



## **FACT SHEET**

### **The Technology:**

# **Fiber to the Premises (FTTP)**

#### **Fiber to the Premises**

- Fiber to the Premises (FTTP) refers to Verizon's new network that will utilize fiber-optic cables and associated optical electronics instead of copper wire to connect a customer to the Verizon network. Fiber-optic systems have been used in telecom networks for years, but primarily in the long-haul or inter-city portions, as well as directly connecting some large-business customers that have heavy data transfer needs.

#### **How does it work?**

- Fiber-optic cables consist of bundles of hair-thin glass strands. Laser generated pulses of light transmit voice, data and video signals via the fiber at speeds and capacities far exceeding today's copper-cable systems.

#### **What will it do?**

- Serving primarily residential and small-to- medium-sized business users, FTTP will provide voice service and associated features while offering nearly unlimited bandwidth for an array of data and video applications. It will also accommodate new broadband products and services not possible with today's network.

#### **Installation Types**

- Greenfield – New building construction will feature FTTP where possible, instead of initially installing copper phone lines.
- Overlay – Involves installing new fiber to replace existing copper-wire networks on a market-by market basis, with fiber run to the home or small-to-medium-sized business based on market demand.

## **Equipment Features**

- Optical Line Terminals – Located in Verizon’s central switching office, this equipment serves as the point of origination for FTTP transmissions coming into and out of the national Verizon network.
- Optical splitters/splitter hubs – A focal point for the main fiber feed in a neighborhood or development, where the optical signals from a fiber link are split off to serve multiple customers over individual strands of fiber.
- Optical Network Terminals – The termination point for fiber at the home or business, where the optical signal is converted into voice, data or video feeds to equipment in the customer’s premises. A battery backup will provide power for voice service during any loss of commercial power.

## **FTTP advantages**

- Fiber technology provides nearly unlimited bandwidth, as much as 20 times faster than today’s fastest high-speed data connections.
- FTTP provides more reliable service that is less susceptible to inclement weather and easier to maintain. Verizon can monitor the performance of the network and make repairs prior to customers noticing problems.
- The new technology enables a wide variety of uses, from interactive content and home shopping to telecommuting to telemedicine and audio/video on demand.
- FTTP is easier to maintain and extremely flexible to customer preference – new products and services can be activated remotely, either permanently or on demand.
- FTTP provides a “blank canvas” for technology innovators at Verizon and elsewhere to create the tools and uses of FTTP for the burgeoning broadband economy.

[Verizon customers looking for updated information on Verizon’s FTTP initiative should visit [www.verizon.net/fiber](http://www.verizon.net/fiber) to check for regular updates.]

# FTTP Architecture

