

Delivering Reliable Mobile Coverage for the AIA Building

TAKAPUNA



The AIA Building at Smales Farm Business Park faced a critical mobile coverage issue during construction, with signal loss caused by metal oxide contained within the glass cladding. Netbridge was engaged to design and implement a cost-effective Distributed Antenna System (DAS) under tight deadlines and strict building aesthetic requirements.

The result: **16,722m² of seamless coverage across three commercial floors and the basement car park, plus an additional 3,000m² over-delivery**, with signal performance up to **193x stronger** than minimum standards.

The Client

Located within Smales Farm Business Park in Auckland, the AIA Building is a large-scale, multi-tenant development hosting call centres and serviced offices.

With productivity and tenant satisfaction dependent on reliable connectivity, mobile coverage was mission-critical for the facility's successful operation.



The Challenge

- **Severe signal loss** caused by glass cladding containing metal oxide.
- **Tight construction timeline**, with tenants preparing to move in.
- **No visible equipment allowed**, all cabling and hardware had to be hidden.
- **Minimal installation time** and limited access to secure areas.

Failure to solve the coverage issue risked tenant dissatisfaction, business disruption, and long-term reputation impacts for the building management.



"With the strategic use of panel antenna only within the DAS design, targeted antenna placement positions and calculated mechanical antenna down tilting, the customer received a total additional coverage area of approx. 3,000m² minimum over and above that of the contracted required coverage area(s)."



The Solution

Netbridge designed a simple, efficient, and scalable DAS solution:

- **Panel antenna only**, reducing antenna counts while maximizing coverage footprint.
- **Strategic antenna placement and down-tilt**, delivering coverage even in non-contracted areas.
- **High-flexibility 240 cabling**, fast install, reduced cost, and easier integration.
- **Minimal passive components** (2- and 3-way splitters only) – increasing system reliability and lowering costs.
- **Aesthetic compliance**, no visible cabling or hardware, preserving architectural design.

The Results

- **Full coverage delivered across 16,722m²**, meeting contractual obligations.
- **Additional 3,000m² of coverage** beyond contract, including reception, dining, and serviced offices.
- **Superior performance metrics:**
 - Carrier 1: Average **-82.83dBm** (12.7dB above minimum; 16x stronger).
 - Carrier 2: Average **-72.14dBm** (22.8dB above minimum; 193x stronger).
- **Faster installation and lower costs** thanks to reduced antenna and component count.

Client Value

- **Reliable mobile coverage** for all tenants from day one.
- **Improved tenant satisfaction** in a multi-tenant business hub.
- **Cost-effective and future-proof design** with reduced complexity and higher reliability.
- **Asset value enhanced** for the business park through long-term connectivity assurance.

"The Netbridge solution vastly exceeded the minimum coverage and signal level requirements, delivering seamless connectivity and improved tenant experience."



Looking to ensure reliable coverage in your next commercial development?

From DAS to structured cabling and network systems, Netbridge delivers tailored IT/OT infrastructure solutions for complex commercial environments.

Talk to us today.



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