

DECEMBER 2019



**FINDING THE CLOUD MIDDLE GROUND:  
HOW DELL TECHNOLOGIES AND ITS  
PARTNERS ENABLE CLOUD YOUR WAY**





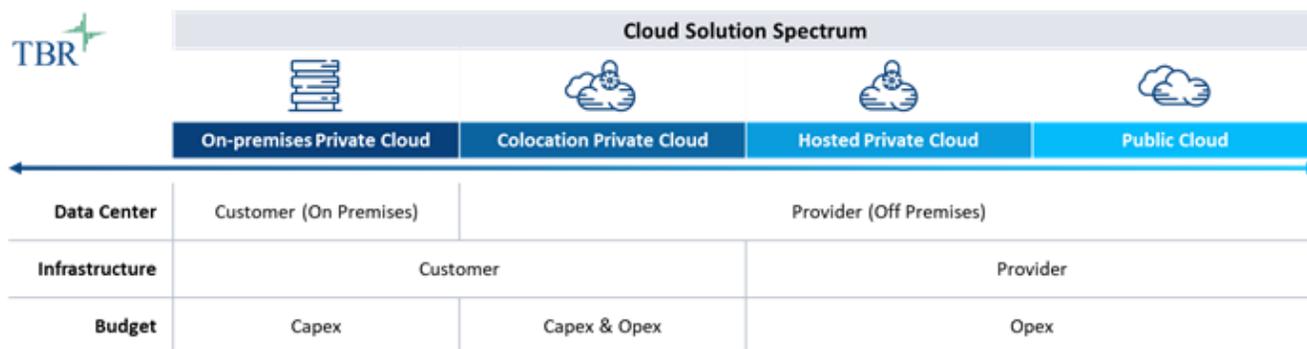
## GARNERING CLOUD ADVANTAGES THROUGH A SPECTRUM OF OPTIONS

Despite the growth of the cloud market over the past 10 years, cloud solutions' impact on most customers' IT strategies has just begun. On average, cloud still represents less than 15% of total IT spending, and most customers started their usage moving the lowest-risk and easiest-to-migrate portions of their environments to public cloud. Public cloud is agile, fast to deploy, easy to scale and predicted to reach annual growth of 10% or more over the next five years. But for all the benefits of public cloud, many customers are also coming to realize its risks and limitations. As one customer succinctly said:

*“For us, moving too far to public cloud was like using a sports car for your daily commute. It was certainly fast, but it was also hard to control and, as a result, expensive. We changed quickly and are taking a much more measured approach that takes into account all the options, including private options.”*

— VP and Managing Director, Telecommunications

The performance, security, trust and compliance requirements associated with more mission-critical workloads go well beyond the public cloud services used for much of the initial phase of cloud adoption. In response, companies have turned to private cloud, which is expected to grow at a steady 9% to 10% annually through 2022. Public cloud growth, by comparison, will show a steady deceleration through 2022. Private cloud addresses mission-critical workloads by providing controls for performance, availability, security, trust, and compliance while at the same time providing predictable control and optimization of costs. Given these much different features, more customers are investigating new ways to deliver both public and private cloud capabilities through a full spectrum of cloud delivery models, extending well beyond the most basic public cloud options.





Even within private cloud, a spectrum exists for customers to either own or offload the key components of the environment: data center facilities, infrastructure, budget and management. By utilizing hosted private cloud colocation services as part of their IT strategy, customers are able to realize many of the benefits of cloud delivery while retaining more control over their environments. Especially for more mission-critical workloads, these two “middle ground” categories of cloud solutions — colocation private cloud and hosted private cloud — are set to play a larger role in the next phase of cloud adoption.

<b>Hybrid Cloud</b>	Two or more clouds (public or private) that are integrated by standardized or proprietary technology that enables data and application portability
<b>Hybrid IT</b>	Cloud and noncloud technologies are integrated by standardized or proprietary technology that enables data sharing, application portability and common management
<b>Public Cloud</b>	Multitenancy infrastructure, platform and application offerings generally available and delivered from infrastructure owned by the provider
<b>Hosted Private Cloud</b>	Single-tenancy dedicated infrastructure, platform and application offerings serving a single client or common industry group and delivered from infrastructure owned by the provider

Hosted (off-premises) private services offer benefits across all three components of the solution without sacrificing performance, security and customization, as commonly occurs with public cloud environments. Colocation directly addresses the data center facilities’ portion of the overall IT strategy and is a great stepping-stone for customers moving owned data center environments or moving workloads back from public environments. Most customers are looking to decrease their data center footprints, and colocation allows them to shift part of that environment to a third-party host.

Beyond the core components of cloud solutions, skills needed to operate the environment are becoming a primary consideration in purchase decisions. The limited availability and high cost of skilled workers is a ubiquitous challenge driving more customers to evaluate hosted private cloud and colocation options, which integrate core solution offerings and managed services more tightly. Cloud service providers (CSPs) are some of the biggest suppliers of hosted private cloud services, which are often customized to the solutions customers are looking to put in place and often paired with managed services to deliver a more complete package. Their smaller scale and larger focus on the service needs of customers are two primary points of differentiation compared to large public cloud providers. As one IT SVP at a large entertainment business put it, “Managed hosted private cloud is gaining some steam, mainly because it’s the easiest way of digitally transforming your business. It can be a way to really focus on running your business versus running an infrastructure or running technology. From a feature perspective, hosted private makes the most sense for most companies.”





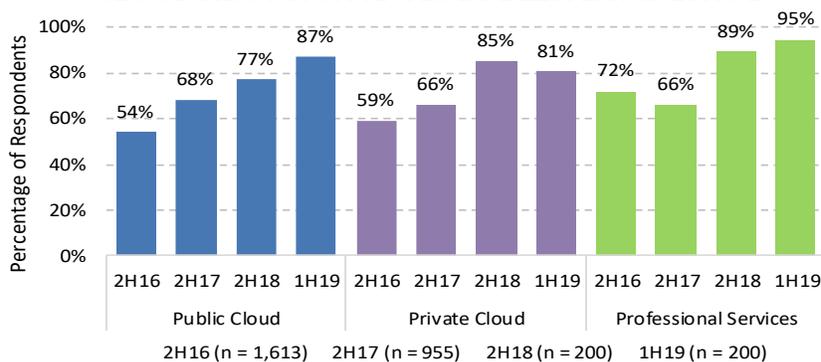
## HOSTED PRIVATE CLOUD HAS EMERGED ON THE RADAR AND HITS BUDGET CONSIDERATIONS OF ENTERPRISE CUSTOMERS

Hosted private cloud has evolved from a niche delivery option to an often evaluated and frequently implemented component of customers' IT environments. Much of that development has been driven by the change in criteria as customers consider more core portions of their IT environment for cloud delivery. Hosted private cloud can deliver many of the budgeting, ease-of-implementation and scalability benefits of cloud while offering the dedication, performance, security and customization needed for more critical workloads. As shown in Figure 1, hosted private cloud solutions are nearly on par with public cloud options in overall adoption rates for enterprise (500-plus employees) customers.

Figure 1



### CLOUD ADOPTION RATES BY DELIVERY METHOD



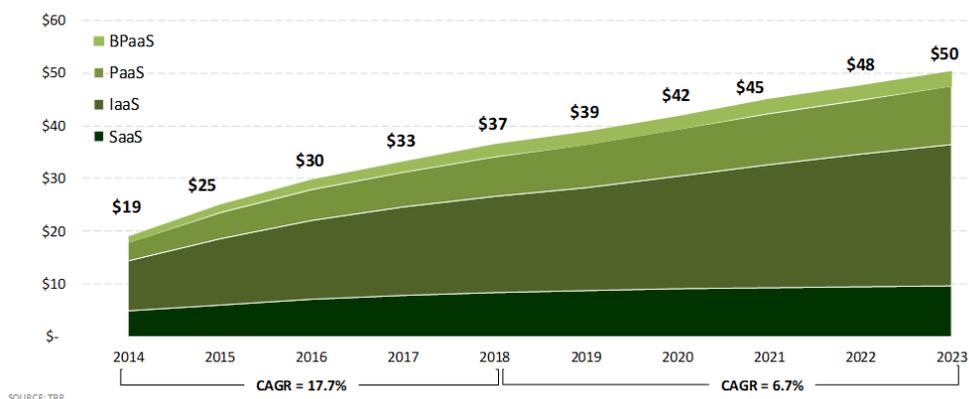
SOURCE: TBR 1H19

Beyond initial adoption rates, the amount of investment in hosted private cloud solutions is substantial. The market has grown significantly over the past five years and is expected to become a \$50 billion market by 2023.

Figure 2

### TBR HOSTED PRIVATE CLOUD MARKET FORECAST

Market Size (in \$ Billions)



SOURCE: TBR





The drivers of this expansion include:

- **Security, service-level agreements (SLAs) and compliance:** As one healthcare CIO put it, “Our provider offered a private cloud that allowed us to put the entire operating environment in their data center all bundled. A very aggressive SLA, which is the service-level agreement regarding uptime performance, and they manage everything. [It] has all the infrastructure and network, computes, storage, the full software stack, and they bundled that all into that SLA — all HIPAA, SOC 2 compliant. So that was really the first major push into, ‘Hey, we’re going to let somebody else manage our mission-critical infrastructure.’”
- **Data center consolidation:** From a data center perspective, it has taken longer for the benefits of cloud to become evident to customers. Moving a small handful of non-mission-critical workloads to a cloud environment does not significantly change physical data center requirements, but a number of factors are converging to allow a consolidation of data center facilities for an increasing number of customers. As more workloads have been moved to off-premises cloud environments, the utilization of physical data center facilities has decreased. This decreased utilization of data center space has been exacerbated by the increased density afforded by new IT infrastructure, such as hyperconverged systems. Being able to consolidate, downsize and offload physical data centers is a big part of the cloud value proposition for most customers.



*“Really, in five years, we hope that our on-premises data center is virtually going to disappear. We’ve modeled the cost out over that time of what it’s going to be, so it’s a lot bigger opex than we’re used to. It adds about 30%, 40% to the opex line. [It] reduces some of our capex spend, but it gives the business agility because we’re still growing a lot through acquisition, to scale quickly, versus, I’m buying more storage, more servers, et cetera. That slowness, that time it takes to do that, goes away with this new model.”*



— CIO, Utilities

- **Skills and managed services:** The challenge of finding and retaining skilled and certified staff is a pain point that transcends industry, company size and geographic location. The difficulty in addressing this issue is great enough for general noncloud IT strategies, but is even more pronounced when it comes to cloud technologies. Without staff that is trained, certified and experienced in operating cloud solutions, most customers are not able to take advantage of their benefits. Greater availability of skills and managed services is another way middle ground cloud options can offer unique value to customers.





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*“We consolidated our physical data centers working with a colocation provider. As part of that move, we took advantage of managed services from a local partner that allowed us to ease the management overhead of those workloads. It made a lot of sense for us to add that component to the overall solution.”*

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— Director of Technology, Education

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*“For a lot of our specialty skills, database administration, some security elements, having a trusted service partner is a great option. We’ve been shifting a lot of those management tasks to our partners, which is actually a lot more stable from a staffing perspective and cost-effective compared with trying to manage everything in-house.”*

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— CIO, Media

## ▼ DELL TECHNOLOGIES’ PORTFOLIO, COMBINED WITH ITS PARTNER NETWORK, CREATES A STRONG HOSTED PRIVATE CLOUD VALUE PROPOSITION

As customers become more aware of the full spectrum of cloud delivery options, the value that Dell Technologies can bring to customers becomes more apparent. Addressing the requirements that fall in the “middle ground” of cloud deployments is a difficult task. Pure cloud providers lack the traditional IT experience and service partner networks that those types of delivery methods require. Dell Technologies’ value proposition starts with a portfolio that aligns with customers’ multicloud and hybrid environments. By modernizing core infrastructure platforms to enable private cloud deployments and integration with other on-premises and public cloud assets, and through engineering efforts with strategically aligned businesses, including VMware and Pivotal, Dell Technologies delivers extensive capabilities to customers and partners deploying hosted or on-premises private clouds.

Dell Technologies’ investments are significant, but much of the value the company can offer customers evaluating hosted private cloud technologies comes from its partner network. This global partner network makes Dell Technologies’ cloud-focused product offerings even more consumable for customers and addresses the full spectrum of client needs, which often include managed services and other support.





Part of the strength of Dell Technologies' partner network comes from its history, as Dell's and legacy EMC's partner programs, now combined, provide a strong base and extended history of delivering solutions based on their technology portfolios. Customers have access to CSP partners in all major geographic regions, providing customized engagement as well as packaged "as a Service" offerings — including backup, disaster recovery, big data and Desktop as a Service, among others — that target primary customer use cases for cloud and hosted private cloud. One of the biggest benefits of working with a Dell Technologies CSP is the tight bundling with service offerings to offset the administrative, management and security requirements of customer workloads.

Given the forthcoming shift of mission-critical workloads to cloud, there are steps customers should take to start leveraging hosted private cloud as a delivery strategy:

- **Customers should take stock of all their options.** Learning about what companies like Dell Technologies offer, including partner and proprietary solutions, positions customers to make well-informed decisions for their entire business.
- **Second,** customers should engage with a company like Dell Technologies to evaluate workloads best suited for a hosted private cloud environment. Getting upfront consulting and guidance is an important step to making the right decision and a major benefit of working with an established IT provider and its partner network.
- **Lastly,** work with the account team of a company like Dell Technologies to find a partner that can match specific project requirements.

As customers move beyond the initial use cases for cloud, these steps are important to ensure the full spectrum of options are being evaluated. Public cloud remains an important tool, but private cloud in general and hosted private cloud in particular offer many benefits. The ability to customize, control and leverage complementary services for private cloud environments sets them apart in the spectrum of cloud delivery methods. Beyond just the technology, customers will require solutions for their next phase of cloud adoption, not just access to the technology. These decisions will involve infrastructure, overhead, skills and staffing that can be greatly aided with help from service partners. Dynamics like these are exactly why providers such as Dell Technologies and their network of partners are so valuable to customers. In light of all these factors, we believe Dell Technologies and its CSP partners provide the options and support required to move critical customer workloads to the cloud, enabling customers to take full advantage of the spectrum of available delivery options.





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Serving a global clientele, TBR provides timely and actionable market research and business intelligence in formats that are tailored to clients' needs. Our analysts are available to further address client-specific issues or information needs on an inquiry or proprietary consulting basis.



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