NetApp

DSA Data&StorageAsean

DSA Industry Spotlight on NetApp Healthcare Focus

Background

The Global Healthcare IT market is expected to reach an annual spend of USD $230 billion by the year 2020. Based on figures from the last five years, this equates to a Compound Annualized Growth Rate (CAGR) of nearly 15%. Market growth can be attributed to the growing need to adhere to regulatory guidelines, government initiatives for eHealth, high return of investment (ROI) and the need to curtail the rising costs of providing healthcare.

Specific to the healthcare industry is the need for “always-on” access to data which is mandatory for delivering excellence in patient care – from research to clinical to accessing patients’ personal data. The ability to share data between multiple remote facilities, meet retention guidelines, and recover from an outage, without sacrificing accessibility or availability, is critical for efficient operations.

Due to privacy considerations of patient and research data, the healthcare industry also has a unique set of requirements for the utilization of cloud and how onsite systems can scale to process data. Now let’s first look at the role of Data in the healthcare industry and how NetApp’s Data Fabric vision takes the worry and complexity out of managing and maintaining control of clinical data across private and public cloud resources.

Data and Enterprise Storage in Healthcare

Data is critical to the healthcare industry. It ranges from patient data medical records, clinical data to data from sensors monitoring vital signs. Cohesive patient records are crucial for better patient outcomes achieved in less time with less cost. Research into all aspects of patient care and treatment process is also data intensive. Data privacy and finding ways to leverage economies offered by public cloud are also key concerns within the healthcare industry.

As a result, Enterprise Storage and Data companies such as NetApp have a critical and strategic role to play in supporting healthcare companies to manage their data and maximize its outcomes. With a longstanding history in the healthcare space, this paper looks at NetApp's focus in the healthcare marketplace and will seek to assess three key areas pertaining to healthcare providers and the eco-system. These include Strategy Alignment, Technology Fit and Partnerships.

Strategy Alignment

NetApp's vision for the future of data management is to create a Data Fabric that spans an entire IT landscape. This capability enables healthcare organizations to adhere to internal data security policies, maintain compliance with healthcare industry requirements, and promote greater innovation and IT responsiveness.

With a Data Fabric, you have:

- The flexibility in choice to select the mix of private and public cloud services that will help provide patients with highly secure and cost-effective services.
- Data mobility so that your data flows seamlessly to wherever your clinicians need it most—across multiple IT environments like flash, disk, private and public clouds.
- Speed that allows you to innovate faster with fewer resources to improve patient outcomes.

NetApp helps healthcare organizations embrace the cloud on their terms by integrating on-premises enterprise-class data management and control with the flexibility, speed, and economics of the public cloud. Advances in technology and cloud computing provide key capabilities to help the healthcare industry transform patient care by redesigning storage systems to keep pace with tremendous growth in clinical data. These advances also help to do more within tight budgets. NetApp's Data Fabric solutions provide the capability to securely share, store, and retain data—including big data from a variety of medical images, diagnostic reports, and other critical patient-care information systems.

Technology Fit

Underlying NetApp's vision of the Data Fabric are technologies that are available and are being deployed in the healthcare sector today.

Electronic Health Records (EHRs) Infrastructure

As the use of EHR becomes more widespread, the storage requirements increase exponentially. It is not unusual for the annual data volumes of EHRs within a single provider to reach petabytes in size. That data is expected to be secure, readily available and based on a system that scales as the data grows.

NetApp has partnerships with an impressive range of EHR providers, delivering robust, fast performing scalable storage infrastructure optimized for these tailored solutions.

Flash to Disk to Cloud

This function is a real world example of NetApp's Data Fabric strategy happening today. This automated tiered storage management platform enables healthcare providers to manage the massive scale of data such as EHRs. Flash to Disk to Cloud is a practical approach to meeting healthcare providers need for balancing performance (critical data on flash) and cost efficiency, moving less accessed data to a cheap archive medium such as cloud.

Medical Imaging

Medical imaging is a clear advance in speedy diagnosis and pre-procedure analysis. The large digital file sizes of 3D images in the form of scans, MRI, Ultrasound, Cardiac scans, amongst others are causing storage infrastructures to be tested to their limits. In addition, the real benefit is the ability to share these images and enable collaboration between geographically diverse experts. NetApp partners with leading Picture Archiving and Communication Systems (PACS) providers to provide storage infrastructures to support this medical application that ultimately improves patient outcomes.

StorageGRID

NetApp's Scalable secure Object Storage provides a cloud scale architecture perfectly suited as a base for PACS and EHR provider solutions. Object Storage is clearly a relevant technology for these use cases. NetApp's StorageGRID is a proven and robust solution. Already in its 10th generation and thoroughly field tested, NetApp's proven technology and expertise are critical to healthcare applications.

Partnerships

For any generic technology provider looking to provide vertical solutions, partnerships with companies that can support storage infrastructure is important.

For Healthcare providers this is a critical consideration. The technology consumed in this sector is driven by vertical application providers. The storage provider you choose must have a heritage of building partnerships with these vendors. These partnerships are important on a number of levels. Solutions are optimized via collaboration and testing. By working directly with EHR or PACS providers, NetApp has been able to test and configure solutions built to support a specific healthcare application.

To the end-user and customer, this translates into a range of benefits:

- Fully supported solutions
- Tested to deliver fast performance
- Designed for efficiency with recommended configurations designed to drive cost efficiency
- Simple tried, tested and proven implementation
- Understanding of the specific technical demands of each application and designed to cater accordingly

NetApp has built a list of partnerships with specialist healthcare application providers based on technical collaboration and real world field experience.

Some of these companies include: Agfa Healthcare, FujiFilm, GE Healthcare, Merge, INFINITT, McKesson, Philips, Siemens, Allscripts, Cerner, Epic, MEDITECH and InterSystems.

Conclusion

Many elements of the NetApp story are seamlessly translated into the healthcare sector. Ultimately, when looking for a technology provider to build storage infrastructure to support your medical systems – the track record, experience and expertise as an enterprise class generic storage player is crucial. NetApp has a compelling healthcare proposition due to its Data Fabric vision, a deep understanding of the healthcare industry, combined with long standing proven partnerships with healthcare specialists.

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