



## Southern Cross Achieves World's First 1 Tb/s Transmission Across the Pacific With Ciena

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*New coherent optical technology allows Southern Cross to ride the Terabit wave*

SYDNEY--(BUSINESS WIRE)--Jan. 15, 2025-- [Southern Cross Cable Limited](#) ("Southern Cross") has connected the world's first transpacific 1 Tb/s single-carrier wavelength across its 13,500km live production network with Ciena's (NYSE: CIEN) [WaveLogic 6 Extreme \(WL6e\)](#) coherent optics. The connectivity milestone saw WL6e perform effortlessly at 1 Tb/s over the world's longest single optical submarine cable segment and demonstrates the adaptive nature of Southern Cross' network.

With WL6e, Southern Cross continues to enhance its network eco-system to be more scalable, intelligent and ideally positioned to deliver high-capacity digital pathways between Australia, New Zealand and the USA. Implementation of Ciena's leading technology allows Southern Cross to enhance the reliability and resilience of connectivity throughout the Oceania region. This will support Southern Cross in meeting the evolving needs of end users requiring increasing bandwidth to support projected demand for AI, content, video and cloud applications.

The new channel speed ran error-free at 1 Tb/s on Southern Cross' live production network between Sydney and Los Angeles demonstrating record-breaking capabilities and spectral efficiencies. Southern Cross will begin volume deployment of WL6e in the first calendar quarter of 2025 across various segments of its network, including its Southern Cross NEXT cable supporting the lowest latency connectivity between Sydney/Auckland and Los Angeles.

### Key Facts:

- Southern Cross owns and operates three diverse Trans-Pacific submarine cables connecting Australia, New Zealand, Fiji and Hawaii to the mainland United States, along with the Pacific Islands of Nukunonu, Tokelau and Kiritimati, Kiribati. The network has around 45,000 kilometers of submarine and 4,300 kilometers of terrestrial fiber optic cables providing over 100 Tb/s of digital inter-connectivity capability providing secure, resilient and reliable connectivity across the Pacific.
- Southern Cross connected two key centers via Ciena's WL6e, in the industry's first 1 Tb/s implementation across the Pacific, including Southern Cross' NEXT network. Leveraging WL6e's leading-edge coherent optical technology, Southern Cross will be able to provide an end-to-end connectivity solution across higher capacity wavelengths, using less space and power, and delivering capability in support of 400GbE and future 800GbE client services.
- Southern Cross is using Ciena's [GeoMesh Extreme](#) solution, which includes the [6500](#) Packet-Optical Platform powered by WL6e, to upgrade capacity by more than 100 times the original design potential, utilising the same infrastructure that was originally designed to transport 2.5 Gb/s wavelengths.

### Executive Comments:

- "Transforming and modernizing our networks to support next-generation applications and growing bandwidth demands is part of our ongoing 20+ year commitment to the Pacific. Working with Ciena and adapting our network with their latest coherent optical solution illustrates our pledge to the ongoing enhancement of critical digital infrastructure for our region. Southern Cross' eco-system provides a vital gateway between Australia and the United States by connecting 20+ key nodes located across Australia, New Zealand, the Pacific Islands and the US West Coast to global digital markets. In today's increasingly hyper-connected world, delivering an incredible customer experience depends on the ability of Southern Cross to create innovative services and provide the capacity needed to meet constantly changing demands. Ciena's WL6e technology once again allows us to deliver on that ambition."  
—*Laurie Miller, President and CEO, Southern Cross Cables Limited*
- "As AI and cloud applications continue to increase capacity requirements for data centers, cloud and service providers are working with private cable operators like Southern Cross to expand their footprint and offer reliable connectivity. With Ciena's WaveLogic 6 high performance optics, these service providers can support the move towards 800G services to connect data centers and build AI-ready networks with greater scale."  
—*Dino DiPerna, Senior Vice President, Global Research and Development, Ciena*

### About Southern Cross Cable Limited

Southern Cross Cable Limited ("Southern Cross") provides fast, direct, and secure international bandwidth from Australia, New Zealand, Fiji and Hawaii to the heart of the Internet in the USA. The Southern Cross network comprises three submarine communications cables with a current potential capacity of over 100Tbs.

Southern Cross is currently undertaking the Southern Cross Tasman Express project which will be a high-capacity SDM express route, providing 240Tbs+ of data-centre connectivity between Sydney and Auckland. Southern Cross Cable Limited has offices in Sydney, Auckland, Wellington and Hamilton. For more information visit Southern Cross at: <http://www.southerncrosscables.com>.

## About Ciena

Ciena (NYSE: CIEN) is a networking systems, services and software company. We provide solutions that help our clients create the Adaptive Network in response to the constantly changing demands of their users. By delivering best-in-class networking technology through high-touch consultative relationships, we build the world's most agile networks with automation, openness and scale. For updates on Ciena, follow us on Twitter [@Ciena](#), [LinkedIn](#), the [Ciena Insights blog](#), or visit [www.ciena.com](http://www.ciena.com).

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