

Carrier Networks Newsletter

CORNING

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Access All Areas

More lessons from cable as operators ride the mobility wave

As explored in the last edition of Access All Areas, cable TV operators' understanding of the real-estate business model makes them the natural adopter of FTTH services using RFoG technology. How times have changed from the arguments of coax vs. optical vs. twisted pair in last mile economics.

Many cable TV operators have proven themselves to be fast-moving innovators, in spite of their size, and capable of responding to and anticipating market change. Those that embraced mobile services have benefitted both from exploding user demand and from changes in subscriber behaviour that have made "mobile" users more "fixed" in their Internet habits. Also, particularly in the United States, cable operators have successfully used service innovation to head off the threat of "wireless substitution," where subscribers undermine revenues by cancelling fixed-line services in favour of a single wireless contract with a cellular provider.



Today the fortunes of all fixed-line and mobile subscriber services are now so closely tied that it seems foolish to think of them as competing against each other. Fibre loves mobile, and mobile simply can't exist without the backhaul power of an optical network. These are key themes in the 2014 FTTH Council Europe Conference in Stockholm coming up this February, where Corning will again be playing a prominent role.

The growth in demand for fibre to the everywhere is being driven by many converging factors from new high-bandwidth applications and services from the cloud, from the network innovation of cable TV operators, and from the unquenchable data thirst of smartphone and tablet users. Corning is perfectly positioned to support them all.

Connected Continents

Fibre news snippets from across EMEA

AZERBAIJAN

A 2-year project to develop broadband Internet and introduce FTTH will begin in 2014, according to the ISOC Azerbaijan. By 2017 fibre optic Internet access is expected to cover 60 percent of the country's Internet market.

LITHUANIA

According to the Lithuanian incumbent TEO, it now has more fibre optic Internet users than DSL, with the operator predicting that FTTH will be used by over 300,000 of its subscribers in the next five to seven years.

SPAIN

With broadband connections surpassing the 12m mark for the first time, Spain's telecom market is showing further signs of growth. The new FTTH infrastructures have increased by 88 percent compared to 2012, representing more than 500,000 lines.

NAMIBIA

Currently serving more than 145,000 customers, Telecom Namibia is in the process of introducing FTTH and FTTB to its network. The operator aims to provide fibre- and copper-based access solutions to 150,000 lines in the next three years.

NIGERIA

The Nigerian government wants 20 percent of its population to have broadband access by 2018, compared to its current four percent. The National Broadband Plan aims to improve Internet speed and reliability in order to boost economic growth and social development.

RUSSIA

Russia saw a huge 42 percent increase in FTTH connections in the second half of 2012. The adoption of FTTH connections in Europe continues to grow apace, with Russia emerging as the region's clear leader, according to figures from the FTTH Council Europe.

IRAQ

The most exciting prospect for Iraq is the current deployment of FTTH networks with total connections equating to over 50 percent of households. Such widespread access to fast broadband networks will enable users to easily access the Internet and support Iraq's promising digital economy.

Product News



OptiSheath™ UCAO Multifibre Closure Launched

The OptiSheath UCAO multifibre closure is designed for use in outside plant access networks. It provides sealed environmental protection and fast, easy incremental connection of subscriber drop cables. It can serve as a splice point where higher-fibre-count distribution cables are branched to lower-fibre-count cables or to the stub cables of multipoint closures. Optical splitters can be housed inside the closure.

A range of features, including the ability to deploy the closure in underground chambers, wall mounted on

buildings, direct buried or aurally on poles or messenger wires; multi fibre OptiTip® ports located at both ends of the closure body to achieve individual customer connections; multiple fibres per port reducing the total number of splice closures required in the network, therefore decreasing CAPEX and OPEX budgets; splitter handling capability which can also be used as a distribution point; Multi Function Trays for fibre management inside the closure; and preloaded trays with optical splitters for additional splicing capacity, **all enable** maximum flexibility for the installer.

Universal Termination Tool

Corning's universal termination tool is used for connecting wires to insulation displacement contacts by pressing a wire into the IDC slot. The wire is stripped off, terminated and cut in just one step. The tool has two different heads with an alternating protective cover. One side works seamlessly with the distribution blocks from Corning's series 5000 and 1000RT, and the other side with a rotating head for TE LSA+ and 3M BRCP blocks.



The tool has a variety of integrated functions, including scissors, extraction hook, blade and mechanical stop to enable installers to complete the wire connection in the quickest time possible.

Focus On...

Centrix™ Platform



Any fibre management system (FMS) worth its weight in gold will follow the golden rules of proper fibre management: fully accessible, excellent bend-radius control and compact design. However, an excellent FMS will also have the ability to be deployed in multiple applications and provide optimised routing paths for jumpers.

The Centrix™ platform is a high-density FMS that provides a balance of industry-leading density with innovative jumper routing. It can be deployed in multiple applications including central office, headend, FTTx, FTTCs and a data centre, and supports up to 4,320 LC or 2,880 SC connector ports per standard 7-ft frame/2200mm.

The frame design provides optimised routing paths for

jumpers, reducing the risk of pileup or entanglement. At the heart of the platform is a single, modular cassette that can be tailored to include a variety of optical devices (splitter, WDM), providing flexibility and functionality within a single frame without sacrificing density. Each cassette contains up to either 24 SC or 36 LC connector adapters, and a 4U housing holds 12 cassettes. Easy port access is possible due to a sliding cassette with drop-down handle.

The Centrix platform is available with both rear or front cable access. Front cable access allows back-to-back frame configurations or mounting against a wall. Both frame configurations save space through increased port density.

Three-Minute Interview

The extraordinary growth in mobility and increased user reliance upon cellular networks and other wireless access has stolen headlines and captured the public imagination for next-generation technology.



For this issue of the three-minute interview we ask Corning's Claude Echahamian, Vice President of Commercial Operations, why wired fibre optic networks are central to this evolution.

Q: Are fibre optic networks becoming less relevant in today's smart device driven world?

A: On the contrary; the seismic changes in Internet usage over the last five years have underlined the unique value of high-capacity, high-speed fixed infrastructure. In that time we've seen an explosion in the growth of tablet and smartphone usage. What's really interesting is that, despite the mobile nature of these devices, the behaviour of users has become more static; almost like a fixed-connection user. This trend is reflected in the demands we see from operators and the challenges they face in backhauling enormous volumes of data between their multitudes of access technology.

Q: So mobile users are dependent upon fixed infrastructure?

A: Yes. But it's always been that way; the majority of any mobile phone call or Wi-Fi app usage is conducted over a fixed network. What's fascinating about the latest research into usage is the concentration around a small number of access points. We see that often one user spends 40 percent of their data at a single cell site or Wi-Fi hotspot close to home, and another 40 percent at a single site close to work. That leaves less than 20 percent for more evenly spread "roaming" use.

Q: How well have operators coped with user demand and how has this affected the design of their networks?

A: All operators are facing up to this challenge, but they've been victims of a complete reversal in market dynamics. It used to be that new networks would be designed and built, and then new devices, services and business models follow organically.

Continued overleaf...

Upcoming Events

Find Corning at the following upcoming events:

18/02/2014 – 20/02/2014 **The FTTH Conference**

Stockholm, Sweden

Come and listen to Bill Burnham speaking around “The Converged Network: Synergies of FTTH and Mobile Access Networks” on 19/02/2014. Additionally, the Corning team will be available for meetings on Booth G15. stockholm.ftthcouncil.eu

24/02/2014 – 27/02/2014 **Mobile World Congress**

Barcelona, Spain

The Corning team and executives will be available at the MWC in Barcelona. Please refer to your commercial lead for details and to schedule a meeting.

Distributor Programme

Corning carrier networks exclusive distributor programme. Be a part of it - commit to the future.

Specifically designed to allow distributors to have closer co-operation with Corning, this exclusive programme allows companies to benefit by participating in regular training, developing joint sales plans and gaining the support of regional events.

Membership starts with a nomination by the Corning carrier sales and marketing team and the nomination will also determine the current membership position you will hold – platinum, gold, silver and partner levels are available!



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Each issue, we look behind the news reports to explore a new reality for the FTTH industry.

Taken from the Nebraska Citizen

High rolling online geeks Janet and Jacob Peterson are facing life out on the street after losing a legal battle with their own house.

The global phenomenon for so-called ‘smart homes’ was Janet and Jake’s impetus to make their 7-bed Omaha mansion into the cleverest home in the Mid-West. Little did they know, it would become smarter than both of them put together...

“All the trouble started when we had our Gigabit FTTH service connected, and ever since then the darn thing has been learning faster than a chimpanzee in a library,” admitted Janet. “Being taken to court and evicted by our own house was a devastating blow, but at least we got access rights to watch Netflix over Wi-Fi on alternate Thursdays.”

Thanks to the energy and innovation of players like Apple and Google, users have become equipped with technology that is dictating how and where network operators need to build capacity and flexibility in order to answer demand.

In other words, the shoe is now on the other foot! Operators are looking at their networks and finding capacity imbalances that they never expected – and we should all expect the picture to continue to change. It’s a difficult challenge that’s requiring them to move fast and leverage innovative technology in their fixed infrastructure.

Q: So why is FTTH important?

A: Because nothing is more wired than a wireless connection! Think about it: the tablet user pushing traffic to a local Wi-Fi hotspot or to a 3G/4G cell site certainly requires a fast wireless interface, but the huge data he produces and consumes soon needs fibre transport. Studies show that wireless users actually have very “fixed” usage habits, and when you consider the concentrations of traffic and the sorts of speeds supported by new wireless standards – it soon makes an overwhelming case for a fibre highway to every conceivable node. Look at trends like “small cells” and the emergence of 4G and even 5G – everything points to the criticality of FTTH.

Q: What is Corning’s role as this development continues?

A: Market dynamics have put the user in control of how the network must evolve, so we realise that Corning cannot be complacent! How we adapt and remain relevant to solving the operators’ challenges will rely heavily on our enduring commitment to innovation, as well as our flexibility and collaborative approach with customers. It will be an exciting time, but one with real change developing as fixed and wireless operators in the European market continue to consolidate and rationalise in line with increasingly competitive market forces.