Association for Passive Optical LAN (APOLAN) members are on the forefront of changing the way local area network (LAN) architectures are designed and built moving forward. Join this movement to drive down costs, improve security and provide a near future-proof LAN infrastructure option for modern high-performance buildings and campuses.

As an APOLAN member, your membership will:

- **Help establish you and your company as industry leaders** at the forefront of an evolutionary LAN technology.
- **Allow you to help shape** advocacy, education, market adoption, industry acceptance and best practices for Passive Optical LAN.
- **Expand your network** of individuals and corporations that share an interest in Passive Optical LAN success.
- **Access technical, educational, business case analysis** and valuable industry reports sponsored by the association.
- **Participate in marketing activity** that directly influences decision-makers and customers.
- **Provide a channel for communication** of related product, service offerings, case studies and press information.

**About APOLAN**

The Association for Passive Optical LAN is a nonprofit organization of manufacturers, distributors, integrators and consulting companies who are actively involved in the Passive Optical LAN marketplace. Our members support the growth and education of the Passive Optical LAN industry and are focused on formulating solutions to best market, install, educate and support this burgeoning field. APOLAN advocates the education and global adoption of passive optical networks for the LAN marketplace.

To learn more, visit [www.apolanglobal.org/join](http://www.apolanglobal.org/join) or email director@apolanglobal.org.
Passive Optical LAN architectures provide tremendous improvements in the design and deployment of local area networks. Composed almost entirely of single-mode fiber optic cable, a Passive Optical LAN can span for 20 km (12.5 miles) or more. It is particularly advantageous for multi-story buildings and campus networks where mid-span switching equipment is eliminated entirely. Even single-building networks can take advantage of these flexible distances by no longer requiring a telecommunications closet or switch every 90 meters or 300 feet, as is the case with legacy network architectures. Passive Optical LANs benefit design engineers, architects, building owners, CIOs, IT departments and end users.

Technical Advantages
Passive Optical LAN is a new application of a proven access network solution. It is a better way to structure a LAN because:
- It flattens the Local Area Network.
- It simplifies network moves, adds and changes.
- It is not limited by the distance and bandwidth constraints of twisted pair networks.
- It is secure by design, based on optical fiber and built-in encryption.

Economic Advantages
Passive Optical LAN provides substantial savings in CapEx and OpEx compared to legacy LAN designs because:
- It can eliminate wiring closets.
- It eliminates the need for midspan electronics, power, and cooling infrastructure.
- It uses smaller, lighter, less expensive cables to reduce pathway and space requirements.
- It virtually eliminates the need to refresh cabling infrastructures.

Passive Optical LAN Technical Overview

Legacy copper-based LAN
- Active Ethernet switches for LAN core, aggregation and access functions
- Cable infrastructure per service
  - CATx
  - Coax
  - Some Multi-mode Fiber (MMF)

Passive Optical LAN
- Passive optical network (PON)
  - Optical Line Terminal (OLT)
  - Passive optical distribution splitters
  - Optical Network terminations (ONT)
- Single mode fiber converges all building ICT services over single infrastructure

To learn more about Passive Optical LANs and APOLAN, visit www.apolanglobal.org.