

Passive Optical Networks

All-Fiber Network Reduces Total Lifecycle Costs

A Passive Optical Network (PON) is an innovative fiber-based solution for enterprise local area networks. This solution greatly simplifies enterprise network deployment, operation, and management. PON is based on proven gigabit passive optical networking (GPON) technology that delivers enhanced security, carrier-class reliability, and significant green operational savings.

The Passive Optical LAN is a point-to-multipoint network in which a single aggregation switch can provide more than 7,000 IP voice, data, and video network connections to any Ethernet-based device or system. The PON uses passive optical splitters in lieu of Ethernet copper cables. By essentially splitting up wavelengths of light in order to provide network connections to each of an enterprise's floors, a PON accommodates a tremendous amount of IP traffic over a very lightweight all-fiber passive infrastructure.

Vision Technologies installs passive optical fiber LAN solutions to interconnect stationary Ethernet-based systems, such as end-user devices, access points and wireless controllers, application servers and printers.

Copper vs. Fiber Cable Volume



Conventional Cable
144 Multimode
Fibers
144 Copper Cable



**Optical LAN Solutions
Cables**
144 Single-mode Fibers

Benefits of a Passive Optical Network

- ▶ Reduced CapEx & OpEx
- ▶ Unlimited Bandwidth Potential
- ▶ Reduced Power & HVAC Requirements — Green IT
- ▶ Reduction in Non-renewable Materials
- ▶ Floor and Cable Pathway Space Savings
- ▶ Eliminates Telco Closets
- ▶ Higher life expectancy — 25 years for fiber vs. 10 to 15 years for copper
- ▶ Reduction in Cable Weight

Typical ROI:

	250 Users	500 Users	1000 Users	5000+ Users
TCO	32%	46%	57%	68%
CapEx	31%	41%	48%	55%
OpEx	30%	50%	65%	70%
Power	38%	51%	58%	65%
Cooling	38%	51%	58%	65%



GSA Contract Holder

GSA Connections II Contract # GS00Q12NSD0011
GSA Schedule 70 Contract # GS35F-0581R
GSA Schedule 58i Contract # GS03F-0089Y
GSA VETS GWAC Contract # GS06F-0535Z

A Service-Disabled Veteran Owned Small Business

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