



## Ciena Unveils WaveLogic 6, Industry's First 1.6Tb/s Coherent Optic Solution

February 21, 2023

*WaveLogic 6 Extreme and WaveLogic 6 Nano will meet critical network provider capacity and power efficiency needs, setting a new standard in coherent optics*

HANOVER, Md.--(BUSINESS WIRE)--Feb. 21, 2023-- Marking another industry first in coherent optics, [Ciena](#) (NYSE: CIEN) announced the latest generation of its industry-leading WaveLogic technology. Optimized for high-capacity transport required with next-generation routing data paths and associated wholesale services, Ciena's [WaveLogic 6](#) will support up to 1.6Tb/s single-carrier wavelengths for metro ROADM deployments, 800Gb/s over the longest links, and energy-efficient 800G pluggables across 1000km distances. As service providers grapple with the dual challenge of satisfying unabating bandwidth demand and cutting energy use, WaveLogic 6 supports the capabilities and evolution paths needed to meet current and future network and business requirements.

Industry-first performance achievements in the sixth generation of WaveLogic are made possible through Ciena's unique expertise in coherent DSP and high-bandwidth electro-optics, leveraging the most advanced 3nm silicon technology to once again set the standard in optical innovation.

### Key Facts:

- WaveLogic 6 Extreme (WL6e), Ciena's performance-optimized solution, integrates new coherent DSP innovations to provide the highest capacity over fiber, supporting 1.6Tb/s single-carrier wavelengths for metro ROADM networks, 800Gb/s across the longest links, and 15% improvement in spectral efficiency compared to the previous generation. WL6e will also deliver significant economic benefits, including a 50% reduction in space and power per bit compared to Ciena's industry-leading 800G technology today. The first coherent optical solution operating at 200GBaud, WL6e will maximize coverage of 800Gb/s connectivity across networks.
- WaveLogic 6 Nano (WL6n), Ciena's footprint-optimized solution, powers 400G-800G coherent pluggables to drive cost, power, and space efficiencies in 400G long-haul and 800G metro/regional applications, as well as interoperable 800ZR DCI applications. With Ciena's unique engineering innovations, WL6n can also deliver a fit-for-purpose 800LR design, bringing coherent technology inside the data center campus for the first time.
- Ciena has a long history in technology innovation designed to help service providers do more with less – less power, less space and less cost. Since its introduction in 2008, WaveLogic has already delivered 20 times more capacity over fiber and more than 85% reduction in Watts/Gbps for Ciena customers.
- Ciena's [WaveLogic 6](#) will start to become available in the first half of 2024. WL6 will be supported across a range of Ciena's optical and routing and switching platforms. WL6 will also be made available for use in third-party solutions.

### Industry Comments:

- "Ciena's WaveLogic 5 technology has enabled Bell to offer 400GE services to its wide range of customers and provide them with the ability to move massive amounts of data to the cloud. Bell's national network is WaveLogic 6 ready and we look forward to the service delivery efficiencies that come with 800 Gigabit per second connectivity."  
*- Nicholas Payant, Vice President Operation Services and Core Network, Bell Canada*
- "Network efficiency has been a big part of our DNA since we started designing our first data center facility in Oregon over a decade ago. At OFC 2021, we challenged the suppliers to deliver a 50% power/bit reduction and a doubling of bandwidth/channel in Gen 6 transponder by 2024/25. These advances are critical to support our future network expansions. Based on Ciena's announcement today, it looks like they are on track to meet these targets with WaveLogic 6."  
*- Gaya Nagarajan, Vice President of Engineering, Meta*
- "Ciena's strong history of innovation and ability to understand our business needs has been instrumental to our success. WaveLogic 6 pushes the envelope and will help us execute on our network evolution plans and climate change goals by providing the most reliable, energy efficient and fastest connections possible. With WL6e performance simulations showing 1Tb/s wavelength transmission across 12,000km links in our network, we are already looking forward to announcing another networking world first."  
*- Laurie Miller, President & CEO, Southern Cross*
- "Ciena ups the ante in the delivery of high-performance coherent solutions, using advanced technology and high bandwidth electro-optics, with WaveLogic 6, which is expected to be the first 1.6Tbps wavelength transmitted over a single carrier. We

believe 1.6Tbps wavelengths will be a critical technology to enable operators to sustainably grow their networks as bandwidth demand continues to grow annually at 30%. Hence, we anticipate that in five years over 50% of capacity additions will come from DWDM systems built with sixth generation coherent DSPs.”

- Jimmy Yu, Vice President, Dell'Oro Group

#### Ciena Comments:

- “The last few years have irreversibly changed our expectations of networks, showing the critical importance of enabling greater connectivity to help fuel our digital lifestyles. At the same time, we all need to do more to help the environment. As the pioneer in coherent optical technology, and the first to bring coherent 40G, 100G, 400G and 800G to the industry, we continue to set the standard in optical transport and push the limits of innovation by creating solutions that significantly reduce cost per bit, improve network performance, and drive energy efficiency.”

- Scott McFeely, Senior Vice President, Global Products and Services, Ciena

#### WaveLogic 6 Resources:

- Blog: [Introducing WaveLogic 6: Another industry first from Ciena](#)
- Video: [Ciena's WaveLogic 6: Another world-first](#)
- Infographic: [Greener Networks Made Possible by Coherent Innovations](#)

#### About Ciena

Ciena (NYSE: CIEN) is a global leader in networking systems, services, and software. We build the most adaptive networks in the industry, enabling customers to anticipate and meet ever-increasing digital demands. For three-plus decades, Ciena has brought our humanity to our relentless pursuit of innovation. Prioritizing collaborative relationships with our customers, partners, and communities, we create flexible, open, and sustainable networks that better serve all users—today and into the future. For updates on Ciena, follow us on [LinkedIn](#), [Twitter](#), the [Ciena Insights blog](#), or visit [www.ciena.com](http://www.ciena.com).

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Source: Ciena Corporation