

# Building for success with off-premises private cloud

Leveraging colocation facilities to execute  
your cloud strategy

# Table of Contents

Introduction .....	3
Colocation facilities help you .....	3
The emergence of colocation facilities as essential cloud infrastructure.....	4
How colocation facilities fit into your cloud strategy.....	5
Establish cloud adjacency .....	6
Create a presence at the edge .....	7
Reduce demand on IT resources .....	8
Strengthen cyber resiliency .....	9
Facilitate rapid organizational growth .....	10
Leverage cross connections to third parties .....	11
Establishing a winning IT strategy with Dell Technologies.....	12
Benefits of working with Dell Technologies and our partners .....	14
Colocation partners .....	15
Technology partners.....	16
Customer success .....	17
The infrastructure you use matters .....	19





# Introduction

## Reconciling disparate IT environments

To establish a competitive advantage, organizations further their digital transformation by embracing cloud capabilities and redesigning their IT environments to meet diverse needs. As a result, many organizations end up operating workloads across multiple public clouds, their on-premises environments, as well as off-premises private clouds in colocation facilities.

Why is operating multiple IT environments becoming more common? Simply put, one cloud does not, in fact, fit all. It's not uncommon for an organization to determine that certain workloads could benefit from the scalability, flexibility, and on-demand nature that public cloud offers—but also decide that other workloads need the control, security, and high performance that remains the cornerstone of private cloud. To find this blend of both environments, many are turning to colocation facilities.

## Colocation facilities help you

- Make use of public clouds while maintaining control over your data.
- Establish cloud adjacency and maximize public cloud capabilities.
- Quickly build an edge deployment that helps power your business.

# The emergence of colocation facilities as essential cloud infrastructure

While the value of private cloud is clear, organizations may decide to focus their IT resources on higher-value activities that drive the business forward instead of operating a physical environment. Further, running a private cloud on-premises requires large upfront costs, as well as the overhead of facility maintenance, power, cooling, security, and more. Some organizations may also lack core capabilities like connectivity to public clouds and other environments that they need to implement if they plan on running an efficient and well-connected data center.

These considerations often add burden to the data center and force IT leaders to make trade-off decisions. Off-premises private clouds can offer a “release valve” to an overtaxed data center, especially if that organization is experiencing rapid growth or planning an expansion of their business.

**45%**

Over 45% of organizations currently use colocation services, with another 40% planning to use them within 2 years.<sup>1</sup>

1. IDC, U.S. Enterprise Communications Survey, 2020: Colocation Services, Doc # US47066520, December 2020



# How colocation facilities fit into your cloud strategy

Colocation facilities provide reduced latency, improved bandwidth, and rapid scale-out connectivity. As a result, they can expand your options for executing a successful IT strategy and meeting your organizations needs across a range of use cases. Let's take a look at some of the ways that colocation facilities can play a part in improving your organization's overall IT experience.



- 
1. Establish cloud adjacency >>



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2. Create a presence at the edge >>



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3. Reduce demand on IT resources >>



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4. Strengthen cyber resiliency >>



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5. Facilitate rapid organizational growth >>



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6. Leverage cross connections to third parties >>



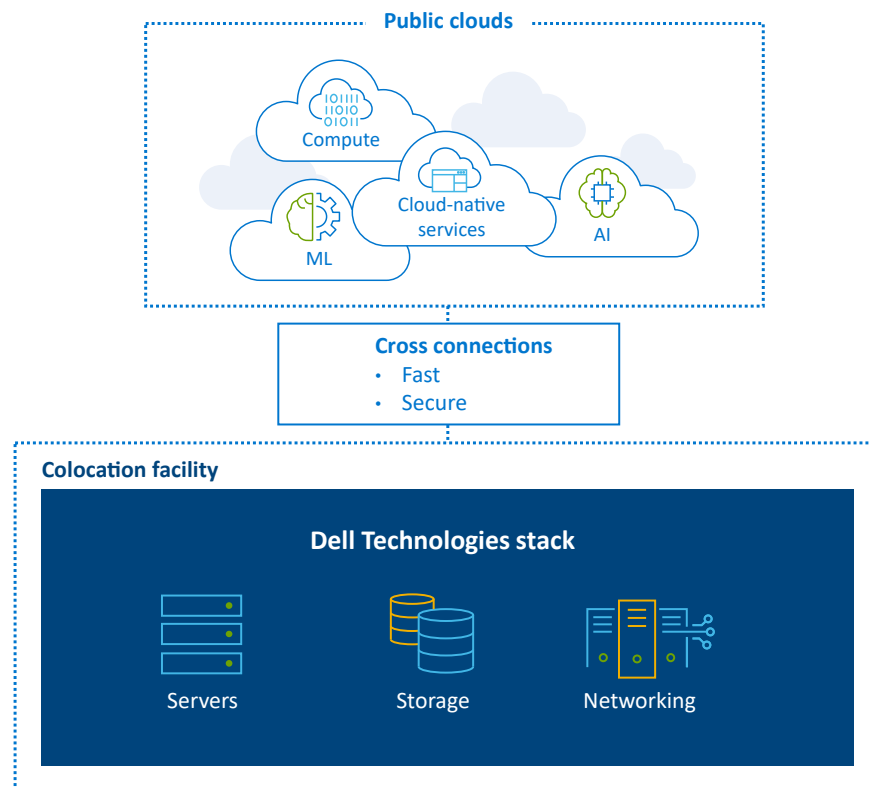
### Establish cloud adjacency

Cloud adjacency is a means to gain the benefits of public cloud without releasing control of your apps or data. By placing certain workloads closer to your public cloud provider's data centers, you can consume their service offerings without moving your data off of your infrastructure. This is an excellent way to utilize cloud-native functionality while maintaining security and regulatory compliance. For organizations struggling with maintaining SLAs, this can also help improve service levels and deliver the cloud-native functionality your modern workloads require. It can also be a useful way of managing costs and avoiding vendor lock-in. Critically, colocation facilities can be leveraged when workloads must be repatriated out of a public cloud deployment, improving security and control while continuing delivery of hyperscaler capabilities and performance levels.

# 35%

of organizations migrated to a third-party colocation provider to gain access to multiple cloud providers.<sup>2</sup>

2. IDC, U.S. Enterprise Communications Survey, 2020: Colocation Services, Doc # US47066520, December 2020

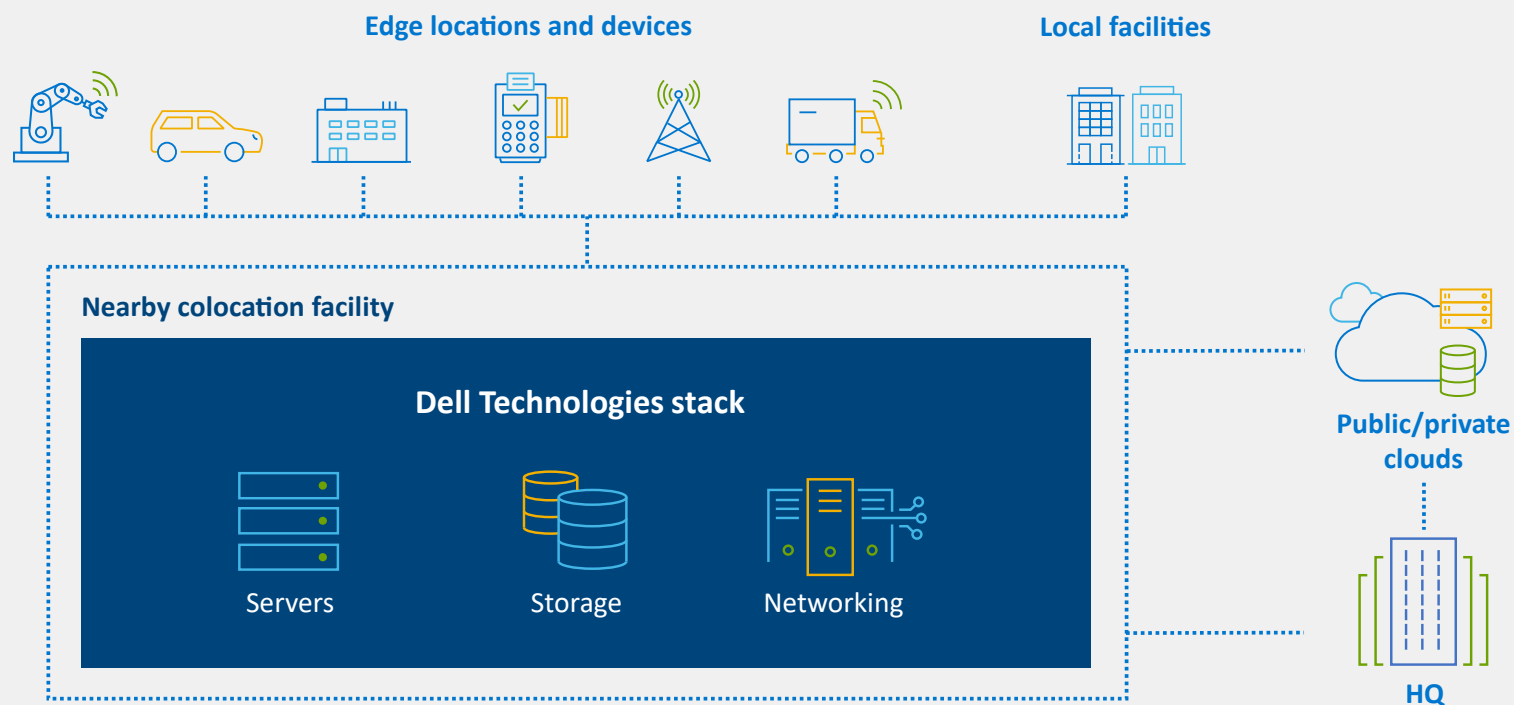




### Create a presence at the edge

When it comes to the edge, speed is everything. Similar to cloud adjacency, the principal idea for establishing edge presence is to leverage a nearby colocation facility to keep data as close as possible to its source. Establishing a "base" to route traffic from edge locations unlocks real-time analytical capabilities that simply aren't possible when your data has to travel round-trip to the public cloud and back.

Utilizing a colocation facility to establish a presence at the edge allows you to process data closer to its source, delivering the necessary speed for you to provide new value and prevent data gravity.







# 81%

of surveyed organizations agree/strongly agree that they need external technology-specific expertise to help their internal teams be successful.<sup>3</sup>

### Reduce demand on IT resources

This option is the managed private cloud experience. That is, you employ managed services to keep your data center running at peak performance, rather than allocating your own IT resources. The result is you can dramatically reduce the level of staffing you need to dedicate to undifferentiated tasks and keep your team focused on innovation.

This can be a very good option for enterprises, as they can overcome multiple roadblocks that hinder digital transformation. For example, OpEx cost models for colocation facilities can relieve budget constraints while enabling businesses to deploy modernized IT. A managed private cloud also offers more physical space for customer infrastructure and removes the burden of facility costs like power and cooling.

#### SERVICE MANAGEMENT

Teams that work with business users to determine KPIs, build supporting services, and ensure governance and compliance.

#### AUTOMATION

Provision resources, automate processes for CI/CD, and provide connectivity frameworks.

#### INFRASTRUCTURE OPS

Design and manage cloud environments, configure and maintain infrastructure, and build APIs to enable self-service provisioning of resources.

#### APP/DEV PLATFORM OPS

Configure and operate development platforms, upgrade and scale environments, and expose application APIs.

3. A commissioned study conducted by Forrester Consulting on behalf of Dell Technologies, December 2020

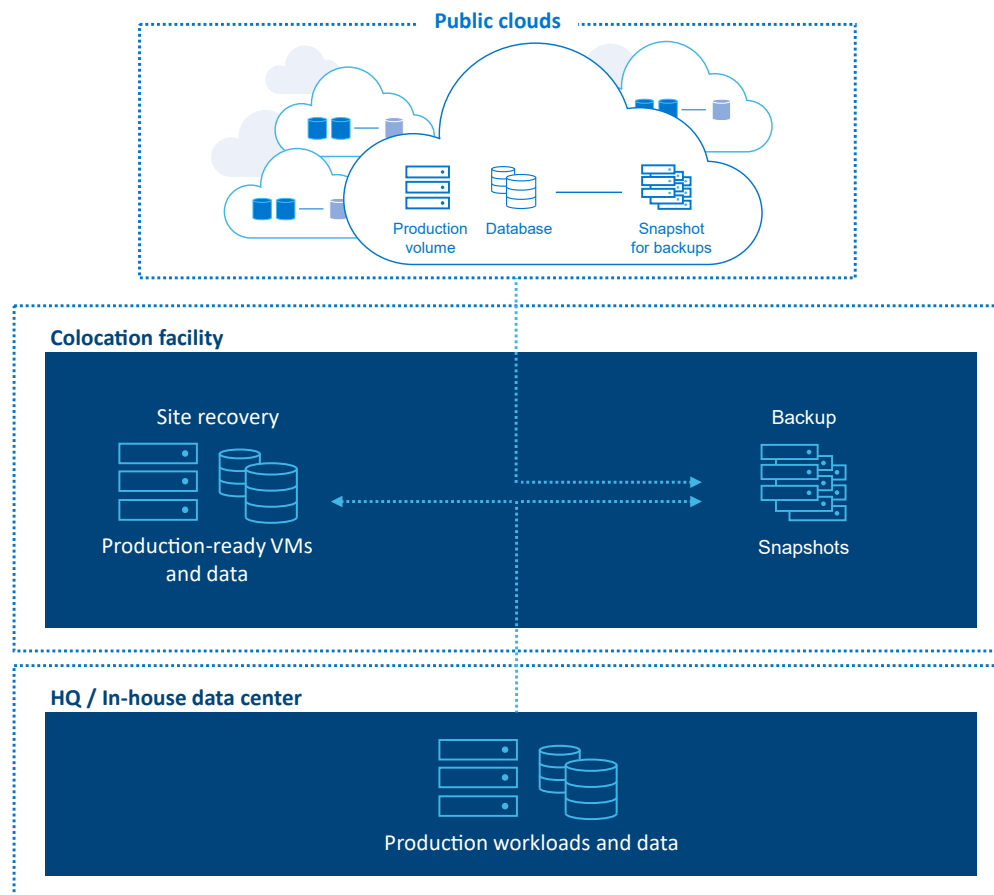


### Strengthen cyber resiliency

Leveraging a colocation facility is an effective way to quickly build redundancy into your IT landscape, eliminating single points of failure and improving overall business resiliency. As a result, you can reduce the risk of data loss and better support workloads that require high availability. They can also be used to establish a disaster recovery plan and set up warm and cold backup solutions for both your data center and public clouds. Colocation facility providers often have standardized templates to assist organizations in deploying IT for resiliency use cases, improving compliance and minimizing risk across the board.

# 37%

of organizations indicated that improving data backup and recovery will be their most significant investment over the next 12-18 months.<sup>4</sup>

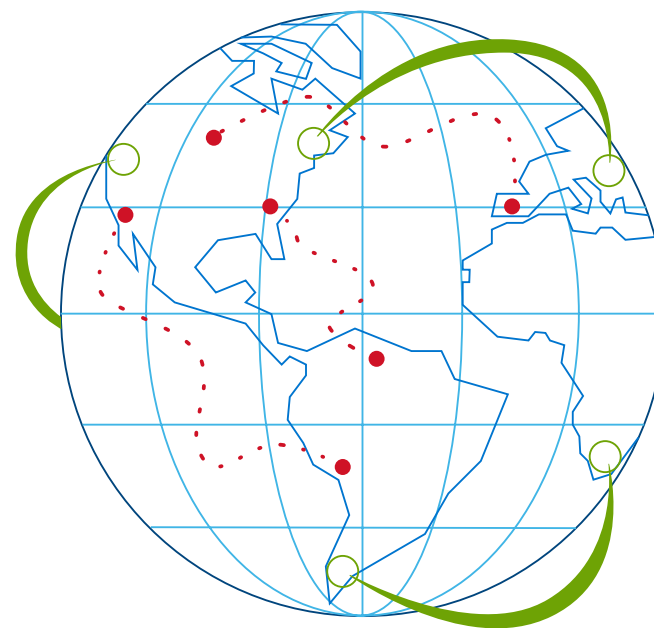


4. ESG: 2020 Technology Spending Intentions Survey

### Facilitate rapid organizational growth

Data centers can't be built overnight, and yet you need to be able to keep up with organizational growth no matter how fast your organization moves. Colocation facilities can provide the geographic footprint you need to rapidly expand your presence and scale operations without having to stand up technology in a new location.

An enterprise expanding to a new continent can ease that transition by leveraging a colocation facility. When time is of the essence, this can be a great way to quickly get services up and running at scale in a new location. Colocation facilities can also serve as a “release valve” for an over-burdened data center when organizations are experiencing rapid growth.



#### DID YOU KNOW?

**As business has become increasingly digital, organizations have become increasingly global, and there are many challenges to expanding in new regions.**

For example, an enterprise looking to the EU will have to comply with GDPR laws governing the use of data as well as changing geopolitical situations such as Brexit. Furthermore, regional expansion could be complicated due to data sovereignty mandates—which dictate where data is controlled by the countries where it is created. A colocation facility reduces these potential challenges by allowing you to stand up localized resources where you need them, within the bounds of that country's compliance laws.

## 30%

Approximately 30% of organizations that have migrated to a third-party colocation provider did so for geographical expansion to additional metro areas.<sup>5</sup>

5. IDC, U.S. Enterprise Communications Survey, 2020: Colocation Services, Doc # US47066520, December 2020



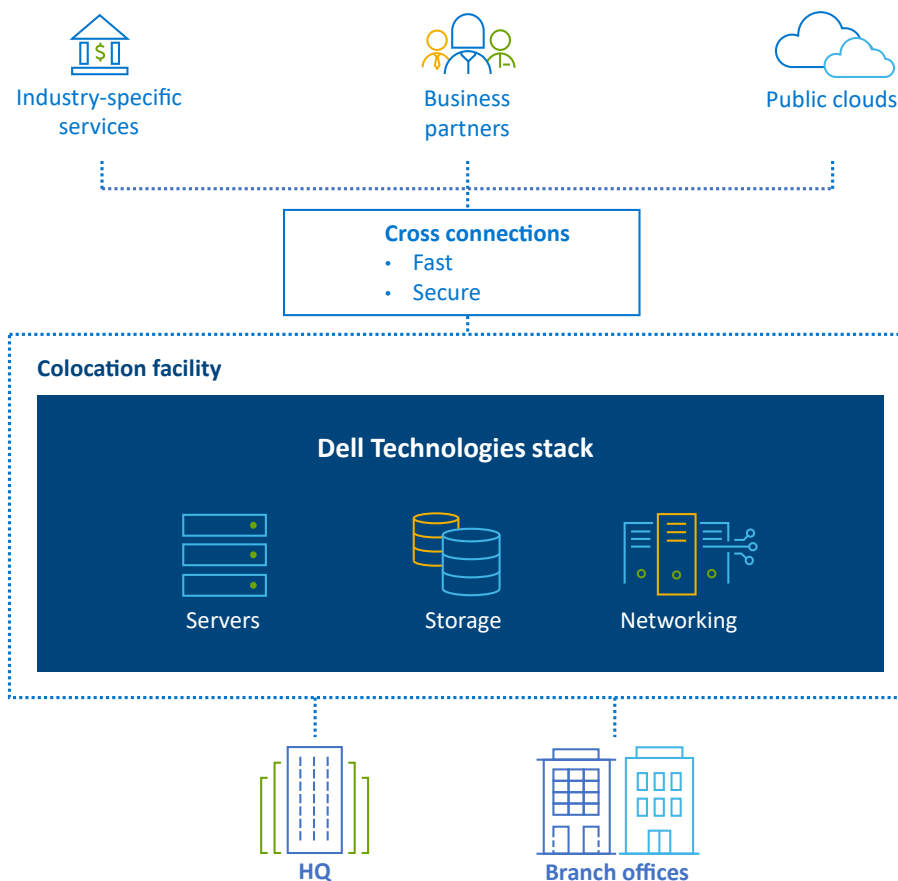


### Leverage cross connections to third parties

Cross connections create a direct cable connection between two disparate facilities, bypassing the public internet. As a result, they are able to achieve extremely reliable throughput and speed while avoiding potential network failures. Colocation facilities often have these direct cable arrangements in place with public cloud providers and other organizations that offer industry-specific services and niche products, such as stock trading companies. When fast and secure connections to such third-party offerings are necessary, leveraging a nearby colocation facility is often advantageous.

## 50%

Over 50% of organizations use cloud connect services to provide access to applications in the cloud.<sup>6</sup>



6. IDC, U.S. Enterprise Communications Survey, 2020: Colocation Services, Doc # US47066520, December 2020

# Establishing a winning IT strategy with Dell Technologies

The practice of “bending your business” to conform with service providers’ operating models needs to end. Whether some or all of the use cases discussed in this eBook apply to your organization, one concept is critical to remember: no matter which environment you run workloads in, you should expect a flexible experience that meets your needs. Dell Technologies enables you to embrace a successful IT strategy, inclusive of all clouds as well as on-premises and off-premises environments. Our goal is to provide that flexible experience while also removing the complexity that hampers the success of many organizations’ cloud journeys—we call that experience APEX.

Dell Technologies APEX Cloud Services is a radically simplified approach to IT operations that makes as-a-Service the new standard experience for delivering technology across all workloads and IT environments. By providing managed technology solutions that rapidly scale and are controlled by you, APEX Cloud Services enables you to run your cloud on your terms.



Quickly respond to changing business dynamics with as-a-Service capabilities everywhere.



Establish a consistent experience across all cloud and edge environments.



Operate with confidence by building on industry-leading infrastructure.

### Delivering as-a-Service capabilities everywhere

APEX delivers on your needs for as-a-Service everywhere, enabling you to bring together what you love about public cloud and what you need in private cloud—so you can meet today's challenges and be ready for what's next. Stand up resources with greater cost transparency, no upfront costs, no long-term commitments, and no lengthy approvals—freeing up time and budget for other priorities. Upon renewal, technology is rotated and refreshed to the latest innovations, ensuring everything operates with optimal security, performance and efficiency—and hyperscale flexibility anywhere you demand it.

### Enabling consistency across clouds

All too often, IT landscapes become littered with complexity due to inconsistent experiences and disparate management tools, leaving organizations open to risk. APEX Cloud Services provide much-needed consistency across all your environments, improving your security posture and helping you meet regulatory compliance objectives while reducing management complexity and overhead. This means that your organization can leverage a familiar toolset to deploy workloads in the environment that best meets your business and application needs, and power those workloads reliably and securely. Your developers will also have the toolsets they need to innovate across clouds, driving innovation for your organizations. Furthermore, APEX Cloud Services enable financial consistency as well—consumption-based purchasing models, cost transparency, and predictability all lead to stable costs across entire cloud strategies.

### Building on industry-leading infrastructure

No matter what consumption model, or how consistent your cloud deployment is, your organization needs powerful and reliable infrastructure to provide constant performance. Dell Technologies has the best-of-breed infrastructure, loaded with cutting-edge software to manage IT upkeep and proactively respond to security threats. APEX is our commitment to deliver our full portfolio—servers, storage and compute—in an as-a-Service manner, something only Dell Technologies and our robust partner community can deliver.

**48%**

of organizations currently prefer to consume data center infrastructure in a pay-per-use model.<sup>7</sup>

7. ESG: 2020 Technology Spending Intentions Survey



# Benefits of working with Dell Technologies and our partners

Dell Technologies is uniquely positioned to help you optimize your IT landscape. Across every section of the technology stack, with support options available every step of the way, and with a broad partner ecosystem spanning the globe, Dell Technologies can help you build what you need to enable success.

## Global partner ecosystem

Dell Technologies maintains a global network of 4,200+ trusted partnerships. Through this network, we provide the expanded value-added services and deployment models customers demand to accelerate their adoption of the cloud operating model—from advice, to design, to deployment, to multi-cloud orchestration, to full-stack managed services and outsourcing. Our partners provide the solutions, services, and vertical market expertise at scale on day one to help you realize your digital transformation and business objectives quickly and cost-effectively.

## Experienced IT provider

We have helped organizations of all sizes power their most essential workloads and we can leverage that experience to help your organization too. Whether your organization needs a turnkey cloud solution, data protection, storage for multi-cloud, or auxiliary services such as VDI or WAN solutions, we offer the best-of-breed technology so you can confidently deliver the best results.

## Professional services

Dell Technologies has helped thousands of customers successfully create and operate cloud environments with our global support network of 35,000 technical experts supporting 170 countries. The depth of our expertise ensures that no matter what your business goals, we can help you achieve them.

## Global supply chain

Our supply chain and its ability to reach, service, and support customers virtually anywhere in the world is unmatched. Dozens of manufacturing locations, hundreds of distribution centers, and thousands of service centers allow organizations to stand up physical IT in a colocation facility in as little as fourteen days. Certified engineers install and configure hardware, allowing your IT teams to focus on higher-value activities.

# Colocation partners

The use of colocation facilities to augment and expand your existing IT capabilities is about meeting your technology needs wherever they may be. These facilities can play an important role in extending consistency across your entire IT landscape and providing an important piece of the puzzle as you craft an IT strategy that's aligned to the needs of your organization.

By working closely with our partners, we are able to drive transformative results and tangible business results for our customers. Major organizations across the globe have worked with us to realize increased performance, lowered costs, reduced latency, and heightened security.

Our colocation partners help make these outcomes a reality by offering:



## **A SECURE LOCATION**

Get up and running quickly in new regions or expand current operations.



## **DATA CENTER OPERATIONS BEST PRACTICES**

Proven architectures to support business resiliency.



## **ENHANCED CONNECTIVITY**

Established cross connections with key business partners.



## **ADVANCED ARCHITECTURES**

Accelerate digital transformation with next-gen deployment models, including cloud interconnectivity, edge, and AI/ML.



## **IT MANAGEMENT EXPERTISE**

Freeing up your staff to focus on high value activities.

# Technology partners



On premises, in the public cloud, or at the edge, Dell Technologies and Intel work together to ensure optimal performance across a broad range of workloads. Intel technology is built upon years of cloud innovation and tuned to your unique needs with built-in AI and Crypto acceleration and advanced security capabilities. Built on open standards and APIs, with fully optimized software and security, Intel Xeon Scalable processors provide a consistent processing foundation, enable the flexibility to place your workloads with confidence, and evolve your infrastructure for changing needs, streamlining cost, and enhancing data governance. Intel's data-centric portfolio is built on decades of application optimizations, designed to help your business move faster, store more, and process everything from edge to cloud.



VMware Cloud on Dell EMC combines the simplicity and agility of the public cloud with the enhanced security and control of on-premises infrastructure, owned, operated and delivered as-a-service to data center and edge locations by VMware. This fully managed VMware Cloud service provides a simple, secure, and scalable infrastructure for customer's on-premises datacenter and edge locations. VMware's industry leading compute, storage, and networking software is integrated with enterprise-class Dell EMC hardware, empowering you to drive any enterprise workload. VMware empowers you to overcome multi-cloud complexity with software-defined solutions that simplify management and improve app and data portability, allowing you to focus on business innovation and differentiation.



# Customer success

Many organizations have found success working with Dell Technologies and a colocation facility provider to stand up and round out their IT strategy. Below are four examples of our customers utilizing one, or more, of the previously-discussed use cases to enact digital transformation, working in conjunction with Dell Technologies and our colocation partner Equinix.



## Cloud adjacent architecture reduces latency and cuts costs in half

A large global digital advertiser offering self-service platform data-driven digital advertising campaigns quickly outgrew their ability to service customers and online public auctions that drive their business. They needed to repatriate critical workloads by moving from public cloud-only infrastructure to a hybrid cloud solution. Working together, Dell Technologies and Equinix designed a sovereign, adjacent hybrid cloud architecture, geographically scalable with high performance and cost-efficient network connectivity. The resulting architecture reduced infrastructure management costs by 50% and lowered bid latency to less than 100MS.



## Edge retail solution improves customer experience around the globe

Working with a large retailer, Dell Technologies and Equinix teamed together to develop a global network of point-of-sales solutions for their 20,000+ retail locations. Dell established the enterprise datacenters, while the colocation facility provided the backbone for the retailer's global network. The joint solution supports a worldwide footprint and moves their retail solutions to the edge for a better customer experience. The resulting edge architecture leveraged the colocation provider's massive network interconnections to reduce latency by 400% and reduce networking costs by 3x.



### Global supplier improves and scales disaster recovery solution worldwide

A leading global logistics provider to food service and convenience stores computes billions of data forecasts down to the ingredient level for restaurants worldwide. As their customer demands exponentially scaled, this provider needed to scale its forecasting, data warehousing, and disaster recovery capabilities worldwide. Working together with Equinix, it was decided that it was best to work across multiple cloud providers through public cloud interconnects and adjacent Dell Technologies solutions. The resulting solution drives a 30% performance improvement across a 5x increase in workloads, and simultaneously drives an overall cost savings of 35% annually.



### Unified communications platform expands into nine new regions in a matter of days

A large web content provider needed to scale their collaboration and unified collaboration platform radically. Experiencing rapid global growth, the provider needed an efficient and cost-effectively established presence in new international markets, including Europe and Asia-Pacific. Leveraging infrastructure from Dell Technologies and Equinix's data center, this customer expanded into nine markets worldwide across 12 data centers. The provider harnessed the colocation partner's public cloud on-ramps to quickly set up and scale its access to networks, clouds, partners, and customers in just days.



# The infrastructure you use matters

Colocation facilities are an excellent tool to help you gain, and keep, full control of your IT without trading modern compute and scalability capabilities. Leveraging these facilities enable you to exercise full control over your workloads, while applying the ability to rapidly power up and scale via hyperscalers. Critically, you will be able to run your workloads with the infrastructure you choose to deploy. Regardless of which use case(s) discussed in this eBook apply to your organization, you will need to ensure the solutions you deploy are powerful and agile enough to power your organization now and in the future.

Dell Technologies provides foundational cloud solutions built to address your unique business needs. Now, you can deliver cloud capabilities to every environment, powering your critical applications while equipping your development teams for success. You can consume cloud infrastructure as-a-Service in your on-premises environments, allowing you to realize a true cloud experience in your data center. Finally, APEX Cloud Services simplifies the management process, freeing you up to focus on high-value transformative actions.

To stay ahead of the competition, you need to leverage a broad and powerful portfolio of solutions paired with expert professional services and an unmatched global supply chain to support all your cloud environments. With Dell Technologies by your side, you'll be ready for what comes next.

Contact us today to learn how we can help you find success with cloud.

## ADDITIONAL RESOURCES

- [Dell Technologies APEX](#)
- [Dell Technologies Services](#)
- [Designing a Successful Cloud Implementation \(eBook\)](#)