

# 7 DCIM CONSIDERATIONS WHEN MIGRATING TO COLOCATION

## WHITE PAPER

As organizations grow and evolve, they will inevitably hit an inflection point to tackle the classic “buy or build” dilemma regarding critical systems or infrastructure. They will have to ponder and debate the pro’s and con’s of whether to build data centers and maintain them internally or to outsource them externally.

When it comes to data centers, this means either building and maintaining data centers on your premises or renting space from a colocation provider. One key advantage of moving from a proprietary data center with a limited geographic footprint is that a colocation provider often can access multiple and geographically-diverse data centers. This can improve your backup and disaster-recovery preparedness by having primary and secondary locations.

Even after you have arrived at the conclusion that colocation is the right choice, simply leasing or buying colocation space is not as simple as it may seem. In fact, the colocation selection process will revolve around variables most suited to your circumstances. Factors such as how to define your needs, identify the right colocation provider, and negotiate the minutiae of actually migrating to the new space needs to be critically assessed. Keep in mind that once the contract is signed, it’ll be time-consuming, complex, not to mention expensive and disruptive to your business, if you find the need to move again.

To help you navigate your way, we have shortlisted 7 key DCIM considerations when it comes to migrating to colocations from on-premise data centers.

### 1. LOCATION LOCATION LOCATION (FOR BOTH PHYSICAL LOCATION AND IT STAFF)

Like scoping out any real estate, location is never far from a top consideration. In terms of your colocation provider, this means both the physical and the support locations.

Location has inordinately large impact on the security and well-being of your data center assets. Weather patterns (flooding, extreme temperature swings, storm frequencies and intensities), seismic histories and accessibility to critical infrastructure such as routes, roads and airports should all be considered. For industries with more stringent regulatory compliance (such as financial industries), you may be prohibited from storing customer data across international or even state borders.

The same principle applies to support staff. Whether you retain your own staff or let the colocation provider supply their manpower, you still need to know how the colocation assets are staffed. While some colocation tenants may still maintain on-site IT staff, others outsource it entirely as part of their contract.

It’s a good idea to draw up a scorecard tailored to your specific circumstance to narrow down your short list of potential providers before moving forward.

### 2. WHAT’S THE POWER SUPPLY SITUATION

Power is both a broad and narrow issue.

On a macro level, you need to consider the robustness of regional power grid infrastructure and redundancy capabilities. Look for location of power stations, substations and feeds to the facility as well as redundancy throughout the delivery

system. Make sure no major power constraints will hamper data center operation in the colocation area. This may sound far-fetched until you experience power rationing or even scheduled blackouts because of tight peak or seasonal supply. And don't forget to research recent local outages and the time-to-repair track record so you can prepare contingency plans.

On a micro level, you need to consider power monitoring within the colocation space. Do they have metered power to precisely quantify and bill you what you use today with the agility to let you grow or decrease your power draw over time? Do they have a way to detect, monitor and mitigate power surges and other abnormalities? What are their backup and disaster recovery plans when power disruptions occur within colocation facilities unrelated to external power supply? All these need to be meticulously considered.

### 3. WHAT'S THE COOLING SITUATION?

After securing power, proper cooling is indispensable in the colocation space. Power usage effectiveness (PUE) rating is crucial in optimizing cooling costs and effectiveness. PUE shows how much overhead is associated with delivery of power to the rack. Ideally, tenants should pay only for the power consumed (metered) multiplied by a PUE factor to account for additional power needed for cooling. Look for a colocation provider with hybrid cooling technologies (i.e. utilize natural cooling such as free outside air) with ample cooling redundancy.

### 4. WHAT'S THEIR DCIM LITERACY?

Even though DCIM (data center infrastructure management) software has become standard in managing data centers, not all colocation providers are equally well-equipped. Because data centers have historically been purpose-built facilities with lots of complex technology, managing those technologies can be problematic. Often, devices would have management software but individual software systems may not be compatible or integrated. This results in a Tower of Babel within the data center. So be sure to ask your colocation provider about their DCIM competencies. Are all their data center systems connected? Are all the sensors connected to and monitored by software? Are they able to generate dashboards and reports on the fly and zoom in to floor,

cabinet and rack levels? Do they have an end-to-end asset management capabilities to let you manage your assets from "dock to decom"? Do they have integration into other ITSM systems to tap into capabilities you need the most?

### 5. WHAT'S THE PHYSICAL SECURITY SITUATION?

No bank would dream of operating without tight security around its financial assets. Same goes for your data center assets, which may just contain the most valuable assets aside from your human capital. For truly secure facilities, insist on in-house security teams. When analyzing security model, be sure to evaluate in-house security-staff, layered security zones, camera and security systems capable of 360-degree coverage and advanced security certifications such as PCI DSS 2.0, SSAE 16 and ISO 27002.

### 6. WHAT'S THE WORKLOAD AND WORKFLOW MANAGEMENT SITUATION?

After you have checked off all the physical elements, it's time to focus on how the workload is delivered and how the workflow is managed.

There are several key considerations around the type of data or applications an organization is trying to deliver via the data center. Cloud and Big Data will continue to evolve and change how organizations distribute their data, especially as information is being distributed among multiple locations and can now be delivered more efficiently and rapidly than ever. The IT landscape is continuously being shaped by important shifts such as "data-on-demand", BYOD (Bring Your Own Device) and IoT (Internet of Things), so you want to make sure your colocation provider is not only in-the-know, but is also capable of keeping up so it doesn't render your data center management obsolete quicker than it should.

Similarly, balancing the workload, continuity and disaster recovery is important for sustainability. The distance the data has to travel and the amount of bandwidth provided by the colocation provider can mean the difference between a great user experience and a failed colocation deployment. Whether or how well their workflow management system works can help prioritize the delivery of certain data and infrastructure components. Furthermore, it will help determine what needs to have higher uptime requirement versus those with lower priority so in times of bottleneck or emergency, you'll be able to access the most important information first.

## 7. WHAT'S THE SERVICE LEVEL AGREEMENT (SLA) SITUATION?

Last but not least, the visibility and management tools available for the tenants through well-defined SLA's are the cornerstone of a good ongoing relationship that can proactively avert conflicts. When selecting the right colocation provider, creating or having a good SLA and establishing clear lines of demarcation are crucial. Often, an SLA can be tailored to the specific tenant needs and the assets being hosted. This means identifying key workloads, applications, servers and more.

It bears emphasizing that when you pay for data center colocation, you are buying a slice of critical infrastructure and ongoing maintenance. You want to make sure the SLA includes maintenance and testing. Look for documented MOPs (method of procedure) and SOPs (standard operating procedure) used consistently and improved over time. You want to also make sure they include robust management tools to monitor power, cooling and rack conditions and environment with regular uptime and status reports and provide a logs aggregation tool which collects various server, system and security logs for analysis. This way, precious time can be better spent on identifying and resolving potential issues, instead of finger-pointing.

Migrating your data centers into colocation could be mission-critical for your business. Look before you leap and be sure to consider the 7 major DCIM factors we have outlined. Remember, all colocation providers are not the same and the better you can cherry-pick the best ones, the more value and the more peace of mind you'll get from the migration.