

# S&N Communications, Inc.

The Role of Your Outsourcing  
Partner in Successful  
FTTH Deployments

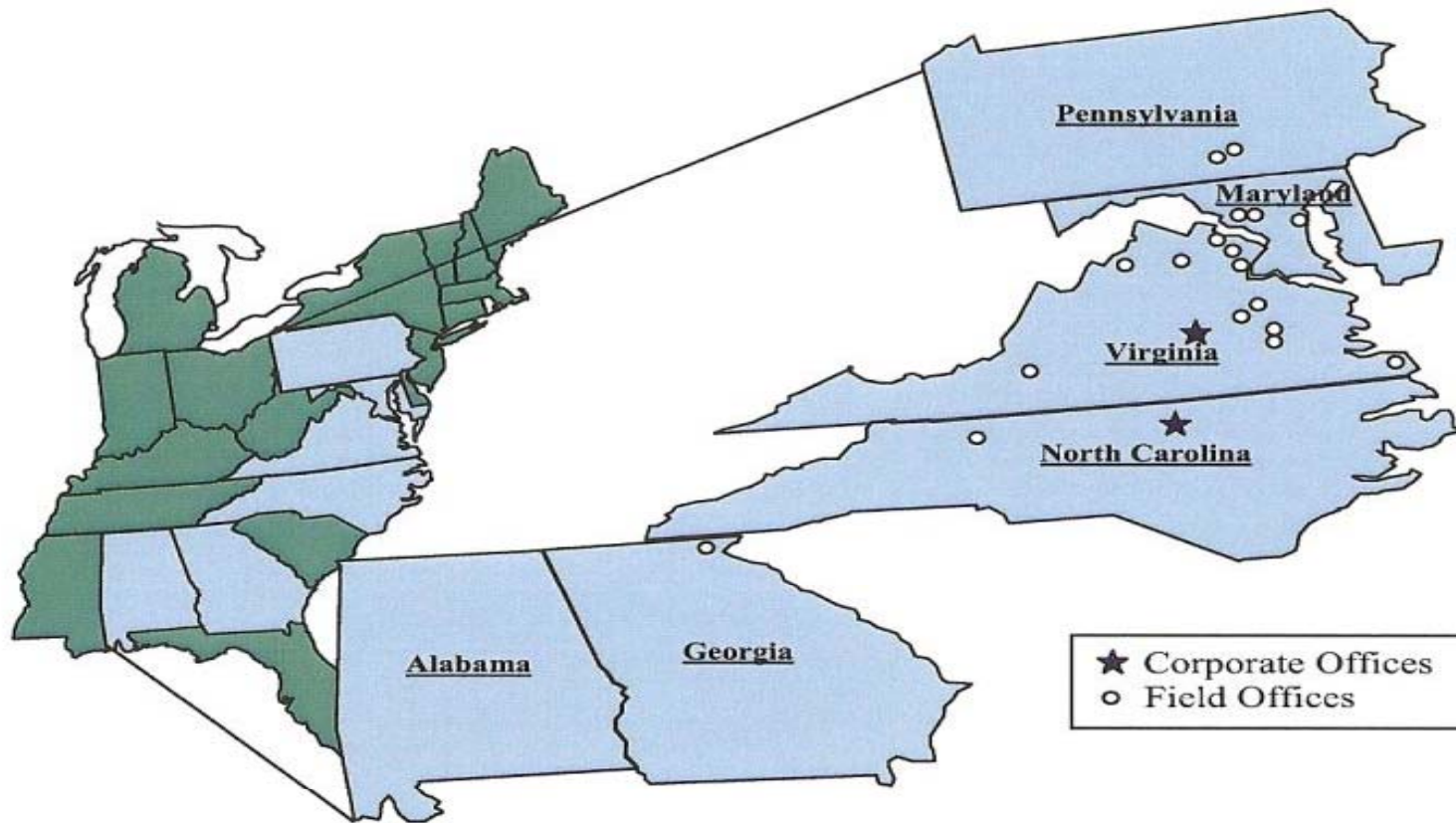
# S&N Communications Inc.

## Brief History

- Allen Powell – CEO & President
- S&N Communications, Inc.

# S&N Communications, Inc

## S&N Service Presence and Facility Locations



# S&N Communications, Inc.

## Current FTTH Deployments

- Verizon – Virginia and Maryland

  - Placed over 30,000,000 buried pathway

  - Placed over 200,000 buried drops

  - Maintain a less than 2.0 damage ratio

  - Maintain a less than 5.0 complaint ratio

# S&N Communications, Inc.

- NTelos – Western Virginia
- Wilkes Telephone – North Carolina
- Shenandoah Telephone – Virginia
- Scott County Telephone – Virginia
- Embarq/Corning – Pennsylvania

# S&N Communications, Inc.

## Contractor as a Partner

Choose a contractor with a proven track record of completing projects on schedule and a history of commitment to quality customer service.

# S&N Communications, Inc.

## Cost Effective

Your partner needs to constantly review its costs and make recommendations on how the customer can save money. They must have real time robust information tools to track their production and costs.

Money they save, you save!!!

# S&N Communications, Inc.

## Community Involvement

- Meet with community leaders
- Present Power Point presentations showing the good the bad and the ugly
- Have a constant presence at work sites
- Handle complaints and damages within a 48 hour time period from when reported

# S&N Communications, Inc.

In Summary:

A successful FTTH build requires the recognition that this is not business as usual.

Success demands a partnership with a quality, knowledgeable, and experienced contractor.

The image features two men in safety gear (hard hats and high-visibility vests) standing on a construction site. They are looking at a clipboard held by the man on the right. In the background, there are several tall, lattice-structured towers, likely for fiber optic or telecommunications. The scene is set against a warm, orange and yellow sky, suggesting a sunset or sunrise. The overall theme is related to telecommunications and infrastructure.

Your Partner in FTTH

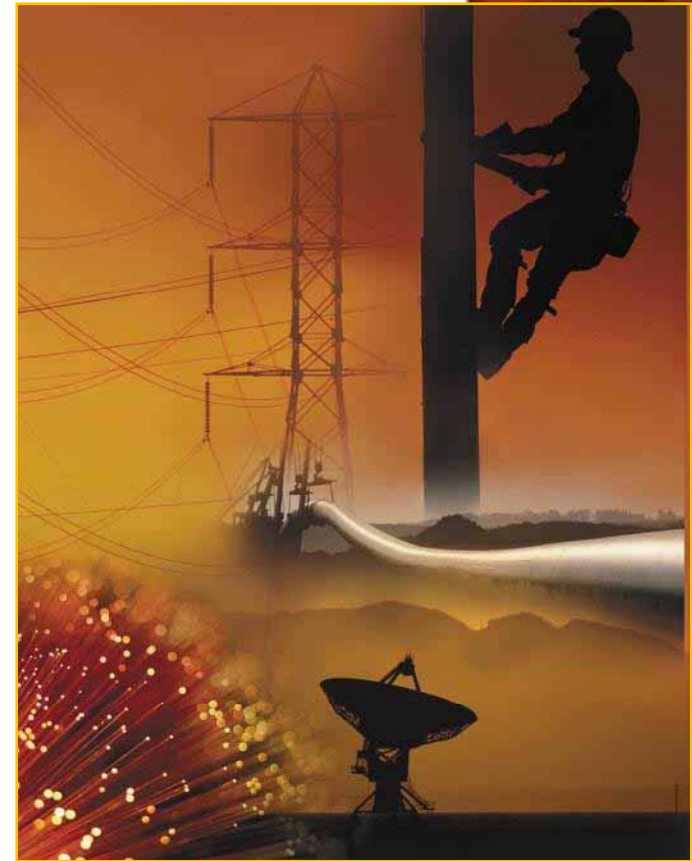
Walt Donovan  
Vice President – Telecom Business Development



QUANTA  
SERVICES

# The Recognized Leader

- Quanta is the leading provider of specialized contracting services
  - Delivers end-to-end solutions for virtually every type of network infrastructure
  - Revenues of \$3.78 billion for 2008
  - Ranked #1 utility specialty contractor by *Engineering News-Record*
- Publicly traded on NYSE: PWR



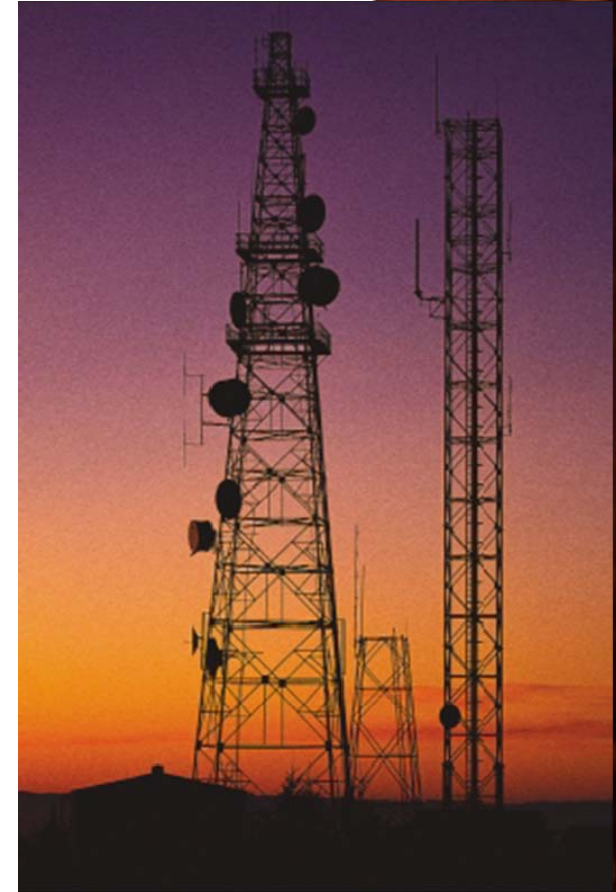
# Unmatched Resources

- Highly skilled, experienced and mobile workforce of more than 15,000 employees
- 3,000 employees – Telecom and Broadband
- Largest specialized equipment fleet in the industry
- Innovative technologies and proprietary methodologies
- Major offices in 40 states, and operations in all 50 states, Canada, and the UAE



# Capabilities

- Comprehensive capabilities developed to help optimize network infrastructure
  - Engineering, design and construction
  - Maintenance and field services
  - Repair and reliability upgrades
  - Emergency restoration
  - Technical and business consulting
- Response tailored to unique customer needs - whether single service or turnkey approach



# Representative FTTH Experience

- AT&T
  - Fiber to the node, CA, TX, MO
- Verizon Communications
  - Fiber to the home, CA, OR, WA, TX, FL, PA, NY
- City of Wilson, NC
  - Fiber to the home
- Mitchell Telecom
  - Fiber to the home, overbuild of Mitchell, SD
- Alliance Communications
  - Fiber to the home, Brandon, SD
- Paul Bunyan Telephone
  - Fiber to the home, overbuild of Grand Rapids, MN
- Molalla Communications
  - Fiber to the home, overbuild of Molalla, OR



# FTTH Success Factors

- Partnership between Owner and Outsource Partner
  - Minimize Contractors – Turnkey
  - Multiple vendors lead to multiple handoff points
    - Increased management needs for owner
    - Longer construction interval
  - Maximize Scope to Outsource Partner
    - Partner manages entire process
- Clear communications among Deployment Partners
  - Owner, Engineer, Contractor, Vendors
  - Defined deployment schedule
- Integrate Construction with Sales
  - Services Defined
  - Free Drop
- Think “out of the box”
  - Depth
  - New technologies

# Partnering ...

- Owner and Quanta work together as a team
  - Work with Owner's engineers and planners upfront to identify potential issues
  - Do a planning walk out of the project to identify cost savings
  - Work with local permitting authorities to expedite permit approvals
  - Work with local authorities to find and use the least expensive construction methods
  - Quanta and Owner's engineers work together to design a cost-effective and permissible project
  - Work together to identify needed materials to facilitate JIT delivery and avoid overages and waste
  - Quanta markets and sells to Owner's customers prior to and during construction (Take rates well above 50%)



# To Add Value

- Reduces overhead and oversight
- Allows Owner to focus on core competencies
- Provides improvements in time, cost and quality
- Solves issues before they develop into major roadblocks
- Builds synergies among non-similar functions
- Better utilizes materials (less waste)
- Consolidates scope and manages complexity
- Better time-to-market and project initiation

# To Add Value

- Establishes a backlog that allows Outsource Partner to keep personnel and equipment in place and available to work on your projects
- Shortens construction cycle by minimizing handoffs between Owner and Partner
- Reserves resources until the project is ready to construct
- Customers in place at turn up of system

# Anticipating the Stimulus Plan

- Feet on the ground in Washington, DC
- Working with customers to develop grant applications
- Preparing preliminary plans and engineering



# Thank You



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# MasTec

*Presenter: Mark Frosaker*  
*SR Vice President*

**FTTP Construction Services**



DESIGN



BUILD



INSTALL

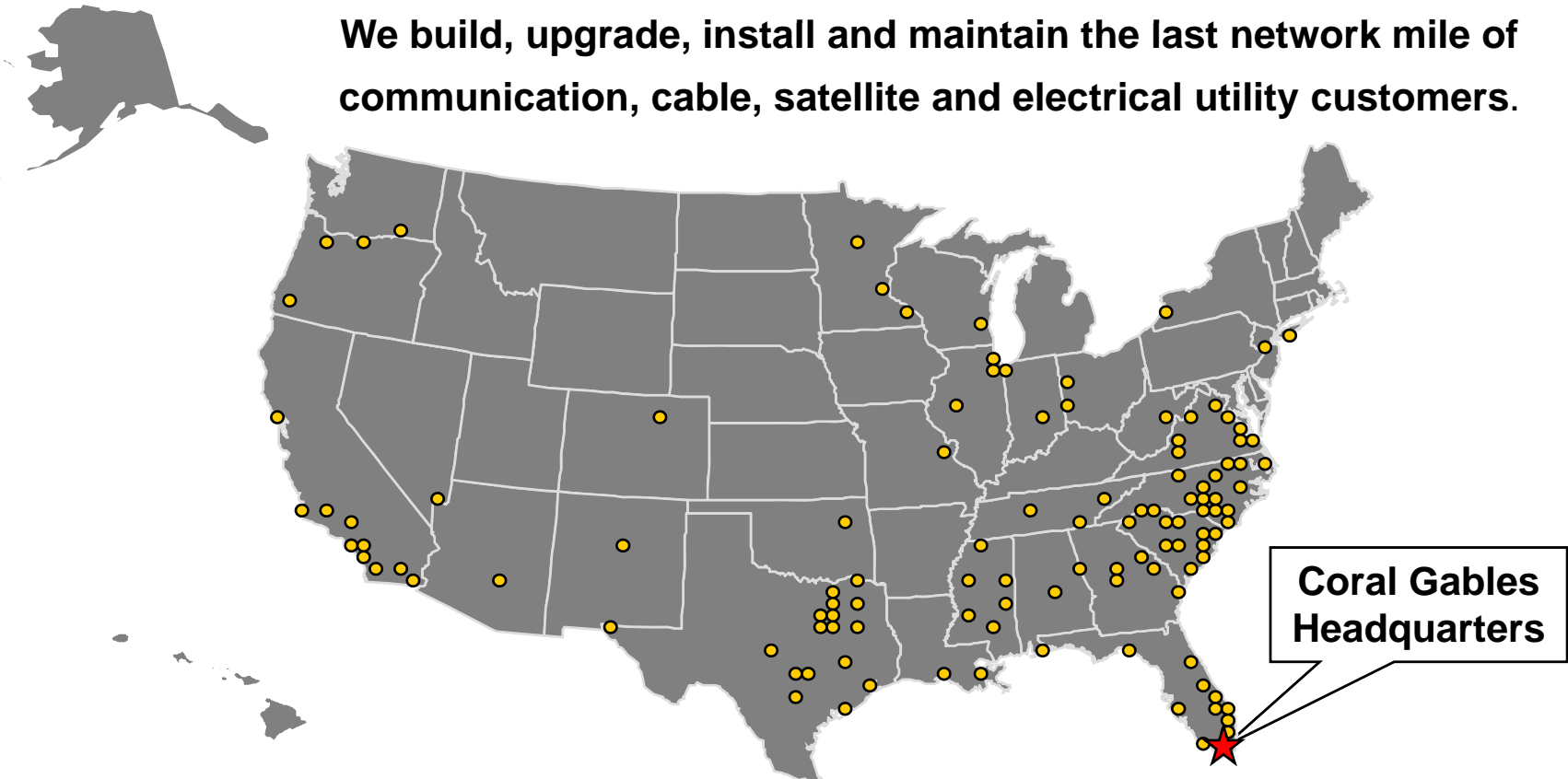


MAINTAIN



## Who We Are

We build, upgrade, install and maintain the last network mile of communication, cable, satellite and electrical utility customers.



- 9,200 Employees in Over 220 Locations



**MasTec designs, builds and maintains fiber optic and copper networks that deliver telephone, television and high speed internet access to the homes across the country. Our services include:**

- **OSP Construction**
- **ISP Construction**
- **Central Office Professional Services**
- **Installation and maintenance of residential wiring, set top boxes and cable modems**
- **Project management and construction services, including turnkey engineering-design-builds.**



## Communications – Services Provided

### UNDERGROUND CONSTRUCTION

- *Directional Drilling*
- *Duct Systems*
- *Manholes*
- *Substructure Upgrades*
- *Trenching*
- *Vaults and Pedestals*
- *Drops*

### ENGINEERING AND DESIGN

- *As-builts and Maps*
- *Design Services*
- *Walk-out*

### AERIAL CONSTRUCTION

- *Make Ready*
- *Strand Placement*
- *Copper and Fiber Cabling*
- *Drops*

### MULTI-DWELLING UNITS

- *Auditing/Tagging*
- *Building Construction Feeds*
- *Engineering and Design*
- *Pre and Post-wire*
- *Right of Entry/Contracts*
- *Surveys*
- *Walkouts*

### FIBER SPECIALTIES

- *Splicing*
- *Testing*
- *Rebuild/Upgrade*
- *RT Cabinet Placement*
- *Central Office*



## Communications (USG)– In The Beginning.....

- **Constructed the first RUS FTTH project in the late 1990's. The project was located in Norton, KS.**
- **Our Shevlin, MN office was involved with the initial design of what eventually became the NID manufactured by Optical Solutions (today known as Calix).**
- **A MasTec company purchased and installed the first reel of fiber that was manufactured in the United States by Fitel.**

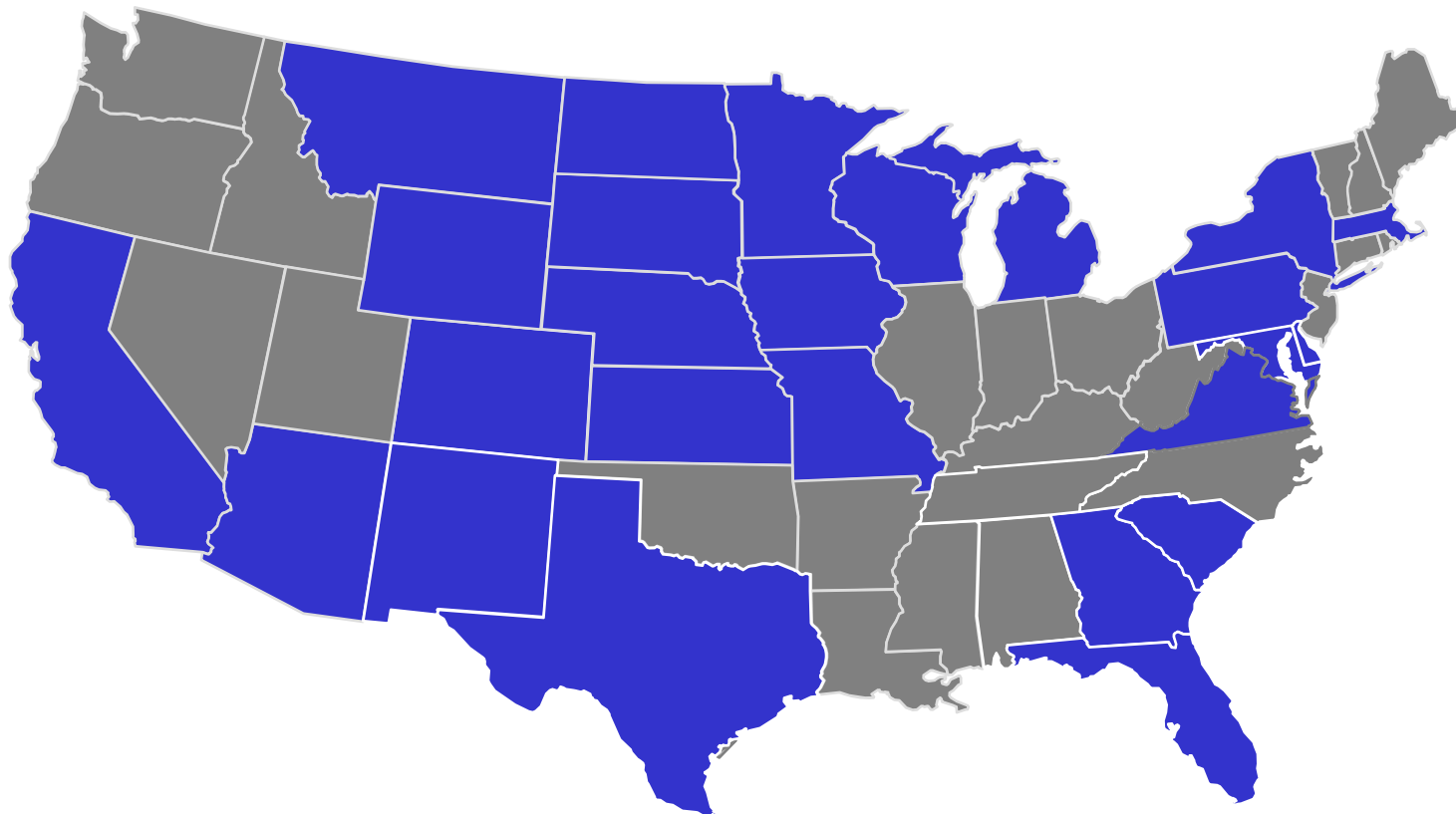


## Communications – Summary of Recent Projects

- **FTTP work for Verizon. Providing / Provided services in Virginia, Pennsylvania, Maryland, New York, Florida, California, and Texas. Providing MDU services in the Northeast and California. Performing FIOS drops in Pennsylvania.**
- **Qwest fiber to the node work in Minnesota, Colorado, New Mexico and Arizona.**
- **RUS FTTP projects. North Dakota, South Dakota, Kansas, Nebraska, Montana, Iowa, Minnesota, Wyoming, Iowa, Colorado, Michigan, Georgia, South Carolina and Wisconsin.**
- **Frontier FTTN projects in Minnesota. Complete turn-key builds.**
- **Federal work on telecommunications upgrades. Recent projects at Fort Riley, KS and currently at Aberdeen Proving Ground, MD.**
- **AT&T OSP / Cabinet work in Southeast, Texas, and Midwest.**



## FTTP/FTTN Projects by State

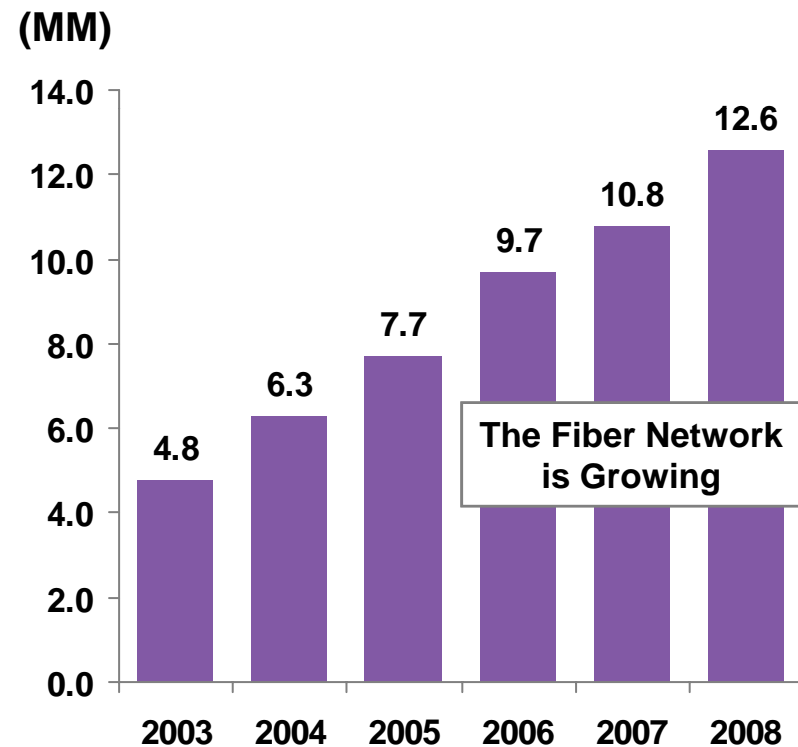


 MasTec FTTP Projects – Total footage placed  
41,935,235.



- **Verizon is aggressively deploying FTTP**
- **Other Large Telco's deploying various versions of fiber deployment**
- **Rural Telco Fiber Projects have grown during the past 2 years**
- **"Private" Networks – Schools, Hospitals, ect...**

### U.S. Fiber Miles Deployed





## Utilization of the Outsourced Contractor

- **Qualifications vs Price**
- **Value Added Services vs Price**
- **Involve the Contractor Early in the Process**
- **Award 100% of Project to one Contractor**
- **Partner Relationship vs Adversarial Relationship**
- **Communicate Specific Goals and Expectations**
- **Let the Contractor Work**

# MasTec

*MasTec connects cities and small towns coast  
to coast,*

*ensuring that voice, video and Internet  
services are reliably transmitted*

*across thousands of miles to the last mile.*

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DESIGN



BUILD



INSTALL



MAINTAIN