NETWORK ENGINEER

JOB DESCRIPTION

Network engineers set up and maintain the networks that carry information between computers. These networks use a range of technologies to work. They may connect computers located either in a single office or computers separated by huge distances. Network engineers also diagnose and fix problems with network software and check the cables, radio links, and even satellites that carry the information. They also provide on-site help to a company's staff.

SALARY

Junior network engineer ★★☆☆
Senior network engineer ★★★★☆

INDUSTRY PROFILE

Growing job market • Opportunities available in almost every area of business or industry • Opportunities to work in-house or on a freelance basis for external consultancies

CAREER PATHS

Career progress as a network engineer depends on the type and size of the company you work for. If the company is small, you will be called upon to deal with a variety of computer issues, from slow Internet speeds to virus infections. However, if you work for a large global company, you are more likely to specialize in one particular area, such as network architecture or cybersecurity.

NETWORK ARCHITECT Designs an organization's computer network. This involves analyzing how the business works and planning a network that can meet its needs both now and in the future.

TRAINEE A person with a good general education and strong Information Technology (IT) skills may find work as a trainee technician. On-the-job learning and taking college-level courses may put you on the path to becoming a network engineer.

GRADUATE If you have an undergraduate or graduate degree in computer science or systems engineering, you can find work with companies that run large and complex networks.

NETWORK ENGINEER The role requires continual learning to keep up to date with ever-changing technologies. You usually specialize in one or more networking systems made by different manufacturers.

SKILLS GUIDE

Excellent communication skills to be able to work with non-technical staff in an organization.

The ability to work as part of a team of software developers and other IT professionals.

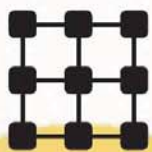The efficient management of IT technicians and an ability to support senior managers.

The ability to identify and solve technical problems within urgent time frames.

Patience and perseverance to resolve problems and restore a company's network function.

Knowledge and expertise across a wide range of IT software, hardware, and networks.

AT A GLANCE

YOUR INTERESTS Information Technology (IT) • Computer science • Electronic or electrical engineering • Computer networks • Mathematics

ENTRY QUALIFICATIONS A technical degree in computer-systems engineering or another related subject is useful but not required.

LIFESTYLE Network engineers work shifts or are on call to resolve issues outside normal hours, as companies rely on their networks 24 hours a day.

LOCATION Much of the work is office-based, but some network engineers operate remotely from home, depending on the type of project.

THE REALITIES Technological advances mean this is a growth area with many new fields of work opening up. Skills need to be regularly updated.

NETWORK CONTROLLER Manages the staff who maintain the network, and ensures the network operates reliably.

IT CONSULTANT Works for an IT consultancy or sets up their own business to provide networking advice and services to a range of clients.

HELP DESK PROFESSIONAL Provides telephone and online support and advice to a company's network users.

▼ RELATED CAREERS

▶ **SOFTWARE ENGINEER** see pp. 118–119

▶ **SYSTEMS ANALYST** see pp. 120–121

▶ **DATABASE ADMINISTRATOR** see pp. 122–123

▶ **CYBERSECURITY ANALYST** see pp. 132–133

The US Bureau of Labor Statistics predicts that the number of job opportunities for network engineers will grow 18 percent by 2018.