Enlighten your LAN

Aurelis Optical LAN for the Smart Warehouse

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Communication breakdown

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Effective communications are vital for effective warehouse operations. Yet many warehouse communication networks are holding back operations when they should be enhancing them. There are four important challenges where your communications network can make a difference.

Time is money

Unrelenting pressure to save time and increase productivity

Kill complexity

Services spread across multiple networks create inefficiencies

Go green

Challenge to demonstrate sustainable business practices

Protect and secure

Increasing need for highly secure networks

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Creating the Smart Warehouse

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The warehouse of the future has a fast, efficient communications network providing bullet-proof connectivity to everything and everyone. The enhanced connectivity enables the productivity increases and cost efficiencies that deliver the sustainable growth and competitivity that warehouse operators need.

- Internet of Things connectivity of inventory, vehicles, people, and equipment.
- Robotic, guided and automated handling and movement.
- Augmented reality vision picking systems.
- Real-time, anytime, anywhere access to warehouse management system information.

Aurelius Optical LAN for the Smart Warehouse

Light on infrastructure, light on energy consumption, and light on total cost of ownership, and delivering light-speed performance, Aurelis Optical LAN is the most advanced warehouse local area network technology available. It is built on Passive Optical Network (PON)—supports 1 Gb/s, 10Gb/s and 25Gb/s speeds today and is ready for 50 Gb/s and 100 Gb/s in the future.

Support massive high-speed connectivity, today and in the future

With an Optical LAN delivering gigabit, multi gigabit and even 25 gigabit speeds to wireless access points, mobile computers, forklifts, scanning tools, label printers, cameras, digital signage and more, every warehouse worker is better equipped to process the continuously increasing volume of information that must be managed quickly and efficiently every day.

Save precious warehousing space

Aurelis Optical LAN infrastructure requires fewer racks, LAN switches, and patch panels than a traditional LAN. No more telecom equipment closets every 100 meters; no more extra power supplies for equipment rooms: and no more air-conditioning, special cable channels for CAT5/6 cabling and other support requirements. The floor space freed up can be used more productively for revenue generating activities

Simplify management and maintenance.

Aurelis Optical LAN provides substantial savings on management and maintenance costs because all warehouse communications and information systems are integrated onto one infrastructure that can be managed from a single, central location. Fewer IT staff resources are needed to keep the network up and running and maintenance is easier because there are fewer active electronics on site.

As a result, Aurelis Optical LAN generates huge savings on capital expenditure, as well as reductions in daily operating expenditure from lower energy consumption and reduced maintenance.

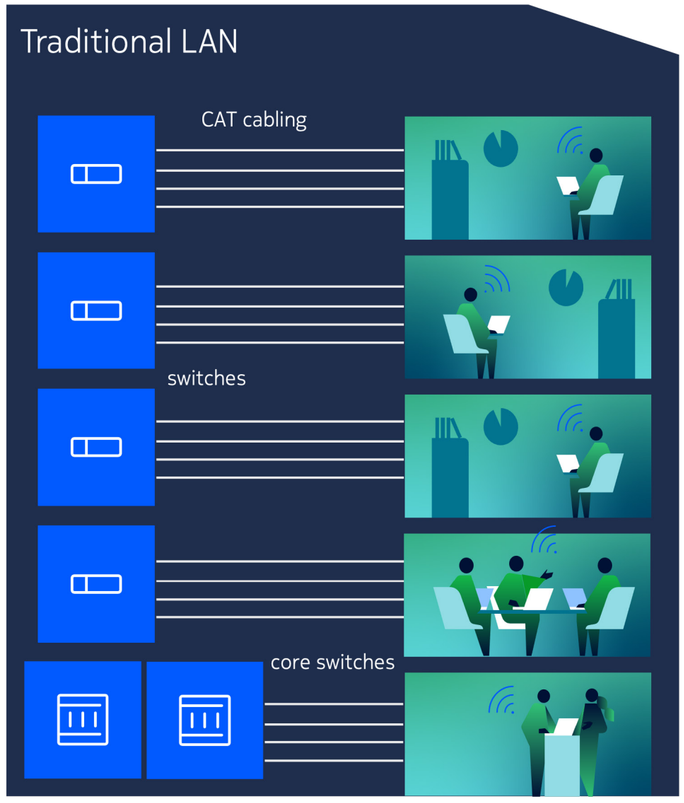
50%	99.9999%	1G, 10G and 25G	90%	1
Lower total cost of ownership	Availability	speeds today 50G and 100G ready	Smaller equipment footprint	Single network for all services and devices

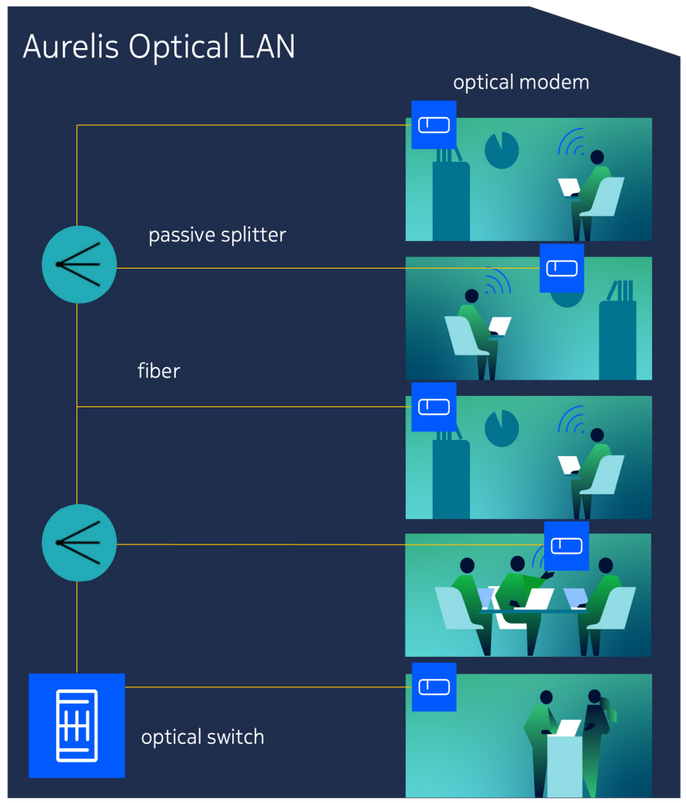
Choosing Aurelis Optical LAN for new installations and upgrades

The cost savings generated by Aurelis Optical LAN make it a sound investment for both greenfield installations and upgrades.

By replacing old equipment with a more cost-effective fiber infrastructure, Aurelis Optical LAN significantly lowers the overall cost of an upgrade or renovation. Optical fiber is more resilient and supports a smaller bend radius compared to other cabling. It can fit in existing ducts and channels easily and it is inherently resistant to signal and noise interference from other sources, so it can be run almost anywhere. Once installed, existing services and applications can be migrated to the new optical infrastructure easily to enable a single network for all services.

Once the Optical LAN infrastructure is installed, expansion to new warehouse areas can be made by simply extending the fiber and adding an optical modem—no major cable-runs or additional Ethernet switches/ports are needed.





Aurelis Optical LAN

- Cost. Passive optical LAN technology is cheaper to install, operate, maintain, and power than traditional Ethernet LANs
- Capacity. Do away with separate networks and run all services-voice, video, data, surveillance, access control, security, Wi-Fi, and more-onto one centrally-managed LAN.
- Speed. Combine fixed and wireless access points for ultra-fast connectivity throughout the warehouse.
- Coverage. Fiber optical cable is thin, light, strong, flexible and fire-resistant so is easy to install everywhere, and the network easily extended as the warehouse expands.
- Quality. Fiber optic cable is resistant to interference while features and bandwidth mechanisms ensure that traffic is managed so that each device gets the bandwidth it needs.
- Control. Centralized network control and automation reduce manual intervention and improve efficiency and reliability.
- Sustainability. Passive technology requires less power and less cooling, reducing energy bills and carbon footprint.
- Space. High-density platform and signals traveling up to 20 km mean less equipment throughout the warehouse, saving up to 90% floorspace.
- Future-proof. Optical LAN technology can get a speed and capacity boost without needing to rip and replace cabling or network components.
- Reliability. This technology delivers link protection, logical layer protection, hardware redundancy to achieve 99.9999% availability.
- Security. 128-bit data encryption comes as standard while data in optical modems cannot be accessed locally, unlike distributed switches in a traditional LAN.

700 Optical LAN deployments across the globe, in all industry segments.

Nokia Fixed Networks is a global leader in fiber technology, providing a high-performance connectivity solution for enterprises across all industries. With over 700 optical LAN customers, we support enterprises, hospitals, hotels, universities, airports, smart campuses and more with cutting-edge connectivity. Our optical LAN solution helps businesses to enhance user experiences, gain a competitive edge, and drive digital transformation with future ready, simple and reliable connectivity.

Nokia OYJ
Karakaari 7
02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000
CID:210150
nokia.com

About Nokia

At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.