

CyberaNet

CyberaNet is Alberta's publicly-funded, high-speed research and education (R&E) network. CyberaNet, which is operated by Cybera, connects the province's education and entrepreneurial institutions to provincial, national and international R&E networks, as well as to the commercial internet (Figure 9).

Created in 1993, CyberaNet serves post-secondary institutions (PSIs), K-12 school districts, provincial and municipal agencies, not-for-profit organizations, and high-tech incubators. (The company operated as WURCNet between 1993-1999, and Netera between 1999-2007). The Government of Alberta supports CyberaNet as a strategic investment to deliver CyberaNet and other services in support of technological advancement.

CyberaNet consists of CANARIE's national R&E network and leased fibre optic infrastructure services, through which local network connections are configured to reach the Alberta SuperNet and municipal fibre networks in Calgary, Edmonton, and Lethbridge. As well as operating the province's R&E network, Cybera offers an Internet Buying Group and Peering service to its members. For the Internet Buying Group, Cybera aggregates members' internet traffic and purchases bulk internet from contracted ISPs on their behalf, thereby obtaining lower cost bandwidth. In order to utilize this service, members must be connected to CyberaNet either through the SuperNet or via another network provider.

For Peering, Cybera leverages direct connections to the Calgary and Edmonton Internet Exchanges (IX) and has access to several more through its NREN connections via CANARIE. These IX connections provide a transit exchange service with major internet content providers such as Google, YouTube and Facebook, thereby reducing overall bandwidth usage by connected CyberaNet members.

As of February 2021, CyberaNet is connected to 27 post-secondary institutions, 54 public and private K-12 school districts, 24 municipality, public or non-profit members, and 1 private member, representing 74% and nearly 100% of all K-12 and PSI Alberta students, respectively. (For a current list of Cybera members, see cybera.ca/membership).

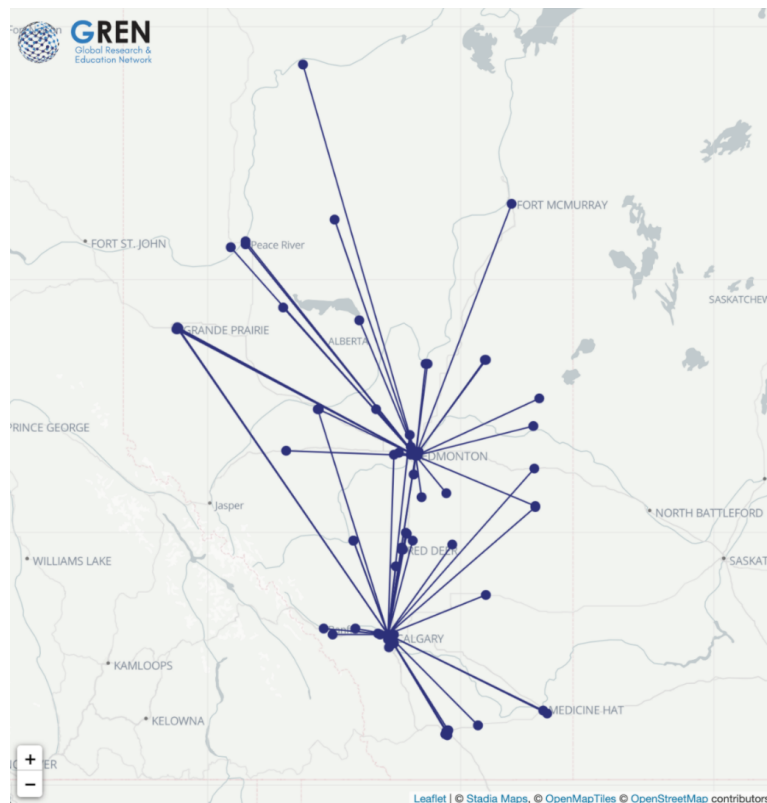


Figure 9. Network map of CyberaNet. The network lines are representative and do not reflect the actual path of the network connections²⁹.

Research Networks

References

²⁹Provided by Cybera, 17 February 2021.