

OCSRI's cloud migration meets current and future oncology clinical and research demands

The Oklahoma provider cut IT workload by 25% while enhancing security and accessibility through Elekta's Azure-powered cloud solution

Oklahoma Cancer Specialists and Research Institute (OCSRI) began as a modest Tulsa clinic in 2016 and has grown into a comprehensive, community-based cancer treatment and research center serving an expanding region. This growth brought with it increasing technological demands, leading to a critical decision point in its IT infrastructure journey.

"We're a one-stop shop for cancer treatment and research. We try to do everything possible for radiation treatment, and that requires robust IT systems," said Michael Lewallen, IT Application Analyst. Lewallen holds various roles at OCSRI, including serving as the radiation oncology department's support agent.

The challenge: aging infrastructure meets growing demands

At the heart of OCSRI's operations is a dedicated IT department that has expanded from seven to 11 staff members. It supports a staff of 400 which serves roughly 600 patients per day. Four years ago, OCSRI IT leadership faced a pivotal moment in its technological evolution. Its aging on-premises infrastructure was creating daily challenges that threatened to impact patient care.

The IT team found itself repeatedly addressing the same issues, with Lewallen noting, "We were spending significant time fixing minor issues due to the age of the system. One particular service that transferred images from our main system to the imaging system would break down almost daily, requiring manual intervention."

These persistent challenges, combined with the need for substantial periodic capital investments in hardware upgrades, led OCSRI to explore more sustainable solutions. Since OCSRI was already an Elekta customer, the IT team chose to implement Elekta's Axis Cloud* solution built on Microsoft Azure's secure cloud infrastructure.

A partnership based on security and flexibility

The decision to partner with Elekta was driven by several key factors beyond familiarity. Security was paramount, and Elekta's SOC2 and ISO certifications, combined with Azure's HIPAA and HITRUST compliance and Microsoft's established reputation, provided the necessary assurance.

Nasim Farrokhnia, MD, a trained internist who serves as an industry director with the Microsoft Healthcare and Life Sciences team in EMEA, highlighted how Azure's comprehensive security infrastructure is critical for protecting sensitive patient data. She emphasized the platform's robust monitoring capabilities, which allow it to process "78 trillion threat signals daily" while ensuring compliance. "Since Microsoft is a global company, we strive to maintain compliance in every market and guarantee that we meet the



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MICHAEL LEWALLEN | IT Application Analyst | OCSRI

highest security requirements. This commitment to security and compliance means that our customers can trust us to protect their data effectively," she pointed out.

The importance of data access was underscored by Farrokhnia's own experience years ago as a former head of the largest emergency department in Northern Europe. Many times, physicians had a patient in need of immediate treatment but couldn't access that patient's health records. "You can imagine that kind of situation when it comes to a cancer patient just before radiation therapy," she said.

Axis architecture offers geographically distributed data centers for improved disaster recovery, along with advanced security protocols including single sign-on implementation. Activating this functionality would prove particularly valuable, Lewallen said, considering recent security incidents including a ransomware attack that disrupted service at multiple hospitals across the country, including an OCSRI partner.

Having more remote access capabilities gives providers flexibility, which is important to those trying to access records from other locations. It also offers scalability that enables organizations to expand outreach into rural areas where the lack of healthcare access creates "medical deserts."

Such flexibility in accommodating OCSRI's specific workflow requirements, along with customization capabilities, were key to OCSRI's adoption of Elekta's cloud solution. For radiation oncology, where Lewallen primarily works, Elekta ONE** software manages oncology workflows to streamline processes and automate tasks associated with radiation therapy.

Whether OCSRI needed to implement customized login systems or adjust server allocation based on department needs, the platform proved highly adaptable. "When we needed customizations, it wasn't something they were currently doing, but they figured out how to make it work," Lewallen said.

Implementation and results: a transformative journey

During the transition, Lewallen said, Elekta provided comprehensive on-site support and maintained a dedicated support team throughout initial deployment. This structure has evolved into regular quarterly meetings and direct access to support management, ensuring continued success.

The results of the migration have been positive. OCSRI has seen a 25% reduction in tickets supporting Elekta and its products, as well as clinical staff workflow efficiencies at optimal levels. Network speed is comparable to when everything was on-premises, and software updates are done seamlessly. Importantly, the reduced IT requests have eliminated what Lewallen calls "all of those little idiosyncrasies, those little glitches, that happened because the servers were having a problem."

The financial structure of the solution has brought unexpected benefits beyond cost savings from a more stable IT system. Elekta is a fully managed service, which allows for more predictable IT costs. "It made our financial department a lot happier," Lewallen said. "Instead of every six years having a copious amount of money due, it's an annual fee. That's easier on their books without having to push money aside for later."

Enhanced accessibility and reliability

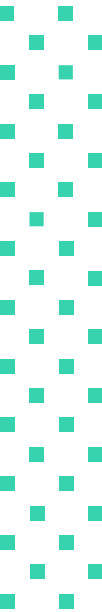
The cloud solution has dramatically improved system accessibility while maintaining security. "Accessibility to Elekta software for the users was amazing because it made it easier for both the people in-house and those who are remote to just go to a website that did everything," Lewallen explained.

The solution also now provides unprecedented reliability and disaster recovery capabilities. With Azure data centers all over the world, Axis customers have greater peace of mind. For OCSRI, which previously had one data center, this means if a server in that data center goes down, the backups are no longer subject to the same downtime.



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NASIM FARROKHANIA, MD | Internist, Industry Director | Microsoft Healthcare and Life Sciences EMEA

This redundancy has already proven its worth. Lewallen could cite only one notable instance of a service disruption, which required only 15 minutes to switch to a backup data center during an outage. Elekta also provides Axis customers frequent, automatic backups, as often as hourly and much more frequently than local setups.

Looking ahead: strategic benefits and future impact

Lewallen admitted that OCSRI's system needed updating, and he found the upgrade process was seamless, with minimal impact on end users. He emphasized the broader impact of this transformation: the cloud transition reduced IT workloads significantly, allowing for strategic initiatives like SharePoint development and graphic design projects that add value to the organization.

OCSRI's journey illustrates the transformative potential of cloud solutions in oncology care. Its experience with Axis shows how the right technology partnership can support a provider's changing needs as it grows from a small clinic to a comprehensive cancer care center while maintaining the flexibility, accessibility and reliability needed in modern healthcare delivery.

Although healthcare initially lagged in cloud adoption due to a more measured approach, Farrokhnia noted that the sector is now rapidly integrating these technologies across clinical operations. “The cloud journey in healthcare is accelerating, and medical technology and pharma are all advancing in ways that will have a positive impact on cancer care,” she said.

Cloud use will enhance data accessibility, improve patient care and streamline operations. It supports advanced analytics, AI and machine learning for precision medicine, and offers scalability that can expand telehealth to reach more remote patients, facilitating better care coordination and patient engagement. “Altogether, it will have a huge impact on being able to save more lives,” she concluded.

To learn more about Elekta Axis Cloud, click [here](#).

*Elekta Axis Cloud is subject to regional Azure availability.

**Elekta ONE is comprised of multiple Elekta solutions, some of which are not yet available in all markets and/or Elekta Axis Cloud compatible.



About Elekta

As a leader in precision radiation therapy, Elekta is committed to ensuring every patient has access to the best cancer care possible. We openly collaborate with customers to advance sustainable, outcome-driven and cost-efficient solutions to meet evolving patient needs, improve lives and bring hope to everyone dealing with cancer. To us, it's personal, and our global team of 4,500 employees combine passion, science, and imagination to profoundly change cancer care. **We don't just build technology, we build hope.** Elekta is headquartered in Stockholm, Sweden, with offices in more than 40 countries and listed on Nasdaq Stockholm. For more information, visit elekta.com or follow [@Elekta](https://twitter.com/Elekta) on “X”, formerly known as Twitter.