

Building a nationwide digital identity certificate.

Designing and delivering a secure mobile platform for nationwide digital identity certificates.



The challenge: Delivering secure digital identity for millions.

We live in a world where technology has become as ubiquitous as the air we breathe. Yet when it comes to something as fundamental as proving our identity, many of us still rely on physical documents such as a passport or a physical certificate.

Paper-based credentials present major challenges, including:

- Limited ease of access for citizens
- Accuracy and data management issues
- Increased security risks

Physical documents are also more susceptible to:

- Theft or loss
- Forgery or alteration
- Identity fraud

Our client has long been an advocate for digitising identity credentials and documents. This journey to develop a nationwide digital identity certificate marks a significant step in fast-tracking the nation's digital future.

The solution: Building a secure digital identity platform.

Primary forms of identification are used for many of life's major events such as enrolling a child in school, opening a bank account, applying for a driver's license, or obtaining a marriage certificate. They are also one of the main forms of identification for people who cannot, or choose not to, obtain a driver's license.

After a competitive tender and procurement process, Thoughtworks was selected to build the digital identity certificate based on our deep expertise in Agile software delivery on native iOS and Android platforms, our innovative approach to human-centered design, and a shared commitment to delivering better outcomes for citizens.

We brought together a cross-disciplinary team made up of civil servants, designers, technologists, analysts, and product managers to build the digital identity certificate, enabling members of the public to securely establish their identity while maintaining control over their personal information.

The platform: Secure, scalable digital identity.

Thoughtworks built native iOS and Android apps where users can store, view and share digital identity certificates for themselves and their families. The app was developed with a strong focus on trust and user experience, as well as inclusion and accessibility to support the needs of special-needs and vulnerable users. Key features of the app include:

Self-sovereign identity empowers individuals with greater security, flexibility and ownership of their personal information.

Security was built into every aspect of the product, from features and architecture, to technical design and development practices. We also implemented modern security practices, like multi-factor authentication and biometric verification, bolstered by robust encryption and validation mechanisms to prevent certificate tampering.

A consistent experience for everyone, regardless of ability.

Our approach to design and development was guided by a strong focus on accessibility, and we adopted inclusive design best practices. We regularly tested and gathered feedback from a diverse group of participants who use screen readers, have low vision, or are neurodiverse. The app is compliant with the Web Content Accessibility Guidelines (WCAG) at Level AA.

A digital identity app that is trustworthy.

We partnered with an independent advisory practice to create a future product roadmap, including a set of governing rules and policies to make the digital identity certificates verifiable.

We adopted a thorough risk-based approach to systematically identify product risks, quantify their significance, and prioritise preventative and detective controls to safeguard the confidentiality, integrity, and availability of the system and its data. This approach helped assure citizen privacy protection and data security, from the system of record through to the certificate in the mobile device.

The outcome: A new era for digital identity.

A pilot program for the digital identity certificate launched for over 18,000 people in early 2024. In addition, one hundred clients from a leading national provider of services for people with blindness and low vision were invited to the pilot program to test the accessibility features of the digital certificates.

The digital identity certificate enables people to securely access and present their identity from a mobile device, giving individuals greater control over how their personal information is shared while simplifying identity verification for a growing range of services.

This initiative marks an important step in the evolution of digital identity. The digital identity certificate is expected to be widely accepted as a form of personal identification by government authorities, businesses, schools and sporting organisations.

Our client's vision is for the digital identity certificate to become the foundational platform for the digitization of other life event products (such as marriage and death certificates) to be rolled out across all states and territory registries across the nation.

Building a modern, native mobile delivery platform also required secure, scalable and decoupled integration to the client's backend systems. To support the certificate deployment, the mobile app was developed with backend infrastructure from Amazon Web Services (AWS). This provided a foundation for a cloud-based national platform that connects other certificate providers across different states, while ensuring personal information and data is securely handled from design to release.



18,000+ people
participated in the early pilot program



Accessibility tested with users who are blind or have low vision.



Platform designed to support rollout across state and territory registries.



Trusted by governments to modernise critical platforms and deliver better services for citizens.

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