

City & Guilds Level 4 End- point Assessment for Cyber Security Technologist – Cyber Defender and Responder (9661-14)

Standard: ST1021

EPA Plan: Version 1.1

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EPA Pack for Providers and Employers

Version 2.2

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For external use

Version	Summary of changes	Section
Version 1.0 June 2022	Document created	All
Version 2.0 June 2023	Clarification of guidance provided before the start of the Scenario Demonstration assessment	4. Timetable for End-point Assessment – Summary Timescales
	Clarification of requirements for invigilated assessment and documentation storage	5. End point Assessment Resources - Scenario Demonstrations with Questioning
	Confirmation that the Scenario Demonstrations should be completed within 2 consecutive working days	7. Assessment Instructions: 707 Scenario Demonstrations with Questioning – Generic Specification.
	Clarification of requirements for invigilated assessment, the responsible person and timings for the Scenario Demonstrations	7. Assessment Instructions: 707 Scenario Demonstrations with Questioning – Provider & Employer Instructions Apprentice Instructions
	Additional wording to confirm that assessment takes place under invigilated conditions	Assessment Instructions: 401 Knowledge Test – Provider & Employer Instructions Apprentice Instructions
Version 2.1 April 2025	Clarification of Apprenticeship Standard and EPA Plan version number	Cover page
	Addition of AI position statement	Section 1
	Addition of sample digital credential	Section 1
	Updated maths and English requirements	Sections 3 and 4

Version	Summary of changes	Section
Version 2.2 February 2026	<p>Version changed from AP02 to V1.1</p> <p>Updated references to reflect change of name to City & Guilds Limited</p> <p>Addition of Professional Recognition statement to meet requirements of EPA plan Ver 1.1</p>	<p>Throughout</p> <p>Throughout</p> <p>Professional Recognition</p>

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1. Apprenticeships



This pack will help providers and employers prepare apprentices for the End-point Assessment (EPA) of their City & Guilds Level 4 End-point Assessment for Cyber Security Technologist – Cyber Defender and Responder (9661-14) Apprenticeship Standard version 1.1. It explains how apprentices will demonstrate the knowledge, skills, and behaviours (KSBs) which they developed during their apprenticeship.

The following pathway is covered by this pack:

- Cyber Defender and Responder

This pack must be used alongside the:

- [City & Guilds Manual for the End-point Assessment Service](#)
- Recording Forms for Providers & Employers
- EPA Knowledge Test Guidance
- Resource Pack for Providers & Employers
- EPA Assessment Handbook
- EPA Assessment Pack
- [EPA Documents Library](#) (including information about the EPA Service, policies about malpractice and appeals, FAQs, and a video about EPA which can be shared with apprentices)

The City & Guilds Manual for the End-point Assessment Service includes information on:

- Using the EPA Pro portal
- The process for booking EPA
- Acceptable qualifications and certificates at Gateway
- Uploading files to the EPA Pro portal
- Use of electronic signatures
- Knowledge Tests on e-volve (where applicable)
- Responsibilities of providers and employers
- The Quality Assurance process

In the EPA Pro Portal, further detailed guidance is available for each component of this End-point Assessment, including additional employer guidance on preparing the apprentice for EPA and exemplar documents for the provider and the apprentice.

Full time apprentices will typically spend 24 months on-programme working towards meeting the Standard, with a minimum of 20% off-the-job training. The employer should ensure that the apprentice has access to development opportunities to improve their knowledge, skills and behaviours, as outlined in the Standard, and should hold regular reviews with the provider and apprentice to check how they are getting on.

Once the apprentice has completed their training, they should be ready to go through 'Gateway' to EPA. See the [Gateway](#) and Assessment Instructions sections within this pack to understand what happens.

The EPA for this apprenticeship includes the following assessments which can be taken in any order, as requested by the apprentice:

- [Professional Discussion underpinned by Portfolio](#)
- [Scenario Demonstrations with Questioning](#)
- [Project Report](#)
- [Knowledge Test](#)

Preparing for EPA

In preparation for EPA, providers and employers should:

- Read the Assessment Instructions sections before reaching Gateway – the EPA Partnership Managers can help with any queries
- Review which completed **Recording Forms and evidence** must be submitted, and when
- Use the Recording Forms provided in the format laid out, unless indicated otherwise
- Plan the venue and resources required for EPA - make sure the assessment environment is secure and comfortable, without interruptions
- Use the EPA Pro portal to help manage the apprentice's progress through EPA
- For on-site assessment: arrange for a designated contact to be available on the day to ensure the correct resources are available.

Some actions to help the apprentice prepare for EPA:

- Explain the assessments and **Recording Forms** to the apprentice – refer to details in the Assessment Instructions sections of this pack
- Agree a realistic timeframe for submission of evidence that meets the EPA deadlines – any delays in submission of evidence will delay the assessments
- Make sure the apprentice has the resources and time to prepare for, and undertake EPA
- Take the apprentice through some mock assessments
- Share the EPA Preparation Guide with the apprentice. It includes information about system requirements for virtual meetings
- Let City & Guilds know if reasonable adjustments are required to support an apprentice through EPA. The City & Guilds policy is on the City & Guilds website, under [EPA Documents Library](#)

Authenticating the Apprentice's Work

The Independent End-point Assessor (IEPA) must ensure all decisions satisfy Validity, Authenticity, Currency and Sufficiency (VACS). For evidence produced outside controlled conditions, the apprentice will be required to:

- Sign a declaration that the work is their own
- Reference all sources.

The provider and employer should also aid authentication by:

- Supplementary (oral) questioning to gauge familiarity with the topic
- Looking out for any changes to the apprentice's usual writing style, unusual sources/examples or the use of US spellings or phrases that might indicate cutting and pasting from the internet
- Requiring access to evidence of steps in the process, e.g., drafts, notes, planning etc.

City & Guilds have produced forms for use when reviewing evidence produced outside of controlled conditions. These forms include a 'Declaration of Authenticity' form which must be completed when submitting evidence. The forms can be found in the *Provider & Employer Recording Forms* document.

City & Guilds Position Statement on artificial intelligence

The following guidance on artificial intelligence (AI) is designed to help candidates, teachers and assessors to complete NEAs, coursework and other internal assessments successfully. Please ensure familiarity with it.

[Position Statement on AI | City & Guilds](#)

Health & Safety and Codes of Practice

The importance of safe working practices, the demands of the Health and Safety at Work Act and any Codes of Practice associated with the industry **must** always be adhered to.

Following safe working practices is an integral part of all City & Guilds assessments, and it is the responsibility of the provider and employer to ensure that all the health and safety requirements are in place when apprentices are working on any projects or before apprentices begin any EPA. Should an apprentice fail to follow correct health and safety practices and procedures during an EPA, the IEPA will consult with the EPA Team. The IEPA may advise the apprentice to stop and explain why.

Overall Grade

This End-point Assessment is graded Fail, Pass, Merit or Distinction. The EPA will be assessed and graded by the IEPA.

Information about how each assessment is graded can be found in the Assessment Instructions sections of this pack. The apprentice will fail an assessment method if they do not meet all the pass criteria. All assessment methods must be passed for the EPA to be passed overall.

Grades from the individual assessments will be combined to determine the overall grade. Each assessment method has equal weighting towards the overall EPA grade.

Assessment method	Grade scale	% Contribution
706 Professional Discussion underpinned by Portfolio	X/P/D	25 %
707 Scenario Demonstrations with Questioning	X/P/D	25 %
708 Project Report	X/P/D	25 %
410 Knowledge Test	X/P	25 %
	Total	100%

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

Assessment 1: Professional Discussion underpinned by Portfolio	Assessment 2: Scenario Demonstrations with Questioning	Assessment 3: Project Report	Assessment 4: Knowledge Test	Overall Grading
Fail	Any grade	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Any grade	Fail
Any grade	Any grade	Any grade	Fail	Fail
Any grade	Any grade	Fail	Any grade	Fail
Pass	Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass	Pass
Pass	Distinction	Pass	Pass	Pass
Pass	Pass	Distinction	Pass	Pass
Distinction	Distinction	Pass	Pass	Merit
Distinction	Pass	Distinction	Pass	Merit
Pass	Distinction	Distinction	Pass	Merit
Distinction	Distinction	Distinction	Pass	Distinction

Results Submission & Feedback

The Knowledge Test component will be delivered using the e-volve on screen test platform. Test results will be available on the Walled Garden within 24 hours following the test.

The IEPA will communicate the grade allocated for each assessment to the Lead Independent End-point Assessor (LIEPA) for quality assurance and sampling. The LIEPA will submit the results to the City & Guilds EPA Team.

If the apprentice has passed EPA, the City & Guilds EPA Team will issue the EPA Statement of Achievement to the Provider, confirming the grade achieved and will notify Skills England who will issue the Apprenticeship certificate.

The IEPA will not provide feedback to the apprentice during or immediately following the assessment process. The provider will be informed by the City & Guilds EPA Team of the assessment results. Summary feedback will be provided to all apprentices after any grade determination has been carried out. The feedback will cover the areas against which insufficient evidence has been provided, leading to a 'Fail'. Our 'Pass+ Feedback' will also cover the areas against which the apprentice's evidence has resulted in the award of a Pass, Merit or Distinction.

Professional recognition

This apprenticeship Standard is designed to prepare successful apprentices to meet the requirements for application for:

- RITTech for Level 4
- UK Cyber Security Council – Associate title

Statement of Achievement

A printed EPA Statement of Achievement will be issued to each successful apprentice.

Providers and employers with access can view and download PDF copies of the Statement 24 hours after the results are published. A PDF supports more efficient processing of funding claims by providing evidence of learner certification before the apprentice's paper certificate arrives.

The overall Apprenticeship certificate will be issued by Skills England.

Digital Credentials

A digital credential is a verified, visual representation of knowledge and skills earned in various learning environments. Please see an example below:



Digital credentials are issued and verified online, making it easy for individuals to demonstrate their competencies to employers, clients, and peers online. Each digital credential has a unique URL that can be shared electronically via social media, in an email signature, and on a CV. This is a complimentary service in addition to the paper certificate.

For further information, please visit the City & Guilds EPA Digital Credentials webpage and the general terms in respect of our privacy policy or contact digitalsupport@cityandguilds.com.

2. The Apprenticeship Standard

The Occupational Role

The role of the cyber security technologist is essential in protecting organisations, systems, information, personal data and people from attacks and unauthorised access.

The primary role of the cyber security technologist is to use their knowledge of information security to deliver required cyber security outcomes that are effective and legally compliant. Cyber security technologists work in a variety of sectors and contexts. They may interact with internal and/or external stakeholders, developing and delivering solutions that fulfil the customer's requirements. The ability to interact effectively with people from a wide variety of roles and technical or non-technical skillsets is important in this occupation.

The work of a cyber security technologist encompasses specialist roles supporting business critical requirements and focuses on solutions that meet organisational needs. Tasks and project areas for this role may be technical, analytical, business or user focused. Cyber security technologists need to be able to take responsibility for their own work and collaborate successfully as part of a team that comprises different levels of technical and non-technical expertise.

A **cyber defender and responder** role is operationally focused. In their daily activities, a cyber defender and responder will typically configure and operate secure systems to prevent security breaches or monitor systems to detect and respond to security breaches.

Typical job titles include: Cyber Security Analyst, Cyber Security Operator, Forensics & Incident Response Analyst, Cyber Security Administrator, Information Security Officer, Secure Operations Centre (SOC) Analyst, Network Intrusion Analyst, Incident Response Centre (IRC) Analyst, Network Operations Centre (NOC) Security Analyst.



The Occupational Standard

This apprenticeship Standard has the knowledge, skills, and behaviours (KSBs) which a successful apprentice will be able to demonstrate.

Knowledge, Skills & Behaviours

This apprenticeship Standard has the following knowledge, skills, and behaviours (KSBs) which a successful apprentice will be able to demonstrate:

Ref.	Knowledge and understanding Core: All apprentices must complete	Assessment Method
K1	Principles of networks: OSI and TCP/IP models, data, protocols and how they relate to each other. The main routing protocols. The main factors affecting network performance, including typical failure modes in protocols and approaches to error control. Virtual networking.	Knowledge Test
K2	The concepts, main functions and features of at least three Operating Systems (OS) and their security functions and associated security features.	Scenario Demonstrations
K3	Cyber security concepts and why cyber security matters to business and society; security assurance concepts and how assurance may be achieved in practice, including penetration testing and extrinsic assurance methods.	Professional Discussion
K4	The main types of common attack techniques. The role of human behaviour, including the significance of the 'insider threat'. Including: - how attack techniques combine with motive and opportunity to become a threat. Techniques and strategies to defend against attack techniques and mitigate hazards.	Scenario Demonstrations

Ref.	Knowledge and understanding Core: All apprentices must complete	Assessment Method
K5	The significance of identified trends in cyber security threats and understand the value and risk of this analysis. How to deal with emerging attack techniques (including 'zero day'), hazards and vulnerabilities relevant to the digital systems and business environment.	Scenario Demonstrations
K6	Lifecycle and service management practices to an established standard to a foundation level, for example Information Technology Infrastructure Library (ITIL) foundation level.	Professional Discussion
K7	Cyber incident response processes, incident management processes and evidence collection/ preservation requirements to support incident investigation.	Professional Discussion
K8	<p>K8 Understands the main features, applicability and how to apply the significant law, regulations and standards relevant specifically to cyber security.</p> <p>To include: laws, regulations & standards relating to personal data and privacy (e.g. Data Protection Act 2018 implementing General Data Protection Regulation); use of digital systems (e.g. Computer Misuse Act 1990); regulatory standards for cyber security, intelligence collection and law enforcement (e.g. Intelligence Services Act 1994, Regulation of Investigatory Powers Act 2000; standards for good practice in cyber security (e.g. ISO 27001, Cyber Essentials, NIST) and any updates or additions.</p>	Professional Discussion
K9	Ethical principles and codes for good practice of at least one significant cyber security professional body and the ethical responsibilities of a cyber security professional.	Professional Discussion
K10	How to analyse employer or customer requirements to derive security objectives and, taking account of the threats and overall context, develop a security case which sets out the proposed security measures in the context with reasoned justification.	Scenario Demonstrations
K11	Horizon scanning, including use of recognised sources of threat intelligence and vulnerabilities.	Scenario Demonstrations

Ref.	Knowledge and understanding Core: All apprentices must complete	Assessment Method
K12	<p>Common security architectures and methodologies; be aware of reputable security architectures that incorporates hardware and software components, and sources of architecture patterns and guidance.</p> <p>How cyber security technology components are typically deployed in digital systems to provide security functionality, including: hardware and software to implement security controls.</p>	<p>Scenario Demonstrations</p>
K13	<p>The basic terminology and concepts of cryptography.</p> <p>Common cryptography techniques in use.</p> <p>The importance of effective cryptography key management and the main techniques used.</p> <p>Legal, regulatory and export issues specific to use of cryptography.</p>	<p>Knowledge Test</p>
K14	<p>Risk assessment and audit methodologies and approaches to risk treatment; approaches to identifying the vulnerabilities in organisations and security management systems; the threat intelligence lifecycle; the role of the risk owner in contrast with other stakeholders.</p>	<p>Scenario Demonstrations</p>
K15	<p>Principles of security management systems, including governance, organisational structure, roles, policies, standards, guidelines and how these all work together to deliver the identified security outcomes.</p>	<p>Professional Discussion</p>
K16	<p>Function and features of significant digital system components; typical architectures; common vulnerabilities in digital systems; principles and common practice in digital system security.</p>	<p>Scenario Demonstrations</p>
K17	<p>Programming or scripting languages.</p>	<p>Scenario Demonstrations</p>

Ref.	Skills Core: All apprentices must complete	Assessment Method
S1	Discover vulnerabilities in a system by using a mix of research and practical exploration.	Scenario Demonstrations
S2	Analyse and evaluate security threats and hazards to a system or service or processes. Use relevant external source of threat intelligence or advice (e.g. National Cyber Security Centre). Combine different sources to create an enriched view of cyber threats and hazards.	Scenario Demonstrations
S3	Research and investigate common attack techniques and relate these to normal and observed digital system behaviour and recommend how to defend against them. Interpret and demonstrate use of external source of vulnerabilities (e.g. OWASP, intelligence sharing initiatives, open source).	Scenario Demonstrations
S4	Undertake a security risk assessment for a simple system without direct supervision and propose basic remediation advice in the context of the employer.	Scenario Demonstrations
S5	Source and analyse a security case and describe what threats, vulnerability or risks are mitigated and identify any residual areas of concern.	Scenario Demonstrations
S6	Analyse employer or customer requirements to derive security objectives and, taking account of the threats and overall context, develop a security case which sets out the proposed security measures in the context with reasoned justification.	Professional Discussion
S7	Identify and follow organisational policies and standards for information and cyber security and operate according to service level agreements or other defined performance targets.	Professional Discussion
S8	Configure, deploy and use computer, digital network and cyber security technology.	Scenario Demonstrations
S9	Recommend improvements to the cyber security posture of an employer or customer, based on research into future potential cyber threats and considering threat trends.	Professional Discussion

Ref.	Skills Core: All apprentices must complete	Assessment Method
S13	Write program code or scripts to meet a given design requirement in accordance with employer's coding standards.	Scenario Demonstrations
S15	Use tools, techniques, and processes to actively prevent a breach to digital system security.	Professional Discussion
S17	Identify threats relevant to a defined context.	Scenario Demonstrations
S27	Accurately, objectively and concisely record and report the appropriate cyber security information, including in written reports within a structure or template provided.	Scenario Demonstrations

Ref.	Behaviours Core: All apprentices must complete	Assessment Method
B1	Logical - applies logical thinking, for example, uses clear and valid reasoning when making decisions related to undertaking the work instructions.	Scenario Demonstrations
B2	Analytical - working with data effectively to see patterns, trends and draw meaningful conclusions.	Scenario Demonstrations
B3	Works independently and takes responsibility. For example, works diligently regardless of how much they are being supervised, and stays motivated and committed when facing challenges.	Professional Discussion
B4	Show initiative, being resourceful when faced with a problem and taking responsibility for solving problems within their own remit.	Professional Discussion
B5	Thorough & organised. For example, uses their time effectively to complete work to schedule and takes responsibility for managing their own workload and time.	Professional Discussion
B6	Works effectively with a wide range of people in different roles, internally and externally, with a regard to inclusion & diversity policy.	Professional Discussion
B7	Communicates effectively in a wide variety of situations, for example contributing effectively to meetings and presenting complex information to technical and non-technical audiences.	Professional Discussion
B8	Maintains a productive, professional, and secure working environment.	Professional Discussion
B9	Creative - taking a variety of perspectives, taking account of unpredictable adversary and threat behaviours and approaches, bring novel and unexpected solutions to address cyber security challenges.	Scenario Demonstrations
B10	Problem Solving - identifies issues quickly, enjoys solving complex problems and applies appropriate solutions. Dedicated to finding the true root cause of any problem and find solutions that prevent recurrence.	Scenario Demonstrations

Job Role Specific KSBs

Ref.	Skills Job role: Cyber Defender and Responder	Assessment Method
S21	Develop plans for incident response for approval within defined governance arrangements for incident response.	Project Report
S25	Integrate and correlate information from various sources (including log files from different sources, digital system monitoring tools, Secure Information and Event Management (SIEM) tools, access control systems, physical security systems) and compare to known threat and vulnerability data to form a judgement based on evidence with reasoning that the anomaly represents a digital system security breach.	Project Report
S26	Recognise anomalies in observed digital system data structures (including by inspection of network packet data structures) and digital system behaviours (including by inspection of protocol behaviours) and by inspection of log files and by investigation of alerts raised by automated tools including SIEM tools.	Project Report
S28	Configure digital system monitoring and analysis tools (e.g. SIEM tools), taking account of threat & vulnerability intelligence, indicators of compromise.	Project Report
S29	Undertake root cause analysis of events and make recommendations to reduce false positives and false negatives.	Project Report
S30	Manage local response to non-major incidents in accordance with a defined procedure.	Project Report

Grades & Grading Descriptors: Professional Discussion underpinned by Portfolio

The apprentice will fail this assessment method if they do not meet all the pass criteria.

Area of the Standard to be tested	Name of grade	Grade descriptor
Core Knowledge, Skills and Behaviours		
K3	Pass	<p>The apprentice:</p> <p>identifies and describes cyber security concepts (including the meaning of terms in a cyber security context and how they relate to each other: identity, confidentiality, integrity, availability, threat, vulnerability, risk and hazard) and assesses their relevance to business and society, explaining how achieving security outcomes leads to benefits in practice.</p> <p>explains security assurance concepts. including reference to what assurance is for in security, and 'trustworthy' versus 'trusted' and how assurance may be achieved in practice including penetration testing and extrinsic assurance methods.</p>
K3	Distinction	<p>In addition to meeting the Pass criteria, the apprentice:</p> <p>critically evaluates the impact of cyber security concepts on an organisation, explaining how they bring benefits by exploring the interrelation of risk and harm.</p>
K6	Pass	<p>The apprentice:</p> <p>explains life cycle and service management practices with reference to an established standard at foundation level.</p>
K7	Pass	<p>The apprentice:</p> <p>explains how they advised others on cyber incident response processes, incident management processes and evidence collection/preservation requirements to support incident investigation.</p>

Area of the Standard to be tested	Name of grade	Grade descriptor
K8	Pass	The apprentice: explains the main features, applicability and how to apply the significant law, regulations and standards relevant specifically to cyber security.
K9	Pass	The apprentice: discusses the ethical principles and codes of good practice of at least one significant cyber security professional body and the ethical responsibilities of a cyber security professional.
K15	Pass	The apprentice: summarises how a security management system works, including how governance, organisational structure, roles, policies, standards, guidelines combine effectively to achieve the intended security outcomes.
S6	Pass	The apprentice: explains how they have analysed simple security cases without supervision, including the security objectives, threats; and for every identified attack technique identify mitigation or security controls that could include technical, implementation, policy, or process.
S7	Pass	The apprentice: identifies their organisational policies and standards for information and cyber security and is able to operate according to service level agreements or other defined performance targets and describes how they ensure that they follow them.
S9	Pass	The apprentice: explains how they have reviewed the employer's cyber security posture and made recommendations for improvement, having investigated different views of the future and trends in technology and threats (using more than 1 external source) reflecting on what the implications are for the organisation/business.

Area of the Standard to be tested	Name of grade	Grade descriptor
S9	Distinction	In addition to meeting the Pass criteria, the apprentice: critically analyses different views of the future and trends in threat, and after assessing the implications for the organisation/business, recommends changes that reduce risk with justification.
S15	Pass	The apprentice: explains how to use tools, techniques and processes to prevent a breach to digital system security.
S15	Distinction	In addition to meeting the Pass criteria, the apprentice: evaluates their use of tools and techniques, justifying their selection to prevent a breach to digital system security.
B3	Pass	The apprentice: describes how they establish an independent approach to work tasks which reflect the instructions/ policies/ guidelines/ procedures set out by the organisation.
B4	Pass	The apprentice: describes how they have shown initiative, being resourceful when faced with a problem and taking responsibility for solving problems within their own remit.
B5	Pass	The apprentice: explains how they respond to work tasks with an organised approach which reflects the time limits/guidelines set out by their employer.
B6	Pass	The apprentice: explains how they establish relationships with co-workers and stakeholders which follows the inclusion and diversity policies of the organisation.
B7	Pass	The apprentice: explains how they establish a style of communication which reflects the audience and situational context and adapts this style to present the same information to technical and non-technical audiences.

Area of the Standard to be tested	Name of grade	Grade descriptor
B8	Pass	<p>The apprentice:</p> <p>describes their approach to productivity, professionalism and the security of the working environment which reflects standard operating procedures and the principles/policies/guidelines set out by the organisation.</p>

Grades & Grading Descriptors: Scenario Demonstrations with Questioning

The apprentice will fail this assessment method if they do not meet all the pass criteria.

Area of the Standard to be tested	Name of grade	Grade descriptor
Core Knowledge, Skills and Behaviours		
Scenario 1: Attack and Threat Research		
K4	Pass	<p>The apprentice:</p> <ul style="list-style-type: none"> identifies the common attack techniques and explains ways to defend or mitigate them. explains the role of human behaviour in cyber security risk, including the significance of the 'insider threat'. explains how attack techniques combine with motive and opportunity to become a threat.
K5	Pass	<p>The apprentice:</p> <ul style="list-style-type: none"> identifies the significance of trends in cyber security threats and includes in their cyber security strategy an understanding of and the value and risk of this analysis, showing how they deal with emerging attack techniques (including 'zero day'), hazards and vulnerabilities relevant to the digital systems and business environment.
K11	Pass	<p>The apprentice:</p> <ul style="list-style-type: none"> outlines the procedure for accessing and applying sources of threat intelligence and vulnerabilities for horizon scanning.
S1	Pass	<p>The apprentice:</p> <ul style="list-style-type: none"> performs research and exploration to identify vulnerabilities in a system.
S1	Distinction	<p>In addition to meeting the Pass criteria, the apprentice:</p> <ul style="list-style-type: none"> critically evaluates how threats have been identified and their impact/relevance to a system and organisation.

Area of the Standard to be tested	Name of grade	Grade descriptor
S2	Pass	<p>The apprentice:</p> <p>analyses and evaluates security threats and hazards to a system or service or processes using relevant external source of threat intelligence or advice (e.g. National Cyber Security Centre) to create an enriched view from a combination of different sources.</p>
S3	Pass	<p>The apprentice:</p> <p>researches and investigates common attack techniques and relates these to normal and observed digital system behaviour.</p> <p>interprets and demonstrates use of at least one external source of vulnerabilities (e.g. OWASP, intelligence sharing initiatives, open source).</p>
S17	Pass	<p>The apprentice:</p> <p>identifies threats relevant to a specific organisation and/or sector within the scenario.</p>
S17	Distinction	<p>In addition to meeting the Pass criteria, the apprentice:</p> <p>critically evaluates how threats have been identified and their impact/relevance to a system and organisation.</p>
B2	Pass	<p>The apprentice:</p> <p>establishes an analytical approach - working with data effectively to see patterns, trends and draw meaningful conclusions.</p>
B9	Pass	<p>The apprentice:</p> <p>establishes a creative approach to cyber security by taking a variety of perspectives, taking account of unpredictable adversary and threat behaviours and approaches, and bringing novel and unexpected solutions to address cyber security challenges.</p>

Area of the Standard to be tested	Name of grade	Grade descriptor
B10	Pass	<p>The apprentice:</p> <p>responds to problems with an approach that reflects how they have identified cyber issues quickly, ensuring the true root cause of any problem is found and applied appropriate solutions which prevent recurrence.</p>
Scenario 2: Risk Assessment		
K14	Pass	<p>The apprentice:</p> <p>identifies and applies cyber security risk assessment and audit methodologies and approaches to risk treatment in the context of a system or organisation.</p> <p>identifies vulnerabilities in an organisation and its security management system.</p> <p>explains the threat intelligence lifecycle.</p> <p>describes different approaches to risk treatment and contrasts the role of the risk owner with other stakeholders.</p>
K14	Distinction	<p>In addition to meeting the Pass criteria, the apprentice:</p> <p>evaluates employer relevance of risk assessment outcomes i.e. why is a proposal beneficial to relevant stakeholders.</p> <p>optimises outcomes by choosing counter measures to minimise business impact.</p>
S4	Pass	<p>The apprentice:</p> <p>undertakes a security risk assessment for a simple system without direct supervision and proposes basic remediation advice in the context of the scenario employer.</p>

Area of the Standard to be tested	Name of grade	Grade descriptor
S4	Distinction	In addition to meeting the Pass criteria, the apprentice: evaluates employer relevance of risk assessment outcomes i.e. why is a proposal beneficial to relevant stakeholders. optimises outcomes by choosing counter measures to minimise business impact.
S27	Pass	The apprentice: demonstrates the recording and reporting of appropriate information, including written reports within a structure or template provided.
B1	Pass	The apprentice: demonstrates logical thinking, for example, uses clear and valid reasoning when making decisions related to undertaking the work instructions.
Scenario 3: Set up and Configure a Security System		
K2	Pass	The apprentice: explains the use of at least three Operating System (OS) security functions and associated features to resolve a cyber issue.
K10	Pass	The apprentice: implements a requirements analysis and develops a security case including context, threats, how to derive security objectives justifying the selected mitigations and security controls with reasoning and recognising the dynamic and adaptable nature of threats, in a representative business scenario.
K10	Distinction	In addition to meeting the Pass criteria, the apprentice: evaluates the significance of the selected security controls within the exercise, providing explanation for their choice.

Area of the Standard to be tested	Name of grade	Grade descriptor
K12	Pass	The apprentice: evaluates common security architectures and methodologies and demonstrates how cyber security technology components are typically deployed in digital systems to provide security functionality including: hardware and software to implement security controls.
K12	Distinction	In addition to meeting the Pass criteria, the apprentice: evaluates the consequences and trade-offs of the selection of security components within the exercise.
K16	Pass	The apprentice: demonstrates an understanding of the function and features of significant digital system components; typical architectures; common vulnerabilities in digital systems. undertakes activities using the principles and common practice present in digital system security.
S5	Pass	The apprentice: analyses a security case and describes what threats, vulnerability or risks are mitigated and identifies any residual areas of concern.
S5	Distinction	In addition to meeting the Pass criteria, the apprentice: explains the rationale and consequences for the threats vulnerabilities and risks selected versus those discarded.
S8	Pass	The apprentice: configures, deploys, and uses computer, digital network and cyber security technology.
Scenario 4: Computer Programme/Script writing		
K17	Pass	The apprentice: writes program code or scripts to meet a given design requirement in accordance with employers' coding standards.

Area of the Standard to be tested	Name of grade	Grade descriptor
S13	Pass	The apprentice: writes program code or scripts to meet a given design requirement in accordance with employers' coding standards.

Grades & Grading Descriptors: Project Report

The apprentice will fail this assessment method if they do not meet all the pass criteria.

Area of the Standard to be tested	Name of grade	Grade descriptor
Job role: Cyber Defender and Responder		
S21	Pass	The apprentice: develops an incident response plan for approval within an organisation's governance arrangements for incident response.
S21	Distinction	In addition to meeting the Pass criteria, the apprentice: analyses the rationale and consequences of the design of a typical incident response plan for the employer, business, or organisation.
S25	Pass	The apprentice: integrates and correlates information from various sources (including log files from different sources, digital system monitoring tools, Secure Information and Event Management (SIEM) tools, access control systems, physical security systems) and compares organisational data to known threat and vulnerability data to form a judgement based on evidence with reasoning that the anomaly represents a digital system security breach.
S25	Distinction	In addition to meeting the Pass criteria, the apprentice: evaluates how the recognised incidents demonstrate the threat actors' approach i.e. what is going on that causes the observed anomalies and what the motive could be.
S26	Pass	The apprentice: recognises anomalies in observed digital system data structures (including by inspection of network packet data structures) and digital system behaviours (including by inspection of protocol behaviours) and by inspection of log files and by investigation of alerts raised by automated tools including SIEM tools.

Area of the Standard to be tested	Name of grade	Grade descriptor
S26	Distinction	In addition to meeting the Pass criteria, the apprentice: evaluates how the recognised incidents demonstrate the threat actors' approach i.e. what is going on that causes the observed anomalies and what the motive could be.
S28	Pass	The apprentice: configures digital system monitoring and analysis tools (e.g., SIEM tools), taking account of threat & vulnerability intelligence, indicators of compromise.
S28	Distinction	In addition to meeting the Pass criteria, the apprentice: analyses the rationale and consequences of selecting and configuring digital system monitoring tools for the employer, business, or organisation.
S29	Pass	The apprentice: undertakes root cause analysis of events and makes recommendations to reduce false positives and false negatives.
S30	Pass	The apprentice: manages local response to non-major incidents in accordance with a defined procedure.

Grades & Grading Descriptors: Knowledge Test

This assessment method is graded Pass/Fail.

Pass: Minimum score of 25 / 40 (62.5%)

Fail: 0-24/40 (60% or less)

Area of the Standard to be tested	Summary of Knowledge outcome	Marks and percentage contribution to grade for this assessment method
Core Knowledge		
K1	Principles of Networks	20 (50%)
K13	Cryptography	20 (50%)
		Total: 40 (100%)

3. Gateway

The EPA period will only start when the **employer** is satisfied that the apprentice is consistently working at, or above the level of, the Standard. The apprentice must be able to evidence that they fully demonstrate the Occupational Standard and required level of professional competence in an authentic workplace context. In making this decision, the employer could take advice from the provider, but the ultimate decision is made solely by the employer.



If there is a **provider** working alongside the employer, they should support the apprentice's preparation for Gateway.

The apprentice must provide the following at Gateway:

- Evidence of achievement of English and mathematics qualifications in line with the apprenticeship funding rules
- For the Professional Discussion, the apprentice is required to submit a Portfolio of Evidence, which must include a signed and dated 'Evidence Reference Matrix' form **and** a 'Declaration of Authenticity' form for the Portfolio
- For the Project Report, the apprentice is required to submit a completed project brief (no longer than **500** words), using the "Project Brief" form provided by City & Guilds or an approved alternative form.

The following should be completed on the EPA Pro platform:

- Gateway Declaration Form signed by the apprentice
- Gateway Declaration by the provider, on behalf of the employer and tutor – confirming that the apprentice has completed at least 12 months on-programme.

The Assessment Instructions sections provide detail about the evidence and forms which must be submitted at Gateway.

City & Guilds will confirm when all the Gateway requirements have been met. The following requirements apply to the Project Brief and Project Report:

- The proposed subject, title and scope of the project must be agreed between the provider/employer and City & Guilds immediately after Gateway. This will confirm the suitability of the proposed project before it is undertaken by the apprentice
- The IEPA will review and sign off the project brief within 2 weeks of the Gateway to ensure it has sufficient scope to meet the KSBs mapped to this method of assessment
- Should the project brief not be suitable, the IEPA will provide feedback to the apprentice so that the employer and apprentice can submit a revised project brief. Unless agreed otherwise with the City & Guilds End-point Assessment team, the employer and apprentice will have 5 working days from notification of rejection to submit a revised project brief
- It is important to note that the apprentice **cannot** start compiling the work-based project until the IEPA has formally accepted the project brief.

4. Timetable for End-point Assessment

The EPA period is typically completed within **4 months** of the EPA Gateway, starting when City & Guilds has confirmed that all Gateway requirements have been met.

Further information about the booking process and timelines can be found in the [City & Guilds Manual for the End-point Assessment Service](#).

Optional planning meetings are available for this Standard. City & Guilds EPA Partnership Managers can provide additional guidance.

On-going during on-programme	Evidence & Forms
<p>Provider & Employer</p> <ul style="list-style-type: none">• Reviews progress as part of their regular performance management process and ensures apprentice's performance is on track• Identifies any gaps and creates a plan with the apprentice• Considers whether the apprentice's potential evidence for the Portfolio is appropriate and sufficient to cover the relevant KSBs (knowledge, skills, behaviours) in scope and breadth.• Enrols the apprentice on EPA Pro and provides 'Expected Date Ready for EPA' and books (optional) 'Planning Meeting'	n/a
<p>Apprentice</p> <ul style="list-style-type: none">• Apprentices will have fulfilled the English and mathematics requirements in line with the apprenticeship funding rules• Produces sufficient evidence in the form of a Portfolio of Evidence to allow them to consistently demonstrate knowledge, skills and behaviours as described in the Standard.	Starts to collate: Portfolio of Evidence, typically during the last months of the apprenticeship.

Gateway Process	Evidence & Forms
<p>Employer</p> <ul style="list-style-type: none"> • Reviews progress and ensures the apprentice is ready for EPA • Reviews evidence to confirm that it is appropriate and sufficient to meet the Standard 	<p>Signs:</p> <p>Declaration of Authenticity for Portfolio</p>
<p>Apprentice</p> <ul style="list-style-type: none"> • Must have been on programme for a minimum of 12 months and one day • Attends the optional EPA Planning Meeting • Agrees the subject, title and scope of their proposed project with the employer and City & Guilds • Completes and submits evidence and forms 	<p>Signs:</p> <p>Declaration of Authenticity for Portfolio</p> <p>Submits to provider:</p> <ul style="list-style-type: none"> • Apprentice Gateway Declaration • Portfolio of Evidence (which will typically include five pieces of evidence) • Evidence Reference Matrix form and a Declaration of Authenticity for the Portfolio of Evidence • Project Brief (for the Project Report)
<p>Provider – on EPA Pro</p> <ul style="list-style-type: none"> • Makes City & Guilds aware of any additional needs of the apprentice so that they can review reasonable adjustments – see the current policy on the City & Guilds website, under EPA Documents Library • Completes Provider Gateway Declaration on behalf of the employer and tutor • Uploads evidence and forms onto EPA Pro 	<p>Completes on EPA Pro:</p> <ul style="list-style-type: none"> • Provider Gateway Declaration <p>Signs:</p> <p>Declaration of Authenticity for Portfolio</p>

Gateway Process	Evidence & Forms
	Uploads onto EPA Pro: <ul style="list-style-type: none"> • Apprentice Gateway Declaration • Portfolio of Evidence • Evidence Reference Matrix form and a Declaration of Authenticity for the Portfolio of Evidence • Project Brief (for the Project Report)
City & Guilds EPA Gateway Team <ul style="list-style-type: none"> • Formally confirms when all the Gateway requirements have been met 	n/a
IEPA <ul style="list-style-type: none"> • Attends the optional EPA Planning Meeting • Reviews Portfolio of Evidence • Reviews Project Brief • Advises the Lead IEPA within 3 working days if the standards have been met. 	Completes: <ul style="list-style-type: none"> • (If planning meeting is being held) the PRO booking details (i.e. dates and times) and places them in their calendar. The IEPA also requests a GTM link for remote PD as applicable.

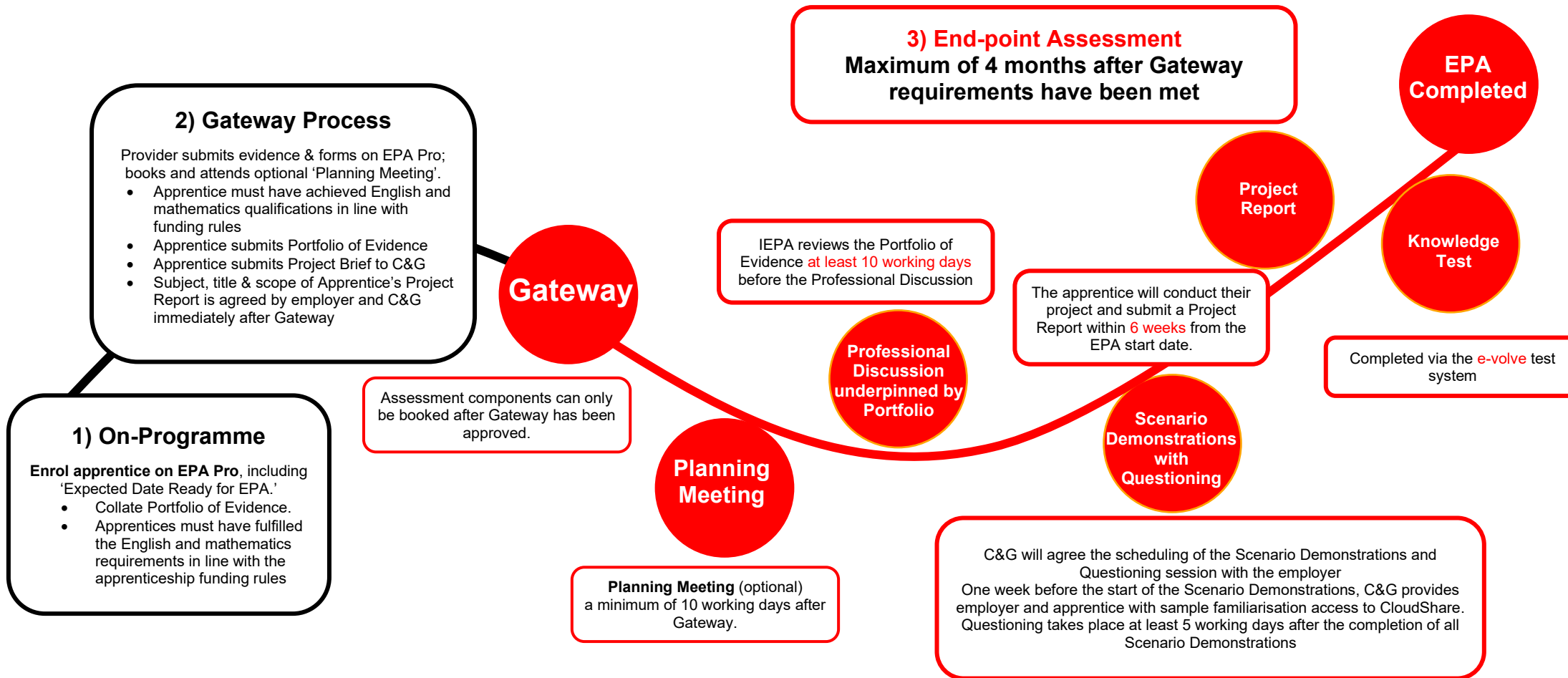
End-point Assessment	Evidence & Forms
<p>Apprentice</p> <ul style="list-style-type: none"> • Attends the optional EPA Planning Meeting • Agrees the subject, title and scope of their proposed project with the employer and City & Guilds • Starts and completes their Project Report • Completes the Knowledge Test • Completes other End-Point assessments once required evidence review has been carried out by the IEPA 	<p>Signs:</p> <p>Declaration of Authenticity for Project Report</p> <p>Submits to provider:</p> <ul style="list-style-type: none"> • Project Report • Evidence Reference Matrix form and Declaration of Authenticity for Project Report
<p>Employer</p> <ul style="list-style-type: none"> • Ensures the apprentice has access to the resources required for the assessments (see the Resources section) 	<p>Signs:</p> <p>Declaration of Authenticity for Project Report</p> <p>Submits to provider:</p> <ul style="list-style-type: none"> • Declaration of Authenticity for Project Report
<p>Provider</p> <ul style="list-style-type: none"> • Books EPA on the EPA Pro portal, in line with City & Guilds booking timelines in the EPA Manual • Attends the optional EPA Planning Meeting • Submits evidence and forms on the date agreed in the Project Report Brief 	<p>Signs:</p> <p>Declaration of Authenticity for Project Report</p> <p>Uploads onto EPA Pro:</p> <ul style="list-style-type: none"> • Project Report • Evidence Reference Matrix form for Project Report • Declaration of Authenticity for Project Report
<p>IEPA</p> <ul style="list-style-type: none"> • Reviews the apprentice’s Portfolio of Evidence prior to EPA events • Carries out End-point Assessments 	<p>Completes:</p> <ul style="list-style-type: none"> • 706 Professional Discussion – IEPA recording forms

End-point Assessment	Evidence & Forms
<ul style="list-style-type: none"> • Marks each assessment, communicates the results to the LIEPA • Provides feedback for assessments in EPA Pro 	<ul style="list-style-type: none"> • 707 Scenario Demonstrations with Questioning – IEPA recording forms • 708 Project Report – IEPA recording forms • End-point Assessment Feedback Form (with justification for grade awarded for 706, 707, 708) • Overall Grade Recording Form
<p>LIEPA</p> <ul style="list-style-type: none"> • Samples and quality assures assessments • Confirms overall grade to EPA Team 	<p>Reviews:</p> <ul style="list-style-type: none"> • 706 Professional Discussion – IEPA recording forms • 707 Scenario Demonstrations with Questioning – IEPA recording forms • 708 Project Report – IEPA recording forms • End-point Assessment Feedback Form (with justification for grade awarded for 706, 707, 708) • Overall Grade Recording Form
<p>City & Guilds EPA Team</p> <ul style="list-style-type: none"> • Communicates the results to the Provider via EPA Pro • Processes overall result; if the apprentice has passed all the assessments, advises Skills England who issue the certificate directly to the employer. 	<p>n/a</p>

Summary Timescales

Readers should check the above Timetable and the Assessment Instruction sections of this document for the detailed requirements for each stage.

Further information on EPA Service Timelines can be found on www.cityandguilds.com



5. End-point Assessment Resources

Assessment Method	Resources Required
Professional Discussion underpinned by Portfolio	<p>A suitable, quiet room for the Professional Discussion to take place in a controlled environment, free from distractions and the pressures of work activities. The room should be large enough to accommodate all of those involved (including the employer representative).</p> <p>Access to water and cups.</p> <p>If the meeting is to be carried out remotely, internet access and suitable equipment for remote assessment, such as a computer with audio and video capacity, as outlined in the City & Guilds Manual for the End-point Assessment Service.</p> <p>If a video link is used, appropriate measures must be in place to ensure that City & Guilds is satisfied that the responses given are those of the candidate, e.g. use of a 360-degree camera to allow the IEPA to look around the room during the interview.</p> <p>The apprentice and the IEPA must each have a copy of the apprentice's Portfolio of Evidence to refer to.</p>
Scenario Demonstrations with Questioning	<p>For the Scenario Demonstration tasks:</p> <ul style="list-style-type: none"> • An appropriate, quiet room that is suitable for assessment under controlled conditions, free from distractions and external influence. • A suitable IT system that has an office productivity package installed and internet connectivity that will allow access to complete the online assessment scenarios. • Where firewalls are used to control access to external resources, there may be a need for access to be configured to allow access to the CloudShare virtual labs. • A suitable location for documentation storage outside of the CloudShare environment. • A responsible person to invigilate the assessment.

Assessment Method	Resources Required
	<p>For the Questioning component:</p> <ul style="list-style-type: none"> • A suitable, quiet room for the remote questioning to take place (under exam conditions). The room should have lighting, space and privacy and be free from interruptions. It must be away from the pressures of work activities, in a controlled environment. This may be on or off the employer’s premises. • If the meeting is to be carried out remotely, internet access and suitable equipment for remote assessment, such as a computer with audio and video capacity, as outlined in the City & Guilds Manual for the End-point Assessment Service. • If a video link is used, appropriate measures must be in place to ensure that City & Guilds is satisfied that the responses given are those of the candidate, e.g. use of a 360-degree camera to allow the IEPA to look around the room during the session. <p>The apprentice and the IEPA must each have a copy of the outputs of the completed Scenario Demonstrations for their reference during the Questioning session.</p>
Project Report	<p>The apprentice should be subject to normal workplace supervision whilst completing their project. The employer should ensure the apprentice has sufficient time and the necessary resources to plan and undertake the project within the 6 week period.</p>
Knowledge Test	<p>Suitable IT systems for e-volve as outlined in the City & Guilds Manual for the End-point Assessment Service.</p> <p>A responsible person to invigilate the assessment.</p> <p>A quiet room with adequate lighting, space and privacy. It must be away from the pressures of work activities, in a controlled environment. This may be on or off the employer’s premises.</p>



6. Assessment Instructions: 706 Professional Discussion underpinned by Portfolio

Assessment Specification

Description	Coverage	Grade
Professional Discussion	Knowledge: K3, K6, K7, K8, K9, K15 Skills: S6, S7, S9, S15 Behaviours: B3, B4, B5, B6, B7, B8	X/P/D

Generic Specification

This assessment will take the form of a Professional Discussion, which will be appropriately structured to draw out the best of the apprentice's competence and excellence.

The Professional Discussion will involve the questions that cover all the knowledge, skills and behaviours (KSBs) assigned to this assessment method and will consider the supporting evidence in the apprentice's Portfolio of Evidence. The two-way discussion will cover both what the apprentice has produced and how they have done it.

This assessment method makes use of naturally occurring evidence collated in the Portfolio of Evidence to support the assigned KSBs. It also allows for assessment of KSBs that do not occur on a predictable or regular basis or may not naturally occur during the Scenario Demonstrations or Project Report.

Authenticating the apprentice's work

The IEPA must ensure all decisions satisfy Validity, Authenticity, Currency and Sufficiency (VACS). For evidence produced outside controlled conditions, the apprentice will be required to:

- sign a declaration that the work is their own
- reference all sources.

City & Guilds have produced evidence reference forms for the apprentice to use when reviewing evidence produced outside of controlled conditions. These forms include a 'Declaration of Authenticity' form which must be completed when submitting evidence. The forms can be found in the *Provider & Employer Recording Forms Pack*.

Provider & Employer Instructions

Submitting the Portfolio of Evidence

The apprentice will prepare a Portfolio of Evidence during the on-programme phase of their apprenticeship. Before the Professional Discussion can take place, the Portfolio of Evidence must be submitted to City & Guilds. The Portfolio will be reviewed by the IEPA. It is a concise collection of the apprentice's best pieces of evidence selected from the breadth of available evidence. It efficiently demonstrates the apprentice's performance in relation to the KSBs and grading descriptors and showcases their highest quality work.

The Portfolio of Evidence is not graded but will be used by the IEPA as the basis for the Professional Discussion. The apprentice can use the Portfolio to provide tangible evidence to support their accounts of their work during the Professional Discussion.

The Portfolio must be submitted electronically in line with City & Guilds requirements at the Gateway and it must contain sufficient evidence to demonstrate the KSBs assigned to this assessment method. The apprentice's manager/ mentor will typically support the development of the Portfolio in accordance with the employer's policy and procedures.

Portfolio of Evidence Requirements

The Portfolio should meet the following requirements:

- The evidence must adequately demonstrate the apprentice's knowledge, skills and behaviours (KSBs) that will be assessed by the Professional Discussion
- Evidence should be mapped against the KSBs for this assessment method, using the 'Evidence Reference Matrix' provided in the Provider & Employer Recording Forms Pack. To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied form is strongly recommended. The apprentice and/or provider may choose to use their own version of the Evidence Reference form, but the form **must**:
 - clearly map evidence to the KSBs
 - be confirmed as suitable by City & Guilds before it is used.
- There should be **more than one** piece of evidence relating to each of the knowledge, skills and behaviours mapped to the Professional Discussion. Evidence may be used holistically to demonstrate more than one KSB

- The evidence in the Portfolio must be presented using these section headings:
 - Section 1: Cyber security concepts and its importance to business and society (K3)
 - Section 2: Rationale for security objectives (S6)
 - Section 3: Ethical principles, codes of practice, law & regulation (K8, K9)
 - Section 4: Preventing security breaches and continuous improvement (S9, S15)
 - Section 5: Following organisation's policies and processes (K6, S7)
 - Section 6: Operation of security management systems & incident response (K7, K15)
- Evidence may include:
 - workplace documents, e.g. workplace policies, procedures and records
 - photographic evidence with annotations
 - video clips (maximum total duration 5 minutes); the apprentice must be in view and identifiable at all times
 - witness statements or other employer contributions that focus on direct observation of performance rather than opinions
- Self-assessments must **not** be included as evidence

It is expected that there will *typically* be **five** pieces of discrete evidence in total.

When including witness statements in the Portfolio of Evidence, the statements should include:

- Their relationship to the apprentice
- Their name and job title
- Evidence that was generated on-programme
- Approximate date of work-based examples
- Clear examples of direct observation where the apprentice has demonstrated competency against the Standard whilst on programme.

All evidence must be of the apprentice's own work. For any teamwork included in the Portfolio, the evidence must clarify and focus only on the apprentice's contribution.

Where necessary, confidentiality and data protection requirements must be adhered to, e.g. permissions for use of video/images containing identifiable third parties (such as clients), anonymisation of documentation and permissions from clients when submitting items commissioned by them.

Where the number of pieces of evidence in the Portfolio is excessive, the IEPA will return the Portfolio without it being reviewed. City & Guilds will request that the evidence be revised and resubmitted.

All the evidence submitted must be in a format that can be opened by the IEPA. The EPA Pro portal accepts evidence in the form of Word documents, MP3 and MP4 files. Individual file size cannot exceed 250MB. Where evidence cannot be opened, e.g. evidence that is linked to an e-Portfolio or embedded within a document, the Portfolio will be returned without it being reviewed.

Selecting Evidence

Before selecting the evidence to form the Portfolio, the apprentice should consider the following:

- The grading descriptors and relevant KSBs to be covered by the Portfolio
- The type of evidence that can be presented (see Portfolio requirements above)
- The amount of evidence that should be presented
- The currency of evidence which must be produced while the apprentice is undertaking their apprenticeship.

To assemble the Portfolio, the apprentice should consider all the evidence they have available that shows they have met the requirements being assessed. Evidence collected towards the end of their apprenticeship programme, as they become independent in their work, is likely to provide the most holistic evidence – i.e. covering multiple KSBs and grading descriptors at once. From this, they should select evidence that most efficiently meets all the relevant grading descriptors and KSBs and which demonstrate their best performance.

There are two questions that an apprentice should consider when selecting work to form their portfolio:

1. *Which pieces holistically (most efficiently) give evidence that together cover all of the relevant KSBs?*
2. *Is this the **best** evidence I have, showing that I have met all of the requirements for the higher grade?*

Confirming the Evidence Selection

When the apprentice has selected the evidence to form their Portfolio, this must be reviewed by the provider/employer to ensure:

- All assessment requirements have been met
- It is in line with any requirements relating to the type and amount of evidence required
- That the evidence originated on-programme
- There is no unnecessary duplication of evidence against the same KSBs and grading descriptors

- The work selected represents the best evidence available in relation to the grading descriptors and KSBs
- The clarity of any images or scanned evidence is sufficient to determine the quality of the original evidence
- Authenticity of evidence has been established.

Preparing Evidence for Submission

Evidence being uploaded for EPA must be presented as follows:

A completed 'Declaration of Authenticity' form must accompany the Portfolio of Evidence. Each piece of evidence must be referenced to the KSB(s) it is being submitted against on the 'Evidence Reference Matrix' (found in *the Provider & Employer Recording Forms Pack*) or agreed alternative form.

The submission of a fully completed 'Evidence Reference Matrix' (or agreed alternative form) is mandatory. Failure to do so means that the IEPA will return the Portfolio without it being reviewed.

In the case where evidence has been referenced into the 'Evidence Reference Matrix' (or agreed alternative form) but is not present within the Portfolio, the IEPA will request the missing evidence from the provider/employer.

A 'Portfolio of Evidence Checklist' has been created to help apprentices and the provider/employer ensure that all relevant information is accounted for.

Authenticating the apprentice's work when submitting in the Portfolio

The evidence provided in the Portfolio must be valid and attributable to the apprentice. The Portfolio of Evidence **must** contain a statement from the employer and apprentice confirming this. City & Guilds have provided a 'Declaration of Authenticity' form for this purpose in the *Provider & Employer Recording Forms Pack*.

Assessment Environment

The Professional Discussion will be undertaken by the same IEPA who has assessed the apprentice's Portfolio of Evidence. This IEPA will also make the grading decision.

The Professional Discussion will take place in a controlled environment, free from distractions and external influence. The employer/provider should ensure that the assessment environment is maintained. This could include ensuring that appropriate signposting and other arrangements are in place that will maintain a suitable environment throughout the duration of the assessment activity.

The discussion between apprentice and IEPA usually takes place remotely via online video conferencing, providing the conditions and requirements for remote assessment are met. Remote assessment is live assessment that is supported by technology where the IEPA and the apprentice are not in the same physical location when the assessment takes place. When using an online platform, the IEPA will ask for identification from the apprentice and ensure appropriate measures are in place to prevent misrepresentation and ensure that the apprentice is not aided in any way, e.g. using a 360-degree camera to allow the IEPA to view the room during the Professional Discussion.

The Professional Discussion

The Professional Discussion should be booked by the provider for the apprentice. The time and date of the Professional Discussion should be arranged with the City & Guilds End-point Assessment team at the optional planning meeting. Alternatively, the date may be booked through EPA Pro. The City & Guilds End-point Assessment team will assist in the booking process as required.

The IEPA will conduct and assess the Professional Discussion. It will last for **90 minutes**. The apprentice will be asked at least 12 questions. These will include at least 2 questions focused on 'law & regulation' (K8) and 1 question on 'ethics' (K9). The IEPA has the discretion to increase the time of the questioning by up to 10% to allow the apprentice to complete their last answer. Further time may be granted for apprentices with specific needs in line with the City & Guilds Reasonable Adjustment Policy.

The apprentice and the IEPA will have access to their own copies of the Portfolio throughout the Professional Discussion and both can refer to it as needed. The apprentice should draw on the contents of the Portfolio to underpin the discussion, selecting items to inform and enhance their answers.

Grading the Professional Discussion

The Professional Discussion will be graded Fail, Pass or Distinction. The City & Guilds IEPA will allocate the grade using the 'Grading criteria' table provided. To pass the assessment method, the evidence presented must meet all the Pass criteria for the Professional Discussion. To achieve a distinction, the evidence presented must meet all the pass criteria and all the distinction criteria for the Professional Discussion.

Recording forms

City & Guilds have designed specific recording forms for this Apprenticeship, some for providers and employers to use, and some for IEPAs to use.

Below is a summary of the recording forms available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Evidence Reference Matrix – Portfolio of Evidence	Indicates to IEPA how the Portfolio evidences the relevant KSBs mapped to this assessment method. Enables the IEPA to assess the evidence efficiently and effectively.	Apprentice/Provider/Employer	Provider & Employer Recording Forms Pack
Declaration of Authenticity – Portfolio of Evidence	Confirms that the submitted work is that of the apprentice.	Provider & Employer Apprentice	Provider & Employer Recording Forms Pack
<u>Portfolio of Evidence Checklist</u>	A checklist to help apprentices and employers ensure that all relevant information is accounted for.	Apprentice	Provider & Employer Recording Forms Pack

Recording form	Purpose	Who should complete	Where it can be found
Sample Apprentice Review Form for Employers.	<p>It is expected that the employer will have regular reviews with the apprentice, this form can be used to record these meetings. Employers may devise their own forms or systems (electronic or paper-based).</p> <p>NB: This form is NOT submitted to City & Guilds.</p>	Employer	Provider & Employer Recording Forms Pack

Apprentice Instructions – Level 4 Cyber Security Technologist – Cyber Defender and Responder – Professional Discussion

Before the Professional Discussion

You will prepare a Portfolio of Evidence during the on-programme phase of your apprenticeship to support the Professional Discussion. Your Portfolio must be submitted electronically to City & Guilds at the Gateway.

The Professional Discussion will be booked for you by your provider or employer.

The Professional Discussion

The Independent End-point Assessor (IEPA) will have a Professional Discussion with you. This will be based on the Portfolio of Evidence you produced during your apprenticeship. The discussion covers both what you have produced and how you have done it.

During the Professional Discussion you will be asked **a minimum of 12 questions**. These will include at least 2 questions focused on law and regulation, and 1 question on ethics.

You and the IEPA should both have copies of your Portfolio of Evidence available during the Professional Discussion. You may refer to the Portfolio during the Professional Discussion if you need to.

The purpose of the Professional Discussion is to:

Demonstrate that you can apply the broad range of knowledge, skills and behaviours (KSBs) in the occupational Standard that are assigned to this assessment method.

Clarify any questions the IEPA has after reviewing the Portfolio of Evidence you submitted

Explore aspects of your work, including how it was carried out, in more detail

Enable the IEPA to draw a conclusion from a Professional Discussion for the appropriate grade to be awarded.

Assessment Environment

The Professional Discussion will take place in a quiet room, free from distractions and influence.

Video conferencing is usually used to conduct the Professional Discussion. Appropriate measures will be in place to ensure that the responses given are yours, e.g. use of a 360-degree camera to allow the IEPA to view the room during the Professional Discussion.

Timings

The Professional Discussion will last for **90** minutes. If there are specific reasons why you might need further time for the Professional Discussion, your provider and employer will confirm this with City & Guilds.

The IEPA has the discretion to increase the time of the Professional Discussion by up to 10% to allow you to complete your answer to the final question.

Grading

The Professional Discussion will be graded Fail, Pass or Distinction. The City & Guilds IEPA will allocate the grade using the 'Grading criteria' table provided.

The IEPA is fully responsible for making the grading decision. The results should not be shared with you on the day of the assessment.

The Portfolio of Evidence

The Portfolio of Evidence is a showcase of your best pieces of evidence, a concise collection of evidence selected from the breadth of available evidence.

The Portfolio of Evidence is **not** directly assessed by the City & Guilds IEPA but is used as the basis for the Professional Discussion.

You must provide a clear index showing what is in your Portfolio of Evidence. You must also provide a document that clearly shows how the evidence in the Portfolio is referenced against the relevant KSBs that are assessed by the Professional Discussion. City & Guilds have provided an 'Evidence Reference Matrix' form for you to use. You may choose to use your own version of the Evidence Reference form, providing it clearly maps evidence to the KSBs and is confirmed as suitable by City & Guilds before use.

When you are selecting evidence to form your Portfolio of Evidence, it will be reviewed by your employer/mentor. They will provide you with guidance on the evidence you produce and provide you with opportunities that will allow you to gather enough evidence for all of the criteria.

Portfolio requirements

Your Portfolio of Evidence should meet the following requirements:

The evidence must adequately demonstrate your knowledge, skills and behaviours (KSBs) that will be assessed by the Professional Discussion.

Evidence should be mapped against the KSBs for this assessment method, using the 'Evidence Reference Matrix' provided in the *Provider & Employer Recording Forms Pack*. Use of the City & Guilds supplied form is strongly recommended. You may use your own version of the Evidence Reference form, but the form must:

- clearly map evidence to the KSBs
- be confirmed as suitable by City & Guilds before it is used.

There should be **more than one** piece of evidence relating to each of the KSBs mapped to the Professional Discussion. Evidence may be used holistically to demonstrate more than one KSB.

The evidence in your Portfolio must be presented using these section headings:

- Section 1: Cyber security concepts and its importance to business and society (K3)
- Section 2: Rationale for security objectives (S6)
- Section 3: Ethical principles, codes of practice, law & regulation (K8, K9)
- Section 4: Preventing security breaches and continuous improvement (S9, S15)
- Section 5: Following organisation's policies and processes (K6, S7)
- Section 6: Operation of security management systems & incident response (K7, K15)

Your evidence may include:

- workplace documents, e.g. workplace policies, procedures and records
- photographic evidence with annotations
- video clips (maximum total duration 5 minutes); the apprentice must be in view and identifiable at all times
- witness statements or other employer contributions that focus on direct observation of performance rather than opinions.

Self-assessments must not be included as evidence.

It is expected that there will *typically* be 5 pieces of discrete evidence in total.

When including witness statements in the Portfolio of Evidence, the statements should include:

Their relationship to the apprentice

Their name and job title

Evidence that was generated on-programme

Approximate date of work-based examples

Clear examples of direct observation where the apprentice has demonstrated competency against the Standard whilst on programme.

All evidence must be of your own work. For any teamwork included in the Portfolio, the evidence must clarify and focus only on your own contribution. You will be required to sign a declaration confirming that the work in the Portfolio is your own.

Where necessary, confidentiality and data protection requirements must be adhered to, e.g. permissions for use of video/images containing identifiable third parties (such as clients), anonymisation of documentation and permissions from clients when submitting items commissioned by them.

Where the number of pieces of evidence in the Portfolio is excessive, the IEPA will return the portfolio without it being reviewed. The evidence will need to be revised and resubmitted. All the evidence submitted must be in a format that can be opened by the IEPA. The EPA Pro portal accepts evidence in the form of Word documents, MP3 and MP4 files. Individual file size cannot exceed 250MB. Where evidence cannot be opened, e.g. evidence that is linked to an e-Portfolio or embedded within a document, the Portfolio will be returned without it being reviewed.

Selecting Evidence

Before selecting the evidence for the Portfolio of Evidence, you should review the assessment requirements in the Standard to ensure:

That only evidence relevant to the Standard is used

The criteria to be covered by the Portfolio of Evidence

The type of evidence that can be presented (see details in the [Portfolio Requirements](#) above)

The amount of evidence that should be presented.

The period of time from which the evidence should have originated.

When you are building your Portfolio of Evidence, you should consider all the evidence you have available that shows you have met the requirements being assessed. Evidence collected towards the end of your Apprenticeship programme, as you become independent in your work, is likely to provide the most holistic evidence, i.e. covering a number of criteria at once.

From this, you should select about **5 pieces** of evidence that **most efficiently** meet all the relevant criteria, and which demonstrated your **best performance**. If necessary (to ensure that all KSBs are evidenced), you can include a small number of additional pieces of evidence for KSBs that are not otherwise covered.

There are two questions that you should consider when selecting work to form your Portfolio of Evidence:

- 1. Which pieces holistically (most efficiently) give evidence that together cover all of the relevant KSBs?*
- 2. Is this the **best** evidence I have, showing that I have met all of the requirements for the higher grade?*

Confirming the Evidence Selection

When you have selected the evidence to form your Portfolio of Evidence, this must be reviewed by the provider/employer to ensure:

All assessment requirements have been met

There is no unnecessary duplication of evidence against the same criteria

The work selected represents the best evidence available in relation to grading requirements

The clarity of any images or scanned evidence is sufficient to determine the quality of the original evidence

Authenticity of evidence has been established.

A '[Portfolio of Evidence checklist](#)' has been provided to assist the provider, employer and the apprentice in checking the documents to be submitted. You do **not** need to submit a completed 'checklist' to City & Guilds.

Guidance on Submitting the Portfolio of Evidence

Your employer/mentor will submit the Portfolio of Evidence to City & Guilds. The work evidenced in the Portfolio of Evidence must have been carried out by you and a signed 'Declaration of Authenticity' form **must** be submitted along with the Portfolio of Evidence. Your Portfolio **must** also be accompanied by a fully completed 'Evidence Reference Matrix' (or agreed alternative form).

Recording forms

City & Guilds have designed specific recording forms for this Apprenticeship, some for providers and employers to use, and some for IEPAs to use.

Below is a summary of the recording forms available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Evidence Reference Matrix – Portfolio of Evidence	Indicates to IEPA how the Portfolio evidences the relevant KSBs mapped to this assessment method. Enables the IEPA to assess the evidence efficiently and effectively.	Apprentice/Provider/Employer	Provider & Employer Recording Forms Pack
Declaration of Authenticity – Portfolio of Evidence	Confirms that the submitted work is your own.	Provider & Employer Apprentice	Provider & Employer Recording Forms Pack
<u>Portfolio of Evidence Checklist</u>	A checklist to help apprentices and employers ensure that all relevant information is accounted for.	Apprentice	Provider & Employer Recording Forms Pack

Portfolio of Evidence Checklist

Apprentice Portfolio of Evidence Checklist		Tick when confirmed
1.	Is all evidence signed by the apprentice and dated? * E-signatures are also acceptable	
2.	Is all evidence valid, authentic, current and sufficient (VACS)?	
3.	Does evidence clearly show it is the apprentice's individual work (and if involved in teamwork, is it clear what specific contribution the apprentice made)?	
4.	Does the evidence clearly demonstrate the apprentice's relevant knowledge?	
5.	Has the apprentice used the evidence reference matrix form? Has all evidence been referenced?	
6.	Does it showcase the apprentice's best pieces of work?	
7.	Have duplicate and irrelevant pieces of evidence been removed?	
8.	Is the majority of the evidence holistic in its nature?	
9.	Is there sufficient evidence to cover the whole of the KSBs and grading descriptors that are referenced?	
10.	Are any witness testimonies or employer references tailored to the apprentice?	
11.	Has any client/customer reference information been anonymised?	
12.	Are all external sources of information appropriately documented and referenced to the original source, showing clear understanding of how they relate to the criteria?	
13.	Has the appropriate stakeholder(s) e.g. employer/provider checked whether the apprentice's portfolio meets all the required criteria and grading descriptors?	

* where witness testimonies are included as a piece of evidence, these do not need to be signed by the apprentice but instead must be signed/authenticated as outlined in the rest of the EPA pack.



7. Assessment Instructions: 707 Scenario Demonstrations with Questioning

Assessment Specification

Description	Coverage	Grade
Scenario Demonstrations with Questioning	Knowledge: K2, K4, K5, K10, K11, K12, K14, K16, K17 Skills: S1, S2, S3, S4, S5, S8, S13, S17, S27 Behaviours: B1, B2, B9, B10	X/P/D

Generic Specification

The apprentice will complete 4 simulated Scenario Demonstrations provided online by City & Guilds. The Scenario Demonstrations will be followed by a Questioning session. Questioning will take place once the IEPA has reviewed the outputs of the 4 completed Scenario Demonstrations. The IEPA will require a minimum of 5 working days to review the Scenario Demonstration outputs.

The Scenario Demonstrations as well as the Questioning component must be completed within **10** working days, starting from the date when the apprentice undertakes their first Scenario Demonstration. The Scenario Demonstrations should usually be completed within 2 consecutive working days.

The aim of the Scenario Demonstrations is to show evidence of how the apprentice has carried out work in response to specified occupational tasks. The activities carried out in the tasks will reflect relevant working practices for this role and allow the apprentice to demonstrate the assigned knowledge, skills and behaviour (KSBs) for this assessment method.

The purpose of the IEPA Questioning will be to check the KSBs shown in the apprentice's Scenario Demonstrations and explore the underpinning reasoning and details of the evidence provided in the outputs of the Demonstration activities. The questions will focus on the outputs of each Scenario Demonstration and how these relate to the KSBs assigned to this assessment method.

Provider & Employer Instructions

The apprentice will be presented with scenarios where they will be able to demonstrate their knowledge, skills and behaviours. The Scenario Demonstrations and the Questioning session will take place under controlled assessment conditions.

To achieve this assessment method and show the required occupational competence in the assigned KSBs, the apprentice **must** demonstrate the following activities whilst carrying out their practical demonstrations:

In Scenario 1 – Attack and Threat Research – the following must be covered:

- Research current threat and attack techniques
- Discover vulnerabilities in a provided computer system
- Describe the significance of threat research and vulnerability discovery in a given context in an electronic document within the scenario.

In Scenario 2 – Risk Assessment – the following must be covered:

- Conduct a risk assessment
- Produce an electronic document that proposes mitigations with a supporting a rationale appropriate to the context of the employer within the scenario.

In Scenario 3 – Set up and configure a system with security features – the following must be covered:

- Set up a system that incorporates a computer, a network, and a cyber-security function (components to be provided and may be virtual, design to be provided) and demonstrate that it functions as intended
- Configure all the main parts of the system (computer, network, and cyber security function) to implement the controls identified in a supplied security case
- Demonstrate that security controls are effective against the intended threat.

In Scenario 4 – Computer programme/script writing – the following must be covered:

- Write a program or script to meet a given requirement
- Demonstrate that the programme or script functions as intended and has been written to a coding standard that the apprentice is familiar with from their apprenticeship.

- A script may automate port scanning or analyse data in a spreadsheet.
- The script or programme should be of equivalent coding complexity. The scenario may offer a range of languages and scripts for a given problem i.e. giving the apprentice a choice of which to use.

Before the Scenario Demonstrations

City & Guilds will agree the scheduling of the Scenario Demonstrations and Questioning with the employer. The times and dates of should be arranged with the City & Guilds End-point Assessment team at the optional planning meeting. Alternatively, the date may be booked through EPA Pro. The City & Guilds End-Point Assessment team will assist in the booking process as required.

One week before the start of the Scenario Demonstrations, City & Guilds will provide the apprentice and employer with sample familiarisation access to CloudShare.

Assessment Environment

The Scenario Demonstrations must be conducted in an invigilated environment, free from distractions and external influence. Invigilation of the assessment will be carried out by a responsible person as agreed by City & Guilds. The responsible person will instruct the apprentice to take screen shots of their task outputs as evidence for assessment by the Independent End-point Assessor (IEPA). The responsible person will also ensure that any documentation produced by the apprentice during the scenario demonstrations is uploaded to EPA Pro. The assessment can be invigilated remotely or in person, in accordance with City & Guilds conditions.

The responsible person should refer to the current Joint Council for Qualifications (JCQ) policy on Invigilation, Instructions for conducting examinations available at www.jcq.org.uk

For specific advice on Remote invigilation, the responsible person should refer to relevant sections of the City & Guilds Remote Invigilation Live Centre Guide, available at www.cityandguilds.com

Where the Scenario Demonstrations are conducted remotely, the conditions and requirements for remote assessment must be met. Remote assessment is live assessment that is supported by technology where the responsible person and the apprentice are not in the same physical location when the assessment takes place.

When using an online platform, the responsible person must ask for identification from the apprentice and confirm that appropriate measures are in place to prevent misrepresentation and ensure that the apprentice is not aided in any way, e.g. using a 360-degree camera to allow the responsible person to view the room during the assessment.

Timings for the Scenario Demonstrations

The following conditions apply to timings for the Scenario Demonstrations:

- The total time permitted for the completion of all the scenario demonstrations and production of evidence for the assessment tasks is 7 hours 45 minutes
- The 7 hours 45 minutes are typically completed in a period of no longer than 2 consecutive working days
- A working day is typically considered to be 7.5 hours long
- Each of the 4 scenario demonstrations may not be split, other than to allow comfort breaks as necessary
- Once the apprentice has started a scenario demonstration, they must complete it on the same day; this is to ensure the security of the assessment

Each Scenario Demonstration will be allocated the following amount of time for completion:

- Attack and Threat Research scenario – 1 hour 45 minutes
- Risk Assessment scenario – 2 hours
- Set up and configure a system with security features scenario – 3 hours
- Computer programme/script writing scenario – 1 hour.

Carrying out the Scenario Demonstrations

Prior to the start of the live assessment, City & Guilds will give the apprentice access to the simulated environment, background material, and guidance relating to the demonstration(s) that they will be carrying out. This will enable the apprentice to prepare for their assessment. At the beginning of their live assessment, the apprentice will be given access to the live area of the CloudShare environment. Once logged into CloudShare, the apprentice will receive clear instructions on the tasks they must complete, including timescales for completion. No additional clarification or guidance regarding the demonstration tasks may be provided by the responsible person, nor any other person.

The apprentice will be presented with scenarios relevant to their normal sphere of work, or sufficiently similar as to be equivalent in demand. The scenarios might use cyber challenges set in a different business domain to the one in which the apprentice normally works but they will be recognisable and occupationally relevant.

The 4 scenarios do **not** have to follow immediately after each other. There is no need for the apprentice to complete the scenarios in any particular order. The apprentice will be given one demonstration at a time; they must complete that scenario demonstration before moving on to the next one. The apprentice must keep to the timings allowed for each individual scenario demonstration.

After the Scenario Demonstrations are complete, the apprentice may **not** retain any materials created during the assessment, nor any copies of the scenario content that they used during the assessment.

Questioning based on the Scenario Demonstrations

The Questioning session will not commence until the apprentice has completed all 4 scenario demonstrations and the IEPA has reviewed the outputs. Prior to the Questioning session, the IEPA will:

- Review the outputs of the Scenario Demonstrations and prepare suitable questions for use in the Questioning session (the IEPA will have at least 5 working days to do this)
- Review the mandatory requirements for the Questioning and allocate the timings across outputs of the 4 scenarios.

The IEPA must ask a minimum of **9** questions, typically focused on scenarios 1 to 3, at their discretion. Follow up questions may be asked where clarification is required.

The Questions generated by the IEPA will focus on the outputs of the Scenario Demonstrations and the assigned KSBs.

During the Questioning component, apprentices must have a paper based or electronic copy of the outputs from their Scenario Demonstrations to refer to.

Timings for the Questioning

The Questioning session must last for **45 minutes**. Further time may be granted for apprentices with specific needs in line with the City & Guilds Reasonable Adjustment Policy.

The IEPA will decide how to allocate the available time for the Questioning across the 4 scenario outputs, based on where questions will add most value in increasing their understanding of the competence of the apprentice.

The IEPA has the discretion to increase the time of the Questioning by up to 10% to allow the apprentice to complete their answer to their final question.

Recording the Evidence

The IEPA will document the contents of the Questioning session. City & Guilds will keep a recording of the session for quality assurance purposes.

The apprentice's responses will be audio recorded and IEPA justifications on decisions will be noted.

Grading the Scenario Demonstrations with Questioning

The outputs of each scenario will be submitted to the IEPA who will assess and record the KSBs demonstrated by the apprentice during the Scenario Demonstrations. The scenario outputs will be supplemented by questioning and the IEPA will assess the apprentice's Scenario Demonstrations and Questioning session holistically to arrive at a grade for this assessment method.

The Scenario Demonstrations with Questioning Assessment Method will be graded Fail, Pass or Distinction. The IEPA will allocate the grade using the 'Grading criteria' table provided.

The IEPA is responsible for making all grading decisions. The results should not be shared with the apprentice on the day of the assessment.

Recording forms

City & Guilds have designed specific recording forms for this Apprenticeship, some for providers and employers to use, and some for IEPAs to use.

Below is a summary of the recording forms available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Sample Apprentice Review Form for Employers	<p>It is expected that the employer will have regular reviews with the apprentice, this form can be used to record these meetings. Employers may devise their own forms or systems (electronic or paper-based).</p> <p>NB: This form is NOT submitted to City & Guilds.</p>	Employer	Provider & Employer Recording Forms Pack

Note: the apprentice will submit a 'Declaration of Authenticity' form when submitting their completed Scenario Demonstration tasks. The 'Declaration of Authenticity' form will be provided with the Assessment Materials for the Scenario Demonstration tasks.

Apprentice Instructions – Level 4 Cyber Security Technologist - Cyber Defender and Responder – Scenario Demonstrations with Questioning

You will be presented with scenarios where you will be able to demonstrate your knowledge, skills and behaviours. The Scenario Demonstrations and the Questioning session will both take place under controlled assessment conditions.

To achieve this assessment method and show the required occupational competence in the assigned KSBs, you **must** demonstrate the following activities whilst carrying out your practical demonstrations:

In Scenario 1 – Attack and Threat Research – the following must be covered:

- Research current threat and attack techniques
- Discover vulnerabilities in a provided computer system
- Describe the significance of threat research and vulnerability discovery in a given context in an electronic document within the scenario.

In Scenario 2 – Risk Assessment – the following must be covered:

- Conduct a risk assessment
- Produce an electronic document that proposes mitigations with a supporting a rationale appropriate to the context of the employer within the scenario.

In Scenario 3 – Set up and configure a system with security features – the following must be covered:

- Set up a system that incorporates a computer, a network, and a cyber-security function; (components to be provided and may be virtual, design to be provided) and demonstrate that it functions as intended
- Configure all the main parts of the system (computer, network, and cyber security function) to implement the controls identified in a supplied security case
- Demonstrate that security controls are effective against the intended threat.

In Scenario 4 – Computer programme/script writing– the following must be covered:

- Write a program or script to meet a given requirement
- Demonstrate that the programme or script functions as intended and has been written to a coding standard that you are familiar with from your apprenticeship.
- A script may automate port scanning or analyse data in a spreadsheet.

- The script or programme should be of equivalent coding complexity.
- The scenario may offer a range of languages and scripts for a given problem i.e. giving you a choice of which to use.

Before the Scenario Demonstrations

Your employer will agree the scheduling of the Scenario Demonstrations and Questioning with City & Guilds.

One week before the start of the Scenario Demonstrations, City & Guilds will provide you and your employer with sample familiarisation access to CloudShare.

Assessment Environment

The Scenario Demonstrations must be conducted in an invigilated environment, free from distractions and external influence. The invigilation will be carried out by a responsible person agreed by City & Guilds and your employer. The responsible person will be present throughout your assessment. The assessment can be invigilated remotely or in person, in accordance with City & Guilds conditions. If the Scenario Demonstrations are carried out remotely, there are certain conditions that must be met.

When using an online platform, the responsible person will ask you for identification and ensure appropriate measures are in place to prevent misrepresentation. You are not allowed to receive help in carrying out the demonstrations, so arrangements will be put in place to support that, e.g. using a 360-degree camera to allow the responsible person to view the room during the assessment.

Timings for the Scenario Demonstrations

The following conditions apply to timings for the Scenario Demonstrations:

- The total time permitted for the scenario demonstrations is 7 hours 45 minutes, typically over 2 consecutive working days
- A working day is typically considered to be 7.5 hours long
- Each of the 4 Scenario Demonstrations may not be split, other than to allow comfort breaks as necessary
- Once you have started a Scenario Demonstration, you must complete it on the same day; this is to ensure the security of the assessment

Each Scenario Demonstration will be allocated the following amount of time for completion:

- Attack and Threat Research scenario – 1 hour 45 minutes
- Risk Assessment scenario – 2 hours
- Set up and configure a system with security features scenario – 3 hours
- Computer programme/script writing scenario – 1 hour.

Carrying out the Scenario Demonstrations

Before you carry out your assessment tasks, City & Guilds will have given you access to the simulated environment, background material, and guidance relating to the demonstration(s) that you will be carrying out. This will enable you to use the practice environment to prepare for the live assessment. On the day of the Scenario Demonstration(s), you will be given access to the live area of the CloudShare environment, where you will receive clear instructions on the tasks you must complete, including the time allowed for completion. No additional clarification or guidance regarding the demonstration tasks may be provided by the responsible person, nor any other person.

You will be presented with scenarios relevant to your normal job role. The scenarios might be set in a different business context to the one in which you usually work but they will be recognisable and relevant to your area of specialism.

The 4 scenario demonstrations do **not** have to follow immediately after each other. You do not need to complete the scenarios in any particular order.

You will be given access to one demonstration at a time; you must complete that scenario demonstration before moving on to the next one. You must keep to the timings allowed for each individual Scenario Demonstration.

The responsible person will instruct you to take screen shots of your task outputs as evidence for assessment by the Independent End-point Assessor (IEPA). After the Scenario Demonstrations are complete, you may **not** retain any materials created during the assessment, nor any copies of the scenario content that you used during the assessment.

Questioning based on the Scenario Demonstrations

Your scenario Questioning session will not take place until you have completed all 4 Scenario Demonstrations and the IEPA has reviewed the outputs. Prior to the Questioning session, the IEPA will:

Review the outputs of the Scenario Demonstrations and generate suitable questions for use in the Questioning session

Allocate the timings across outputs of the 4 scenarios.

The IEPA will ask you at least **9** questions, typically focused on scenarios 1 to 3. They may ask you follow up questions where clarification is required. You will be asked questions that focus on the outputs of the Scenario Demonstrations and the assigned KSBs.

During the Questioning component, you will be able to refer to a paper based or electronic copy of the outputs from your Scenario Demonstrations.

Timings for the Questioning

The Questioning session must last for **45 minutes**. If there are specific reasons why you might need further time for the Questioning session, your provider and employer will confirm this with City & Guilds.

The IEPA will decide how to allocate the available time for the Questioning across the 4 scenario outputs. The IEPA has the discretion to increase the time of the Questioning by up to 10% to allow you to complete your answer to your final question.

Recording the Evidence

The IEPA will document the contents of the Questioning Session. City & Guilds will keep a recording of the session for quality assurance purposes.

Your responses will be audio recorded and IEPA justifications on decisions will be noted.

Grading the Scenario Demonstrations with Questioning

The outputs of each scenario will be submitted to the IEPA who will assess and record the KSBs you demonstrated during the Scenario Demonstrations. The scenario outputs will be supplemented by the Questioning and the IEPA will assess your Scenario Demonstrations and Questioning session holistically to arrive at a grade for this assessment method.

The Scenario Demonstrations with Questioning Assessment Method will be graded Fail, Pass or Distinction. The IEPA will allocate the grade using the 'Grading criteria' table provided.

The IEPA is responsible for making all grading decisions. The results should not be shared with you on the day of the assessment.

Recording forms

City & Guilds have designed specific recording forms for this Apprenticeship, some for providers and employers to use, and some for IEPAs to use.

You must submit a 'Declaration of Authenticity' form when submitting your completed Scenario Demonstration tasks. The 'Declaration of Authenticity' form will be provided with the Assessment Materials for the Scenario Demonstration tasks.



8. Assessment Instructions: 708 Project Report

Assessment Specification

Description	Coverage	Grade
Project Report – Cyber Defender and Responder	Skills: S21, S25, S26, S28, S29, S30	X/P/D

Generic Specification

The apprentice will conduct and submit a work-based project in the form of a Project Report. The submitted project brief is agreed immediately after Gateway and the Project Report is compiled and submitted after the apprentice has gone through Gateway. The Project Report will be marked and graded by the IEPA.

The aim of the project is to show evidence of how the apprentice has carried out work in response to a defend and respond issue. The activities carried out in the project must demonstrate work that reflects relevant practices for this role, meets the requirements of the employer organisation and allows the relevant KSBs to be demonstrated for this assessment method.

Since the project is work-based, the employer will provide an appropriate customer or other stakeholder specification from their day-to-day business activities. The employer will ensure the project has a real business application and has suitable coverage of the knowledge, skills and behaviours assigned to this assessment method. City & Guilds have provided an example of a project title and detailed guidance on the project requirements to enable the employer to select a suitable project that will meet the requirements of the EPA.

The rationale for this assessment method is that it is occupationally relevant to the role and duties of a cyber security technologist as they carry out the implementation of cyber security activities and solutions within a broad range of contexts.

Provider & Employer Instructions

Submission of the Project Report

The apprentice will carry out and submit their work-based project in the form of a Project Report. The project and accompanying report will be compiled after the apprentice has gone through the Gateway process.

Prior to the Project Report

Prior to compiling the Project Report, the apprentice will scope out and deliver a **project brief** to City & Guilds at Gateway. The project brief is a summary of what the project will cover. The project brief:

- Should state the intended date that the work-based Project Report will be submitted to City & Guilds via the EPA Pro platform.
- Should demonstrate that the proposed work-based project will provide sufficient opportunity for the apprentice to cover the KSBs assigned to this method
- Will outline the project plan, including an overview of
 - implementation stages/steps and associated timeframes
 - tasks contained within the project
 - the apprentice's responsibilities and duties for the project
- Is not assessed
- Should not be longer than **500** words
- Should be submitted using the 'Project Brief' form provided in the *Provider & Employer Recording Forms Pack*. If the provider/employer intends to use their own version of the 'Project Brief' form, their form must be confirmed as suitable by City & Guilds before it is used.

The subject, title and scope of the project must be agreed between the provider/employer and City & Guilds immediately after Gateway. This is required in order to confirm the suitability of the proposed project **before** it is undertaken by the apprentice.

Confirming the Project Brief

The IEPA will review and sign off the project brief within 2 weeks of the Gateway to ensure it has sufficient scope to meet the KSBs mapped to this method of assessment.

Should the project brief not be suitable, the IEPA will provide feedback to the apprentice so that the employer and apprentice can submit a revised project brief. Unless agreed otherwise with the City & Guilds End-point Assessment team, the employer and apprentice will have 5 working days from notification of rejection to submit a revised project brief. It is important to note that the apprentice **cannot** start compiling the work-based project until the IEPA has formally accepted the project brief.

Time allowed for preparation and submission of the Project Report

The apprentice will conduct their project and submit their Project Report to City & Guilds within a **maximum of 6 weeks** after the EPA start date.

Project requirements

The Project Report should contain clear explanation of the tasks carried out and include acknowledgement of any sources used. The format and presentation of the Project Report is not prescribed, except for the following conditions which must be met:

- The Project Report must be submitted in the form of an electronic report
- Screenshots or extracts should be provided where reference to organisational documents is required
- Hyperlinks to external sources should not be used
- All the evidence submitted must be in a format that can be opened by the IEPA; where evidence cannot be opened, the Project Report will be returned without being reviewed. The EPA Pro portal accepts evidence in the form of Word documents, MP3 and MP4 files. Individual file size cannot exceed 250MB.

The project should be based on a specification requiring the apprentice to respond to any of the following within the scope of their specialist role:

- A specific problem
- A recurring issue
- An idea/opportunity.

The Project Report for the cyber defender and responder must include the following:

An introduction that consists of text only. Other formats such as diagrams, screenshots or figures must **not** be used in the introduction. The introduction should clearly set out:

- a description of the project
- the approach adopted
- project outcomes and how the outcomes were achieved
- the link between the project evidence and the KSBs assigned to this assessment method.

Headings and evidence of tasks carried out for:

- incident manager report of an incident response
- incident response plan submitted for approval
- detection of a security incident and action taken
- analysis of a security incident and action taken
- evidence of the implementation of tool configuration in response to threat intelligence.

The Project Report has a maximum word limit of **2000**. A tolerance of plus or minus 10% is allowed. Appendices, references, diagrams and/or video clips of up to 5 minutes in length will not be included in this total.

An acceptable project proposal for a cyber defender and responder must include:

developing an incident response plan for approval within an organisation's governance arrangements for incident response
managing local response to non-major incidents in accordance with a defined procedure
detecting and analysing a security incident with action plan responses
implementing security tool configuration in response to threat intelligence.

City & Guilds have provided an expanded example of a project title to assist the provider, employer and apprentice in their selection of a suitable work-based project. The employer will give appropriate regard to confidentiality and security requirements when selecting a suitable project topic.

The project must map how it evidences the relevant KSBs for this assessment method. City & Guilds have provided an 'Evidence Reference Matrix' form in the *Provider & Employer Recording Forms Pack* for the apprentice to use for this assessment.

To facilitate comprehensive, consistent mapping of the evidence requirements, use of the City & Guilds supplied form is strongly recommended. The apprentice and/or provider/employer may choose to use their own version of the Evidence Reference form, but the form must:

Clearly map evidence to the KSBs

Be confirmed as suitable by City & Guilds before it is used.

Note: The submission of a fully completed 'Evidence Reference Matrix' form is mandatory. Failure to do so means that the IEPA will return the Project Report **without** it being reviewed.

The example below has been provided by City & Guilds to assist the employer and apprentice in their selection of a suitable work-based project of an appropriate size and complexity sufficient to cover the knowledge, skills and behaviours assigned to this assessment method for the cyber defender and responder. This example is provided for guidance; other project examples may also be suitable if they meet the requirements of the KSBs assigned to this assessment method.

Example Project title – Investigate, analyse and respond to a cyber security incident	<p>This project title is aimed at apprentices working in an organisation as part of a team responsible for monitoring, investigating, analysing and responding to cyber security incidents within a network environment.</p> <p>The apprentice will implement security monitoring tools that will enable them to identify and respond to a cyber security incident. The tools and documentation produced by the apprentice will support the organisation’s cyber security team in dealing with security incidents in a network environment.</p> <p>The apprentice will be required to:</p> <ul style="list-style-type: none"> ○ configure digital systems monitoring and analysis tools (SIEM) for the organisation. ○ manage the local response to a non-major incident. ○ interrogate and correlate information relating to a potential security breach against known threat and vulnerability data. ○ inspect log files and investigate alerts to recognise anomalies in a digital data structure. <p>Finally, the apprentice will conduct root cause analysis of the findings to develop an incident response plan for approval by the organisation.</p> <p>The apprentice should prepare a report that details the processes followed. This should include completed documentation and images of the digital tools configured.</p>
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Assessment Conditions

The apprentice should be subject to normal workplace supervision whilst completing their project. The employer should ensure the apprentice has sufficient time and the necessary resources to plan and undertake the project within the 6 week period. The apprentice may work as part of a team, which could include technical internal or external support; however the Project Report must be the apprentice’s own work and must clearly show the apprentice’s own role and contribution. When the Project Report is submitted to City & Guilds, the employer and the apprentice must verify the submitted work is that of the apprentice, using the ‘Declaration of Authenticity’ form in the *Provider & Employer Recording Forms Pack*.

Marking and Grading the Project Report

The IEPA will review and mark the Project Report. The Project Report assessment will be graded Fail, Pass or Distinction. To pass the assessment method, the evidence presented in the Project Report must meet all the Pass criteria for the apprentice’s chosen specialism. To

achieve a Distinction, the evidence presented in the Project Report must meet all the Pass criteria and all the Distinction criteria for the apprentice's chosen specialism.

Recording forms

City & Guilds have designed specific recording forms for this Apprenticeship, some for providers and employers to use, and some for IEPAs to use.

Below is a summary of the recording forms available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Project Brief form – for Project Report	<p>Provides summary of what project will cover.</p> <p>Gives brief project plan.</p> <p>States the date on which the Project Report will be submitted to City & Guilds.</p>	Provider & Employer Apprentice	Provider & Employer Recording Forms Pack
Evidence Reference Matrix – Project Report	<p>Indicates to IEPA how the Project evidences the relevant KSBs mapped to this assessment method.</p> <p>Enables the IEPA to assess the evidence efficiently and effectively.</p>	Apprentice/Provider/Employer	Provider & Employer Recording Forms Pack
Declaration of Authenticity – Project Report	Confirms that the submitted work is that of the apprentice.	Provider & Employer Apprentice	Provider & Employer Recording Forms Pack

Recording form	Purpose	Who should complete	Where it can be found
Sample Apprentice Review Form for Employers	<p>It is expected that the employer will have regular reviews with the apprentice, this form can be used to record these meetings. Employers may devise their own forms or systems (electronic or paper-based)</p> <p>NB: This form is NOT submitted to City & Guilds.</p>	Employer	Provider & Employer Recording Forms Pack

Apprentice Instructions – Level 4 Cyber Security Technologist– Cyber Defender and Responder – Project Report

Submission of the Project Report

You will carry out and submit your work-based project in the form of a Project Report. The project and accompanying report will be compiled after you have gone through the Gateway process.

Prior to the Project Report

Prior to compiling your Project Report, you will scope out and deliver a **project brief** to City & Guilds at Gateway. The project brief is a summary of what your project will cover. The project brief:

- Should state the date that the work-based Project Report will be submitted to City & Guilds via the EPA Pro platform. This date will be agreed with your provider, employer and City & Guilds.
- Should demonstrate that the proposed work-based project will provide sufficient opportunity for you to cover the KSBs assigned to this method
- Will outline the project plan, including an overview of:
 - implementation stages/steps and associated timeframes
 - tasks contained within the project
 - your responsibilities and duties for the project
- Is not assessed
- Should not be longer than 500 words
- Should be submitted using the 'Project Brief' form provided in the Provider & Employer Recording Forms document. If you intend to use your own version of the 'Project Brief' form, the form must be confirmed as suitable by City & Guilds before it is used.

The subject, title and scope of the project must be agreed between your provider/employer and City & Guilds immediately after Gateway. This is required in order to confirm the suitability of the proposed project **before** you start work on it.

Confirming the Project Brief

The IEPA will review and sign off your project brief within 2 weeks of the Gateway to ensure it has sufficient scope to meet the KSBs mapped to this method of assessment.

Should the project brief not be suitable, the IEPA will provide feedback to you and your employer. This will assist you in submitting a revised project brief. Unless agreed otherwise with the City & Guilds End-point Assessment team, you and your employer will have 5 working days from notification of rejection to submit a revised project brief. It is important to note that you **cannot** start compiling your work-based project until the IEPA has formally accepted the project brief.

Time allowed for preparation and submission of the Project Report

You will conduct your project and submit your Project Report to City & Guilds within a **maximum of 6 weeks** after the EPA start date.

What you must produce for marking

Your Project Report should contain clear explanation of the tasks you carried out and include acknowledgement of any sources used. The format and presentation of the Project Report is not prescribed, except for the following conditions which must be met:

- it must be submitted in the form of an electronic report
- screenshots or extracts should be provided where reference to organisational documents is required
- hyperlinks to external sources should not be used
- all the evidence submitted must be in a format that can be opened by the IEPA; where evidence cannot be opened, the project report will be returned without being reviewed. The EPA Pro portal accepts evidence in the form of Word documents, MP3 and MP4 files. Individual file size cannot exceed 250MB.

The project should be based on a specification requiring you to respond to any of the following within the scope of your specialist role:

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

The Project Report for a cyber defender and responder must include the following:

- An introduction that consists of text only. Other formats such as diagrams, screenshots or figures must not be used in the introduction. The introduction should clearly set out:
 - a description of the project
 - the approach adopted
 - project outcomes and how the outcomes were achieved
 - the link between the project evidence and the KSBs assigned to this assessment method.
- Headings and evidence of tasks carried out for:
 - incident manager report of an incident response
 - incident response plan submitted for approval
 - detection of a security incident and action taken
 - analysis of a security incident and action taken
 - evidence of the implementation of tool configuration in response to threat intelligence.

The Project Report has a maximum word limit of **2000**. A tolerance of plus or minus 10% is allowed. Appendices, references, diagrams and/or video clips of up to 5minutes in length will not be included in this total.

An acceptable project proposal for a cyber defender and responder must include:

- developing an incident response plan for approval within an organisation's governance arrangements for incident response
- managing local response to non-major incidents in accordance with a defined procedure
- detecting and analysing a security incident with action plan responses
- implementing security tool configuration in response to threat intelligence.

City & Guilds have provided an expanded example of a project title to assist you and your employer in the selection of a suitable work-based project. Your employer will give appropriate regard to confidentiality and security requirements when selecting a suitable project topic.

Your project must map how it evidences the relevant KSBs for this assessment method. City & Guilds have provided an 'Evidence Reference Matrix' form in the *Provider & Employer Recording Forms Pack* for you to use for this assessment. You may choose to use your own version of the Evidence Reference form, but the form must:

- Clearly map evidence to the KSBs
- Be confirmed as suitable by City & Guilds before it is used.

Note: The submission of a fully completed 'Evidence Reference Matrix' form is mandatory. Failure to do so means that the IEPA will return the project report **without** it being reviewed.

Whilst completing the project, you will be subject to normal workplace supervision. Your employer will ensure that you have sufficient time and the necessary resources to plan and undertake the project. You may work as part of a team, which could include technical internal or external support. However, the report must be your own work and will reflect your own role and contribution. When the Project Report is submitted, you and your employer must verify the submitted work is your own, using the 'Declaration of Authenticity' form in the *Provider & Employer Recording Forms Pack*.

Marking and Grading the Project Report

The IEPA will review and mark your Project Report. The Project Report assessment will be graded Fail, Pass or Distinction. To achieve a Pass in the Project Report, it must meet all the Pass criteria for this assessment method. To achieve a Distinction, your Project Report must meet all the Pass criteria and all the Distinction criteria for this assessment method.

Recording forms

City & Guilds have designed specific recording forms for this Apprenticeship, some for providers and employers to use, and some for IEPAs to use.

Below is a summary of the recording forms available for this assessment.

Recording form	Purpose	Who should complete	Where it can be found
Project Brief form – for Project Report	Provides summary of what project will cover. Gives brief project plan. States the date on which the Project Report will be submitted to City & Guilds	Provider & Employer Apprentice	Provider & Employer Recording Forms Pack
Evidence Reference Matrix – Project Report	Indicates to IEPA how the Project evidences the relevant KSBs mapped to this assessment method. Enables the IEPA to assess the evidence efficiently and effectively.	Apprentice/Provider/Employer	Provider & Employer Recording Forms Pack
Declaration of Authenticity – Project Report	Confirms that the submitted work is that of the apprentice.	Provider & Employer Apprentice	Provider & Employer Recording Forms Pack



9. Assessment Instructions: 401 Knowledge Test

Assessment Specification

Description	Coverage	Grade
Multiple choice test of knowledge-based questions, delivered online	Knowledge: K1, K13	P/X

Generic Specification

This assessment will take the form of an online multiple choice test, delivered via City & Guild's e-volve platform. Entry for the test is made through the City & Guilds Walled Garden. The test will take place under controlled examination conditions, as defined by the JCQ: <http://www.jcq.org.uk/exams-office/ice---instructions-for-conducting-examinations>

The test is 'closed book' which means that the apprentice **cannot** refer to reference books or materials during the assessment.

Test format

Time allowed	60 minutes
Number of questions	40
Marks available	40
Grading	P/X To achieve a Pass , the apprentice must achieve a minimum of 25 marks.
Type of questions	Multiple choice
Structure of test	20 questions based on K1 20 questions based on K13 Each test question will have four options, of which one will be correct A correct response to a question is assigned one mark An incorrect or missing answer is assigned zero marks
Marking	The test will be carried out online via the e-volve platform and marked electronically by City & Guilds to generate a test score, along with any associated test score documents.

Test specification

Knowledge Outcome	Marks	Percentage contribution to Assessment
K1: Principles of Networks	20	50%
K13: Cryptography	20	50%

Provider & Employer Instructions

Location and conditions for the knowledge test

The apprentice must sit the knowledge test in a suitably controlled environment. They should have access to a quiet room with adequate lighting, space and privacy to sit the test. The room must be free from distractions and influence. The test must be administered by a suitable person who will invigilate the controlled assessment.

The invigilator should refer to the current Joint Council for Qualifications (JCQ) policy on Invigilation, Instructions for conducting examinations available at www.jcq.org.uk

For specific advice on Remote invigilation, the invigilator should refer to relevant sections of the City & Guilds Remote Invigilation Live Centre Guide, available at www.cityandguilds.com

The test requires IT systems that are set up to allow the apprentice access to the e-evolve test platform.

Preparing the apprentice for the knowledge test

The provider and employer should prepare the apprentice for the knowledge test by carrying out formative tests throughout the on-programme period to test their knowledge and understanding of the Standard. This could include:

Sharing the 9661 assessment specification as well as the occupational standard requirements found in this document

Encouraging the apprentice to sit the City & Guilds sample knowledge tests under exam conditions. Sample tests are available on the website page for the 9661 EPA.

Apprentice Instructions – Level 4 Cyber Security Technologist – Cyber Defender and Responder – Knowledge Test

Grading

The knowledge test is a multiple choice exam. It is graded Pass/Fail. A maximum of 40 marks are available for the test. The test will be marked electronically by City & Guilds to generate your test score. To achieve a Pass, you must achieve a minimum of 25 marks. If you do not achieve a Pass the first time you sit the test, you might be entitled to a re-sit or re-take.

Timings and format of the test

You will be allowed a maximum of **60** minutes to complete the test. The test will be carried out online via the e-evolve platform. Each test question will have four options, of which only **one** will be correct. A correct response to a question is assigned one mark. An incorrect or missing answer is assigned zero marks.

Test environment

You will sit the test under exam conditions. A suitable person will be present throughout the test period to invigilate the assessment. The test is 'closed book' which means that you **cannot** refer to reference books or materials during the test. Your EPA provider/employer will ensure you have access to a quiet room with adequate lighting, space and privacy to sit the test. They will arrange access to IT systems that will enable you to sit the test via the e-evolve test platform.

Preparing for the test

The questions will test your understanding of the two knowledge outcomes listed in the [Grades and Grading Descriptors table](#) provided for this assessment method.

Your EPA provider/employer will help you to prepare for the knowledge test through practice tests and discussions during the on-programme period; this will test your knowledge and understanding of the Standard. This could include:

Sharing the 9661 assessment specification as well as the occupational standard requirements found in this document

Giving you the opportunity to sit the City & Guilds sample knowledge tests under exam conditions. Sample tests are available on the website page for the 9661 EPA.



10. Re-sits & Re-takes

Apprentices who fail one or more assessments will be offered the opportunity to take a re-sit or re-take:

- A re-sit is where the apprentice takes the assessment again without the need for new learning
- A re-take is where the employer determines new learning is needed first
- The employer must agree that either a re-sit or a re-take is appropriate course of action for the apprentice
- The provider and employer must ensure that a suitable action plan is put in place to support the apprentice in preparing for a re-sit or re-take
- An apprentice who fails one or more assessment method, and therefore the EPA in the first instance, will be required to re-sit or re-take the failed assessment method(s) only
- Re-sits and re-takes are not offered to an apprentice wishing to move from Pass to a higher grade
- Where any assessment method must be re-sat or re-taken, the apprentice can still achieve a Distinction grade overall
- A re-sit should be taken within 8 weeks of the Fail notification
- A re-take should be taken within 16 weeks of the Fail notification
- Any assessment method re-sit or re-take must be taken within 24 weeks of the Fail notification, otherwise the entire EPA must be taken again, unless, in the opinion of City & Guilds, exceptional circumstances apply outside the control of the apprentice or their employer.

706 Professional Discussion

Provider & Employer Instructions

If the re-sit/re-take relates to the Professional Discussion, the IEPA will question the apprentice on the same criteria but using a different set of questions.

The Professional Discussion will be carried out in the same way as the original assessment. The IEPA may review the Portfolio of Evidence to ensure all the KSBs are evidenced. The IEPA must choose different questions for the Professional Discussion.

In the case of a re-sit/re-take, the apprentice will need to demonstrate all the Pass criteria, not just the Pass criteria they failed during the original assessment.

Please refer to the [Assessment Instructions for the Professional Discussion](#) in this pack.

Apprentice Instructions

If the re-sit/re-take relates to the Professional Discussion, you will be questioned on the same subject area but using a different set of questions.

In the case of a re-sit/re-take, you will need to demonstrate all the Pass criteria, not just the Pass criteria you failed to meet during the original assessment.

Your provider/employer will help you put together an action plan that will support you in preparing for the re-sit/re-take. You should also review your Portfolio of Evidence and the feedback you have been given in preparing for re-sitting/re-taking the Professional Discussion.

707 Scenario Demonstrations with Questioning

Provider & Employer Instructions

A re-sit/re-take for the Scenario Demonstrations with Questioning will be carried out in the same way as the original assessment.

The apprentice will be assessed on the same criteria but using a different set of Scenario Demonstrations.

Different questions must be chosen by the IEPA for the Questioning session. The questions will focus on the outputs of the Scenario Demonstrations carried out during the re-sit/re-take.

Apprentice Instructions

A re-sit/re-take relating to the Scenario Demonstrations with Questioning will be carried out in the same way as the original assessment.

You will be assessed on the same criteria but using a different set of Scenario Demonstrations.

For the Questioning session, you will be questioned on the same subject areas but the IEPA will use a different set of questions that will focus on the outputs of the Scenario Demonstrations you carried out during the re-sit/re-take.

Your provider/employer will help you put together an action plan that will support you in preparing for the re-sit/re-take. You should also review the feedback you have been given in preparing for the re-sit/re-take.

708 Project Report

Provider & Employer Instructions

A re-sit/re-take relating to the Project Report will be carried out in the same way as the original assessment. The apprentice will be assessed against the same criteria as in the original assessment.

To achieve a Pass in this assessment method on a re-sit/re-take, the apprentice will need to produce evidence in their Project Report that meets **all** the assigned Pass criteria, not just the criteria that they failed to meet in the original assessment.

Apprentice Instructions

A re-sit/re-take relating to the Project Report will be carried out in the same way as the original assessment.

To achieve a Pass in this assessment method on a re-sit/re-take, you will need to produce evidence in your Project Report that meets **all** the assigned Pass criteria, not just the criteria that you did not meet in the original assessment.

You should review the feedback you have been given on your Project Report in preparing for the re-sit/re-take. Your provider/employer will help you put together an action plan that will support you in preparing for the re-sit/re-take.

401 Knowledge Test

Provider & Employer Instructions

If the re-sit/re-take relates to the Knowledge Test, the test will be carried out in the same way as the original assessment but using a different set of questions.

Apprentice Instructions

If the re-sit/re-take relates to the Knowledge Test, you will be questioned on the same subject area but using a different set of questions.

Your provider/employer will help you put together an action plan that will support you in preparing for the re-sit/re-take.

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- ensure that:
 - any EPA Assessment Materials are made accessible to Apprentices only during formal EPA assessment as governed by the assessment conditions specified for the individual Apprenticeship Standard;

- whilst the portfolio of an Apprentice may contain EPA assessment results referenced to the EPA assessment taken from time to time, they do not at any time contain the EPA Assessment Materials, unless otherwise stated in the individual Apprenticeship Standard; and the content of any EPA Assessment Materials is not made public in any format, whether in part or in full, at any time;
- **under no circumstances** share any EPA Assessment Materials with any third-party organisation or individual;
- seek written permission from City & Guilds if they wish to convert any EPA Assessment Materials for storage, retrieval and delivery in electronic form (ie, using some form of e-assessment or e-learning system) from time to time; and
- provide access, on request, to City & Guilds to any system(s) on which any EPA Assessment Materials appear, are stored or delivered from time to time.

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Who we are

City & Guilds Limited (Registered Company 16513878) is the Awarding Organisation for City & Guilds qualifications.

About City & Guilds

City & Guilds is the global skills partner, empowering people, organisations and economies to develop the skills they need for growth. With almost 150 years of trusted expertise, we support people into work, help them develop on the job and move into the next job.

We work with Governments, employers, training providers, colleges and industry stakeholders to design and deliver high-quality training, qualifications, assessments and credentials that lead to meaningful career progression. We understand the life changing link between skills development, social mobility and success. Our solutions span critical sectors including construction, engineering, transport, energy and electrical, serving over 1 million learners annually.

Through our comprehensive portfolio of brands and trusted global network, we set industry-wide standards for technical, behavioural and commercial skills to improve performance and productivity. We believe you can achieve your potential - and we're here to help make it happen.

City and Guilds

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