



Moving
Mobility
Forward



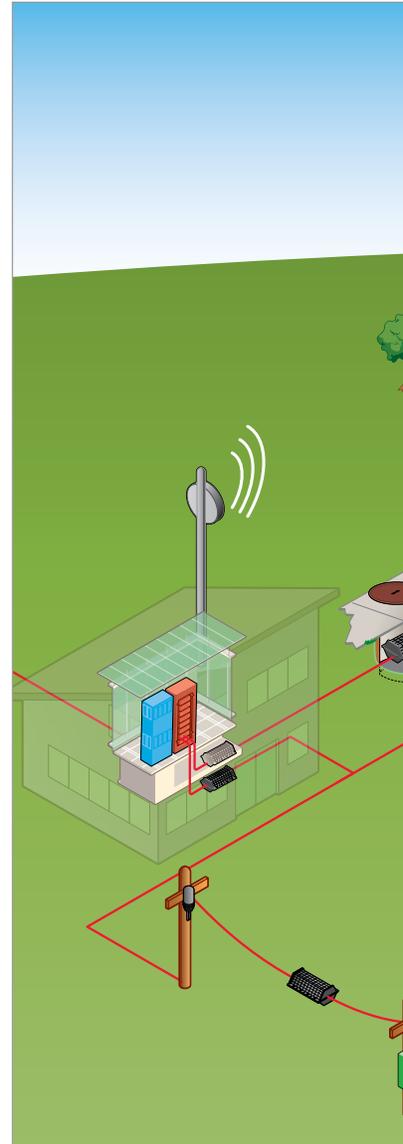
Building your future network

As wireless technologies evolve from 2G to 3G to 4G, they stress the coverage and capacity of service providers' infrastructure. And this trend will only continue as more consumers demand more wireless applications, requiring more bandwidth in more places.

It is estimated that mobile broadband subscribers will grow from 300 million in 2009 to over 2.5 billion in 2013.

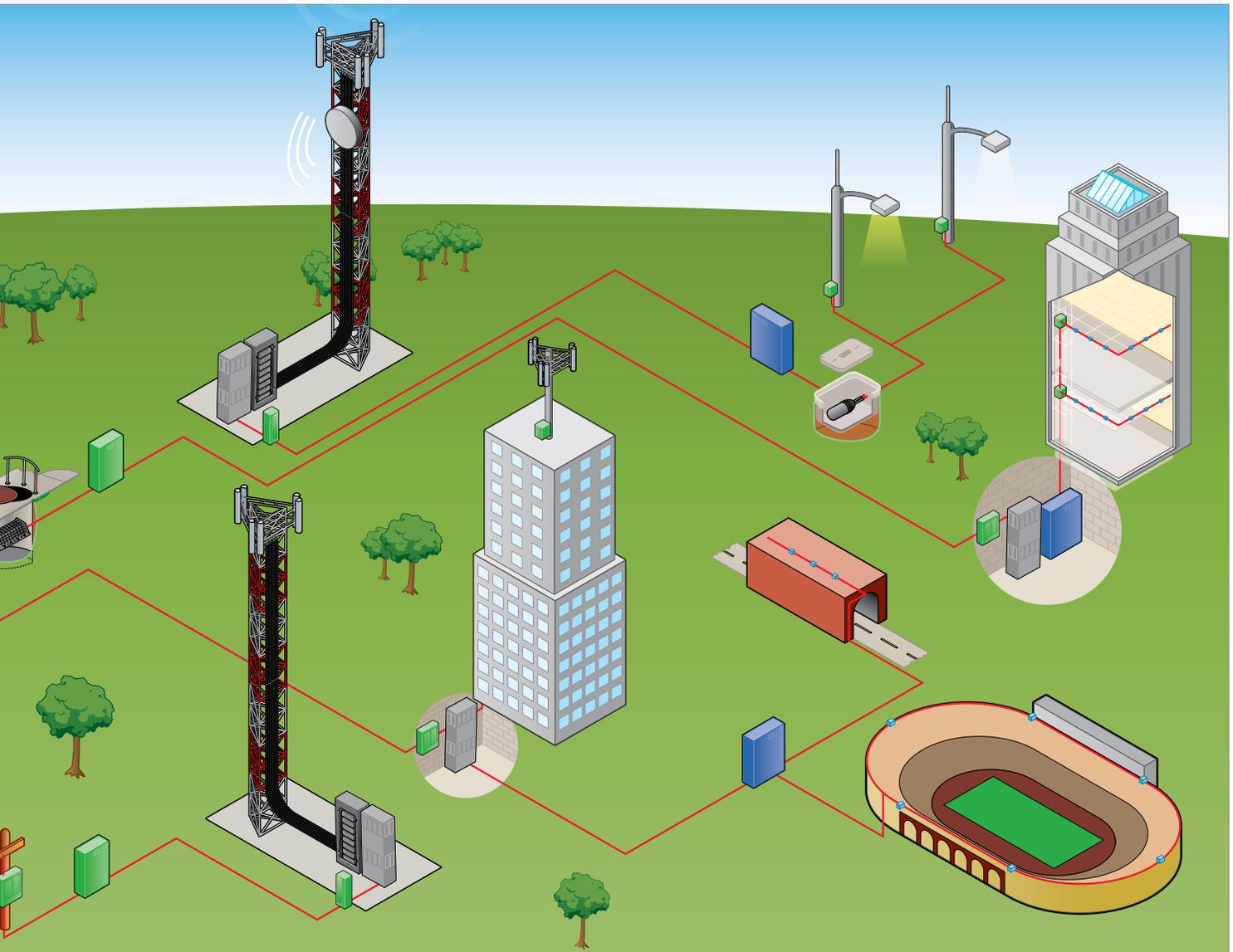
The 3M Wireless Network, with extensive expertise in connectivity, weatherproofing and proven innovation in fiber, can maximize your migration to 4G. Quickly, efficiently and intelligently.

From Mobile Switch to Wireless Backhaul to Cell Tower to Distributed Antenna Systems, 3M can deliver cost-effective solutions that both connect and protect your network. So you can deliver high performance mobility with signal integrity and durability for the long run.



The Connectivity Experts

For more than 100 years, 3M technology has been instrumental in the development of communications infrastructures. We have helped design, deploy and maintain the networks of today and are uniquely positioned to help deliver the networks of tomorrow.



Not just connection. Protection.

Of course, having an advanced wireless network means little if you can't keep it working. That's why 3M™ Wireless Network Solutions include not only leading edge connectivity, but also proven technology for protecting and weatherproofing your investment.

The 3M Way

Maximize performance. Minimize cost. Seek the most stringent and challenging requirements. While saving time through simple product design and ease of installation.

That's how businesses excel.

That's how communication networks succeed.

That's how the 3M Network works.

The Switch is on to Fiber

The Problem

In today's competitive wireless environments, time and space constraints present serious challenges to cellular operators and backhaul providers. Density, data transmission speeds and deployment costs demand high performance solutions that can be implemented quickly.

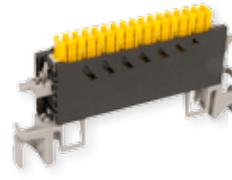
The Solution

3M™ Mobile Switching Center Solutions are designed to address capacity requirements of advanced networks with compact, efficient designs that are fast and easy to install.

3M's robust and extensive line of fiber and copper connectivity and management products delivers high performance, but is also craft friendly, which can help speed deployment and reduce labor costs.



Mobile Switch Solutions



3M™ Cat 5e and Cat. 6 Cross-Connects RCP 2000

- High density & high speed
- Shielding from EMI



3M™ Fiber Distribution System RFONG

- High density
- Ease of access
- Optical components integration



3M™ Fiber Optic Splice Closure 2178-FR

- Fire-retardant (UL listed)
- Sealed (Telcordia 771)
- Complete product family



3M™ Pigtails & Patchcords

- Excellent performance & reliability
- Wide range of connectors available
- Bend Insensitive Fiber (BIF) available



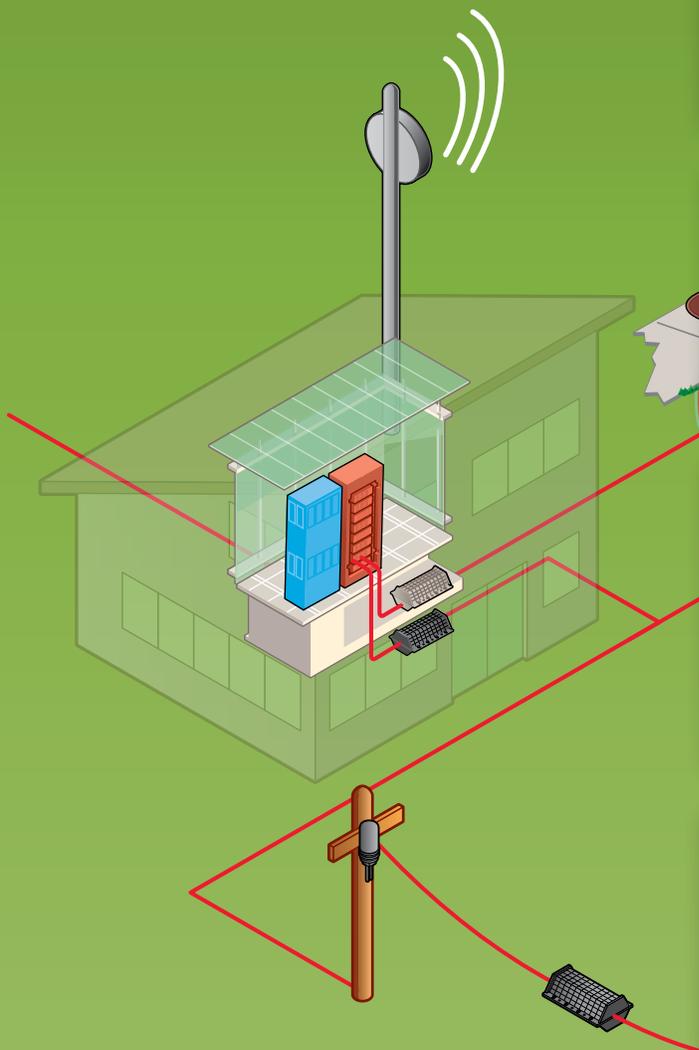
3M™ Closure 4-Type

- Fire-retardant
- Sealed



3M™ Cabinets

- Integrated cross connect
- Co-location cabinets
- Interconnect cabinets
- Rehab & Expansion Cabinets



On the front lines of Backhaul

The Problem

Typical 3G cell sites have 5-10 Mbps total backhaul capacity shared among multiple users. LTE/4G cell sites are assumed to require a *minimum* of 100 Mbps to meet the explosive demand for data-driven applications on smartphones, netbooks and digital tablets.

While copper is adequate for 2G and 3G cell sites in many situations, the future is fiber. It's easy to see why. A 4G site would require the equivalent of 70 T1 lines to achieve the necessary capacity.

Because of its capacity for growth and reliability, fiber is therefore the medium of choice for tomorrow's 4G networks. But what if you're not ready for a pure fiber play or you wish to maximize the performance of your current infrastructure investment?

The Solution

3M has the experience and expertise to deliver both fiber and copper solutions. 3M fiber connectivity, fiber closures and terminals, fiber distribution terminal boxes and cabinets are quick to install and reliable in quality, which may lower total cost of ownership for a higher return on investment.

3M™ Cross-Connect RCP Cat. 6 connectivity, protected by copper cabinets and closures, delivers high performance in a small footprint.



Wireless Backhaul Solutions

3M™ Fiber Closures and Terminals

- 3M™ Fiber Dome Closures, Terminal Closures & Terminals
- 3M™ Fiber Optic Splice Closures 2178
- 3M™ SLiC™ Aerial Closures
- Telcordia tested
- Available with CWDM Splitters



3M™ Fiber Distribution Terminals

- Outdoor-rated (NEMA 4)
- Lockable demarcation



3M™ Fiber Distribution Units

- Compact and durable
- Sliding rack mounts



3M™ Fiber Connectivity

- Fast, simple on-site installation
- Reliable optical and mechanical performance



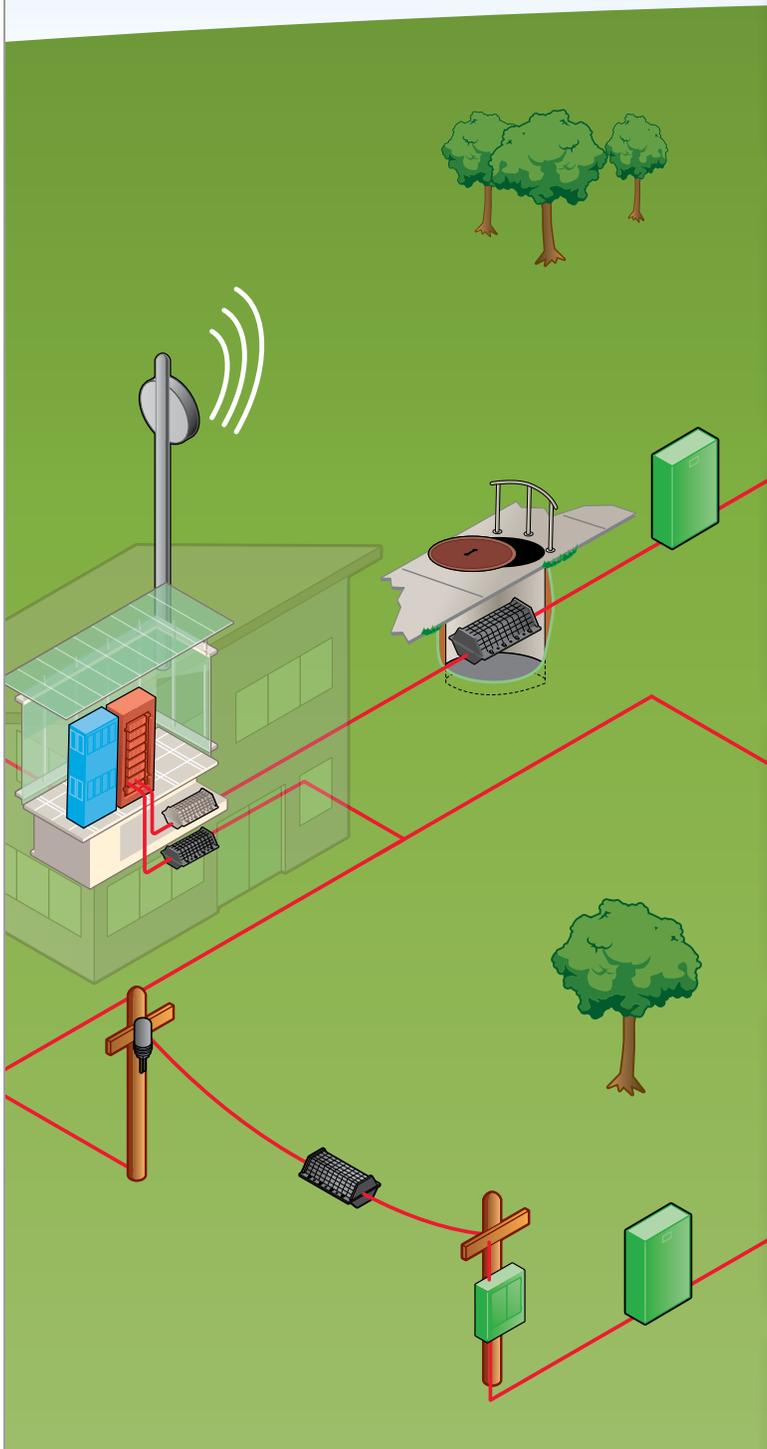
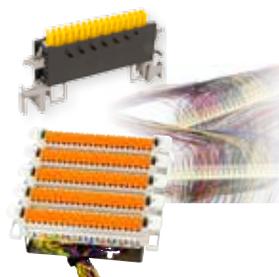
3M™ Pigtails & Patchcords

- Excellent performance & reliability
- Wide range of connectors available
- Bend Insensitive Fiber (BIF) available



3M™ Copper Connectivity

- 3M™ Cat. 5e and Cat. 6 Cross-Connects RCP 2000
- 3M™ MS²™ Splicing System
- 3M™ Quick Connect System (QCS) 2810
- 3M™ Self Strip Blocks 4320
- 3M™ Scotchlok™ Connectors



Next Generation Cabling Platform for Towers

The Problem

As carriers evolve their services toward 4G, their tower installations are also changing. Changing from ground based power amplifiers driving large coaxial cables to fiber fed, tower mounted Remote Radio Units. This transition is driven, in part, by the many more connections needed to support advanced antenna technologies such as Multiple-In-Multiple-Out (MIMO) and Remote Electrical Tilt. Meanwhile, weather related equipment issues continue to be the biggest problem for cell site maintenance teams.

The Solution

From the backhaul demarcation point through the Baseband Unit enclosure and up the tower to the Remote Radio Unit and antenna, 3M™ Weatherproofing and Cable Management Solutions ensure a robust and reliable installation every time. Trust 3M experience and innovation to deliver the best in connectivity and protection – be it fiber, copper, or coax.



Cell Tower Solutions

3M™ Fiber Distribution Terminals



- 3M™ Fiber Distribution Terminals
- 3M™ Sub-Compact Fiber Distribution Terminal PBPOC 6-12
- 3M™ Fiber Distribution Box PBO-T1
- 3M™ Sub-Compact Fiber Distribution Box PBPO 6-12

3M™ Cold Shrink



- Reliable seal against water
- Reduces installation time

3M™ Fiber Connectivity



- Fast, simple on-site installation
- Reliable optical and mechanical performance

3M™ Tower Top Enclosure



- Supports, protects, and routes copper and fiber FTTA feeds
- Robust metal enclosure serves as the junction for cable conduit feeds

3M™ Wireless Weatherproofing Kit



- Excellent environmental seal
- Seals a wide range of connection sizes

3M™ One Step Closures for Wireless



- One-handed installation
- Tool-less

We know DAS, the Closer the Better

The Problem

Distributed Antenna Systems (DAS) facilitate coverage and capacity in hard-to-zone or high traffic areas. They can also fill in or supplement coverage holes without significant infrastructure investment.

But with density, zoning and other real estate-related issues, the time required for installation and available space considerations warrant solutions that are flexible, adaptable and durable.

The Solution

You can count on the 3M Wireless Network for the high performance solutions needed for today's DAS installations. With 3M, flexibility is a given, making it easy to add connections as you go. In fact, 3M™ Fibrlok™ Splices, 3M™ No Polish Connectors and 3M™ Pigtails and Patch Cords are famous for their cost-effective connectivity.

The 3M™ Fiber Distribution Units and Fiber Terminal Boxes provide fiber management, while 3M™ Fiber Dome Terminals provide flexible terminations to accommodate growth. And like most 3M Wireless Network solutions, these too are among the easiest to install and maintain in the industry.



3M™ Fiber Closures and Terminals



- 3M™ Fiber Dome Closures, Terminal Closures & Terminals
- 3M™ Fiber Optic Splice Closures 2178
- 3M™ SLiC™ Aerial Closures
- Telcordia tested

3M™ Fiber Distribution Terminals



- 3M™ Fiber Distribution Terminals
- 3M™ Sub-Compact Fiber Distribution Terminal PBPOC 6-12
- 3M™ Fiber Distribution Box PBO-T1
- 3M™ Sub-Compact Fiber Distribution Box PBPO 6-12

3M™ Cable Transition Boxes



- 3M™ Sub-Compact Transition Terminal FTB-M
- 3M™ Mini Cable Transition Box BTI

3M™ Fiber Distribution System RFONG



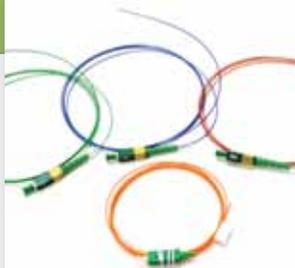
- High density
- Ease of access
- Optical components integration

3M™ Fiber Connectivity

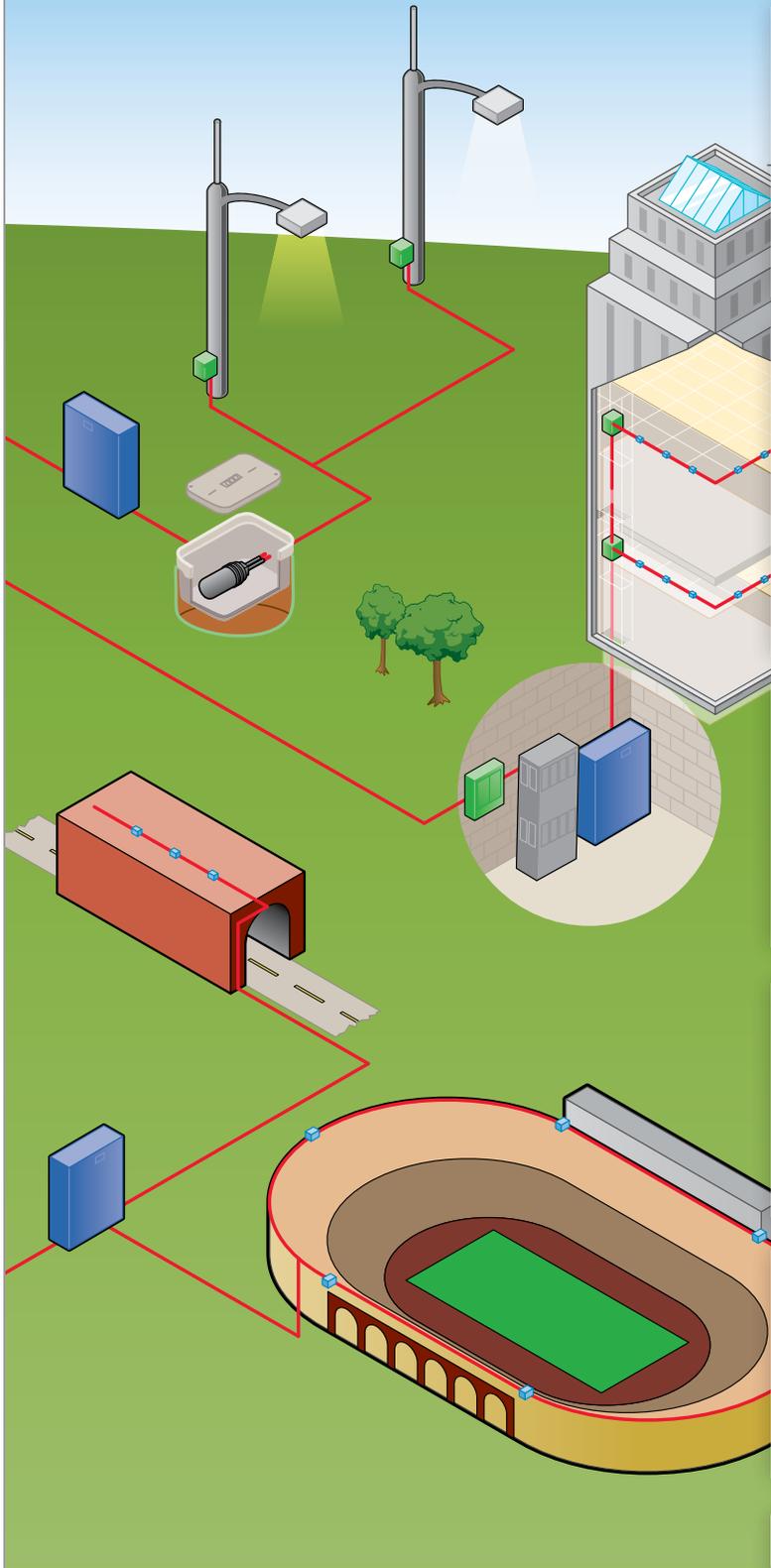


- Fast, simple on-site installation
- Reliable optical and mechanical performance

3M™ Pigtails & Patchcords



- Excellent performance & reliability
- Wide range of connectors available
- Bend Insensitive Fiber (BIF) available



The Network of Networks

When you choose 3M as your wireless network partner, you not only get proven products, you get more than six decades of network experience, expertise in design, development and implementation of next-gen technologies, the power of 45 technology platforms, training and support, worldwide manufacturing and a global supply chain.

That's why at 3M, you'll find our Wireless Network is connected to our Fiber Network, which is connected to our Copper Network. And all are connected to a network of people, training and technical support. They all work together and they are built around one goal: our customers.

To find out what our network can do for your network, visit 3M.com/Telecom or contact your local 3M representative.

Ad Adhesives	Am Advanced Materials	Bi Biotech							Rf Recloseable Fasteners
Ab Abrasives	Dd Drug Delivery						Mr Microreplication	Pe Predictive Engineering & Modeling	Rp Radiation Processing
Ac Acoustics	Dm Display Materials					Nt Nanotech	Nm Nonwoven Materials	Pm Polymer Melt Processing	Sm Specialty Materials
As Application Software	Do Dental & Orthodontic Materials	Fi Films	Fs Filtration, Separation, Purification	Ir Immune Response Modifiers	Md Medical Data Management	Mi Microbial Detection & Control	Pc Precision Coating	Po Porous Materials & Membranes	Su Surface Modification
Ce Ceramics	Ep Electronic Packaging	Fl Fluorinated Materials	Im Imaging	Is Integrated Systems Design	Me Metal Matrix Composites	Mo Molding	Pd Particle & Dispersion Processing	Pr Process Design & Control	Wo Wound Management
Cp Chemical Power Sources	Fc Flexible Converting & Packaging	Fo Fiber Optics	Ip Inks & Pigments	Lm Light Management			Pp Precision Processing	Tt Track & Trace	Vp Vacuum Processing

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