ELEVATING HEALTHCARE WITH THE CLOUD

soft**serve**

How does a healthcare organization address the trade-off between care and cost? If providers pursue improved outcomes, they typically face higher costs. If they work to lower costs, then patient care tends to suffer. In today's digital economy, this *modus operandi* need not apply. It is possible for healthcare administrators to achieve outstanding quality of care via scalable technologies while still maintaining cost.

The record suggests that despite significant investments in healthcare IT, including $37 billion spent in incentive payments by the US Federal Government's Medicare and Medicaid Services alone between 2011 and 2017, most organizations are enduring more pain than gain as they work to integrate new IT systems with their operations. Efforts to persuade providers and other organizations to share information continue to lag, as do efforts to enable different IT systems to communicate with one another, leaving data isolated in siloed databases.

A recent **survey published in the Harvard Business Review regarding the need for transformative change in health care IT** concludes:

> "...the impact of IT on reducing the costs and improving the quality of clinical care has been modest... Relatively few organizations have taken the important next step of analyzing the wealth of data in their IT systems to understand the effectiveness of the care they deliver... instead of viewing IT as a transactional tool for billing, monitoring, and error checking, organizations should embrace it as an instrument to help transform the way they deliver health care."

The current obstacles are clear. Today's IT infrastructure and systems across health care tend to be rigid, difficult to change, and expensive to update with the latest clinical protocols. Different systems cannot share information, making it practically impossible to create health records with a patient's complete medical history, much less make those records available to clinicians from diverse healthcare organizations.

Without information sharing, it is difficult to pool data, and nearly impossible to harness the latest innovations in predictive analytics to guide clinical and operational decisions. Enabling an organization to do all of those would go a long way in addressing the trade-off between care and cost. Yet still, healthcare administrators from all sides of the industry remain reluctant to embrace more agile technology to period.

When faced with the classic tradeoff between care vs. cost, pioneers across the healthcare industry are discovering that there is a better way.

The operational opportunities that flow from migration to the cloud are already apparent and profound today. More importantly, the cloud is becoming foundational for healthcare systems of the future. Value-based pricing, evidence-based medicine, community health management and other universal objectives are becoming increasingly complex at the speed of digital, and the coming healthcare ecosystem will inevitably gravitate toward those organizations that make the move to the cloud, building better care while capturing more actionable insights and lower costs.

The Cloud is on the rise

Cloud adoption in the healthcare industry has accelerated over the last few years and will keep growing. According to **one estimate**, the global healthcare cloud computing market is forecasted to triple from 2015 to 2020, eventually reaching $9.48 billion. Gartner predicts that by 2021, public cloud service providers will process more than 35% of healthcare providers' IT workloads.

Cost benefits are among the biggest advantages of moving to the cloud environment, in part because of the inherent efficiency of cloud-based computing, and in part because working in the cloud makes it much easier to collect and work with the vast quantities of structured and unstructured data from diverse sources that characterize healthcare operations today.

Assets such as medical imagery, open notes files, financial PDFs, and monitoring device data are difficult to interface, yet are often collected and stored in the same location today. Unraveling these data knots within current IT systems is time-consuming and expensive. **Migrating data to the cloud** opens superior new options for integration, analysis, and predictive analytics.

Migration is not without its **challenges**, which makes informed choices about choosing the right cloud provider and overall implementation plan critical. The following is an example of a healthcare leader making the move to the AWS Cloud and discovering that it is possible to simultaneously improve care, reduce costs, and evolve healthcare for the future.

Healthcare success on the Cloud

Case study 1

MEDHOST®, a provider of enterprise, departmental, and healthcare engagement solutions to more than 1,100 healthcare facilities, set out to develop a new solution aimed at automating and simplifying patient- and provider-related tasks and communications.

The goal was to provide patients and caregivers with online access to personal health records for easier, faster interaction with healthcare providers. MEDHOST partnered with SoftServe to create the new platform, "**YourCareCommunity**," using a micro-service architecture for a cloud-based portal on Amazon Web Services (AWS).

The AWS environment made it possible to build a comprehensive consumer relationship management solution with multifaceted analytics fully integrated on a cloud data exchange platform. The architecture recommended by SoftServe reflected deep knowledge of AWS and its sophisticated approach to software development, deployment and maintenance. As a result of this initiative, MEDHOST now **benefits** from more agile and efficient IT development processes, as well as reduced costs and time to market.

Cause and effect

Whether migrating with an onsite, remote, or hybrid approach, the cloud is the logical (if not inevitable) solution for all companies wishing to keep pace with the speed of digital while futureproofing sustainable success. The following are additional benefits to cloud migration that should be strongly considered given the challenges facing the healthcare industry today like never before.

Ditch the data center

To keep pace with the vast amounts of data generated daily, future-facing healthcare leaders should look to the cloud to more easily scale and keep pace. Doing so will inevitably reduce costs for patients, providers, and payers—while improving overall healthcare quality, efficiency, and patient safety. With AWS and SoftServe, it's possible to scale without limits.

Better, stronger, faster

The cloud combined with AI-driven technologies (ML, NLP, and AR/VR) is a combination that is already changing the status quo for the better by enhancing personalization, experience, and gamification. These advances strengthen not only service and cross-matrix communication and collaboration, but also competitive differentiation. Without the cloud, the speed and agility required to keep pace at scale would be impossible.

WHAT WE SEE

An era of patient emprowerment that blends **PHYSICAL** and **DIGITAL.**

| **Wearables** | **Voice** | **Real Time Data** | **ML / AI** | **AR / VR Immersive** | **Personalized Experience** |

Amazon Web Services (AWS) and SoftServe:
Accelerating advances in healthcare

Amazon Web Services focuses on helping healthcare providers deliver efficient, quality care to patients by reducing the time needed to run existing workloads and by providing access to useful analytics capabilities. AWS offers a broad set of global cloud-based products including **compute**, **storage**, **databases**, **analytics**, **networking**, **mobile**, **developer tools**, **management tools**, **IoT**, **security** and enterprise applications. These services help organizations move faster, lower IT costs, and scale.

AWS is trusted by the largest enterprises and most innovative start-ups across the healthcare sector to power a wide variety of workloads including: web and mobile applications, data processing and warehousing, storage, archive, and many others. AWS prioritizes the task of meeting all security and privacy requirements, and eases information security by managing over 1800 security controls.

SoftServe Inc., a leading global digital implementation expert and consulting company, delivers innovative AWS solutions that leverage the power of the cloud on behalf of numerous healthcare organizations. SoftServe has also achieved AWS DevOps Competency staus, demonstrating our deep experience with AWS processes.

Achieving the AWS DevOps Competency differentiates SoftServe as a member of the AWS Partner Network, demonstrating technical proficiency and proven customer success in continuous integration and delivery, monitoring, logging and performance. To receive this designation, APN Partners must possess deep AWS expertise and deliver solutions seamlessly on AWS.

ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation—from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience is built on a foundation of empathetic, human-focused experience design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy. No matter where you are in your journey.

Visit our **website**, **blog**, **LinkedIn**, **Facebook**, and **Twitter** pages.

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