Network Engineer

A network engineer installs and maintains a network of linked computers and other equipment, such as telephones. The network might connect computers within a building or across different buildings.

The Work

You could work on different types of network: local area networks (LANs) which link offices in a building or local area; metropolitan area networks (MANs) which link a large area or joins LANs across a campus or city; wide area networks (WANs) which are national or international; and global area networks (GANs) which combine all of the above with satellite technology.

In all cases, you could be:

- installing and configuring hardware such as switches, routers and load balance servers
- installing software, such as network drivers
- setting up systems to control access to the network, and applications and data held on it, by configuring firewalls, anti-virus and other security measures
- setting up user accounts, permissions and passwords
- planning and carrying out testing of the network to make sure it is secure and working properly
- monitoring the network for any errors or disruptions to service and solving problems using different diagnostic programs
- ensuring all updates to hardware and software are carried out
- developing the network to cope with future demand.

Pay

The figures below are only a guide. Actual pay rates may vary, depending on:

- where you work
- the size of company or organisation you work for
- the demand for the job.

Starting salaries can be around £25,000 to £28,000 a year. Experienced network engineers or managers can earn up to around £45,000 a year. Very experienced network managers may earn over £60,000 a year.

If you do contract work, the daily rate varies.

Conditions

- You will be based in an office, which could be at a desk or in a server room.
- You will spend most of the time working at a computer.
- You might have to travel to visit companies, to set up their networks.
- Your hours might be regular, Monday to Friday, but in some jobs you will have to work shifts. You may have to work outside office hours to limit the disruption to the client's business.

- You may sometimes have to be on call to deal with breakdowns and work in the evenings and weekends.

Getting In

- Most entrants have a degree (SCQF Levels 9-11), HND (SCQF Level 8) or HNC (SCQF Level 7) in a relevant subject such as computer systems, network technology, software engineering, electronic engineering or business information systems.
- For entry to an HNC or HND course, you normally need 1-2 Highers plus some subjects at National 5. For entry to a degree course you need 4-5 Highers, sometimes including Maths.
- Studying for a relevant Foundation Apprenticeship while in fifth and sixth year at school could count towards entry of a course. Entry requirements vary between colleges, but you usually need relevant subjects at National 5 such as Maths, Physics or Computing Science.
- You might get in through a Modern Apprenticeship in IT and Telecommunications at SCQF Levels 5, 6 and 8, then work your way up with experience and further specialist training.
- There are also Modern Apprenticeships in Digital Technology: Infrastructure at SCQF Level 6 and Digital Technology: Network Infrastructure at SCQF Level 8.
- You would need a driving licence if you have to travel between sites.

There are jobs in a wide range of companies and organisations including banks, building societies, insurance companies, central and local government, water, electricity and gas companies, universities, colleges and the National Health Service (NHS). There are also jobs with companies that supply, install and service networks.

What Does It Take

You need to be able to:

- keep up to date with IT developments
- understand the business needs of your company or client
- work to deadlines
- communicate with a wide range of people, some without a technical background
- organise work programmes and prioritise tasks
- remain calm under pressure
- work as part of a team and motivate others.

You need to have:

- excellent problem solving skills
- a logical, systematic and analytical approach
- excellent IT skills and knowledge of hardware and software.

Training

- If you do a Modern Apprenticeship, you would complete the relevant Diploma at SCQF Levels 5, 6 or 8.
- Many network engineers study part time for further qualifications.
- You could do CISCO courses including Network Associate (CCNA), Network Professional (CCNP) and Internetwork Expert (CCIE) through the CISCO Networking Academy.

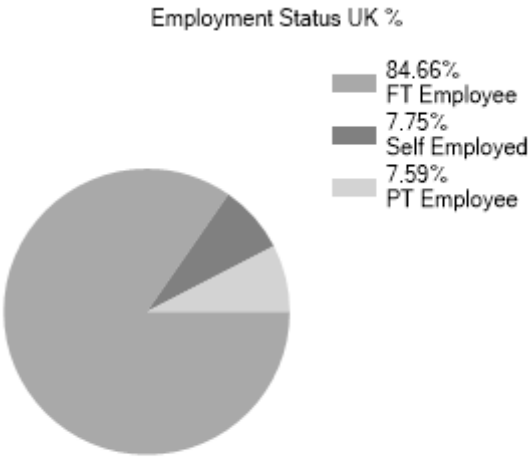
- You could study for Microsoft Role-Based Certifications, CompTIA Certifications or Palo Alto Networks qualifications
- You could study with the BCS, The Chartered Institute for IT, towards professional qualifications.

Getting On

- With experience, you can apply for promotion to a job as a project leader or manager of a technical department.
- You could specialise in information security, planning for information systems or helping businesses to develop their systems.
- You might become self-employed and contract out your services as a consultant.

Contacts

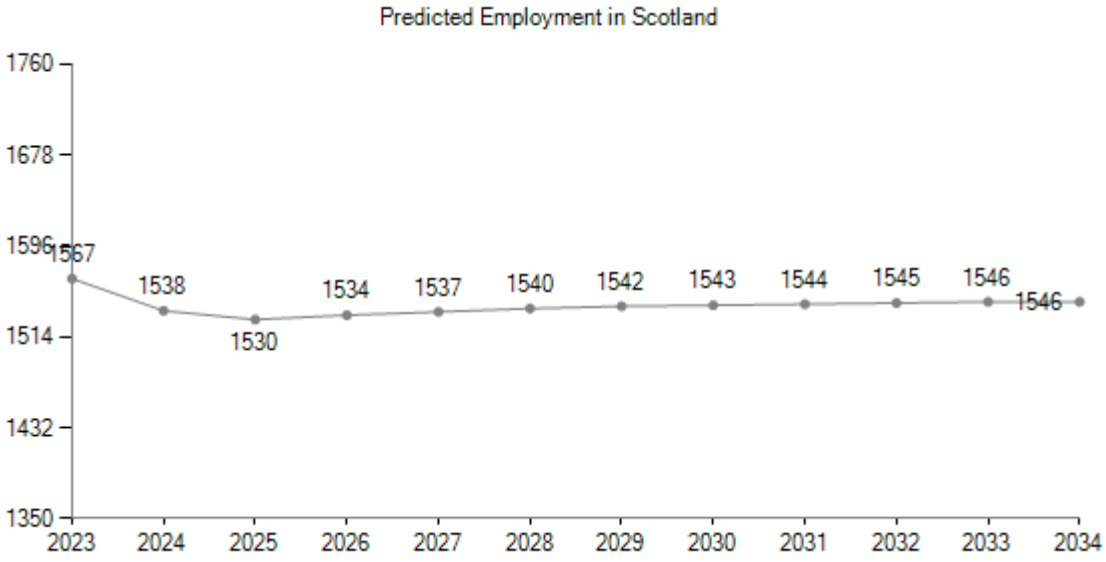
Statistics



Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by LMI for All



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