

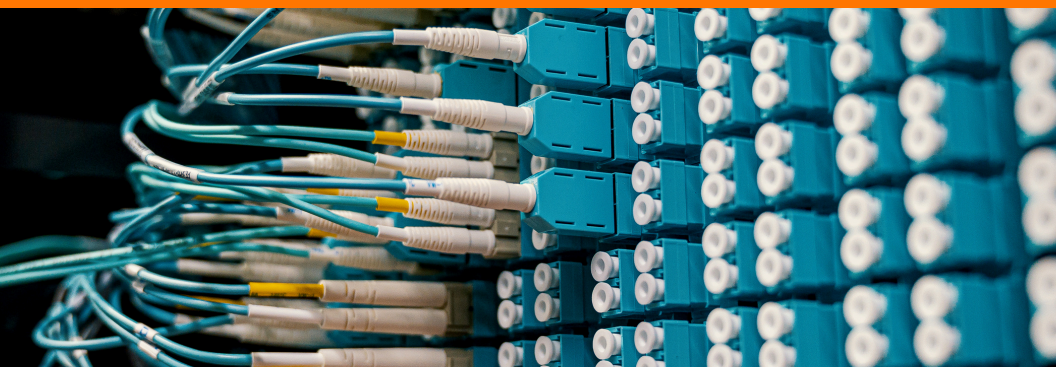
# WHAT'S BEHIND YOUR NETWORK?

A PRACTICAL GUIDE TO ASSESSING YOUR  
CABLING INFRASTRUCTURE

**TOTAL**  
COMMUNICATIONS



# WHY CABLING DESERVES A CLOSER LOOK



## Your Network Is Only as Strong as Its Foundation

Cabling infrastructure is easy to overlook when everything is working. It sits behind walls, above ceilings and inside network closets, quietly connecting users, devices and systems across an organization. But networks rarely stay the same. New access points are installed. Cameras are added. Phones move to IP. Workstations are relocated. Switches are replaced.

New spaces come online. Bandwidth requirements increase. Over time, years of changes can leave the physical infrastructure looking very different from the environment that was originally designed. For IT leaders, that makes periodic cabling assessments an important part of infrastructure planning.

An assessment can help answer questions such as:

- Do we know what is actually installed?

*Documentation does not always keep pace with years of moves, additions and changes.*

- Are we getting the performance we should from our infrastructure?

*Cabling, terminations and physical connections can contribute to connectivity and performance issues.*

- Can the existing infrastructure support future projects?

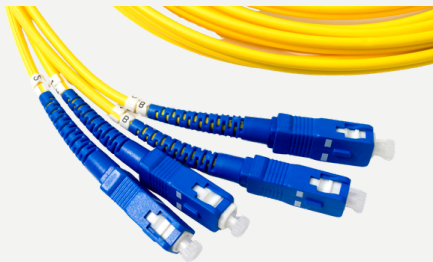
*New wireless, security, communications and connected-device initiatives may place additional demands on the physical network.*

- Are our network closets organized and serviceable?

*Good cable management, labelling and documentation can make troubleshooting and future changes significantly easier.*

At Total Communications, we encourage organizations to look at cabling as part of the overall technology environment, not simply as wires running from one location to another.

# KNOW THE WARNING SIGNS



You do not need to wait for a major outage to evaluate your cabling infrastructure. In many environments, the warning signs are already visible.

## What Should You Look For?

You do not need to wait for a major outage to evaluate your cabling infrastructure. In many environments, the warning signs are already visible.

### 1. Unlabeled or Poorly Labeled Cabling

When cables, ports and patch panels cannot be quickly identified, even routine troubleshooting can become unnecessarily difficult. Clear labeling also helps reduce uncertainty when equipment is moved or replaced.

### 2. Tangled or Excessive Patch Cables

The classic "spaghetti" network closet is more than an appearance problem. Poor cable management can make equipment harder to access, complicate troubleshooting and make future changes more difficult.

### 3. Unknown or Abandoned Cabling

Years of renovations and technology changes can leave unused cabling behind. Without documentation, IT teams may not know what is active, abandoned or still connected.

### 4. Intermittent Connectivity

Connections that periodically drop, devices that negotiate at unexpected speeds or unexplained network issues may warrant an inspection of the physical infrastructure.

### 5. Aging Cabling

Older cable categories may continue to function, but that does not necessarily mean they are the best foundation for newer network technology and higher performance requirements.

### 6. Network Closets That Have Outgrown Their Original Design

Additional switches, patch panels, UPS systems and other equipment can gradually overwhelm racks and closets that were designed for a much smaller environment.

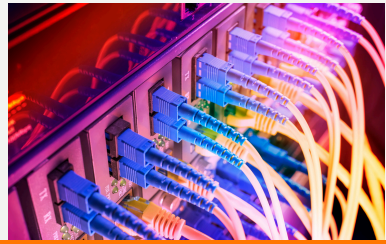
### 7. Missing Documentation

If only one person knows where everything goes, your documentation strategy may actually be institutional memory.

A well-maintained infrastructure should be understandable and serviceable by the team responsible for supporting it.



# LOOK BEYOND THE CABLE



## Assess the Entire Physical Environment

A cabling assessment should not stop at identifying what type of cable is installed.

The surrounding environment matters too.

### Racks and Cabinets

Is equipment properly mounted? Is there room for expansion? Can technicians safely access equipment and connections?

### Patch Panels

Are they organized and labeled? Do labels correspond with outlets and documentation? Are there signs of years of additions without an overall management strategy?

### Pathways

Cabling should be properly routed and supported. An assessment can identify areas where pathways, supports or cable management may need attention.

### MDF and IDF Spaces

Main and intermediate distribution areas are critical parts of the network. Organization, access, environmental conditions and available space should all be considered.

### Fiber Infrastructure

Fiber backbones connect critical parts of many campuses and facilities. Understanding existing fiber type, available strands, termination points and documentation can be important when planning upgrades.

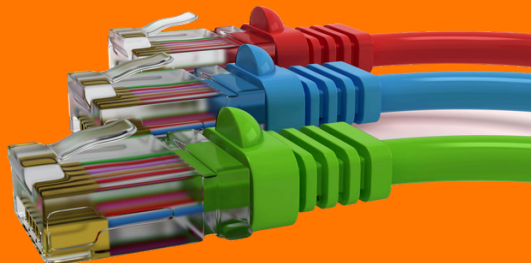
### Power and UPS

Network infrastructure depends on reliable power. UPS capacity, equipment growth and the overall condition of the network environment should be part of the conversation.

### Labeling and Documentation

Good documentation makes infrastructure easier to manage long after an installation is finished.

At Total Communications, we look at the complete physical environment because cabling does not operate in isolation. It is part of a larger infrastructure ecosystem.





# CAN YOUR CABLING SUPPORT WHAT'S NEXT?



Modern networks are being asked to connect far more than computers. Wireless access points, VoIP phones, security cameras, access control systems, displays, building systems, IoT devices and other technologies increasingly depend on the network.

## Higher-Speed Networks

As switching and endpoint capabilities increase, the cabling connecting them needs to be capable of supporting the intended performance.

## Wireless Upgrades

It may sound counterintuitive, but better Wi-Fi often depends on a strong wired network. Access points still require physical network connections, and newer wireless technologies can increase demands on the infrastructure behind them.

## Power over Ethernet

PoE allows network cabling to provide both connectivity and power to devices such as phones, cameras and wireless access points. As organizations deploy more PoE-powered technology, cabling design and infrastructure planning become increasingly important.

## Security and Surveillance

Modern IP cameras can generate significant amounts of network traffic and may require PoE. New camera deployments should be evaluated alongside switching, cabling, storage and network capacity.

**Future Expansion:** One of the most important questions during an assessment is simple:

### **What is this organization planning to do next?**

Infrastructure decisions should not be based solely on today's requirements. Understanding upcoming renovations, technology initiatives and organizational growth can help avoid repeatedly rebuilding the same physical infrastructure.



# YOUR CABLING ASSESSMENT CHECKLIST

## Take a Walk Through Your Infrastructure

Use this checklist during your next walkthrough of your network environment.

### Cabling

- ☐ Do we know which cable categories are currently installed?
- ☐ Are cables properly routed and supported?
- ☐ Are there visible signs of damaged cables or connections?
- ☐ Are unused or abandoned cables present?
- ☐ Have critical links been tested or certified where appropriate?

### Network Closets

- ☐ Are racks and cabinets organized?
- ☐ Is equipment easily accessible?
- ☐ Are patch cables appropriately managed?
- ☐ Is there adequate room for future equipment?
- ☐ Are MDF and IDF locations clean and appropriately maintained?

### Labeling & Documentation

- ☐ Are cables labeled consistently?
- ☐ Are patch panels clearly identified?
- ☐ Do wall-jack labels correspond with patch-panel information?
- ☐ Do current network and cabling diagrams exist?
- ☐ Could someone unfamiliar with the environment understand how it is organized?

### Future Readiness

- ☐ Are major network upgrades planned?
- ☐ Are new wireless access points being considered?
- ☐ Are cameras, phones, access control or IoT devices being added?
- ☐ Will additional PoE capacity be required?
- ☐ Are renovations, expansions or relocations planned?

## THE BIG QUESTION

If you had to upgrade a major portion of your network tomorrow, would you feel confident in the infrastructure underneath it? If the answer is "we're not sure," an assessment may be a good place to start.



# START WITH WHAT YOU ALREADY HAVE

## You May Not Need to Replace Everything

A cabling assessment should not begin with the assumption that everything needs to be replaced. Sometimes an environment needs better organization. Sometimes documentation needs to be updated. Certain connections may need testing or remediation. A network closet may need to be cleaned up and reorganized. And in other cases, aging infrastructure may warrant a larger modernization plan. The goal is to understand what you have before deciding what comes next.

### How Total Communications Can Help

Total Communications works with organizations to evaluate, design, install and modernize the physical infrastructure supporting their technology environments. Our structured cabling capabilities include copper and fiber infrastructure, network closet organization, racks and cabinets, cable management, testing and certification, labeling and documentation, infrastructure upgrades and new installations.

More importantly, our cabling expertise is backed by a broader understanding of networking, wireless, communications, cybersecurity and managed technology. That means we can look beyond an individual cable run and consider how the physical infrastructure fits into the larger technology strategy.

### Not Sure What Condition Your Cabling Is In?

Start with an assessment.

Total Communications can help evaluate your existing cabling environment, identify areas that may need attention and develop a practical path forward based on your current infrastructure and future plans.

### TOTAL COMMUNICATIONS

Assess. Organize. Modernize. Build for What's Next.



# Schedule a free assessment today



From a single network closet cleanup to a complete building or campus-wide installation, Total Communications helps organizations build cabling infrastructure that is organized, reliable and ready to support what comes next. Our team works with both new and existing environments, helping IT leaders understand the condition of their current infrastructure, address problem areas and plan for future technology needs.

Total Communications provides comprehensive cabling and low-voltage infrastructure services, including:

- Cat6 and Cat6A structured cabling
- Fiber optic cabling and backbone infrastructure
- Fiber splicing, testing and certification
- MDF and IDF buildouts and cleanup
- Racks, cabinets and cable management
- Patch panels, labeling and documentation
- Existing cable plant assessments
- Testing and certification
- Infrastructure upgrades and new installations
- Cabling to support wireless, VoIP, cameras, access control and other connected technologies

Because Total also works across networking, wireless, communications and IT infrastructure, we understand what the cabling needs to support, not just where the cables need to go.

Not Sure What's Behind Your Network?

You don't have to wait for a connectivity problem or major upgrade to find out.

Schedule a cabling infrastructure assessment with Total Communications.

Our team can take a closer look at your existing environment, identify areas that may need attention and help you determine whether your infrastructure is ready for your organization's next technology project.

Contact Total Communications today to schedule your cabling assessment.



**TOTAL**  
COMMUNICATIONS

**Technology Focused.  
Client Driven.**