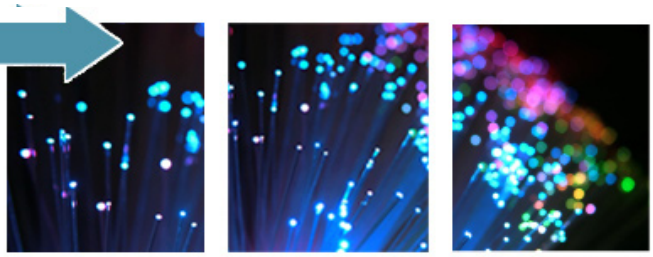
BCNET



The Backbone of Research, Education & Innovation

The BCNET Transit Exchange: Powering Community Peering

What is the BCNET Transit Exchange?

The BCNET Transit Exchange (TX) is a centrally located physical infrastructure, or neutral "meet-me" place, where organizations can interconnect directly with the each other, to peer, share data and access numerous commercial Internet service providers (ISPs).

BCNET's TX sites were designed to serve as a communication hub for BC's research and higher education community. At each TX site, campuses and research institutes connect to the province's Optical Regional Advanced Network (ORAN), as well as the commercial Internet. Transit Exchanges are centrally located to enable the optimal number of connections from user sites and minimize the cost of conneting to Internet service provider backbones.

Where are the Transit Exchanges located?

Strategically located close to commercial telecom providers in university communities, BCNET has built five Transit Exchanges in British Columbia:

- Vancouver
- Victoria
- Kamloops
- Kelowna
- Prince George

What are the benefits of a Transit Exchange?

- **Lower Internet transit costs**. Data traffic that comes into the TX that flows between users does not incur Internet trafficking fees.
- **World class reliability.** Users can choose from multiple commercial Internet service providers at each of the BCNET TX sites, facilitating redundant services, often called multi-homed access, to multiple ISPs—ensuring against any sudden loss of Internet service.
- **Peer with the research and higher education community.** Organizations that connect to any of the five TX sites can peer with the entire research & higher education community at the TX site.
- **Greater network customization and flexibility.** Within TX communities such as Vancouver, BCNET uses their own fibre, providing for greater network cutomization, flexibility and band width. The fibre delivers numerous strands to dedicated sites, supplying the advantage of greater control by users—the universities and researchers
- **High performance connections.** Latency is reduced as organizations connect through a single physical connection and data is exchanged directly, rather than travelling to distant cities. BCNET's TX can process super high speed connections up to 10 gigabits per second, or 10,000 times faster than the commercial Internet
- **Access researchers around the globe.** Organizations that include research in their mandate may be eligible to access the ORAN as well as the global research network
- **Fosters local collaboration and economic development**

How can an organization connect to a Transit Exchange?

Organizations enter into a contractual arrangement for services at the BCNET Transit Exchange. Since a TX is a centrally located physical infrastructure, each organization must secure one communication connection or dedicated fibre into the TX.

How does ORAN traffic differ from Transit Exchange traffic?

Optical Regional Advanced Network (ORAN) traffic consists of data destined for approved provincial research and higher education organizations, as well as similar national and international advanced research networks and facilities. In contrast, Transit Exchange commercial Internet traffic is all other traffic that does not fall under the ORAN traffic category. This includes access to sites such as Google, Hotmail, CNN and others that are not approved research and education facilities.

Contact us

For more information about BCNET and the Transit Exchange sites, please visit our website at www.bc.net or send us an email at info@bc.net.