Pearson

Apprenticeships in Digital

Pearson Level 3 End-point Assessment for

Information Communication Technician

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First assessment date: **July 2022**

About Pearson

We are the world's learning company operating in 70 countries around the world with more than 22,500 employees. We provide content, assessment and digital services to schools, colleges and universities, as well as professional and vocational education to learners to help increase their skills and lifelong employability prospects. We believe that wherever learning flourishes so do people.

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Contents

1 The Information Communication Technician Apprenticeship

What are Pearson End-point Assessments?

End-point Assessment (EPA) takes place at the end of the apprenticeship programme when the apprentice has passed through the gateway and been signed off as ready for the assessment by their employer. It is a synoptic assessment of the knowledge, skills and behaviours outlined in the apprenticeship standard learned throughout the apprenticeship programme.

Purpose

The purpose of the EPA is to confirm that the apprentice has met the required level of knowledge, skills and behavioural standards set by employers and that they are competent in their role as Information Communication Technician.

This occupation is found in organisations, large and small, in all sectors, and within public, private and voluntary organisations.

Organisations increasingly rely on computer and communications systems in all areas of their operations and decision-making processes. It is therefore crucial to ensure the optimal performance and maintenance of systems. An Information Communication Technician (ICT) is critical to achieving this.

The broad purpose of the ICT occupation is 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 are required to deliver and support the information systems needs of an organisation.

Aspects of the occupation involve 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.

The Information Communication Technician makes their contribution through the application of infrastructure management tools to automate the provisioning, testing, deployment and monitoring of infrastructure components.

An 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 role 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.

The work of an ICT involves undertaking a vast array of specialist roles supporting business-critical requirements and focus on customer solutions. Networking, server, IT essentials, secure communications, programming and databases are examples of typical tasks and projects undertaken within the likely areas of employment.

In their daily work, an employee in this occupation interacts with a wide variety of internal or external users of digital systems, through digital channels, remotely and/or face to face.

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 the premises, it may have to be referred to an external specialist.

Industry support and recognition

Pearson has worked in close collaboration with employers, other assessment organisations and experts from professional bodies and training providers in developing the assessment tools for this EPA. We are grateful to all who have generously shared their time and expertise to help us in the development process.

2 Summary of End-point Assessment

EPA title	Pearson Level 3 End-point Assessment for Information Communication Technician
Qualification number (QN)	610/0920/0
Regulation start date	01/06/2022
First Pearson assessment	01/06/2022
Assessment methods	• Method 1: Professional discussion underpinned by portfolio • Method 2: Project Report with questioning *Refer to Section 5 for detailed information about each component.*
Grading	Each method is graded Pass/Distinction Apprentices are awarded an overall grade of Pass/Merit/Distinction *Refer to Section 3 for detailed information.*
Duration of apprenticeship programme	The typical duration for this apprenticeship is 18 months but this will depend on the individual apprentice's experience and access to opportunities to gain the full range of competences.
Gateway requirements	• Employer confident that the apprentice is ready. • Maths and English achieved at Level 2. • Apprentices must submit a portfolio to underpin the Professional discussion (compiled throughout the apprenticeship and completed by the gateway).
Time period for completion of EPA	This EPA should be completed within an EPA period typically lasting four months. The assessment methods can be delivered in any order.
Apprenticeship certification	The certificate for the apprenticeship is awarded by the Institute for Apprenticeships and Technical Education (IfATE), through a process administered by the Education and Skills Funding Agency (ESFA). As the End-point Assessment Organisation (EPAO), Pearson will claim certificates on behalf of apprentices.

3 EPA structure

Pearson Level 3 End-point Assessment for Information Communication Technician

The EPA for the Information Communication Technician apprenticeship consists of the following two assessment methods:

- Professional discussion underpinned by portfolio
- Project report with questioning.

The table below gives a summary of the structure of the End-point Assessment.

End-point Assessment methods	Duration	Component grading
Professional discussion underpinned by portfolio	60 minutes	Fail/Pass/Distinction
Project report Questioning	4 weeks 30 minutes	Fail/Pass/Distinction

The assessment methods can be delivered in any order. The result of one assessment method does not need to be known before starting the next.

The occupational standard includes three options:

- Support Technician
- Network Technician
- Digital Communications Technician.

Within each assessment method, apprentices are assessed against core apprenticeship standard outcomes as well as outcomes specific to their chosen option.

EPA grading

The overall grading for this EPA is Pass/Merit/Distinction.

All assessment methods are weighted equally in their contribution to the overall EPA grade.

The table below shows how the grades from each End-point Assessment component are combined to determine the overall End-point Assessment grade.

EPA method 1	EPA method 2	End-point Assessment grade
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Distinction	Pass	Merit
Pass	Distinction	Merit
Distinction	Distinction	Distinction

4 Assessment

Assessment plan

Pearson's approach to assessing this EPA is set by the assessment plan for the apprenticeship standard. This document is available in *Annexe A*.

Language of assessment

Apprentices must use English only during the assessment of this EPA.

An apprentice taking the EPA may be assessed in British Sign Language for the purpose of reasonable adjustment.

Further information on the use of language in assessment is available in our *Use of languages in qualifications policy*, available on our website.

Gateway

Before progressing to the EPA from on-programme, all apprentices must be signed off by their employer, through the 'gateway'. This gateway sign-off confirms that apprentices have the level of occupational knowledge, skills and behaviours required to achieve the apprenticeship.

The EPA-specific requirements for the gateway are stated in *Section 2: Summary of End-point Assessment* and the assessment plan in *Annexe A.*

Employers must complete a *Gateway Declaration Form* this is available in the End-point Assessment Resource Pack (EPARP)) with the apprentice. The form and the associated gateway evidence to prove apprentices have met the requirements must be supplied to Pearson before the EPA can take place.

5 End-point Assessment methods

Method 1: Professional discussion underpinned by portfolio

Structure

The Professional discussion underpinned by portfolio assesses apprentices' knowledge, skills and behaviours from the apprenticeship standard, in line with the assessment plan requirements. It is assessed by a Pearson independent end-point assessor (IEA).

Professional discussion	
Summary	This assessment will take the form of a Professional discussion which must be appropriately structured to draw out the best of the apprentice's competence and cover the KSBs assigned to this assessment method. The discussion is underpinned by a portfolio of evidence that apprentices prepare during the on-programme part of their apprenticeship. The portfolio is not directly assessed, it supports the discussion.
Duration	60 minutes The independent assessor has the discretion to increase the time of the Professional discussion by up to 10% to allow the apprentice to complete their last answer.
Portfolio	Apprentices are required to provide work-based evidence in a portfolio to validate and support their responses in the Professional discussion. It is not directly assessed. This portfolio is submitted prior to the Professional discussion.
Grading	Fail/Pass/Distinction Fail: Does not meet the pass criteria Pass: To achieve a pass, all pass criteria must be met Distinction: To achieve a distinction, all pass and all distinction criteria must be met The grading criteria for this method can be found in the assessment plan in *Annexe A.*

Professional discussion	
Preparation	Apprentices must use the documents published in the EPA Resource Pack to support their preparation. The apprentice must be given at least a week's notice of the date and time of the Professional discussion.
Delivery and conduct	The Professional discussion will be conducted face to face or remotely. The IEA will conduct and assess the Professional discussion. The IEA will ask the apprentice a minimum of 10 open questions and apprentices will present their work-based evidence in response. This must take place in a quiet environment away from the apprentice's normal working environment. The IEA will take notes and the Professional discussion will be audio or video recorded. The IEA must have a minimum of one week to review the portfolio ahead of the Professional discussion. The portfolio must be available to the apprentice during the Professional discussion.
Assessment	The IEA will review the apprentice's responses against the pass and distinction grade criteria using the evidence requirements in the EPA Resource Pack as guidance.

Standards assessed

The Professional discussion assesses the following outcomes from the apprenticeship standard.

Core

Knowledge	Apprenticeship standard outcomes
K1	Approaches to backup and storage solutions
K2	Basic elements of technical documentation and its interpretation
K3	Principles of root cause problem solving using fault diagnostics for troubleshooting
K4	Principles of basic network addressing for example binary
K5	Basic awareness of the principles of cloud and cloud-based services
K6	Fundamental principles of virtual networks and components
K7	Principles of cultural awareness and how diversity impacts on delivery of support tasks
K8	Methods of communication including level of technical terminology to use to technical and non-technical stakeholders
K9	Different types of maintenance and preventative measures to reduce the incidence of faults
K10	Key principles of security including the role of people, product and process in secure systems, for example access and encryption requirements
K11	Fundamentals of physical networks and components
K13	Basic awareness of legislation in relation to disposal of waste materials, for example Waste Electronic and Electrical regulations (WEEE)

Skills	Apprenticeship standard outcomes
S1	Interpret and prioritise internal or external customers' requirements in line with organisation's policy
S2	Apply the appropriate tools and techniques to undertake fault finding and rectification
S3	Apply continuous professional development to support necessary business output and technical developments
S4	Operate safely and securely across platforms and responsibilities, maintaining the security of personal data of internal and external stakeholders
S5	Communicate with all levels of stakeholders, keeping them informed of progress and managing escalation where appropriate
S6	Develop and maintain effective working relationships with colleagues, customers and other relevant stakeholders
S7	Manage and prioritise the allocated workload effectively, making best use of time and resources
S8	Complete documentation relevant to the task and escalate where appropriate

Behaviours	Apprenticeship standard outcomes
B1	Works professionally, taking initiative as appropriate and acting with an ethical approach
B2	Communicates technical and non-technical information in a variety of situations to support effective working with internal or external stakeholders
B3	Demonstrates a productive and organised approach to their work
B4	Self-motivated, for example takes responsibility to complete the job

Support Technician

Knowledge	Apprenticeship standard outcomes
K14	Fundamental principles of operating systems, hardware system architectures and devices
K15	Principles of remote operation of devices including how to deploy and securely integrate mobile devices into a network
K16	Fundamental principles of peripherals, for example printers and scanners
K17	Principles of virtualisation of servers, applications and networks
K18	Principles of disaster recovery, how a disaster recovery plan works and their role within it
K19	Principles of test plans, their role and significance
K20	Fundamentals of purpose, creation and maintenance of asset registers
K23	Basic elements of network infrastructure architectures including Wi-Fi and wired networks

Skills	Apprenticeship standard outcomes
S15	Escalate non-routine problems in line with procedures
S16	Use basic scripting to execute the relevant tasks, for example PowerShell, Linux

Network Technician

Knowledge	Apprenticeship standard outcomes
K24	Principles of OSI layers
K26	Principles of DNS/DHCP
K27	Awareness of cloud platforms, such as AWS, Azure or GCP
K28	Principles of LANs and WANs
K29	Approaches to virtualisation of servers, applications and networks
K30	Principles of network protocols
K31	Principles of APIs and web services
K32	The different types of cloud storage
K34	Backup procedures and their importance
K35	Principles of databases and migration
K36	Awareness of DevOps methodology and tools, such as Puppet, Chef, Git, Docker
K39	Different types of connectivity and cabling, for example physical and remote

Skills	Apprenticeship standard outcomes
S16	Use basic scripting to execute the relevant tasks
S19	Use a range of cabling or connectors equipment in line with technical requirements, for example physically or remotely
S20	Test and evaluate network environments
S21	Monitor performance and usage of a network

Digital Communications Technician

Knowledge	Apprenticeship standard outcomes
K24	Principles of OSI layers
K38	Awareness of the purpose of firewalls
K39	Different types of connectivity and cabling, for example physical and remote
K40	Awareness of network protocols
K44	Basic principles of VPN and remote access security, for example transmission technologies

Skills	Apprenticeship standard outcomes
S19	Use a range of cabling or connectors equipment in line with technical requirements, for example physically or remotely
S28	Establish digital communication or telecommunications systems through, for example, cabling and connecting equipment
S31	Use information necessary to identify operational issues and rectify or escalate accordingly in line with policy

Method 2: Project report with questioning

Structure

The project report with questioning assessment method includes two components:

- Component 1: Project
- Component 2: Questioning.

Together, they assess apprentices' knowledge, skills and behaviours from the apprenticeship standard, in line with the assessment plan requirements. It is assessed by a Pearson independent end-point assessor (IEA).

Project	
Summary	Apprentices will complete a project and deliver the outcome in the form of an electronic-based report. They will produce a 1500-word project report based on the scope, methodology, research, findings and outcomes of the project. On an agreed date and time, the IEA will ask questions based on the report.
Duration	The project is compiled after the apprentice has gone through the gateway process. The apprentice will conduct their project and submit a report to the EPAO after a maximum of 4 weeks of the EPA start date. The questioning must last for 30 minutes. The independent assessor has the discretion to increase the time of the questioning by up to 10% to allow the apprentice to complete their last answer.
Grading	Pass/Distinction For a pass, apprentices need to achieve all pass criteria for their chosen option. For a distinction, apprentices need to achieve all pass criteria and all additional distinction criteria. The grading criteria for this method can be found in the assessment plan in *Annexe A.*
Preparation	Apprentices must use the documents published in the EPA Resource Pack (EPARP) to support their preparation. Employers will ensure apprentices have sufficient time and the necessary resources within this period to plan and undertake the project.

Project	
Delivery and conduct	Apprentices will undertake a project and deliver the outcome in the form of an electronic-based report. The project is compiled after the apprentice has gone through the gateway process. The apprentice will conduct their project and submit a report to the EPAO after a maximum of 4 weeks from the EPA start date. The employer will ensure the apprentice has sufficient time and the necessary resources, within this period, to plan and undertake the project and write the report. While completing the project, the apprentice should be subject to normal workplace supervision. The project may be based on any of the following: • a specific problem • a recurring issue • an idea/opportunity • providing a service. As a minimum all project reports must include an introduction, the scope of the project (including key performance indicators), how the outcomes were achieved, research and findings, project outcomes, conclusions and potential areas for improvement. The project report has a maximum word limit of 1500. A tolerance of plus or minus 10% is allowed. Appendices, references, diagrams and/or video clips of up to 10 minutes in length are not be included in this total. The project must map, in an appendix, how it evidences the relevant KSBs for this assessment method. When the project is submitted, the employer and the apprentice should verify that the work submitted is that of the apprentice.
Assessment	The IEA assesses the evidence from the project report and questions holistically against the grade criteria mapped to this assessment method, using the associated assessment guidance (published in the EPA Resource Pack).

Standards assessed

The project report with questioning assesses the following outcomes from the apprenticeship standard:

Core

Knowledge	Apprenticeship standard outcomes
K12	Approaches to documenting tasks, findings, actions taken and outcome, for example use of task tracking and ticketing systems

Skills	Apprenticeship standard outcomes
S10	Establish and diagnose the extent of the IT support task, in line with the organisation's policies and service level agreements
S11	Provide remote/F2F support to resolve customer requirements
S12	Maintain a safe working environment for own personal safety and others in line with health and safety appropriate to the task

Support Technician

Knowledge	Apprenticeship standard outcomes
K21	Approaches to system upgrades and updates and their significance
K22	Approaches to interpretation of log files, event viewer and system tools

Skills	Apprenticeship standard outcomes
S9	Install or undertake basic software upgrades, either physically or remotely
S13	Identify and scope the best solution informed by the system data associated with the task
S14	Test and evaluate the system's performance and compliance with customer requirements
S17	Carry out routine maintenance across systems, (such as IT, communications), ensuring organisational compliance at all times
S18	Apply the necessary security, in line with access and/or encryption requirements

Network Technician

Knowledge	Apprenticeship standard outcomes
K25	Principles of cloud and network architecture (including Wi-Fi)
K33	Backup procedures and their importance

Skills	Apprenticeship standard outcomes
S22	Deploy applications on a network
S23	Set up storage and data access for staff
S24	Apply necessary security measures, in line with access requirements to a network
S25	Carry out routine maintenance across network systems, ensuring organisational compliance
S26	Monitor network-related workloads including DNS and firewalls
S27	Install or undertake basic upgrades, either physically or remotely

Digital Communications Technician

Knowledge	Apprenticeship standard outcomes
K37	Basic elements of network communication architectures, for example hardware, software, protocols and connection mediums
K41	The purpose of digital communications technologies, for example hardware, virtual and cellular technologies
K42	Main factors affecting network performance, including faults and error control
K43	Principles of digital test and diagnostic equipment usage

Skills	Apprenticeship standard outcomes
S29	Identify a range of tools and/or diagnostic equipment, for example hardware or software components, to resolve communications or telecommunications requirements
S30	Undertake basic telecommunications activities in response to an allocated task, designated responsibilities, instructions or customer requirement

6 Delivery of End-point Assessment

End-point Assessment planning and scheduling

Employers and/or training providers must have an agreement in place to conduct EPAs with Pearson, and apprentices must be registered on the ACE360 system. Once the gateway evidence has been uploaded to ACE360, this will alert the IEA to review the evidence and start the planning and scheduling process.

The purpose of the EPA planning meeting is to share information with the IEA in order to support the assessment process and to agree a plan for the upcoming assessment activities for the apprentices. The IEA will agree a plan and schedule for each assessment activity. The End-point Assessment planning meeting can be conducted remotely using appropriate technology.

All components of the End-point Assessment must be completed within the time period specified in *Section 2: Summary of End-point Assessment*.

Reassessment

Reassessment, including both re-sit and re-take, is permitted in agreement between Pearson and the employer. The timescale will be agreed on a case-by-case basis with Pearson. As part of that agreement, any reassessments must not provide an apprentice with an unfair advantage over others.

For additional EPA-specific requirements, refer to the assessment plan in *Annexe A.*

Booking reassessment

Reassessment is requested using the ACE360 system. Once the request is confirmed, the allocated IEA will liaise with the key contact to start the scheduling process.

Appeals

The *End-point Assessment enquiries and appeals policy* is available on the Pearson website and ACE knowledge base. This has full information about what will happen if an apprentice or centre wishes to query the result of an assessment.

7 Access to assessment

Access to assessment for apprentices with disabilities or specific needs

Equality and fairness are central to our work. Our *Equality, diversity and inclusion policy* requires all apprentices to have equal opportunity to access our assessments, and that our EPAs are awarded in a way that is fair to every apprentice.

We are committed to making sure that:

- apprentices with a protected characteristic (as defined by the Equality Act 2010) are not, when they are taking one of our assessments, disadvantaged in comparison to apprentices who do not share that characteristic
- all apprentices achieve the recognition they deserve from their EPA and that this achievement can be compared fairly to the achievement of their peers.

For apprentices with disabilities and specific needs, the assessment of their potential to achieve the EPA must identify, where appropriate, the support that will be made available to them during delivery and assessment.

Centres must deliver the EPA in accordance with current equality legislation. For full details of the Equality Act 2010, please visit www.legislation.gov.uk.

Reasonable adjustments

A reasonable adjustment relates to an adjustment that helps to reduce the effect of a disability or a physical or mental health condition which may place the apprentice at a disadvantage compared to others. If an apprentice requires any adjustment to their assessment, this must be recorded within the ACE360 system to support the discussion at the EPA planning meeting.

Pearson will apply the *Reasonable adjustment matrix* published by the Institute for Apprenticeships and Technical Education (IfATE).

8 Malpractice

Dealing with malpractice in assessment

'Malpractice' refers to acts that undermine the integrity and validity of assessment, the certification of qualifications and/or may damage the authority of those responsible for delivering the assessment and certification.

Pearson does not tolerate actual or attempted actions of malpractice by learners, centre staff or centres in connection with Pearson qualifications. Pearson may impose sanctions on learners, centre staff or centres where malpractice or attempted malpractice has been proven.

Malpractice may occur or be suspected in relation to any unit or type of assessment within a qualification. For further details on malpractice and advice on preventing malpractice by learners, please see Pearson's *Centre Guidance: Dealing with Malpractice*, available on our website.

Centres are required to take steps to prevent malpractice and to assist with investigating instances of suspected malpractice. Learners must be given information that explains what malpractice is and how suspected incidents will be dealt with by the centre. The *Centre Guidance: Dealing with Malpractice* document gives full information on the actions we expect you to take.

Pearson may conduct investigations if we believe a centre is failing to conduct assessments according to our policies. The above document gives further information, examples, and details the sanctions that may be imposed.

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

Learner malpractice

The head of centre is required to report incidents of suspected learner malpractice that occur during the delivery of Pearson qualifications. We ask centres to complete JCQ Form M1 (www.jcq.org.uk/malpractice) and email it with any supporting documents (signed statements from the learner, invigilator, copies of evidence, etc) to the Investigations Processing team at candidatemalpractice@pearson.com. The responsibility for determining any appropriate sanctions on learners lies with Pearson.

Learners must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Learners found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

Failure to report malpractice constitutes staff or centre malpractice.

Teacher/centre malpractice

The head of centre is required to inform Pearson's Investigations team of any incident of suspected malpractice (which includes maladministration) by centre staff, before any investigation is undertaken. The head of centre should inform the Investigations team by submitting a JCQ M2 Form (downloadable from www.jcq.org.uk/malpractice) with supporting documentation to pqsmalpractice@pearson.com). Where Pearson receives allegations of malpractice from other sources (for example Pearson staff, anonymous informants), the Investigations team will conduct the investigation directly or may ask the head of centre to assist.

Pearson reserves the right in cases of suspected malpractice to withhold the issuing of results/certificates while an investigation is in progress. Depending on the outcome of the investigation, results and/or certificates may not be released or they may be withheld.

You should be aware that Pearson may need to suspend certification when undertaking investigations, audits and quality assurances processes. You will be notified within a reasonable period of time if this occurs.

Sanctions and appeals

Where malpractice is proven, we may impose sanctions such as:

- mark reduction for affected assessments
- disqualification from the qualification
- debarment from registration for Pearson qualifications for a period of time.

If we are concerned about your centre's quality procedures we may impose sanctions such as:

- requiring centres to create an improvement action plan
- requiring staff members to receive further training
- placing temporary suspensions on certification of learners
- placing temporary suspensions on registration of learners
- debarring staff members or the centre from delivering Pearson qualifications
- suspending or withdrawing centre approval status.

The centre will be notified if any of these apply.

Pearson has established procedures for considering appeals against sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from the head of centre (on behalf of learners and/or members or staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in the JCQ Appeals booklet (www.jcq.org.uk/exams-office/appeals).

9 Further information

Edexcel, BTEC and Pearson Work Based Learning contact details:

- https://qualifications.pearson.com/en/contact-us.html

Books, software and online resources for UK schools and colleges:

- www.pearsonschoolsandfecolleges.co.uk

Documents that further support the information in this specification:

- *EPA Service Guide* (Pearson, this is made available to approved centres).

10 Glossary

Term	Description
Apprenticeship standard	A short document prepared by a Trailblazer group that sets out concisely the requirements to be competent in a job role. All apprenticeship standards are published on www.gov.uk.
Assessment methods	The different assessments that form the overarching EPA. Most EPAs will typically have between two and four methods that assess set parts of the overarching standard.
Assessment plan	This document is also prepared by a Trailblazer group and sets out the requirements that End-point Assessment organisations must follow when assessing the EPA.
Competence	The minimum knowledge, skills and behaviours (KSBs) required to perform a job role effectively.
End-point Assessment	A synoptic assessment of the knowledge, skills and behaviours outlined in the apprenticeship standard that have been learned throughout the apprenticeship programme. The apprentice has to pass the EPA to be successful in their apprenticeship programme and demonstrate competence.
Gateway	The point at which the apprentice is identified as being competent by their employer and therefore ready to plan to take their End-point Assessment. There are requirements for maths and English to enter the gateway and there may be other requirements, such as mandatory qualifications, that vary depending on the apprenticeship standard.
Independent end-point assessor	The assessor appointed by Pearson to work with the apprentice and employer to plan their EPA during the gateway and then assess the apprentice in the final EPA.
On-programme	The first and main part of the apprenticeship when the apprentice is developing their KSBs towards competence – 20% of on-programme is required to be off-the-job training.
Re-take	An apprentice requires further learning after failing a method before they can be re-entered for it.
Re-sit	An apprentice fails a method but is able to be re-entered immediately without any further learning.

Term	Description
Trailblazer group	A group of employers who have worked together to agree the apprenticeship standard and write the associated assessment plan.
Institute for Apprenticeships and Technical Education (IfATE)	A non-departmental public body that oversees the development, approval and publication of apprenticeship standards and assessment plans. In addition, the Institute is responsible for technical education, including T Levels.

Annexe A: Assessment plan

Introduction and overview

This document sets out the requirements for End-point Assessment for the Information Communication Technician Apprenticeship Standard. It explains how EPA for this apprenticeship must operate. It provides the EPA design requirements for End-point Assessment organisations (EPAOs). It will also be useful for apprentices undertaking this apprenticeship, their employers and training providers.

The occupational standard includes three options:

1. Support Technician
2. Network Technician
3. Digital Communications Technician

EPA must be conducted by an EPAO approved to deliver EPA for this apprenticeship standard. Each employer should select an approved EPAO from the Education & Skills Funding Agency's register of End-point Assessment organisations (RoEPAO).

Full-time apprentices will typically spend 18 months on-programme (before the gateway) working towards this occupational standard. All apprentices must spend a minimum of 12 months on-programme. All apprentices must spend a minimum of 20% of on-programme time undertaking off-the-job training.

Before starting EPA, an apprentice must meet the gateway requirements. For this apprenticeship they are:

- the employer must be content that the apprentice is working at or above the occupational standard
- apprentices must have compiled and submitted a portfolio of evidence to underpin the Professional discussion
- for Level 3 apprenticeships and above apprentices without English and mathematics at Level 2 must achieve Level 2 prior to taking their EPA.[1]

The EPAO must confirm that all required gateway evidence has been provided and accepted as meeting the gateway requirements. The EPAO is responsible for confirming gateway eligibility. Once this has been confirmed, the EPA period starts.

[1] For those with an education, health and care plan or a legacy statement, the apprenticeship's English and mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language.

This EPA should then be completed within an EPA period typically lasting four months. This EPA consists of two discrete assessment methods.

It will be possible to achieve the following grades in each assessment method:

Assessment method 1: Professional discussion underpinned by portfolio

- Fail
- Pass
- Distinction

Assessment method 2: Project report with questioning

- Fail
- Pass
- Distinction

Performance in the EPA will determine the overall apprenticeship standard grade of:

- Fail
- Pass
- Merit
- Distinction

EPA summary table

On-programme (typically, 18 months)
Training to develop the occupational standard's knowledge, skills and behaviours. Working towards English and mathematics Level 2, if required. Compiling a portfolio of evidence.

End-point Assessment gateway
The employer must be content that the apprentice is working at, or above, the occupational standard. Apprentices must have achieved English and mathematics at Level 2. Apprentices must submit a portfolio of evidence to underpin the Professional discussion.

End-point Assessment (which will typically take four months)
Assessment method 1: Professional discussion underpinned by portfolio • Fail • Pass • Distinction Assessment method 2: Project report with questioning • Fail • Pass • Distinction Performance in the EPA will determine the overall apprenticeship standard grade of: • Fail • Pass • Merit • Distinction

Length of End-point Assessment period

The EPA will be completed within an EPA period lasting typically four months, after the EPA gateway.

Any supporting material which underpins an EPA assessment method should be submitted at the gateway.

Order of assessment methods

The assessment methods can be delivered in any order. The result of one assessment method doesnot need to be known before starting the next.

EPA gateway

The EPA period should start only once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, that is to say they are deemed to have achieved occupational competence. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer.

The EPAO determines when all other gateway requirements have been met, and the EPA period will commence only once the EPAO has confirmed this.

In addition to the employer's confirmation that the apprentice is working at or above the level in the occupational standard, the apprentice must have completed the following gateway requirements prior to beginning EPA:

- achieved English and mathematics at Level 2.

For those with an education, health and care plan or a legacy statement, the apprenticeship's English and mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language.

For the project report with questioning, there are no specific requirements.

For the Professional discussion underpinned by portfolio, the apprentice will be required to submit a portfolio of evidence.

Portfolio of evidence requirements:

- Apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship.
- It must contain evidence related to the KSBs that will be assessed by the Professional discussion.
- The portfolio of evidence will typically contain five discrete pieces of evidence.
- Evidence should be mapped by the apprentice against the KSBs assessed by the Professional discussion (see mapping of KSBs).
- Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to a quantitative approach is suggested.
- Evidence sources may include:
    - workplace documentation, for example workplace policies/procedures, records
    - witness statements
    - annotated photographs
    - video clips (maximum total duration 10 minutes); the apprentice must be in view and identifiable at all times.

  This is not a definitive list; other evidence sources are possible.
- The portfolio should not include any methods of self-assessment.
- Any employer contributions should focus on direct observation of performance (for example, witness statements) rather than opinions.
- The evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a statement from the employer and the apprentice confirming this.
- The portfolio of evidence must be submitted to the EPAO at the gateway.

The portfolio is not directly assessed. It underpins the Professional discussion and therefore should not be marked by the EPAO. EPAOs should review the portfolio in preparation for the Professional discussion but are not required to provide feedback after this review of the portfolio.

End-point Assessment methods

Assessment method 1: Professional discussion underpinned by portfolio

Overview

This assessment will take the form of a Professional discussion which must be appropriately structured to draw out the best of the apprentice's competence and cover the KSBs assigned to this assessment method. A Professional discussion is a two-way discussion which involves both the independent assessor and the apprentice actively listening and participating in a formal conversation. It gives the apprentice the opportunity to make detailed and proactive contributions to confirm their competency across the KSBs mapped to this method.

The rationale for this assessment method is:

- it allows for assessment of KSBs that do not occur on a predictable or regular basis to be assessed consistently
- it allows for testing of responses where there is a range of potential answers to demonstrate competence
- it is cost effective as it can be conducted remotely to reduce travelling time.

Delivery

The independent assessor will conduct and assess the Professional discussion.

The Professional discussion must last for 60 minutes. The independent assessor has the discretion to increase the time of the Professional discussion by up to 10% to allow the apprentice to complete their last answer.

The independent assessor will ask a minimum of 10 open questions. During this method, the independent assessor must combine questions from the EPAO's question bank and those they have generated themselves.

The independent assessor must have a minimum of one week to review the portfolio ahead of the Professional discussion. The portfolio must be available to the apprentice during the Professional discussion.

The apprentice must be given at least a week's notice of the date and time of the Professional discussion.

Video conferencing or online streaming can be used to conduct the Professional discussion but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided in some way.

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the outcome of the Professional discussion. KSBs met and answers to questions must be recorded by the independent assessor.

The independent assessor will make all grading decisions.

Venue

The Professional discussion should take place in a quiet room, free from distractions and influence. The Professional discussion can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO, for example a training provider's premises
- online streaming.

Question and resource development

Independent assessors are responsible for generating suitable questions in line with the EPAO's training and standardisation process.

EPAOs will produce the following material to support this assessment method:

- outline of the assessment method's requirements
- marking materials
- question bank
- guidance document for employers and apprentices on the process/timescales for the Professional discussion underpinned by a portfolio of evidence as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment
- identification verification document
- marking materials including a template to record the apprentice's responses to questions
- grade recommendation document
- assessor guidance on questions they generate themselves
- confidentiality document.

Assessment method 2: Project report with questioning

(This assessment method has two components.)

Assessment method 2 component 1: Project report

Overview

The project is compiled after the apprentice has gone through the gateway.

The work-based project should be designed to ensure that the apprentice's work meets the needs of the business, is relevant to their role and allows the relevant KSBs to be demonstrated for the EPA.

Given the large number of projects that will be completed per year, EPAOs will not be expected to sign off each project title before the project commences. However, the EPAO should instead provide detailed specifications and suggested examples of project titles to enable the employer to select a project that will meet the requirements of the EPA.

The rationale for this assessment method is:

Information Communication Technicians deliver their occupational skills and knowledge in response to unpredictable events within the digital sector. The wide-ranging nature of these events that generate their work tasks means that observation is not suitable and online testing would require too broad a range of scenarios to make testing applicable to all potential users of the standard. A project enables the employer and the EPAO to generate a meaningful work-based project to test competence in a viable way.

Delivery

Apprentices will conduct a project and deliver the outcome in the form of an electronic-based report.

The project is compiled after the apprentice has gone through the gateway process. The apprentice will conduct their project and submit a report to the EPAO after a maximum of 4 weeks from the EPA start date.

The employer will ensure the apprentice has sufficient time and the necessary resources within this period to plan and undertake the project and write the report.

While completing the project, the apprentice should be subject to normal workplace supervision. The project may be based on any of the following:

- a specific problem
- a recurring issue
- an idea/opportunity
- providing a service.

As a minimum all project reports must include:

- an introduction
- the scope of the project (including key performance indicators)
- how the outcomes were achieved
- research and findings
- project outcomes
- conclusions and potential areas for improvement.

The project report has a maximum word limit of 1500. A tolerance of plus or minus 10% is allowed.

Appendices, references, diagrams and/or video clips of up to 10 minutes in length will not be included in this total.

The project must map, in an appendix, how it evidences the relevant KSBs for this assessment method.

Suitable projects may be along the following lines (this list is for guidance and is not exhaustive).

Project ideas

Support Technician

- Maintenance or repair of systems faults. This can either include the rectification of a fault which was causing full or partial loss of service to a customer or carrying out either routine or proactive maintenance on a system to increase its capability or reliability. For either of these you should include an overview of the information you gathered to confirm performance of the solution, your approach to the task including logical approach, confirmation of the solution performance after including the capture of information to support this.
- Support for the roll-out of installation and commission of new systems or upgrades. This can either be new equipment as part of the expansion of a system, or an upgrade which will add capability or functionality to a system. The project may include any of the pre-installation activity as well as the installation process and the post-installation commission tasks (e.g. configuration, testing, handover, updating records).

Network Technician

- Installation and commission of networks. This can either be new equipment as part of the expansion of a network, or an upgrade which will add capability or functionality to a network. The project must include any of the pre-installation activity (e.g. network designs, engineering instructions, pre-installation checks, baselines, rollback plans) as well as the installation process and the post-installation commission tasks (e.g. configuration, testing, handover, updating records).

- Maintenance or repair of network equipment. This can either include the rectification of a fault which was causing full or partial loss of service to a customer or carrying out either routine or proactive maintenance on a network to increase its capability or reliability. For either of these you should include an overview of performance of the network before, the information you gathered to confirm the performance of the network before, your approach to the task including logical approach, and confirmation of the network performance after including the capture of information to support this.
- Installation, configuration or maintenance task on either ICT-related hardware or software that provides a service or aids in restoration of services, either at a customer premises or within a fixed network.

Digital Communications Technician

- Installation and commission of telecoms networks. This can either be new equipment as part of the expansion of a telecoms network, or an upgrade which will add capability or functionality to a network. The project must include any of the pre-installation activity (e.g. network designs, engineering instructions, pre-installation checks, baselines, rollback plans) as well as the installation process and the post-installation commission tasks (e.g. configuration, testing, handover, updating records, etc.).
- Maintenance or repair of telecoms network equipment. This can either include the rectification of a fault which was causing full or partial loss of service to a customer or carrying out either routine or proactive maintenance on a telecoms network in order to increase its capability or reliability. For either of these you should include an overview of performance of the network before, the information you gathered to confirm the performance of the network before, your approach to the task including logical approach, confirmation of the network performance after including the capture of information to support this.
- Installation, configuration or maintenance task on either ICT-related hardware or software that provides a service or aids in restoration of services, either at a customer premises, within a fixed network or telecoms site or at a mobile cell site.

When the project is submitted, the employer and the apprentice should verify that the work submitted is that of the apprentice.

Marking

The independent assessor will review and mark the project in a timely manner, as determined by the EPAO, and without extending the EPA unnecessarily. Similarly, all quality control processes will also be conducted in a timely manner, as determined by the EPAO.

Supporting material

EPAOs will produce the following material to support this assessment method:

- outline of the assessment method's requirements
- marking materials
- example project titles
- guidance document for employers and apprentices on the process/timescales for the assessment method as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment
- identification verification document
- grade recommendation document.

Assessment method 2 component 2: Questioning

Overview

This assessment will take the form of questioning which must be appropriately structured to draw out the best of the apprentice's competence and excellence and cover the KSBs assigned to this assessment method. It will involve the questions that will focus on coverage of the project report and activities.

The rationale for this assessment method is:

Questioning allows a deeper exploration of occupational competence and permits the apprentice further opportunity to draw out key aspects of their work within the project activity.

Delivery

The independent assessor will conduct and assess the questioning.

The questioning must last for 30 minutes. The independent assessor has the discretion to increase the time of the questioning by up to 10% to allow the apprentice to complete their last answer.

During this method, the independent assessor must devise a minimum of five questions they have generated themselves from their review of the project evidence.

The independent assessor must have a minimum of one week to review the project report ahead of the questioning. The project report must be available to the apprentice during the questioning.

The apprentice must be given at least a week's notice of the date and time of the questioning element of this assessment method.

KSBs met and answers to questions must be recorded by the independent assessor.

The independent assessor must use the assessment tools and procedures that are set by the EPAO to record the outcomes from the questioning.

The independent assessor will make all grading decisions. The project report and answers to questions will be assessed holistically.

Venue

The questioning should take place in a quiet room, free from distractions and influence.

Video conferencing and online streaming can also be used to conduct the questioning but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

The questioning can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO, for example a training provider's premises
- online via video conference or live streaming.

Supporting material

EPAOs will produce the following material to support this assessment method:

- outline of the assessment method's requirements
- marking materials
- question bank
- guidance document for employers and apprentices on the process/timescales for the assessment method as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment
- identification verification document
- marking materials including a template to record the apprentice's responses to questions
- grade recommendation document.

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments for this apprenticeship standard. This should include how an apprentice qualifies for reasonable adjustment and what reasonable adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this assessment plan.

Grading

Assessment method 1: Professional discussion underpinned by portfolio

Fail – Does not meet the pass criteria

KSBs	Pass	Distinction
Knowledge K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K13 **Skills** S1, S2, S3, S4, S5, S6, S7, S8 **Behaviours** B1, B2, B3, B4	Explains the principles of system backup/storage. (K1) Describes basic elements of technical documentation, its interpretation, completion and importance in escalation as appropriate. (K2 S8) Identifies and applies the principles of root cause problem solving using fault diagnostic tools and techniques for troubleshooting and rectification. (K3 S2) Outlines the principles of basic network addressing for example binary. (K4) Describes the key principles of cloud and cloud-based services. (K5) Analyses the fundamentals and principles of networks and components. (K6 K11) Explains how they interpret and prioritise internal or external customers' requirements in line with organisation's policy. (S1) Outlines the principles of cultural awareness and describes how diversity impacts on delivery of support tasks. (K7) Describes how they apply principles of continuous professional development to support their contribution to delivery of necessary business output and technical developments. (S3)	Reviews the success of root cause problem solving where they have applied fault diagnostics for troubleshooting. (K3) Evaluates the impact of people, product and process on secure systems within their organisation. (K10) Critically analyses their use of tools and techniques to undertake tasks such as installation, maintenance or fault rectification. (S2)

KSBs	Pass	Distinction
(continued)	Identifies and applies methods of communication with stakeholders, selecting technical and/or non-technical language in reflection of the audience to inform progress and escalation and develop and maintain effective working relationships with them. (K8 S5 S6 B2) Describes different types of maintenance and preventative measures to reduce the incidence of faults. (K9) Explains how they ensure that they operate safely and securely across platforms and responsibilities applying the key principles of security including the role of people, product and process in secure systems. (K10 S4) Outlines how they have a basic awareness of legislation in relation to disposal of waste materials, for example Waste Electronic and Electrical regulations. (K13) Explains how they manage and prioritise the allocated workload effectively making best use of time and resources. (S7) Explains their approach to work tasks which reflects their own professionalism and use of independent initiative. (B1) Explains how they take a productive and organised approach to their work. (B3) Discusses how they take a self-motivated approach to their work, for example how they manage their own time effectively and take responsibility to complete the job. (B4)	

KSBs	Pass	Distinction
Option 1 – Support Technician		
Knowledge K14, K15, K16, K17, K18, K19, K20, K23 **Skills** S15, S16	Defines the principles of operating systems and describes the architecture of hardware systems and devices. (K14) Describes the principles of remote operation of devices including how to deploy and securely integrate mobile devices into a network. (K15) Outlines the principles of peripherals, for example printers and scanners. (K16) Explains the principles of virtualisation of servers, applications and networks. (K17) Explains disaster recovery and outlines how disaster recovery plans work with reference to a role they have played within one. (K18) Explains the principles of test plans by reference to their role and significance. (K19) Outlines purpose, creation and maintenance of asset registers. (K20) Outlines the basic elements of infrastructure architectures including Wi-Fi and wired networks. (K23) Explains how they escalate non-routine problems in line with procedures. (S15) Demonstrates the use of basic scripting to execute relevant tasks. (S16)	Evaluate and assess the organisation's asset register and their role in updating it. (K20)

KSBs	Pass	Distinction
Option 2 – Network Technician		
Knowledge K24, K26, K27, K28, K29, K30, K31, K32, K34, K35, K39, K36 **Skills** S16, S19, S20, S21	Explains the significance of OSI layers. (K24) Defines the principles of systems and networks including protocols. (K26 K28 K30) Sets out the approaches to virtualisation of cloud environments, servers, applications and network architectures. (K27 K29) Explains the principles of APIs and web services. (K31) Explains the principles of databases and migration. (K34) Describes the principles and types of cloud storage, cloud security and cloud firewalls. (K32 K35) Identifies the elements of DevOps methodology and tools, such as Puppet, Chef, Git and Docker. (K36) Explains how they use basic scripting to execute the relevant tasks. (S16) Describes the principles of testing and evaluating network environments. (S20) Explains how they monitor performance and usage of a network. (S21) Explains how they use cabling or connectors equipment in line with technical requirements. (K39 S19)	Reviews their approach to testing and evaluation of network environments. (S20)

KSBs	Pass	Distinction
Option 3 – Digital Communications Technician		
Knowledge K24, K38, K39, K40, K44 **Skills** S19, S28, S31	Explains the significance of OSI layers. (K24) Outlines the purpose of firewalls. (K38) Explains their awareness of network protocols. (K40) Explains the basic principles of VPN and remote access security, for example transmission technologies. (K44) Explains how they use cabling or connectors equipment in line with technical requirements. (K39 S19) Explains how they establish digital communication or telecommunications systems or networks, for example through cabling and connecting equipment. (S28) Describes how they use information necessary to identify operational issues and rectify or escalate accordingly in line with policy. (S31)	Evaluates how they establish digital communication or telecommunications system or networks, for example through cabling and connecting equipment. (S28)

Assessment method 2: Project report with questioning

Fail – Does not meet the pass criteria

KSBs	Pass	Distinction
Core		
Knowledge K12 **Skills** S10, S11, S12	Identifies and applies valid approaches to documenting tasks, findings, actions and outcomes. (K12) Demonstrates how they establish and diagnose the extent of the IT support task, in line with the organisation's policies and SLAs. (S10) Evidence how they provide remote/face-to-face support to resolve customer requirements. (S11) Demonstrates an approach to their own work and that of co-workers which reflects the HSE policies of the industry and organisation. (S12)	

KSBs	Pass	Distinction
Option 1 – Support Technician		
Knowledge K21, K22 **Skills** S9, S13, S14, S17, S18	Demonstrates how they install or undertake basic upgrades, either physically or remotely, and apply approaches to system updates, recognising their significance. (K21 S9) Evaluates the interpretation of log files, event viewer and system tools. (K22) Illustrates how they identify and scope the best solution informed by the system data associated with the task. (S13) Demonstrates how they test and evaluate the system's performance and compliance with customer requirements. (S14) Demonstrates how they carry out routine maintenance across systems (such as IT, communications), ensuring organisational compliance at all times. (S17) Explains how they apply the necessary security, in line with access and/or encryption requirements. (S18)	Critically analyses their optimisation ofsystem performance to validate compliance with customer requirements. (S14)

KSBs	Pass	Distinction
Option 2 – Network Technician		
Knowledge K25, K33 **Skills** S22, S23, S24, S25, S26, S27	Describes the principles of cloud and network architecture (including Wi-Fi). (K25) Explains the fundamental principles of backup including when and why to use system backup within technical network tasks. (K33) Demonstrates how they deploy applications on a network. (S22) Reviews the validity of their actions in setting up storage and data access for staff. (S23) Demonstrates the application of security measures and justifies them against network access requirements. (S24) Demonstrates how they carry out routine maintenance across network systems, ensuring organisational compliance. (S25) Describes how they monitor network-related workloads including DNS and firewalls. (S26) Demonstrates how they install or undertake basic upgrades, either physically or remotely. (S27)	Evaluates the effectiveness of routine maintenance across network systems, ensuring organisational compliance always. (S25)

KSBs	Pass	Distinction
Option 3 – Digital Communications Technician		
Knowledge K37, K41, K42, K43 **Skills** S29, S30	Explains the basic elements of network communication architectures. (K37) Outlines the purpose of digital communications technologies in general and within the project. (K41) Describes the factors affecting network performance within the project. (K42) Defines the principles of digital test and diagnostic equipment applying selected tools and equipment to resolve communications and/or telecommunications issues. (K43 S29) Demonstrates basic telecommunications activities in response to an allocated task, designated responsibilities, instructions or a customer's requirements. (S30)	Evaluates and applies a range of tools and/or diagnostic equipment, for example hardware or software components, to resolve communications or telecommunications requirements. (K43 S29)

Overall EPA grading

All assessment methods are weighted equally in their contribution to the overall EPA grade.

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as a whole:

Assessment method 1 Professional discussion underpinned by portfolio	Assessment method 2 Project report with questioning	Overall grading
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Distinction	Pass	Merit
Pass	Distinction	Merit
Distinction	Distinction	Distinction

Re-sits and re-takes

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit or a re-take at the employer's discretion. The apprentice's employer will need to agree that either a re-sit or a re-take is an appropriate course of action.

A re-sit does not require further learning whereas a re-take does. Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

An apprentice who fails one or more assessment methods, and therefore the EPA in the first instance, will be required to re-sit or re-take the failed assessment method(s) only.

The timescale for a re-sit/re-take is agreed between the employer and the EPAO. A re-sit is typically taken within two months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required; it is typically taken within four months of the EPA outcome notification.

All assessment methods must be taken within a six-month period, otherwise the entire EPA will need to be re-sat/re-taken.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to a higher grade.

Where any assessment method must be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass unless the EPAO determines there are exceptional circumstances requiring a re-sit or re-take.

Roles and responsibilities

Role	Responsibility
Apprentice	As a minimum, apprentices should: • participate in and complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months • undertake 20% off-the-job training as arranged by the employer and training provider • understand the purpose and importance of EPA • undertake the EPA including meeting all gateway requirements.
Employer	As a minimum, employers should: • work with the training provider (where applicable) to support the apprentice in the workplace to provide the opportunities for the apprentice to develop the KSBs • arrange and support a minimum of 20% off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the occupational standard and so is ready for EPA • select the EPAO • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan • remain independent from the delivery of the EPA • confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner (including providing access to any employer-specific documentation as required, for example company policies) • ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met • ensure the apprentice is well prepared for the EPA • ensure the apprentice is given sufficient time away from regular duties to prepare for and complete all post-gateway elements of the EPA, and that any required supervision during this time (as stated within this EPA plan) is in place • where the apprentice is assessed in the workplace, ensure that the apprentice has access to the resources used on a daily basis.

Role	Responsibility
EPAO	As a minimum, EPAOs should: • agree the EPA price • understand the occupational standard • appoint administrators (and invigilators where required) to administer the EPA as appropriate • provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading • provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA • arrange for the EPA to take place, in consultation with the employer • deliver the EPA as outlined in this EPA plan in a timely manner • where the apprentice is not assessed in the workplace, ensure that the apprentice has access to required resources and liaise with the employer to agree this if necessary • use appropriate assessment recording documentation to ensure a clear and auditable process is in place for providing feedback to all relevant stakeholders • have no direct connection with the apprentice, their employer or training provider. In all instances, including when the EPAO is the training provider (i.e. HEI), there must be procedures in place to mitigate any conflicts of interest which will be monitored by external quality assurance (EQA) activity • have policies and procedures for internal quality assurance (IQA) and maintain records of regular and robust IQA activity and moderation for EQA purposes • conform to the requirements of the nominated external quality assurance provider (EQAP) • conform to the requirements of the register of End-point Assessment organisations (RoEPAO)

Role	Responsibility
	• deliver induction training for independent assessors, and for invigilators and markers where used • undertake standardisation activity on this apprenticeship standard for all independent assessors before they conduct an EPA for the first time, if the EPA is updated and periodically as appropriate (a minimum of annually) • manage invigilation of apprentices to maintain security of the assessment in line with their malpractice policy • verify the identity of the apprentice being assessed • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard • request certification via the Apprenticeship Service upon successful achievement of the EPA • develop and produce assessment materials including specifications and marking materials (for example, mark schemes, practice materials, training material) • appoint suitably qualified and competent independent assessors • provide details of the independent assessor's name and contact details to the employer • have and apply appropriately an EPA appeals process.

Role	Responsibility
Independent assessor	As a minimum, an independent assessor should: • have the competence to assess the apprentice at this level and hold any required qualifications and experience in line with the requirements of the independent assessor as detailed in the IQA section of this EPA plan • understand the occupational standard and the requirements of this EPA • have, maintain and be able to evidence up-to-date knowledge and expertise of the subject matter • deliver the End-point Assessment in line with the EPA plan • comply with the IQA requirements of the EPAO • have no direct connection or conflict of interest with the apprentice, their employer or training provider in all instances, including when the EPAO is the training provider (i.e. HEI) • attend induction training • attend standardisation events when they begin working for the EPAO, before they conduct an EPA for the first time and a minimum of annually on this apprenticeship standard • assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily • assess against the KSBs assigned to each assessment method, as shown in the mapping of assessment methods and as determined by the EPAO, and without extending the EPA unnecessarily • make all grading decisions • record and report all assessment outcome decisions, for each apprentice, following instructions and using assessment recording documentation provided by the EPAO, in a timely manner • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard.

Role	Responsibility
Training provider	As a minimum, the training provider should: • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as listed in the occupational standard • conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan) • monitor the apprentice's progress during any training provider-led on-programme learning • advise the employer, upon request, on the apprentice's readiness for EPA • remain independent from delivery of the EPA. Where the training provider is the EPA (i.e. a HEI), there must be procedures in place to mitigate against any conflict of interest.

Internal quality assurance (IQA)

Internal quality assurance refers to the strategies, policies and procedures that EPA organisations must have in place to ensure valid, consistent and reliable End-point Assessment decisions. EPAOs for this EPA must adhere to all requirements within the roles and responsibilities section and:

- have effective and rigorous quality assurance systems and procedures that ensure fair, reliable and consistent assessment across employers, places, times and independent assessors
- appoint independent assessors who have recent relevant experience of the occupation/sector gained in the last three years or significant experience of the occupation/sector and evidence of continued professional development
- appoint independent assessors who are competent to deliver the End-point Assessment
- operate induction training for independent assessors, markers and invigilators
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- undertake standardisation activity on this apprenticeship standard for all independent assessors:
    - before they conduct an EPA for the first time
    - if the EPA is updated
    - periodically as appropriate (a minimum of annually)
- conduct effective moderation of assessment decisions and grades
- conduct appeals where required, according to the EPAO's appeals procedure, reviewing and making final decisions on assessment decisions and grades.

Affordability

Affordability of the EPA will be aided by using at least some of the following practices:

- using an employer's venue for the Professional discussion underpinned by a portfolio of evidence
- using video conferencing or online streaming for the Professional discussion underpinned by a portfolio of evidence
- the possibility of scheduling more than one assessment method on the same day.

Mapping of knowledge, skills and behaviours (KSBs)

Assessment method 1: Professional discussion underpinned by portfolio

Core knowledge
K1: Approaches to backup and storage solutions
K2: Basic elements of technical documentation and its interpretation
K3: Principles of root cause problem solving using fault diagnostics for troubleshooting
K4: Principles of basic network addressing for example binary
K5: Basic awareness of the principles of cloud and cloud-based services
K6: Fundamental principles of virtual networks and components
K7: Principles of cultural awareness and how diversity impacts on delivery of support tasks
K8: Methods of communication including level of technical terminology to use to technical and non-technical stakeholders
K9: Different types of maintenance and preventative measures to reduce the incidence of faults
K10: Key principles of security including the role of people, product and process in secure systems, for example access and encryption requirements
K11: Fundamentals of physical networks and components
K13: A basic awareness of legislation in relation to disposal of waste materials, for example Waste Electronic and Electrical regulations

Core skills
S1: Interpret and prioritise internal or external customers' requirements in line with organisation's policy
S2: Apply the appropriate tools and techniques to undertake fault finding and rectification
S3: Apply continuous professional development to support necessary business output and technical developments
S4: Operate safely and securely across platforms and responsibilities
S5: Communicate with all levels of stakeholders, keeping them informed of progress and managing escalation
S6: Develop and maintain effective working relationships with colleagues, customers and other relevant stakeholders
S7: Manage and prioritise the allocated workload effectively, making best use of time and resources
S8: Complete documentation relevant to the task and escalate where appropriate

Core behaviours
B1: Works professionally, taking initiative as appropriate
B2: Communicates technical and non-technical information in a variety of situations to support effective working with internal or external stakeholders
B3: Demonstrates a productive and organised approach to their work
B4: Self-motivated, for example takes responsibility to complete the job

Option 1: Support Technician
Knowledge
K14: Fundamental principles of operating systems, hardware system architectures and devices
K15: Principles of remote operation of devices including how to deploy and securely integrate mobile devices into a network
K16: Fundamental principles of peripherals, for example printers and scanners
K17: Principles of virtualisation of servers, applications and networks
K18: Principles of disaster recovery, how a disaster recovery plan works and their role within it
K19: Principles of test plans, their role and significance
K20: Fundamentals of purpose, creation and maintenance of asset registers
K23: Basic elements of infrastructure architectures including Wi-Fi and wired networks
Skills
S15: Escalate non-routine problems in line with procedures
S16: Use basic scripting to execute the relevant tasks

Option 2: Network Technician
Knowledge
K24: Principles of OSI layers
K26: Principles of DNS/DHCP
K27: Awareness of cloud platforms, such as AWS, Azure or GCP
K28: Principles of LANs and WANs
K29: Approaches to virtualisation of cloud environments, servers, applications and networks
K30: Principles of network protocols
K31: Principles of APIs and web services
K32: The different types of cloud storage
K34: Principles of databases and migration
K35: Key principles of cloud security and firewalls
K36: DevOps methodology and tools, such as Puppet, Chef, Git, Docker
K39: Different types of connectivity and cabling
Skills
S16: Use basic scripting to execute the relevant tasks
S19: Use a range of cabling or connectors equipment in line with technical requirements
S20: Test and evaluate network environments
S21: Monitor performance and usage of a network

Option 3: Digital Communications Technician
Knowledge
K38: Awareness of the purpose of firewalls
K39: Different types of connectivity and cabling
K40: Awareness of network protocols
K44: Basic principles of VPN and remote access security, for example transmission technologies
K24: Principles of OSI layers
Skills
S28: Establish digital communication or telecommunications systems or networks, for example through cabling and connecting equipment
S31: Use information necessary to identify operational issues and rectify or escalate accordingly in line with policy
S19: Use a range of cabling or connectors equipment in line with technical requirements

Assessment method 2: Project report with questioning

Core
K12: Approaches to documenting tasks, findings, actions taken and outcome, for example use of task tracking and ticketing systems
S11: Provide remote/face-to-face support to resolve customer requirements
S10: Establish and diagnose the extent of the IT support task, in line with the organisation's policies and SLAs
S12: Maintain a safe working environment for own personal safety and others in line with health and safety appropriate to the task

Option 1 Support Technician
Knowledge
K21: Approaches to system upgrades and updates and their significance
K22: Approaches to interpretation of log files, event viewer and system tools
Skills
S9: Install or undertake basic software upgrades, either physically or remotely
S13: Identify and scope the best solution informed by the system data associated with the task
S14: Test and evaluate the system's performance and compliance with customer requirements
S17: Carry out routine maintenance across systems (such as IT, communications), ensuring organisational compliance at all times
S18: Apply the necessary security, in line with access and/or encryption requirements

Option 2: Network Technician
Knowledge
K25: Principles of cloud and network architecture (including Wi-Fi)
K33: Backup procedures and their importance
Skills
S22: Deploy applications on a network
S23: Set up storage and data access for staff
S24: Apply necessary security measures, in line with access requirements to a network
S25: Carry out routine maintenance across network systems, ensuring organisational compliance
S26: Monitor network-related workloads including DNS and firewalls
S27: Install or undertake basic upgrades, either physically or remotely

Option 3: Digital Communications Technician
Knowledge
K37: Basic elements of network communication architectures
K41: The purpose of digital communications technologies
K42: Main factors affecting network performance including faults and error control
K43: Principles of digital test and diagnostic equipment usage
Skills
S29: Identify a range of tools and/or diagnostic equipment, for example hardware or software components, to resolve communications or telecommunications requirements
S30: Undertake basic telecommunications activities in response to an allocated task, designated responsibilities, instructions or customer requirements

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