

# Holland Broadband/Fiber

Holland Board of Public Works (HBPW) owns and operates a fiber-optic network in the greater Holland area. This system was installed to improve communications between electric substations, and has expanded to service the local community. The growth of HBPW's network has allowed HBPW to provide service to school districts, small and large businesses, municipal offices, medical offices and community service organizations. The HBPW provides three service options: Internet Transport/Delivery, Private Network, and Dark Fiber.

## [Private Network Option](#)

The Private Network option provides a wide-area Ethernet service interface to connect two or more locations at bandwidths ranging from 0.5 to 2000 Mbps. The handoff can be provided across copper or fiber depending on customer needs. Installation costs, setup fees, and bandwidth rates are available upon request.

## [Internet Transport/Delivery Option](#)

HBPW can connect your business to one of the Internet Service Providers that we partner with. This service can replace local T-1 circuits, DSL, or Cable Modems. Installation costs, setup fees, and bandwidth rates are available upon request.

## [Dark Fiber Option](#)

HBPW offers the option of leasing dedicated fiber strands on a monthly basis, with an aggregate minimum of \$1,000 per month. This option allows the customer to design, install and maintain the electronic equipment required. Installation costs, setup and lease rates are available upon request.

## Our Connected Internet Service Providers

The ISPs listed below are connected to the HBPW fiber network. Some ISPs also utilize HBPW's fiber network to provide services such as off-site storage and disaster recovery systems. Together, HBPW and the ISPs below can provide reliable and affordable network solutions for your business.

Everstream    The ISERV Group    Merit Network    Sirius    US Signal    123.Net

## Broadband Rates

Below are the broadband rates for residential, businesses and the dark fiber option. Please click on each drop down for more details and pricing.

[Residential Active Ethernet](#) Available for all residential customers.

**Character of Service:** Broadband connection between a residential premises and an internet service provider (ISP). Additional internet service fees from ISP will apply.

Bandwidth	Internet Connection	Additional Amount per Month without One-Time Fee
1.0 Mbps	\$13.00	\$5.00
3.0 Mbps	\$22.00	\$5.00
5.0 Mbps	\$28.00	\$5.00

10 Mbps	\$35.00	\$5.00
20 Mbps	\$40.00	\$5.00
50 Mbps	\$50.00	\$5.00

**Setup Fee Options:**

- One time setup fee of \$200.00 or Additional \$5.00 per month for four years

Business Active Ethernet

Bandwidth	Internet Connection	Bandwidth	Amount Per Month
.5 Mbps	\$35.00	100 Mbps	\$350.00
1.0 Mbps	\$40.00	200 Mbps	\$400.00
3.0 Mbps	\$60.00	300 Mbps	\$450.00
5.0 Mbps	\$80.00	500 Mbps	\$550.00
10.0 Mbps	\$150.00	1000 Mbps	\$750.00
20.0 Mbps	\$175.00	2000 Mbps	\$1500.00
30.0 Mbps	\$200.00		
50.0 Mbps	\$250.00		

**Additional Fees**

- One-time setup fee of \$550.00 per connection
- Engineering fee of \$100.00 per hour for network configuration changes. Minimum is \$100.00
- \*Construction fee where the anticipated present value of the net revenues over the first four years are less than required by the cost of the project. This contribution in aid of construction will equal the difference between the installation costs and the allowable extension costs.
  - \*When construction fees are required it will also be allowable for this to be amortized over a three year term at 8% interest with a required term of service for three years.

Dark Fiber

**Effective Date:** Rates effective for bills issued on or after October 1, 2014.

**Availability:** Available for use to all customers. Each request will be evaluated and approved on a case-by-case basis. A dark fiber lease agreement will be required.

**Character of Service:** Lease of dark fiber from point to point. This does not include electronic equipment at either end.

**Charge Per Month**

\$0.0105 per foot per strand

**Additional Charges**

- Minimum Charge: The aggregate minimum billing per customer is \$1,000 per month.
- Construction Charge: The actual cost to build new fiber outside plant will be billed upon completion.

## 123Net Dark Fiber Overview

### Unlimited Scale Through 123Net's Dark Fiber Network

123Net's Dark Fiber product offers a variety of optical [fiber](#) options from individual strands to complex high count cable designs, customized to suit your business needs. This secure and cost-effective solution offers a private network with virtually unlimited bandwidth. Dark fiber provides physical security and keeps you in control of your communications infrastructure. Design options start with a single pair of fiber and can be designed in either a ring or point-to-point solution. Networks can be built using the existing 123Net high count [fiber](#) or a new network path can be created.

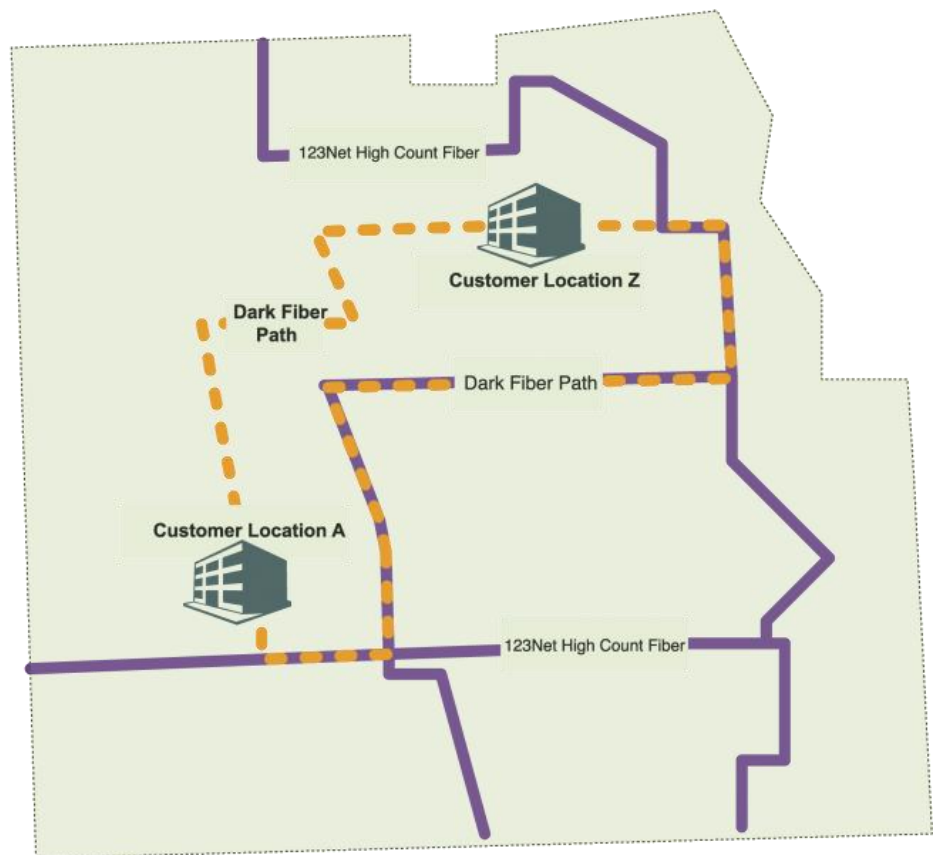
#### Network Considerations

- Customer provides equipment
- Route distance
- Route design
- Entrance
- Point-to-point
- Ring with collapsed lateral
- Ring with dual entrance laterals
- Path
- Point-to-point
- Hub and spoke
- Ring
- Protocol Determination
- [Ethernet](#)
- Dense Wave Division Multiplexing (DWDM)
- SONET (Synchronous Optical Network)

#### Dark Fiber Network Design (Example)

#### FEATURES & TECHNICAL INFORMATION

- Composed of a single mode fiber (Exceeding ITU-G.652D Specification)
- Customer has only electronics connected to the fiber
- Virtually unlimited bandwidth
- Specifically designed for client needs
- Long term lease and IRU options available
- Allows customer to control their own network assets
- Remove dependencies on the incumbent carrier
- Available designs include single entrance, dual entrance, ring, hub and spoke or point to point.



## Dark Fiber Features

123Net's unique fiber assets, routes and secure rights-of-way provide the network infrastructure that your business needs, where you need it, to support mission-critical applications.

- Manage and control your very own fiber network.
- Virtually unlimited bandwidth.
- The only Michigan-based Dark Fiber provider in the state.
- Available designs include single entrance, dual entrance, ring, hub and spoke or point to point.
- Lower investment than building your own optical fiber network.
- Complete control and management of the network.
- Supports many configurations, services, and applications.
- E-rate Category 1 Eligible.
- Skilled Project Management personnel take you from drafting to turn-up, on schedule.
- Leverage 123Net's networking expertise and [support](#).
- Strong ROI for companies that use substantial bandwidth and utilize numerous services.

## Dark Fiber Benefits

**Take total ownership of your network and tap into the benefits of 123Net's dark fiber solutions.**

- **Security:** Comply with government regulations by isolating the physical-layer.
- **Scalability:** Upgrade bandwidth at any time without additional monthly costs; solution tailored to your unique connectivity requirements.
- **Reduced Downtime:** Enables your business to control maintenance windows.
- **Control Costs:** These benefits are available to organizations at a rate that is less than alternatives.
- **Design:** 123Net's engineers will work with you on suggesting equipment to fit your needs.