



THE DEPARTMENT OF TRANSPORT provides planning and delivery services for the safe and effective operation of key road and marine transport systems in Western Australia. As part of its 2019-22 strategic plan, the department is focused on the use of digital approaches to enhance customer experience, improve on-line services and increase safety for its clients.

VISION

estrat was engaged to work with the Department of Transport (DoT) Business Information Systems (BIS) team to develop a GovNext adoption plan. This plan provided guidance on the practical and cost-effective uptake of GovNext hosting and network services as mandated under the WA Office of Digital Government's (ODG) "Digital WA" strategy.

Having executed the initial program, DoT reengaged estrat in 2020 to update the plan with the objective of becoming a 'data centreless' operation within 5 years.

This would be articulated within an Infrastructure Services Roadmap which would provide a pathway for the strategic adoption of public cloud and GovNext services allowing DoT to:

- Address risk associated with aging core IT infrastructure
- Accelerate the re-platforming of mission critical applications
- Build a more cohesive and modern digital capability across BIS
- Easily and quickly develop digital products
- Leverage advances in artificial intelligence, machine learning, IOT and data analytics

Several key drivers influenced the development of the 5-year strategy. These included a mix of internal and external factors such as risk-reduction imperatives, macro consumer changes, and market dynamics. The strategy considered:

- Government / ODG Policy
- Core hardware obsolescence
- Hyper-scale cloud innovation
- Core licensing application development
- Market dynamics
- Transport portfolio initiatives (with Main Roads WA and Public Transport Authority)
- COVID-19 remote-working solutions and virtual spaces







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Process



Technology & Tools















TRACTION



estrat reviewed progress made on the initial GovNext program, and examined the current state of workloads, applications and networks in order to develop a vision for the 'data centre-less' future state. The next stage would see a profound shift to cloud-based technologies and services.

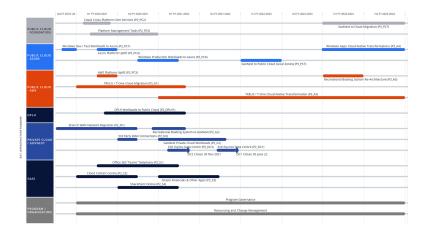
Leveraging the previously completed 'scaffolding' work, the architecture would continue to move from a hardware-centric design to software and service-oriented operations. The AWS platform would be strengthened and expanded for the licensing system eco-system redevelopment.

Expanded Azure capacity and functionality would be implemented for general / Windows workloads, with Microsoft Teams and SharePoint Online being used as platforms for collaboration, telephony and information management.



GovNext network services would provide security, branch networking, and inter-cloud connectivity along with hosting for latency-sensitive applications.

In the later years of the program, a further shift to cloud-native resources was envisaged. A formal cloud strategy would be developed to guide platform selection in ways which bring intrinsic benefits to DoT along with the needed control, security and efficiency. This would see a more pronounced uptake of serverless computing, micro-services, containers, APIs, and the adoption of SaaS and PaaS as a first-choice for most applications.



RESULTS

The new roadmap and program heralded great change and opportunity for BIS, and DoT more broadly, as IT delivery would move from hardware-centric to software and service-based operations. Many interconnecting projects, most of which would be lengthy and complex, were added to BIS' already large project portfolio. Highlights included:

- 18 projects in FY21 alone (and extending into FY22)
- Core projects; Licensing system re-platforming (AWS), production server migrations to Azure, 'Teams' for Branch telephony, and SharePoint Online
- Strengthening of AWS and Azure platforms for production-class usage
- Operating model changes to create supporting structures, communication and governance
- Increased focus on, and changes to, security posture and approaches

Specific deliverables for estrat's engagement included:

- Overarching architecture vision
- Program design and roadmap
- Project briefs
- Cost model
- Risk assessment
- Operating model design

A 'data centre-less' operating model leveraging the power and flexibility of public cloud



