

# Office Re-Wiring Network Cabling Checklist

## 1. Pre-Wiring Planning and Assessment



### Determine Network Requirements:

- Confirm the number of workstations, devices, and bandwidth needed for each.
- Review the types of applications used (e.g., video conferencing, cloud services) to ensure sufficient bandwidth.
- Plan for future growth: Will the office expand in the coming years? Factor in additional workstations or network needs.

### Review Existing Infrastructure:

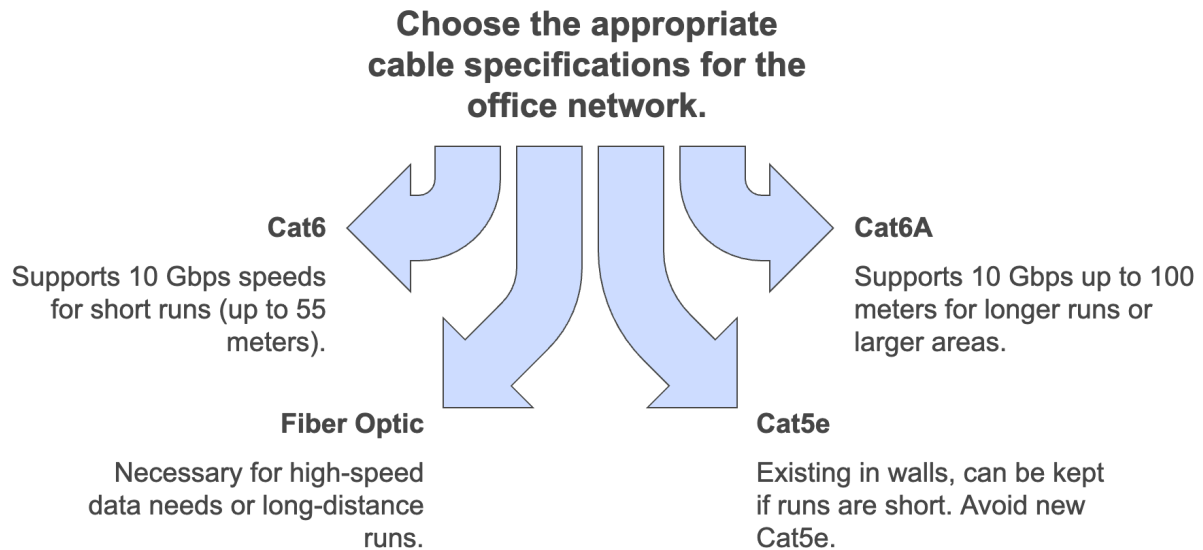
- Inspect current cabling for wear or damage. Is it functional or outdated?
- Document the current cable layout and network routes, noting any issues (e.g., bottlenecks, poor organization).

### Discuss Industry-Specific Needs:

- Identify special considerations, such as compliance needs (e.g., healthcare data privacy) or high-density Wi-Fi for specific areas like conference rooms.

---

## 2. Cable Selection and Specifications



### Decide on Cable Category:

- Confirm using **Cat6** for most office connections to ensure 10 Gbps speeds for shorter runs (up to 55 meters).
- Discuss using **Cat6A** for longer cable runs or larger areas, as it supports 10 Gbps up to 100 meters.
- Review if **fiber optic** is necessary for high-speed data needs or long-distance runs between floors or departments.

### Check for Existing Cat5e:

- If Cat5e is already in the walls and the runs are short, decide whether to keep it or upgrade to Cat6. Avoid running new Cat5e.

### Choose the Right Cable Jacket:

- Confirm whether **riser** cables are appropriate for vertical runs between floors.
- Use **Plenum-rated** cables for air circulation spaces (compliance with fire safety regulations).
- Plan for **Outdoor-rated** cables if external cabling is required.

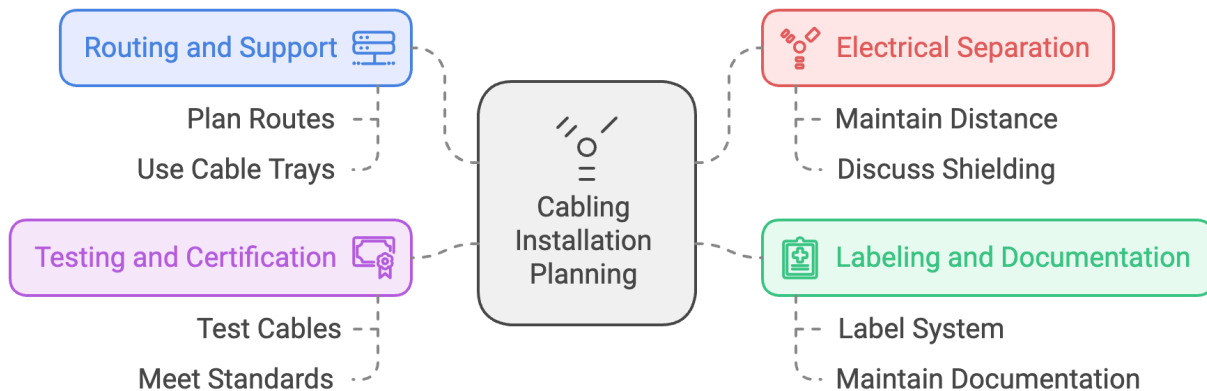
- Determine if **Direct Burial** cables are needed for underground installations.

### Evaluate Shielding Requirements:

- Assess whether the installation requires **shielded cables** (STP) to prevent electromagnetic interference (EMI), especially near power sources or heavy machinery.
- Confirm using **unshielded cables** (UTP) for typical office environments unless EMI is a concern.

---

## 3. Installation Planning with Wiring Manager



### Route and Support Cables Properly:

- Plan routes with the wiring manager to avoid sharp bends and minimize cable strain.
- Confirm using cable trays or racks to keep cables organized and off the floor, reducing the risk of damage.

### Maintain Electrical Separation:

- Ensure data cables are kept at least 12 inches from electrical wiring to prevent interference.
- Discuss shielding options if running data and electrical cables close together cannot be avoided.

### Label and Document Cabling:

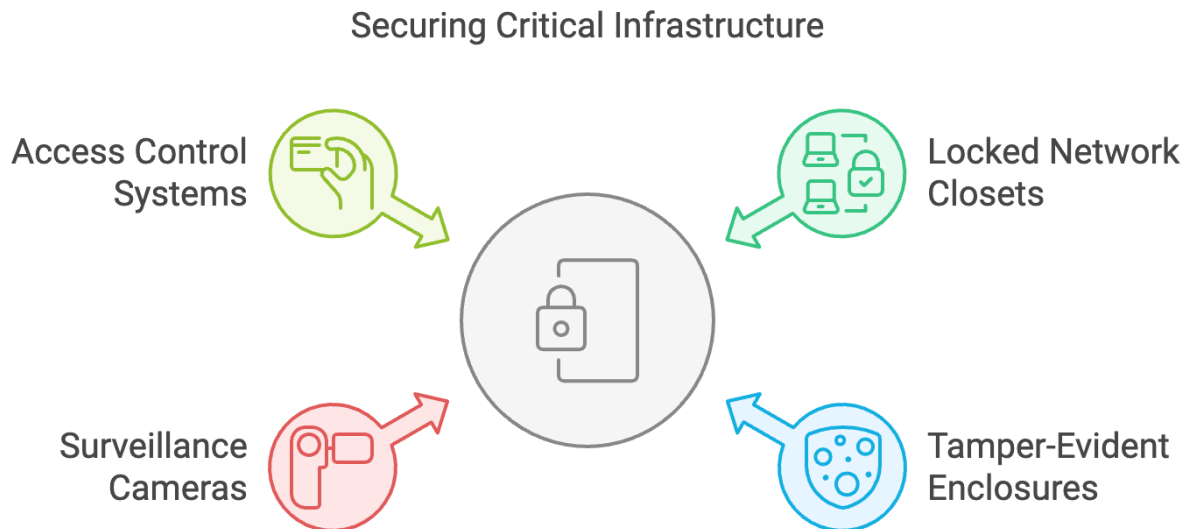
- Plan a clear labeling system for all cables and connection points.
- Confirm with the wiring manager that all cabling documentation is maintained and accessible for future maintenance.

### **Test and Certify Cabling Installation:**

- Agree to test all network cables post-installation using a cable tester to verify connection quality.
- Ensure all cables meet industry standards for certification before final approval.

---

## **4. Security and Infrastructure Considerations**



### **Securing Critical Infrastructure:**

- Lock network closets and restrict physical access to key cabling areas.
- Install tamper-evident enclosures around critical network equipment to protect against unauthorized access.

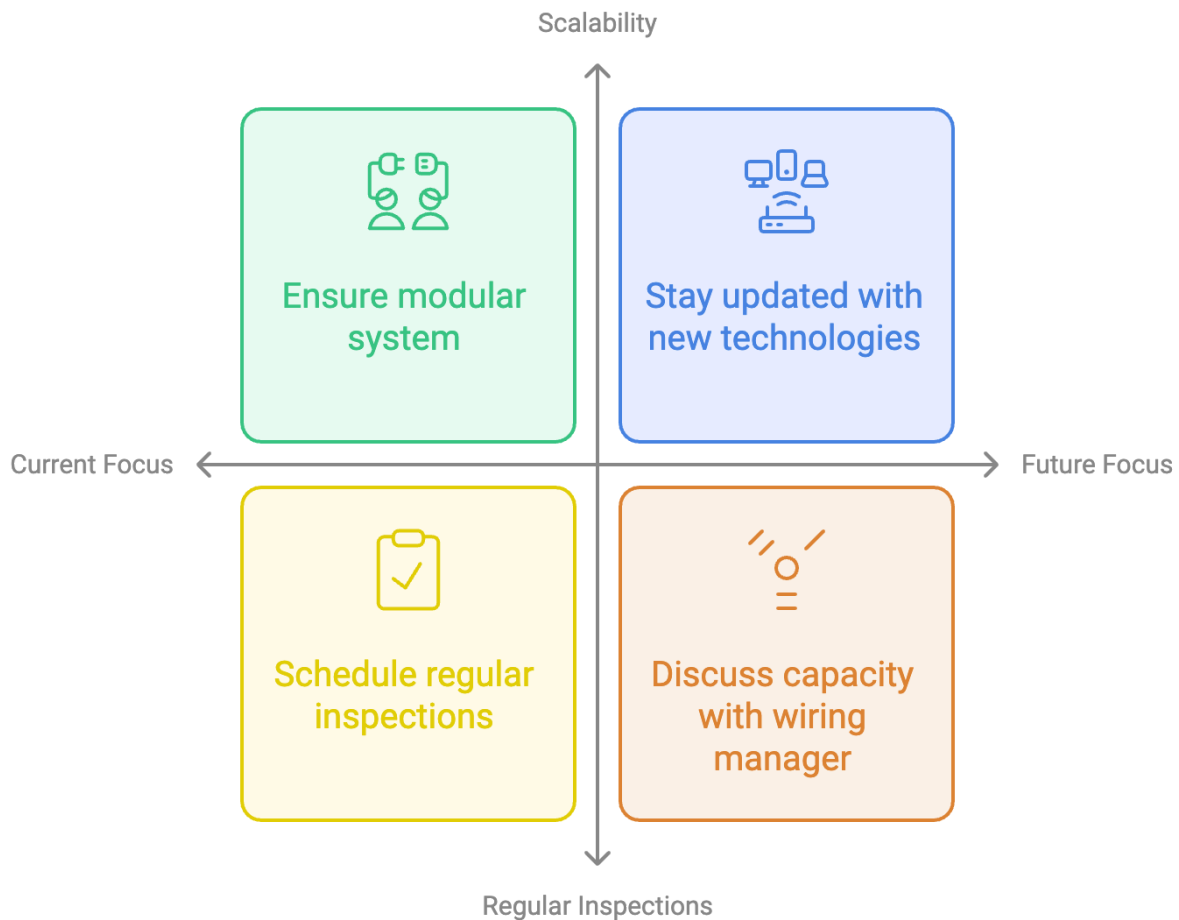
### **Physical Security Measures:**

- Discuss installing surveillance cameras in sensitive network areas, such as server rooms.
- Implement access control systems (e.g., keycards, biometric scanners) to secure network and server equipment rooms.

---

## 5. Post-Installation Maintenance and Scalability

### Post-Installation Network Maintenance



#### Regular Inspections and Upkeep:

- Schedule regular inspections with your team to check for loose connections, damaged cables, or environmental issues like excessive heat.

#### Scalability and Future Growth:

- Ensure the system is modular and can easily be expanded as the office grows. Discuss with the wiring manager if there is enough capacity for future cabling.

### **Stay Updated with New Technologies:**

- Stay informed about upcoming technology (e.g., Wi-Fi 7, edge computing). Confirm that the network infrastructure can handle future upgrades without significant overhauls.
- 

### **Conclusion:**

Following this checklist and working closely with your wiring manager will ensure your office's network infrastructure is optimized for performance, security, and scalability. For professional oversight or additional services, contact iFeeltech for expert consultation.