

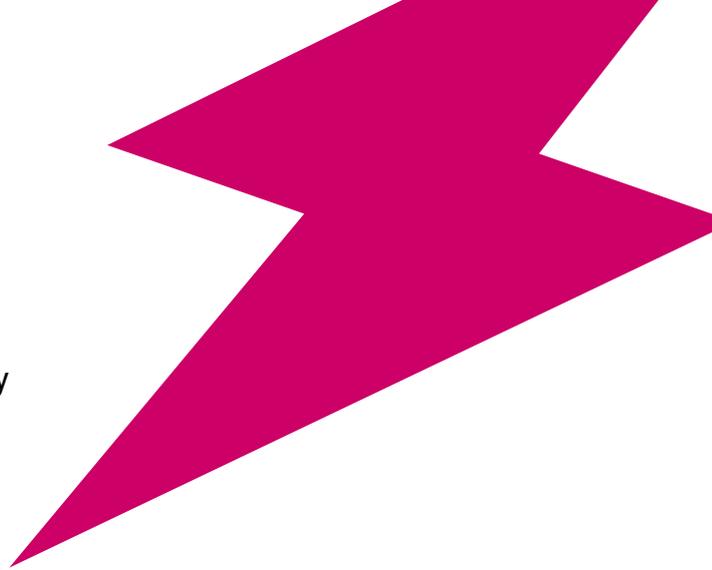


What Is Network Management?



One of the most important tasks within IT is managing and maintaining the hardware and software related to networking and communication. This discipline is more broadly known as network management, and is necessary for most businesses, regardless of their size or industry. Companies requiring tasks as mundane as the use of email, linking of computers, security measures, access to the Internet, etc., incorporate network management as a part of their operations.

This piece aims to guide you through the services and tasks that make up network management, and the ways in which it can be incorporated into the business environment.



Why care about network management?

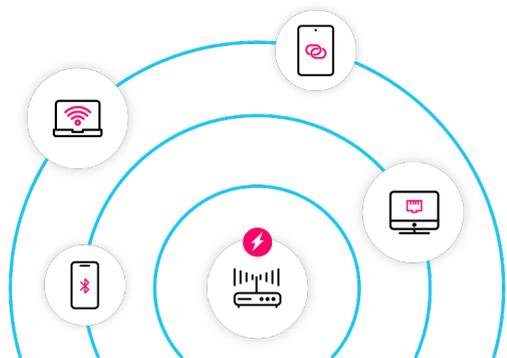
Businesses that have any kind of online presence, communicate with customers, or manage business partners via the Internet could see their bottom lines damaged by network management issues.

Thus the importance of network management, in a modern digital business environment it touches just about everything and can have the following consequences.

Downtime is expensive

On average, a network outage can cost a company \$5,600 per minute. Not only are you possibly missing out on new sales, but you may also lose current customers who cannot get in touch with you. Internal business disruptions related to downtime also increase operating costs. For example, employees are less productive because they cannot email or communicate with a colleague. This is especially problematic for companies with teams spread across multiple offices.

Network management monitoring and software can help IT teams detect potential problems and mitigate loss related to outages.



A network without management is an unsecure network

Cyber attacks and data breaches have almost become ubiquitous in today's connected world. And like downtime, unsecured networks can also turn out to be very expensive. The average cost of a data breach for U.S. companies is \$8.2 million.

While there is no singular reason for cyber attacks, unsecured networks do take some of the blame, as insider threats (intentional and unintentional) account for 60% of attacks. Network management can play a large role in preventing them. For example, having insight into who is accessing networks is one step in preventing malware and spyware from being added to employee machines.

Components of network management

In most organizations, some or all of the following services comprise network management:

- ⚡ **Operations:** This is taking a high-level view of how an organization's network should run and making sure that it does optimally. Network operations professionals systematically monitor network software and devices. They find and repair problems as they occur, ideally before anyone in the organization notices.
- ⚡ **Administration:** This is the monitoring of the performance hardware of networking resources (e.g., routers, switches, and servers), and the software needed to run them. This task typically involves being aware of vendor patches and updating company devices accordingly.
- ⚡ **Security:** This task involves managing multiple physical and virtual firewalls from one location. Administrators also monitor network behavior and investigate suspicious activities. An additional component of this job is keeping the network compliant with privacy, industry, and security regulations.
- ⚡ **Maintenance:** Repairing or replacing damaged or out-of-date networking equipment.
- ⚡ **Provisioning:** Configuring network resources to serve different groups of users, including internal employees and external partners and customers.
- ⚡ **Performance management:** Engaging in techniques that maintain ideal network performance levels. This involves monitoring of each networking device and identifying which ones may be causing a delay or bottleneck.

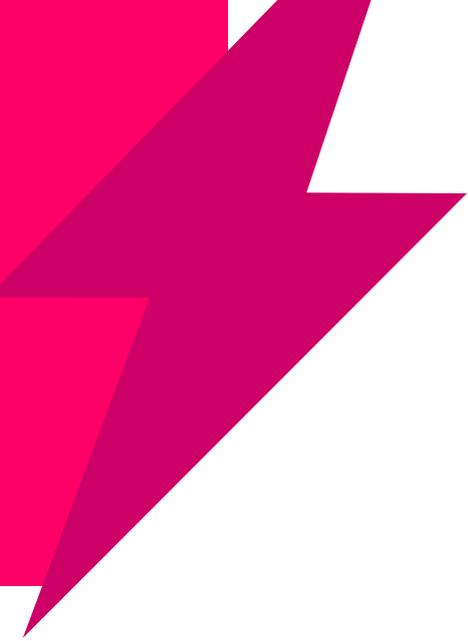
Network management at your organization

Depending on the organization, network management can be handled completely internally, outsourced to an external provider, or through a combination of the two. We'll go into more detail of all three options below.

In-house

Keeping network management completely in-house requires an individual or team of network administrators to manage all network-related tasks. A major advantage of employing a full-time internal network administrator is having a technician on staff who understands the business itself. This knowledge base comes in handy when managers are considering redesigning network models or need consultation when buying or upgrading equipment.

However, network administration is a difficult job to do alone, even in a small business. As mentioned earlier, preventing and mitigating downtime are a vital components of network management, and network issues don't always occur during business hours. Network administrators must be on call or work overtime to ensure that the network is running smoothly at all times.



According to the Bureau of Labor Statistics (BLS), *the median salary of a network administrator is \$82,050*. Employing multiple administrators at this salary may be out of reach for many startups and SMBs. Additional costs include ongoing training that a technician would need to stay up-to-date on certifications.

Outsourcing

Many companies choose to focus solely on their core business and outsource IT tasks, including network management, to external consultants or contractors. There are some obvious advantages to this including reduced costs and (usually) guaranteed 24/7 emergency assistance. In addition, IT outsourcers typically employ a team of professionals with up-to-date certifications and knowledge of the latest technologies.

However, there is a downside to completely outsourcing network management responsibilities, centered around issues of trust. Will the consultant's guarantees on uptime and performance really come through? How long will it actually take to respond to, and mitigate, damage from a network outage? Ideally, companies need concrete answers to these questions before they are facing an emergency.

An additional problem is an outsourcer's lack of insight into the business, especially if they have a large and diverse client base. They may want to take a one-size-fits-all approach to network management without taking into consideration a company's long-term goals. When selecting an outsourcer, companies may want to focus on consultants who have a core client base of companies similar to them in terms of size and industry.

Hybrid approach

Many small businesses find that their network management needs to fall somewhere in between completely in-house and completely outsourced. A successful hybrid model involves an internal IT person providing guidance and relevant business information to the external provider. This allows the internal IT professionals to dedicate most of their time to core business needs, while being called on sparingly to assist with network management.



How Electric Handles Network Management

A reliable and secure network is essential for almost any business, regardless of industry. Electric helps diverse companies develop unique network management solutions, from those with no formal IT organization to those whose IT teams need relief from repetitive and mundane tasks.