CloudWave

Healthcare IT Solutions

KEY TRENDS FOR HYBRID CLOUD IN HEALTHCARE

A thoughtful approach to cloud solutions for healthcare IT

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INTRODUCTION

Cloud adoption among healthcare organizations is growing. The cloud computing market for healthcare is predicted to hit $6.8 billion by the end of 2018.[1] For large hospital networks, community hospitals and healthcare practices that struggle with increasing regulations, tight budgets and more IT projects than available staff, the flexibility, affordability and security of cloud technologies are just what the doctor ordered.

Healthcare providers are also under increasing pressure to change their business models due to market forces such as value-based care, demand for consumer-based services and data growth. As a result, they are racing to incorporate web-based applications, secure access to patient portals, and mobile computing, as well as integrate with the Internet of Things (IoT). In a highly regulated industry where access to capital is limited but security risks are constant, sourcing services from the cloud can enable hospitals to become more agile. Building a hybrid cloud can help meet many of these challenges when designed and implemented thoughtfully to match the needs of the organization.

CLOUD OPTIONS FOR HEALTHCARE PROVIDERS

Cloud technologies are layers of virtualization, including servers, storage and networks on which operating systems and workflows are provisioned. Cloud is also a connection medium between technologies, including a provider's private cloud, the Internet, private managed cloud services, public cloud services and the IoT.

Hybrid cloud is a strategy that is rapidly gaining adoption in healthcare. The hybrid cloud integrates on-premises infrastructure with public and private cloud services, allowing organizations to move workloads quickly and securely between cloud platforms to accommodate changes in IT resource requirements. Hybrid cloud is becoming the preferred architecture for hospitals, where data growth, interoperability, IT skill requirements, budget constraints, security concerns and data protection require a new approach to IT modernization.

CLOUDSOURCING IT

There are three cloud models available to healthcare providers: private, hybrid and public. Private cloud is a self-hosted model where consumers build their own data center, usually on premises, and run all their infrastructure and applications from there. Public cloud is the model by which consumers purchase IT resources on a consumption

1. "Healthcare Cloud Computing Market Worth 6.8 Billion USD by 2018," Transparency Market Research, Sept. 27, 2016

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model from large providers that host the workloads on shared infrastructure. Hybrid cloud is an approach to cloud services that employs aspects of both private and public. In a hybrid cloud, some workloads run locally, some run remotely, and some seamlessly move between the two.

Whether you are a CIO, a chief medical officer or a hospital administrator, hybrid cloud offers tangible benefits for a wide range of clinical, financial and operational needs. CIOs are embracing hybrid cloud for the flexibility it affords their teams to deliver IT services in the most efficient, secure and agile manner without having to upgrade, replace or maintain legacy equipment. Practitioners enjoy the reliability, performance and secure access to the information they need to support their clinical workflows. Administrators appreciate the cost efficiency of hybrid cloud, particularly the diminished impact on their Capex budgets, and the ability to offer new technology-driven IT services quickly without having to add specialized IT staff.

KEY TRENDS FOR HYBRID CLOUD IN HEALTHCARE

SECURITY AND COMPLIANCE REQUIREMENTS

A main factor for the acceleration of hybrid cloud adoption in healthcare is the increased need for security and compliance. Common threats include hackers, disgruntled employees, ransomware attacks and phishing scams.

The demand by physicians and clinicians to use their own mobile devices has created the need for IT departments to implement Bring Your Own Device (BYOD) policies, virtual desktop infrastructure (VDI) and single sign-on (SSO) applications to facilitate a mobile workforce. Sourcing VDI and SSO as a cloud service can provide the required security and alleviate the operational burden of supporting remote access to sensitive patient data.

The regulatory requirements of the American Recovery and Reinvestment Act (ARRA), Meaningful Use, the Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health Act (HITECH) include a disaster recovery procedure, encrypted remote retention of data and many other provisions, all of which can be difficult for self-hosted infrastructure to satisfy.

Electronic medical records and electronic health records are among the hardest applications to secure and maintain. The amount of data, breadth of infrastructure and level of security required for electronic protected health information and the mission-critical nature of the applications all contribute to the increasing difficulty of achieving prescribed availability levels. In addition, documentation, digital images from medical tests and email also represent a significant portion of a healthcare provider's critical data.

As organizations transition data and applications to cloud, they will be able to increase the level of security they had in their former IT environment. Cloud infrastructure allows healthcare organizations to implement safeguards against modern threats and increase recovery time and recovery point objectives to meet compliance regulations.

STAFFING CHALLENGES

Hospitals outside of major metropolitan areas may find it challenging to attract and hire skilled technical staff. Some hospitals facing budget constraints may be unable to meet the salary requirements to retain experienced staff with the variety of technical qualifications needed to keep their systems secure and up to date. As a result, many small IT teams are asked to be experts in all areas of infrastructure and applications operations.

RESTRICTED ACCESS TO CAPITAL

To compete, hospitals are investing the bulk of their capital funds in specialty care and other consumer-based projects. Hospitals must also strive to keep up with emerging financial models such as value-based care and Accountable Care Organizations. These high-profile directives can drain much-needed capital out of the IT budget, leaving healthcare CIOs to stretch the available funding to meet the needs of end users.

MANAGED SERVICES: A STREAMLINED SOLUTION FOR A COMPLEX PROBLEM

Private cloud managed services help solve the biggest challenges healthcare IT faces. Since cloud providers operate at scale, the model's data security posture is more robust than with local systems. Monthly service fees can be more affordable than investing in an on-site data center and an army of IT experts, and the flexibility provided allows departments to scale storage and compute resources on demand.

CloudWave provides hybrid cloud solutions designed to help hospitals achieve operational sustainability. OpSus Cloud Services are managed private cloud services that are architected specifically for healthcare and seamlessly integrate local infrastructure with services from the OpSus cloud and public clouds. This helps hospitals leverage internal IT resources, improve end-user experience, and increase efficiency and security at a predictable cost. This unique multi-cloud approach ensures workloads are serviced in whichever location affords the greatest efficiency and performance.

OpSus adds layers of management to traditional infrastructure as a service, which allows hospitals to source IT services like a

Your Private Cloud

Managed Private Cloud

Public Cloud

Hybrid Cloud
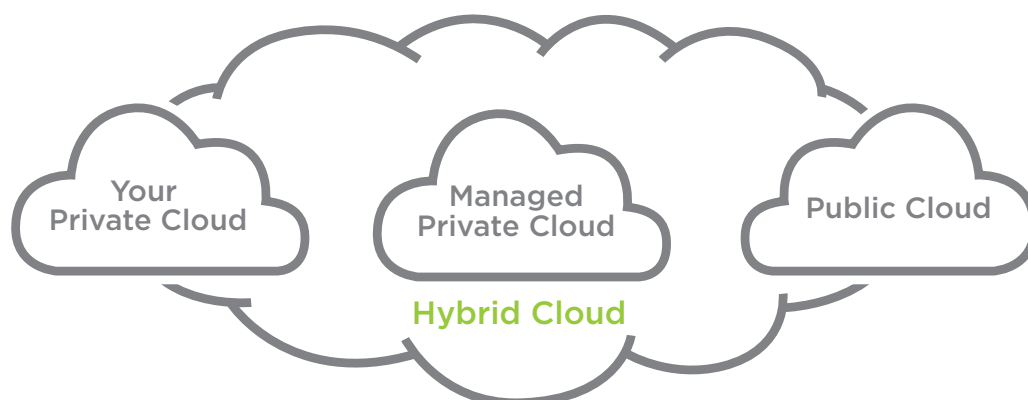
utility while maintaining control of mission-critical applications. OpSus leverages the scalability and cost-effectiveness of the cloud to provide secure, sustainable services at a predictable cost to the end-user community, while lifting the operational burden of systems operations and maintenance.

With a portfolio of OpSus Cloud Services that includes hosting, disaster recovery, remote management, backup, security and archiving, CloudWave enables healthcare organizations to choose point services that augment their capabilities and increase efficiency. CloudWave is also a Microsoft Cloud Service Provider, enabling hospitals to build a true hybrid cloud to maximize resources, provide an excellent end-user experience and take advantage of the cost efficiencies cloud has to offer.

OpSus Cloud Services remove the burden from strained IT staff so they can focus on day-to-day operations instead of attempting to become experts in every area of technology. OpSus Cloud Services reduce expensive and dangerous IT downtime and improve security by protecting the organization from ransomware, phishing, malicious attacks and human error.

The OpSus Cloud was designed for healthcare by healthcare people who understand the performance and compliance requirements of clinicians to deliver patient care. Whether it's a tested high-availability disaster recovery strategy with to-the-millisecond service-level agreements or an always-available archive solution to protect patient records and enable image retrieval, CloudWave's OpSus Cloud Services provide compliant, personalized solutions built exclusively for healthcare.

CONCLUSION

For hospitals and healthcare practices struggling with increasing regulations, shrinking budgets and overburdened IT staff, cloud-based managed services are an effective, affordable solution. OpSus Cloud Services can help hospitals get the most out of their existing IT resources, improve patient and customer service, and increase efficiency and security—all at a predictable cost.

Cloud solutions are helping hospitals by providing a positive business impact on resource availability, economics, and compliance. CloudWave helps health-care organizations meet challenges and transform IT with OpSus Cloud Services and on-premises solutions designed for the hybrid cloud. Visit **www.gocloudwave.com** to learn more.

CloudWave is helping hospitals transform IT with the OpSus Healthcare Cloud, built on a proven platform that includes HPE technology to minimize risk and deliver excellent performance.

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