

Delivering value, security and privacy as transport services digitise





Everyday life for Australian citizens is becoming increasingly hyperconnected and digitised. So given our rising expectations for streamlined public systems, governments must be future-focused on creating an environment that meets our value, security and privacy obligations – all while keeping pace with citizens' digital expectations and experiences.

We've already seen major overhauls to public transport systems across the country – most recently, the Victorian government selected a new ticket operator for the state's Myki system in order to *"make sure the myki system is more efficient and effective over the coming years"*. Given the sweeping challenges of upgrading or indeed overhauling any public system, how then can those in power find the right solution?

Addressing the 'slow lane' challenges of the citizen experience

Transport services are the arteries of our cities. Yet as populations surge and urban planning becomes more complex, these vital services have found themselves stuck in a time warp – struggling to keep pace with the digital expectations of the modern Australian.

The reality is that the transport sector has been traditionally sluggish to embrace change. This is down to a variety of reasons – the landscape is an intricate fusion of mobile assets, linear and supporting infrastructure, and technologies with myriad stakeholders all influencing service delivery. What once resonated with society's expectations swiftly morphs into obsolescence, only to be replaced after a protracted procurement process – a vicious cycle of perpetual catch-up.

"Fujitsu wanted to find a way to de-risk the transition of these major transport solutions while opening them up to emerging Australian innovations," said client engagement executive Andrew Hartnett of Fujitsu.

Meanwhile, the private sector relentlessly churns out new digital experiences, enticing consumers with ever-more sophisticated engagement platforms. As a result, this puts further pressure on transport agencies to emulate these streamlined systems.

Adding to the complexity is the demographic makeup of public transport users. A significant portion are unable to access newer digital channels, whether due to age (e.g., school-aged students can't have a credit card for tap-and-go) or socioeconomic factors, which makes the notion of investing in innovative – and expensive – solutions a daunting prospect for governments.

In this environment, the business case for innovation essentially becomes a Gordian knot. Limited uptake dampens the potential return on investment, perpetuating a cycle of cautious advancement and missed opportunities.

Digital identity, security and privacy

An unfortunate byproduct of our digital world is the ever-present threat of cyberattacks. And public transport systems aren't immune, with security breaches and data leaks affecting everyone from small operators right through to [major government departments](#). So, the need to safeguard critical infrastructure has never been more pronounced. Recognising the vulnerability of public transport networks against malicious attacks, governments are fortifying their defences with new regulations – beyond just the [Security of Critical Infrastructure \(SOCl\) Act](#) – aimed at shoring up security and preserving societal and economic stability.

Yet this heightened vigilance creates something of a paradox for transport agencies. On the one hand, they need to provide customers with the most seamless journey possible. That means delivering real-time information about their route, tailoring fares based on concession status, as well as offering various identification and payment options – from credit cards to biometrics to corporate RFIDs and more.

On the other hand, putting so much focus on convenience requires agencies to collect and store vast troves of customer data: GPS and time-tagged waypoints in real-time, concession statuses (including disability and impairments), identity markers like age and biometrics, as well as their payment details. With every new piece of data, risk increases.

Modern transport systems have transitioned from closed, controlled environments with limited data capture and proprietary identifiers, to complex ecosystems teeming with diverse channels and robust security and privacy obligations.

This transformation poses a challenge for established providers who are shackled to costly, often offshore solutions that are focused more on fortifying the existing infrastructure than fostering innovation. Meanwhile, new providers can barely get a foot in the door, stifled by complex regulatory frameworks and trying to integrate with legacy systems that hoard data like precious cargo.

Why public money must be spent wisely

The task of how and when to spend public funds remains anything but straightforward, especially given the challenging environment for transport. The ecosystem is made up of countless service operators that each come with their own set of metrics, reporting mechanisms and treatment protocols. For government agencies that oversee these systems, getting a holistic view of all the assets and being able to identify key investment priorities is nearly impossible.

Complicating matters further are the long-term contracts that are baked into these relationships. Designed with the best intentions to mitigate risk and protect taxpayer dollars, these agreements actually stifle progress.

Providers are shielded by the security of long-term contracts and therefore find little incentive to invest in modernisation. Meanwhile, government agencies are shackled by the constraints of the original agreement and can only watch on as the promise of innovation withers on the vine.

It's a classic case of unintended consequences. In pursuit of the lowest-risk option, governments inadvertently thwart the very innovation needed to drive value and efficiency. Vendors, too, are hamstrung by the rigidity of contract terms, and are therefore unable to pivot to evolving needs. This perpetuates a cycle of stagnation that leaves both parties in the same position after a 10-year contract as they were on day one.



Finding a solution on the road less travelled

One possible remedy is balancing the digital vision with the broader transport service vision. In other words, by breaking down the digital vision into actionable policies, they can be embedded within vendor contracts to ensure future flexibility and interoperability. But it's a strategy that requires careful execution to avoid being bogged down in bureaucratic inertia.

Another avenue to explore is internal development, wherein agencies themselves become the system architects and developers. While this approach offers a degree of autonomy, it risks diverting the agency's focus away from core citizen-centric functions, and instead towards product development.

Some agencies have turned to large-scale global platforms over more bespoke solutions. However, this path is plagued with pitfalls, especially given how expensive it is to roll out a custom platform that meets increasingly unique requirements. There are numerous solutions globally that serve as cautionary tales about the perils of relying on a one-size-fits-all approach.

Fujitsu is forging a digital path for transport systems

Off the back of major investments in Enable, Southeast Asia's leading ServiceNow consultancy, Fujitsu has combined all the essential capabilities to provide an alternative solution: one where governments can partner with an experienced operator to deliver the right transport ecosystem, secure it and support agencies throughout the entire lifecycle.

"ServiceNow aligns very strongly with the needs of transport agencies. From managing their IT and OT assets, delivering supply chain services, and supporting customer, operator and stakeholder engagement, to monitoring risk and ensuring incidents and problems are resolved quickly," said Hartnett.

"ServiceNow gives agencies the insights they need to invest wisely and support all their stakeholders, while letting transport system providers get on with the business of delivery journeys for customers"

The heart of Fujitsu's solution is a commitment to thought leadership and a deep understanding of the evolving role of technology in transport systems. By aligning the digital vision with the broader service-delivery vision, vendor engagements are structured to uphold the overarching goal of citizen-centric service delivery, regardless of the provider.

Using proven platforms that support multi-supplier collaboration allows for the seamless integration and evolution of services. And because they aren't saddled with the burden of having to develop support systems, Fujitsu empowers solution providers to focus on their core competencies, with the ultimate goal that it will drive innovation and new efficiencies.

"Fujitsu wants to support and celebrate the incredible innovations being built in transport by Australian and global businesses. Our goal is to create the eco-system where these innovators can thrive in a public eco-system and focus on what they do best," said Hartnett.

There's also a huge importance placed on data sovereignty and security, which should give comfort to government agencies concerned about the evolving cybersecurity landscape. Agencies are empowered to retain control over their critical datasets and protect both citizen data and critical infrastructure from emerging threats.

Hartnett explains that Fujitsu has recognised the challenges of keeping citizen data safe, and securing the critical infrastructure that keeps us moving. *"Our FCSS business allows agencies and transport solution providers to focus on delivering outstanding transport experiences for citizens while we deliver end-to-end security services."*

What Fujitsu understands most is that success hinges not only on technological nous but also on organisational design. By designing a digital support organisation that recognises and incorporates the contractual requirements of a department's system providers, ecosystem threats, business-innovation demands and support operations, Fujitsu helps agencies become confident enough to deal with the complexity of modern transport systems.

"Transport agencies should have the confidence to embrace multiple providers and innovations while retaining the master data set, common engagement channels for stakeholders and citizens, and deep visibility and understanding of their solutions," said Hartnett.

Outcomes of securing the right solution

For governments:

- Engaging with next-generation Australian firms allows them to tap into a wealth of local talent and innovation.
- Flexible contracting arrangements mean components can be delivered from one or multiple suppliers.
- Central ownership of data within a trusted platform gives governments greater visibility and control, and therefore leads to more customised services while mitigating risks.
- Robust security measures help protect the integrity of critical infrastructure against cyber threats while guaranteeing uninterrupted service delivery.

For citizens:

- Access to best-in-class solutions from specialised suppliers means a superior experience.
- Ongoing support and engagement regardless of the core system provider.
- Faster access to innovation means citizens can enjoy more personalised, AI-driven experiences.

While the transport environment continues to evolve at an exponential rate, that doesn't mean our public systems should stay mired in mediocrity. With the right solution partner, there can be a fundamental reimagining of the way we think about and interact with our transport systems. And both governments and citizens are set to reap the rewards.

About the authors

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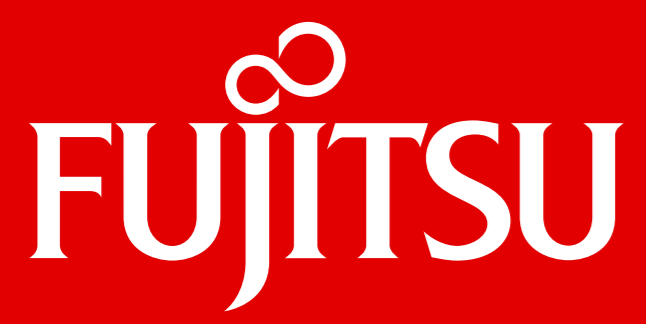
Simon Jones is a finance and technology journalist who's worked across both print and digital mastheads for nearly two decades.



Andrew Hartnett

Andrew's extensive experience in IT reflects a deep commitment to leveraging technology for business growth. His expertise spans data science, logistics, and digital innovation, demonstrating a robust understanding of how technological advancements can propel companies forward. With 17-years focused on transport strategy and delivery, Andrew has committed to citizen outcomes, ensuring that technology enhances how people use and interact with services.

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Contact the Fujitsu Transport Team to find out more

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