

Information Communications Technician

Apprenticeship Standard

Role/Occupation: Information Communications Technician (Network Technician)

Level 3

Overview: To deliver efficient operation and control of the IT and/or Telecommunications infrastructure (comprising physical or virtual hardware, software, network services and data storage) either on-premises or to end-users provisioned as cloud services that is required to deliver and support the information systems needs of an organisation

The occupation includes contributing to the preparation for new or changed services, operation of the change process, the maintenance of regulatory, legal and professional standards, the building and management of systems and components in virtualised and cloud computing environments and the monitoring of performance of systems and services in relation to their contribution to business performance, their security and their sustainability.

An Information Communications Technician (ICT) provides support to internal and/or external customers, by using tools or systems to problem solve and trouble-shoot routine and non-routine problems. This occupation supports clients/customers with their systems. They achieve this through monitoring and maintaining the systems and/or platforms to maximise productivity and user experience.

An ICT could be installing and configuring computer systems, diagnosing hardware and/or software faults, solving technical and applications problems, either remotely or in person. Some examples of these issues are slow performance, connection problems and an inability to access data. An employee in this occupation will be responsible for prioritising systems support tasks as they arise and for monitoring and maintaining system performance. They may work alone or as part of a team but will escalate problems in line with their organisation's policies and Service Level Agreements. For example, if the task may not be completed on premise, it may have to be referred to an external specialist.

This apprenticeship standard allows for one of three optional routes/specialisms:

- **Support Technician** – this role is desk based resolving system user queries and resolving faults in a helpdesk environment.
- **Network Technician** – this role is usually desk based but may involve visits to client's premises to resolve issues.
- **Digital Communications Technician** – this role may be desk or field-based resolving faults and issues with communications systems.

DURATION

The apprenticeship will typically take 24 months to complete.

ENTRY REQUIREMENTS

Each employer will set their own entry requirements

ENGLISH & MATHS

Apprentices without Level 2 English or Maths will need to achieve this prior to taking their End Point Assessment.

For those with an education, health and care plan or a legacy statement, the minimum English and Maths requirement is Entry Level 3. For those whose primary language is British Sign Language, BSL qualifications are an alternative to English qualifications.

QUALIFICATIONS

There are no mandatory qualifications for this apprenticeship standard.

LINK TO PROFESSIONAL REGISTRATION

The standard aligns with the following professional recognition: **RITTech** for 3 years.

COMPETENCIES

Core Duties

- Provide technical support to customers both internal and external through a range of communication channels
- Establish and diagnose ICT problems/faults using the required troubleshooting methodology and tools
- Interpret technical specifications relevant to the ICT task
- Apply the appropriate security policies to ICT tasks in line with organisational requirements
- Undertake the relevant processes with the relevant tools and technologies to resolve ICT technical issues
- Communicate with all levels of stakeholders, talking them through steps to take to resolve issues or set up systems, keeping them informed of progress and managing escalation and expectations
- Apply appropriate testing methodologies to hardware or software or cabling assets
- Practice guided continuous self-learning to keep up to date with technological developments to enhance relevant skills and take responsibility for own professional development
- Document or escalate ICT tasks as appropriate to ensure a clear audit trail and progression of issues

Core Knowledge, Skills & Behaviours

- Interpret and prioritise internal or external customer's requirements in line with organisation's policy
- Apply the appropriate tools and techniques to undertake fault finding and rectification
- Apply Continuous Professional Development to support necessary business output and technical developments
- Operate safely and securely across platforms and responsibilities maintaining the security of personal data of internal and external stakeholders
- Communicate with all levels of stakeholders, keeping them informed of progress and managing escalation where appropriate
- Develop and maintain effective working relationships with colleagues, customers and other relevant stakeholders
- Manage and prioritise the allocated workload effectively making best use of time and resources
- Complete documentation relevant to the task and escalate where appropriate
- Install or undertake basic software upgrades, either physically or remotely
- Establish and diagnose the extent of the IT support task, in line with the organisation's policies and Service Level Agreements

Core Knowledge, Skills & Behaviours *(Continued)*

Provide remote/F2F support to resolve customer requirements

Maintain a safe working environment for own personal safety and others in line with Health & Safety appropriate to the task

Approaches to back up and storage solutions

Basic elements of technical documentation and its interpretation

Principles of root cause problem solving using fault diagnostics for troubleshooting

Principles of basic network addressing for example binary

Basic awareness of the principles of cloud and cloud-based services

Fundamental principles of virtual networks and components

Principles of cultural awareness and how diversity impacts on delivery of support tasks

Methods of communication including level of technical terminology to use to technical and non-technical stakeholders

Different types of maintenance and preventative measures to reduce the incidence of faults

Key principles of security including the role of People, Product and Process in secure systems for example access and encryption requirements

Fundamentals of physical networks and components

Approaches to documenting tasks, findings, actions taken and outcome for example, use of task tracking and ticketing systems

Basic awareness of legislation in relation to disposal of waste materials for example Waste Electronic and Electrical regulations (WEEE)

Works professionally, taking initiative as appropriate and acting with an ethical approach

Communicates technical and non-technical information in a variety of situations to support effective working with internal or external stakeholders

Demonstrates a productive and organised approach to their work

Self-motivated, for example takes responsibility to complete the job

Network Technician Duties

Complete cabling tasks for example coaxial, copper, fibre or remotely

Administer mobile devices on a network

Deliver network tasks prioritising security with a view to mitigating and defending against security risks

Install and configure relevant software and physical or virtual hardware as appropriate for example: network devices, switches and routers

Network Technician Knowledge, Skills & Behaviours

Principles of OSI layers

Principles of cloud and network architecture (including Wi-Fi)

Principles of DNS/DHCP

Awareness of Cloud platforms, such as AWS, Azure or GCP

Principles of LANs and WANs

Approaches to virtualisation of servers, applications and networks

Principles of network protocols

Principles of APIs and Web Services

The different types of cloud storage

Back up procedures and their importance

Principles of databases and migration

Network Technician Knowledge, Skills & Behaviours (Continued)

Key principles of Cloud Security and firewalls

Awareness of DevOps methodology and tools, such as Puppet, Chef, Git, Docker

Awareness of the purpose of firewalls

Different types of connectivity and cabling for example physical and remote

Awareness of network protocols

Use a range of Cabling or Connectors equipment in line with technical requirements for example physically or remotely

Test and evaluate network environments

Monitor performance and usage of a network

Deploy applications on a network

Set up storage and data access for staff

Apply necessary security measures, in line with access requirements to a network

Carry out routine maintenance across network systems, ensuring organisational compliance

Monitor network-related workloads including DNS and firewalls

Install or undertake basic upgrades, either physically or remotely

Establish digital communication or telecommunications systems through, e.g. cabling and connecting equipment

ON-PROGRAMME DELIVERY

Each apprentice will be allocated a Coach to support ongoing learning and preparation for End Point Assessment. In addition Progress Reviews will take place regularly to ensure the apprentice is on track. All apprentices will be invited to attend relevant workshops to support the development of their Knowledge, Skills and Behaviours. We may also offer technical training sessions, where required.

END POINT ASSESSMENT

The EPA will consist of two assessment methods:

1. Professional discussion underpinned by portfolio
2. Project report with questioning

The EPA will be conducted by an Independent External Assessment Organisation (IEAO).

PROGRESSION

Please talk to us about progression from this Apprenticeship.

REALITY CHECK

- Time and support required from the employer to the apprentice during the apprenticeship to include: regular Performance Reviews, relevant off the job training and preparation for the final EPA
- Expectation of significant amounts of study/work from the apprentice in order to meet the requirements of the apprenticeship
- Employer has to be involved in the EPA and provide support and time to the apprentice in preparation for the EPA
- The employer must be able to provide the apprentice with the relevant autonomy, influence and access to the business as detailed in the overview section

COSTINGS

Maximum Funding Band: £15,000

The cost of the apprenticeship will be negotiated with you in line with Government guidelines

PLEASE CONTACT APPRENTICESHIPS@CIRENCESTER.AC.UK FOR FURTHER INFORMATION

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