



Open-Access-Solution XGS-PON, G.fast & G.hn





Netceed is a global leader in distribution, logistics, technical engineering, and product design with over 30 years of expertise and performance supporting the telecommunications and broadband industry.

Netceed supplies and distributes a comprehensive range of passive and active equipment and tooling for network deployment, upgrades, and maintenance, supporting all technologies including FTTH, FTTx, HFC, Wi-Fi, 5G/mobile, and data center.

Netceed Germany
netceed.com



Netceed's comprehensive portfolio of 90,000+ products from nearly 1,500 industry-leading suppliers, along with their value-added supply chain solutions support carriers' seamless delivery of high-speed Internet, Video, Data, and Voice services to Residential, Business, and Mobile Users.

Netceed employs around 1,800 people across 19 countries and counting, and its experienced team works hard every day shaping the future of communication networks across the globe.

Open-Access-Solution

XGS-PON, G.fast & G.hn

Digital communication is constantly evolving – fiber-optic connections are now the foundation for fast and reliable data transmission. Our open access solution enables widespread deployment of XGS-PON fiber networks, regardless of in-building wiring.

This allows your users to benefit from high-speed internet that easily supports modern applications such as cloud gaming, smart home systems, and remote work. Our solution offers high bandwidth, low latency, and the freedom to choose between providers.



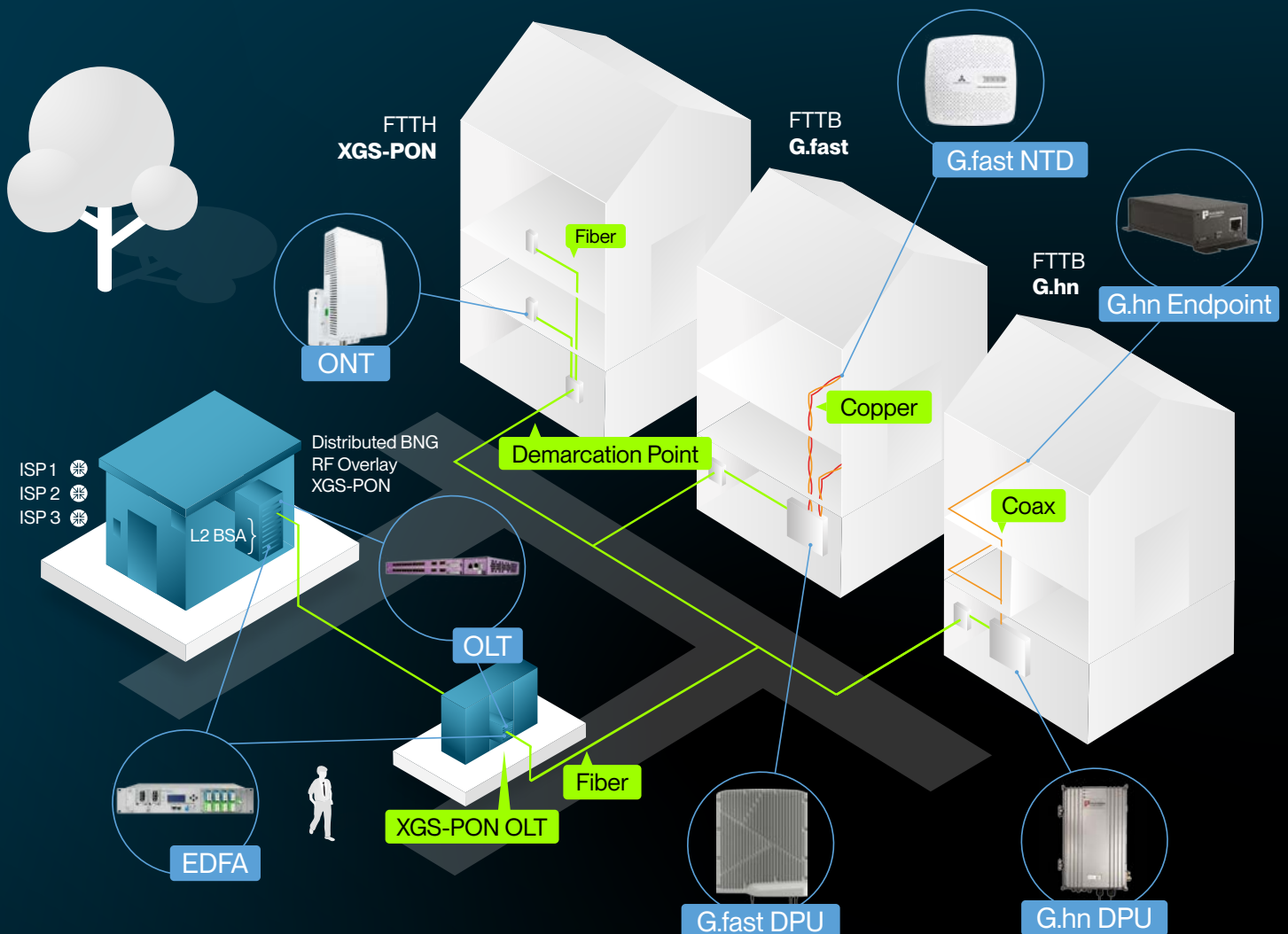
We are setting new standards in FTTH installation by combining software, hardware, and system integration into a future-proof concept for efficient broadband expansion.

Whether it's fiber (FTTH), coaxial, or twisted-pair cabling (FTTB via G.fast) – our technology delivers high-performance internet with maximum long-term reliability.

Our trusted partners



The Solution



Pro's of the Open-Access-Solution

Future-Proof thanks to XGS-PON

Relies on future-proof XGS-PON (FTTH) technology from day one - this means, for example, that expensive replacement of customer terminals (ONT, DPU) will not be necessary in the coming years.

Proven Solution

Utilises the advantages of a proven network management solution with the option of integration into an SDN layer or an SDN-based orchestration solution.

Easy to Upgrade

Easily add future PON technologies (e.g. 50G PON) just by adding a new line card into the OLT.

L2 Open Access

Supports both retail and wholesale (L2 Open Access) business models.

Growth up to 100 G

Enables dynamic growth of the network (e.g. PON ports, 100G uplink capacity) in the market.

Multi-gigabit connections for end customers, compliant with the TKG amendment

FTTH with XGS-PON

- Symmetrical multigigabit bandwidths for end customer needs
- Requires fibre to the home
- Passive optical distribution network to the home
- 10 Gbit/s symmetrical via XGS-PON interface
- Layer2-Bit Stream Access (L2-BSA) compatible open access
- Free choice of Internet service provider (ISP) for the end customer
- RF overlay enables basic TV supply via fibre optics

FTTB with G.fast

- 1.5 Gbit/s per modem, typically with 50 m two-wire
- No need to lay new cables in the building
- DPU reverse power fed
- DPU uplink with 10 Gbit/s symmetrical XGS-PON
- Layer2-Bit Stream Access (L2-BSA) compatible open access
- Free choice of Internet Service Provider (ISP) for the end customer

FTTB with G.hn over Coax

- 1.7 Gbit/s symmetrical per modem
- Favourable and sustainable use of existing coax networks in the building
- Reverse power or local AC 230V supply
- Uplink with 10 Gbit/s symmetrical
- Free choice of Internet service provider (ISP) for the end customer
- Frequency range 3.4 – 200 MHz, compatible with TV
- FM/TV frequencies can be masked so that they are not used by G.hn
- Up to 16 subscribers supported via splitter on one port
- GAM-4-CX-AC ideal for residential buildings with 4– 16 apartments

The biggest change is that demand and control now lie with the user. The participants have the authority to decide on content and applications. The network's task here is to keep pace regardless of bandwidth, latency times or quality requirements.

Experience the power of fiber with our Open Access Solution. Whether fiber is brought directly into your home or building, we offer three flexible last-mile connection options – via fiber, coaxial cable, or copper.

Using the latest technologies, we ensure fast, reliable, and scalable connectivity tailored to your needs.

Not sure which option is right for you? Our experts are here to guide you through the best solution for your location and requirements.

Connecting Products



E7-2 flexible indoor / outdoor OLT

Temperature-hardened, modular system for PoP and outdoor cabinets

- Two line cards per chassis supporting GPON / XGS-PON and Active Ethernet
- Support of up to 2048 subscribers within only 1 RU
- Integrated transport with up to 100G
- Non-blocking architecture
- **XG801 line card** providing 8 XGS-PON or GPON ports, 4 SFP+ slots for 10G up- or downlinks and 2 QSFP28 slots for 100G uplinks
- **XG1601 line card** providing 16 XGS-PON or GPON ports or 8 Multi-PON ports (GPON and XGS-PON), 2 SFP+ slots for 10G up- or downlinks and 2 QSFP28 slots for 100G uplinks



E9-2 High-Density OLT with integrated BNG

For PoP and data center installations

- Providing up to 32 XGS-PON ports within 2 RU
- Support of Layer 2 and Layer 3 access networks
- Layer 2/3 aggregation, VPN, routing, MPLS and BNG functions
- Subscriber Management and lawful intercept
- Several uplink options; Nx 200G, Nx 100G or Nx 10G
- Expandable with up to eight access shelves
- **Several Line Card options:**
 - CLX3001:** Control and aggregation card with 2x 100G and 8x 10G uplinks plus 4x 100G shelf interconnect ports
 - XG3201:** 16 SFP+ ports supporting Double Density XGS-PON / GPON and Multi-PON optical modules
 - ASM5001:** Aggregation Service Manager providing 8x 200G, 6x 100G, 12x 10G and 4 100G shelf interconnect ports



E3-2 - Outdoor OLT

Cost efficient OLT for remote locations

- IP68 compliant design
- Optimized for small clusters
- Flexible configuration options to support up to 8 XGS-PON / GPON / MPM ports
- Several power options: 48 V DC, 230 V AC, remote power



The Access software platform

Modular – designed for quick customisation

- At the cutting edge of software development (Netconf / YANG)
- Agile software development – simple updating
- Enables future SDN / NFV architectures
- An API, a „method of procedure“, an integration, a CLI
- IPFIX support for telemetry functions
- Distributed BNG functionality (E9 platform)
- Compatible with the E3 | E5 | E7 | E9 series
- Pay-as-you-succeed model



XGS-PON ONTs GigaPoint GP1101X and GP1100X

Compact sized ONT – Well suited for Media Wall Cabinet installations

- 10G XGS-PON WAN Interface with SC/APC
- 1x POTS SIP-Interface (ETSI compliant)
- Supports Ethernet OAM (CCM, loopback, link trace, ping)
- Optional: UPS-Support
- Optional: Fiber Termination Unit (FTU) available
- **GP1100X:** 1x 2.5G LAN-Interface
- **GP1101X:** 1x 10G LAN-Interface



XGS-PON ONTs DKT 79857 & 79859

Well suited for living room installations

- 1x 10G XGS-PON WAN Interface with SC/APC
- RF-Overlay for legacy DVB-C TV support
- Easy click-on FTU for all ONT types
- **79857:** 1x 10G, 1x 1G LAN-Interfaces
- **79859:** 1x 10G, 1x 1G LAN-Interfaces, F-Connector (75 Ohm) for RF-Overlay

FTTB G.fast Distribution Point Unit (DPU)



16 G.fast Ports



8 G.fast Ports



4 G.fast Ports

DPU Hardware

- XGS-PON Uplink
- Managed as Multi-GE Port ONT
- Calix OLT and SMx integrated
- 4 / 8 / 16 G.fast Ports (up to 2 Gbit/s)
- Reverse power feeding enables cost-effective installation

Fully Integrated in Calix OLTs and Element Manager SMx

- REST API Northbound Interface
- Netconf/YANG Southbound Interface
- IPFIX for Performance-Monitoring Data Collection
- PnP DPU Auto-Discovery
- Automated firmware management

FTTB G.hn Access Multiplexer (GAM) Family

GAM-4-CX-AC GAM-4-CRX



GAM-12-C



GAM-24-C



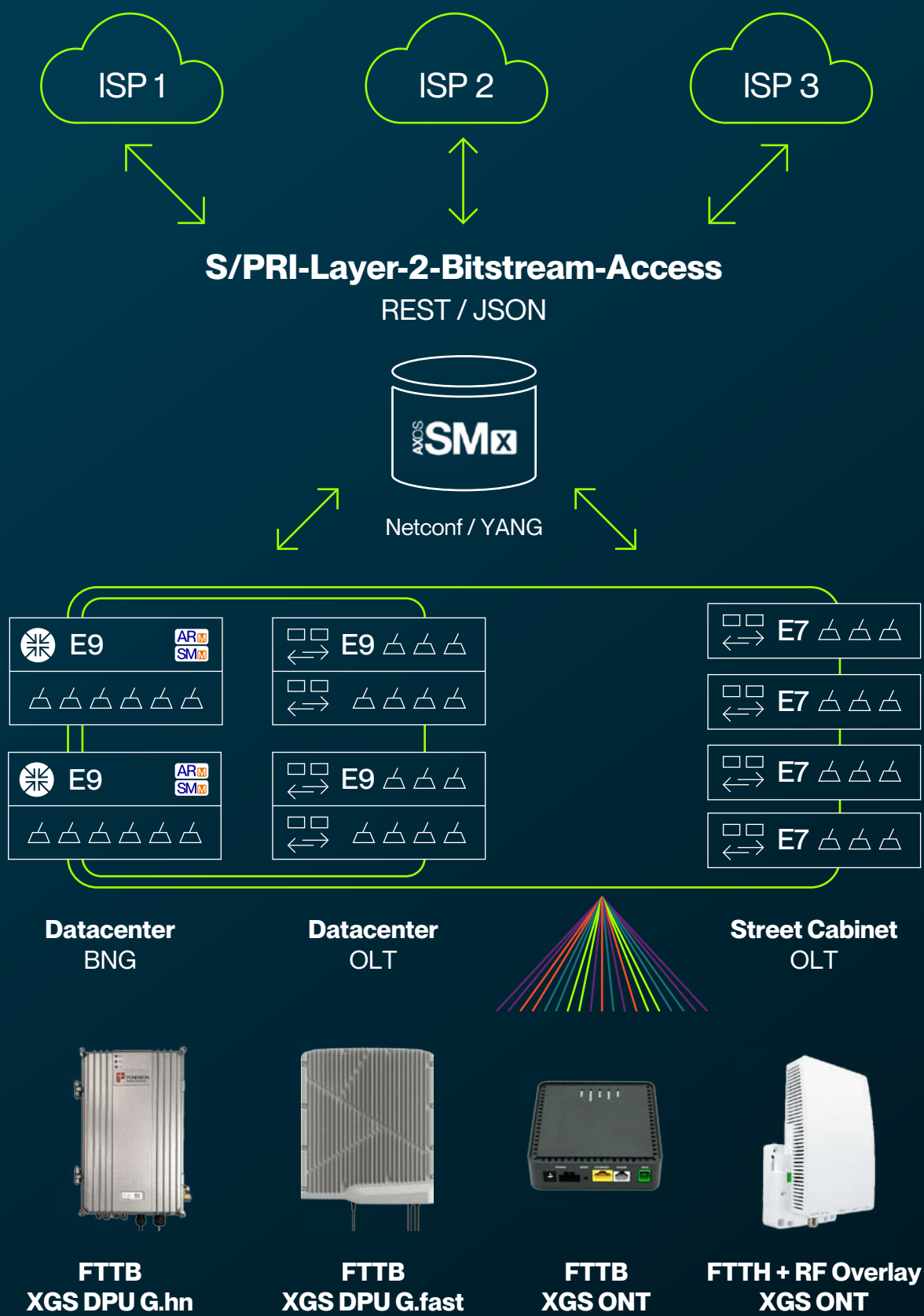
GAM Hardware

- XGS-PON uplink
- Managed as Multi-GE Port ONT
- Calix OLT and SMx integrated
- 4 / 12 / 24 G.hn ports (up to 1.7 Gbit/s per port)
- Reverse power supported, for cost-effective installation

Fully integrated in Calix OLTs and Element Manager SMx

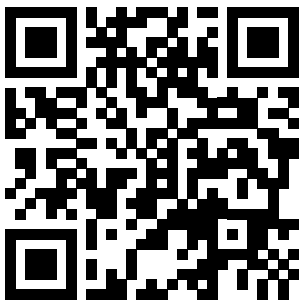
- REST / JSN API Northbound Interface
- PnP GAM Autodiscovery like an ONT
- Management possible via WEB GUI / CLI or Positron's VIRTUOSO

Open multi-vendor complete solution for FTTH and FTTB





**Give us a call or visit our website,
we will be happy to help you!**



Netceed
Merkurstraße 3 c
30419 Hannover

+49 511 757086
info.de.hannover@netceed.com

www.anedis.de/xgs-pon/



Get in touch

Our team of experts look forward to helping you find the right solution for your network. Feel free to get in touch with our primary locations to discuss your project requirements.

braun teleCom GmbH

Merkurstraße 3 c
30419 Hanover
Germany

www.netceed.com
info.de.hannover@netceed.com
+49 511 757086