



CORNING

New South Wales, Australia

GovDC delivers a seamless user experience for Australian citizens

Australia's public sector is moving away from buying information and communications technology (ICT) hardware and software assets towards ICT as a service. When selecting a data centre facility to outsource data centre and infrastructure services, primarily data storage and management, today's customer rightly expects that the data centre will deliver superior reliability and 100 percent uptime.

This is important, as the success of a data centre relies on providing improved availability and security to small- and medium-sized businesses and enterprise customers, but it becomes critical when seeking to deliver a seamless and secure end-user experience for Australian citizens.

Such was the case for GovDC, the first data centre and private cloud environment in Australia built specifically to meet the ICT needs of public bodies. The program mandates the consolidation of 130 New South Wales (NSW) government agency data centres into two built-for-purpose certified facilities that meet recognised global standards of security, availability, and efficiency.

Public sector consolidation takes priority

In 2010 there were 130 facilities used as data centres by NSW state government agencies. Some facilities were reported to have been running over 1,100 servers, 3,000 virtual machines, and 300+ applications. Power usage was unknown and total costs were high. Demand for greater capacity and quicker transmission speeds was growing at an unprecedented rate. Importantly, no existing facility could meet projected government demand over the next 15 years.

GovDC is a Whole of Government Data Centre Reform Project aligned to NSW Government ICT Strategy 2012 which provides service and cost benefits. Key aims include:

- Two state-of-the-art data centres with Tier III accreditation by the UpTime Institute – located in Silverwater and Wollongong
- Robust capacity, with flexibility for growth to meet evolving needs
- 20 mW of total capacity across both data centres
- Avoiding 646,000 tonnes of CO₂ emissions over 15 years – 4.5 to 5.0 NABERS rating



“An investment in fibre optic environments is typically a decade-long commitment. We needed an all-optical data centre infrastructure solution that would enable us to invest once and utilise many times – laying the foundation and ensuring connectivity from the fibre distribution rooms, fast.”

Simon Geraghty
Executive Director, Government Technology Platforms

GovDC required a solution that would scale easily to address new users, applications, protocols, and services without having to change its core infrastructure, run more cable, add more floor space, or risk downtime. The challenge was set to maximise density within a smaller footprint, to optimise space and capacity.

A citizen-centric approach

NSW government ICT needed to move away from the traditional sector silos towards consolidation, and gain deployment, management, and governance efficiencies.

Maximising the public value of government services was a key project focus, with taxpayers benefiting from public sector consolidation delivering reduced government service delivery costs. GovDC is enabling a shift to ‘as-a-service’ consumption, where agencies can commission and deploy cloud services faster, with more efficiency.

Security and data sovereignty are critical for the NSW government. GovDC is working with NSW citizens’ highly sensitive, personal data. As customer interaction becomes increasingly digital, everything from health records to automated payments is reliant on optimal stability and security of the data centre.

All state government data centres must be equipped to securely manage customer information and access without any fear of downtime, while also handling both current and future IT requirements.

Rather than have 130 state agencies invest in separate infrastructures, GovDC sought to make a single investment to ensure a secure and seamless customer experience and address the needs of government agencies today, and in the future.

From an infrastructure perspective, the design had to meet a number of objectives to minimise risk at all times, and be future-ready to assure all connectivity demands:

- **Flexibility:** Easy to manage and accommodate expanding agency requirements and new applications.
- **High density:** Fibre optic connectivity that would scale and allow for on-site polarity change, easily supporting future expansion.
- **Resilience:** As GovDC delivers services for NSW citizens, the solution needed to be reliable, with proven technology that would ensure a positive government experience for end users.
- **Scalability:** Support extensive equipment to meet future bandwidth and transmission demand required by Australian citizens.
- **Ultra-low-loss performance:** Enable users to exceed specified distances while dealing with the lower-loss budgets that higher-speed applications demand.

GovDC speeds up deployment

With less than three years to migrate data and services from 130 government agencies into two purpose-built data centres, rapid deployment of a future-ready infrastructure was essential for GovDC.

“We sought a high-density optical cabling system that would simplify installation and enable superior performance in the data centre. Ensuring the core infrastructure was promptly installed enabled us to meet our deadlines and service level obligations.”

Simon Geraghty
Executive Director, Government Technology Platforms

GovDC underwent a contestable process with a few vendors in the fibre optic space. Corning’s design flexibility, expertise, and ease of installation proved unrivalled.

GovDC deployed Corning’s EDGE™ data centre solution. With high-density MTP® adapters, the EDGE solution enabled the fibre optic connectivity to scale thousands of ports, and allowed for on-site polarity change, supporting future expansion.



Key benefits of deploying the EDGE™ solution in their two data centres included:

- **Superior quality:** The consistency of the Corning solution throughout the entire connection – from interconnection to rack deployment – ensures citizens won’t experience an outage in the event of an external issue.
- **Future-ready infrastructure:** Meet the requirements of 100G Ethernet, with universally wired components providing a simple upgrade path from two-fibre to parallel optic applications.
- **Simple migration path:** Seamlessly migrates to 40, 100, and/or 400G, supporting GovDC’s future growth when required.
- **Fast deployment:** Can be installed up to 85 percent faster than traditional cabling systems.
- **Superior reliability:** The use of Corning® ClearCurve® bend-insensitive fibre helped mitigate the risks of bend-induced loss that can impact the performance and reliability of systems. Such bending of cables becomes commonplace as moves, adds, and changes (MACs) are made during the lifetime of a data centre.

“The Corning EDGE solution’s speed of deployment and ability to scale are an integral part of our data centre success. Corning’s reliability and quality has enabled us to deliver an innovative, citizen-centric service.”

Simon Geraghty
Executive Director, Government Technology Platforms

A reliable, flexible environment drives digital transformation across the public sector

Lower ICT costs and improved reliability means government service delivery costs can be reduced, which helps all taxpayers. The infrastructure put in place today must be able to scale seamlessly, as the needs and application demands of multiple government departments and their end users grow.



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