

Mintera Corporation and CERNET demonstrate 40 Gigabit per second optical transport in a live network using a “40 Gbps overlay” on an existing, low speed transport infrastructure.

Successful “Plug-and-Play” implementation of 40 Gbps wavelengths on a 2.5 Gbps DWDM inter-city line system to provide capacity expansion, and support new bandwidth-intensive services by carrying 10 Gbps and 40 Gbps IP traffic from Cisco System's 12000 Series Routers and the Cisco CRS-1 Carrier Routing Systems.

LOWELL, MA. USA and BEIJING, CHINA, 6 January 2005. Mintera Corporation, the technology leader enabling migration of optical transport to 40 Gigabits per second (Gbps) in metro-core, regional, and long-haul networks, and CERNET (China Education and Research Network), the first and largest academic Internet backbone in China serving 1,800 education and research institutions, today announced the successful demonstration of a plug-and-play ”overlay” application integrating a 40 Gbps wavelength carrying live traffic on an in-service DWDM link between Beijing and Tianjin, China. The connection comprised a 16 channel DWDM infrastructure equipped with STM-16 (2.5 Gbps) per channel operating over 185 km of installed G.652 and G.655 fibers.

For the live trial, Mintera's 40 Gbps terminals were connected into the existing 16 x 2.5 Gbps DWDM line system and ran 40 Gbps traffic simultaneously with the existing 2.5 Gbps traffic. No modifications to the existing in-line amplifiers or optical mux/demux infrastructure were required. The 40 Gbps wavelength was turned-up in less than one hour. There was no traffic interruption on the live-link during the turn-up and the network ran error-free over a total period exceeding ten days.

CERNET and Mintera ran two ‘client-side’ trials. The first used Cisco Systems' 12000 Series Routers to feed 10 Gbps (STM-64c) traffic to Mintera's MI 4010S, which multiplexed the four STM-64c's up to 40 Gbps for transport across the existing infrastructure. CERNET loaded the Cisco 12000 Series Routers with live IP traffic and was able to monitor a doubling in traffic from network users as the new path provided by Mintera and Cisco became available and immediately relieved bottlenecks. The 40 Gbps link worked continuously and error-free for the full trial period of more than eight days. The second trial employed Cisco's CRS-1 system, which fed true 40 Gbps OC-768c traffic to Mintera's MI 4040S, which in turn transported this data over the infrastructure, again with no effect on the existing traffic. This test was run for two days, during which no errors were detected.

“Connecting a Mintera 40 Gbps channel immediately doubled our total existing capacity while enabling CERNET to provide higher speed services over our existing infrastructure. We were pleased that we observed no errors on the 2.5 Gbps channels at any time during the connection and operation of Mintera's MI 40000.” said Dr. Xing Li, Deputy Director of CERNET center.

“We are honored to have participated in this live network demonstration, working with CERNET and Cisco to confirm the viability of Mintera's 40 Gbps technology over existing line systems”, said Mintera's CEO, Terry Unter. “Mintera's MI 40000 has some unique adaptive technology which allows straight forward use on a variety of existing infrastructures with little or no re-engineering. Using our product, carriers can install 40 Gbps wavelengths seamlessly, and without traffic interruption on their deployed infrastructure, helping to maximize their return on investments by providing a very significant and cost-effective service and capacity upgrade of the existing infrastructure”.

Mintera's MI 40000 offers client side interfaces of 4 x 10 Gbps SDH/SONET, 4 x 10 Gbps Ethernet and 1 x 40 Gbps SDH/SONET. The line side, with field proven 40 Gbps long-haul and ultra long-haul optical transport, has been successfully deployed on infrastructures originally designed for 2.5 Gbps and 10 Gbps transport as well as on new transport infrastructures.

Mr. Jia-Bin Duh, president of Cisco Systems China, commented, “We are very pleased to have participated in the CERNET 40Gbps IP traffic capacity live trial. As the largest national academic research network, CERNET has rigorous network infrastructure requirements for reliability, scalability and performance for its IP Next-Generation Network. Cisco is delivering on its promise and strategy to enable global carriers and research networks to build IP Next-Generation Networks based on the Cisco CRS-1.”

About Mintera

Mintera is the technology leader enabling migration to 40 Gbps optical transport in metro-core, regional, long-haul and Ultra Long-Haul networks. Mintera's flexible multi-service 40 Gbps product-set enables service providers to upgrade their existing infrastructure to 40 Gbps in an evolutionary and seamless fashion.

About CERNET

CERNET (China Education and Research Network) is the first and largest internet backbone in China currently providing world class services to more than 15 million users in 1 8 00 education and research institutes.