provider should be a Premier Provider of the solutions they sell, which means it meets stringent standards set forth by the vendor and can provide the best possible support for its customers.

Ability to Become Trusted Advisor: Look for a provider with the ability to become a trusted provider that helps its customers succeed with their VPDCs. This enables the customers to receive customized support tailored to their computing needs, including onboarding, training, and troubleshooting.

Agility to Design and Develop Solutions Quickly: Choose a VPDC provider that is able to design and develop solutions quickly to meet its customers’ needs. For the customers, that means a provider that is responsive and willing to custom-develop something that allows for a better experience and is better suited to their plans for the VPDC.

The Phoenix NAP Advantage

Designed to satisfy all the requirements outlined in this paper, Phoenix NAP helps IT directors provide scalable, flexible infrastructure extensions with a fixed monthly cost. By providing dedicated resources and a highly trained, qualified engineering staff to its customers, IT directors are able to meet the needs of the business while staying within budget.

Phoenix NAP VPDC, which is specifically designed for SMBs,



combines leading-edge research and development with its extensively trained, multi-disciplined technical staff to provide solutions to its customers within hours. As a VMware vCloud Powered partner using vCloud technology, Phoenix NAP tailors solutions to its customers' needs. Phoenix NAP's use of proven implementation processes, economies of scale, and industry relationships with colleagues and professionals means that its VPDC offering can help SMBs rapidly extend their current IT infrastructure without high costs or lengthy provisioning times.

As a full-service data center, Phoenix NAP prides itself on delivering reliable, innovative IT products, services, and solutions. Utilizing its certified, trained staff and redundant data center solutions, Phoenix NAP offers a scalable multi-tenant infrastructure specifically designed for SMBs. With no large up-front capital investment, all the characteristics of large enterprise environments, and a plethora of technical advantages, Phoenix NAP VPDC meets the demands of SMB IT departments, extending existing infrastructure and providing the next logical step from premise-based private clouds to the hybrid cloud environment. Self-service provisioning tools from VMware means that IT directors can quickly choose where applications and resources will be directed.

To learn how Phoenix NAP can extend existing infrastructure with its secure, scalable VPDC solution while meeting budgetary demands, reducing risk, and meeting the needs of its SMB customers, visit <http://www.phoenixnap.com/secured-cloud/virtual-private-data-center> or call 855-330-1509.



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