

BCNET 2010: Celebrating B.C.'s Connections to the World

Advanced Education Minister Murray Coell

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Check against delivery

The broad spectrum of participants here today reflects the increasing power of high-performance computing and networking, which have become vital to innovation and discovery across many scientific disciplines.

There are a number of major research projects underway in our province that rely on our BCNET advanced network. Astronomy, high-energy physics, and health and medicine are some of the key areas. Recent initiatives include the NEPTUNE project, which is establishing a regional oceanographic observatory in the northeast Pacific Ocean using a 3,000-kilometre network of fiber-optic/power cables, nodes, sensors and robotic underwater vehicles. It will provide us with a better understanding of earthquakes and tsunamis.

Then there is the Western Canada Research Grid project, or WestGrid, which provides high-performance computing networking and collaboration tools to seven major institutions. WestGrid continues to rank high in the TOP 500 list of the world's fastest supercomputers.

These examples and many others demonstrate the borderless, inter-disciplinary and constantly evolving nature of research in the 21st century. They all depend on advanced networking technology to bring people in distant locations together, to share ideas and information.

In British Columbia, we understand the synergy between advanced networks and advanced education. A key part of our job is to fund the construction of infrastructure at B.C.'s universities, colleges, university colleges and institutes. But it is more than bricks and mortar. As our education system grows and expands and as the world does more and more of its work online, we believe that network technology must be included as part of the infrastructure package.

If buildings and facilities are the muscle and bones, then advanced networks are the nerves and the connective tissue. Here in British Columbia, the BCNET organization was set up to link our institutions in a single provincewide grid, enabling educators, researchers and computer systems at different universities to talk to each other. The provincial government was one of the founding partners of BCNET, and we continue to provide major funding for the network's expansion.

BCNET was formed in 1986 by a consortium that included the University of British Columbia, Simon Fraser University and the University of Victoria. In its early days, BCNET provided B.C.'s first Internet connections and connected with regional networks via CANARIE to form the first national advanced network.

A major leap forward occurred in 2001, when BCNET created the province's first and only high-speed research and education network – ORAN, for Optical Regional Advanced Network – establishing high speed metro networks in Vancouver, Victoria and Prince George to link the University of Northern British Columbia to UBC, SFU and UVic.

Since the inception of ORAN, the BCNET community has expanded rapidly. Today, as well as the original consortium, BCNET has affiliates and partners from over 70 organizations, including health and research facilities, government agencies, service providers, corporations and high technology companies.

As the British Columbia leader in advanced networking, BCNET ensures that our province's education and research system stays at the forefront of technological change. And by providing access to international research networks, BCNET also plays a key role in helping British Columbia to attract and retain the best researchers, educators and innovators.

Now it is time to take our advanced network to the next level. There are an increasing number of researchers in British Columbia who require next-generation ORAN capability to successfully complete major projects that have large amounts of committed funding, or are in the final planning stages. Expansion of the ORAN is also necessary to provide advanced network links to three new institutions we have established recently: UBC Okanagan in Kelowna, Thompson Rivers University in Kamloops, and the Simon Fraser University campus in Surrey.

New provincewide educational initiatives, such as our expanded medical program, depend on the BCNET optical network to deliver courses and allow long-distance interactive education. In addition, advanced networking access is needed across the BC post-secondary system to support the government's planned increase of 25,000 new student spaces by 2010.

These are some of the reasons the province decided to support BCNET's expansion proposal. We are providing BCNET with \$3.15 million in capital funding for equipment and installation. This funding will help create a next generation high-speed network, using "lightpaths" to link all major research institutes in B.C.

To support this expansion and upgrade of the network, the province will also increase operating grants to partner institutions by a total of \$600,000 by 2007/08. As part of BCNET's 2010 Project, new transit exchange centers will be built in Surrey, Kelowna and Kamloops, enabling campuses in outlying B.C. communities to connect to a local exchange. This will greatly enhance the network speed and bandwidth available to these communities and help bridge the Digital Divide.

BCNET 2010 has the full support of local communities, and especially those in the heartlands of the province – Kelowna, Kamloops and Prince George. These communities view BCNET 2010 as important new infrastructure that will allow local groups to share content, conduct business more efficiently, encourage economic development and grow the information technology sector. For example, the Prince George transit exchange is located within city hall and directly connects the local library, hospital, and other municipal facilities to the University of Northern British Columbia. Similar plans are being made for Kamloops and Kelowna with support from the local community. BCNET will partner with private-sector suppliers to create this next generation network, and will work closely with the provincial NetworkBC initiative.

In closing, I reiterate British Columbia's continued strong support for advanced networks and high-performance computing. We are committed to a next-generation advanced network stretching from Prince George in the North, to Victoria on Vancouver Island, connecting all research institutes in between in a single light-speed grid.

I believe our recent \$3.15-million investment in BCNET is proof of our commitment. Working with our partners, we will grow the network by distributing links outside the major universities and urban centres, to smaller institutions and communities in the regions of the province.

I thank the BCNET Board of Directors for sharing our commitment, and for their continued leadership in making B.C. a world-class networking location. I also thank the BCNET pioneers, whose vision has driven the growth process, and our many industry members, who are helping to expand the network for the future.

We recognize that our advanced network is not an isolated phenomenon, but part of a growing national and international partnership, whose members have a lot to share and learn from each other.

Thank you.