



CLIENT STORY

Driving Cloud security and maturity for NHS Gloucestershire ICB

Story snapshot

Insight and NHS Gloucestershire ICB partnered with AWS to build a scalable, secure cloud infrastructure. Starting with an in-depth discovery and foundational assessment, the ICB implemented a Well-Architected Framework Review and best practices including Infrastructure as Code (IaC), version control, and robust change management.

- Delivering a more vigorous and automated change management process
- Improving the ICB's security posture to meet stringent security standards



Gloucestershire

Background

NHS Gloucestershire ICB (Integrated Care Board) was looking to overhaul and update its current cloud infrastructure to improve ongoing maintenance, development and security processes. As NHS Gloucestershire's digital services grew, adopting the NHS's Cloud-first mandate made it essential to move away from manual processes, to a more scalable and robust, enterprise-ready infrastructure.

Challenge

NHS Gloucestershire needed to overhaul its Cloud infrastructure and web presence to move away from a fragmented and largely manual, infrastructure. Its web presence has been hosted on AWS Lightsail, designed for small, low-maintenance SMB deployments, but this offered minimal monitoring and limited enterprise capabilities. As additional workloads were added, the environment became difficult to manage, impacting compliance and predictability.

NHS Gloucestershire aimed to create a structured, scalable, and compliant cloud environment. The goal was to strengthen security while aligning with standards like the Cybersecurity Data Security and Protection Toolkit and the National Institute of Standards and Technology. This laid the foundation for enterprise-level cloud maturity.

"Insight truly understood our specific needs, working closely with strategic partner AWS to ensure a tailored solution. The shift has been transformative, not only significantly enhancing our change management capabilities, but also streamlining our operations. Insight's expertise ensured a seamless transition, allowing us to adapt more efficiently to future demands and drive business success."

Remi Pacifico, Senior Solutions Architect, NHS Gloucestershire

Solutions & Outcomes

Insight worked with NHS Gloucestershire to overhaul the ICB's Cloud infrastructure. A key element involved moving to an Infrastructure as Code (IaC) model, where all Cloud resources are defined and managed through code stored in a Git repository with tools like Terraform. This ensures version control, precise tracking of changes and the ability to roll back if necessary, significantly enhancing change management and accountability.

To further transform its digital infrastructure, NHS Gloucestershire transitioned to a containerised architecture using Docker on AWS Elastic Container Service (ECS) within a secure, discrete network. This setup integrates with an enterprise-level Web Application Firewall (WAF) for intelligent threat protection, automatic deployments, and auto-renewable certificates to improve cyber resilience and operational efficiency. As part of AWS's One Government Value Agreement (OGVA), the ICB benefits from reduced costs and enhanced support, reflected in the AWS deployment.

The project strengthens security and compliance, mitigating vulnerabilities and strengthening adherence to DSP Toolkit and NIST standards with robust WAF protection. Automation of processes like certificate renewals delivered substantial time and resource savings. Improved IaC and change management provide greater control and visibility, enhancing resilience and reliability through a modular, containerised architecture and real-time monitoring. Combined with an Insight Cloud Ops Assessment (AWS Well-Architected Framework Review - WAFR), ensured notable efficiencies.

"Partnering with Insight and AWS to deliver this pioneering project for NHS Gloucestershire has been transformational. As beneficiaries of AWS' One Government Value Agreement, the ICB also benefits from reduced costs and enhanced support. Few other NHS entities currently operate at this level of cloud maturity, and this 'oven-ready' solution is fully repeatable for other NHS organisations."

Dr Paul Atkinson, CCIO and Digital Director, NHS Gloucestershire



Why Insight?

Insight, a leading Solutions Integrator, was appointed through Crown Commercial Service's G-Cloud 14 framework to modernise NHS Gloucestershire's digital infrastructure. Chosen for its strong track record in delivering governance, clear communication, and proven technical expertise, Insight addressed challenges previous providers faced in maintaining consistent governance and meeting technical milestones. Insight and Amdaris, an Insight company, applied a "least privilege access model" and strict code approval processes to safeguard data. As an AWS Premier Tier Services Partner, Insight brings deep technical expertise and validated success across Security, DevOps, Microsoft Workloads, and Migration.

Results

- **Ensuring compliance**
With the DSP toolkit and NIST standards
- **100% remediation**
With strong fully compliant security posture and zero vulnerabilities
- **Future-proofing**
Providing a robust, scalable, future-proofed solution
- **Saving time and resources**
Through the automation of processes