

What is a Network Operations Center (NOC)?

A network operations center (or NOC, pronounced like “knock”) is a centralized operation where an organization’s information technology and communications infrastructure can be monitored continuously 24/7/365. The continuous monitoring allows the NOC to address issues within minutes as they arise. This minimizes the impact on the production environment and IT systems, avoiding degradation and maintaining performance. This proactive approach also catches and resolves potential user-facing issues before they become a problem for the staff.

A NOC receives notification of issues with an IT system and resolves that issue all before a user even becomes aware that their system’s performance had been impacted. A properly-functioning NOC operates behind the scenes without end users being aware of the work they’re doing. This results in a seamless, continuously connected, and highly reliable experience. A NOC also exists to supplement the common (and less effective) IT approach of “set it and forget it.” Rather than relying on a total outage or on user complaints to become aware of an issue, a NOC takes a proactive approach in discovering and solving technical issues before the outage or performance issue develops. Some companies choose to operate a NOC internally and locate the infrastructure and operations hub on-premises, often within their data center. But for other organizations, this work is outsourced to a third-party that specializes in network and infrastructure monitoring and management.

24/7/365 Monitoring and Service



Complete performance and uptime remediation



Off-hours service and validation of patches



Vulnerability and systems monitoring

NOC Capabilities

A world-class NOC oversees IT systems and infrastructure to provide these benefits:

- ✔ Update, troubleshoot, and install software on an organization’s systems.
- ✔ Manage IT infrastructure and equipment.
- ✔ Monitor firewalls and network security software and facilitate patch management.

In-House vs. Outsourced

An in-house NOC requires significant resources and investment. As it manages and monitors entire internal networks, they require high levels of access and control. Smaller organizations may not want to (or have the ability to) allocate the necessary resources. An outsourced NOC can provide high-quality, standardized management and monitoring of IT infrastructures without the staffing and funding required by an internal team. Additionally, as an external component of an organization’s existing workforce, the organization’s primary technical staff can continue to focus on essential, day-to-day functions.