



HIGH-PERFORMANCE FIBRE CONNECTIVITY ACROSS  
AUSTRALIA'S CRITICAL DIGITAL ECOSYSTEMS

A low-angle, perspective view of a server room. The room is filled with rows of server racks. The racks are illuminated with a cool blue light, and the ceiling is also lit with blue strips. The racks have a purple-to-blue gradient on their front panels. The overall atmosphere is futuristic and high-tech.

CODECOM



# TOMORROW'S NETWORK TODAY

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FibreconX is pioneering the next generation of digital infrastructure across Australia's leading digital hubs with its state-of-the-art, purpose-built dark fibre network. We connect with Mark Rafferty, CEO, to find out more

Writer: Ed Budds | Project Manager: Sam Thomas

Data centres are the engines of the internet and form the foundations of the modern technological world.

These gigantic, high-security facilities host racks of servers that store and process vast swathes of our digital data, 24 hours a day, seven days a week.

At present, there are around 300 data centres spread across Australia, with the majority concentrated along the east coast in cities like Sydney and Melbourne, where investment and expansion remain strong.

With more facilities slated for construction in the coming years, the

federal government's plans for digital infrastructure expansion continue to gain significant traction.

This will cater to the surging demand for generative artificial intelligence (AI), boost the national economy, and increase Australia's digital sovereignty.

The transformation also represents a global shift towards storing and managing data domestically under new national laws, whilst the market evolves to incorporate more sustainable energy solutions and innovative technologies to meet the rising energy needs of these facilities.

Taking advantage of this surge

in demand, FibreconX was created by a group of industry experts who have leveraged multiple years of technology innovation, network construction, and operations to create a dedicated high-capacity dark fibre network for Australia's most critical digital precincts.

"At the time, Australia had a lack of wholesale service providers, so we saw the opportunity to build a brand-new network focused on delivering what legacy fibre design and architecture simply wasn't providing," introduces Mark Rafferty, CEO.

"We designed the best-performing fibre network and rolled out our own infrastructure everywhere – underneath front lawns, railways, harbours, and entire CBDs," he recalls.

Rafferty leverages over 20 years' executive experience leading some of Australia's largest telecommunication infrastructure organisations.

Prior to FibreconX, he specialised in enterprise and wholesale operations, as well as large-scale infrastructure deployment. Today, he leads an agile and highly skilled team focused on solving one challenge – modern

connectivity at data centre-grade performance.

## UPGRADING THE NETWORK

Outdated and under-equipped, Australia's legacy networks are no longer capable of supporting today's demands or tomorrow's exponential growth – and this is where FibreconX steps in.

"We've built a brand new, future-proof, dedicated duct and dark fibre network that connects all major data centres using the shortest paths

## APAC Outlook

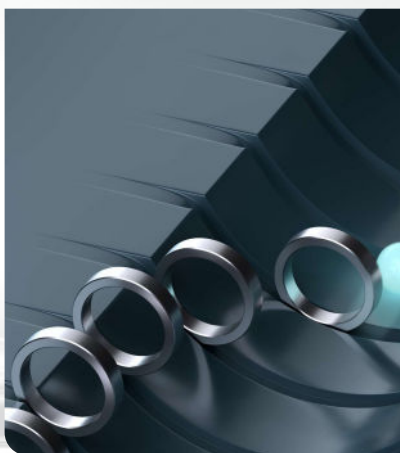
### HOW DO YOU MOTIVATE AND EMPOWER YOUR TEAM MEMBERS TO THRIVE AT WORK?

**Mark Rafferty, CEO:** "At FibreconX, we create an environment that enables all our teams to perform at their best. That remains a core focus for us as the business continues to grow.

"We have always been highly selective in the people we bring into the business, taking the time to truly understand their experiences and strengths – ensuring they complement and elevate our broader team.

"We're committed to fostering a culture where people genuinely enjoy coming to work. It's important that every team member understands their purpose, feels valued, and is motivated to contribute to exceptional customer outcomes."





**THE PUREFIBRE ECOSYSTEM**

A new network ecosystem designed and built for the ever-increasing demands of tomorrow



**FIBRECONXCORE**



**FUSIONXPRESS**



**FIBREXCHANGE**

**END TO END - NO WEAK LINKS**

for performance, ultra-low latency, and the ability to scale with unlimited capacity,” Rafferty explains.

FibreconX is dedicated to delivering the highest possible network performance to match growing data centre requirements.

Through smart design and engineering, the company ensures that once the network is built, it is ready for future increases in demand. By working exclusively with dark fibre, FibreconX ensures the underlying infrastructure remains stable – built once, then left untouched.

“Because we are a dedicated wholesale fibre provider, everything we do is designed so our partners finally have access to the full capability of fibre, without incumbent limitations or retail conflict,” affirms Rafferty.

“WITH ‘PUREFIBRE’, WE’VE DELIVERED A COMPLETELY NEW NETWORK AND DIGITAL INFRASTRUCTURE THAT EMPOWERS OUR PARTNERS TO STAY AHEAD IN A FAST-EVOLVING DIGITAL LANDSCAPE”

– MARK RAFFERTY, CEO, FIBRECONX

As dark fibre is its sole product, and the business is purely wholesale, FibreconX guarantees consistent, transparent pricing with the ability to scale regardless of the order size.

### **VAST GROWTH FOR THE INDUSTRY**

When Rafferty founded the company in 2019, he didn’t anticipate the speed or scale of the industry’s growth.

“We saw the early signals that the data centre market was thriving again, and hyperscalers and cloud providers such as Microsoft, Amazon, and Google had an expanding set of requirements,” he recalls.

In response to this industry upswing, Rafferty made the decision to build a brand-new network specifically designed around how data centres connect. 📍



The

infrastructure

behind

the

cloud.

Codecom is a family-owned fibre design and manufacturing company founded in 2006. We specialise in high-density, low-loss fibre optic connectivity solutions for network and telecommunications operators, data centres, AI companies, and integrators. Our product range includes customised fibre panels and cassettes, pre-terminated and splice solutions, MPO/MTP trunks, patch cords, and AI-ready high-density panels with structured cabling capabilities.

We operate from our head office in Melbourne (Brooklyn, VIC), with additional locations in Queensland (Varsity Lakes), Hong Kong and soon to be Singapore. Our client base spans telecom and carrier networks, data centres, AI facilities, enterprise, government, smart buildings and cities, mining and industrial utilities sectors.

## What makes us different? Access and accountability.

You don't get layers of account management; you talk directly to the team who will take ideas from concept to design and build your solution. Customisation and client branding are part of our major key strengths. We bring you closer to the manufacturing source, so the outcome is predictable, the documentation is clear, and the lead times are honest.

## Our product philosophy focuses on keeping risk low, making long-term operation easy, and maintaining flexibility and scalability.

That's why you'll see details like high-quality low-loss components, no moving parts on panels, and incorporated cable management. Fibres are routed below the adaptor line, with cable runs looking tidy and more importantly, traceable.

It's why we offer pre-term, splice and MPO/MTP solutions—and we're happy to help you decide on the right approach.

## We improve by listening.

Feedback from field teams at the hands-on operational level drives continuous updates to space utilisation, labelling, density, and workflow. These incremental improvements translate to hours saved on site and fewer surprises during live deployments. Operationally, we incorporate shuttered adaptors (eliminating the need for dust caps), bend-insensitive single-mode fibre for tight spaces, clear port labelling, and Ultra Low Loss Elite & A Grade connectors as a standard.

## OUR PRODUCTS

# Designed for people, built for performance.

Our ability to merge global reach with boutique service stems from our structure and approach. We maintain a lean, direct-access model. Clients work with the same team from initial concept through to delivery, eliminating communication gaps and delays common in larger multinational organisations.

With locations in Australia and Hong Kong, we can service major markets while keeping our manufacturing close to key clients. This proximity allows for fast turnarounds and predictable lead times; even for custom requirements, whether that's specific port layouts, co-branding, custom fibre breakouts with staggered tails and factory pre-labelling, or AI-specific configurations.

### Customised designs

- Port layouts and labelling
- Co-branding options
- Custom fibre breakouts (with staggered tails and factory pre-labelling)
- AI-ready high-density panels: for structured cabling and device specific labelling and breakouts

### Built for speed

- Fast turnaround times from concept to product delivery
- Predictable lead times supported by local design solutions

### Ready to ship essentials

- Patch cords
- MPO/MTP trunks
- Panels and cassettes

### Smarter cable management

- Front-access layouts
- Shuttered adaptors, no dust caps needed
- Integrated patch cord routing
- Modular tray and splice systems

### Where this fits

- Telecom & carrier networks
- Data centres & AI factories
- Enterprise
- Smart buildings & city environments
- Industrial and utilities

"If you need drawings, we'll send them. Need a cable assembly built to fit a rack and a plan? We'll build it. Got to move fast? We'll give you a real date, then hit it. Our family-owned structure allows for agility and responsiveness, without the corporate roadblocks."

**Courtney Purcell** CEO, Codecom

## The Codecom Difference

### How we work

- 1 Understand the requirement
- 2 Concept and initial drawings
- 3 Review and refinement
- 4 Costing and high-quality renders
- 5 Sampling and evaluation
- 6 Customer sign-off
- 7 Production and delivery



“Our partnerships exemplify how we work collaboratively to solve complex connectivity challenges. FibreconX needed high fibre density with low operational risk, and we came onboard to design solutions around their specific requirements.”

**Andrew Purcell** CCO, Codecom

### Meeting global standards locally

**Pre-terminated:** Lowest loss, highest performance. Best when you want predictable loss and ease of install in critical low-latency environments.

**Splice:** High fibre core count runs and aggregation, keep density high with lower loss. Best for hauling long-run cables, when pathways are limited in space and challenging to access.

**MPO/MTP:** Modular, fast change where capacity evolves in steps and you need rapid re-patching and expansion due to ease of install and testing. Best for high density applications, structured cabling systems and breaking out high speed ports to multiple lower speed ports.

### Operational details that protect performance

- Shuttered adaptors, no dust caps needed
- Minimal moving parts on panel
- Incorporated cable management that keeps each 12 & 24F segregated and routing below the adaptor line
- Bend-insensitive single mode fibre for tight spaces and shallow racks
- Clear port labelling for fewer mistakes under pressure
- Ultra Low Loss Elite & A Grade connectors “as standard”

### Standards & warranty

Designed and tested to relevant industry standards (IEC/TIA/EIA/EN). 25-year product warranty.

### Looking ahead:

Our key priorities centre on supporting the infrastructure demands of AI and high-density computing. As AI factories and data centres scale rapidly, the need for ultra-low-loss, high-density connectivity that can be deployed quickly and reliably becomes critical.

We’re also continuing to refine our cable management systems, ensuring that high fibre counts can be managed effectively in increasingly space-constrained environments.

Maintaining our direct-access, boutique service model as we grow is essential. We want to continue being the team that clients can call directly, who understands their specific challenges, and who can turn around custom solutions in days, not months.

# Shaped around a specific need, whether that's space, speed, or scale.

## Telstra



### Telstra

#### Enhancing deployment outcomes

Codecom has supported Telstra for over seven years, providing critical connectivity solutions across data centres and major customer sites.

*"Codecom consistently delivers prompt responses and swift installations, aligning with Telstra's requirements. Moreover, Codecom exhibits great flexibility in devising customised solutions to accommodate Telstra's new equipment deployments, demonstrating a high level of engineering compliance."*

Chirag R Patel,  
Network Planner

## FIBRECONX



### FibreconX

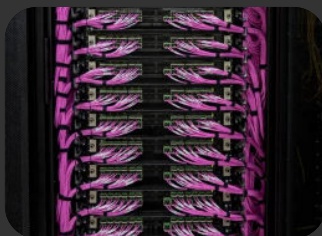
#### High fibre density, low operational risk

Codecom came onboard to design around FibreconX's specific requirements. This solution resulted in creating a high-performing network with customised units that reduced the install time, while also providing the ability to do it all in a small footprint, resulting in lowering capital and operational expenditure from day one through to today with continued network expansion.

*"They helped us design the future of what a FibreXchange should be. It's all got to be automated. It all has to be processed, orientated, pre-designed but the highest quality. So the partnership with Codecom was paramount. We could not have done any of these things that our customers are experiencing, without that partnership with Codecom."*

Mark Rafferty,  
Chief Executive Officer

## SHARON - AI -



### Sharon AI

#### Refining custom solutions

Codecom supplied critical connectivity components for major GPU deployment, including MPO fibre cabling (with MPO splitter cables), fibre optic patch cords, and copper CAT6 patch leads.

*"What set Codecom apart from other vendors we engaged with, is their understanding of the unique requirements of GPU infrastructure. They provided not just products, but solutions tailored to our deployment needs. Their MPO fibre cabling has performed flawlessly in our data centre environment."*

Nathaniel Marsh,  
Data Centre Operations Manager

## Designed for impact, with performance you can measure.

High-quality competitively priced solutions, done right from day one. Talk to the team building the physical infrastructure behind the cloud.

[codecom.com.au/contact](https://codecom.com.au/contact)

### WHERE WE OPERATE

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“MOVING FORWARD, WE AIM TO CONTINUE BREAKING BARRIERS AND SETTING BENCHMARKS IN THE COMPETITIVE FIBRE ACCESS NETWORK INDUSTRY”

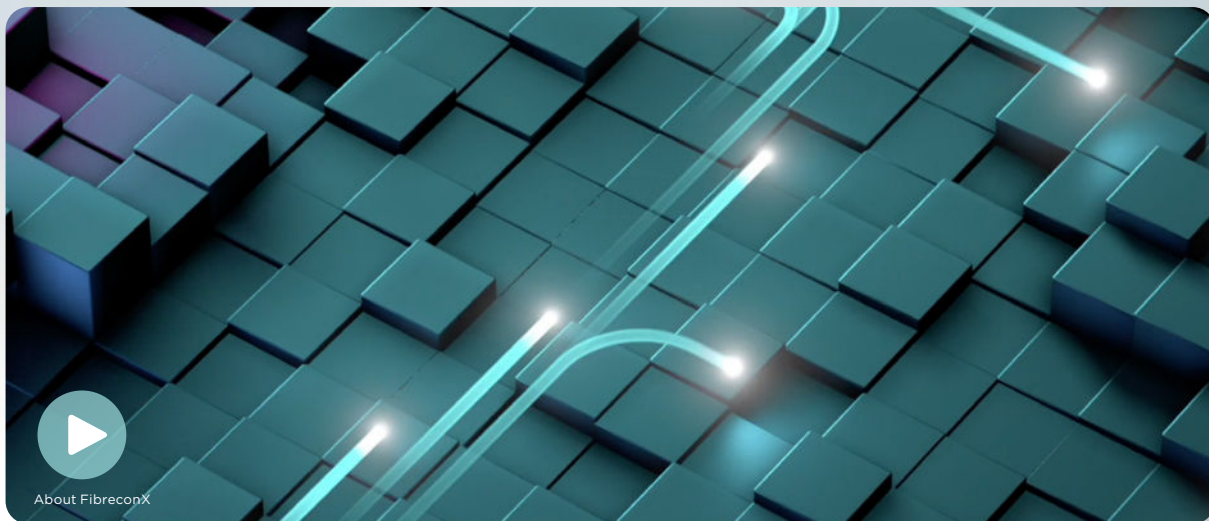
– MARK RAFFERTY, CEO, FIBRECONX

## THE FIBRECONX COMMITMENT

**DESIGNED FOR PERFORMANCE** - FibreconX delivers high-performance dark fibre services using its purpose-built, optimised duct network – engineered to meet rapid growth and future capacity demands driven by emerging digital infrastructure markets.

**GUARANTEED PRICING AND CAPACITY** - The company’s automated network architecture provides predictable, high-performance dark fibre with guaranteed capacity, supported by a clear and transparent pricing structure that makes it easy for customers to plan and scale with confidence.

**AUTOMATION AND SIMPLICITY** - Through FusionXpress, customers gain access to real-time qualification, automated path selection, transparent pricing, on-demand provisioning, service performance data, and full visibility across the FibreconX ‘PureFibre’ network.



“These facilities can’t work as islands – if a data centre isn’t connected to another, it simply doesn’t function.”

Rafferty believes this is an incredibly exciting time to be a part of the industry and recognises that Australia is not only a geopolitically safe environment for customers to invest in, but also in need of substantial network upgrades to facilitate the customer requirements and expectations of today’s landscape.

“The country has seen astronomical growth in new data centres, and we’re fortunate to have built a metro network designed with the latest requirements. That decision has created a strong pipeline of work for our business,” Rafferty explains.

### AWARD WINNERS

Earlier this year, FibreconX was awarded the CommsDay Edison



Award for ‘Best Competitive Fibre Access Network Operator’ for the second consecutive year.

“This accolade is a testament to our innovative approach of being purely wholesale with ‘PureFibre’, enabling our partners to compete in the telco sector, particularly through our FibreXchange offering,” Rafferty says.

The company has transformed how its partners connect their business customers, offering dedicated, low-latency fibre connectivity directly to their premises and then to their own equipment - not only meeting today’s requirements, but more importantly tomorrow’s.

This innovative service meets the current demands of high-speed network access and is future-proofed to handle the rapid acceleration of AI and machine learning (ML) applications.

“With ‘PureFibre’, we’ve delivered a completely new network and digital infrastructure that empowers our partners to stay ahead in a fast-evolving digital landscape,” adds Rafferty.

“Moving forward, we aim to continue breaking barriers and setting benchmarks in the competitive fibre access network industry.”

### BUILT DIFFERENT

One of FibreconX’s top priorities was ensuring its ‘core’ network would only need to be built once, fully designed for the future and capable of supporting the latest advances in technology.

“We are 100 percent committed to offering dark fibre alone. However, with the emergence of AI, we’ve had to consider how customers will require the fibre to physically behave,” Rafferty expands.

One of the company’s key differentiators is its deep focus on physical design and infrastructure behaviour.

“We believe we’re the only network in Australia ready to cater for the next generation of AI-driven technologies. Whether it’s open access 6G mobile networks, outdoor advertising, tower infrastructure, or data centre deployments, we’re equipped to support these innovations,” he concludes proudly. 🎯

**FIBRECONX**

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