Solving Data Management Challenges for Big Data in Healthcare
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With the second wave of digital transformation in healthcare, (close on the heels of EHR and accelerating with new initiatives for IoT and AI), healthcare IT organizations are challenged with managing costs, keeping pace with the increasing volume of patient data, as well as achieving HIPPA mandates for security and resiliency.

Storage capacity and data management are at the top of concerns. Healthcare data is growing at greater than 40 percent compounded annually. Data in healthcare is overwhelming not only because of its volume but also because of the diversity of data types. It includes clinical data and clinical decision support systems such as physician’s written notes and prescriptions, laboratory, pharmacy, insurance, and other administrative data; patient data in electronic patient records; machine generated and sensor data from monitoring vital signs; medical imaging including video, and finally genomics.

This unstructured and structured data need to be available and shared between clinical care applications, as well as the next wave of big data analytics and deep learning applications. The data need to be available on a real time basis, as well as retained and protected from loss and privacy breaches. The complexity and scale of technical and business requirements pose the biggest challenges facing any industry.

Public cloud hyperscale storage infrastructure offers the promise to “bend the curve” on accelerating storage capex costs but does not provide the full suite of capabilities for enterprise data management organizations have relied upon, until now.

Extend data storage in the cloud with agile capacity, management simplicity and compliance

As a Premier Microsoft Azure and NetApp Cloud First Partner with deep experience in Healthcare and analytics, Trianz brings the needed expertise to deliver best of class solutions for implementing and managing big data.

NetApp Cloud Volumes ONTAP extends the trusted enterprise data management capabilities of NetApp to leading cloud platforms. Having the same storage operating system in the cloud and on your premises brings you the value of a data fabric without having to train your IT staff in all-new methods to manage your data. With Azure, it provides CIFS/NFS/iSCSI-based services to hosted workloads, leveraging the underlying Azure storage and compute resources with additional data storage economy through advanced storage efficiency features such as thin provisioning, deduplication, compression, and now tiered storage to Azure Blob storage.

Cloud Volumes ONTAP’s data tiering in Azure is new feature that enables efficient storage management, tiering out infrequently accessed data to the Azure Cool Blob tier for long term retention. Data tiering brings in storage economy with minimal operational and management overhead.

Cloud Volumes also enables healthcare data to be more easily imported and accessed by Azure AI solutions including Machine Learning Studio and Machine Learning Services.
Some of the additional capabilities of Cloud Volumes ONTAP are:

- Multiple storage consumption models provide the flexibility that allows you to use just what you need, when you need it.
- Rapid point-and-click deployment from NetApp Cloud Manager enables you to deploy advanced data management systems in Microsoft Azure in minutes.
- Non-disruptive and application consistent snapshots and data replication and backup with SnapMirror and SnapVault.
- At rest data security with advanced encryption.

NetApp Cloud Volumes ONTAP for Microsoft Azure

Cloud Manager

Data Center

SnapMirror
SnapVault

Microsoft Azure

Why Trianz?

Trianz’ cloud consulting offerings help organizations migrate and transform their enterprise applications in the cloud. As a Premier Azure managed services provider, Trianz can architect, implement and migrate to a cloud storage environment using Azure Cloud Volumes ONTAP.

Trianz cloud consulting offerings also include these services:

Cloud Analytics Strategy and Implementation

- With over 500 analytics projects successfully completed, Trianz can assist you with the following tasks in your big data and deep learning initiatives:
  - Assess your current datasets for suitability for deeper data analysis.
  - Assess your current big data environment for compliance or develop a governance program for data privacy for future initiatives.
  - Identify datasets and big data applications that are appropriate for cloud vs. on premise deployment.
  - Architect the most optimal platform of infrastructure, databases, frameworks and orchestration components.
  - If cloud is your desired target, architect to deploy AI applications on a cloud-native data infrastructure in seconds.
Cloud Strategy and Roadmap Development

- Trianz can assess your applications, data, and security infrastructure readiness for migration in the cloud; perform a TCO comparative analysis; identify business and technical constraints and risks; and formulate a migration plan to minimize cost and impact to the business.

Public, Private and Hybrid Cloud Design and Deploy

- Post assessment, Trianz can architect and implement a variety of environments for your workloads to optimize availability, cost, performance, while achieving compliance requirements. Hosting options include onpremises, colocation, private and public cloud.

Application Migration and Transformation to Cloud IaaS and PaaS Services

- Whether to “lift and shift” existing servers to cloud Infrastructure as a Service, or alternatively port applications and databases to cloud native Platforms as a Service, Trianz can help you decide the optimal strategy and execute the transformation to achieve your desired future state.

Disaster Recovery in Cloud Services

- Backed by years of experience in business continuity and partnerships with technology providers, Trianz can implement a sustainable DR program that fulfils business mandates while eliminating large up-front capex and minimizing opex costs. In addition to advisory, design and implementation services, our managed services model ensures continual compliance and 24X7 recovery support to respond to any major outage event.

DevOps, CI/CD Transformation into Cloud

- No matter where you may be in the journey to integrate development and operations as well as automate your infrastructure, Trianz is likely to have best practices and recommendations to help you further your initiatives.

ABOUT TRIANZ

Trianz simplifies digital evolutions through effective strategies and excellence in execution. Collaborating with business and technology leaders, we help formulate and execute operational strategies to achieve intended outcomes by bringing the best of consulting, technology experiences, and execution models. Powered by knowledge, research and perspectives, we serve Fortune 1000 and emerging organizations across industries and geographies to transform their business ecosystems and achieve superior performance by leveraging Cloud, Analytics, Digital, Infrastructure and Security paradigms.