

Case Study

Liquid Telecom - A Kenya Success

Location: Kenya

Date: July 2018

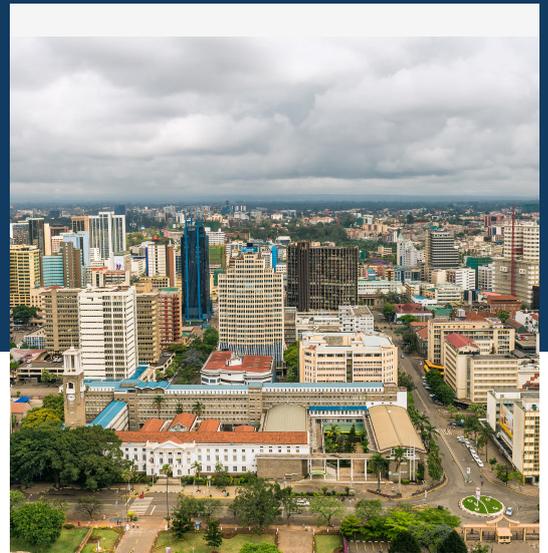
Hand-pushable Fiber to the Home Multi-dwelling Unit Solution

Background

Liquid Telecom has built Africa's largest independent fiber network, which runs from the north of Uganda to Cape Town, covering Africa's fastest-growing economies, where no fixed network has ever existed before.

The network currently spans over 50,000 km across borders and includes The East Africa Fiber Ring, and the first regional fiber ring on the continent and operates throughout Botswana, DRC, Kenya, Lesotho, Mauritius, Rwanda, South Africa, Uganda, Zambia, Zimbabwe and in the UK under a number of different wholesale, enterprise and retail brands.

Liquid Telecom's ground-breaking work was recognized at Capacity Magazine's Annual Telecoms Industry Awards when they were named Best African Wholesale Carrier six years in a row. They have also gained recognition at the AfricaCom Awards, SatCom Stars Awards and the Global Telecom Business awards.



Products Used

- ✓ Miniflex®
- ✓ 2-fiber cable
- ✓ QuikPush®
- ✓ 5 & 8 mm microduct

Synopsis

Pre-terminated 2-Core Miniflex in white with pre-terminated QuikPush and SC/UPC for fiber to the home (FTTH) multi-dwelling unit (MDU) installation, removing the need for skilled engineers with installation equipment.

Run Lengths

MDU 10, 15, 20, 25, 30 & 35 m
assemblies FTTH run lengths up to 300 m



Pushable pre-terminated Miniflex fiber cable

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Benefits

- ✓ 5x faster deployment time
- ✓ 10x stronger fiber protection
- ✓ Removal of installation equipment
- ✓ Lower capex than traditional installations
- ✓ Completely compatible products

Scenario

Liquid Telecom has standardized on using Miniflex® 2-fiber cable for all its FTTH connections, via the combination of air blown and/or hand pushed installation methodology when going from the manhole into the customer premises.

The Miniflex fiber optic cable has enabled Liquid Telecom to increase the number of daily installations due to the unique properties of the cable and the ability to de-skill the installation teams.

However, with approximately 48% of the population of Nairobi living in multi-dwelling units (MDU), Liquid Telecom was faced with the headache of how to cost-effectively connect not only the building but the paying customers in a timely and efficient manner, while maintaining the highest quality installations.

The initial project involved connecting 2,500 apartments over a series of buildings in a gated community and the desire was to bring together a terminated plug and play cable solution, that de-skilled the installation.

This led Liquid Telecom to invest in QuikPush® technology, combined with the existing Miniflex cable. QuikPush is uniquely designed to fit through existing conduits, without the need to blow or pull the fiber. The snap on SC connector is only applied once inside the customer premises, hereby removing any potential damage to the cable and completely removing the need for trained splicing engineers.

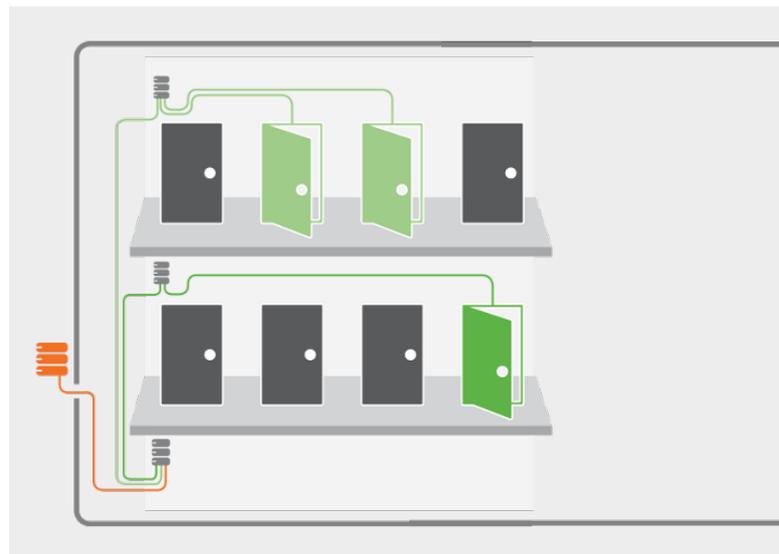
MDU Scope

Liquid Telecom was faced with a series of buildings, each three storeys high with existing but unpopulated electrical conduits in place. The distribution fiber had been delivered to the basement and into the 19 in rack frame active equipment.

“We realised that blowing fiber and then splicing in each room and at the fiber distribution box was simply not economical,” explains Keith Rowley, Group Chief of Infrastructure and Design at Liquid Telecom. “The average last-drop was only 25m and we only had a limited amount of time to make the project functional.”

The PPC Miniflex cable was pre-terminated with Quikpush SC one end going to SC at the other end. Pre-terminated lengths ranging from 10m to 35m were supplied on handheld cardboard reels.

“By issuing PPC methodology, Liquid Telecom had effectively removed the need for any field termination and/or splicing, hereby deskilling the installation teams, taking away the requirement for expensive and timely installation equipment and empowering the installers with a horizontal, pushable, plug and play FTTH design,” concludes Rowley.



Typical installation configuration supporting basement, floor and customer plug-and-play units

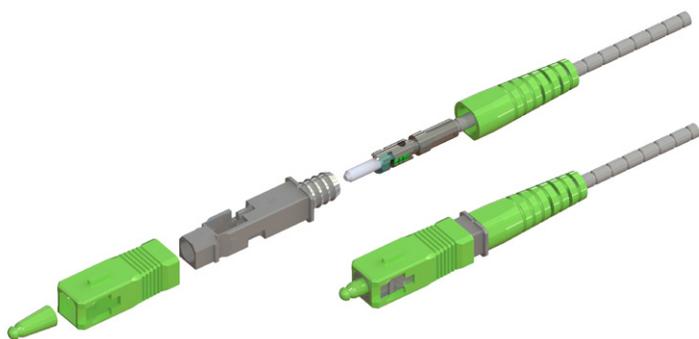
Hand pushable horizontal FTTH installations

A unique benefit of the patented Miniflex cable is its ability to be pushed by hand - for example, when selecting the traditional 5 & 8 mm microducts Miniflex can be pushed by hand up to a distance of 150 m (492 ft). This transforms the installation method and empowers the teams to improved performance where they can dramatically reduce the time required onsite, while freeing up more valuable equipment to complete the longer installations.

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Miniflex fiber cable with flexible, durable grooved jacket



Patented QuikPush cable assembly removes the need for specialist field fiber engineers

“When Miniflex® is combined with QuikPush® you finally have a solution that is strong, flexible and gives you the highest performance of any preterminated solution on the market today,” says Simon Roberts, Sales Director for Africa and the Middle East. “We specifically designed QuikPush for FTTH application and it’s great to see this technology now transforming the installation landscape in Liquid Telecom.”

Driving Return on Investment

Miniflex fiber cable has been designed and tailored to specifically meet the demands faced by installers when deploying FTTH customer connections - namely how to quickly and efficiently get fiber into the customer premises without sacrificing quality and network longevity. Miniflex fiber cable delivers a true outdoor/indoor performance through its UV stable white cable solution which gives a clean customer finish.

“Through our range of slack management OLT’s and FDN’s, PPC was able to deliver an end to end plug-and-play solution to Liquid Telecom that removed the field splicing and expensive installation equipment and procedures, yet also overcame the slack management constraint when lead lengths exceeded the desired route,” says Roberts, “with less than an hour’s training, the Liquid installers were able to push our Miniflex cable up to 150 m (492 ft) through existing 5 & 8 mm microducts, snap on a pre-terminated SC connector and when needed, manage slack cable at either the customer or floor level units.”

Liquid Telecom is Africa’s flagship FTTH network that is benefitting from the latest cutting edge innovation of next generation fiber optic cable, combined with the world’s leading plug and play technology. This will see data speeds in excess of 100Mbps to each home and give Liquid Telecom the first-to-market edge that supports the adoption of high quality materials that carry a 25-year performance certificate.

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