Waka Kotahi NZ Transport Agency

Driving cloud-powered transformation

Client overview

- Waka Kotahi New Zealand Transport Agency is responsible for managing the services that get drivers on the road across New Zealand.
- The agency aims to provide one integrated land transport system that connects individuals, businesses a nd communities for social and economic opportunities.
- Growing demands for fast and secure digital-first services are changing how government agencies interact with citizens, and Waka Kotahi New Zealand Transport Agency needs to respond.

Objectives

- Improve how new and existing drivers interact with the New Zealand government, beginning with taking their driver's license test
- Integrate the driver's license theory testing system with the driver's license register to streamline testing processes, including booking, test taking, result notification and license issue
- Keep sensitive citizen data secure across systems, including integration with third-party applications

Solution

- Implemented **Cloud solutions from Unisys**, including access to **Amazon Web Services (AWS)** and **Applications solutions** to accelerate digital transformation and application modernization in the cloud
- Rapidly developed and deployed a low-code platform that provides drag-and-drop features for fast and collaborative application development, testing and management to design and operate a new learner's license theory application
- Migrated to a private cloud platform to use a consumption-based model
- Integrated Agile project methodologies and a DevOps delivery environment to update the land transport registry system
- Implemented **Unisys Agile Business Suite (AB Suite®)** application development software and **Unisys Managed Detection and Response** solution

NZ Transport Agency Waka Kotahi and Unisys: 25 years of digital innovation

The NZ Transport Agency Waka Kotahi (NZTA) is a multifunctional agency responsible for a wide range of road usage services, from managing vehicle registration and providing access to data for approved agencies to ensuring drivers are suitably qualified and managing the state highway network.

Why Unisys?

For more than 25 years, Unisys has played a critical role in supporting the agency's mission by helping ensure its core transport registry, auxiliary systems and processes remain modern with a strong focus on customer service and employee productivity while also adhering to the highest levels of security.

A highly collaborative working relationship has helped the agency leverage new technologies and processes that improve experiences for government workers and citizens.

Results

- Completed four major system modernization projects in one decade

- Improved new and existing drivers' experiences with convenient and secure online driver's license tests and other services

- Reduced the likelihood of human error as well as fraud and increased employee productivity by eliminating manual data entry

- Fostered a culture of collaboration and innovation with vendors and government departments by integrating core systems with third-party applications and services

- Reduced annual system maintenance and operations cost by 26% (NZ$80 million)

- Cut the time to respond to changes in legislation to just three months, down from six to nine months previously

- Transferred more than 1.7 billion records to a new system during two weekends without disrupting operations or user experiences

- Migrated 400 virtual machines to a private cloud platform, which reduced capital expenditure and operating costs
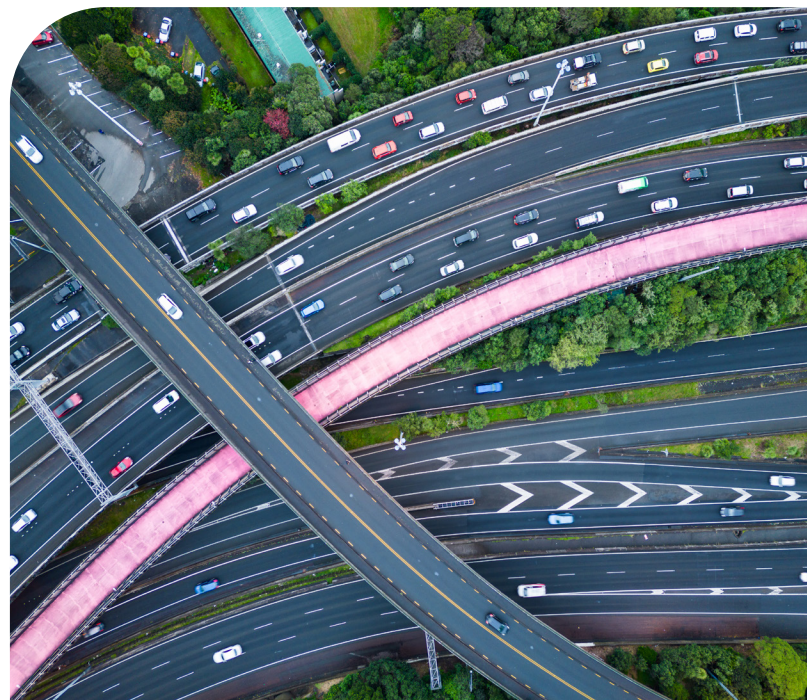
Speeding to faster services for citizens

Even as our world becomes increasingly modern, one of the oldest and simplest things remains one of the most important: roads. Virtually everywhere, roads connect people to what matters, including where they live and work and how they visit friends and family. For New Zealanders, Waka Kotahi New Zealand Transport Agency is the multifunctional government organization responsible for this foundational part of everyday life.

Waka Kotahi New Zealand Transport Agency manages vehicle registrations, provides access to data for approved agencies, ensures road users are qualified to drive and manages the highway network. All this is why the agency knows it isn't enough simply for the nation's roads to be smooth. The digital processes people use to start and keep driving must be just as reliable and even smoother than the roads themselves.

However, some of the agency's services created roadblocks for new and existing drivers nationwide. For instance, third-party applications hindered the digital tests for learners' driving licenses, causing issues in the agency's core systems. Despite its commitment to creating leading digital citizen experiences, the agency faced growing expectations for fast, efficient and secure digital services.

An example was the lack of integration between the driver's license theory testing system and the driver's license register. This meant new drivers' personal data and test results had to be entered manually, wasting government workers' time and introducing the opportunity for human error and fraud.

Breaking down roadblocks with cloud solutions for modern applications

Obtaining a learner's driving license is often one of the first experiences would-be drivers have with the New Zealand government. This includes young first-time drivers as well as people new to the country. More than 185,000 of the agency's road knowledge proficiency tests are completed annually at over 100 sites, including 15 mobile testing locations. So, it wanted to make the process for test takers as smooth as New Zealand's roads.

The agency sought assistance from Unisys to modernize the systems supporting the road knowledge proficiency tests. They wanted to eliminate manual data rekeying and enable access through mobile devices like smartphones. Unisys identified low-code rapid application development as the solution and introduced a platform from their partner OutSystems, a leading low-code development platform delivered as a Platform as a Service (PaaS).

OutSystems' physical infrastructure is hosted in the secure data centers of Amazon Web Services, allowing businesses to rapidly achieve digital transformation and modernize applications in the cloud. The open platform without vendor lock-in offers flexible, portable solutions that can easily accommodate future changes.

Paving the road to low-code development

Combined with mature, scaled agile practices, the low-code platform's drag-and-drop interface for application development empowered the agency to deploy new applications faster than ever. The agency implemented a cloud-based service for the road knowledge proficiency tests in just six months using Unisys solutions. The flexibility of low-code development meant the agency could quickly update the application when driving eligibility laws changed.

Would-be drivers can now complete the theory/written component of their test from any location, and the agency can run more tests, up to 15,000 per month, during peak demand periods such as school holidays. Direct integration with the agency's driver's license register and automated processing has eliminated manual data entry and enabled a more seamless process, from booking a test to receiving the notification of results. The time taken for agents to administer the test has dropped by approximately 20%.

"The driver license testing project proposed delivering a large amount of functionality in a relatively short timeframe. Delivery needed to be on time, as the previous licensing had a specific end date. We received the solution on time with all of the agreed-upon functionality. This result was especially pleasing given that, as an agile project, the refinement of the backlog features exposed additional details that needed to be developed within the original plan. As a customer, we received the required product within the specified timeframe. Since going live, changes made have been far easier and quicker than if we had been using other legacy platforms," says Darrell Hart, project manager of Waka Kotahi New Zealand Transport Agency.

In addition, because the system for the theory component of the test is delivered in a cloud-based Software-as-a-Service or SaaS system, the agency only pays for what it uses. There were no upfront development or implementation costs.

Finding the right road trip partner

For 25 years, Waka Kotahi New Zealand Transport Agency has collaborated with Unisys on groundbreaking projects like this one. Implementing Cloud solutions from Unisys was the latest stop on a decade-long road trip that transformed four key initiatives modernizing the agency's systems and services.

This journey began with the Waka Kotahi Transport Agency's business change program, which modernized the registers platform to help the agency more readily align with legislative changes. This project was completed in three phases alongside four significant legislative workstreams. One of the major tasks for Unisys was to migrate mainframes to Windows platforms, involving the transfer of more than 1.7 billion records over two weekends.

The agency estimates that the business change program resulted in NZ$80 million in savings, a 26% reduction in IT maintenance and operational costs and a 30%-40% improvement in transaction response times. Moreover, this initiative received the ITEX Computerworld Project of the Year award in 2012.

Driving to digital firsts in government services

During the agency's second initiative with Unisys in the past decade, they teamed up to modernize the land transport registry system for vehicle and driver licensing, road charging and vehicle inspections. This project was essential for the future of transport management in an increasingly digital-first world. It established a system that made driver's license services available online for the first time, and it enabled the agency to adapt to regulatory and policy changes more rapidly than ever before.

Unisys and the agency fostered a culture of collaboration and innovation to make this digital-first vision a reality. They formed a dedicated multi-disciplined team comprising staff from different functions across both organizations as well as from vendors and government departments.

Their cross-functional collaborative approach set a foundation for efficiency. They cut the traditional six- to nine-month delivery cycle down to just three months. For instance, the agency gained the ability to make changes based on new passenger service legislation in just nine weeks.

In a first for the country, New Zealanders can now apply online for a replacement driver's license or a new transport service license.

Improving services without increasing road traffic

That's not all. In partnership with Unisys, the agency migrated its core registers platform and other applications from a dedicated infrastructure to a private cloud platform. This involved migrating approximately 400 existing virtual machines without disrupting the citizen experience or the services on which those drivers depend.

This initiative reduced the agency's capital expenditures and operating costs. Thanks to security controls native to the new infrastructure, the private cloud also provided a higher security-to-effort ratio. The migration to the Unisys private cloud provided more flexible and faster provisioning and increased platform resilience through high availability and proactive IT operations.

Keeping roads safe and digital services secure

Security remains at the top of Waka Kotahi New Zealand Transport Agency's and Unisys' minds. The agency's systems contain highly sensitive data, such as driver's license identities and PCI payment information. These systems are integrated with third-party partners and applications responsible for toll payments, garage assessments and aspects of the driver's license test, including submission.

Thanks to Unisys, the agency has confidence that its systems—and drivers' data—are secure. As technology standards and trends evolve, the agency knows it can rely on Unisys as a partner to help keep the country's roads safe.

To explore how Unisys can help you **modernize and elevate your cloud capabilities securely**, visit us online or **contact us** today.

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