

THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

CORNING

Dear Reader,

An industry-wide push towards faster transmission speeds as cloud computing, the Internet of Things (IoT), and big data initiatives grow is providing new challenges, and exciting opportunities, for the data centre market.

[READ MORE »](#)



Industry Headlines

We've pulled together the biggest industry headlines for you:

- Microsoft taps into Africa with giant data centres
- ETSI announces the latest release of its Open Source MANO

[FIND ALL ARTICLES »](#)



What We've Been Up To

We've been making headlines this quarter!

- Verizon and Corning 5G agreement
- EDGE8™ named DCS award winner
- Announcing the 2017 Enterprise Channel Summit winners

[SEE ALL STORIES »](#)



Success Stories

Meeting capacity demands – collaboration is key

More than ever, customers must work with their cabling infrastructure provider to meet demands for uninterrupted user experience.

[READ ALL STORIES »](#)



Opinion/Interview

IoT is here – how can we meet this challenge?

In the age of IoT, digitalisation, and big data, Jochen Lorenz, Managing Director, Corning Optical Communications GmbH, explores demands on data centres.

[READ HIS FULL REVIEW »](#)



Solutions For Every Situation

HERD - Applying the advantages of CORD to the headend

Replacing hardware with software running on commodity servers, switches, and access devices is working for telco central offices – now for the headend.

[READ ALL ABOUT IT »](#)



Catch Corning on Events and Trainings

DC Forum Copenhagen, LANline Stuttgart, and more!

Want to know where you can meet with us at upcoming events or find out what new trainings we're offering?

[GO TO EVENTS & WEBINARS »](#)

THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

Intro/Overview Topic

Dear Reader,

An industry-wide push towards faster transmission speeds as cloud computing, the Internet of Things (IoT), and big data initiatives grow is providing new challenges, and exciting opportunities, for the data centre market.

With this in mind, we're excited to welcome you to the Q2 edition of the EMEA Enterprise Newsletter, which this quarter focuses on the converged network and the data centre.

Read on to find out more about the key equipment, systems, and approaches – including an investigation of the innovative concept of headend re-architected as a data centre – that are enabling our customers to keep pace with the latest network demands and deliver projects faster than ever before.

And since we're striving to create the kind of newsletter you want to read, we'll be reaching out to you again soon with a short survey. We would greatly appreciate your time and input!

We hope you enjoy this edition and look forward to seeing you again next time.

Warm regards,

Your Corning Team

THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

Industry Headlines

Microsoft taps into Africa with giant data centres

Microsoft has recently announced plans to build [giant data centres](#) in the South African cities of Cape Town and Johannesburg by 2018. With this move, Microsoft hopes to be able to more efficiently deliver its Office 365 and cloud services, among others.

Growing economic development in Africa has spurred numerous investments in the region. In Uganda, for example, Facebook has already partnered with local telecom providers to install 500 miles of fibre optic cable in the country.

ETSI announces the latest release of its Open Source MANO

The ETSI Open Source MANO group (ETSI OSM) has [announced OSM Release TWO](#).

The standards body has highlighted that this new release of its management and orchestration (MANO) work will bring significant improvements in terms of interoperability, performance, stability, security, and resources footprint to meet operators' requirements for trials and upcoming RFX processes.

Massive underground data centre opened in Norway

The Lefdal Mine data centre, an underground facility with 120,000 square metres of available white space, has [officially opened](#). Located in western Norway in the Sogn og Fjordane region, the data centre consists of six underground levels divided into 75 separate chambers. The 1,300 m main access road is a spiral, providing access to each of the six underground levels. A main avenue on each level provides direct access to the 75 chambers located on each floor.

The unique location and design has resulted in what the company claims to be 'one of Europe's most cost-effective, secure, green, and flexible data centre facilities.'

Next evolution in IoT will be sentient tools and cognition or predictive computing

Analyst firm Frost & Sullivan has reported [that growth in the Internet of Things \(IoT\) market will accelerate in 2017](#) with the commercialisation of narrowband IoT (NB-IoT). This cellular communications technology uses licensed spectrum and offers a standardised, low power, wide area network (LPWAN) that can capture previously untapped segments of the market.

In Europe, IoT connections are set to exceed 9 billion by 2021. Dedicated venture funds for IoT development will help create an ecosystem that is conducive to the growth of startups in the region.

LinkedIn launches OpenFabric webscale standard effort

[LinkedIn has launched](#) a standards effort to support webscale data centres – highly standardized facilities which must be able to grow massively while still remaining responsive.

The proposed OpenFabric standard has emerged from the social media company's efforts to develop networks for its own needs. Now LinkedIn is sharing the protocols developed in its hyperscale architecture.

THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

What We've Been Up To

Verizon and Corning agreement expected to quicken 5G deployment

In April, Verizon announced a three-year minimum purchase agreement with Corning to provide fibre optic cable and associated hardware to enable critical coverage and capacity of their U.S.-based nationwide wireless broadband network. The agreement calls for Corning to sell up to 20 million kilometres of optical fibre to Verizon each year from 2018 through 2020, with a minimum purchase agreement of \$1.05 billion.

Verizon's reinvention of their network architecture is based around a next-generation fibre platform that will support all of the company's businesses. This new architecture is designed to improve 4G LTE coverage, deliver high-speed broadband to homes and businesses of all sizes, and speed the deployment of 5G. According to Verizon CEO Lowell McAdam, this fibre deal with Corning is "crucial to 5G."



EDGE8™ named Data Centre Cabling Product of the Year

Corning has claimed Data Centre Cabling Product of the Year for the fifth year running at the Datacentre Solutions Awards.

The award went to our EDGE8™ solution, which ensures data centres can be future-ready to support all network architectures and speeds from 1 through to 400G, on two and eight fibres with 100 percent fibre utilisation.

We are once again extremely proud and grateful for the tremendous support of Corning's customers, channels, and IT industry peers, which played a key role in Corning's success at the awards.

[See the full winner's list.](#)



Congratulations to our winners from the 2017 Corning Enterprise Channel Summit

From March 27-29, 2017, Barcelona hosted the Corning Enterprise Channel Summit for two days of conferences dedicated to innovative product updates, together with current and future technologies. The gala dinner and Distributor of the Year awards were the highlight of the event as it celebrated the achievements and ongoing support of Corning's distribution colleagues. To reward those who demonstrated outstanding performance over the past year, awards were given in four categories: marketing and promotional activities, revenue growth, project opportunities developed with or for Corning, and distributor of the year.

The winners are:

- 2016 Corning Distributor of the Year: MultiNet Communications FZE, UAE and Blue Helix, UK
- Project Opportunities: Anixter Sweden, Anixter Switzerland
- Revenue Growth: Compass, Italy
- Marketing and Promotional Activities: Datacor, Romania

So, once again, congratulations to our winners and thank you to all of our valued distributors! Find out more about our distributors in this [overview](#).



THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

Success Stories

Maximising the advantages of the MPO Connector

We are in the midst of a communications revolution, where data centre networks must work hard to keep pace with ever-increasing capacity demands. With so many options available for data centre technology, deciding which equipment, architectures, and systems to install can be overwhelming.

There isn't a one-size-fits-all solution. Data centre customers must speak with their cabling infrastructure providers to understand the options and how their specific requirements can be addressed.

Take transceiver choices for example. While the higher speeds provided by single-mode transceivers are attractive to system designers, multimode transceivers continue to be the cost-effective choice for shorter-reach data centre applications. When coupled with extended-reach multimode transceivers, multimode fibre can achieve even longer distances.

For network architecture, large cloud data centres are increasingly using the spine-and-leaf structure to address big data challenges. This mainly consists of two parts – a spine switching layer and leaf switching layer. Since each leaf switch is required to connect each spine switch, the quantity of cabling can be a challenge. However, the latest in mesh interconnection module technology provides a neat solution. When utilised correctly to achieve a full fabric mesh of the spine-and-leaf network, the current 40G network is supported, and also allows a seamless transition to future 100G network capabilities.

[Contact Corning](#) to discuss your requirements.



THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

Opinion/Interview

Internet of Things (IoT) is here – how can we meet this challenge?

Digitalisation, and its impact on all areas of our lives, was a key theme at the recent CeBIT conference in Hanover.

This runs concurrent with trends for increasing storage capacity, big data initiatives, and more connected devices. Internet-of-Things (IoT) initiatives are also pressuring managers of enterprise data centres, who require infrastructure that is easily installed and reconfigurable with minimum effort and disruption.

For Corning, density is one means of addressing this. We are finding real diversity in the types of transceivers that switch, server, and storage makers use, and the optical transceiver roadmap guiding the industry to higher network data rates. With this corresponding need for increased fibre density, 3-tier switching architectures are evolving to 2-tier, in line with software-defined networking.

Future-ready data centre managers will consider the longevity of their cabling when migrating to higher speeds, whether it's 40 Gigabit Ethernet today or 100 Gigabit Ethernet and beyond tomorrow. Structured cabling must provide a modular upgrade path, leaving the existing hardware and trunk cables in place. This will avoid major additional cost and disruption.

With the advent of big data and IoT, data centres must remain ahead of the rising demand for applications, networking, server, and storage equipment. This will help them to achieve more agility and efficiency, and deliver their projects faster than before.

Discover [Corning's data centre solutions](#).



THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

Solutions for Every Situation

HERD - Applying the advantages of CORD to the headend

The concept of re-architecting a telco central office as a data centre (CORD) is built on sound logic. By moving away from purpose-built hardware and into the use of standard X86 servers in combination with flexible and agile software structures, telcos reap the benefits of scalability and rapid deployment of new and increased services.

Applying a CORD paradigm is a robust way to provide scalable advantages to multiplesystem operators (MSO), while maintaining optimised performance and managing cost outlay.

The headend is larger than the central office, in terms of systems deployed and connections, but in its effect as the major node in a network architecture, it stands to reap rewards from software-defined networking and network functions virtualisation benefits. So, the concept of re-architecture as a data centre can be applied effectively. Let's call the approach headend re-architected as a data centre (HERD).

In HERD, streamlining is achieved through moving control and data plane functions from the access network (network processing engine, final node, and primary node) to the headend, where servers and switches are located. In the case of MSOs, functions related to the international telecommunications specification DOCSIS will also be moved to a central headend location.

Adopting a HERD approach takes advantages of available software and hardware to allow for future-ready networking. Capacity demands and evolving MSO technologies will continue to add pressure to existing legacy networks, which need evolving solutions to suit.

The full article is available to registered SCTE members [here](#)



THE CORNING OPTICAL OBSERVER

Enterprise Newsletter for the Regions Europe, Middle East, and Africa

Catch Corning on Training and Events

Webinar

[Go To Webinar Webpage](#)

Events

DC Forum Copenhagen on September 21st

The Datacenter Forum series is designed to provide those working in the datacenter industry with the necessary tools, answers, and inspiration to make the right decisions in this fast-moving industry.

[Go To Website](#)

LANline Stuttgart on July 11th-12th

The LANline Tech forums for cabling, networks, and infrastructure are an integral part of the calendar for infrastructure experts in office, RZ, and building cabling.

[Overview Webpage of Tradeshow](#)

NCSI Series in July

NCSI - Ramstein AB/USAFE-AFAFRICA Tech Expo, July 17th-19th

NCSI - Patch Barracks/USEUCOM Tech Expo, July 24th-25th

NCSI - USAG Wiesbaden/Clay Kaserne Tech Expo, July 27th-28th

Series of events aimed at educating military members on emerging technology.

[Go to Tradeshow Webpage](#)

LANline Cologne 2017, Germany on September 19th-20th

The LANline Tech forums for cabling, networks, and infrastructure are an integral part of the calendar for infrastructure experts in office, RZ, and building cabling.

[Read More](#)

Data Centre Experience, Munich on September 21st

One of the leading conferences for technologies and trends in the datacentre industry gathering investors, operators, and professional planners.

[Data Centre Experience Webpage](#)



Corning Certified Trainings

Training update for Corning NPI members and customers. We would like to inform you about our next training sessions in the EMEA region. The mentioned dates will be held in English language. For more events and other languages, please visit the individual training page online.

July 26th in Berlin

NPI Certified Training

[LANscape Fundamentals Training](#)

July 27th in Berlin

NPI Refresher Training

[Corning Data Centre Training](#)

July 11th-12th in Stuttgart

August 8th-9th in London

NPI Refresher Training

[Corning Testing Professional](#)

E-Learning, training start at any time

NPI Refresher Training

[Corning NPI Refresher Training](#)