



**123NET**

MICHIGAN'S BACKBONE FOR BUSINESS

**CORPORATE OVERVIEW**



# WHY **123NET**?

- Over 20 years of consistent growth
- Focused on expanding Michigan's network
- Our people design, engineer, and build the network
- Founders of the Detroit Internet Exchange (DET-IX)
- Flexible and scalable solutions – up to 100 Gbps circuits
- 97% customer retention rate

PROVIDING ENTERPRISE DATA CENTER, NETWORK AND VOICE SERVICES



# WHO TRUSTS **123NET?**



**SHINOLA**  
DETROIT



AND MORE THAN A DOZEN...

**FORTUNE®**

**500**

COMPANIES



# OUR NETWORK | **FIBER**



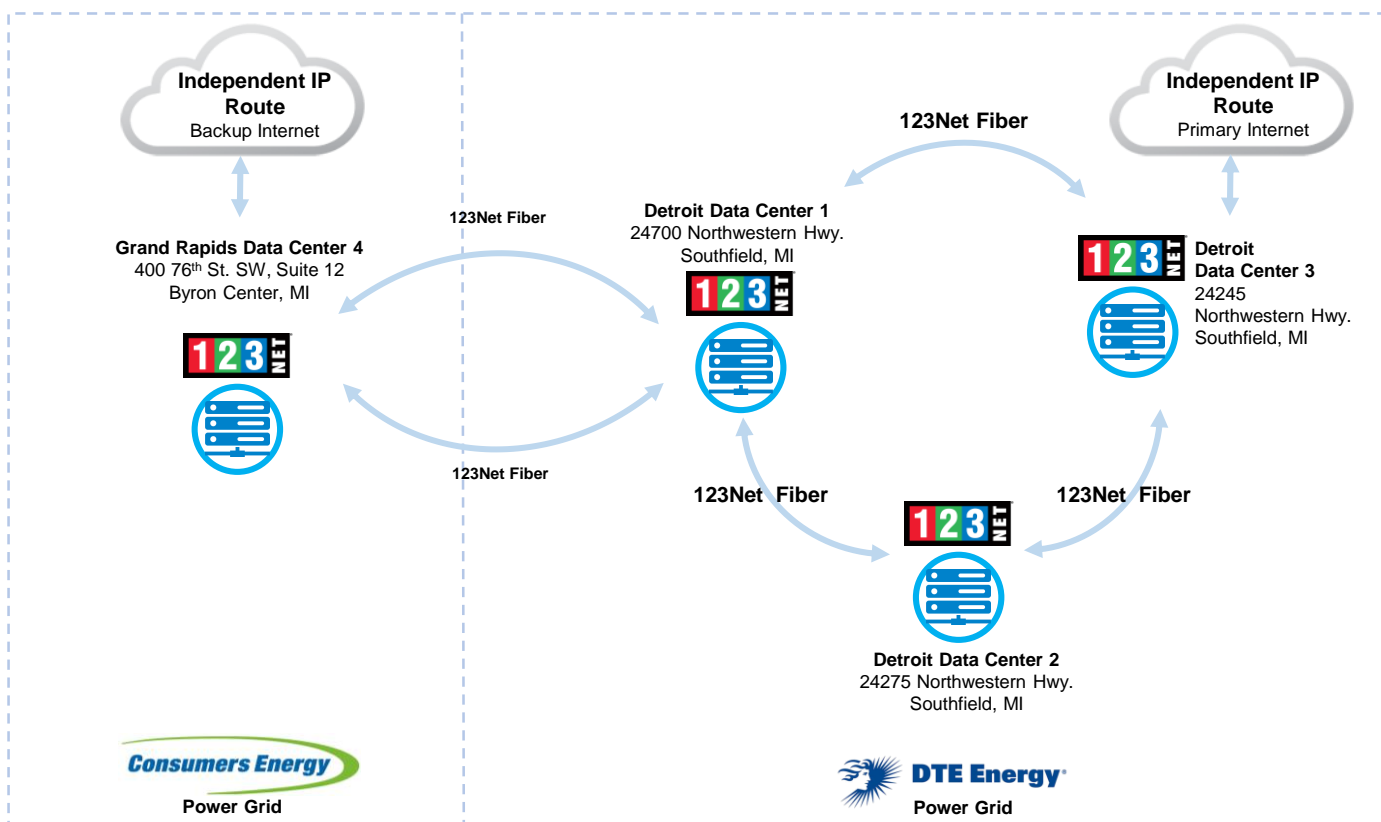
- Up to 100 Gbps circuits (99.99% SLA)
- MEF standards to deliver carrier class metro Ethernet solutions
- Designed to deliver ultra-low latency connectivity
- Custom diverse entrance builds available
- 3500+ fiber route miles
- Dark Fiber solutions

# OUR NETWORK | **FIXED WIRELESS**



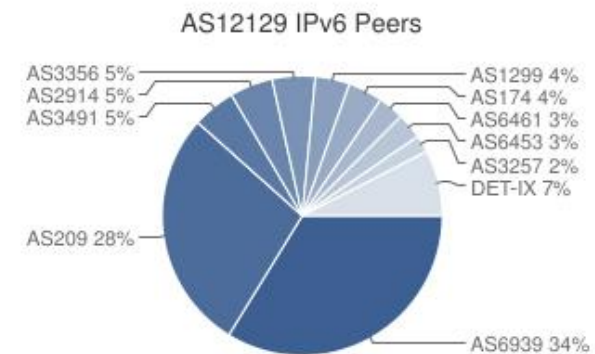
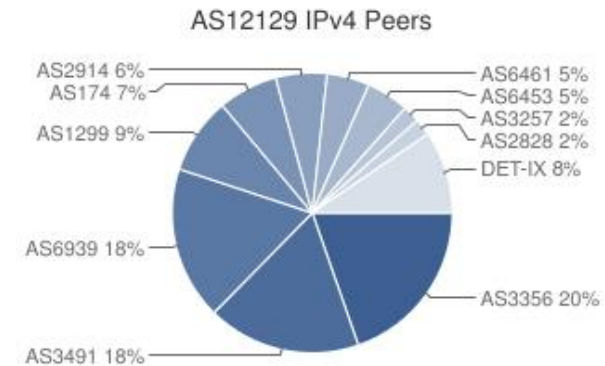
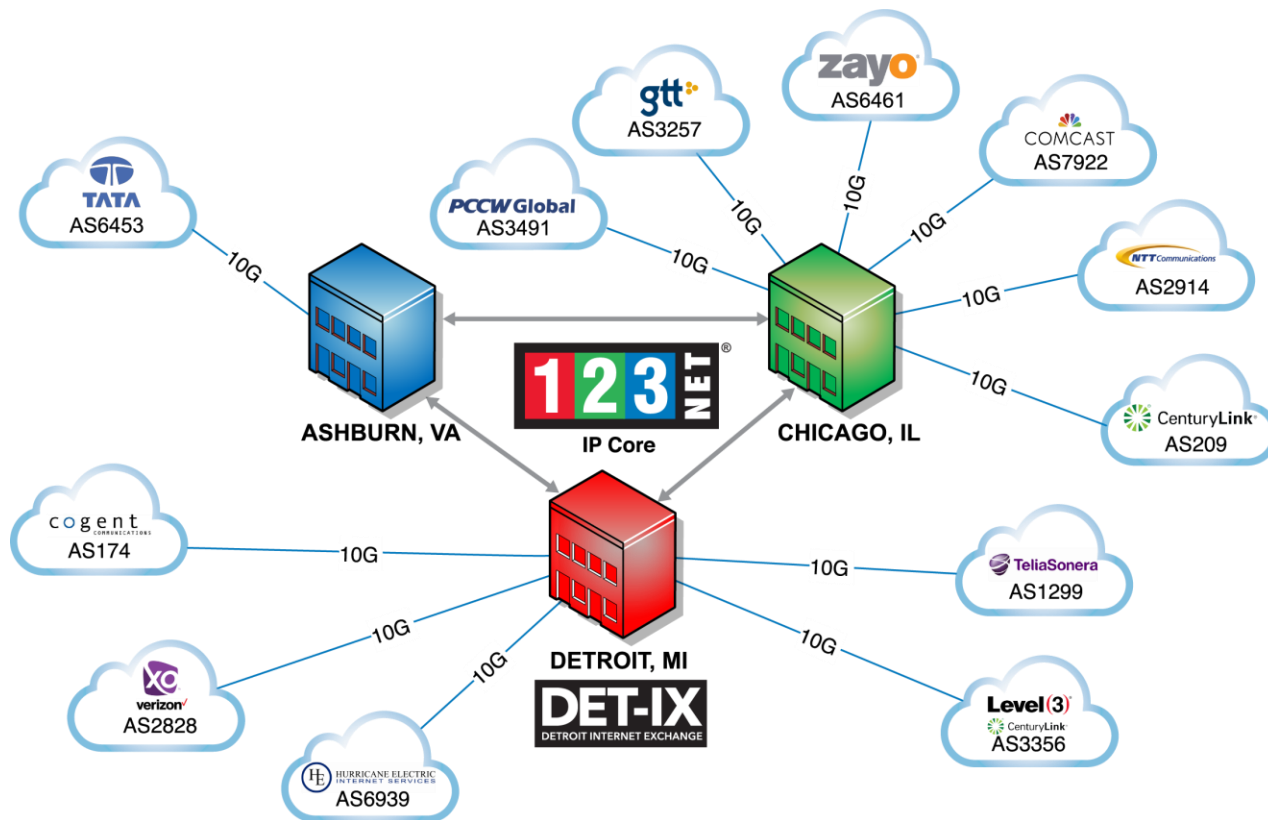
- Up to 10 Gbps speeds (99.99% SLA)
- 55+ Wireless Point-of-Presence (PoP) sites across Michigan
- 128-bit AES encrypted data transport
- Primary and backup connectivity for Dedicated Internet & Ethernet Services
- Temporary Internet Solutions
- Emergency/short term deployments
- Campus Wireless solutions

# DATA CENTERS



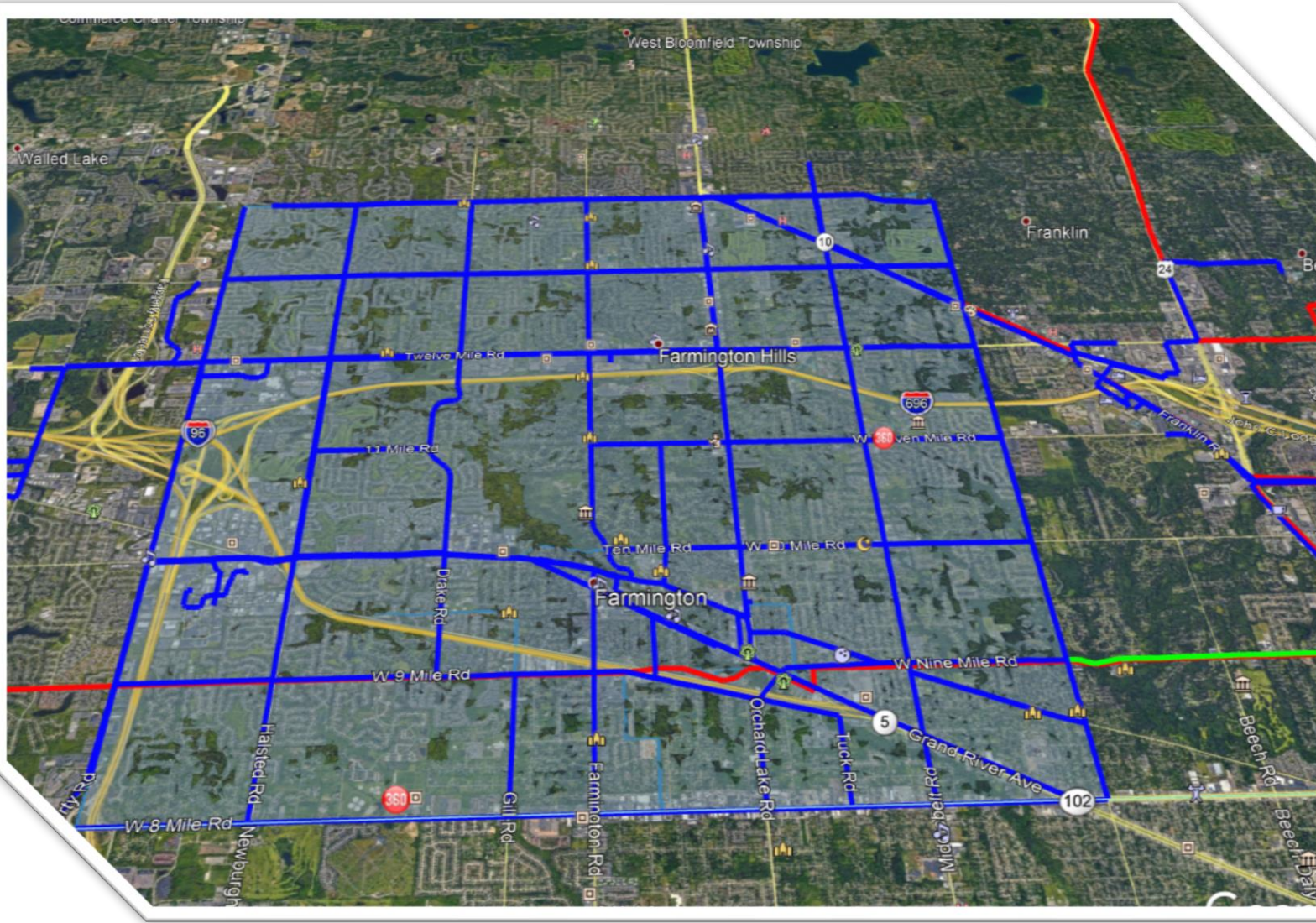
- All Data Centers meet SSAE-18 SOC2 Type II / SOC3, HIPAA & PCI-DSS Compliancy
- 2(N+1) power & cooling configuration available
- Data Center power (100% SLA)
- Up to 30 kW available per rack
- Dedicated substation
- Carrier neutral facilities
- Multiple fiber entrances
- Cabinet spaces, custom cages & private suites available

# IP BACKBONE | PEERING



100G+ Capacity | BGP Routing | DDoS Mitigation | IPv6

# Farmington & Farmington Hills IP Backbone



- 123Net Proposes to build approx. 93 miles of fiber throughout the cities of Farmington/Farmington Hills.
- In addition, 123Net proposes to build diverse paths back to our core network (approx. another 11 miles of fiber).

Estimated cost - \$6,760,000.

*(This cost does not include any building/residence entrance costs or laterals).*



# Proposed Residential Network (GPON)

A Gigabit Passive Optical Network (GPON) is a point-to-multipoint fiber network as defined in the ITU G.984 family of standards. Each subscriber is connected into the optical network via fiber from a passive optical splitter. There are no active electronics in the distribution network, and bandwidth is shared from the feeder to the drop.

The GPON fiber-to-the-premises (FTTP) deployment consists of the following primary components:

**OLT:** The optical line terminal (OLT) is the access node that provides GPON network terminations.

**ONTs:** The optical network terminal (ONT) is the access endpoint that provides an optical termination at the subscriber premises.

**ODN:** The optical distribution network (ODN) provides the optical connection between the OLT and ONTs.

# Residential Study – Barrington Green



## Setup – UG GPON

- 3 miles of underground 'last mile' network = \$210k
- Customer Laterals = \$2,250 each (assuming a reasonable take rate of 35%)
- **Costs to consider:**
  - Network Design 10% of costs
  - Underground material and construction and home penetration 60% of costs
  - Fiber cost and placement 10% of costs
  - Splicing material cost and labor 10% of costs
  - Testing and turn up of service 10% of costs
- All 237 customers can be served by a single OTL up to 12 miles away
- Head end costs ~\$15k in equipment – some ongoing costs to manage it.

## 35% take rate = \$4,993/home

- 10 year payback SAD (plus interest)= \$500/yr
- 20 year payback SAD (plus interest)= \$250/yr

# Residential Study 2 – Grand River, Farmington Rd, M-5 Triangle



## Setup – UG GPON

- 3 miles of Aerial ‘last mile’ network = \$135k
- Customer Laterals = \$1,350 each (assuming a reasonable take rate of 35%)

## Costs to consider:

- Network Design 10% of costs
  - Aerial material and construction and home penetration 60% of costs
  - Fiber cost and placement 10% of costs
  - Splicing material cost and labor 10% of costs
  - Testing and turn up of service 10% of costs
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- All 332 homes can be served by a single OTL up to 12 miles away
  - Head end costs ~\$15k in equipment – some ongoing costs to manage it

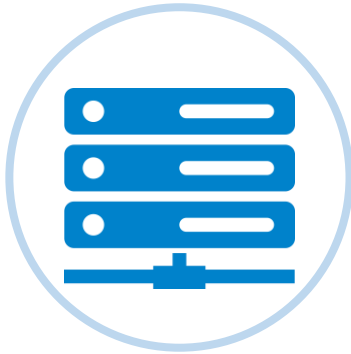
**35% take rate = \$ 1,801 / home**

- 10 year payback SAD (plus interest)= \$180/yr
- 20 year payback SAD (plus interest)= \$90/yr

## Other costs to consider:

- CPE costs (Will customers pay for these?)
- Other Network Maintenance costs ROW fees or pole attachment fees
- Network maintenance (miss dig marking, network upkeep and inspection)
- Network Repairs (UG damage from various sources)

# ***BUSINESS*** SOLUTIONS



## ***Data Center Services***

- Over 100,000 sq ft of Space
- Half and Full Rack Space
- Dedicated Cage
- Multiple Power Sources
- Carrier Neutral with over 25 Participating Carriers



## ***Voice Services***

- Hosted IP PBX
- PRI Service
- SIP Trunking
- Analog
- e-Fax



## ***Network Services***

- Dedicated Internet
- Ethernet Services
- MPLS
- Dark Fiber
- SD-WAN



***THANK YOU***

MICHIGAN'S BACKBONE FOR BUSINESS

TO LEARN MORE

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