



**Client**

Guthrie Medical Group  
[www.guthrie.org](http://www.guthrie.org)

**Industry**

Healthcare

**Challenge**

Guthrie had been running its Epic environment on HP OpenVMS since acquiring it in 2002. When HP and then Epic announced the end of support for OpenVMS, Guthrie decided the time was right to migrate to a platform that would offer a sustainable roadmap for the foreseeable future.

**Solution**

Sirius consultants held a Sirius E.P.I.C. (Evaluation, Planning, Implementation and Completion) Workshop to analyze Guthrie's current infrastructure situation and migration requirements. The resulting recommendations included a combination of IBM® Power Systems™ servers, IBM Storwize® V7000 Disk Systems, IBM Tivoli® Productivity Center (TPC), and IBM Hardware Management Console (HMC) appliances.

# Regional Healthcare System Makes an Epic Upgrade to Their EHR Infrastructure



Guthrie's main campus in Sayre, PA, one of three hospitals and more than 50 clinics in the company's network.

Guthrie Medical Group (Guthrie), located in north-central Pennsylvania and south-central New York, is a non-profit integrated health care delivery system that currently includes three hospitals, more than 450 physicians and mid-level providers, 29 regional provider offices in 23 communities, home health and home care services, and a research institute. Guthrie manages more than 1,000,000 patient visits a year. In addition to its longstanding relationship with Robert Packer Hospital in Sayre, PA, Guthrie acquired Troy Community Hospital in Troy, PA in 1985, and in 1999, affiliated with Corning Hospital in Corning, NY.

Guthrie had been running its Epic® electronic health record (EHR) software in an HP OpenVMS environment since 2002. Their most recent HP OpenVMS server was acquired in 2009.

When Joe Tokash joined Guthrie as its Director of Clinical Systems and Technology in 2011, Guthrie was one of only three organizations still running Epic on OpenVMS, so he was determined to transition Guthrie to an operating system that is supportable by Epic. In early 2014, HP announced that they would stop supporting OpenVMS in 2020, and Epic announced shortly thereafter that they would end their support of the operating system in 2015. Because Guthrie upgrades its software every 12 to 14 months, the company decided the time was right to migrate its workload off of OpenVMS despite its entrenched history.



The timing was also good because Guthrie was in the process of building out a new primary data center in Sayre, and Tokash knew the advantages of replacing the servers of their business-critical Epic applications while switching over, rather than moving production servers and risking significant application downtime. He teamed a senior OpenVMS engineer and a UNIX engineer, both with Epic experience, to handle the migration.

In late 2013, Sirius consultants held a Sirius E.P.I.C. (Evaluation, Planning, Implementation, Completion) Workshop to analyze Guthrie's current infrastructure situation and migration requirements, and recommended an IBM Power Systems infrastructure solution that would match the company's needs and provide an Epic roadmap the company could rely on for the future.

Sirius bundled a solution that included a combination of IBM Power Systems servers based on POWER7+™ processors, along with IBM Storwize V7000 Disk Systems, IBM Tivoli Storage Productivity Center (TPC) for managing heterogeneous storage infrastructures, and IBM Hardware Management Console (HMC) appliances to manage the Power Systems servers.

### A seamless transition to a long-term solution

The transition from the old HP servers running OpenVMS to the new Power Systems servers running AIX was completely seamless, and went unnoticed by Guthrie's end-users. Since installing the new Power Systems servers, backup and recovery time has been reduced by approximately 66%, and batch processing jobs are running at least 20% to 30% faster.

In terms of application performance, Guthrie is seeing significantly better response times, and a performance improvement on its fat clients. (In the case of thin clients, the extra layer of terminal services masks any performance gains at the server end.)

In order to meet the Meaningful Use requirements of the Affordable Care Act, Guthrie must process data that extends across all physicians and at different measures—batch processing jobs that reset a lot of triggers and take a lot of time to run. High-priority jobs run for up to 48 hours, and Guthrie has seen a significant reduction in processing times.

The savings are impressive as well. Maintenance over three years has been slashed from almost \$350,000 to less than \$10,000, and software license fees were reduced from more than \$1.75 million to just over \$1 million. And because of the Power Systems servers' and Storwize V7000 storage systems' more efficient designs, power and cooling savings are projected at more than \$75,000 over three years.

To learn more about infrastructure solutions for Epic software environments, including scheduling a no-charge Sirius E.P.I.C. Workshop for your organization, contact your Sirius representative, or call us at 800-460-1237.

*"I knew that standing the new servers up during our data center move would make more sense than moving production servers to the new data center. And it worked out perfectly—there was no disruption whatsoever to our Epic services during the switch."*

– Joe Tokash, Director of Clinical Systems and Technology

At the primary data center in Sayre, PA:

- Two IBM Power780 servers running the Epic production environment (the second for HA failover), each with 10 cores active (of 32 total), and 150GB of RAM
- Two IBM Power740 servers running the Reporting shadow, development and training environments
- IBM AIX® 7.1 and PowerVM® are running on all
- One Storwize V7000 Gen2 with four disk expansion enclosures
- IBM TPC for storage management
- Two Brocade® fibre SAN switches
- One Hardware Management Console (HMC)

At the secondary data center in Corning, NY:

- One Power780 for DR
- One Power720 for backup
- AIX 7.1 and PowerVM
- One Storwize V7000 Gen1, also with TPC
- One HMC



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