

For immediate release
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Ontario advanced network turns up first operational 100G network segment *First in Canada to deploy a fully operational “true” single-carrier 100G circuit*

TORONTO - ORION, Ontario’s advanced research and education (R&E) network, today turns up its first segment of the network to 100G in production, part of a major technology upgrade to deploy a 100G operational network in Canada and the first R&E network in the world to deploy a 100G production network to support research and education.

The upgrade means that Ontario is leapfrogging from a 10G backbone to 100G capacity in key parts of the ORION network.

Last fall, ORION announced the 100G network upgrade project with the selection of Alcatel-Lucent and Cisco Canada to provide the next-generation optical transport and routing equipment, which has recently been installed along the London – St. Catharines link.

The first segment of the network to go live with the 100G provisioning spans 312 kilometres from London to St. Catharines with 3 In-Line Amplifier sites in between. Alcatel-Lucent’s 1830 Photonic Service Switch provision 100G, which uses next-generation coherent technology, transmits 100G over a single DWDM wavelength (single laser).

“This is exciting news for the 1.8 million researchers, faculty, students and innovators in Ontario who have access to ORION,” said Dr. Darin Graham, ORION President and CEO. “Moving from 10G to 100G is a generational leap forward in capabilities and a significant technological milestone. It helps move Ontario to the head of the pack in terms of having an extraordinary backbone in place to support new and innovative ways of enabling advanced research, innovation and scientific discovery.”

The \$6.5 million project is made possible with a contribution of \$4.8 million from CANARIE, Canada’s advanced research and innovation network, and a further \$1.7 million investment from ORION.

“100G in production capability is state-of-the-art networking, and CANARIE congratulates ORION on providing this kind of digital power to its research and education communities,” says Jim Roche, President and CEO of CANARIE. “Combined with CANARIE’s own 100G fibre capability on key eastern and western network corridors, this advance fosters innovative digital research that lays the foundation for a strong digital economy.”

For ORION, the project is a first phase of a major upgrade of the entire network infrastructure, which spans the province along more than 5,800 kilometres of fibre. It is part of ORION’s strategy to build on the network foundation as Ontario’s enabling innovation backbone, with greater capacity to support research and commercialization, advanced teaching and learning, public and private sectors partnerships and global-scale science and research collaborations.

The project involves significant changes to the network’s core architecture and the replacement of routing and optical transport equipment in most of ORION’s physical connection points. It introduces new features, including enhanced support for IPv6, MPLS, QoS, and enhanced traffic engineering.

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The new capacity will also help address explosive growth in the usage of the network. ORION reports a 40% spike in total backbone traffic in the last year alone.

Alcatel-Lucent and Cisco Canada submitted successful bids for the project. They were selected following a lengthy and comprehensive review process. Alcatel-Lucent technology was selected for optical transport, a significant undertaking involving upgrades to 33 ORION network connection points across the province. The project will incorporate Cisco's state-of-the-art routing technology to deliver video-rich content and support new technologies and applications.

The full upgrade will be completed by the end of May, 2011. More details about the deployment of the ORION 100G network upgrade project and what 100G means for researchers and educators will be explored in a session at the annual ORION Summit, April 18 and 19 in downtown Toronto.

About ORION

Supporting speeds hundreds of times faster than the Internet, ORION is Ontario's advanced research and education network. A not-for-profit corporation, ORION links 1.7 million Ontario researchers, scientists, students, teachers and staff who depend on ORION for teaching and learning and to enable their research collaborations and discoveries in physics, cancer research, environmental science and technologies, social sciences and the humanities and multiple other disciplines. Part of Canada's advanced network alliance, ORION connects users and institutions to each other and, through CANARIE - Canada's advanced research and innovation network, to high-capacity research and education networks, partners and collaborators across Canada and around the world.

Learn more about ORION and its partners at the following sites:

www.alcatel-lucent.com

www.canarie.ca

www.cisco.com/ca

www.orion.on.ca

- 30 -

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