

SMBs Can Cut IT Costs by More Than 75% by
Subscribing to Hosted IT Infrastructure Services



Introduction

Data centers and complementary security infrastructure are essential elements of any business. Whether to interact with customers, collaborate with business partners, or equip workers with access to the latest files and productivity-enhancing business applications, these critical operations require a well designed and run IT infrastructure.

Too often, however, businesses conclude that the only means to have the IT infrastructure that can meet -- or at least come close to meeting their business objectives -- is to own and self-operate the entire IT infrastructure. To be blunt, this conclusion is inaccurate. There is a better and more economical alternative, which is known as hosted IT infrastructure, and its benefits to SMBs are overwhelming. Not only can subscribing to a hosted IT infrastructure service match the capabilities of an owned and self-operated approach (frequently referred to as DIY or Do It Yourself), but it also has very attractive near- and far-term financial benefits. For small- and mid-sized businesses struggling to compete with larger enterprises with deeper pockets, hosted IT infrastructure also offers an effective pathway to the latest in IT innovation.

To be fair, accepting that hosted IT infrastructure is superior represents a “leap of faith” for many businesses since DIY has long been standard practice. Therefore, it is the foremost purpose of this brief report to describe the financial and other real benefits we believe SMBs gain in subscribing to a hosted IT infrastructure service.

Furthermore, merely recognizing that subscribing to a hosted IT infrastructure service is the right model does not guarantee that the benefits will materialize. Only through the selection of a competent provider can the benefits become real. To that end, in the second section of this report, we share our checklist of essential attributes to seek in a hosted IT infrastructure provider.

Top 5 Reasons Why SMBs Should Adopt Hosted IT Infrastructures in 2007

I. SMBs Can Dramatically Cut IT Costs; Up to a 75% Reduction

To arrive at this cost savings, we used a “bottoms-up” approach for estimating the total cost of operation (TCO) an SMB (less than 100 employees) would incur in attempting to match the functionality and quality of service of a hosted IT infrastructure service in support of the SMB’s web applications. Summarized in the table on page 3, we estimated the TCO based on the following functional elements:

- **Web and database servers** – The computing hardware and software platforms. We chose Dell servers due to their popularity among SMBs.
- **Security** – Protection of the computing environment; essential for the reliability of the Web applications (e.g., uptime and responsiveness) and protection of sensitive information. For this element, we selected Check Point’s VPN-1 UTM Edge appliance. It is possible, that there is shared use of this security investment in protecting other segments of the SMB’s LAN environment. Therefore, reducing this cost element can be reasonable. But, as shown, this is the lowest cost element, and the impact on the overall TCO comparison is marginal.

- **Lease premium** – Since the use of hosted IT infrastructure is billed monthly, a correct comparison to a DIY approach must account for the value of monthly billing versus paying for servers and security upfront, which reduces an SMB's available working capital for other critical operations and business investments. We used the lease alternative offered by Dell. Other leasing or financing alternatives could be substituted. Regardless of the alternative used, there is a cost incurred by the SMB.
- **Dedicated Internet access** – High quality hosted IT infrastructure providers have redundant, high bandwidth access links from their data centers to Internet backbone providers to provide its subscribers with always-on, non-congested access to and from the Internet. As a proxy to the Internet access supplied by a hosted provider, we inserted the cost for two T1 access lines. Alternatives such as DSL are possible, for example, but the service reliability will be far less comparable to the hosted provider's Internet access connections.
- **Utilities** – Lately – and for good reason -- there has been significant media coverage on the amount of power consumption and costs of datacenters since these costs are material and projected to increase significantly in the years ahead. We inserted what could be reasonably viewed as a conservative estimate.
- **In-house administration** – With the exception of the lease premium, each of the other cost elements require regular administrative oversight and management. Here too, we used a conservative estimate for staff compensation and -- depending on the experience, knowledge, and working ethic of the staff -- a conservative estimate for percent of time. What we did not include in our estimate are other associated staffing costs, including for example, recruiting, supervision, training, and back-up when the IT staff member is not present.
- **Other hosted standard features** – Below are our estimates of DIY costs and the three-year subscription fees for a hosted IT infrastructure service. These are standard features offered with the hosted approach that we did not estimate for DIY. If these were estimated, the TCO difference between DIY and Hosted would be even greater.

TCO Analysis (Three Years)	DIY	Hosted
Web and Database Servers Two Dell PowerEdge 2900 servers equipped with business-grade processors, RAM, and internal storage, Windows Server 2003 R2, tape backup secondary and uninterrupted power supply (UPS). Training and Gold-level hardware support contract included. Online ordering purchase price shown.	\$15,000	Included
Security Check Point VPN-1 UTM Edge X Series comprehensive network security appliance providing firewall, VPN, intrusion prevention, web application, and anti-virus protection. Also included in the DIY cost is a 25-user license for Check Point VPN-1 SecureClient and a three-year subscription to Check Point SmartDefense Service and Antivirus updates. (The cost shown is vendor's list price discounted by 20% to approximate 'street' price)	\$5,000	Included
Lease Premium 27% addition to servers and security hardware and firmware purchase prices and service contract fees in order to spread expense monthly versus a single upfront purchase expense.	\$5,400	Included
Dedicated Internet Access Redundant T1 (1.5 Mbps) dedicated Internet connections (\$350 per month per line)	\$25,200	Included
Utilities Primary power for servers, security gateway, and datacenter network routers, air conditioning, and lighting (estimated as a 10% IT overhead cost)	\$9,000	Included
In-house Administration Equivalent of 20% of one dedicated IT staffer (assumed \$75,000 annual salary and benefits expense for an IT administrator)	\$45,000	Included
Total	\$104,600	\$24,100
Other Hosted standard features <ul style="list-style-type: none"> ○ Carrier-grade data center (wiring and switching, back-up power, redundant and geographically separated data center, data center security) ○ Staff of certified, trained, and experienced technical experts available 24 x 7 ○ Around-the-clock monitoring of all elements of the IT infrastructure ○ Automatic off-site disk data back-up ○ Uncapped Internet access bandwidth bursting ○ Service Level Agreements with financial penalties for non-compliance 	Not Included	All Inclusive

Next, we turn from this financial analysis to the equally important quality-of-service analysis. Following are the next four reasons to subscribe to a hosted IT infrastructure provider.

II. Hosted IT Infrastructure Places More Control into the Hands of the SMB

For many businesses, on-site proximity to IT infrastructure and in-house dedicated personnel provides a comforting sense of control. While there is no question that this is a natural impression, there remains a relevant business question on whether this “comforting sense of control” matters to customers, business partners, and shareholders if the same or better service can be delivered more economically though a hosted IT infrastructure provider. Consider the following points:

- **The physical location of IT infrastructure is immaterial to users:** Globalization, pervasive high-speed Internet access, and user mobilization all contribute to an increasing frequency that users will access Web, email, file, and application servers from an assortment of locations.

Consequently, whether the IT infrastructure is on- or off-site to the business is immaterial to users, provided the online experience meets their expectations.

- **Reputation and credibility are paramount to hosted IT Infrastructure providers:** These providers have been entrusted to manage their subscribers' IT infrastructure. For this reason, providers strive to be as devoted to managing their subscribers' IT infrastructure as if it were their own. Conversely, deviations from that mission jeopardize the provider's business since they earn their subscribers' respect and business 24 x 7. Because hosted IT Infrastructure subscribers typically receive enterprise-grade SLAs, their results can be more predictable than a DIY approach.
- **Application control remains in the hands of the business organization:** In the hosted IT infrastructure model, the provider supplies, monitors, and manages the platform or infrastructure over which applications operate. Since application capabilities -- not the platform -- is most meaningful to users, businesses should concentrate their focus on applications. Provided the IT infrastructure is managed effectively to complement the applications, the subscriber has then reached an optimal division of labor with the hosted provider that represents core versus non-core.

III. SMBs Gain Technical and Business Flexibility

When a business owns and self-operates its IT infrastructure, conceptually it has unlimited flexibility in choosing infrastructure equipment and suppliers. That flexibility, however, is not free. Time and expertise is required to scan the market, understand the pros and cons of competing products and vendors, purchase, install, configure, test, and place equipment into production. Therefore, reality dictates that IT infrastructure flexibility is not unlimited; it is, in fact, bound by the business' means to effectively complete each of these essential tasks.

An IT infrastructure provider brings experienced and trained personnel responsible for completing these tasks on behalf of all of its subscribers. As a result, the time spent on these tasks is allocated over the pool of subscribers, and, in effect, reduces the cost per subscriber. In addition, hosted IT infrastructure providers conduct these tasks on a frequent basis. Through this exercise, the hosted IT infrastructure provider builds a deeper and fresher market perspective, and hones its expertise to a greater extent than businesses that are engaged in these same tasks on a less-frequent basis. Also noteworthy is that SMBs are left to live with their sub-optimal selections in a DIY approach. A hosted approach permits flexibility to change.

An additional point on flexibility is the flexibility to scale. Here too, flexibility is bounded by the reality that to rapidly scale requires equipment and facilities -- prepared in advance of need -- and that preparation is not free. Furthermore, IT infrastructure needs can also fluctuate downward due to economic and seasonal factors that leave the organization with underutilized equipment and facilities that consume similar amounts of power and air conditioning as though they were operating at higher utilization rates. With the hosted IT infrastructure model, fees are more closely aligned with actual consumption, and scaling upward and downward can be accommodated in less than a single business day.

IV. Hosted IT Infrastructure Solutions Reduce Business Risk for the SMB

It is true that a dependency is created when an organization subscribes to the services of a hosted IT infrastructure provider. The organization depends on the reliability of the hosted IT infrastructure provider's services and the viability of the provider's business. Service inconsistency -- or worse, business failure by the hosted provider -- can have serious consequences for subscribers.

While it is impossible to eliminate all of this risk -- and no business is immune to business risk -- the level of risk is significantly less than at the time of the Internet bubble burst. At that time, there was an overabundance of both hosted data center capacity and providers, and the business plans for many providers were strategically weak. Since the bubble burst, the number of providers has consolidated; the overabundance of data center space has been absorbed; market demand is now growing; and the remaining providers are more experienced and better equipped to adapt to market conditions and to make steady investments in their own businesses. In other words, only the strongest providers have survived and are flourishing. As a positive outcome, the hosted IT infrastructure market is healthier and the business risk to subscribers can be a non-issue if the business completes a little homework before selecting a provider.

In this discussion on business risk, it is paramount to consider the following two points:

1. The hosted provider's business size, years in the hosted business, and diversity of subscribers that represent multiple vertical industries will, in many instances, exceed similar measurements of its individual subscribers. Consequently, the hosted provider will have a more stable business climate than many of its subscribers. Choosing to subscribe to hosted services, in practice, decreases the SMB's overall business risk.
2. Subscribing to a hosted provider offloads SMB spend and attention to non-core but mission-critical functions. With a hosted provider, the SMB gains undiluted attention and a higher level of expertise on essential business functions, which consequently reduces the SMB's risk or inability to consistently perform these same functions at an appropriate proficiency level.

V. SMB Competitiveness Improves

If -- and this is a major IF -- a business has unlimited funds to spend on IT infrastructure and to employ the most experienced and talented IT personnel, a hosted IT infrastructure model is challenged to guarantee that the organization will improve its competitiveness. However, as previously noted, the reality is that most businesses encounter funding and personnel constraints. They cannot afford to have spare capacity available to meet every contingency; they cannot match the competency derived from repetitiveness; their IT staff cannot be singularly and proactively focused on end-to-end management of IT infrastructure; and they do not have the cost advantages produced by the economies of scale of a hosted IT infrastructure model.

Given this reality-based view of resource limitations, organizations that subscribe to a hosted IT infrastructure service are poised to gain the following improvements in their competitiveness:

- **A robust and economical IT infrastructure** -- This leads to favorable and reliable user experiences, and releases both capital and operational funds to other critical areas of the business.
- **Accelerated and dependable adoption of innovation** -- Through its frequent analysis of technology, equipment, and suppliers, the hosted provider supports its subscribers by offering new and qualified solutions sooner and with less uncertainty (i.e., certified to deliver incremental benefits) than businesses may be able to accomplish independently. Consequently,

in a race to embrace new technologies and products, the hosted provider is a valuable offensive weapon.

- **Channeled focus on strategic pursuits** – With the IT infrastructure in the hands of a trusted provider, the SMB's IT organization is in a new and improved position to funnel more of its attention toward advancing its strategic business goals. In addition, with a more robust IT infrastructure, IT is also better positioned to leverage this infrastructure in ways that were previously not considered (e.g., business continuity and responding to seasonal business opportunities).

Essential Attributes of a Hosted IT Infrastructure Provider

In this section we will describe those attributes that we view as essential in evaluating hosted IT infrastructure providers. While the market consists of a stronger set of providers than in years past, relevant differences do exist such that a side-by-side comparison along these attributes will assist the SMB in making an optimal selection.

- **Business vitality** – As described previously, the business of hosted IT infrastructure subscribers is dependent on the provider's "state of business." A strong state of business is naturally more desirable than a weak one, but certain measurements should be used to make this assessment. Our recommendation is to gather the following measurements:
 - *Growth* – Is the provider's business showing healthy growth (for example: revenue, number of customers, number of hosted servers, and average level of Internet traffic)?
 - *Customer loyalty* – Does the provider have a stable set of customers? For example, what percent of the provider's customers have been served for more than three years, and is this percentage increasing?
 - *Cash flow* – Is the provider generating a positive rate of return on its operation?
 - *Re-investments* – Is the provider circulating a portion of its profits back into its core business?
- **Proven technical competency** – Managing IT infrastructure, by its very nature, is a deeply technical activity. To gauge the provider's technical competency, the following information should be examined:
 - *Staff accreditations* – Staff accreditations should be at least equal -- if not better -- than what the SMB would deem appropriate for its own IT staff. Tenure is also valuable in measuring the collective competency of the technical staff.
 - *Data center and server downtime* – "Always open" is the desired metric. Even a slight amount of downtime at an inappropriate time can have serious consequences for a subscriber's business and/or reputation. If the provider's customer loyalty is strong and growing, this is evidence that downtime has not been issue with the provider.
 - *Consistent network characteristics* – User expectations continue to ratchet upward. Faster response times are a prime example since faster is always better. Similarly, network tolerances (e.g., latency and jitter) are narrowing as businesses aim to deliver richer, more real-time content and applications to their user communities. Consequently, the network elements within the provider's data center and with the Internet are critical to assuring that advanced applications function as designed and are available even during

peak loads. Very high bandwidth and redundant peering arrangements with leading Internet backbone providers are critical network characteristics that should be built into a comprehensive hosted IT infrastructure.

- **Dependable customer service** – An implicit benefit of in-house IT infrastructure is that the IT staff is present to respond -- and respond quickly -- to operational issues. Moreover, the best staff is proactive; they recognize the link between consistent operations and business objectives; and identify and resolve issues before they affect the business (i.e., noticed by the users). These same attributes should be present in leading hosted IT infrastructure providers. Their technical staff members should demonstrate a genuine ownership mentality through knowledge and actions that previously would only be expected of in-house staff. If this ownership mentality is a consistent theme in customer testimonials for both small and large customers and/or is unsolicited comments from the provider's customers, this represents evidence that the hosted provider's customer service environment is on the mark.
- **Flexible service portfolio** – Both horizontal and vertical perspectives of the service portfolio should be examined:
 - With regard to a horizontal portfolio, new server technologies such as virtualization, blades, and chips are constantly being developed, and open source code is gaining momentum in the market. A leading hosted IT infrastructure provider will add steadily to its portfolio server options – horizontal expansion – to give its customers a wider range of price and processing selections to best meet their needs.
 - From a vertical perspective, there currently is an expanding segment of subscribers that consume a broader portfolio of on-demand services from their hosted IT infrastructure providers. These subscribers have already confirmed the benefits of a hosted IT infrastructure model and are now leveraging this model in other disciplines of their businesses. Among the additional on-demand services they are subscribing to includes: advanced security services, back-up and recovery, customized support services, and ready-to-go servers. These businesses recognize that an expanded service portfolio can address a critical need for high levels of modularity and flexibility as they create tailored service bundles. These service bundles are optimized quickly and effectively to meet current and future business requirements. These businesses have selected a hosted provider that offers a variety of services with proven high standards of quality for each.

Conclusion

Based on our practical approach to analyzing the business value of the hosted IT infrastructure, the conclusion is clear: hosted IT infrastructure will become a preferred method for supporting the IT needs of SMBs.

In summary, a hosted IT infrastructure service delivers on five critical SMB requirements:

1. Dramatic cost savings, potentially in excess of 75% over a DIY approach.
2. Greater control over IT operations without increasing internal staff.
3. Higher flexibility in the use of technology and in scaling business operations.
4. A reduction in business and IT risk.
5. Improvement in competitiveness.

Through the course of our research, we examined The Planet, a hosted IT infrastructure service provider, and spoke with several of its customers. Based on our analysis, we recommend that The Planet be included in SMB evaluations of hosted providers. The company has the experience, business stability, high-end facilities, extremely responsive customer care, and breadth of services SMBs seek; placing The Planet as SMBs' first stop and likely final stop in their evaluation cycles.

Michael Suby
Research Program Director
Stratecast (a Division of Frost & Sullivan)
msuby@stratecast.com

About Stratecast

Stratecast directly assists clients in achieving their objectives by providing critical, objective and accurate strategic insight, in a variety of forms, via an access-and-industry-expertise-based strategic intelligence solution. Stratecast provides communications industry insight superior to a management consultancy, yet priced like a market research firm. Stratecast's product line includes: Monthly Analysis Services [Convergence Strategies & Network Architectures (CSNA), OSS Competitive Strategies (OSSCS), Network Professional Services Strategies (NPSS), Consumer Market Strategies (CMS), and Business Market Strategies (BMS)]. Weekly Analysis Service [Stratecast Perspectives and Insight for Executives (SPIE)], Standalone Research, and Business Strategy Consulting.

About Frost & Sullivan

Frost & Sullivan, a global growth consulting company founded in 1961, partners with clients to create value through innovative growth strategies. The foundation of this partnership approach is our Growth Partnership Services platform, whereby we provide industry research, marketing strategies, consulting and training to our clients to help grow their business. A key benefit that Frost & Sullivan brings to its clients is a global perspective on a broad range of industries, markets, technologies, econometrics, and demographics. With a client list that includes Global 1000 companies, emerging companies, as well as the investment community, Frost & Sullivan has evolved into one of the premier growth consulting companies in the world.