


<b>History</b>	Ciena was founded in 1992 under the name HydraLite by electrical engineer David R. Huber
<b>Broadcom</b>	<p>Broadcom is the market leader for switching merchant silicon's used in network switches. There are other vendors such as Mellanox, Marvel, EZChip, Microsemi and Cavium,</p> <p><b>1- Strata XGS Family includes the following silicon</b>  Trident 2 (10g / 40G)  Trident 2+ (10G / 40G , Enhanced Trident 2 , with VXLAN Routing)  Tomahawk (100G)</p> <p><b>2- Strata DNX Family (Also known as Dune family)</b>  Qumran (10G/40G)  Jericho (packet processor)  FE 3600 (Fabric)  This family is pretty new and is based on Broadcom acquisition of Dune networks. Feature wise, DNX comes from a different architecture has some benefits and advantages:</p> <ol style="list-style-type: none"> <li>1. Expandable TCAM:</li> <li>2. Expandable Packet Buffer :</li> <li>3. Jericho+, Jericho2 delivers 5X higher bandwidth at 70% lower</li> </ol>
<b>Jerico-2</b>	<p>Up to 10Tb/s switching capacity per device. 400G/100G Ethernet port density  Cost parity for comparable port Density  programmable pipeline  <b>Deep buffers:</b> Deep buffers (for burst handling), eliminating packet Drops They allow the network to accommodate some level of variation in the network traffic, simply put, a buffer is a reserved portion of memory where "overflow" data can be stored levels allow</p>
<b>transceiver</b>	<p>A transceiver is a combination transmitter/receiver in a single package.</p>  <p>Ciena's WaveLogic™ 5 Nano family of standards based and extended-reach 100G-400G pluggable transceivers incorporates Ciena's advanced coherent optical Transceiver-on-Chip technology to deliver footprint-optimized 100G-400G interconnect for next-generation access, metro regional and DCI network applications. High growth in network bandwidth—along with the need for higher-capacity, low-latency connectivity at the network edge—is</p>

	<p>driving the need for the next generation of pluggable coherent transceivers offering the benefits of coherent technology and optimized for best systems performance within pluggable form factors. With industry-leading innovation, Ciena is extending the addressable applications for footprint-optimized solutions with its family of WaveLogic 5 Nano 100G-400G pluggables.</p>
<b>Coherent optics</b>	<p>Coherent optics provides the performance and flexibility to transport significantly more information on the same fiber</p> <ol style="list-style-type: none"> <li>1. High-gain soft-decision Forward Error Correction (FEC),</li> <li>2. spectral shaping</li> <li>3. Strong mitigation to dispersion,</li> </ol>
<b>Wave Division Multiplexing</b>	<p>Wave Division Multiplexing (WDM), WDM is a technology which multiplexes multiple optical signals onto a single fiber by utilizing different wavelengths, or colors, related to. By utilizing WDM communication methods network managers can realize a multiplication effect inside their available fiber's capacity.</p> <p>wavelength is the distance between consecutive corresponding points of the same phase on the wave. CIENA introduced its first product, the <b>MultiWave 1600 Transmission System</b>, in May 1996. This system used dense wave division multiplexing technology (WDM) to send 16 discrete optical channels over a single fiber pair. Earlier time division multiplexing (TDM) only allowed two channels per fiber pair. The MultiWave system also required fewer amplifiers between sites and a less expensive hardware upgrade. The Wave Watcher integrated network management system was included with MultiWave.</p>
<b>packetoptical platform</b>	<p>Ciena introduced the first converged packetoptical platform, which drastically reduced the amount of equipment required in the network. And, the company refined its Ethernet pedigree with the acquisition of World Wide Packets, further enhancing its portfolio with Carrier Ethernet access, aggregation, and software solutions.</p>
<b>Metro ethernet</b>	<pre> graph TD     SP[Service Provider Metro Ethernet Network] --- CO[Corporate Office]     SP --- DC[Data Center]     SP --- PCI[Public Cloud / Internet]     SP --- BO[Branch Office]     SP --- PC[Private Cloud]     SP --- RS[Residential Subscriber]     SP --- RAN[Radio Access Network]   </pre>

	<p>Metro Ethernet is an Ethernet transport network that provides point-to-point or multi point connectivity services over a metropolitan area network (MAN).. Metro Ethernet uses existing fiber optic cable in your area to provide you with a system that is totally separated from outside interference or security issues. The service is very analogous to a hub and spoke Frame Relay system and will perform like private leased lines.</p> <p>In late 2009, Ciena acquired Nortel Networks' Metro Ethernet Networks (MEN) business, which encompassed leading coherent optical technology and a significant global installed customer base. Completed in March 2010, the acquisition accelerated Ciena's strategy and changed the communications equipment vendor landscape by combining complementary switching and transport technologies to create the largest global supplier exclusively focused on the transition to converged optical Ethernet-based networking.</p>
Blue planet	<p>In 2015, Ciena acquired Cyan, a leading provider of nextgen software and platforms to enable Software-DefinedNetworking (SDN) and virtualized environments. At the forefront of another industry-wide shift, Cyan's Blue Planet™ portfolio put Ciena in a position to make it possible for customers to tune, control, and dynamically adjust their network capacity, moving toward the future of autonomous networking. In fact, as the industry shift toward automation, artificial intelligence, and analytics accelerated, Ciena made additional acquisitions in this space and ultimately made Blue Planet its own division within the company. In this formation, Blue Planet has focused investment plans and dedicated resources designed to drive development of best-in-class network automation softwareand expand capabilities in related services offerings.</p>
manager	<p>Ciena's Converged Packet Optical R&amp;D division is seeking a Senior Manager of the Platform Dependent Software Development group.</p> <p>Lead the implementation of cross-platform base and middleware software and services. This software will span multi-core embedded CPUs, SOCs, packet processors, L2/L3 switch ASICs, Ethernet PHYs, FPGAs, and optics. Employ your team's expertise in the Linux Kernel, Docker containers, TCP/IP stack, Forwarding Tables, IP Filters, VLANs, and memory management to develop new networking products.</p>