

Bell Aliant FibreOP™

About fibre to the home:

- Fibre to the home is 100% fibre-optic technology that is connected directly to a customer's home. It is an advanced broadband network that provides the ultimate experience for Internet and video services, including high-definition TV.
- Fibre optics deliver bandwidth using pulses of light, transmitted over glass fibres thinner than a human hair.
- A fibre to the home network has the capability to meet all expectations of our customers, today and into the future because it provides opportunities to affordably grow and provide technology enhancements over time.
- Bell Aliant's *FibreOP™* is Canada's first 100% fibre to the home network to cover an entire city.

Benefits of fibre:

- Has the highest bandwidth capacity available for both sending and receiving data.
- Customers can download, upload and share video, music and photos with family and friends almost instantly.
- Provides a dedicated connection between the customer's home and Bell Aliant's switching facility (or central office), so the bandwidth delivered to the home doesn't vary based on how many other users are in the neighbourhood.

Technology overview:

- Fibre-optic technology is the highest capacity data transmission medium in use throughout the world today. Extending fibre-optic links directly to the home will provide direct connectivity to the world optical broadband network without the capability restrictions imposed by copper or coax access networks.
- *FibreOP* will use newly installed fibre-optic cables composed of hundreds of hair-like strands of glass to send pulses of light to carry data from Bell Aliant's multimedia serving centres through to a small Optical Network Terminal (ONT) located at the home.
- The ONT converts the pulses into digital signals which are distributed in the home to TV's, home computers and any other home device requiring broadband connectivity.
- The fibre network carries signals on two wavelengths: one for downstream communications and one for upstream. This ensures that high bandwidth data delivery will be available in both upstream and downstream directions.
- The *FibreOP* network will deliver a multiple Gbps signal to a cluster of homes in a neighbourhood. Each home in the cluster will be allocated an equal "dedicated" portion of this multiple Gbps signal. "Dedicated" means the bandwidth allocated between a home and Bell Aliant's switching facility or central office does not vary based on how many other users are in your neighbourhood, as is typically the case with coax networks used by CableCos.

Bringing fibre closer to customers:

- Fibre to the home is a continuation of Bell Aliant's strategy to bring fibre closer to customers.
- Bell Aliant currently covers over 240,000 homes with its fibre to the node network.
- Fibre to the node delivers fibre close to the home or premises, to a point in the neighbourhood, and copper is used to connect from there to the home.
- Bell Aliant has recently updated its fibre to the node technology to VDSL2 which allows Bell Aliant to enhance its IPTV and Internet offerings.
- The virtually 100% aerial network and population densities of Fredericton and Saint John make these markets ideal to now evolve to fibre to the home in these markets.