TE's MDU Solutions

FTH MDU Presentation 3/23/15

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Topics Of Discussion

• Introductions
• MDU Overview
• Mini FDH (Fiber Distribution Hub)
• RDT (Rapid Distribution Terminals)
  • Mini and 24F terminals
• Rapid Fiber Faceplate
• TAC Fiber
• TE Connectivity Virtual Tour
• Wrap-Up & Questions

MDU Overview

• MDU – Multi Dwelling Unit
  – Town houses, low rise apartment buildings, high rise apartment buildings
  – Can range from a few to hundreds of living units
  – Older buildings – sometimes referred to as “Brownfield”
    • Not always provided with dedicated Telecom space (have to find space for equipment, pathways to living units)
  – Newer construction – sometimes referred to as “Greenfield”
    • Dedicated telecom space (closet’s on every floor, dedicated pathways to living units)
  – Every MDU deployment is different – develop solutions that are universal and can be deployed in multiple scenarios
  – Similar network design to OSP (FDH’s, terminals, drop cables)
  – ONT’s placed in living units – closets, desktop ONT’s, etc…
  – MDU can account for over 40% of target subscription base
Mini FDH – Fiber Distribution Hub

- Indoor / Outdoor cabinet – pole or wall mounted
- Miniaturized cabinet takes up less space (19"H x 13"W x 8"D)
- Supports from 12 to 72 distribution terminations
- Accommodates up to 4 splitters (1x16 1x32) – parking storage for 32 fibers
- Integrated splicing or MPO for Plug and Play deployment

Mini FDH – Fiber Distribution Hub

- Standard length splitter – used in OSP FDH’s
- Familiar Swing Frame routing
- Sliding adapter packs for easy access
- Supports up to 72 distribution terminations
- Can be used for Cross Connect applications
- Other sizes available (up to 432 terminations)
Mini FDH options

Splicing or MPO options on Feeder and Distribution

Mini FDH3000

TE MDU Solutions – RDT’s

Mini - RDT (Rapid Distribution Terminal)

- Compact size: 7.75”h x 5.5”w x 2.25”d
- Up to 100 Feet of built-in Slack storage – longer lengths available on external spool
- Plenum or Indoor / Outdoor cable
- Uses RapidReel technology
- Plug & play MPO stub connections (no splicing)
- 4-port to 12-port compatible
- Security screw
- Two cable exit locations (left and down sides)
24F RDT (Rapid Distribution Terminal)

- Provides flexibility in deployment with various size terminals, cable types and standard cable lengths
- Reduces overall lead-time and installation process
- Miniaturized cable requires less space for slack storage of excess fiber cable
- RapidReel technology allows for easy payoff of MPO stub
- Patented break-away spool flanges reduce slack storage size to within the enclosures footprint
- Designed for indoor use
- Utilizes Reduced Bend Radius Fiber
- Designed to meet NEMA-12 requirements

TE MDU Solutions – Rapid Face Plates

Rapid Face Plate

TE Connectivity’s Rapid Face Plate (RFP) is designed to provide a pre-terminated customer connect solution and integrated cable storage facility within a very elegant and unobtrusive housing to suit today’s FTTH requirements.

- Pre-terminated RFP solution offers the following advantage over traditional technology:
  - Removes the need for splicing / field terminations within the customers premises
  - Reduces installation time and cost
- When utilised with TE’s Rapid MDU Solution set offers a full end to end plug and play solution
- Allows for the exact length of cable to be extracted from the unit removing the need for additional cable slack storage solutions
- Provides Low loss optical connectors (factory terminated)
- Reduces the amount of inventory line items required to deploy customer connections
Wall Outlets

Rapid Fiber Faceplate

Rapid Reel, 30 m and 60 m
Connector – SC, APC/UPC
Cable color: White, 1 Fiber.
Size: 3.0” x 4.5” – depth depends –
Cavity vs surface mount

Simplifying Installation – Shrinking size

Small Diameter Cable
• Smallest diameter cable on the market
• Reduces visual footprint
  – Increases installation options
• Enables rapid real fiber concept to be used in
  more consumer facing applications

Rapid Wall Plate
• Using the innovative 1.2mm cable
• Simplifies and speeds installation on
  customer premise
• Eliminates stock of multiple cables or
  field termination to quickly install indoor
  ONT’s

TE MDU Solutions – TAC Fiber
**What is TAC Fiber?**

- Thermal Adhesive Coated (TAC) Fiber
  - Fast, flexible, and nearly invisible installation of fiber cable within a home or business
  - Installs on most indoor surfaces – around baseboards, windows, and trim
  - Clear (or white) 900 micron fiber micro-cable with integrated adhesive
  - Lightweight, portable, handheld installation tool provides easy, fast, and no-mess cable installation
  - TAC Fiber cable can be field spliced or terminated to connect the end-user to the fiber network

**TAC Fiber Application – In Home**

- **Today’s Common Cable Installation**
- **Nearly Invisible Fiber Cable Installation With TAC Fiber**

**TAC Fiber Demonstration Video**

- TE Connectivity TAC Fiber System Video Link:
  [https://www.youtube.com/watch?v=BYB6SpkFTE](https://www.youtube.com/watch?v=BYB6SpkFTE)
**TAC Fiber Construction & Spools**

- 250 micron reduced bend radius fiber
- 900 micron diameter clear micro-cable jacketing
- ~1.2mm diameter adhesive coating

Comes in 300', 500', and 1000' spools

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**TAC Fiber Hand Tool Kit**

- Ergonomic hand tool with soft rubber over-mold
- Removable tip & sleeve
  - Easy and fast release of fiber from tip
  - Plastic handle makes it safe to remove heated sleeve
- Uses four AA batteries
  - Alkaline (disposable or rechargeable) OR Lithium batteries

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**Radius Limiters Provide Bend Radius Protection**

- Simple design
  - Two types:
    - "Full" corner radius limiter
    - "Half corner radius limiter"
  - Peel and stick backing
  - Maintains 5mm fiber cable bend radius
- Almost invisible
  - Small size and clear material
- Strong adhesion to all surfaces
  - Tape is proven in other TE Solutions