Colocation Buyer's Guide and Checklist

A 5-10-15 Playbook for Technology Managers

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Deciding how to manage IT infrastructure is not easy. This document will help determine if colocation makes sense for your business. It outlines **five** common challenges in IT infrastructure management, **10** benefits that colocation provides, and **15** questions to ask when evaluating a provider. It also includes a **comparison checklist**, making it easier to find a colocation partner that best fits your network and business environment.

The Five Common Challenges in IT Infrastructure Management

Teams responsible for corporate and enterprise technology systems work in a world of change and complexity. Budgets tighten from one year to the next, new technology and management practices are introduced, business acquisitions and divestitures seemingly occur overnight, and changing regulatory requirements make network administration cumbersome. At the same time, network availability, reliability and performance have never been more essential to business success. With pressures to reduce costs and improve technology efficiency and productivity, it's no wonder CIOs and technology managers are looking for alternative ways to manage their IT infrastructure.

There are five challenges in IT infrastructure management that CIOs and technology managers across all industries and sectors of business are working to overcome:

1. **Space and Power:** As business data usage increases, companies purchase and manage more IT equipment. However, this new equipment can quickly outgrow the space, power and cooling capabilities available in many of the office buildings housing the equipment.

2. **Power and Cooling Efficiency:** With increasing pressure to do more with less, IT managers are looking to invest in infrastructure that improves energy efficiency and reduces costs. Many businesses don't have the scale necessary to generate a positive ROI from these investments.

3. **Reliability:** Most businesses maintain mission-critical IT equipment that requires 100 percent uptime. It is prohibitively costly to build a proprietary, purpose-built data center with the power, network access and cooling redundancies needed to achieve the required uptime.

4. **Scalability:** Most companies need a flexible solution that can scale as the business changes – modifying configuration and power usage quickly and easily. This is almost impossible to achieve at scale without a partner.

5. **Future Proofing and Flexible Network Access:** IT decisions made today may be obsolete in the next three to five years. Companies need the flexibility to respond to business, market and technologies changes efficiently and cost effectively. Additionally, businesses are driven to diversify their service and application network providers for greater levels redundancy and improved service quality. These two factors are driving businesses' need for broad network access, which is extremely difficult to achieve without a partner.

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The 10 Benefits of Colocation

Colocation provides a number of advantages that reduce the cost and complexity of IT management, while also improving service levels.

1. **Network Accessibility:** Connecting with multiple carriers, regional networks and ISPs is costly and inefficient without having a physical presence in a network-dense location. Leading colocation centers will facilitate network interconnection, including managing Meet-Me-Rooms that provide cross-connects with backbone and re-gional networks, and ISPs. This helps companies reach new customers, and the increased com-petition among ISPs encourages competitively priced contracts.

2. **Network-Neutrality:** Top-tier colocation facilities will be network-neutral to their core. By not oper-ating their own network, they offer easy access to all the network connections in a market – so customers can be in control of their own net-work strategy.

3. **Local Service:** Premier colocation providers are staffed with 24/7 specialists who are focused on creating and maintaining a reliable environment for IT and networking equipment. Customers should have the cell numbers of the colocation provider's staff and never be directed to a third party for support.

4. **Safety and Security:** Colocation provides an array of safety and security advantages. Well-managed facilities provide 24/7 advanced security monitoring and guards on premises. Additionally, all critical infrastructure should be alarmed, and there should be card access, man traps, customizable private cages and ad-vanced fire protection throughout the facility.

5. **Disaster Preparedness:** Location is a critical factor when determining where to house IT equipment. Most IT managers want to be close to equipment so they can work on it when necessary, but also want to house equipment in an environment safe from natural disasters. This is one contributing factor to the growing trend

of colocating in tier-two markets, which are less frequently along the more disaster-prone coasts.

6. **Connecting to Growing Markets:** A second contributing factor to the trend toward colocat-ing in tier-two markets is the need to move data storage and networking equipment closer to end users. Proximity to the network edge re-duces organizations' network costs, complexity and latency to end users in these fast-growing markets.

7. **Reduced Regulatory Complexity:** Achieving compliance requirements becomes a snap because premier colocation data centers will maintain detailed records of their facility and equipment, and can produce documentation upon request.

8. **Reduced Costs:** Increased energy efficiencies achieved in purpose-built colocation data cen-ters and sharing overhead with other businesses can make a big difference in reducing a com-pany's IT expenses.

9. **Access and Comfort:** Staff time spent in transit between the office and data center is an unpro-ductive expense, and can lead to costly delays in solving issues within an IT environment. Easy and quick access for IT staff is important, as is a comfortable and productive environment for technicians when working on-site. Well-located facilities are key, and each should offer areas for customers to work and break areas with Wi-Fi, coffee and snacks.

10. **Partnering With Experts:** Premier colocation providers will focus on carrier choice, scalability, safety, security and reliability. They will also provide the expertise and experience necessary to ensure critical infrastructure is available at all times, allowing customers to focus less on day-to-day IT tasks and more on the core business.

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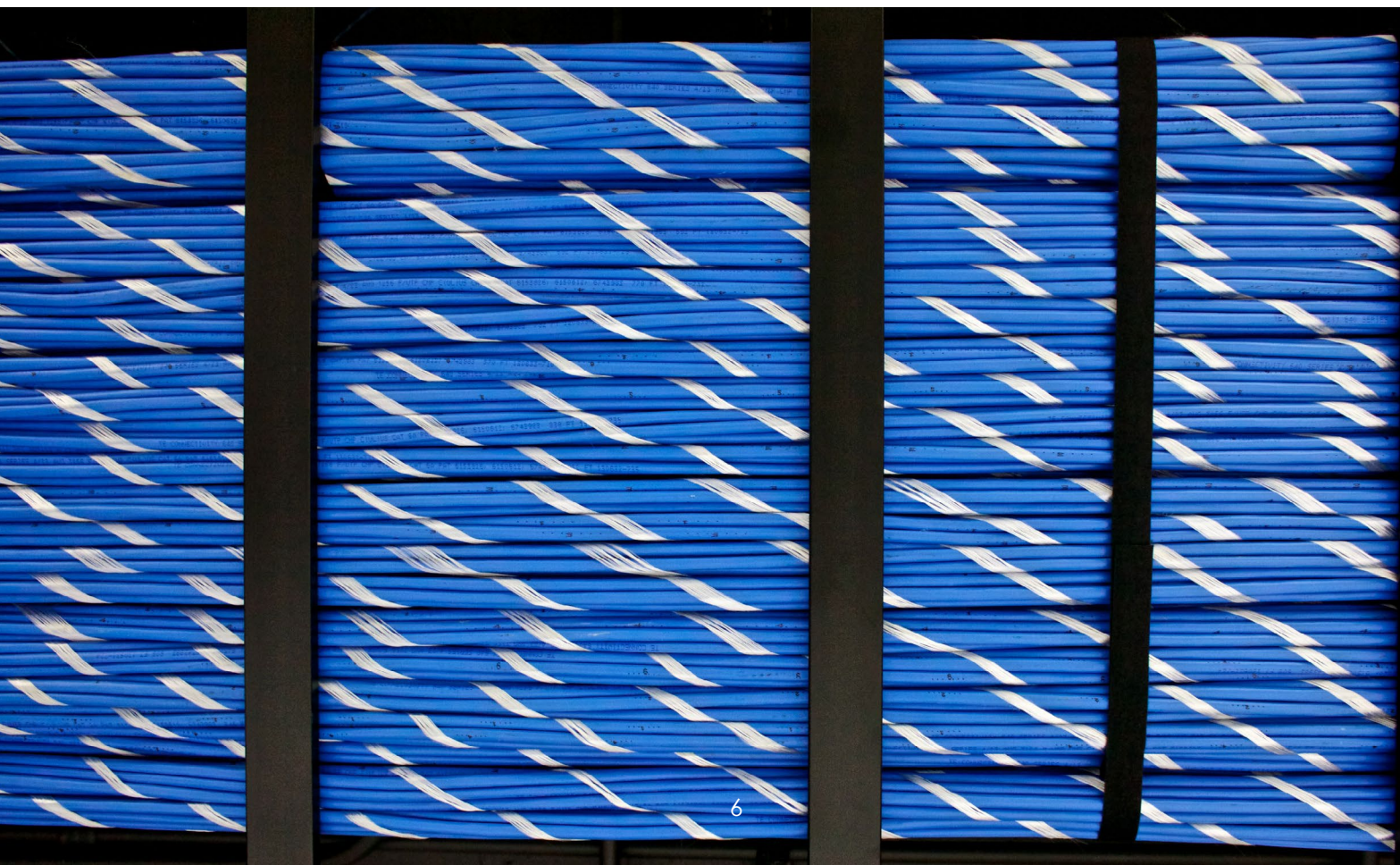## The 15 Questions to Ask When Vetting a Colocation Facility

Before jumping into a conversation or contract with any colocation provider, go through this list with other members of the IT team. Discuss each question and outline the business' needs. This will create a baseline requirement for choosing the right colocation provider.

1. **Goals:** What are my top-line goals or what do I hope to achieve through a colocation strategy – is it cost-savings, reliability, service levels, management time or other reasons? If cost savings, what are my anticipated savings by colocating?

2. **Network Costs:** What are my current network costs? If I had more buying power, where could I drive additional savings? Am I paying for local loops or "access charges" today as part of my overall network spend? What savings could I drive by locating my equipment in facilities where my providers don't charge for access?

3. **Location's Proximity:** How close will my servers be to our business' most important or greatest number of end users? Is the facility easily accessible by my IT staff? Does colocating in a specific location provide proximity/access to other service providers that my IT organization may use (e.g. cloud services, other vendors, community)?

4. **Location's Security:** What geographical factors do I need to consider? Can my equipment be located in an area prone to hurricane, tornadoes, seismic activity or other natural disasters? How important is it to be in an area with low energy costs?

5. **Regulatory Requirements:** Is the U.S. or Canadian regulatory environment more attractive to my business? Are there data-security considerations that I need to think about? Does the colocation provider offer certifications (e.g. SSAE 16) that will reduce my administrative burden?

6. **Connectivity:** Is the colocation provider part of a network of data centers? Is it important for my business to colocate in multiple geographical locations, therefore reducing latency for more customers and providing greater disaster protection and recovery?

7. **Network Availability:** Is the colocation facility network-neutral? Does it provide broad network choice so I have the opportunity to reach more customers on a variety of regional and backbone networks? Does it provide direct access to the greatest number of ISP providers in my market?

8. **Interconnectivity:** Does the facility have a managed Meet-Me-Room to make interconnecting networks secure, efficient and affordable?

9. **Scalability:** Does the facility offer a scalable and customizable solution or is it a one-size-fits-all business model? If my business expands, can I scale power and cooling usage, as well as the number of cabinets or racks? Can I achieve both low- and high-density power in one location or will I have to move equipment as business needs change? Does the colocation facility provide private, customizable cages?

10. **Redundancy:** Is the colocation facility designed so that all critical infrastructure is concurrently maintainable with no single point of failure? In other words, is it at least an n+1 data center, maintaining redundant backup on all components in the event of a failure? Does n+1 redundancy achieve the availability requirements of my business or do I need 2(n+1) redundancy?

11. **Power:** Has the facility experienced any power or cooling outages in the past five years? How often does the colocation facility test its backup power and cooling equipment to ensure its efficacy?

12. **Design:** Is the facility a purpose-built data center, designed and built with the latest technologies to achieve the greatest level of energy efficiency and data security? What is the data center's PUE?

13. **Security and Fire Protection:** What security procedures and technology are in place? Is there 24/7 physical- and video-security monitoring? Are there (or do I require) man traps throughout the building? Is there a fire-protection system in place? How is it designed – will a fire in one area damage equipment in the entire facility?

14. **Amenities:** What are the amenities of the facility? Is there office space available to conduct meetings if necessary? Are there computers and phones available to conduct business in a comfortable working environment while on-site?

15. **Service and Satisfaction:** What is the customer-service level? If an issue surfaces, will I be connected with an outsourced call center or will I be able to speak directly with a local engineer? Will I have to wait until the next business day for the engineer to call me back or will I have direct, 24/7 availability to the data center's local experts? Are remote hands provided? Will the facility provide "rack and stack" services?

The Colocation Checklist

	Notes	Satisfaction (1-10)	Importance (1-10)	Score (S x I)
Provider Information				
Number of Data Center Markets				
Number of Data Centers				
Years of Operation				
Site Structure				
Year Built				
Building Type				
Number of Floors				
Construction Type				
Colocation Space				
Available Space				
Cage Space Configurations				
Floor Type				
Floor-to-Ceiling Height				
Slab-to-Slab Height				
Floor Load Max				
Geographical Hazards				
Seismic Zone				
Flood Risk				
Other Disasters				
Site Location (Downtown, Suburbs, Rural, etc.)				
Proximity to Railroad or Major Highway				
Proximity to Airport				
Proximity to End Users				
Subtotal				

Electrical				
Source of Utility Feed				
Number of Substations/ Power Feeds				
Utility Redundancy				
Total Power				
Available Power				
Facility Power-Density Design				
Maximum Power Density				
Generator Type				
Generator Redundancy				
Fuel Tank Size and Run Time				
Geographically Diverse Fuel contracts				
UPS System				
UPS Redundancy				
PDU Redundancy				
DC Power Available				

	Notes	Satisfaction (1-10)	Importance (1-10)	Score (S x I)
Mechanical				
Cooling System Capacity				
Cooling Type				
Cooling Redundancy				
Humidification				
Fire Protection				
Fire Suppression Type				
Other Systems				
Subtotal				

	Notes	Satisfaction (1-10)	Importance (1-10)	Score (S x I)
Connectivity				
Meet-Me-Room				
Network-Neutral				
Fiber Entrances				
Number of Carriers				
Internet Exchange				
Customer Support				
Remote Hands Available				
Shipping/Receiving Available				
Loading Dock Description				
Managed Services Available				
Contact Number of Staff				
Location of IT Staff				
Security				
SSAE 16 Compliant				
CCTV				
Customized Security				
Card Access				
Man Traps				
24/7 Security Guards				
Facility Management				
Data Center Network				
Service Level Agreement				
Maintenance & Testing				
Monitoring Tools				
Issue Resolution & Communication				
Amenities				
Subtotal				
Grand Total				