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KEYNOTE SPEAKER



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# DRIVERS, RESULTS AND GUIDELINES

of the Emerging Data Center IoT

COLOCATION CUSTOMERS

# CHALLENGE

THE PACE FOR RAPID  
DATA CENTER DEPLOYMENT

# Colocation Customers Challenge the Pace for **RAPID DATA CENTER DEPLOYMENT**

by Douglas Ryan

The digital age has forever transformed the data center industry but also the way users and providers think about data. Cloud has predominantly been the topic of discussion over the past few years when it comes to managed services, and for good reason. Lower computing costs and Capital Expense (CapEx), improved infrastructure utilization, faster deployment and better scalability made cloud models a no brainer for customers. But now they require more.

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Enter the realm of rapid deployment. Technological advancements in prefabricated and modular data center infrastructure – including POD architecture – are being driven by customers’ needs for different levels of resiliency, and kilowatt capacity in a just-in-time fashion. They look for a suite of scalable solutions that are energy-efficient, and range from a dedicated data center space and colocation services to interconnected facilities. And such customer requirements continue to drive growth of the data center colocation market – set to double in size by 2020, reaching USD \$54.13B at a CAGR of 16.1% according to Research and Markets – and growth of advancements in prefabricated data center infrastructure solutions and services.

## THE EVOLUTION OF RAPID DEPLOYMENT INNOVATION

While building a prefabricated data center is not a new concept, it is an effort that requires a continuous approach and collaborative design to scale to customer needs at their speed and continue. One way pre-fabricated data centers can better help colocation customers is through POD architecture implementation. POD streamlines the building process while ensuring electrical equipment is consistent from project to project.

Consider the following infrastructure elements to better understand the benefits POD architecture applies to pre-fabricated data centers.

### Greater installation speed and accuracy:

Nearly 70 percent of early equipment failures can be traced to design, installation or upstart deficiencies. This, coupled with the demand for data centers growing at an unprecedented rate, requires the installation phase to be accurate and lightning-fast. A good understanding of data center infrastructure and the densities that can be achieved have a significant impact on cost and growth plans. Using POD architecture, a company can cut production time by more than 30 percent, which equates to about 80 days for the installation phase – a figure that's setting the pace for the industry.

### Energy and resource efficiency at its core:

According to the U.S. Department of Energy and the Natural Resources Defense Council (NRDC), by 2020 U.S. data centers are projected to consume about 140 billion kilowatt-hours of electricity, an amount of energy equivalent to the output of 50 large coal-fired power plants. With a POD architecture approach, all equipment and systems that power a data center to make it operable, such as lighting, fire systems and scanners, require the highest levels of energy efficiency and reliability. During the installation process, this can be done using energy features like low voltage panel boards, switchboards, breakers, clean air cooling and low voltage protective relays.

### Faster electrical system assembly:

Instead of setting up electrical systems on-site during construction – a standard approach in modular data center design – electrical rooms can be fully assembled prior to delivery in a controlled factory environment. All electrical equipment is built onto a standardized metal frame and pre-wired for efficient installation. Such innovative methods can cut production time of rapid deployment projects by 30 percent – from an average of 179 to around 80 days.

### Increased integration of infrastructure elements:

Rapid deployment design can be tailored to meet specific data center needs throughout the lifecycle of the building. In addition to electrical systems and a POD architecture approach, additional integration considerations can include fire safety, security, life cycle and efficiency services, and more.

### A holistic services approach:

Through the right model, ongoing services may be provided at a high level of performance required to address data center demands in maximized reliability and uptime, increased energy efficiency and extended equipment lifecycles.

### Added benefits due to flexible infrastructure:

Advanced technologies installed in a flexible infrastructure provide the capacity to power the cloud and provide customers with a reliable, open and highly connected platform.

## CONCLUSION

In the digital age, there is nothing that can be done without data. By considering innovation growth in rapid deployment data center models, customers can open the opportunity to achieve resiliency and scalability just in time, while having the assurance that their data is stored safely and efficiently.