

## Connecting Australia to a healthier future

CUSTOMER  
**Australian Digital Health Agency**

LOCATION  
**Australia**

INDUSTRY  
**Public Sector**





## Challenge

- The Australian Digital Health Agency was legislatively required to move from its existing data centre to another option within a constrained time frame
- The Agency needed a cloud-first strategy so it could improve business agility and respond rapidly to change
- The availability, security and integrity of Australians' personal health information maintained in the cloud had to be ensured
- The organisation needed to develop its culture of DevSecOps



## Solution

- Agile delivery method with sprints, infrastructure as code (IaC) pipelines, Platform X™ and Cloud Security Services
- Delivered from DXC's 700-seat, government-certified Delivery Hub in Adelaide
- Implementation of Microsoft Azure cloud to create one of Australia's largest protected-level cloud data stores (around 2.5 petabytes)
- Cloud-native environment, designed to have data redundancy, be highly available across multiple regions and deliver stringent SLAs
- Implementation of DXC's DevSecOps framework to enable the DevSecOps culture, principles, patterns and supporting practices and tools



## Results

- Delivery of complex environments within constrained time frames
- A blueprint/pattern to rapidly deploy environments using DevSecOps practices
- Patient record system with high availability and redundancy supporting health and care for Australians
- A cloud environment secured to a protected level to support current and future demands



The need for a connected digital healthcare system — accessible, progressive and secure — has never been greater. Improved use of data and technology is helping Australians to live healthier lives.

## Connecting Australia to a healthier future

Tasked with improving health outcomes for Australians by delivering digital healthcare systems and the national digital health strategy, the Australian Digital Health Agency commenced operations in 2016. The Agency plays a lead role in the national engagement, delivery and uptake of digital health in Australia, to support and enable a contemporary, connected healthcare system accessible to all Australians and embraced by all healthcare professionals.

Australia's national digital health record platform, My Health Record, is managed by the Agency. Used by 89% of Australian citizens, My Health Record provides a secure electronic summary of an individual's medical history to improve information sharing across healthcare providers.

The need for a connected digital healthcare system — accessible, progressive and secure — has never been greater. Improved use of data and technology is helping Australians to live healthier lives, with greater control over and better access to essential health information.

### Business challenge

A government change required the Agency to vacate its existing data centre under a tight time frame. As the Agency's on-premises data centre approach to ICT hardware hindered rapid business change, the government mandate gave the Agency an opportunity to embrace change and reimagine its foundational IT capability.

DXC achieved a complete transformation, helping the Agency's operating model evolve into an application ecosystem that supports innovation with speed and delivers solutions to new business challenges quickly.

The Agency wanted to leverage a secure, cloud-native approach to improving business agility, hasten its response to accelerating business change and enhance My Health Record system and its ability to deliver quality outcomes to every Australian.

It was crucial to ensure data security, as the system contains comprehensive health information on an individual's medical conditions and treatments, immunisations, pathology and diagnostic imaging reports, prescription and dispensing information, hospital discharge summaries and more.

## Solution

Following an open, competitive request for proposal (RFP) process to migrate the My Health Record environment onto the cloud, the Agency engaged DXC Technology. The environment has become one of Australia's largest protected-level cloud data stores (around 2.5 petabytes).

DXC was selected for the contract based on its commitment to meeting vital aspects of the project timeline and security requirements. Brad McKendry, general manager of Federal Health and Social Services at DXC, said, "With many years experience working closely with the public sector, we were able to demonstrate our significant government footprint and successful track record in running critical government systems. This experience appealed to the Agency and offered a low-risk approach."

With a requirement to use Microsoft Azure, DXC refactored the Agency's existing Oracle-based apps to operate in the cloud. Working hand in hand, the DXC and Agency teams delivered the "lift and shift" project on time. They also collaborated to deploy a complete service management platform through which DXC would manage the new Azure platform, supporting the transformation.

Managed cloud ops formed the solution's core, with DXC's Platform X as the foundation and DXC's Cloud Security Services ensuring that cyber resilience was built in from the outset across the entire IT environment and operations.

Platform X™, DXC's data-driven intelligent automation platform, enables customers to accelerate their journey to resilient, self-healing IT across the estate. The platform empowers IT teams to detect and resolve issues quickly, automatically predicting and preventing future problems. As a result, systems achieve a state of silent operations, moving IT operations from top of mind to out of mind for IT teams, both saving time and money and enabling the teams to focus on what's most important: the business.

The solution is fully integrated with the Microsoft Agile toolset — along with DXC's DevSecOps Enablement and Delivery Framework and Platform X eBonded to the Agency's ServiceNow instance, for full service management integration. DXC's Platform X environment provides complex event correlation and event-driven automation, and the results are synchronised with the Agency's ServiceNow instance.

## Implementation

At the start, DXC ran a discovery exercise across the existing on-premises infrastructure. Leveraging its close relationship with the Microsoft team that had worked with the Agency on the proof-of-concept and pilot projects, and using an Agile DevSecOps methodology, DXC created a multi-zoned, protected-level and highly secure cloud ecosystem and migrated the government's citizen healthcare application environment onto it.

Ongoing support was transitioned to DXC's Adelaide-based Delivery Hub. Designed to serve private sector and secure federal and state government customers, DXC's 700-seat Delivery Hub runs 24x7x365 and is staffed by highly skilled and specialised IT people trained to manage on-premises, hosted and public cloud infrastructure environments.

Embedded within DXC's Delivery Hub is a team of people in the DXC Dandelion Program providing CloudOps support. Established in 2014, the award-winning DXC Dandelion Program connects neurodiverse people with meaningful employment. Neurodiverse people, such as those on the autism spectrum, often have an extraordinary capacity for visual thinking, accuracy and attention to detail. The DXC Dandelion Program harnesses and extends the unique talents of neurodiverse people, giving customers access to this strong technical capability.

Use of the Microsoft Azure DevOps toolset, combined with DXC's DevSecOps Enablement and Delivery Framework, allowed the migration to progress on schedule, without failure and within a limited time frame of 6 months.

DXC dealt with issues quickly and efficiently, working with partners and the Agency. As an example, a major issue occurred due to capacity limitations within the Azure Central region. Working collaboratively, the team redesigned the solution, resulting in a move to Azure regions in both Australia East and Australia South East. This issue was resolved within a week, allowing the project to remain on schedule.

DXC applied its Cloud Right™ approach to maximise business results and drive further cost optimisation. In contrast to existing cloud-first strategies that move workloads and applications to a public cloud at any cost, DXC's Cloud Right approach first attains a deep understanding of each customer's key goals. The ongoing process ensures that cloud environments achieve the required business outcome(s), while optimising cloud usage and costs based on fluctuating customer demand. This approach ensures that the right technology is deployed at the right time, and on the right platform.

## Results and benefits

Moving from an on-premises solution to cloud was a substantial change for the Agency, as was the move from a single vendor environment to multiple vendors. DXC achieved a complete transformation, helping the Agency's operating model evolve into an application ecosystem that supports innovation with speed and delivers solutions to new business challenges quickly.

This is one of the largest protected-level deployments in Australia of an Oracle database to Azure.

Now considered a trusted and valued partner by the Agency, DXC is well integrated with the internal team and is engaged in running and maintaining the Agency's live cloud platform.



System availability and interoperability are crucial, as the infrastructure is critical to Australia's entire population: My Health Record supports every step of patients' health and care, including providing potentially life-saving backup in a medical emergency. To address these needs, DXC designed the system to be highly available, redundant and secure across multiple regions.

Securing the environment has been and always will be a critical focus for the Agency. Core to the architecture of the new environment is maintaining and increasing data integrity.

With significant built-up latent demand to stand up new environments, the Agency is keen to leverage the flexibility with service management and capacity to spin up new environments quickly. DXC's DevSecOps Enablement and Delivery Framework makes development in the Agency's complex environment repeatable and more straightforward.

The Agency also has its first-ever configuration management database (CMDB) eBonded from DXC Platform X, to provide deep service management

capability, with full visibility of the environment down to a very granular level. This provides better visibility and decision-making to minimise the impact and risks from change implementations. Whereas previously, this data would be stored across multiple spreadsheets and take months to collate, it's now available instantly, on demand. Platform X will also facilitate this capability across a multi-cloud environment, should the Agency choose to expand.

Dr Mal Thatcher, the Agency's chief technology officer, said, "We are thrilled with the DXC team, their approach to the project, the engagement and communication. The team was able to pivot quickly and conceive proactive recommendations to improve the environment. We had a positive experience every step of the way."

## The future

The Agency is focused on innovating and evolving My Health Record and its peripheral systems to increase the use and value of available information. Now considered a trusted and valued partner by the Agency, DXC is well integrated with the internal team and is engaged in running and maintaining the Agency's live cloud platform.

The new cloud infrastructure platform is critical to enabling business innovation, speed to market and flexibility. It's crucial that the system remain at the leading edge, which is why DXC's remit includes standing up systems requiring access to My Health Record secure data and proactively providing ongoing suggestions for innovations and improvements.

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### About DXC Technology

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