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FOR IMMEDIATE RELEASE

Ciena to Demonstrate Advanced 100G Networking Capabilities at TERENA Networking Conference

Company joins world's leading research institutions to showcase high-speed, high-capacity networking over extended submarine distances, uncompressed 4K video streaming and experiments in dynamically reconfigurable optical channels

REYKJAVÍK, Iceland and LINTHICUM, Md., U.S.A. – May 21, 2012 – Ciena® Corporation (NASDAQ: CIEN), the network specialist, is leading a consortium of several of the world's leading research institutions, including CERN, SURFnet, NORDUnet, the University of Amsterdam (UvA) and California Institute of Technology (Caltech), in a series of unique experiments for the Research & Education community at the TERENA Networking Conference (TNC2012) taking place in Iceland on May 21-24. The event marks the first time that a single fibre pair transports 100G traffic to Iceland, connecting TNC2012 to the global research community through NORDUnet and SURFnet as well as enabling a range of collaborative demonstrations.

TNC2012 demonstrations:

- ***100G submarine networking***
  The 100G submarine network, based on Ciena's 6500 Packet-Optical Platform and WaveLogic™ Coherent Optical Processors, links Iceland to Denmark and connects TNC2012 to the global research community through NORDUnet and SURFnet. The submarine network spans more than 2,200 km of undersea fibre provided by the international network provider Farice, while the end-to-end link from Reykjavík to Amsterdam is approximately 4,000 km long. The traffic from the submarine cable landing on the coast of Iceland is transmitted to the Reykjavík conference over Mila's Icelandic network. The increased capacity delivered in this way effectively brings Iceland closer to its Scandinavian neighbours, enabling unprecedented service delivery for TNC2012.

- ***Uncompressed 4K resolution video streaming***
  The highly reliable optical network from Amsterdam to TNC2012 described above enables a demonstration of 4K uncompressed video signal originating at the University of Amsterdam to be streamed and appear on a 4K video monitor at TNC2012. This extreme high-definition multimedia transmission, designed to provide the broadcast industry with more efficient and economical connectivity for production of content such as films and TV series, is now being tested for research environment applications. The demonstration features Ciena's video MOTR multimedia networking card deployed on the 5200 Advanced Services Platform.

- ***Playing with Light***

The 'Playing with Light' demonstration features research undertaken by the University of Amsterdam – using Ciena's technology – on colourless photonic switching. UvA is researching architectures of the future Internet by creating a next generation infrastructure consisting of hybrid (routed, packet and optical) networks connected via multi-layer exchanges. One of the steps in this endeavour is to gain experience in the dynamic switching aspects of the photonic devices. This proof of concept demonstrates the transmission of content at different light frequencies, or colours, and the use of dynamically reconfigurable photonic devices to provide high-capacity media transport. The experiment shows the ability to optimise optical and Ethernet connections according to the type of traffic, the traffic content, or the nature of the application. For instance, a wavelength can be selected based optimum service path – similar to tuning into a radio station.

- ***High-speed data transfers***
  The demonstration of high-speed file exchange is the result of a collaboration involving Caltech, CERN, SURFnet and Ciena. A new generation of servers with 40G Ethernet interfaces is being deployed to support high-speed file exchange between the SARA High Performance Computing facility in the Netherlands and the CERN facilities in Geneva. The demonstration shows how a well-designed and well-tuned server system is capable of transferring data at highest possible rates over long distances. It highlights the role of long-haul photonic networks in the distribution and analysis of data by research collaborations worldwide. Measurements and analytical data from these experiments will be sent to the TNC2012 venue for presentation and discussion.

Ciena's TNC2012 Speaking Engagements:

Rodney Wilson, director of external research at Ciena, will present:

- The Future Internet - Networking Challenges, part of the Optical networking and beyond session taking place on Thursday, May 24 from 9:00 to 10:30 in Hall 1.
- Additionally, Wilson is participating in the panel discussion 'How can industry help us to be green?', taking place on Tuesday, May 22 from 14:00 to 15:30 in the Main Hall.

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About Ciena
Ciena is the network specialist. We collaborate with customers worldwide to unlock the strategic potential of their networks and fundamentally change the way they compete. With focused innovation, Ciena brings together the reliability and capacity of optical networking with the flexibility and economics of Ethernet, unified by a software suite that delivers the industry's leading network automation. We routinely post recent news, financial results and other important announcements and information about Ciena on our website. For more information, visit www.ciena.com.

Note to Ciena Investors
Forward-looking statements. This press release contains certain forward-looking statements based on current expectations, forecasts and assumptions that involve risks and uncertainties. These statements are based on information available to the Company as of the date hereof; and Ciena's actual results could differ materially from those stated or implied, due to risks and uncertainties associated with its business, which include the risk factors disclosed in its Report on Form 10-Q, which Ciena filed with the Securities and Exchange Commission on March 8, 2012. Forward-looking statements include statements regarding Ciena's expectations, beliefs, intentions or strategies regarding the future and can be identified by forward-looking words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," "will," and "would" or similar words. Ciena assumes no obligation to update the information included in this press release, whether as a result of new information, future events or otherwise.

About TERENA
The Trans-European Research and Education Networking Association - TERENA offers a forum to collaborate, innovate and share knowledge in order to foster the development of Internet technology, infrastructure and

services to be used by the research and education community. The development and progress in Internet technology, infrastructure and services have been led by the research community since the very beginning of the Internet. Today, that community is still the main driver of the further development of the Internet. In Europe, this leading role is made possible by the collaboration of network engineers and managers from all over the region, facilitated and supported by TERENA. More information can be found at www.terena.org.

About Caltech
With an outstanding faculty that has been honored with 32 Nobel prizes and 66 National Medals of Science and Technology, and such off-campus facilities as the Jet Propulsion Laboratory, Palomar Observatory and the W. M. Keck Observatory, the California Institute of Technology is one of the world's major research centers and a premier institution of learning. The Institute conducts instruction in science and engineering for a student body of approximately 950 undergraduates and 1,400 graduate students who maintain a high level of scholarship and intellectual achievement. Caltech's 124-acre campus is situated in Pasadena, California, a city of 135,000 at the foot of the San Gabriel Mountains, approximately 30 miles inland from the Pacific Ocean and 10 miles northeast of the Los Angeles Civic Center. Caltech is an independent, privately supported university, and is not affiliated with either the University of California system or the California State Polytechnic universities. http://www.caltech.edu

About Farice
Farice was founded in the year 2002 to operate a new submarine cable system from Iceland to UK. In the year 2009 a second submarine cable was laid between the south coast of Iceland to Denmark which connects Iceland directly to the mainland of Europe. Farice is the main provider of bandwidth in and out of Iceland and offers services from three locations in Iceland to cities such as Copenhagen, London and Amsterdam. Farice´s main shareholders are the Icelandic state, the National Power Company (Landsvirkjun) and the Arion bank.

About Mila
Míla has for over 100 years built up, maintained and operated a state of the art telecommunications network in Iceland. Data centers, telecommunications- and IT companies utilize this network through various solutions such as leased lines, Metropolitan Data Highway and co-location. Míla's specialties include operation of a telecommunication and data network, co-location and consultancy.

About NORDUnet
NORDUnet is a collaboration between the National Research and Education Networks (NRENs) of the five Nordic countries; Denmark (DeIC), Iceland (RHnet), Norway (UNINETT), Sweden (SUNET), and Finland (Funet). NORDUnet operates a world-class network and e-infrastructure service for the Nordic R&E community. The five NRENs develop and operate the national research network infrastructures, connecting more than 400 research & education institutions with more than 1.2M users. NORDUnet and the Nordic NRENs continuously work to further develop leading edge services and to push the technology envelope. NORDUnet provides global network connectivity, and is a key contributor to international partnerships such as GÉANT, GLIF, and GLORIAD. For additional information, please visit www.nordu.net.

About SURFnet
SURFnet is the National Research & Education Network (NREN) organization in The Netherlands. SURFnet develops and provides innovative services for education and research in the field of a hybrid network infrastructure, trusted identity and a pioneering collaboration environment. SURFnet provides access to these services to over one million users in higher education and research in The Netherlands. SURFnet is part of SURF, the collaborative organization for higher education institutions and research institutes, which are together working on breakthrough innovations in ICT. More information can be found at www.surfnet.nl/en/.

About the University of Amsterdam
The System and Network Engineering (SNE) Research group at the University of Amsterdam researches cross-domain interaction between eInfrastructure resource providers, optical and hybrid networking, resource descriptions using semantic web and programmable networks for the processing of Big Data in the Future Internet. In collaboration with SURFnet, UvA has capabilities to access high-speed optical test bed installations in the optical photonic backbone of SURFnet in the Netherlands and internationally in the Global Lambda Integrated Facility (GLIF). UvA maintains a state of the art Lambda Grid experimentation laboratory, which is very well connected to NetherLight. UvA is a founding member and key contributor to CineGrid, GLIF and OGF. (Refer for more information to http://sne.science.uva.nl/).