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Cloud-Based Managed Services Allow Healthcare Organizations to Do What They Do Best: Focus on Patient Care

Healthcare organizations that still use an on-premises model for electronic health record (EHR) delivery are operating at a significant disadvantage. With cloud-computing services now central to modern technology strategy, a hybrid, cloud-based approach offers distinct benefits for hospitals, providers and patients. When managed by an experienced IT services partner, this cloud-based strategy helps organizations address current needs, build capabilities for the future and ensure that critical data is always safe and accessible.

According to Gartner, by 2022, 75% of all healthcare provider organizations will have a formal cloud strategy in place. Cloud-based data management allows organizations to leverage public cloud, private cloud and on-prem solutions. Benefits include improved data security, greater operational flexibility and scalability, and lower fixed costs, among others. Perhaps most importantly, shifting to the cloud gets IT healthcare professionals out of the data center business to focus on bringing innovation and value to the patient experience through technology.

Protecting Data Against Costly Breaches

The core technology required to provide effective patient care in the information age is outpacing hospital IT departments' ability to manage EHR delivery in-house. Cybersecurity offers a critical example of how on-prem solutions fall short. Cybersecurity threats—phishing, hacking, ransomware, etc. — are on the rise. Medical records are high-value targets for criminal extortion. Data extortion attempts are now occurring in at least 70% of all ransomware attacks on healthcare organizations.

Furthermore, as regulatory rules continue to expand, compliance requires increasingly complex technologies. Meeting these requirements is beyond the capacity of most hospital IT departments. Data breaches — even minor ones — must be reported, resulting in costly fines, time-consuming data recovery efforts and a negative impact on a hospital's reputation.

Cloud hosting companies can protect hospitals against hacking threats and data breaches by providing:

- Routine security patches and audits
- Frequent software updates to ensure regulatory compliance
- High-redundancy and air-gapped, geographically distributed backups to ensure fast data recovery in a critical event

Well-Maintained Data Storage Facilities

Another challenge for on-prem data centers relates to ensuring a stable, secure physical environment for EHR delivery. These centers typically occupy less-than-ideal, retrofitted space within a hospital. Keeping the data center dry, controlling for electrical capacity, maintaining adequate telecommunications and providing effective ventilation can stress staff and the physical plant.

Third-party data centers solve these problems by maintaining:

- High standards for data center security
- Highly redundant heating, ventilation and cooling systems
- Sophisticated protection against fire and water damage

Cost Efficiencies, Better Value

Building and maintaining data center infrastructure is an expensive, time-intensive process, with a costly 3-5 year refresh cycle. Managed services providers can achieve economies of scale that simply aren't possible for single hospitals or hospital systems. The cost savings for customers are significant — and built into the contract.

- Cloud-based strategies mean that hospitals no longer need to make significant capital investments in data infrastructure. Data management becomes a predictable operational line item/monthly cost.
- As data centers grow, they may have to compete with clinical spaces for square footage. With minimal data stored on-prem, physical spaces can be repurposed as revenue-generating clinical areas or used to create more office space.
- Cloud-based solutions lead to improved data management performance, creating better value for all end-users.

Operational Scalability and Flexibility

Hospitals need flexible EHR platforms that can be customized and scaled to meet specific business needs—quickly and easily. On-prem infrastructure creates barriers that prevent hospitals from taking full advantage of meaningful technologies that lead to innovation.

Cloud hosting solutions allow organizations to implement technology faster with fewer barriers.

- New technology rollouts occur without the risk, delay and cost of capital purchases. For example, during high-load or high-volume events, IT departments can spin up servers to increase processing power, then spin them back down when they are no longer needed. This instant scalability should result in overall cost savings to the organization.
- The time savings is significant. For example, purchasing a new server can require 2-3 months to secure funding, work with a vendor and install the hardware. Managed cloud solutions allow hospitals to spin up a new server in a single day. When the server is no longer needed, the hospital isn't on the hook to maintain it.
- Hospitals can rely on the cloud providers sophisticated disaster recovery solutions with diverse recovery locations, rather than creating a disaster recovery solution of their own.

Managed services partners can offer hybrid solutions that allow a cloud-first, but not a cloud-only, strategy. Data migration to and from the public cloud (e.g., Microsoft Azure, Google Cloud) can happen in stages with minimal disruption to existing operations. Some data, such as legacy EHRs, can be moved permanently to the public cloud.

Automation tools and technologies can simplify data movement between public and private clouds for:

- Routine back-ups and data archiving
- Sandbox versions for testing and development environments
- Database replications for running reports while the primary system operates at full capacity

It's a strategy that can help hospital systems expand or contract, depending on their business goals and needs. Instead of making large capital outlays for on-prem servers, the organization only pays when third-party servers are in use.

An Improved Platform for Innovation

With cloud-based management solutions, hospitals can leverage new technology rapidly and efficiently to improve service delivery.

- Most innovation is happening in the cloud, not in on-prem databases and software. One example is in the AI, machine learning, and big data space, which can require huge amounts of processing power sometimes, and much lower amounts of power at other times. Cloud computing allows on-demand resources that you only pay for when you need them.
- A third-party IT services partner with deep cloud experience can help hospitals be ready for cloud-native add-ons such as remote patient monitoring, telehealth and custom lab management tools.
- Freed from managing the hospital's data center, IT leaders can focus on adding value to the organization and transforming the patient experience through better technology solutions.

24/7 Remote Support Expertise

Recruiting, hiring, training and retaining highly skilled IT experts is challenging, especially in smaller cities, rural areas and in urban areas with competitive healthcare markets. When onsite employees are required to provide 24/7 IT support, the likely result is burnout. Skill gaps are inevitable as healthcare technology becomes more and more complex. Staff turnover is costly from a financial and operational standpoint.

A cloud-based management team can provide deep expertise and 24/7 IT coverage to augment your existing team. Long-term relationships with EHR providers and other vendors allow for proactive data monitoring and troubleshooting.

High Satisfaction for Providers, Employees and Patients

A well-managed EHR platform gives end-users a better experience with virtually no unplanned downtime. Fast, reliable technology means:

- Invisible IT delivery for patients accessing their electronic medical records, scheduling appointments, using telehealth, etc.
- Providers and staff can focus on patient care/guest services without the distraction and delays associated with technology issues caused by unexpected down time and underperforming or insufficient infrastructure.
- Hospital IT professionals can dedicate their time and energy to working with providers and employees on local technology solutions that meet the organization's unique needs

A Strategic Transformation

Experienced cloud-based managed services providers can develop a customized strategy that leverages private cloud, public cloud, multi-cloud, and hybrid solutions to move your hospital's infrastructure forward. The right partner will customize solutions for the near and long-term, ensuring that data is protected from cyberattacks, always backed up and most importantly, always available when your organization needs it.

[1]Source: Healthcare Provider CIOs: Create Your Cloud Strategy in 2020; Published 27 February 2020