

Healthcare: Cost-Effective Meets Compliant

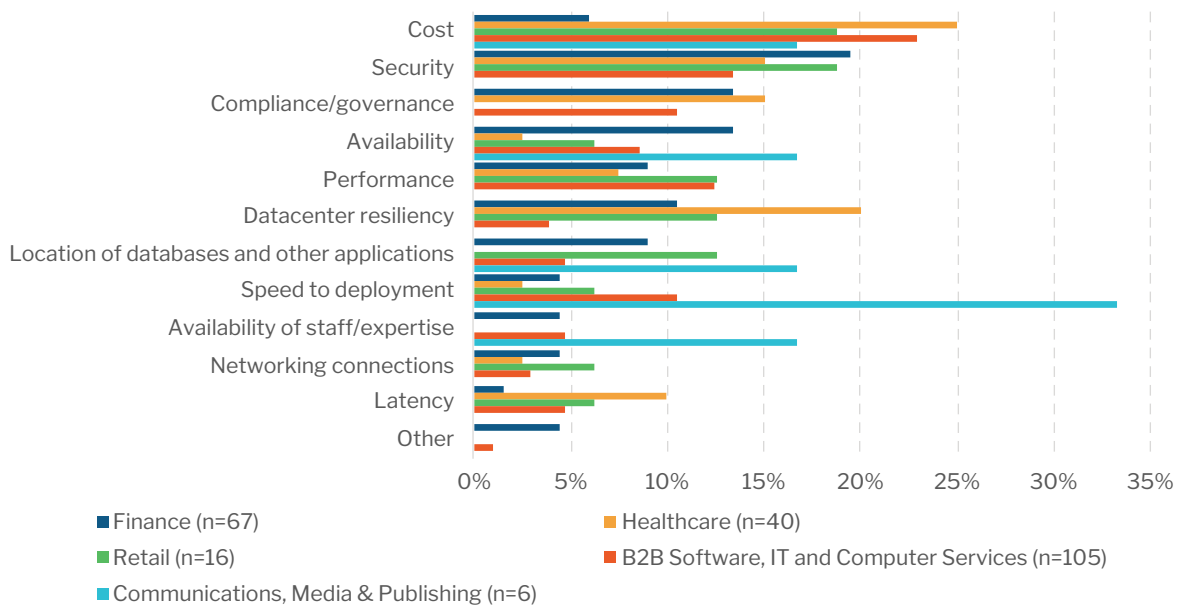
The 451 Take

Physical location of data for healthcare service providers is still driven by a combination of cost, security and compliance, resiliency and latency. More than 25% of healthcare services organizations surveyed say that cost is still the primary factor in determining the location of workloads, and that organizations will often choose the cheapest option in the desired location. Cost is followed closely by datacenter resiliency (20%), security (15%) and compliance (15%). As regulations around ePHI tighten in the US, and as more governments globally implement data security and sovereignty regulations around citizens' private data, healthcare organizations are forced to spend more time on data management while still providing low-latency, cost-effective access to data.

While cloud services can offer some level of geographic proximity to end users and aid in reduced latency in some cases, cloud is not always the most cost-effective option, and cloud service providers have experienced lengthy outages impacting up to thousands of customers at a time. Consistent access to patient data at all times is a necessity for healthcare providers, as are short recovery periods when an outage does occur. Additionally, healthcare services organizations note that their own customers require sub-millisecond access to critical operations and data, determining the geographical proximity for providers. Colocation facilities are typically better equipped to handle the diverse requirements, allowing service providers to choose specific locations, redundancy levels and competitive price points with the security and compliance assurances necessary to protect sensitive data.

Most Influential Factor in Determining Best Primary Workload Location

Source: 451 Research, Voice of the Enterprise: Datacenter Transformation, Workloads and Key Projects 2018
 In general, which factor is most influential when determining the best primary location for a workload?



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Business Impact

ADOPT EDGE DATACENTERS TO REDUCE COST AND LATENCY, SUPPORT PROXIMITY. Cost of services is still at the top of the list for healthcare service providers when considering their options for primary workload location. Cloud can be expensive, especially when building in the resiliency, security and redundancy that healthcare services require; however, these providers also require geographical proximity to their own customers to reduce latency.

EMPLOY PRE-AUDITED COLOCATION FACILITIES TO ALLEVIATE COMPLIANCE CHALLENGES. Healthcare security concerns are tied directly to compliance with HIPAA and HITECH regulations to protect electronic health information. Globally, governments have developed complicated data sovereignty laws governing all aspects of data, from location to provider ownership limitations. Cloud and SaaS solutions can be difficult to pursue because these service providers may not be able to support the security protocols to safeguard data. Colocation facilities have often been audited against specific elements of HIPAA, allowing organizations to easily verify the provider's ability to assist with compliance.

ENLIST FACILITIES WITH HIGH REDUNDANCY TO SUPPORT UPTIME OF CRITICAL DATA. With the transition to ePHI, datacenter uptime has become increasingly important in order to maintain access to patient data. While cloud services may offer some levels of redundancy, many providers have experienced outages, some impacting thousands of businesses at a time. Healthcare organizations work to remain sensitive to the requirements of their customers, including short disaster-recovery time limits. This often means relying on regional colocation facilities that offer 100% uptime SLAs and multiple options for redundancy within the facility.

DEVELOP A HYBRID IT APPROACH TO REDUCE LATENCY OF CRITICAL OPERATIONS. In addition to cost, security and uptime, many healthcare organizations are responding to latency requests from their end users as they develop a strategy for workload and application location. End users typically want access to critical operations in one millisecond or less. The overwhelming response to addressing these needs is a hybrid approach leveraging a combination of local colocation deployments with regional cloud storage to achieve reduced latency for critical operations.

Looking Ahead

Legislated data security and privacy mandates will only become more stringent over time, forcing healthcare service providers to constantly reevaluate their options for data storage. However, with the complex task of incorporating aging infrastructure and applications with ever-evolving technological advances while maintaining latency and security, most healthcare services organizations will benefit from leveraging colocation facilities as a primary landing point for most of their workloads from a cost standpoint. Incidentally, the face of the datacenter is also changing, which will give healthcare organizations additional options such as software-defined datacenters to consider in place of traditional cloud or colocation environments.



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