

Communication Markets Division

Cross-Connect Solutions for the OSP

Quick Connect System 2810

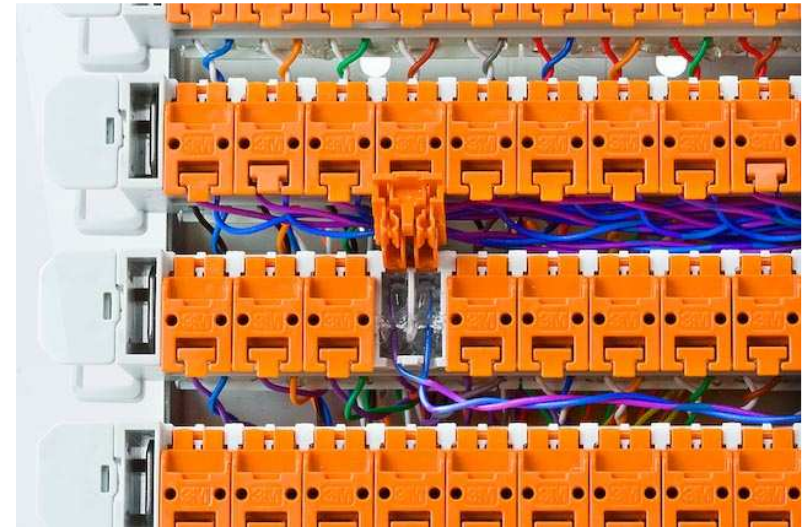


**Make the Most
of your Network**

3M

What's New???

Quick Connect System 2810

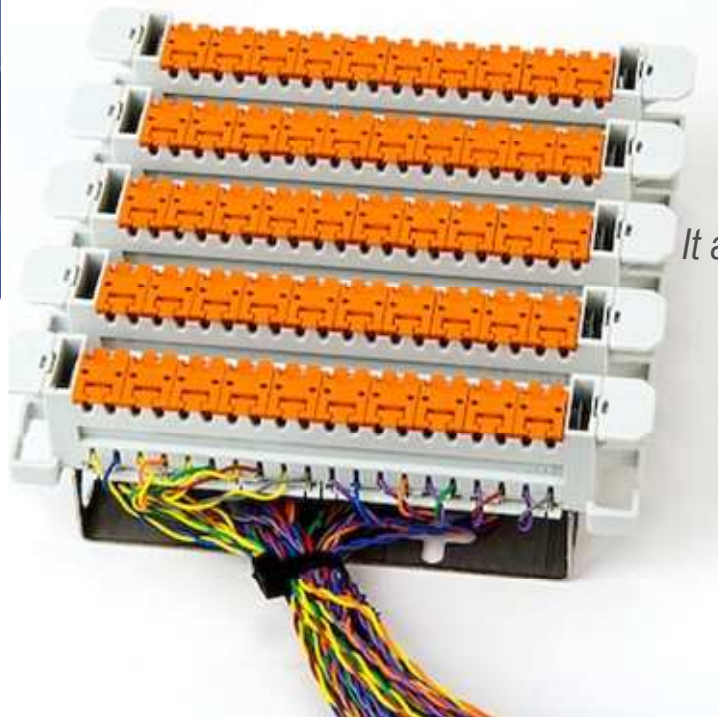


Gives confidence in the network connection

- *That it was done right the first time – **Productivity***
Intuitive, tool-less block, IDC – No Stripping
- *That it will maintain its excellent performance – **Reliability***
Environmentally sealed, performance tested, Designed to maintain twist
- *That it will be there as long as you are – **Longevity***
Rugged, Designed and tested to Telcordia

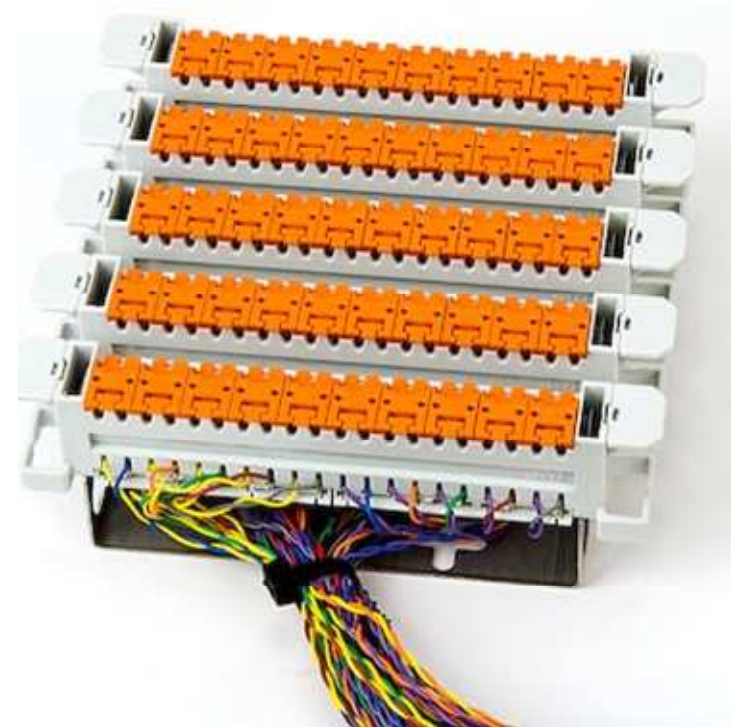
It also

- *Gives you room to grow applications on a connectivity platform*
Density, Protection, splitters



Objectives

- Why is 3M still investing in the Copper Network?
 - *Market Overview*
- What is the 2810 Quick Connect System?
 - *FABS*
- Where does it fit in the Network?
 - *Applications*
- How does it stand up to Industry Standards?
 - *Specifications*



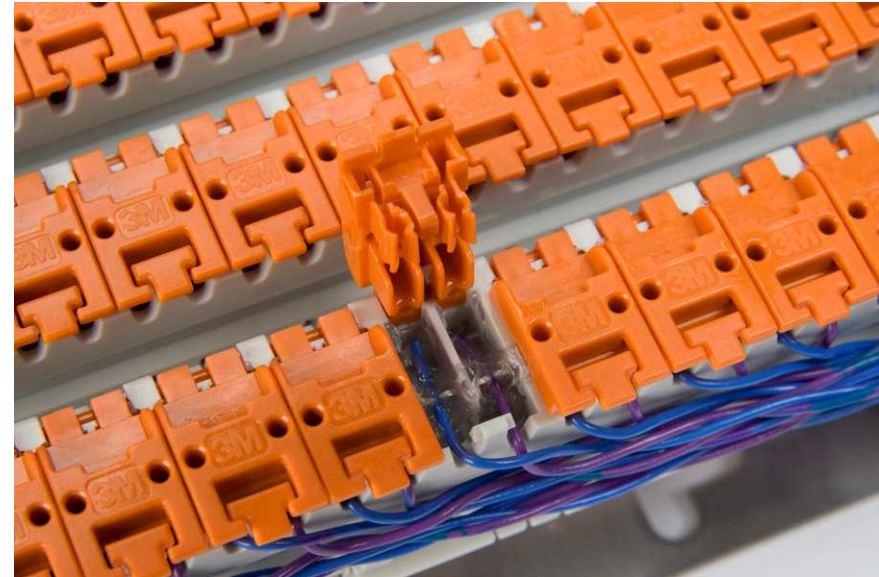
Why a new IDC Connector

- Copper connectivity is still alive !!!
 - *Copper infrastructure in the last mile is the cost effective, preferred delivery method for DSL/Broadband for the foreseeable future.*
 - *A reliable copper network is an important adjunct for fibre deployment*

- Strong Customer demand for toolless and gel protected IDC cable termination point to reduce connectivity costs
 - *Gel filled – high integrity connection for network reliability*
 - *VDSL2 / Cat 5 – high speed broadband data transmission capability*
 - *Tool-less – No tool expense – craft flexibility – always have the right tool!*
 - *Pair-at-a-time termination – craft productivity*
 - *Flexible platform – Pre-terminated & Field terminated versions*

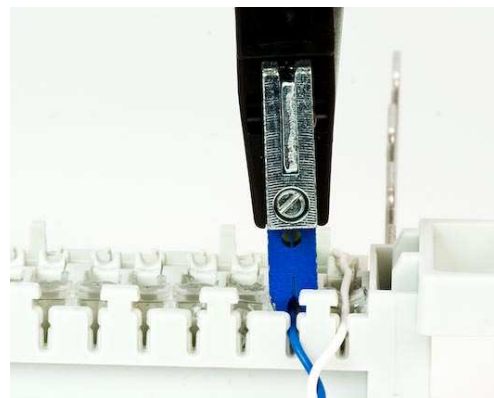
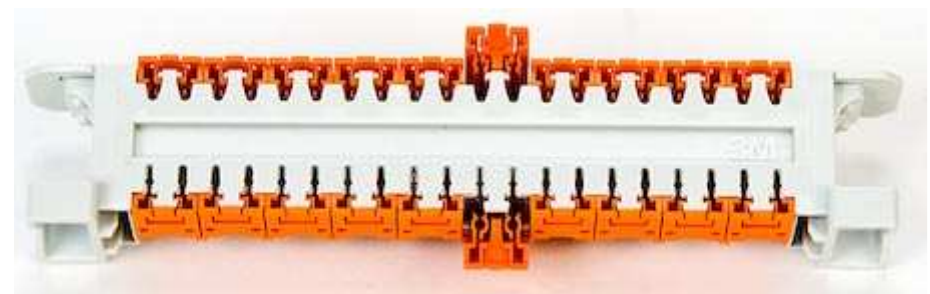
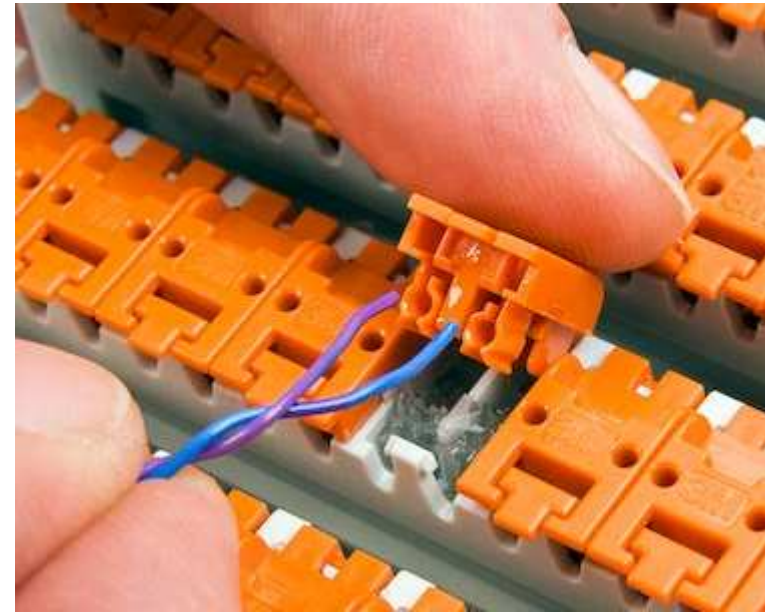
2810 Network Model

- Premises:
 - *First point-of-presence in a building*
 - *Demarcation of Network*
 - *1-2 connection points per subscriber*
- Drop Point
 - *BET/PET: Building Entrance Terminals*
 - *NIDs: Network Interface Devices*
 - *ONUs: Optical Network Units (PCB mount)*
 - *1-2 connection points per subscriber*
- Cable Terminals: Buried/Pedestal/Strand/DP mount
 - *1-2 connection points per subscriber*
- Cross-Connect Cabinets
 - *2 - 3 connection points per subscriber*
(some countries have 2:1)
- RT: Remote Terminals
 - *1-2 connection points per subscriber*
- CO: Central Offices
 - *2+ connection points per subscriber*

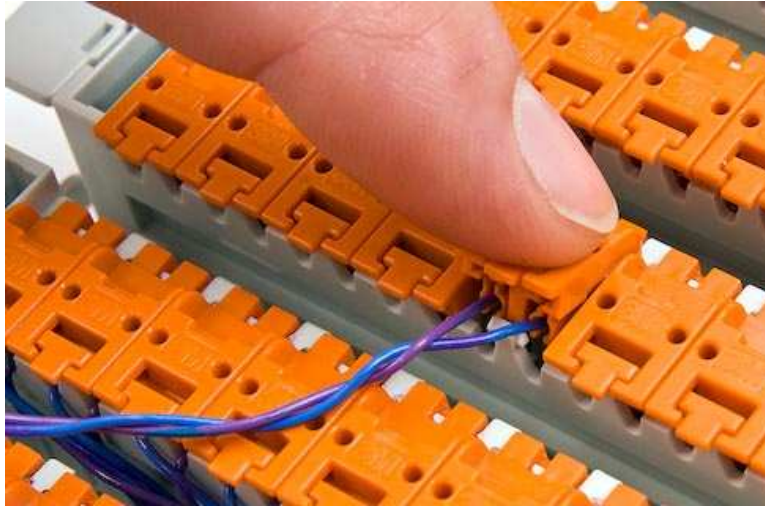


2810 Block Features

- ⊙ Tool-less Jumpering
- ⊙ Confident Connections
 - ⊙ Sealed: Gel filled and Hardened for the OSP Environment
 - ⊙ Easy-view jumpers
- ⊙ Easy to use
 - ⊙ Low actuation force
 - ⊙ Pair-at-a-time termination
- ⊙ Jumper / Cable sizes
 - ⊙ 22/24/26 AWG
 - ⊙ 0.65/0.5/0.45 mm
- ⊙ Modular Strip design
 - ⊙ 10-pair strip modularity
- ⊙ Back-mount frames – QSA/Krone frame compatible
 - ⊙ 22.5 mm pitch min
 - ⊙ 25 mm pitch standard
- ⊙ Feed Cable Termination
 - ⊙ Tool-less Field-Termination
 - ⊙ STG hand- tool for increased field productivity
 - ⊙ Pre-termination
- ⊙ Protection Capable
 - ⊙ 3 Point (OV)
 - ⊙ 5 Point (OV + OC)
- ⊙ Test probes
 - ⊙ Single Pair
 - ⊙ 10-pair/, 50-pair



FABS: Tool-less & Easy to use



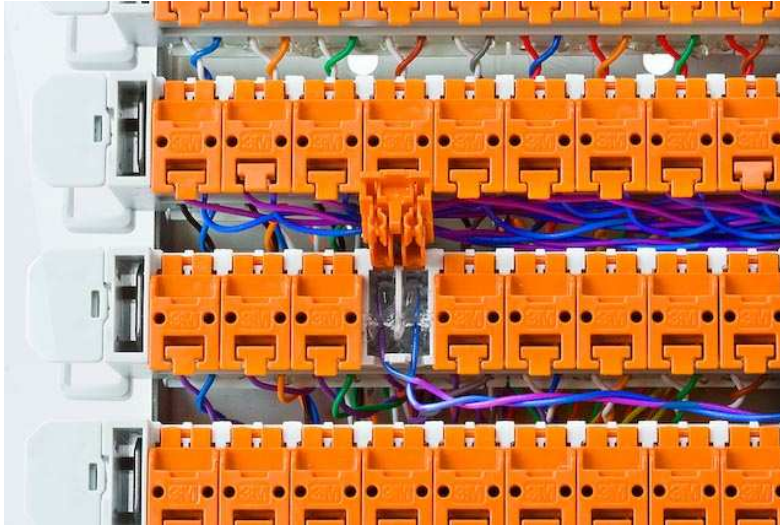
Features

- ◎ Tool free jumper wire termination
- ◎ Tool free jumper & cable option
- ◎ Pair at once termination
- ◎ Low operating force

Benefits

- Improved technician productivity with lower capital cost (no special tools for jumpering)
- Minimal technician training and overall lower skill level required
- Increased jumper re-termination speed improves technician productivity
- Improved ease of use and reduced number of poor connections and reworked joints

FABS: Confident Connections



Features

- ◎ Gel Filled
- ◎ Audible Click on actuation
- ◎ Cap opens without disturbing jumpers
- ◎ Jumper management
- ◎ VDSL2 Compatible
- ◎ Cat5e Compliant

Benefits

- High integrity connection for network reliability, especially in relation to long term broadband performance
- Visual verification that jumper wire is inserted correctly
- Audible feedback allows for ease of use and a positive connection
- Jumper management give a “clean front” appearance and easy access to jumpers
- Broadband performance assurance

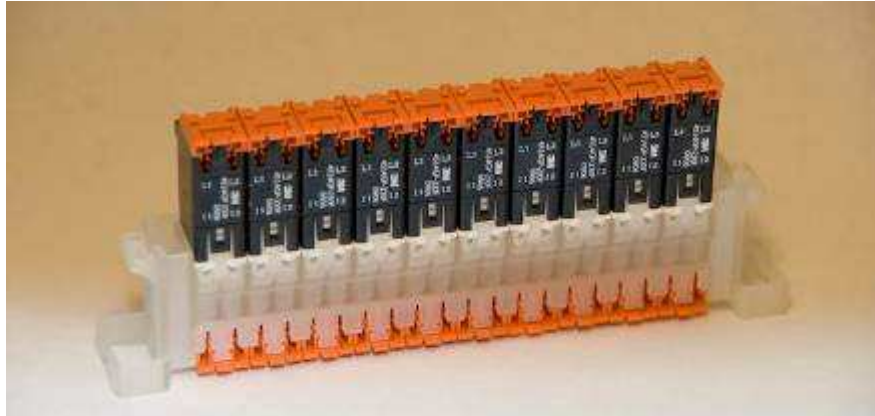


FABS: Plug'n Play Compatibility

Protection will be available soon

Features

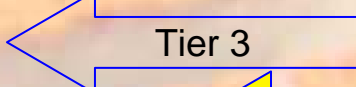

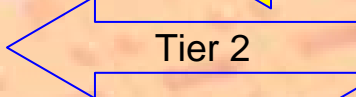

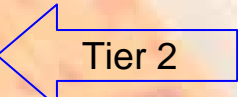


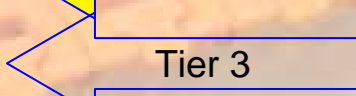
- ⊙ Integrated Protection – VDSL2
- ⊙ Platform for added functionality
- ⊙ Compatibility with existing frames
- ⊙ Compatibility with existing tools
- ⊙ Pre-termination options



Benefits

- Systems approach that allows for added functionality while maintaining connection technology by pair (Protection, Splitters, Test Access)
- Adaptable to the evolving network – on per pair basis
- Industry standard mounting allows compatibility with current frame styles
- Easy retrofit into existing cabinets
- Similar to established terminating practices

Applications will vary by country – What's your top priority?

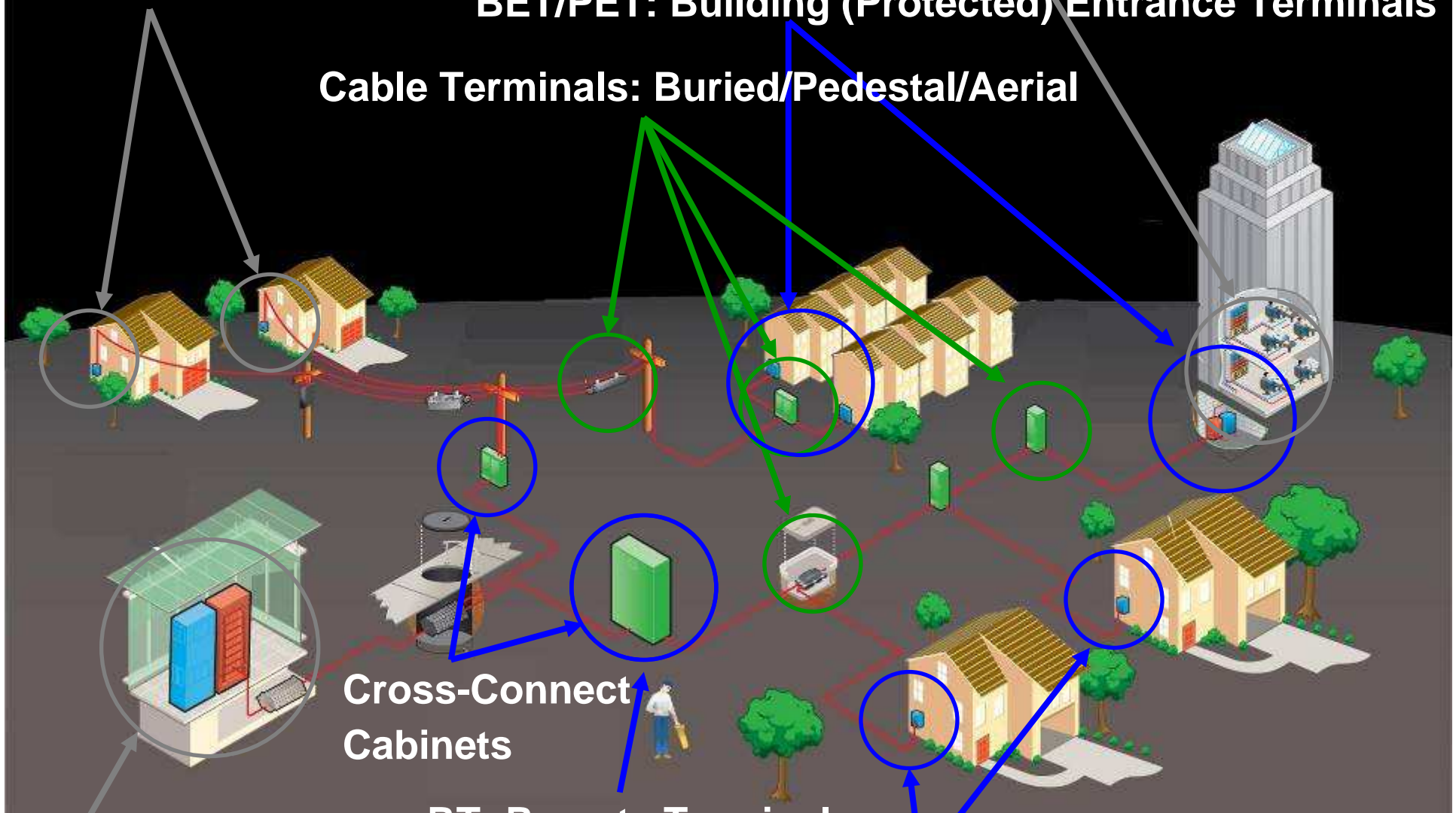
- Premises: First point-of-presence 
- **BET/PET: Building Entrance Terminal** 
- NIDs: Network Interface Devices 
- ONUs: Optical Network Units (PCB mount) 
- Cable Terminals: Buried/Pedestal/Strand/DP mount 
- **Cross-Connect Cabinets** 
- **RT: Remote Terminals** 
- CO: Central Offices 

ONUs: Optical Network Units
- OEM Sale

Premises: First point-of-presence

BET/PET: Building (Protected) Entrance Terminals

Cable Terminals: Buried/Pedestal/Aerial



CO: Central Offices

RT: Remote Terminals
- OEM

NIDs: Network Interface Devices **3M**

Preliminary Specifications

- ◎ Cable Sizes
 - ◎ Cable side 26 Ga, 24 Ga, 22 Ga
 - ◎ Jumper side 0.4mm, 0.5mm, 0.65mm
- ◎ Broadband
 - ◎ TIA/EIA 568B.2
 - ◎ CAT5e 100MHz
 - ◎ ITU G.933.2
 - ◎ VDSL2 30MHz
- ◎ Electrical Performance
 - ◎ Dielectric Strength > 3KV
 - ◎ High Voltage Surge > 3KV
 - ◎ Insulation Resistance > 100 MΩ
 - ◎ Reuse 250 terminations
- ◎ Materials
 - ◎ Polycarbonate
 - ◎ Phosphor Bronze & Lead free Tin

Industry Standards

- ◎ Telcordia TR-NWT-1195
IDC Block
- ◎ Telcordia TR-NWT-975
Terminal Block
- ◎ TIA/EIA 568B.2
CAT5e Performance
- ◎ UL 1863
Safety
- ◎ ITU G.933.2
VDSL2