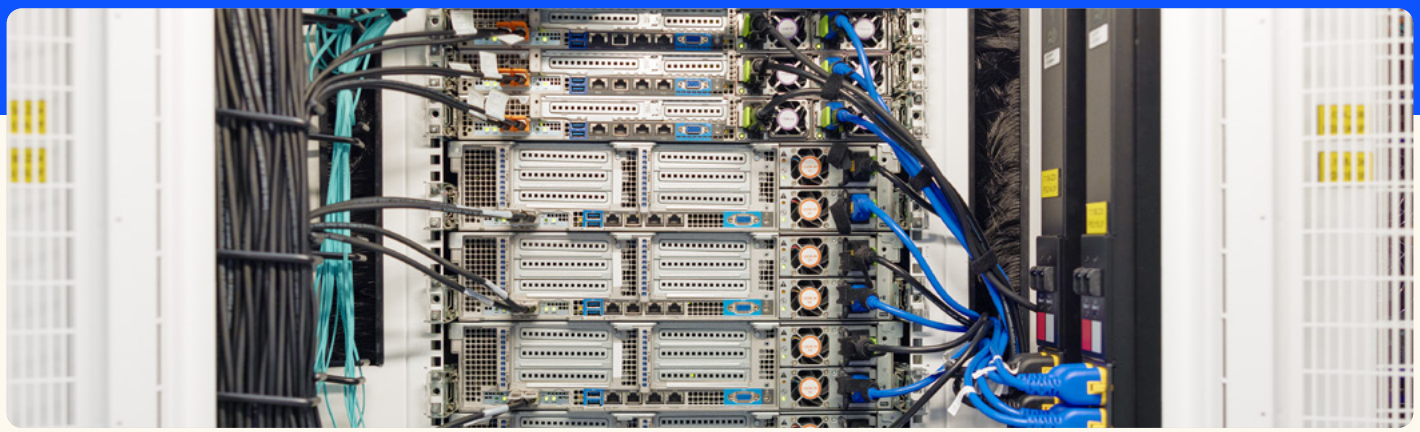
Industry Spotlight

Secure Defence and Engineering Collaboration

How can secure digital infrastructure support WA's defence and public-sector ambitions?



Public administration and safety is forecast to contribute around 4% of WA's digitally enabled activity by FY40, with defence the largest single source of growth. The Commonwealth has committed an initial $12 billion to the Henderson Defence Precinct and up to $8 billion over the decade to expand HMAS Stirling in support of Submarine Rotational Force–West, under which US and UK nuclear-powered submarines are expected to begin rotating through the base from as early as 2027.[1] These investments are expected to create sustained demand for advanced engineering, secure communications, cyber security, simulation, data analytics and digitally enabled asset management within WA.[2] To date, occupations with the highest growth in shipbuilding have been digitally focused with strong growth in specialist managers, ICT, and engineering professionals.

$1.1bn
Contribution to WA's Digital Economy in FY40 from Public Admin and Safety

Highest growth occupations for shipbuilding (National &% employment growth 2011-21, total growth)



Source: ABS Census

1. Australian Government, Department of Defence (2026), *Joint Statement, AUKUS Defence Ministers' Meeting, 30 May.*
2. Government of WA (2025), *WA Defence and Defence Industry Strategy 2025.*

WA's advantages

Export control reforms strengthen WA's position as a hub for advanced, data-intensive defence activity. The AUKUS licence-free environment, operating since September 2024, removes licensing requirements for most controlled defence trade between eligible Australian, UK and US organisations, including more than 70% of US defence exports to Australia subject to ITAR.[3] This gives WA's defence, engineering and technology businesses greater scope to participate in international collaboration and supply chains, while increasing the importance of secure, high-capacity and resilient connectivity for transferring controlled engineering, design and operational data.

Key barriers

Classified defence work must be undertaken in accredited facilities by security-cleared personnel, and WA's pool of cleared engineering, cyber and data specialists is small relative to the work planned at Henderson and HMAS Stirling. AUKUS and ITAR obligations require sovereign hosting, assured encryption and auditable transfer paths, raising the cost of participation for smaller firms in the State's engineering supply chain. For emergency service agencies, coverage is the binding limitation beyond the reach of terrestrial networks.

Benefits to WA

Sustained defence investment gives WA a long-dated and contracted source of demand for digital capability, in contrast to the project-based demand generated by resources construction. Capabilities built for Henderson and HMAS Stirling in engineering, cyber security, simulation and data management are transferable to offshore energy, critical infrastructure, space and resources, reducing the risk that skills are stranded when programmes conclude.

Key use cases

1. **Henderson and HMAS Stirling anchoring an ecosystem** of software providers, systems integrators and engineering firms supporting sensors, autonomous technologies, digital twins, predictive maintenance and secure data exchange for modern naval platforms.

2. **As Henderson develops into one of Australia's principal naval construction and sustainment hubs,** it could support the emergence of a secure defence-compute cluster in southern Perth. On-site edge computing, connected to larger sovereign cloud and data-centre capacity, could support digital twins, predictive maintenance, autonomous maritime systems, advanced simulation and secure collaboration with AUKUS partners. This would extend Henderson's role beyond physical shipbuilding and sustainment, helping establish a broader ecosystem spanning defence technology, cybersecurity, data analytics and artificial intelligence.

3. **Emergency management** drawing on aerial imagery, sensor networks, fire and flood modelling and live crew location data, all bandwidth-intensive and dependent on coverage reaching the remote areas where most large incidents occur.

3. Australian Government, Department of Defence (2024), *Generational export reforms to boost AUKUS trade and collaboration, 16 August 2024.*

Use Case: Submarine Rotational Force-West

Submarine Rotational Force-West (SRF-West) will see AUKUS partners maintain a rotational presence at HMAS Stirling of one UK and up to four US conventionally armed, nuclear-powered submarines from as early as 2027.[4] The Commonwealth is investing up to $8 billion to expand HMAS Stirling, creating around 3,000 direct Australian jobs,[5] and the programme is intended to build the operational capabilities and skills Australia needs to safely own, operate, maintain and regulate its own nuclear-powered submarine fleet from the early 2030s.

HMAS Stirling has already tested the systems and infrastructure this arrangement depends on. The base recently hosted USS Vermont, a US Virginia-class submarine, for a Submarine Maintenance Period, giving Australian personnel practical training and testing infrastructure and systems developed jointly with AUKUS partners.[6] Work of this kind depends on the secure, reliable exchange of engineering, maintenance and operational data between Australian, US and UK personnel and systems, much of it classified and time-critical.

Engineering firms are already building the digital backbone this requires. Engineers have been engaged to continue delivering technical design services at HMAS Stirling, with the scope of work spanning maritime infrastructure, submarine maintenance support facilities, estate planning, digital integration and systems engineering.[7] This work illustrates the kind of sustained, high-specification engineering demand that Henderson and HMAS Stirling are expected to generate across WA's defence supply chain.

The requirements at HMAS Stirling point to the broader connectivity dependency facing WA's defence and engineering sector. Classified design, maintenance and operational data must move securely and reliably between accredited facilities in WA and partners in the US and UK, on schedules set by rotational deployments rather than by the availability of network capacity. Higher-capacity, more resilient long-haul connectivity between WA and the eastern states, and onward to allied partners, would support the secure data exchange that SRF-West and the wider AUKUS programme depend on.

4. Australian Submarine Agency (n.d.) *Submarine Rotational Force – West.* Available here.
5. The Hon Richard Marles MP (2026) *AUKUS partners take next steps towards Submarine Rotational Force-West.* Available here.
6. Australian Submarine Agency (2025) *Upgrades at HMAS Stirling pave the way for Submarine Rotational Force-West.* Available here.
7. KBR (2024) *KBR Expands Support of Australia's Critical Submarine Rotational Program, Progressing Pathway for AUKUS.* Available here.

About this Industry Spotlight

This Industry Spotlight draws on independent analysis by Oxford Economics Australia for *Australia's Western Gateway*. The report examines the size and potential growth of Western Australia's digital economy to FY2040, including digital activity embedded across established industries. It also assesses how additional network capacity and resilience could support technology adoption, productivity and economic activity. Read the full report for the complete analysis and methodology.

Download the report

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2026.11.20 100 B&TL