

Blue Ribbon Network Solutions LLC

Connecting the world...

Services

Structured cabling solutions: CAT5e and CAT6 twisted pair cable (UTP cable) provide connectivity for Voice (VoIP phone)/Data (network) and analog phones.

The Installation of a structured cabling system involves a comprehensive process that starts with site surveys, planning, selecting components, running cables through designated pathways, terminating connections at patch panels and wall outlets, and finally testing the system for functionality and compliance with industry standards; key steps include: site survey, design planning, component selection, cable routing, termination, testing, and documentation.

Site Survey and Planning

Assess the site:

Perform a thorough inspection of the building to identify where devices will be located, potential cable pathways, and any obstacles.

Network requirements analysis:

Determine current and future network needs, including bandwidth requirements, device types, and expected growth.

Design layout:

Design the system to accommodate future network upgrades and technology advancements. Our company will provide to the customer (if it's needed) a network diagram of the site including IDF and MDF built out

Create a detailed plan of the cabling infrastructure, including the location of equipment rooms, telecommunications closets, and cable pathways.

Component Selection:

Cable Enclosure

Choose the appropriate frame enclosure for your network and network equipment, (2 post Rack, Wall-mount cabinet, V-Rack, etc.)

Cable type:

Choose the appropriate cable type based on application (e.g., Category 6A for high-speed data or fiber optic cable).

Patch panels:

Select patch panels with the necessary port density for current and future needs.

Wall outlets:

Choose appropriate wall plates and jacks for each connection point.

Cable management accessories:

Select cable ties, raceways, and other tools for proper cable organization.

Cable Installation

Entrance facility:

Establish the point where external cables enter the building and connect to the backbone cabling.

Backbone cabling:

Run cables from the entrance facility to the equipment room or telecommunications closet.

Horizontal cabling:

Run cables from the telecommunications closet to individual work areas, following designated pathways within walls and ceilings.

Termination:

Properly terminate cables at both ends on patch panels and wall jacks using appropriate crimping tools.

Testing and Certification

Basic connectivity testing:

Verify that each cable connection is functional using network testing tools.

Channel testing:

Perform detailed testing to ensure signal quality meets industry standards (e.g., TIA/EIA standards).

Documentation:

Record test results and cable labeling for future maintenance and troubleshooting.

Key Considerations:

Compliance with standards:

Ensure that the cabling system adheres to relevant industry standards (e.g., TIA/EIA) for performance and compatibility.

Network Solutions for your business or office

Network Switching: A network switch is a device that connects multiple IT devices, such as computers, to form a network and allow them to communicate with each other:

- *Function*

A switch forwards data packets between devices on a network. When a data packet arrives at a switch port, the switch determines the packet's destination and forwards it to the correct port.

- *Type*

Switches can be standalone appliances or components of other equipment, like routers and access points. Simple switches connect devices on a single local area network (LAN), while more advanced switches can connect devices from multiple LANs.

- *Benefits*

Switches prevent each device's traffic from interfering with other devices' traffic. They also allow for Quality of Service (QoS) capabilities, which prioritize network traffic based on factors like application type and data type.

Switches are a fundamental building block of modern IT networks, including the internet.

- *Network security:*

cyber-attacks are an inevitable reality, to prevent them, a fire-wall switch will be added to your network to protect your business from any issue

Wi-Fi

- A wireless access point (WAP) is a device that allows wireless devices to connect to a wired network, such as the internet or a local area network (LAN). It acts as a central hub for wireless communication, allowing devices like smartphones, tablets, and laptops to access the network without the need for wired connections.
- Here are some key points about wireless access points:
- Installation: **WAPs are simpler and easier to install than using wires and cables.**

- **Range:** When a wireless device moves beyond the range of one AP, it is handed over to the next AP.
- **Security:** Some WAPs have advanced security features.
- **Integration:** A WAP can be an integral component of a wireless router.
- **Performance:** WAPs can help maintain a high level of network performance, even when there are many wireless devices connected.

VoIP Phones or Voice over Internet Protocol

- *-Phones VoIP (Voice over Internet Protocol):* Lower costs, high portability, scalability, advanced features, better voice quality when using a stable internet connection, easy accessibility from anywhere with an internet connection, and the ability to integrate with other communication channels

Key benefits of VoIP phones:

Cost-effective: Eliminates the need for dedicated phone lines, reducing overall phone costs, especially for long-distance calls.

- *Scalability:* Easily add or remove phone lines as needed, making it ideal for growing businesses.
- *Portability:* Take your phone number with you anywhere you have an internet connection.
- *Advanced features:* Access features like call forwarding, voicemail transcription, auto-attendants, and video conferencing.
- *Flexibility:* Use a variety of devices to make calls, including traditional VoIP phones, softphones on computers, and mobile apps.
- *Integration with other systems:* Can be integrated with other business applications like CRM systems.
- *Improved voice quality:* With a reliable internet connection, VoIP can deliver high-quality audio.

Other Services

Other service will be

Cabling remediation or clean up: Organizing, tidying, and improving the condition of existing cables in a network, removing unused cables, properly labeling them, and implementing effective cable management ensure an optimal and secure functionality of your network.

Key aspects of cabling remediation:

Identifying and removing unused cables: Removing old, damaged, or unnecessary cables from the system.

Labeling cables: Properly labeling both ends of cables for easy identification and troubleshooting.

Organizing cables: Using cable ties, cable trays, Velcro or other methods to bundle and route cables neatly.

Checking connections: Verifying that all cable connections are secure and properly terminated, replacing any damage connection such as Ethernet cable jumpers, patch panel or patch panel connectors (keystones Jacks) is part of an efficient cable remediation

Identifying and addressing potential hazards: Identifying and fixing any potential safety issues like frayed cables or overloaded power strips. Adding a backup battery to your network will protect your equipment from power surges and will keep it running during a short power outage

Voice/Data cable relocation or repurposing: Moving a cable or cables to a new location within a building or reusing them for a different purpose instead of installing entirely new cables, it's a common practice in the industry

Key points about voice/data cable relocation or repurposing:

Cost-effective:

Reusing existing cables can be significantly cheaper than installing new ones, especially when undergoing office renovations or layout changes.

Assessment needed:

Before repurposing, a thorough evaluation of the cable's condition, type, and compatibility with the intended new application is crucial, CAT5, CAT5e and above are recommended for this practice, a cable with less quality like CAT3 and below, is recommended to be replaced it

Upgrade potential:

Sometimes, older voice cables can be upgraded to support higher data speeds with appropriate modifications.

Considerations:

Cable length: If the existing cable length is not suitable for the new location, it might need to be replaced.

Network standards: Older cable types might not meet current network standards for high-speed data transmission.

Building infrastructure: Accessing cables within walls or ceilings can be complex and may require additional work.

TV mounting and network equipment install such as Computers network Switches: refers to the physical act of attaching a television to a wall using a mounting bracket, alongside the various hardware components like computers, network switches, and routers that are used to connect devices together on a network, allowing them to communicate with each other; essentially, it combines the idea of TV installation with the necessary networking infrastructure to access the TV's features and functionality.

Key points:

TV mounting:

Securely attaching a TV to a wall using a mounting bracket, which can be fixed, tilting, or swiveling depending on the desired viewing angle.

Network equipment:

Installation of Devices like computers, network switches, routers, and access for offices or residential buildings

IDF and MDF closet built up: installation of 2-4 post rack, V-racks, Wall-mount cabinet, ladder rack and cable tray.