BUSINESS CASE

TWO BUILDINGS, TWO FLOORS EACH 500’ APART

512 TOTAL USERS (ROOMS, LOBBIES, FRONT DESKS, OFFICES, ETC.)

	Design A: Optical LAN Solution	Design B: Standard Copper Switched Ethernet LAN
Installation Costs (CAPEX)		
Cost Per User (512)	$102.62	$381.21
Cost Per Floor (128 users)	$13,135.75	$48,795.75
Total Cost	$52,543.00	$195,183.00
CAPEX SAVINGS: 73%		
Annual Operational Savings		
Power/Cooling	$1,285.00	$8,427.00
Maintenance	$640.00	$16,830.00
Total Cost	$1,925.00	$25,257.00
ANNUAL OPERATIONAL SAVINGS: 92%		
Power Consumption Savings		
Power (kWh)	9,179 kWh	60,195 kWh
Efficiency	save 51,016 kWh/year	
POWER CONSUMPTION SAVINGS: 84.7%		

ABOUT ENVISTACOM

Envistacom is a privately held, Hispanic woman-owned technology company that provides counterterrorism, cyber and communications solutions to U.S. and coalition partners in the aerospace, defense and intelligence communities.

Customers rely on Envistacom for innovative technology and subject-matter expertise to achieve their missions in identifying and defeating global threats.

Envistacom is a trusted partner in protecting military, civilians and critical infrastructure around the world.

TRUST AGILITY RESULTS THESE WORDS REPRESENT OUR BRAND, COMMUNICATE OUR VALUES AND EXPLAIN THE ENVISTACOM EXPERIENCE. WE COLLABORATE WITH YOU TO SOLVE YOUR MOST COMPLEX PROBLEMS IN COUNTERTERRORISM, CYBER AND COMMUNICATIONS.

ENVISTACOM
TRUST. AGILITY. RESULTS.

CORPORATE HEADQUARTERS
Six Concourse Parkway
Suite 550
Atlanta, GA 30328

www.envistacom.com
sales@envistacom.com
470.255.2500

OPTICAL LAN (GPON)

- Increased Security
- Simplified Infrastructure
- Ease of Installation
- Minimal Maintenance
- Eliminates Telco Closets
- Order-of-Magnitude Improvement in Availability

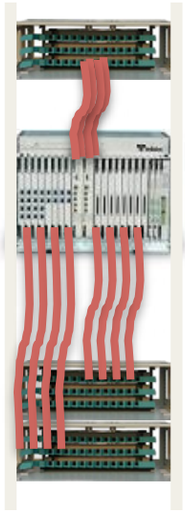
ENVISTACOM
TRUST. AGILITY. RESULTS.

BENEFITS OF OPTICAL LAN (GPON)

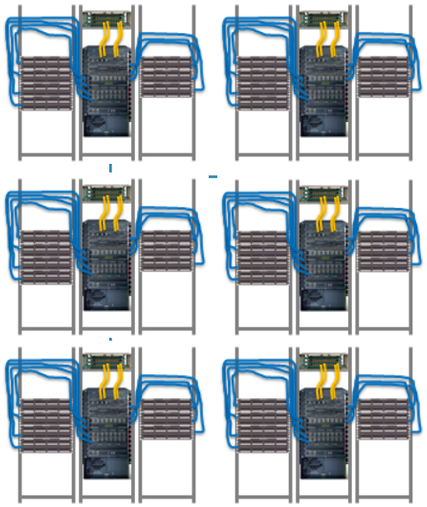
Optical LAN technology provides several benefits:

1. Simplified infrastructure
2. Future-proof
3. Ease of installation
4. Minimal maintenance
5. No need for active access/distribution switches and routers (telco closets)
6. Order-of-magnitude improvement in availability

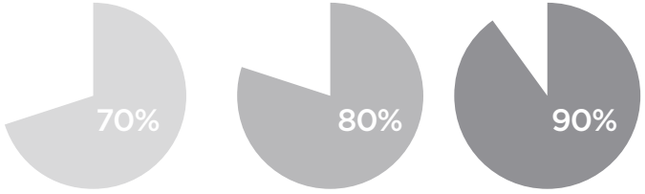
- **ITU STANDARD 2003-OPTICAL LAN (ITU-T G.984.X)**
- **2.4 GBPS DOWNLOAD SPEED**
- **1.4 GBPS UPLOAD SPEED**
- **UP TO 64 USERS PER FIBER**



Optical LAN: 8,192 users
One rack of electronics



Active Ethernet: 2,016 users
18 racks of electronics

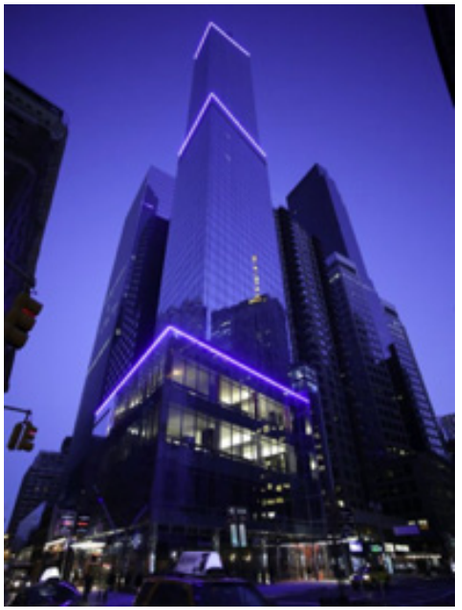


70% LOWER ELECTRONICS COST

80% LOWER POWER CONSUMPTION

90% LOWER SPACE USAGE

INDUSTRY ADOPTION



Marriott Central Park Hotel, the first hotel with Optical LAN for all internet, voice and TV services

Because of its speed, flexibility, small footprint and cost-effectiveness, Optical LAN is being adopted across numerous industries.

The largest and most notable use of Optical LAN technology is Verizon FiOS® and Google Fiber. Verizon provides fiber-to-the-home (FTTH) service, which substantially decreases the cost of operation and maintenance while simultaneously increasing their data capacity by more than 400 percent over existing coaxial / CAT-5 /CAT 5e / CAT 6 active solutions.

Google Fiber considered using an alternative technology called Ethernet FTTH, but chose to use Optical LAN because of the savings it provides in both maintenance and upgrade Optical LAN costs.

The Tennessee Electric Power Board (EPB) in Chattanooga, Tennessee, was the first utility to use Optical LAN to offer symmetric Gigabit services to a sizable population.

The first Optical LAN hospitality industry installation was completed at the Marriott Central Park Hotel in New York, resulting in substantial cost savings for the hotel and high praise from customers for increased internet performance.

verizon FiOS

epb
Energy • Communications • Community

Google fiber

FUTURE-PROOFING

Fiber-optic cables are rated to last up to 50 years, depending on the manufacturer. Copper Ethernet cable standards have changed consistently, at least once every three to four years during the past 15 years. The current Ethernet version, CAT-6e used in most new installations of copper internet service, will need to be replaced by CAT-7 to achieve 10 Gbit/s speeds and is limited to roughly 100 meters of copper.

With fiber, other wavelengths can be used, allowing for multiplexing of nearly a limitless range of bandwidth-intensive applications, including television and data/voice networking — not to mention emerging services.

When installing fiber-optic cables in buildings, we typically recommend installation of a 12-strand cable although only one strand is used initially. This allows for future use of other strands of fiber, or the ability to easily switch strands in case of damage.

OTHER BENEFITS

By installing Optical LAN, customers are empowered to manage their own networks while reducing maintenance and training costs.

Troubleshooting and network repairs are simplified as there are only two points of failure in a Optical LAN system: the end-user media converter (a $500 box) and the hub in the main telecom room. Eliminated is constant resetting of switches and routers throughout a campus or multiple floors of a single building to isolate the problem. All end-user equipment can be simply and remotely configured from the main hub.