



# Keystone's partnership with Ingram Micro



## Innovation Through Trusted Partners

Keystone Technologies has a long history of innovation. Along with academic and business partners, Keystone has developed a suite of solutions to improve quality of life, quality of care and access to data for patients and their care teams. By connecting problem solvers and innovators, Ingram Micro will give you more of what you need to build and accelerate your business.

Serving the healthcare industry since 2001, Keystone Technologies has partnered with Ingram Micro to deliver cloud services. With a well-developed Cloud hosting practice on AWS, along with integration and conversion services of EMR data, we are anticipating massive growth in the next several years through our partnership with Ingram Micro.

We leverage Ingram Micro to take EMR hosting to the next level. Cloud technology is extensive and growing among healthcare organizations worldwide. Healthcare industries have realized the potential of cloud computing and how it can help them be flexible, collaborative, and consumer-focused, allowing providers to use technology to enhance patient care. Keystone leverages Ingram Micro's multi-billion dollar investment in the cloud to deliver healthcare cloud services that make it possible to hold a maximum amount of data at the lowest possible cost. From account level ownership to executive sponsorship, Ingram Micro has been the right partner to help Keystone become one of the leading AWS Healthcare partners in the United States.

Keystone delivers healthcare data, migration, and hosting through the Ingram Micro Cloud Healthcare Partner Pathway. This healthcare partner pathway is your pathway to leading healthcare cloud solutions. Connecting healthcare-focused ISVs, MSPs, SIs, consultants, and VARs delivering best-in-class solutions in the healthcare market. Delivering the Partner-to-Partner (P2P) ecosystem so you can focus on innovation and serving your healthcare customers.



## Executive Summary

- ▶ The Orthopaedic Institute of Western Kentucky needed to replace their aging on-premise infrastructure at all four of their practice locations and were searching for a cloud-based solution for their EMR and the “cloud ready” wide area network architecture necessary to access it. This infrastructure was becoming increasingly unreliable and more expensive to maintain.
- ▶ Utilizing AWS EC2, S3, RDS, and Direct Connect, Keystone helped The Orthopaedic Institute of Western Kentucky to access their EMR from all four practice locations and provided them with the cloud-based solution they required to improve their efficiency and enhance their user experience. Keystone migrated their network into an SD-WAN architecture that provided them the access they needed and standardized the solution across the enterprise.
- ▶ The Orthopaedic Institute of Western Kentucky now has a cloud-based EMR solution and server architecture that allows them to pull any level of detailed information regarding each of their practices on a single platform and provides them with a durable and secure technology platform that ensures the safety and integrity of their data.



## Customer Challenge

- ▶ The Orthopaedic Institute of Western Kentucky, the region's premier source and largest provider of comprehensive musculoskeletal services, needed to replace their aging on-premise infrastructure and they were concerned about the large capital outlay required to replace that infrastructure. This infrastructure was becoming increasingly unreliable and more expensive to maintain. In addition, due to the under-performing physical hardware their EMR instance was sluggish and the time to move between modules of the NextGen application was impacting patient care.
- ▶ Keystone recommended and designed a cloud-based solution for their EMR and the “cloud ready” wide area network architecture necessary to access it and eliminate the large capital outlay needed to replace the physical hardware.
- ▶ Utilizing EC2, S3, RDS, and Direct Connect technologies from AWS, we enhanced their overall patient care experience by vastly improving performance, reliability, and security, while getting their technology spend back under control.

## Why AWS

Keystone offers high performance and high availability through AWS and Citrix that affords the Orthopaedic Institute of Western Kentucky the opportunity for maximum uptime, total flexibility around RTO and RPO, access to their EMR from anywhere on any device, and at a fraction of the cost of on-premise hardware.



## Why the Customer Chose the Partner

Keystone Technologies has a long history of innovation. Along with academic and business partners, Keystone has developed a suite of solutions to improve quality of life, quality of care and access to data for patients and their care teams. Serving the healthcare industry since 2001, with a well-developed Cloud hosting practice on AWS, along with integration and conversion services of EMR data, we are uniquely qualified to handle every aspect of this customer's challenge.

We leverage Ingram Micro to take EMR hosting to the next level. Keystone leverages Ingram Micro's multi-billion dollar investment in the cloud to deliver healthcare cloud services that make it possible to hold a maximum amount of data at the lowest possible cost. From account level ownership to executive sponsorship, Ingram Micro has been the right partner to help Keystone become one of the leading AWS Healthcare partners in the United States.

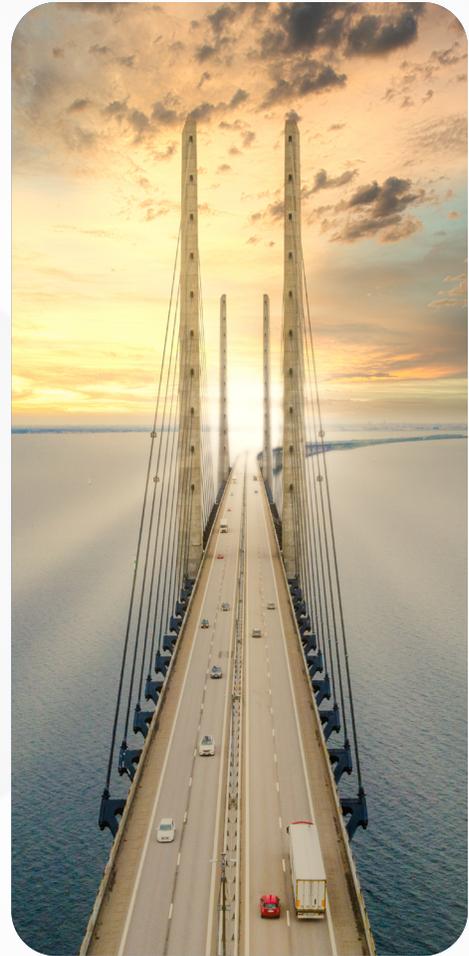
Keystone has a long history and track record of success as a consultant and managed service provider with the Orthopaedic Institute of Western Kentucky. That trust relationship, along with a well-architected solution, made Keystone the clear choice for this very complicated and complex project.

## Partner Solution

- ▶ Keystone recommended and designed a cloud-based solution for their EMR and the "cloud ready" wide area network architecture necessary to access it and eliminate the large capital outlay needed to replace the physical hardware.
- ▶ Utilizing EC2, S3, RDS, and Direct Connect technologies from AWS, we enhanced their overall patient care experience by vastly improving performance, reliability, and security, while getting their technology spend back under control.

## Results and Benefits

- ▶ Once we migrated Orthopaedic Institute's NextGen EMR to AWS they experienced a 50% general increase in speed of application responsiveness - field to field and screen to screen. There was also a huge performance improvement in moving between modules of the NextGen application compared to the past and printing large Rev Cycle reports that used to take hours, that time was reduced to minutes.
- ▶ While recently working with the new Rev Cycle company hired by Orthopedic Institute, they noticed that there was a large difference in speed between what they saw at other customer sites and what they observed in the new AWS environment. We were able to place the SQL Temp file on a new, much higher tier flash storage overnight and reconfigure SQL to achieve a reduction from around 45 minutes to process a large Rev cycle batch submission down to 7 minutes.
- ▶ Utilizing EC2, S3, RDS, and Direct Connect technologies from AWS, we enhanced their overall patient care experience by vastly improving performance, reliability, and security, while getting their technology spend back under control.



## Next Steps

Keystone Technologies and the Orthopaedic Institute of Western Kentucky have a long-term commitment to serve one another and at the completion of this project, Keystone was retained to serve as the CIO for all future technology projects and initiatives.



## About the Partner

Keystone Technologies is a healthcare technology firm that exists to ensure that healthcare providers have the information they need, when they need it, and how they need it in order to provide the highest quality of care to their patients. We have a long track record of successfully delivering the right solutions using the right technology. Along with our unique health solutions which include Healthcare Data Conversions and Healthcare Data Migrations, Keystone provides EMR Hosting, Legacy Data Archival, Healthcare Managed IT Services and Healthcare IT Consulting.

We are an AWS Services Partner - Advanced Tier - with a 20-year history of referenceable and successful healthcare engagements. We have achieved the AWS Healthcare Consulting Competency, and are an authorized AWS Public Sector Partner and AWS Immersion Day Partner. We serve large health systems and medical groups and have successfully completed complex data conversion, data hosting, and legacy data integration projects across the country.

## About the Customer

The Orthopaedic Institute of Western Kentucky (OIWK) is the region's largest musculoskeletal service provider, delivering orthopedic care to the quad-state region. OIWK offers the best treatments and therapies from the most experienced surgeons, therapists, and medical professionals. OIWK uses the latest technology and medical advancements to help their patients return to their functioning quality of life. OIWK's team of specialists work together to offer comprehensive care. You can receive all of the services you need in one place, including general orthopedics, specialized medicine, X-rays, MRIs, and various therapies.



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[now.ingrammicrocloud.com/cloudpublicsector](https://now.ingrammicrocloud.com/cloudpublicsector)  
[laaS@ingrammicro.com](mailto:laaS@ingrammicro.com)

