



# Med Tech Solutions Leverages AWS to Modernize Healthcare Services

## Executive Summary

Clinical Health Network For Transformation (CHN) needed to modernize their affiliate's technology and move their on-premise, legacy Electronic Health Records (EHR) systems to a centralized online platform.

Because CHN needed to maintain their legacy systems' records for some years in order to remain compliant with the law, they came to Med Tech Solutions (MTS) to move their systems from their on-premise servers to the Amazon Web Services (AWS) cloud, and eventually to an AWS-based archive solution. This allowed CHN to start decommissioning the servers, saving them significant costs, while knowing their patient's records were being kept safe.

## CHN Needed a Cloud Partner to Modernize Systems

CHN's affiliates were running various on-premise EHR systems with unique configurations, delivered using a range of modalities. So, the affiliates made the decision to standardize on a single EHR, and migrate their systems to Epic.

Similar to other healthcare providers, CHN are required by law to maintain the health records of their patients well into the future. It would be costly to continue to pay for the maintenance of their servers, yet without paid maintenance, they may not get support in the event one of the systems failed. That could result in increased risk if they were unable to respond to a medical record request.

In collaboration with



Med Tech Solutions

**Clinical Health Network  
For Transformation**

## About the Customer

CHN is a Planned Parenthood member-owned ancillary organization. It provides an expansive suite of integrated standardized shared services, and manages the Clinically Integrated Network (CIN) formed to improve quality care delivery, generate additional revenue, and reduce overall cost.



Therefore, as CHN moved affiliates' EHR systems to Epic, they wanted to transfer their older legacy systems to a secure archive where they could be maintained in compliance with the law, so that they could eventually shut down their on-site servers.

This large-scale migration needed to have a minimal impact on local IT, and minimal disruption to providers and staff, to ensure practitioners could continue working unhindered. CHN wanted to repurpose its internal IT expertise from managing these legacy systems, to focusing on the transformation services and Epic implementation.

So, they found a partner in MTS to manage the migration, maintenance and eventual archiving of the old EHR systems while they focused on their Epic rollout.

## **AWS Was the Most Reliable Cloud Option**

CHN has over half a decade of experience working with AWS. They opted for the platform because it is agnostic and can host a variety of EHR systems, making it less likely to drive lock-in.

CHN was able to partner with MTS to leverage AWS tools (i.e., IAM, Organizations) to optimize the use of the platform. AWS was also able to work with CHN by providing credits to assist on the financial side. CHN has many hosting needs beyond this solution, and hosts all their systems on AWS.

## **MTS Offered More than a Transactional Partnership**

CHN already had a working relationship with MTS, and turned to them because of their long history of hosting a wide variety of EHR applications, some of which are the systems being used by the CHN affiliates.

MTS is also exclusive in healthcare and is HITRUST certified, providing a high level of confidence that MTS had the business practices to safeguard CHN's patient health information. CHN wanted to be sure they could entrust these complex migrations to a partner that has a proven track record and staff to meet CHN's timelines.

MTS performed the migrations with minimal impact and disruption to the CHN technology staff and providers.

## A Disruption-Free Migration to AWS Cloud

As CHN moved their affiliates' EHR systems to Epic, MTS evaluated each legacy environment to determine how best to migrate to the AWS cloud. Some legacy systems were less complex, and MTS was able to perform a lift-and-shift of the existing environment. Other legacy systems required a full migration, which greatly increased the complexity of the operation. MTS built a fresh cloud environment then transferred over the database and the required files. MTS then rebuilt the legacy EHR from scratch.

MTS worked with CHN staff to test and verify the data before going live. For those affiliates still in production mode on their legacy, MTS had to ensure the migration did not disrupt staff and providers. Because of their extensive experience with cloud migrations, MTS was able to successfully migrate these complex systems.

CHN were able to hand off the entire migration projects of each affiliate to MTS, including ongoing maintenance and security. MTS ensured minimal impact to CHN and their affiliates' providers and staff. Each affiliate involved a separate migration project and go-live.

Once the legacy EHR systems reached read-only status on the cloud, MTS began to transition the records into an AWS-based archive solution, where they will keep the data safe. This required MTS to extract all the required data elements from different database schemas into their Archive database. This process involved hundreds of database tables, thousands of data fields and tens of thousands of image and document files. Since they were recreating a legal, permanent medical record it was critical that all the required elements matched exactly for each patient.

## AWS Had the Right Tools for a Complex Transition

MTS built CHN's AWS environment in EC2 using elastic block storage (EBS). CHN required 12-month backup retention, which is not a typical MTS offering due to the cost of storage. However, with AWS S3 storage they were able to meet their needs at an affordable cost.

As part of the migration to AWS cloud, MTS implemented security information and event management (SIEM) and plugged it into the AWS VPC Traffic Mirroring, so they could monitor not only logs but all traffic coming in and out of the firewalls. In doing so, MTS took advantage of AWS Marketplace to deploy their preferred firewall vendor and SIEM with minimal configuration. MTS also enabled Multi-Factor Authentication and digital access to the AWS portal.

**"We chose AWS because they offered scale and reliability. MTS represented a holistic partnership serving our entire sphere of legacy needs, beyond one - complex - problem."**

**Aaron Caine**

Interim Chief Information Officer, CHN



## **Project Convinced MTS to Partner With AWS, and Ingram Micro Cloud**

MTS's project with CHN was the first time that MTS had worked with AWS. Three years ago, when MTS began responding to a greater interest in public cloud, they initially worked with Microsoft Azure. With Microsoft, they decided to take a direct strategy versus distribution, but they soon found that they were a small fish in a big ocean. They did not get the level of assistance they needed in navigating Azure, nor did they take full advantage of the programs offered by Microsoft.

After MTS began working with CHN on AWS, they explored partnering with AWS over Azure, and debated whether to once again go direct, or take the distribution path. An AWS representative told them that alongside Ingram Micro Cloud, they were looking for more healthcare-specific partners. Ingram Micro Cloud could also offer them direct contact to AWS executives, participation in programs, assistance navigating AWS tiers, and brand promotion. MTS's representatives on the project convinced their executives that they should become experts in AWS, and take the distribution path with Ingram Micro Cloud.

## **CHN Migration Leads to Reduced Costs and Risks**

Once the records were migrated to the AWS cloud, one of the biggest benefits was that CHN was able to start decommissioning all their affiliates' on-premise servers, therefore substantially reducing maintenance and operational costs. CHN expects all their affiliates' physical servers to be powered off within a year. Many of the on-premise systems were also not robustly backed up, and some were running on operating systems that were nearing end of life or end of support. CHN was therefore able to mitigate possible risk.

Because MTS handled the comprehensive migration, CHN did not have to hire extra employees and were able to pivot around 20 of CHN's technical staff to the Epic rollout. The migration allowed CHN to consolidate all of the affiliates' legacy systems into a centralized, cloud-based system, enhancing CHN's ability to manage security, optimize. In contrast to the non-scalable servers, the AWS environment has enabled CHN to scale their systems down to a bare minimum.

As each affiliate went live on AWS cloud, MTS was able to apply their standard governance to ensure the customer had consistent monitoring, maintenance, backup, and end user support. Furthermore, by bringing together all the affiliates' disparate systems under a common cloud instance fully managed by MTS, they could all receive CHN/MTS centralized support.

Once all the systems have been transferred to the AWS-based archive solution, they will no longer require maintenance, and CHN will also be able to decommission the AWS cloud resources while retaining access to the legacy data for a fraction of the cost.



## CHN and MTS Continue to Work Together Towards Optimized Systems

Due to the staggered rollout of CHN affiliates to Epic, MTS will be involved with this project through 2023 and will continue to host their legacy system archives for many years. MTS will also be leveraging AWS services to offer additional systems and optimizations to CHN to not only host legacy systems, but to improve how legacy data is hosted, to further drive down costs.

As they continue their collaboration, CHN knows they have a trusted technology partner they can reach out to for future projects in MTS.

## MTS Eager to Continue on the Ingram Micro Cloud - AWS Journey

MTS's first AWS experience was successful in migrating and bringing the legacy EHR systems live. MTS knows that if they are to take it to the next level with AWS, they need a partner.

Since embarking on its AWS journey, MTS has benefited from weekly calls with Ingram Micro Cloud to steer their progress towards achieving different AWS tiers. MTS has been undergoing training on the AWS Partner Network (APN) portal, working towards certifications, and has completed the Ingram Micro Cloud-AWS program 'Think Big for Small Business,' specially designed for small enterprises. Ingram Micro Cloud's team has been essential in keeping MTS on target in completing their goals for each project, as well as in laying out their go-to-market strategy and the type of service delivery they wanted to achieve.

MTS feels that the Ingram Micro Cloud AWS Partner Program will provide the guidance and resources to accelerate their roadmap to Advance Tier, and then on to the Healthcare Competency, which is currently held by only 32 partners around the world. MTS is very excited for what the future holds as they continue their journey with Ingram Micro Cloud and AWS.

## About Med Tech Solutions

Since 2006, [Med Tech Solutions \(MTS\)](#) has been helping healthcare organizations around the country make the most of their health information technology. MTS partners with their clients to transform their business without any limitations or frustrations. They provide health IT consulting, cloud hosting, managed IT services, managed security, clinical application support, optimization, custom development, and health information exchange services to healthcare organizations across the country.

## About Clinical Health Network For Transformation

Clinical Health Network For Transformation (CHN) is a Planned Parenthood member-owned ancillary organization. It provides an expansive suite of integrated standardized shared services, and manages the Clinically Integrated Network (CIN) formed to improve quality care delivery, generate additional revenue, and reduce overall cost.