

A Logicalis Guide to

**Building Centers**

**of Data Excellence**

## Your Guide to Building Centers of Data Excellence

The data center has long been the central fixture and place around which enterprise IT has revolved and evolved. From centralized to distributed and back again, the data center has withstood and adapted to constant changes. Quite simply, today's data center isn't the same as yesterday's data center. It's often called a "hybrid data center" which is meant to capture the dynamic nature of just what qualifies as a "center" today. However, even the term hybrid doesn't begin to describe what the future is bringing.



### **The data center is dead. Long live the centers of data.**

The reality is that the data center of the future will become what Gartner calls "centers of data," encompassing on-premises data centers, cloud data centers, co-location facilities and more. In fact, Gartner says that, by 2022, 60% of enterprise IT infrastructures will focus on centers of data rather than traditional data centers. It's less "place" than an idea or construct.

In this Logicalis Guide, we will discuss what you should consider now to transform your data center into centers of data excellence. We will detail a series of Next Step Actions you can take to prepare. Let's start with how we got here.

### **Data Center of the Past**

Today's data centers, and the data centers of the recent past, often rely upon individual, on-premises facilities linked together to provide redundancy and failover support in the event of a disaster.

**60%**

*of enterprise IT infrastructures will focus on centers of data, rather than traditional data centers by 2022.*

*Source: Gartner, Inc.: Infrastructure Is Everywhere: The Evolution of Data Centers*

Hybrid data centers include on-premises data centers, internal “private clouds” and external public clouds for expansion. The hybrid data center of today, in theory, offers a method for quickly expanding and contracting compute and storage capacity on demand.

In practice, today’s data center, even the hybrid kind, often remains hardware-centric and hardware-specific in the way IT teams manage them. Therefore, expanding performance – whether increasing compute power, storage, networking or even the power and cooling for the facility – often requires adding new equipment. This reality has caused many technology vendors to develop new solutions such as converged systems with unified management of compute, storage, networking, and virtualization resources that can significantly reduce energy and management costs. There are numerous cases where such converged systems can make sense for organizations looking for better methods to consolidate and manage data center resources. However, even these systems are unable, by themselves, to change the tactical and non-strategic decisions some enterprise organizations have made to justify data center technology purchases.

The hardware-centric nature of current data centers – even when connected to public clouds for expansion – has also seen the rise of “shadow IT” when business units have gone outside to source, purchase and deploy technology through hosting and SaaS providers without first considering the integration issues that IT should have been consulted about beforehand. These silos and workarounds have ultimately expanded the definition of what the data center is and does.

## Future Centers of Data

The data center of the future is actually a dynamic, distributed, and integrated construct that integrates a number of different technologies to create a single environment. This new environment enables the managed and rapid deployment of business services and their associated workloads to the locations where they are required.

**26**

**billion** devices will  
comprise the IoT by 2020.

*Source: Gartner, Inc.: The Future of Enterprise Data Centers — What's Next*

## Centers of Data Excellence

As you consider developing and deploying centers of excellence for your organization, look at ways to leverage your current environment and integrate it with new areas and technologies. Consider this diagram of the future data center and what it comprises.

**On-Premises** – Your on-site location remains, but it may no longer be as central as it is today.

**Cloud** – Both private and public clouds offer on-demand capacity and capability to end users.

**Co-Location** – Co-location facilities can be distributed into regions where specific hardware and configurations are required for your organization. Co-location offers redundant power and connectivity to boost maximum uptime and can help save money as cooling and power costs are shared among multiple customers.

**Hosting** – Often a staple for organizations is the hosting of specific SaaS apps including email, backup, collaboration and more.

**Edge** – As the Internet of Things (IoT) and 5G connectivity become increasingly prominent across many industry sectors, edge solutions will become more important and integrated into core data operations.

In essence, today's and yesterday's data centers were focused on infrastructure acting as a delivery vehicle for some type of technology – they are technology plumbing fixtures. Tomorrow's centers of data excellence focus on IT enabling the deployment of services and workloads, wherever and whenever they are needed for the organization to thrive. Now, let's see what's necessary for you to get there.

## Cloud Centers of Excellence Visualized

Source: Gartner, Inc.: *Infrastructure Is Everywhere: The Evolution of Data Centers*



## Next-Step Actions

We often discuss “digital transformation” as it relates to the impact that new technologies have on your end users – whether internal or external. However, one of the biggest drivers of digital transformation starts with the evolution from data center to centers of data. Here are our recommended next-step actions for creating centers of data excellence for your organization. To begin, you may first want to work with a trusted technology provider to conduct an assessment to determine where you are today and where you want to be in the future.

### Focus on Strategy, Simplification and Standardization

One of the core reasons for building centers of data excellence is the greater efficiency, agility and capability it yields for your organization. At odds with these goals is the greater complexity that this new infrastructure model brings with it. There are far more connectivity, access and security issues encompassed by centers of data than exist within the four walls of an on-premises data center.

To manage the transition, IT organizations must refocus on three areas:

- 1. Strategy** – What is the goal and why?
- 2. Simplification** – What is the most direct route or method to meet the goal?
- 3. Standardization** – How can the whole organization participate and benefit without needing to go outside of IT’s governance?

This last item is often the biggest challenge. IT organizations must deal with how business units have obtained greater agility and capability by going around the IT team to engage outside technology. Often business units have focused on individual project goals, rather than overall corporate goals. This works in the short term, but in the longer term, it causes unnecessary complexity, costs and chaos. By focusing instead on strategy, simplification and standardization, your IT team can develop a plan for what your specific centers of data must look like.

**55%**

*of CIOs are measured on their success of IT cost reductions.*

*Source: Logicalis, Inc.: The Changing Role of the CIO:  
From the Periphery to the Core*

## Become More Services Defined

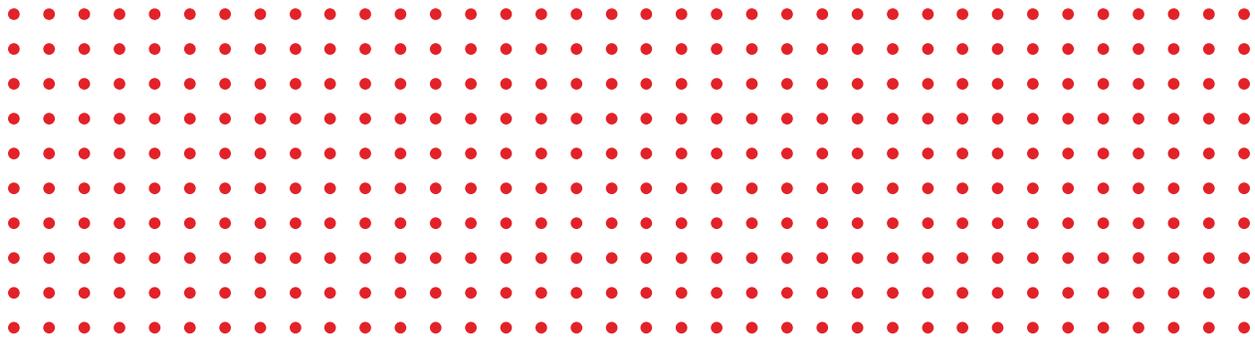
Managing this requires changing the mindset – and the skillset – of your IT team to become an internal service provider rather than a technology provider. IT organizations have long



been driving toward a goal of becoming more services defined and less technology defined. This is a must-have mindset for creating tomorrow's centers of data. It is not possible, nor desirable, to hire all the required skillsets in-house that will be needed to design, deploy, integrate, train, and service the many technologies involved in creating true centers of data.

Instead, your IT team must become an internal service provider that is comfortable guiding, directing and managing the consumption

of technology within your organization. This requires both IT skillsets for making determinations about the technology to purchase, lease or leverage as well as business skillsets for pairing internal technology “customers” with appropriate outside technology partners that will deliver on the organization’s business objectives.



**47%**

*of CIOs cite increased revenue and business growth as their priorities in the next 12 months.*

*Source: Logicalis, Inc.: The Changing Role of the CIO:  
From the Periphery to the Core*

## Get Small & Go Green

Legacy infrastructure can inhibit your organization from evolving into a new revenue producer and formidable industry competitor. In this way, older and outdated data center technology can stunt business growth. Additionally, the legacy infrastructure to support older hardware – power, cooling and facilities – comes with costs and management requirements that are often outside the control of the IT team. It may not be possible or desirable to eliminate all legacy technology. However, by focusing on the idea of getting small by reducing the footprint of the traditional data center, and of going green by enabling significant savings through energy efficiencies, you can enable your entire IT operation to run leaner.



Determine what data, apps and storage should remain on-premises, what should migrate to the cloud, what can be co-located at a partner facility as well as what makes sense to eliminate.

Your goal is to determine the optimal size and type of centers of data necessary to meet your organization's technology and business requirements. A solution based on the centers of data excellence model outlined earlier can provide the optimal solution: unlimited resources paired with the ability to maintain control behind your enterprise firewall.



**5x**

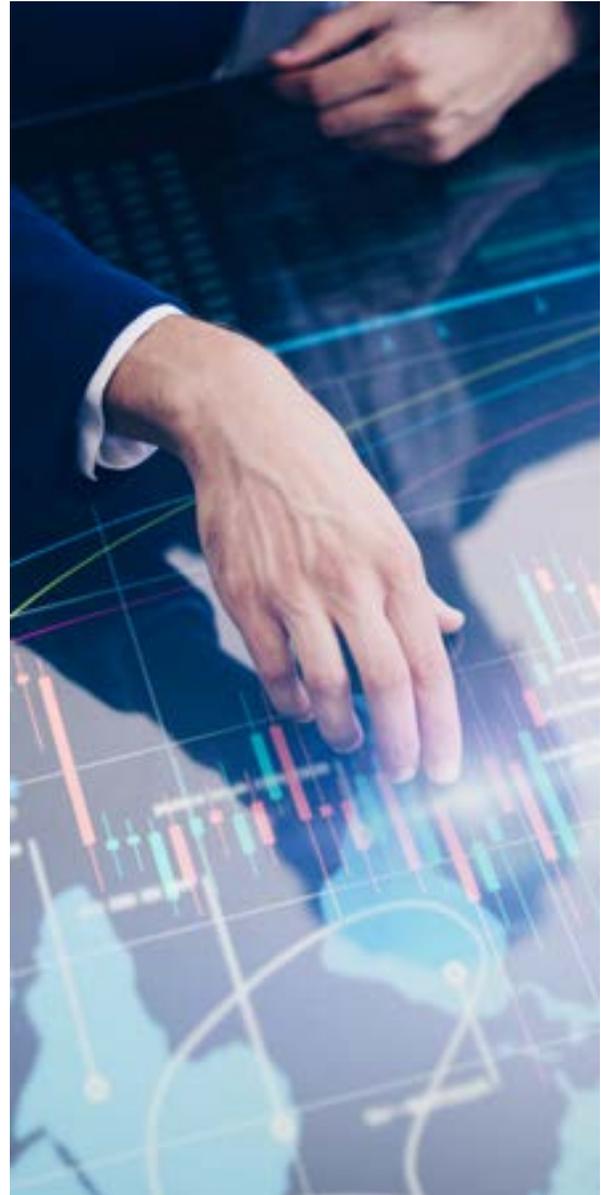
*more computational capacity per square foot than today is expected for enterprise data centers by 2025.*

*Source: Gartner, Inc.: The Future of Enterprise Data Centers — What's Next*

## Make Room for Innovation

As you begin to adapt and evolve your current data center, don't miss the opportunity to build room for future innovation. Obtain a firm commitment from your organization's leadership to set aside time to understand and nurture new ideas. Consider creating a department or team responsible for innovation that can provide an incubator for reviewing and adopting new technologies. One place to begin is by researching what your competitors are doing and how best-in-class firms handle their data needs.

Too often, yesterday's infrastructure has been stretched too thin trying to support today's intensive customer demands. As a result, your organization may be looking for strategic ways to manage and integrate siloed departments, improve efficiency, deliver an attractive ROI, and reduce costs. By developing centers of data excellence, your organization creates greater opportunities to provide customers with better, more cost-effective solutions and to build new revenue streams in the future.



**51%**

*of CIOs have increased their  
time spent on innovation.*

*Source: Logicalis, Inc.: The Changing Role of the CIO:  
From the Periphery to the Core*

# Logicalis Solutions for Centers of Data Excellence

**Sources:**

*Gartner, Inc.: Infrastructure Is Everywhere: The Evolution of Data Centers*

*Gartner, Inc.: The Future of Enterprise Data Centers — What's Next*

*Logicalis, Inc.: Emerging Technologies: From Complexity to Continuity*

*Logicalis, Inc.: The Changing Role of the CIO: From the Periphery to the Core*

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Architects of Change

# Learn more...

**Learn more about how Logicalis can help you build a data center strategy to meet your IT needs and enable you to reach your digital transformation goals.**



**Contact Logicalis to schedule a workshop:**

**<https://www.us.logicalis.com/workshops>**

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