

# ACT Health

Insight helps ACT Health to enhance health outcomes and operational efficiency by building trusted, modular data products with Microsoft Fabric. In doing so, the agency is leading data innovation among public healthcare organisations.



ACT Health is the ACT Government's central agency for public health policy, planning and oversight. It is responsible for shaping the strategic direction of the territory's health system, developing and implementing health policy, and ensuring that services delivered by affiliated providers are safe, effective and aligned with national standards.

The organisation also leads major health infrastructure projects, manages public health data and reporting, and supports health research and innovation across the ACT.

Over the past decade, ACT Health has made significant investments in digital innovation, including the rollout of Epic as its Digital Health Record system. However, while front-end systems evolved, the underlying data environments have been fragmented.

ACT Health recognised that its data infrastructure was no longer fit for purpose. The organisation needed a modern, unified platform to consolidate its data assets, improve governance and enable faster, more accurate reporting. However, the path forward was not straightforward.

First, a modern and flexible data architecture was required to process DHR data efficiently in a way that could scale for a broad set of reporting, analytics and future AI use cases. The centralised data architecture archetype based on the Medallion Framework was chosen to enable better quality, trust, and efficiency. It structures data into three layers—Bronze (raw data), Silver (cleaned and organised), and Gold (business-ready insights). This progression allows teams to standardise how data is processed, making it easier to govern, scale, and use across analytics, reporting, and AI initiatives. By creating a clear path from raw data to decision-ready insights, it helps organisations unlock more value from their data, faster and more reliably.

“When Microsoft signalled its strategic focus on Fabric, we evaluated its potential for ACT Health and Canberra Health Services. It quickly became clear that Fabric offered a compelling opportunity to overcome the challenges of fragmented legacy systems and siloed data. As a unified, secure, and scalable platform, Fabric seamlessly integrates with our existing Microsoft environment and is well-positioned to support our analytics and AI ambitions.”

**Holger Kaufmann,**  
CIO and Executive Group Manager  
Digital Solutions, ACT Health.

“With the Digital Health Record now live, ACT Health and Canberra Health Services are uniquely positioned to harness the power of health data—whether it's streamlining Commonwealth reporting, optimising activity-based funding, enhancing daily operations, or unlocking AI-driven research.

To realise this vision, we need a modern data platform and adaptive data practices that enable secure, consistent, and reusable data assets. Achieving this means bridging the gap between today's legacy systems and tomorrow's data-driven healthcare.”

**Holger Kaufmann**  
CIO and Executive Group Manager  
Digital Solutions, ACT Health.

Second, ACT Health needed a shared and governed data catalogue with shared taxonomy, semantics and standards to ensure data consistently aligns with Australian healthcare standards and organisational KPI's.

Finally, Microsoft had recently announced a strategic shift away from Synapse in favour of Microsoft Fabric, its new, unified data platform, which promised greater scalability and better governance and integration capabilities. While Fabric's potential upside was significant, ACT Health needed to test whether it was fit for purpose.



# Proving the platform's value using a critical dataset

In September 2024, ACT Health launched a proof of value initiative for Microsoft Fabric, focused on a high impact use case: the Emergency Surgery Waiting List (ESWL) Data Product. ESWL data tracks and reports on the waiting times for elective surgeries in public hospitals across Australia. Its purpose is to monitor hospital performance, inform policy decisions, and ensure transparency in the healthcare system. By highlighting wait times and disparities, it helps improve accountability, supports better resource planning, and promotes equity in patient access to surgery.

Insight Enterprises were selected as preferred vendor to augment ACT Health's Data Platform team, with expert advice and Microsoft connections, working side-by-side with internal teams to design and configure Fabric with templated and automated data pipelines in just three months.

The templates included pre-configured notebooks, logging frameworks and metadata capture mechanisms, and a Python framework for data transformation.

The platform was designed with modularity in mind for faster innovation and scalable growth by allowing teams to independently build, maintain, and enhance key components without disrupting the entire system; all while maintaining a shared governance framework. Within this architecture, sensitive data can be isolated in a secure, centralised workspace with tiered access controls to reduce the risk of unauthorised exposure.

Knowledge transfer was a priority throughout the engagement. Insight provided extensive hands-on training and support to relevant ACT Health personnel, increasing user confidence in and adoption of the new solution.

“The collaboration with Insight was like having an extension of our team with the subject matter experts we needed. We had daily stand-ups and worked closely on iteration planning and DevOps. They were very open with their documentation and facilitated lots of shadowing to help educate and guide our people. Their expertise and support were critical to our success.”

**Bill Williamson**  
Data Platform Architect, ACT Health

“ACT Health's adoption of Microsoft Fabric to support its Emergency Surgery Waiting List use case is a powerful example of how technology can drive real innovation in healthcare. This initiative not only reflects a bold vision for data transformation but also underscores the tangible impact technology can have on improving outcomes for patients and communities. We are excited to see how Fabric will continue to enhance ACT Health's data capabilities at scale and deliver meaningful results”.

**Veli-Matti Vanamo**, APAC CTO, Insight

The initial results exceeded expectations, validating Microsoft Fabric as a viable platform that delivers faster processing speeds, better cost management, reduced duplication of data, better data security capabilities. Data quality and trust has improved with metadata-driven frameworks and automated lineage tracking to trace every data point from source to report, reducing reliance on manual reconciliation.

“For the Data Products team, the key game changers have been combining Medallion architecture, efficient data pipelines in MS Fabric, and clean, optimised Python code with a strong Data Product methodology. Our Data Products are co-designed with a reference group of domain experts, so they're grounded in real business needs. What used to take thousands of lines of code now to around 100 lines with a significant time saving on the teams that use the data – and that includes built-in validation checks. We've also cut query times from about 45 minutes to just one minute. It's made a huge difference in how quickly and reliably the Submission team can deliver insights.”

**Mark Luca**, Data Products Lead, ACT Health

The Proof of Value phase was successfully endorsed by the Program governance board in December 2024, with approval to continue building Data Products and expand the Fabric platform and strengthen Data Governance. Today the investment in Fabric is enabling accelerated Data Product delivery to streamline and automate Commonwealth funding submissions with improved accuracy.

# Scaling up the data solution following initial success

Microsoft Purview data governance features are being tested including a shared data catalog, metadata management, automated data lineage, data quality scores and access controls. Other data governance features planned for testing include data classification and expanding data monitoring across the broader data ecosystem.

The next phase of Fabric establishment will focus on self-service data analytics workspaces, enabling reporting and analytics teams to use these trusted data assets to explore data, generate automated reports and monitor quality.

There is also a broader strategic opportunity. With the ACT Government planning to consolidate digital services under a new Digital Canberra directorate, ACT Health's experience could serve as a blueprint for other agencies across the territory and beyond. Fabric's modular architecture, governance model and proven outcomes make it a compelling candidate for adoption, so long as the change is managed effectively.

“*Lesson number one: treat any data capability uplift as an incremental change program. It takes vision, commitment from leaders across data, governance and technology to collaborate and stay the course—especially when change gets tough. The investment in Fabric and modern data practices is speaking for itself, thanks to a committed and talented team and the leaders who backed us in.*”

**Niamh Toohey**, Program Director of the Data Remediation and Reporting Program, ACT Health

