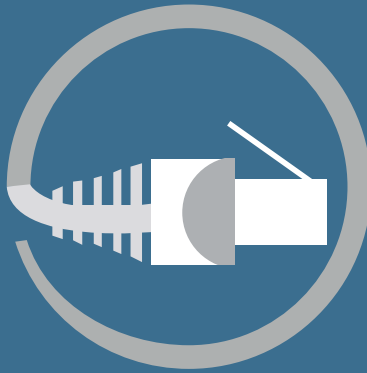


Anixter Complete  
Technology Solutions

# NETWORK INFRASTRUCTURE



## COPPER CABLING SYSTEM

The copper cabling system is primarily comprised of Category-rated twisted-pair cabling and its associated hardware, as part of the structured cabling system. It is universal in application, serving a wide range of communication technologies such as Ethernet, wireless, audio-visual, building controls and a variety of power-over-Ethernet applications.

### COMPONENTS OF YOUR COMPLETE COPPER CABLING SOLUTION

Horizontal Cabling	Connects telecommunications rooms to individual outlets for work areas and ceiling spaces.
Patch Panels	Cross-connect or interconnect used to administer horizontal cable runs.
Consolidation Points	Connecting hardware allowing intermediate connection between patch panels and edge devices.
Telecommunications Outlets	Point of connection provided at the work area for users and devices as part of the structured cabling system.
Patch Cords and Assemblies	Connects communications devices and hardware to the permanent cabling link.

#### WE ADD VALUE BY ENABLING:

Technology Selection

Systems Interoperability

Project Deployment

With its Levels testing innovations, the Anixter Infrastructure Solutions Lab<sup>SM</sup> pioneered the specifications for the Category performance standards that are recognized globally today.

### COMMON CHALLENGES



**DISTANCE**  
limitations



Building for  
**BANDWIDTH**



Infrastructure  
**LIFE CYCLE**



System  
**FLEXIBILITY**



**INSTALLATION**  
and system warranty

## TECHNOLOGY SOLUTIONS



### Distance limitations

When designing a copper cabling system, the appropriate Category must be selected for both data transmission and PoE delivery up to 100 meters. For distances beyond 100 meters, fiber optic cabling systems must be considered.



### Building for bandwidth

Bandwidth describes the maximum data transfer rate of a network. When selecting a copper cabling system, consider specifying a high-performance structured cabling system with extended headroom beyond minimum compliant standards.



### Infrastructure life cycle

The copper cabling system should account for all applications, including both information technology and operational technology. It should support multiple technology refreshes and have an expected life cycle that aligns with business occupancy.



### System flexibility

The copper cabling system should be designed to support multiple moves/adds/changes as well as future scalability. When this is not accounted for, the results may include inconsistent installation practices, inability to meet schedule requirements and a negative impact on business uptime.



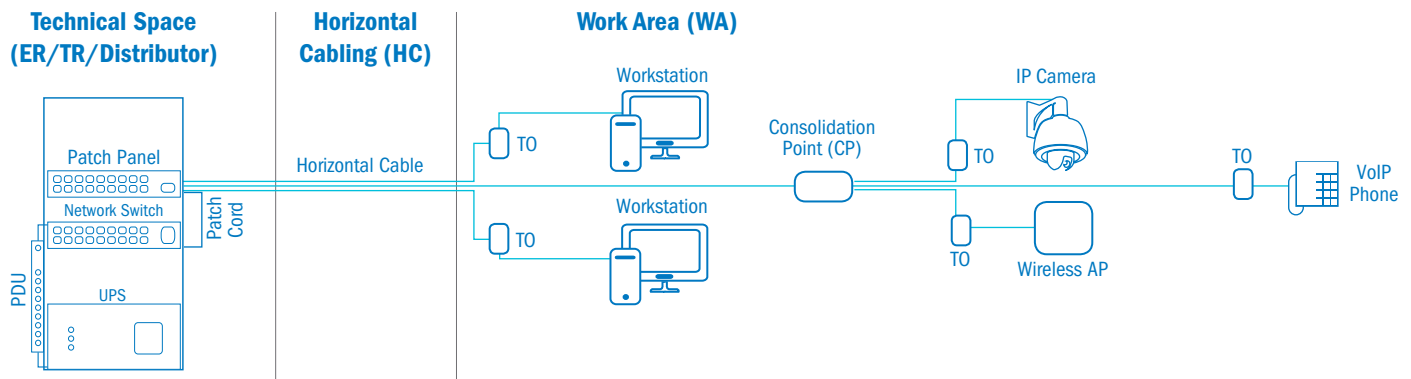
### Installation and system warranty

As an end-to-end solution, a copper cabling system should be selected from a manufacturer that provides a long-term system application warranty. Qualified installation can have a larger impact on system performance than realized, and certified contractors provide an increased level of assurance.

## CONCEPTUAL SYSTEM LAYOUT

### Copper cabling solutions supplied by Anixter

For system installation, we recommend working with a certified contractor.



### Supported Data Rate in Gigabits per Second (Gbps)

	Category 5e	Category 6	Category 6A	Category 7A	Category 8
1	●	●	●	●	●
2.5	●	●	●	●	●
5	●	●	●	●	●
10	●	●	●	●	●
25/40	●	●	●	●	●

- Supported
- Supported in instances
- Not supported

FOR MORE INFORMATION VISIT [ANIXTER.COM/INFRASTRUCTURE](https://www.anixter.com/infrastructure) OR CONTACT YOUR LOCAL ANIXTER REPRESENTATIVE.

At Anixter, we help build, connect, power, and protect valuable assets and critical infrastructures. From enterprise networks to industrial MRO supply to video surveillance applications to electric power distribution, we offer full-line solutions—and intelligence—that create reliable, resilient systems that can sustain your business and community. Through our unmatched global distribution network, supply chain management expertise and technical know-how, we drive efficiency and effectiveness to benefit your bottom line.