

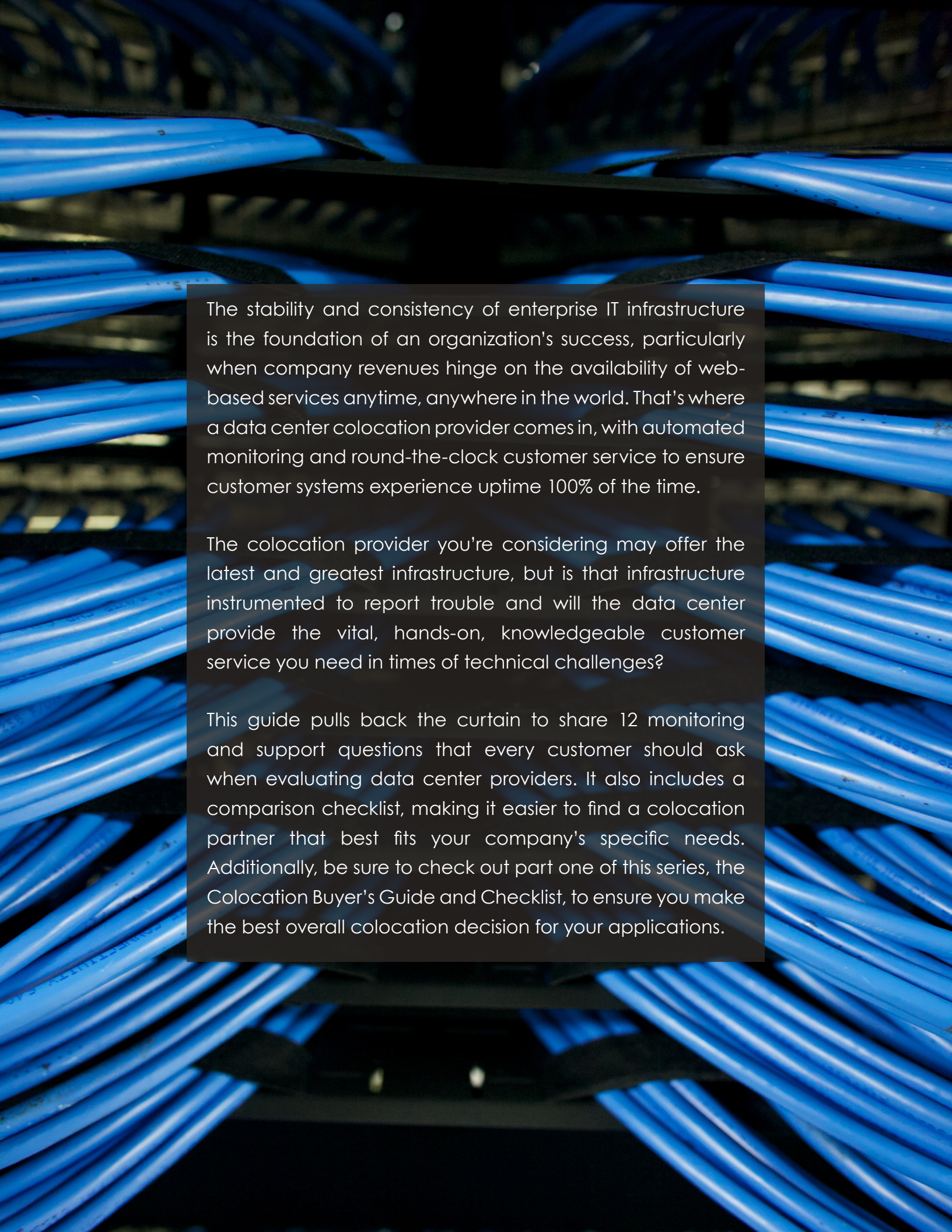


# Data Center Buyer's Guide and Checklist: **Monitoring & Support**

## 12 Critical Questions to Ask Potential Colocation Providers

*Part 2 to the Colocation  
Buyer's Guide & Checklist*

**cologix**



The stability and consistency of enterprise IT infrastructure is the foundation of an organization's success, particularly when company revenues hinge on the availability of web-based services anytime, anywhere in the world. That's where a data center colocation provider comes in, with automated monitoring and round-the-clock customer service to ensure customer systems experience uptime 100% of the time.

The colocation provider you're considering may offer the latest and greatest infrastructure, but is that infrastructure instrumented to report trouble and will the data center provide the vital, hands-on, knowledgeable customer service you need in times of technical challenges?

This guide pulls back the curtain to share 12 monitoring and support questions that every customer should ask when evaluating data center providers. It also includes a comparison checklist, making it easier to find a colocation partner that best fits your company's specific needs. Additionally, be sure to check out part one of this series, the Colocation Buyer's Guide and Checklist, to ensure you make the best overall colocation decision for your applications.

## The 12 Questions to Ask When Comparing Colocation Monitoring and Support

Before engaging providers, review these questions with members of your IT team to discuss which are most important to your business objectives. This will create a baseline requirement to share with potential providers to ensure your data center support is in line with your expectations and needs.

1. **INFRASTRUCTURE MONITORING:** Do you monitor power, environmental and the health of electrical and mechanical equipment in real time? What platform do you use? Can you provide a demonstration of the functionality?

**BEST PRACTICE:** All critical power, environmental, electrical and mechanical infrastructure should be instrumented to communicate to a building management system (BMS) and/or data center infrastructure management (DCIM) platform for real-time alarming and historical trending analysis.

These insights can provide visibility into the health of each piece of equipment, the results of which can be fed into an automated alarm system to alert data center engineers of any facility measurement that falls outside predefined limits. These real-time monitoring and alarming capabilities ensure constant supervision and quick-response maintenance.

2. **Backup Power:** Do you have a specific battery and UPS monitoring program? What technology do you use?

**BEST PRACTICE:** Batteries should be separately monitored for health and availability.

Batteries account for a high percentage of power outages within a data center, largely because they are connected in strings, which are only as good as the weakest battery. While maintenance and regular battery replacements are recommended, these efforts do not provide insight into the relative state of battery health

on an ongoing basis. In fact, it's not unheard of for batteries to fail shortly after manual battery maintenance. Find out if your potential provider leverages an automated monitoring system, which can help to proactively ensure service reliability 24/7 and reduce equipment-failure risk exposure by monitoring and managing all potential points of outage.

3. **Alarms:** Does your BMS/DCIM system automatically populate alarms based on pre-defined limits and escalate alarms until acknowledged? What is the breadth of alarming – is every element on the platform across all markets included?

**BEST PRACTICE:** Alarms should trigger immediate communication to a predefined set of technicians and have built in rule sets to force acknowledgement.

*It's ideal to find a provider that automates alarm functionality, particularly if the alarms auto-generate based on severity to reach the appropriate escalation level throughout the operations and management teams. Furthermore, by escalating alarms after brief intervals in which the alarm goes unacknowledged, the provider can guarantee the matter will be addressed, and it will come to the attention of the data center management team if not. These solutions are complemented by real-time customer notifications. Additionally, by confirming the breadth of alarming, customers can ensure all aspects of their IT footprint are covered.*

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4. **Data Center Health Dashboards:** Does your BMS/DCIM platform have a web-based dashboard that can be accessed by multiple teams anywhere in the world? How often does the data refresh?

**BEST PRACTICE:** Sophisticated operators supplement onsite technicians with a web-based tool that can present the real time health of the data center to staff outside the data center.

Through real-time, web-accessible dashboards, a geographically dispersed data center provider can keep a pulse on any of its facilities. Additionally, web-based dashboards that are accessible to multiple teams, such as customer care reps, data center engineers, senior executives, and others, anywhere in the world ensures proper alarm escalation to the appropriate teams, no matter their location. Finally, data center measurements may only populate once a day, which leaves the facility operations open to oversights in a 24/7 operation. A better option to avoid disastrous downtime situations is real-time data updates, such as every 60 seconds for instantaneous visibility.

5. **CRM Integration:** Is your infrastructure monitoring integrated to the services and customers it supports? What is the procedure to identify which clients depend on specific equipment? Once identified, do you have a seamless manner of communicating maintenance windows or other updates to those contacts?

**BEST PRACTICE:** Data center providers should leverage monitoring technology that is fully integrated with a customer relationship management (CRM) platform to associate the data center's power, electrical, environmental and mechanical infrastructure data to customer service image profiles.

This intimacy empowers providers by associating every infrastructure element with customers' purchased services, thereby allowing data center technicians to immediately access the customers who have services provisioned to a specific piece of equipment, including contact details. Through this integration of infrastructure and CRM data, if a customer orders additional data center services, the integrated system can instantaneously link the customer's new services to an additional set of data center elements. With this level of accessibility and visibility into the reach of each piece of equipment, automated communications can often be sent immediately through the monitoring platform to alert the impacted group of customers about data center events and maintenance.

6. **Capacity Management:** Do you manage capacity with real time and trended BMS/DCIM data rather than relying on manual, point-in-time measurements?

**BEST PRACTICE:** BMS/DCIM data feeds provide the best source of data to manage power and cooling capacities, avoiding blind spots that can occur with manual point-in-time readings.

Real-time and historic capacity management data can enable the provider to map the entire power chain and cooling capacity across multiple data center sites and down to the individual user. By automating this process with constant data updates across the data center platform, the risk of human error or oversight is mitigated, while also freeing up data center engineers to focus on providing technical support.

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- 7. Reporting:** Do you offer customers automated reports via email or an online portal to provide health checks of infrastructure, power availability and environmental readings? Additionally, do you provide hands-on capacity management support through email or other communications when clients are nearing or exceeding capacity?

**BEST PRACTICE:** Advanced colocation providers will make auto-generated reports from the DCIM system available to customers to help the client run their IT environment more efficiently.

Maintaining confidence in a provider's ability to properly provision critical IT infrastructure is important, but can be challenging with little insight into the inner workings of the data center. A vendor that provides infrastructure health state reporting including consumption, threshold limits, peak utilization monitoring, and demand trends can hyper-efficiently inform customers on load and failover decisions as well as service augments, which ultimately enlightens colocation purchase decisions. Gaining this kind of visibility helps ensure IT environments are in peak environmental condition over extended periods, and the proper redundancies and power are in place (while avoiding paying for unnecessary power). Colocation providers may offer usage and infrastructure health state reporting on a daily, weekly and monthly basis via email or a web-based portal in addition to alerts when the customer is nearing or exceeding power draw limits on power circuits. The usable draw of circuits is limited to 80% of the breaker rating by national electrical code standards, which protects systems, wiring and the breaker itself under variable equipment loads.

- 8. Support Access:** Do you offer 24x7x365 live support via phone and email, and can support and sales requests be submitted online? Are there multiple support reps available at all times to ensure service requests are responded to in a timely manner? Is

the data center staffed with on-site technicians?

**BEST PRACTICE:** Customers should have options for the support model that matches their needs, including a 24x7x365 service center, a self-help portal and direct access to on-site technicians in the data center.

A round-the-clock customer service center managing a colocation providers' data center platform across markets is yet another enterprise safety net. Offering the ability to manage events; troubleshoot; monitor performance; and coordinate with local, on-site technicians at any time of the day or night is a definite advantage for remote deployments. Additionally, a multi-member staff that can accommodate peak demand helps customers avoid long wait times in potential downtime situations. Finally, an online portal for customers to communicate with their data center provider offers convenience and constant access, in addition to a paper trail to track requests.

- 9. Redundant Support:** Does your customer support function have geographic redundancy to ensure uptime?

**BEST PRACTICE:** Multiple support teams (2N) in different geographies provide certainty that someone will always be available.

Often the focus can gear towards infrastructure redundancies; however, it's critical to gain insight into a provider's customer support contingency plans as well. For example, only one customer support center leaves colocation end-users in a lurch should that support hub lose connectivity or power. A multi-faceted, prepared approach to customer service is critical, alongside the importance of infrastructure and connectivity redundancy.

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10. **Communications:** Does your customer support function support multiple languages?

**BEST PRACTICE:** Data center customer support that accommodates the markets in which it operates.

In today's flat world, companies often have a multitude of offices, remote employees, contractors and vendors from around the globe. Ask your potential colocation data center operator what languages they support, and cross check these with your internal communications process to guarantee there is never a language barrier to keeping your IT footprint up and running smoothly 100% of the time.

11. **Outsourcing:** Do you outsource technical or support staff from a third-party? How do you ensure those representatives are familiar with your data centers and services?

**BEST PRACTICE:** Customer support should be staffed with technicians that are both experienced in data centers and armed with real-time information across all data centers in a platform.

A third-party technical or customer service support team may not be proficient with a provider's colocation offering, as the support staff may be spread across a number of clients that serve a variety of industries. However, if the colocation company utilizes a BMS/DCIM solution to mitigate these challenges, the outsourced staff can leverage a BMS/DCIM platform to quickly map the data center, from the market level, to the site level, to the building level, to the floor plate, down to the exact renderings of actual devices being utilized in real-time. These graphical interfaces, which can be linked to alarm and monitoring capabilities, allow the technician to rapidly resolve issues, potentially complemented with CRM integrated insights for access to customer accounts, including what pieces of equipment are critical to each client's

service as well as contact details.

12. **Remote Support:** Do your technicians provide remote support on behalf of off-site clients? Do you have technical support on-site or within reasonable distance to the data center at all times?

**BEST PRACTICE:** A 24x7 live support team integrated with local data center technicians for rapid response.

Through 24/7 live customer support and a remote hands technical package, customers can reach someone immediately at any time of the day or night, and also arrange for a data center engineer to handle mundane or critical tasks to support IT infrastructure. Particularly useful for remote deployments, the remote hands support can range from visual verification, swapping of removable media, and other technical assignments, all of which should be handled by specialized data center engineers. Another important area to ask about is the proximity of the data center specialists to the facility. If a two-hour drive to the data center is required before a remote hands request is met, that may be too late.



# The Data Center Service & Technical Support Checklist

	Notes	Satisfaction (1-10)	Importance (1-10)	Score (S x I)
<b>Infrastructure Monitoring</b>				
Power Monitoring				
Environmental Monitoring				
Electrical Monitoring				
Mechanical Equipment Monitoring				
Real-time Monitoring Capabilities				
Type of Infrastructure Monitoring Platform				
Infrastructure Monitoring Demonstration				
<b>Subtotal</b>				
<b>Backup Power</b>				
UPS & Battery Monitoring				
Type of Monitoring Program				
<b>Subtotal</b>				
<b>Alarming</b>				
Automatic Alarms				
Alarm Escalation Capabilities				
Alarm Coverage				
<b>Subtotal</b>				
<b>Data Center Health Dashboards</b>				
Online Health Dashboard				
Global Access to Dashboard				
Frequency of Data Refreshes				
<b>Subtotal</b>				
<b>CRM Integration</b>				
Infrastructure Monitoring Integration with Customer Profiles				
Identification of Clients Dependent on Specific Equipment				
Seamless Customer Communication Capabilities				
<b>Subtotal</b>				
<b>Capacity Management</b>				
Automated Capacity Management				
Real-Time Capacity Management				
Insight into Capacity Trends				
<b>Subtotal</b>				

	Notes	Satisfaction (1-10)	Importance (1-10)	Score (S x I)
<b>Reporting</b>				
Automated Customer Reports				
Email Reports				
Online Portal Reporting				
Scope of Reports: Infrastructure, Power & Environmental				
Customer Capacity Management Support				
<b>Subtotal</b>				
<b>Support Access</b>				
24x7x365 Live Support				
Phone Support				
Email Support				
Online Ticket Submissions				
Adequately Staffed Support Team				
Timely Service Responsiveness				
<b>Subtotal</b>				
<b>Redundant Support</b>				
Geographically Redundant Customer Support				
<b>Subtotal</b>				
<b>Communications</b>				
Languages Supported				
<b>Subtotal</b>				
<b>Outsourcing</b>				
Technical or Support Staff Outsourcing				
Third-Party Familiarity with Data Center & Services				
<b>Subtotal</b>				
<b>Remote Support</b>				
Remote Hands Service				
Technicians' Distance to Data Center				
<b>Subtotal</b>				
<b>Grand Total</b>				