



Is your LAN ready for tomorrow's challenges?

Passive Optical LAN's better technology outperforms legacy copper LANs

The 20th century LAN was decentralized and hardware-centric. It was designed for "best effort" services and applications with 80% local traffic. CIOs and IT professionals prioritized their IT spend on racks and stacks of switches and cabling that filled their local data center rooms (MDFs) and communication rooms (IDFs). Technicians ran around to far reaching end-points managing the daily moves/adds/changes, and troubleshooting the occasional network outage during business hours. Security was of little concern behind the enterprises locked front door and wireless connectivity did not even exist yet.

The 21st century LAN never sleeps. It's always on. Critical real-time business services and applications demand the highest network up-time and security. In fact, 90% of the traffic now exits the LAN because the data is no longer local. Remote employees, regional and international offices, virtual desktops, hosted/managed services, cloud-based applications, and wireless connections all make today's LAN more important than ever before. It's no longer just phones and computers. Now, there is big data, analytics, internet-of-things, smart buildings, eBusiness and eCommerce depending on this modern LAN.

Now, CIOs and IT professionals need to figure out how to make sure their IT switch and cabling infrastructure can support wireless IEEE 802.11ac wave 2, 10 gigabit Ethernet connectivity, and beyond?

Tellabs Optical LAN is the best choice for the modern, high-performance 21st century LAN. When compared to its legacy copper-based predecessor, Tellabs Optical LAN is a simple, stable, scalable, secure, sustainable, and smart choice that addresses IT needs with better technology that saves you money.



Optical LAN

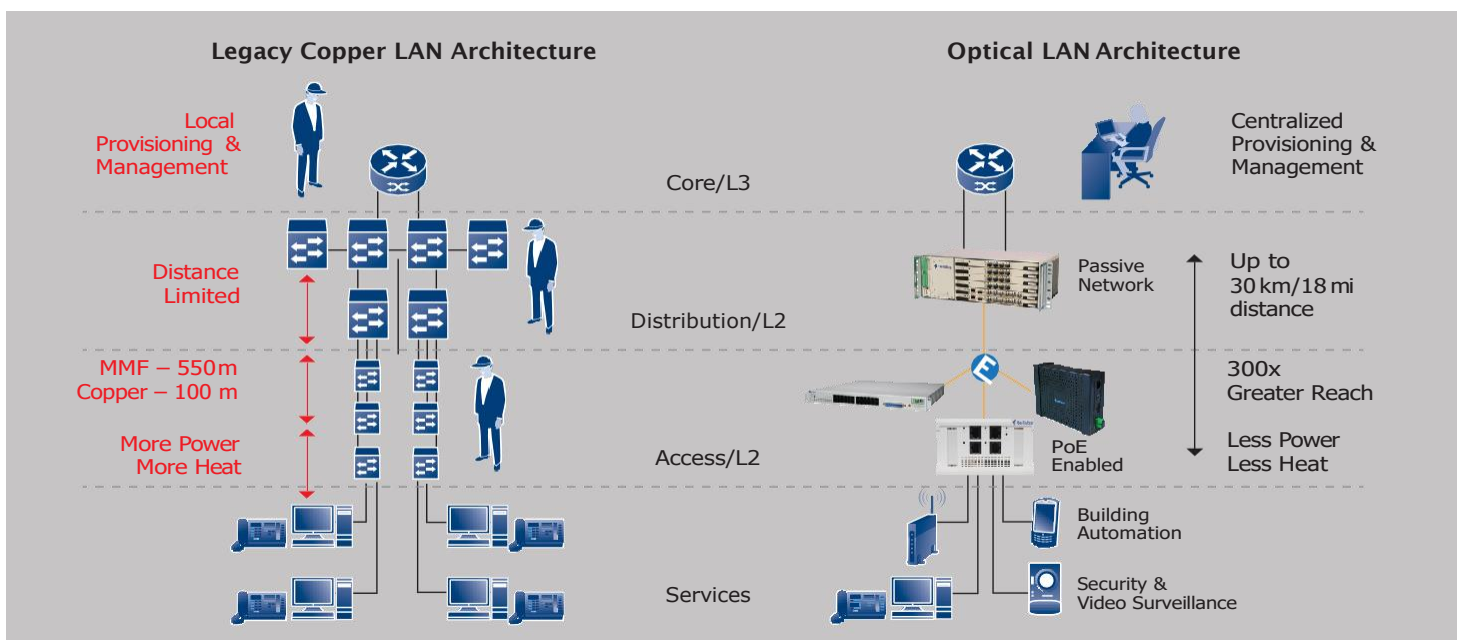
Optical LANs deliver four highly compelling advantages over legacy copper LAN technologies:

Simple: With less equipment and cabling to manage and maintain, Optical LAN simplifies networks. Its central management makes moves/adds/changes easier and faster, and its ability to converge services onto a single medium dramatically simplifies operations.

Stable: A fiber-based LAN provides 99.999% availability (under 5 minutes downtime per year). Redundancy options are also available for the equipment, and an optical distribution network further increases availability. Furthermore, you get the stability of a cabling infrastructure that has no planned obsolescence.

Scalable: Optical LAN delivers increased Gigabit Ethernet capacity/density, both within the equipment and across the fiber cabling. Its centrally managed systems support scalability and make possible a graceful migration to future technologies. Optical LAN provides focused, cost effective 10GbE path over today's SMF based LAN infrastructure

Secure: Optical LAN's centralized intelligence and management secures policies and procedures for improved breach mitigation plan. Fiber is more secure than copper. ONTs store no user or configuration data. ONTs have no local access. Tellabs Optical LAN is deployed in the most secure government and military LANs.



Legacy Copper LAN

- 100-meter reach adds costs, power & heat
- Delivers only IP voice and IP video
- Wastes space, materials, plastics, PVCs
- Intrusion possible even without a physical tap
- Introduces and is susceptible to EMI/RFI
- 10 GbE requires cable replacement

Optical LAN

- 20–30-km reach eliminates closets/IDFs
- Delivers VoIP or POTS, and IP video or RF video
- Green means less space/material, longer life
- Security at physical and protocol levels
- Immune to EMI/RFI
- 10 GbE delivered over today's infrastructure

Take the next step. Contact [Pentegra](#) today.



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