

# Network Infrastructure Tips for Small to Midsize Businesses



The computer network forms the backbone of a business, connecting users to each other and to the internet. The right [network infrastructure](#) drives efficiency, accessibility, and security. But network components can prove complex and expensive. The following tips help small to medium businesses maximize security, improve end-user experience and support growth.

## Network Infrastructure Components

The network infrastructure includes the equipment and software that support connection and communication among devices, users, apps, and the internet. Networks typically involve a combination of wired and wireless connections.

In very simple terms, internet traffic comes into the office via a cable that connects to a router. From the router, the data passes through a firewall to a network switch. Network devices gain access to the internet and each other by connecting to the switch. And access points allow wireless devices to connect to a wired network.

In practice, building and maintaining a network can prove quite complicated. Businesses must determine optimal network design and then choose among various options for each component. Any change to business processes may impact the network.

## Conduct Regular Inventory and Assessment

When building or upgrading a network, organizations need to first determine the networking needs. This involves taking an inventory of devices that connect to the network, such as laptops, desktop PCs, printers, smartphones, conference room equipment, POS systems and so forth. It also includes understanding which workloads work best in the cloud vs. on premises.

As the company grows and processes evolve, the network also changes. For instance, new applications, the addition of VoIP or a change in the remote work policy all bring repercussions for the network. Businesses should conduct regular [network assessments](#) and adjust accordingly. They must also consider [regulatory compliance](#) in evaluating the network.



## Build a Network to Safely Support Remote and Hybrid Work

Remote and [hybrid workforce considerations](#) significantly impact network infrastructure needs. During the pandemic, for instance, many businesses had to scramble almost overnight to support remote work. Now organizations find themselves needing to take a closer look at their networks, making adjustments to improve performance and security.

A large number of employees working remotely at least part-time necessitates a mix of on-premises and cloud networking. Businesses have various options to achieve the necessary connections for hybrid scenarios. For instance, they can implement a virtual private network (VPN) or use a dedicated connection. Each option has both advantages and limitations.

Whatever scenario the organization chooses, security must take high priority. Hackers have increasingly targeted small to medium businesses, and haphazard hybrid networks leave doors wide open. Start with a good quality firewall. Email filtering, multi-factor authentication, [encryption](#) and [zero-trust policies](#) also prove essential.

## Plan for Future Growth

Upgrading networks can involve expensive equipment purchases like more powerful servers and improved switches. When setting up the network infrastructure in-house, businesses need to forecast needs several years into the future. Keeping the structure simple will reduce maintenance costs, but at the same time, the business needs to allow for growth.



To facilitate growth, choose equipment that allows the incorporation of additional functionality or power down the road. Also, invest in equipment that supports flexibility and scalability. For example, power over ethernet (PoE) switches send both electrical power and data over a single cable, eliminating the need for additional cables and outlets.

## Benefits of Managed Networks

Planning, implementing, and maintaining the network infrastructure can prove quite complex, and many businesses lack the in-house expertise necessary. Consequently, small to midsize businesses often choose to contract for [managed network services](#) instead.

With managed services, organizations benefit from up-to-date equipment and technologies managed by an expert team of network professionals. More efficient networking means greater productivity, less downtime and increased security.

The network experts at eMazzanti provide a range of [network services](#), from network design to 24/7 monitoring and support, credential management and more. [Request a custom network assessment](#) to begin the road to lower maintenance costs, increased efficiency and improved peace of mind.