WHITE PAPER

Growth & Security through Colocation

Why small-to-medium-sized businesses choose colocation datacenters

TPX

PARTICULARLY FOR FINANCIAL SERVICES BUSINESSES AND COMPANIES IN HEALTHCARE, A SECURE AND ROBUST DATACENTER STRATEGY AND PLAN IS A MUST TO MEET COMPLIANCE REGULATIONS. HOWEVER, ANY COMPANY THAT PERFORMS A SIGNIFICANT AMOUNT OF BUSINESS USING CENTRALIZED DATA CAN BENEFIT THROUGH COLOCATION.

THE CASE FOR COLOCATION

More businesses than ever are taking advantage of colocation for their enterprise technology and applications. They choose colocation for redundancy or for security and lower operating expenses with primary business infrastructure. This represents more than just a trend; it's a fundamental shift. In fact, datacenter colocation services are forecast to grow at a CAGR of 13.2% from 2010-2014, according to a study from MarketResearch.com.

Yet at the same time, many small to medium businesses have evaluated colocation only to put off the decision or to keep doing things the same way as yesterday. This document is intended to challenge the assumptions of yesterday and encourage IT professionals to reconsider their current strategy of using on-premise installations.

There are a number of reasons that businesses have elected to undertake colocation. On the growth side, companies face a massive proliferation of data, have widely-distributed and mobile workforces needing real time access to data, and are continually virtualizing servers, applications and data, demanding more from the network and requiring scalable bandwidth.

At the same time, companies must meet compliance and governance rules and ensure that business continuity is seamless in the event of a disaster or disruption. Also, building a datacenter is a pricey endeavor and a capital expense, whereas colocation is an operating expense that is often bundled with significant savings on bandwidth. Today, colocation is available at historic low prices, thanks to increased capacity and lower telecom and network costs.

DRIVERS FOR COLOCATION: VIRTUALIZATION & COMPLIANCE

The rise of virtualization and cloud services is driving the need for more datacenter services. IBM's 2011 CIO Study of more than 3,000 global CIOs revealed that 60 percent of organizations are ready to embrace cloud computing during the next five years as a means of growing their businesses and achieving competitive advantage. This is nearly double the number of CIOs who said they would utilize cloud computing in IBM's 2009 CIO study.

Colocation offers the most reliable, redundant, secure and cost-effective means of delivering virtualized and cloud computing services. At the same time, colocation is essential for companies that must meet compliance regulations.

Virtualization tasks the network

Virtualization and cloud computing depend on network services that are fast and reliable. But they also require the environmental controls that datacenters provide. Power and performance of the network is key in the virtualized environment, and hardware with virtualized servers requires the optimal environmental support that colocation datacenters provide.

Colocation supplies flexible bandwidth, fast connections and robust power to support the network, providing reliable service for virtual machines and cloud-based services. As server virtualization reduces the amount of physical servers needed, the consolidated servers emit greater heat, which must be quickly removed for optimal daily functionality—and equipment longevity. Virtualization is excellent at reducing the capital expenditure of buying more servers. But the servers running multiple virtual machines won't function as efficiently or last as long if they are not environmentally conditioned.

COLOCATION CAN HELP SMALL-TO-MEDIUM SIZED BUSINESSES ($500M OR LESS) THAT:

- ARE MOVING TO MORE COMPLEX IT SYSTEMS
- MUST MEET COMPLIANCE REGULATIONS
- RELY ON INFORMATION SYSTEMS THAT MUST ALWAYS BE AVAILABLE
- HAVE AN ONLINE PRESENCE
- OFFER HOSTED SAAS APPLICATIONS
- DEAL WITH PRIVACY ISSUES. THESE COMPANIES HAVE A DUTY TO PROTECT DATA, AND IN FACT, MUST MEET GOVERNANCE AND COMPLIANCE STANDARDS
- ARE LOCATED IN AREAS THAT ARE DISASTER-PRONE OR HAVE POOR POWER STABILITY OR QUALITY
- ARE POSITIONING THEMSELVES FOR RAPID GROWTH AND NEED FLEXIBILITY AND COST SAVINGS

Compliance requires colocation

For businesses that must meet compliance or governmental regulations, especially those in financial services and healthcare, it's too cumbersome and expensive to build and operate a datacenter. The required physical building and security framework for compliant infrastructure requires an SSAE 16 compliant datacenter. SSAE 16, which replaced SAS 70 certification, is a rigorous certification process that ensures that the datacenter is able to meet the demands of companies in financial services, healthcare and other industries subject to stringent security and regulatory compliance. SSAE 16 provides the additional assurance of routine, in-depth audits of the datacenter's controls and processes — including the services provided by the datacenter operators. For all but the largest companies, meeting this level of compliance can only be achieved through a colocated datacenter.

OTHER COLOCATION DRIVERS

Workplace mobility continues to increase

With workplace mobility continually on the rise, the "always on" access for remote workers to data and applications is essential. Workers expect to access the network and its backend applications and data wherever they have Internet access, whether from home, remote offices or on the road. Colocating the datacenter ensures that the network experiences maximum uptime, even in the event of a disaster. The backup power for colocated datacenters is structured to last for days.

Additionally, colocated datacenters have remote hands service for physical access to the network and hardware when IT staff is minutes or hours away.

FOR MOST ENTERPRISES, ADDING A COLOCATED DATACENTER IS SIGNIFICANTLY EASIER THAN CREATING A PRIMARY SITE FROM SCRATCH.

John Edwards
"Grow your Datacenter with Colocation"
Computerworld Magazine
July 11, 2011

The proliferation of data requires better bandwidth

As enterprises grow and the proliferation of data expands, the need for greater bandwidth and speed emerges, and companies are faced with the choice of undertaking expensive on-premise bandwidth installations that must be redundant. Otherwise, the network becomes bogged down, slowing productivity and performance.

Using a colocation facility gives businesses the opportunity to access voice and data bandwidth at substantially lower prices. Through colocation, businesses of all sizes can find access to the bandwidth they need, including voice, MPLS, VPLS, EPL and Internet services via redundant and diverse fiber. Many datacenters offer services that range from Ethernet to Gigabit Ethernet to multiple T1s and DS3s.

Cost savings and moving capital expenses to the operating budget

As businesses grow, they must decide whether to continue to host servers in-house or colocate primary or redundant servers to a datacenter. Building a datacenter is prohibitively expensive for all but the largest companies, and requires a large capital expenditure. John Edwards, a writer for Computerworld Magazine, wrote in his July 2011 article "Grow your Datacenter with Colocation" that, "For most enterprises, adding a colocated datacenter is usually a significantly easier task than creating a primary site from scratch."

Not only does the colocation cost come from the operating budget, but colocation also offers expense reductions in the form of newly-available office space, reduced in-office utility costs and higher staff availability for more important core business functions. This is where the cost savings actually manifests itself as a value-added benefit. Darren Mann, managing director of Equinix Australia, remarked in a 2011 Computerworld Magazine Australia article, "Outsourcing to a colocation provider also has the added benefit of leaving the facility-based services to those whose core business is building and running datacenters, allowing companies to concentrate on their own business."

Colocation delivers risk mitigation and disaster avoidance and recovery

While there is a perception that colocation is expensive, the truth is that NOT choosing colocation can be even more expensive. In fact, many companies that suffer server damage or theft, or significant down time, find themselves quickly out of business. Particularly in a state prone to natural disasters — such as California with its fires, floods and earthquakes — it's vital to have a disaster avoidance and recovery plan. For that, colocation is essential.

Today, smaller companies can enjoy professional datacenter facilities and their benefits that, in years past, only large, well-heeled companies could afford. The cost avoidance of averting even one power outage and the often days-long process of rebuilding servers and bringing up applications can alone cover the cost of a year of colocation.

Colocation removes risk from the enterprise by placing the company's core IT assets in a protected, professionally maintained environment specifically designed and staffed to house, operate and maintain servers, applications and networks. This is important to recognize, because, as Michael Kaspar, Colocation Subject Matter Expert for TPx, states, "the equipment and the technologies that are being developed and manufactured today are really intended to be put in a controlled environment." Mr. Kaspar further explains that

OUTSOURCING TO A COLOCATION PROVIDER (LEAVES) THE FACILITY-BASED SERVICES TO THOSE WHOSE CORE BUSINESS IS BUILDING AND RUNNING DATACENTERS

Darren Mann
Managing Director,
Equinix Australia
in Computerworld
Magazine Australia

"businesses have the highest dependence on access to their technology and business critical data. To risk placing the lifeline of a business outside of a colocation facility jeopardizes the business itself."

When an outage strikes, the cost begins the moment the power fails, and spirals up after that. A 2011 article in Disaster Recovery Journal states: "The longer a disaster disrupts communications, the more critical the impact. In the first hour alone, it is estimated that more than 80 percent of the financial institutions would lose nearly $1,000 per hour; an additional 10 percent of the surveyed financial institutions claimed losses of more than $100,000 per hour. A University of Texas study found that 85 percent of businesses are totally or heavily dependent on information systems to stay in business, and that a loss of those systems would cost companies up to 40 percent of their daily revenues."

Most metropolitan areas experience power outages during any given year that typically won't affect colocation datacenters because of their built-in power redundancy. Power outages present a number of risks — damage from spikes and surges, the shutdown of vital systems, and backup power running out. Recently, a number of high profile disasters from floods to storms to large city power outages have put businesses offline for hours and sometimes days. Customers with colocation may avoid these outages entirely, enabling business to continue, thereby avoiding the thousands or tens of thousands of dollars in IT services that are needed to bring servers, applications and networks back up and running. Business can attempt to protect themselves with generators, but these are highly cost-prohibitive. Battery backup/UPS systems will exhaust in minutes.

Countless studies address business recovery issues following man-made or natural disasters. For businesses that have not taken measures to protect their corporate data, the consequences are generally dire. Consider these conclusions:

1. "One out of two businesses never returns to the marketplace following a major disaster. Of those that do, half go bankrupt within three years. The ones that survive plan their response to a disaster before it strikes" (Chubb Group of Insurance Companies).
2. "Ninety percent of companies that experience data loss go out of business within two years" (Gartner).
3. "Within two years after Hurricane Andrew struck in 1992, 80 percent of the affected companies that lacked a business continuity plan failed" (FEMA).
4. "Companies that aren't able to resume operations within ten days of a disaster are not likely to survive." (Strategic Research Institute)

Further studies indicate that colocating in a dedicated and secure datacenter is a formative measure toward avoiding becoming another statistic.

Colocation positions companies for growth

Businesses have had to be more money savvy than ever during the past decade. As businesses balance decisions related to growth, they can rely on colocation to deliver flexibility by deferring or avoiding capital purchases, offering the best combination of bandwidth options, and refocusing employees on more value-added, core company work. The buy-what you-need model is perfectly suited for companies who need to scale quickly.

90% OF COMPANIES THAT EXPERIENCE DATA LOSS GO OUT OF BUSINESS WITHIN TWO YEARS.

Gartner

Colocation is more secure

For many businesses, keeping a server down the hall is like leaving their wallet on the desk. While they don't think that your colleagues or customers would take it, the fact is, they are taking a tremendous and unnecessary risk. Businesses have gone out of business due to fire, flood, negligence and theft. Other incidents cause millions of dollars to mitigate and leave a legacy of bad PR and recurring headaches. All one needs to do is turn on the news during the past 60 days to see the large and small companies suffering data loss due to theft or natural disasters. No company is exempt from the potential malicious intrusion of their data systems.

It doesn't just happen to big firms. Healthcareinfosecurity.com reported in 2010 that thieves broke into offices of a California-based optometry practice and, despite the presence of alarms and cameras, stole equipment including a server with 40,000 patient records that held vital data including social security numbers.

Businesses that process significant volumes of credit card transactions should seek higher levels of security from colocation providers, and look for intelligent routing, network monitoring and reporting, and constant, updated firewall support and Intrusion Protection (IDS/IPS).

Colocation facilities are staffed by professionals who've undergone background checks. Not only are these facilities designed to meet the environmental needs of the equipment, but they are also designed to be secure, complete with 24x7x365 security staff and access systems that may include card access, double-authentication systems or biometric security. Video surveillance both inside and outside colocation facilities is standard.

A QUESTION OF WHY NOT?

Today's fast-paced business environment, distributed workforces are increasingly reliant on access to corporate data and applications. At the same time, the very nature of virtualization, SaaS and cloud systems make data and system availability an absolute imperative.

The rise of colocation in datacenters today represents an opportunity for small-to-medium sized businesses to evaluate how they currently connect to the Internet or their private networks and whether or not they can mitigate risk and save money through the strategic use of colocation also gives businesses the opportunity to flexibly scale without the added cost of building and operating their own datacenters.

When faced with the decision to maintain the core of the business in an unsuitable environment, or invest millions building an expensive datacenter, colocation, with its secure environment and dedicated staff, becomes the compelling and economical choice.

CITATIONS

New Global IBM Study Confirms Cloud Computing Poised to Take Off at Companies

Disaster Recovery for Business
Frank Ianna, Disaster Recovery Journal, 2011

Burglars Steal Server at Clinic
Howard Anderson, Executive Editor,
HealthcareInfoSecurity.com, May 19, 2010

Grow Your Datacenter with Colocation
John Edwards, July 11, 2011

Choosing the Right Colocation Provider
Kate McDonald, Computerworld Australia, Sept. 9, 2011

COLOCATION OFFERS THE FOLLOWING BENEFITS:

- ABILITY FOR THE CUSTOMER TO INSTALL THEIR EQUIPMENT IN A SECURE FACILITY THAT IS ENVIRONMENTALLY CONDITIONED FOR MISSION-CRITICAL SERVERS
- ELIMINATES THE NEED FOR CUSTOMERS TO BUILD AND MAINTAIN THEIR OWN INFRASTRUCTURE, MOVING CAPITAL EXPENSES TO OPERATING EXPENSES
- FACILITATES GROWTH BY ENABLING CUSTOMERS TO PAY FOR WHAT THEY NEED AND SCALE THE SERVICES/ BANDWIDTH AS THEIR BUSINESS DEMANDS
- ALLOWS ACCESS TO HIGH CAPACITY, MULTI-THREADED AND REDUNDANT BANDWIDTH, OFTEN AT A DISCOUNT MEET GOVERNANCE AND COMPLIANCE STANDARDS

ABOUT TPX

TPx is the premier managed services carrier that delivers comprehensive communications solutions to 75,000 business locations nationwide. Businesses nationwide trust TPx to manage their mission-critical network services. TPx's award-winning, enterprise-grade unified communications, managed IT, and network connectivity services empower companies to unleash productivity by streamlining processes, proactively monitoring systems, and staying current with rapidly-changing technology. TPx backs its services with a zealous commitment to Customer Care, including a network uptime guarantee and 24/7/365 live-answer technical support.

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