

"Painting" Optical Fiber on Pavement

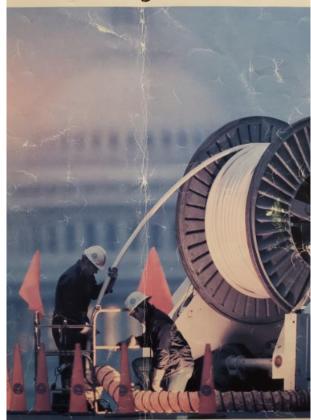
Rapid, Low-Cost Fiber Deployment - No Excavating or Trenching

Welcome!



~1985 FIBER INNOVATION

Counting on cable TV in Washington, D.C.?



Count on C&P Telephone to build it... efficiently, economically and on time!



TODAY'S AGENDA

- Speaker Introductions and NFF Overview
- TRAXyL Story
 - > Rapid, Low Cost Fiber Broadband Solution
- Elysian Fiber Case Study
- Dulles Airport Car Rental Case Study
- TRAXyL Next Steps
 - Path Forward Innovation
- Questions and Answers
 - Submit questions via Chat



TODAY'S SPEAKERS

- Chris Peabody Chief Strategy Officer, Networking For Future
 - cpeabody@nffinc.com
- Daniel Turner Chief Executive Officer, TRAXyL
 - daniel@traxyl.com
- Stephen Carter Chief Operations Officer, TRAXyL
 - > stephen@traxyl.com
- Tina Lyden President & CEO, Elysian Fiber
 - tlyden@elysianfiber.com
- Chris Novak Network and Infrastructure Consultant
 - > cnovak@jdk-llc.com



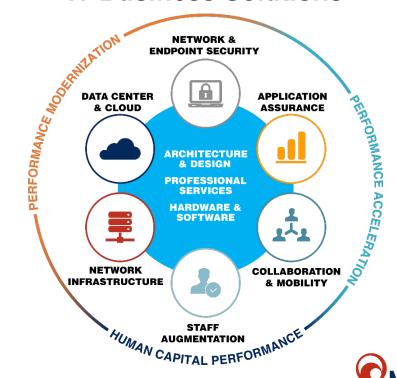
OVERVIEW

Networking For Future, Inc. (NFF)

- Founded in 1996
- Headquartered in Washington, DC
- 130+ Employees
- 77% of workforce hold industry certifications

Offering a performance-focused approach to delivering transformational IT business solutions.

IT Business Solutions



OVERVIEW

Strategic Partners

- Cisco Gold Partner
- NetApp Gold Partner
- VMware Enterprise Partner
- Splunk Partner
- Microsoft Partner
- Gigamon Partner
- Riverbed Premier Partner
- Aternity Partner
- IET Corporation Partner
- F5 Networks Partner
- Citrix Silver Solution Advisor
- CoreSite Partner
- TRAXyL Partner

Strategic Contract Vehicles

- GSA Schedule (47QTCA21D0047)
- District of Columbia Supply Schedule
 - MOBIS and ITES
- Maryland Education Enterprise Consortium (MEEC)
- Maryland Consulting and Technical Services (CATS+)
- Fairfax County Public Schools
- Maryland Department of Information Technology (DoIT) Hardware Master Contract
- Cisco Virginia Association of State College and University Purchasing Professionals (VASCUPP)
- Federal Reserve Board 202000834







OF THE YEAR 2016











Leadership



Daniel Turner - CEO





Engineering

Telecommunications & optical fiber expert



Stephen Carter - COO



Business



Digital controls & system integration

Team

Keith Turner

Sales and Installation Support

Blaine Riney

Training and Installation Support

Phillip Turner

Technical Advisor

Jeffrey Ensminger

Engineering



Fiber is a key driver to new technologies, yet installation is:





Expensive

Months of time at \$15 to \$150 per foot

Disruptive

Closures, detours, and delays

Destructive

Property, utility, and environment damage

FiberTRAX ®:
"Painting" fiber on paved surfaces





The FiberTRAX Advantage

Rapidly deployed surface mounted fiber protected by durable coatings.

Efficient

On-demand install at low cost

Convenient

Easy to use and deploy

Versatile

New pathways for fiber

FiberTRAX Cross-section

Jacket, Kevlar, & Steel Armor

Bond Coat™

Optical Fibers
(250 micron)

Protective
Top Coat™

DIMENSIONS

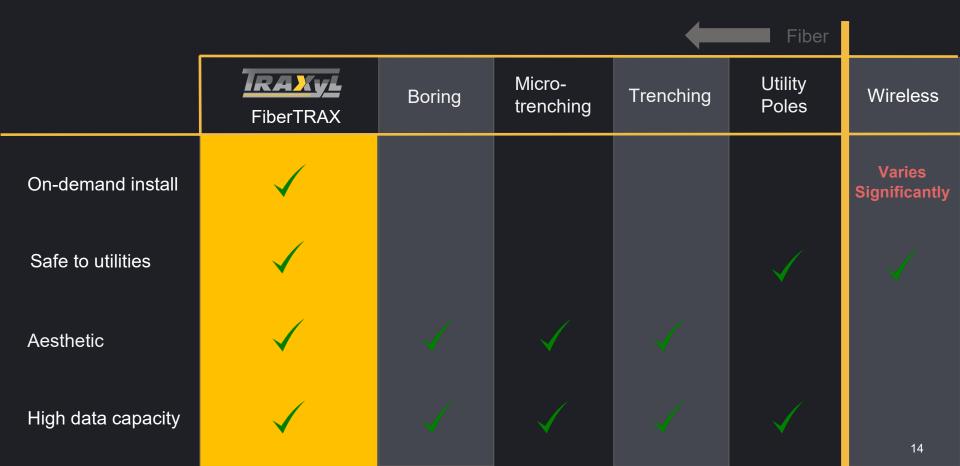
FiberTRAX width: ~100 mm

FiberTRAX height: ~8 mm

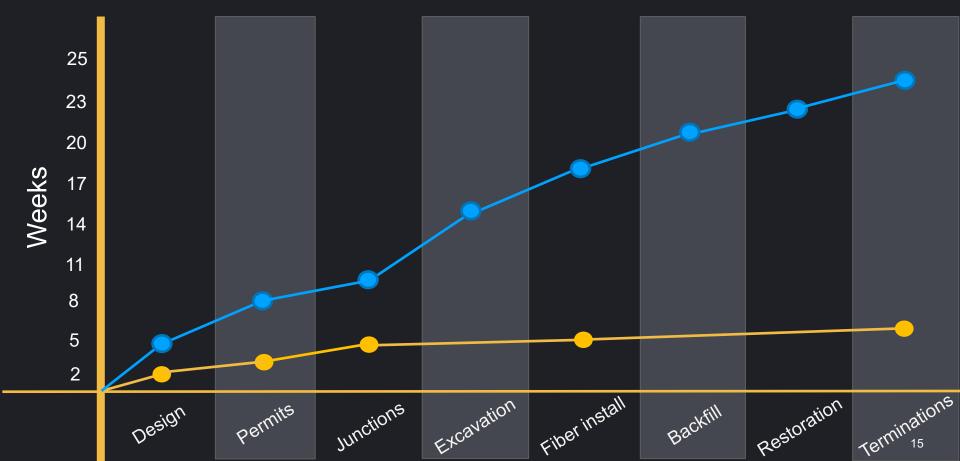
Cable

diameter: 3-5 mm

FiberTRAX vs Conventional Methods



Mile of FiberTRAX vs Conventional



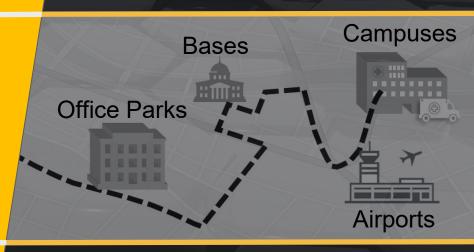


Customer Needs

- Last mile
- Network extension
- Fast or immediate install

Initial Customer Focus

Customer Locations



Customer Acquisition

- Distribution & Channel Partners
- Education
- Partner with Installers & ISPs

Traction

2017

2018

2019

SATELLITE 2020

2020

Startup Space Winner



Patents & Awards



WASHINGTON Business Journal Innovation Award



SBIR

Accelerator

Incubators & Accelerators





MC MASSCHALLENGE Austin, TX Top Finalist

AWARD

\$150K





Paid Pilots, **Grants &**

Contracts









US Army Corps of Engineers \$1.44M

SBIR STT US Air Force Phase I -**AFWERX** \$50k

US Air Force Phase II - RSO \$1M







Elysian Fiber Case Study elysian fiber

Tina LydenPresident & CEO
Elysian Fiber



CASE STUDY: ELYSIAN FIBER

Overview:

Ohio DOT Bridge

Objective:

- Connect ISP fiber to new home plan, cell tower, other businesses, and municipality
- Approaching Deadlines for Project Milestones
- Permitting / Approval challenges
- Limited budget

Solutions Explored:

- Conduit on bridge
- HDD under river
- TRAXyL

Results:

- TRAXyL deployed in two days
- Redundancy included
- Ohio DOT approval of FiberTRAX

Advice:

 Utilize FiberTRAX for last-mile and be on lookout for high-count fiber developments





Dulles Airport Car Rental Case Study

Chris Novak

Network and Infrastructure Consultant



CASE STUDY: DULLES AIRPORT CAR RENTAL

Overview

Car Rental Agency – Dulles Airport

Objective

- Provide network connectivity to two recently acquired buildings
- Time = \$\$
- Permitting / Approval challenges
- Avoid the things that could "blow up" under the surface (ex: fuel tanks)
- Limited budget

Solutions Explored

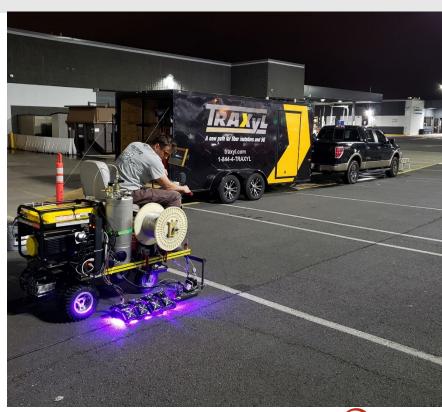
- MicroTrenching
- TRAXyL

Results

- TRAXyL deployed in one night
- No downtime
- No permitting issues because no trenching

Advice

Explore all your deployment options, make sure you include TRAXyL





TRAXyL – Today & Path Forward Innovation



Daniel TurnerChief Executive Officer
TRAXyL



Data and Beyond

Virtual Learning

Traffic Control

Autonomous Cars

> Tele-Health

Security

Camera



Wireless Backhaul

Optical Sensing

Disaster Recovery

Military Applications

> Access Control



Questions and Answers (submit via Chat)

Today's recording and slide deck will be available at: https://www.nffinc.com/resources/webinars/

To learn more contact: sales@nffinc.com



Your performance improvement is our measure of success.

Thank You!

