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Real world data center optimization challenges

Does your business need a cloud or a data center?



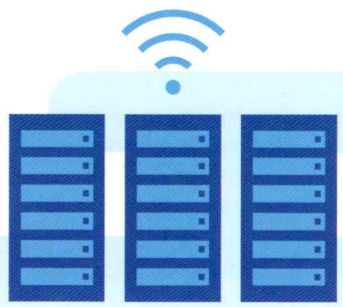
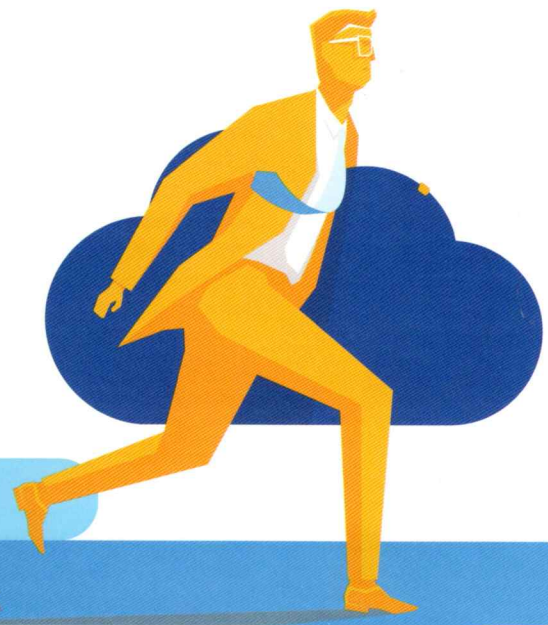
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From the perspective of C-suite executives, how does the company assess its current facilities and future technology trends? Data may reside in the cloud, but servers exist in the real world, and protecting them requires critical real-world solutions. It's more important than ever to revisit or establish your organization's data center strategy. Focusing on the optimization of your data center and development lab infrastructure will reduce the operating cost and potentially free up much-needed office space for growth and expansion.

To create a data center strategy, corporate real estate (CRE) professionals must know the current production data center status as well as the research & development labs in operation. This includes all production sites such as stand-alone data centers, purpose-built areas within occupied buildings, existing backup centers, and co-locations.





From purpose-built to co-locations: CRE confronts challenges in critical environments

On-premise data centers and critical environments are a fact of life for corporate real estate professionals and executives. Protecting the integrity and uptime of data is as critical to business success as any other facility management priority. The best way to help ensure the success of these initiatives is to address the challenges and manage the risks that might otherwise go unnoticed. That means understanding the business case for the data center, helping executives rationalize their decisions, and making sure budgets account for higher operating costs and risk mitigation strategies. Research and development operations

often require “pop-up” data centers within office space, which can bring additional complications. In many cases, R&D data and output are critical to business success, and it falls to CRE executives to create and manage these critical environments. Office environments are built to a different standard with a focus on human comfort. Using office space for server load presents many maintenance issues that increase operating costs. It’s also vital to understand the flow of data and the requirements for IT interconnectivity to validate the need for servers to be located within a certain proximity.

As technology improves, increased capacity and computing power contribute to underutilization of data centers that were built several years ago.

With the increased efficiency of servers, data processing expansion is occurring using the same footprint and power consumption. The resulting underutilization of data centers creates optimization opportunities.

At the same time, business development applications with aggressive speed-to-market goals fuel the proliferation of server farms in the office space. These “pop-up” on-site pseudo data centers and development labs often appear overnight in conference rooms, IDF closets, and even cubicles.

It is this ever-changing landscape of the corporate data center and the management of digital information that requires every organization to have a structured data center plan that focuses on optimization. The plan needs to incorporate the stand-alone data center, co-locations, data centers within office space and the management of “pop-up” data center created out of modified space.

When developing the plan, the machine load is only the first part of the consideration. A review of the existing portfolio is also required. This includes data centers that are currently in operation and also the space available within the data center. Unoccupied space can provide the necessary area for expansion, but to make this work, it's essential to understand the organization's expansion plans, including headcount.

Tackling resources & security regulations

Many resources have been put into the construction and management of corporate office space. To make this space into data center areas may not be the best use of expensive real estate. When the pop-up data center appears in the occupied space, it can be difficult for corporate facility managers to manage them efficiently. These unplanned areas create a significant strain on the facilities teams. The time and resources required to ensure availability are split, since their primary responsibility is to create and maintain quality workplaces for people. In addition, the operation of these spaces usually results in adjacent occupant complaints due to noise, loss of space, and comfort.



The benefits of moving to purpose-built or co-location data centers include freeing up much-needed office space, especially for companies that are downsizing their data center load.

Another significant consideration when deciding on data center strategy is manpower. Does your organization have the appropriate technical manpower to support the data center? This includes the IT and data center engineers and also the building engineer support. Change management, maintenance standards and procedures, and the appropriate security are some of the major processes and procedures to consider.

Security, data breaches, and corporate image are also significant influences on the location, management, and access to the data center. While co-locations can be cost-effective and flexible, they are a shared space. Without specific requirements incorporated into the lease, you cannot guarantee restricted access to the servers. Emerging regulations, risk management requirements, and customer perceptions may require a dedicated space. With this information, an evaluation can be conducted to determine what the requirement for data centers will be and then the optimization can begin.

A commitment to finding the optimal strategy

In today's quickly changing business world, the need for data centers is not only increasing, but it is ever changing. With the options of co-locations, purpose-built data centers, and pop-up data center space available, it is challenging to create a data center strategy for an organization that can handle the current computing load and takes into consideration the future requirements.

Enterprise data center construction continues, despite move to co-location and cloud



56%

of enterprises have increased the use of co-location or cloud data centers in the past three years



44%

have completed or started data center new construction or major renovation during that time



27%

are currently considering construction or major renovation

Source: Building Operating Management Survey

Additionally, any strategy needs to include managing the pop-up customer requests that can arise seemingly overnight.

The optimization of data centers ensures reduced costs and the creation of a data center strategy ensures the ability to respond to ever-changing business needs. Collaborating early on with your advisor in IT, operations, and real estate to drive the assessment stages of the optimization strategy can mitigate financial, security, design, and infrastructures risks. The decision where data center and development space should go is specific to each organization; there is no one-size-fits-all solution.

Understanding your organization's IT requirements today and in the future, enables your CRE team to optimize data center strategy, using the best possible combination of co-location, purpose-built, and pop-up data centers. Addressing these needs proactively ensures that your company's data is protected and treated with the same level of importance as that other critical asset – its employees.