Professional Discussion underpinned by a Portfolio AE2

Overview

BSc Digital and Technology Solutions Professional
Apprenticeship Standard: ST0119 v1.2 (2023)
Specialism (Pathway): **Network Engineer**

Overview Document (Version: 1 - July 2025)
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Summary

This document provides comprehensive guidance for apprentices undertaking the **BSc Digital and Technology Solutions Professional (Network Engineer Pathway)** under the ST0119 v1.2 (2023) apprenticeship standard. It outlines the expectations and structure of the Professional Discussion underpinned by a Portfolio (Assessment Element 2).

Apprentices are required to compile a portfolio of six distinct, work-based evidence items, each mapped to specific Knowledge, Skills, and Behaviours (KSBs). The document details how to select, structure, and present these items using reflective writing and real-world examples, supported by visual artefacts and anonymised data.

The guidance includes:

- Thematic breakdown of portfolio evidence (Underlying Principles, Technical Solutions, Innovation & Response, Legal & Ethics).
- Strategies for demonstrating competency, including use of first-person narrative, and alignment with assessment criteria.
- Detailed KSB mapping tables and grading rubrics to support preparation for the professional discussion.

This document is designed to ensure apprentices are well-prepared to articulate their learning and professional impact, enabling successful completion of the EPA.

Professional Discussion underpinned by a Portfolio AE2

Network Engineer
The primary role of a network engineer is to lead in the planning, design, installation, maintenance and support of communication networks within an organisation or between organisations. They take a proactive and agile approach to maintain high levels of network performance and availability for their users, such as staff, clients, customers and suppliers. They understand network configuration, cloud, network administration and monitoring tools, and give technical advice and guidance to their users. As part of their role, they analyse system requirements to ensure the network, and its services operate to desired levels with security at the heart of everything they do. They understand data traffic and transmission across the network and have a major role to play in ensuring network security and resilience. They are the key problem solver when networks fail and respond with resilience under pressure. Network Engineer Apprenticeship (ST0119 v1.2) 2023

Your portfolio should evidence your competence against the KSBs listed in the standard.
It must be mapped to six distinct items, each showcasing different aspects of your role and learning.

Choose projects that cover a range of activities, such as:

- Network Engineering
- Ethical and legal compliance
- Organisational, business and team collaboration
- Responding to change and innovation

Ensure all examples are authentic, anonymised if necessary and have organisation clearance to submit.

Explain why you did it, what you learned, and how it impacted the project or organisation.
Use reflective writing to show growth and understanding.

Include examples that show how your skills have developed over time.
Highlight how you've responded to feedback or adapted to new challenges.

Be ready to talk through each item, justify your decisions, and explain how they meet the KSBs.
Practice answering questions that ask you to expand, clarify, or compare your work.

Portfolio Evidence Overview (6x items)

This section provides a structured list of **example portfolio evidence items**, grouped under the four **End-Point Assessment (EPA) themes** defined in the ST0119 (version 1.2) apprenticeship standard. These examples are designed to support apprentices and employers in identifying suitable work-based projects and artefacts that demonstrate the required **Knowledge, Skills, and Behaviours (KSBs)**.

Themes - Each theme reflects a key area of competence: The portfolio items listed under each theme are **examples only** and should be adapted to reflect the apprentice's actual work and context. They are intended to guide the development of a strong, well-evidenced portfolio that supports a successful EPA. The apprenticeship standard outlines both core and pathway duties, each comprising a set of Knowledge, Skills, and Behaviours (KSBs) aligned to specific criteria or activities. These may also be helpful when selecting appropriate portfolio items for documentation.

Theme A: Underlying Principles *Focuses on foundational knowledge of networking, systems, and professional practices.*	**Theme B: Technical Solutions** *Focusing on hands-on practical application: design, building, configuring, troubleshooting, and optimisation.*
• Network Architecture Diagram with Layer Mapping • Requirements Analysis for Network Solutions • Risk & Capacity Assessment Report • Project Planning Document • Team & Peer-collaboration Reflection • Leadership in Network Planning	• Routing Protocol Configuration Logs • Wireless Network Optimisation Report • Router/Switch Configuration Snapshots • Incident Ticket & Resolution Workflow • Network Performance Monitoring Dashboard / Report • Automation Scripts for Network Tasks
Theme C: Innovation & Response *Highlights adaptability, continuous improvement, and emerging technologies.*	**Theme D: Legal, Ethics & Landscape** *Highlighting compliance, ethical practice, standards awareness, and professional conduct.*
▪ Evaluation of Emerging Network Technologies ▪ Innovation in Network Architecture ▪ Lessons Learned & Continuous Improvement Log ▪ Proof of Concept for New Network Tools ▪ Change Response Case Study – adapting network to new business needs	▪ Network Security & Risk Assessment Report ▪ Data Protection / Privacy Considerations Log ▪ Reflection on Professional Conduct – handling stakeholder expectations, ethical challenges ▪ Policy Mapping Document

Throughout the apprenticeship you will need to collate a portfolio of work mapped to the Standard's KSBs, in Gateway COM628 module, the final on-programme module in 3rd (Level 6), you will submit a Portfolio of select a final 6 discrete pieces for the Professional Discussion underpinned by a portfolio assessment element 2 (AE2)

- apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship.
- it must contain evidence related to the KSBs that will be assessed by the professional discussion.
- **the portfolio of evidence will typically contain 6 discrete pieces of evidence**.
- evidence must be mapped against the KSBs.
- evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.
- evidence sources may include:
- workplace documentation/records, for example workplace policies/procedures, records
- witness statements
- assignments
- annotated photographs
- video clips (maximum total duration 10 minutes); the apprentice must be in view and identifiable.

This is not a definitive list; other evidence sources are possible.

- **Although it is expected that apprentices at degree level will be reflective in their practice, it should be noted that the EPA assesses individuals on evidence of output against the KSBs, not reflective accounts, or any methods of self-assessment.**
- any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions.
- the evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a statement from the employer and apprentice confirming this.
- the portfolio of evidence must be submitted to the EPAO at the gateway.

The portfolio of evidence is not directly assessed. It underpins the professional discussion and will not be marked by the EPAO (Southampton Solent University). Solent will review the portfolio of evidence in preparation for the professional discussion but is not required to provide feedback after this portfolio review.

Strategies for Demonstrating Knowledge, Skills & Behaviours

1. **Use real-world, work-based examples** only no academic tasks, hobby projects, or generic online learning examples.

2. **Speak and Write in First Person** - Always focus on **your individual contributions** use **"I"** not "we" to clearly show your personal contribution. Even in team projects, emphasise your role and decisions. *Examples:* "I volunteered to…", "I conducted research that informed the decision…"

3. **Be Explicit for the Assessor** - Don't assume they know your workplace or role. Spell out exactly what *you* did to meet the KSBs. Anything left unsaid won't be assessed.

4. **Mirror the Assessment Plan Language** - Adopt phrases directly from the guidance (e.g. *"I demonstrated my ability to…"*) to make it clear how you've met specific criteria.

5. **Reflect on the What and the Why** - For each example, clearly explain *what* you did and *why* you did it. Generic statements are insufficient.

6. **Use Key Phrases to Show Depth** - Clearly explain **decisions, reasoning, and outcomes**, not just the task done. Focus your language around **"what"** and **"why"**, such as "I analysed, I evaluated, I implemented… because…" to enhance clarity and impact.

7. **Add Depth for Distinction** - To achieve higher grades, go beyond what you did and reflect on outcomes, emphasise initiative, problem-solving, and measurable results, lessons learned, and how you would refine or improve further. Demonstrate insight into future application and organisational influence.

8. **Evidence Best Practices**
   - Use **visual evidence** (screenshots, dashboards, visuals) wherever possible
   - Ensure all images are **captioned** and relate clearly to your narrative.
   - Apply **GDPR-compliant techniques**:
     Redact sensitive data.
     Anonymise names, addresses, IDs.
     Normalise data to show trends without revealing exact figures.

9. **Demonstrating Competency**
   - Describe technical tasks in **enough detail to be replicated**.
   - Justify your decisions: e.g., why a tool was chosen or why certain data was excluded.
   - If results are not yet available, **update portfolio pieces** later — it's a living document until submission.

10. **What NOT to Include**
    - Names of others — use initials or job titles.
    - Negative remarks or personal commentary.
    - Content not directly relevant to demonstrating your professional competency.

Summary

Strategy	What to do
First person	Emphasise **your** actions and contributions
Explicit detail	Explain *exactly* what you did and why
Mirror plan language	Use phrasing from the assessment plan
Legal & Professional	Address all relevant Legal & Professional issues
Reflect deeply	Show insight on decisions and outcomes
Practice & feedback	Use mock discussions and review videos
STAR format*	Structure responses clearly: Situation, Task, Action, Result

* The **STAR format** is a structured method for answering behavioural interview questions or presenting professional experiences, often used in performance reviews or assessments. It stands for: **Situation – Task – Action – Result. Note:** There is no obligation to use this method, only consider it if you find it helpful. It is included here because it often appears in searches for best practices in presenting apprenticeship portfolios and conducting professional discussion assessments at all levels.

AMAZON, 2025. *Interview Loop - The STAR method* [viewed 30 July 2025]. Available from: https://amazon.jobs/content/en/how-we-hire/interview-loop

What to Expect in the Portfolio Professional Discussion EPA Assessment (AE2)

Professional Discussion – Overview

The professional discussion is a formal, two-way conversation between the apprentice and an independent assessor. It allows the apprentice to demonstrate the knowledge, skills and behaviours (KSBs) mapped to this assessment method, using examples from their portfolio of evidence. While the portfolio supports the discussion, it is not directly assessed.

This method is chosen due to:
The broad scope of the standard, allowing evidence to be drawn from across the programme.
The opportunity to explore the apprentice's depth of understanding in specialist areas.

Professional Discussion Structure
The professional discussion follows a semi-structured format. The assessor leads the introduction, while the apprentice leads the dialogue, using their evidence portfolio

- **Introduction (5 minutes)**
  The assessor explains the process, checks ID, and outlines the session. This time is not included in the assessment duration.
- **Main Discussion (60 minutes +10%)**
  The apprentice leads the dialogue, referring to their portfolio to support their responses.
- **Questions**: A minimum of 4 questions will be asked, with follow-ups for clarification.
- **Themes**: Questions will explore:
  - Underlying Principles
  - Technical Solutions
  - Innovation & Response
  - Legal, Ethics & Landscape
- **Closure:** Opportunity for final reflections or clarifications.

Delivery and Preparation

The assessment is conducted remotely via video call.

Apprentices should:

- Book or be in a quiet, private room.
- Use a computer with a webcam, microphone, and stable internet.
- Have their portfolio ready for reference.

The assessor will guide the session and ensure the apprentice can achieve the highest possible grade.

KSBs Assessed via Professional Discussion

These are KSB learning outcomes that will need to be mapped to in this assessment for full details on KSB Professional Discussion assessment **(Appendix A)**

Category	Type	KSBs
Core	Knowledge	K6, K7, K8, K9, K10, K11, K12, K13, K14, K16, K19, K20
Core	Skills	S4, S7, S8, S9, S10, S11, S12, S15
Core	Behaviours	B1, B2, B4, B6, B7, B8
Network Engineer	Knowledge	K63, K64, K65, K67, K68
Network Engineer	Skills	S58, S59, S61

Note: The documentation within the standard also refers to pathway learning outcomes using different codes; however, these are equivalent to the ones listed below. The following is a consolidated list of the main knowledge and skills outcomes, along with their corresponding pathway learning outcome codes as presented in the standard documentation.

K63(NEK3) K64(NEK4) K65(NEK5) K67(NEK7) K68(NEK8)
S58(NES3) S59(NES4)) S61(NES6)

Grading Professional Discussion EPA Assessment (AE2)

This is the second of two EPA assessment elements, and it has its own grading rubric (Appendix B). You'll receive a grade of Distinction, Pass or Fail for each element, which will contribute to your overall result as shown in the column on the right. A numeric score will also be given for both assessments, and these will be used to calculate your overall degree average and classification in line with university guidelines.

Project Report with presentation, questions and answers	Professional Discussion underpinned by a portfolio	Overall Grading
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

EPA Portfolio Template

Throughout your apprenticeship, you will be continuously mapping your learning from on-programme modules and capturing potential evidence and documentation for your work-based portfolio. This process will use the provided template and will help you build a mental model of how your work aligns with the required Knowledge, Skills, and Behaviours (KSBs), all linked to your upskilling and learning activities.

As you approach the End-Point Assessment (EPA), you will need to select **six of your strongest portfolio items**. For each item, you will create a **narrative documentation** that clearly links the work to the relevant KSBs for the **Professional Discussion (AE2)**.

You will be given a template to support this process. Below is an example of one of the sections (or "blocks") included in the template. These blocks **(Appendix C)** are designed to help you:

- Map your work to the appropriate KSBs
- Apply the correct assessment criteria
- Ensure coverage of **all required themes** within the assessment

This structured approach will help you demonstrate your competence and readiness for the EPA.

Using KSB Theme Blocks in Your Portfolio Template

The portfolio template includes blocks outlining the assessment criteria and the Core and Pathway (Specialism) KSBs for each of the four required themes.

These blocks should be copied and pasted at the end of the narrative for each of your six portfolio items.

Theme D: Legal, Ethics & Landscape						
Core - Social Infrastructure - Legal, Ethical and Sustainability **(Theme D)**		Applies relevant legal, ethical, social and professional standards to digital and technology solutions considering both technical and non-technical audiences and in line with organisational guidelines. (K19, S15, B1, B2, B5)		**For Distinction:** Justifies the application of relevant legal, ethical, social and professional standards to digital and technology solutions. (K19, S15)		
		Explains sustainable development approaches within digital technologies as they relate to their role including diversity and inclusion. (K20, B8)		**For Distinction** Evaluates the impact of sustainable digital technology practices of their organisation. (K20)		
K19	**K20**	**S15**	**B1**	**B2**	**B5**	**B8**

Image: Example of Theme (KSB) block

Apprenticeship Statement of Authenticity

Before submission, both apprentice and employer must complete a **Statement of Authenticity** at the end of this Portfolio Template document. This confirms that the work is your own and reflects your learning and development throughout the programme.

Any organisational clearance or rights to publishing must be discussed with the Solent support tutors before the Gateway submission for this assessment.

<EXAMPLE FOR THEME-A PORTFOLIO ITEM - START>

This is a suggested layout; you may adopt a different structure, provided it is applied consistently across all six portfolio items. Please note yellow highlights indicate where diagrams and links to supporting evidence will appear in the final portfolio and KSB theme blocks have been appended to the end of the narrative description.

Item 1	Requirements Analysis for Network Solutions Reflecting on My Approach to Stakeholder Engagement and Requirements Gathering for Network Design

Overview:

In this portfolio item, I demonstrate my understanding of organisational context and collaborative working through a requirements analysis project for a network upgrade. I reflect on how I engaged stakeholders, analysed business needs, and applied leadership and professional behaviours to deliver a solution aligned with strategic goals. This example supports **Theme A: Underlying Principles**, covering core KSBs **[K7, K8, K9, K10, S7, S8, B4, B6, B7].**

Insert Diagram 1: Requirements Analysis Workflow

A visual showing stages from stakeholder engagement to documented requirements.

Situation:

Our organisation planned to expand its operations across two new regional offices. The existing network infrastructure was insufficient to support the anticipated increase in traffic, remote access, and security requirements. I was tasked with leading the requirements analysis phase to inform the design of a scalable and secure network solution.

Task:

My responsibility was to gather and analyse technical and business requirements, engage with stakeholders across departments, and produce a requirements specification document to guide the network design phase.

Actions:

Understanding the Organisational Context [K7]:

I began by reviewing the organisation's strategic IT roadmap and current infrastructure documentation. I conducted interviews with department heads to understand operational needs and constraints.

Insert Diagram 2: Stakeholder Mapping and Organisational Goals Alignment

A diagram showing how stakeholder needs align with business goals.

Supporting Evidence:

- Strategic IT Roadmap Summary (PDF)
- Stakeholder Interview Notes (Redacted)

"I demonstrated my understanding of the organisational context by aligning network requirements with business expansion goals and operational needs."

Working Effectively in a Team [K8, S7, B4, B6, B7]:

I collaborated with IT support, cybersecurity, and facilities teams to gather input and validate assumptions. We used collaborative tools like Microsoft Teams and Confluence to share findings and track progress.

Insert Diagram 3: Cross-Functional Collaboration Timeline
A timeline showing key meetings, decisions, and contributions.

Supporting Evidence:

- Teams Collaboration Log (Redacted)
- Requirements Review Meeting Minutes

"I worked effectively in a team by facilitating cross-functional input, adapting communication styles, and promoting shared ownership of the requirements process."

Applying Leadership and Management Principles [K9, K10, S8]:

I led the requirements workshops, delegated research tasks, and ensured timely delivery of the specification document. I applied stakeholder management techniques and prioritised requirements using a MoSCoW framework.

Insert Diagram 4: MoSCoW Prioritisation Matrix
A matrix categorising requirements as Must, Should, Could, and Won't.

Supporting Evidence:

- Requirements Specification Document
- Workshop Facilitation Plan
- MoSCoW Matrix (PDF)

"I applied leadership principles by managing stakeholder engagement, prioritising requirements, and ensuring alignment with organisational strategy."

Results:

The final requirements document was approved by senior management and used to guide the network design and procurement phases. The clarity and structure of the document reduced delays and improved vendor engagement.

Supporting Evidence:

- Approval Email from IT Director
- Vendor Feedback Summary

Reflection and Lessons Learned:

This experience reinforced the importance of structured stakeholder engagement and clear documentation. I learned that early collaboration and prioritisation frameworks are essential for successful network planning. In future projects, I would introduce stakeholder personas to better anticipate needs.

"I reflected on the effectiveness of stakeholder engagement and prioritisation, identifying improvements such as using personas and earlier validation checkpoints."

KSBs Demonstrated:

- **K7**: Analysed organisational roles and strategic goals to inform network requirements.
- **K8, S7**: Collaborated across departments using digital tools and shared documentation.
- **K9, K10, S8**: Led workshops, prioritised requirements, and managed stakeholder relationships.
- **B4, B6, B7**: Demonstrated adaptability, collaboration, and commitment to continuous improvement.

Theme A: Underlying Principles 1				
Core - The Organisational Context	Reviews the roles, functions and activities relevant to technology solutions within an organisation. (K7)			
K7				

Theme A: Underlying Principles 2								
Core - Leading and Working Together	Explains how teams work effectively to produce a digital and technology solution applying relevant organisational theories using up to date awareness of trends and innovations. (K8, S7, B4, B6, B7) Describes the concepts and principles of leadership and management as they relate to their role and how they apply them. (K9, K10, S8)							
K7	**K8**	**K9**	**K10**	**S7**	**S8**	**B4**	**B6**	**B7**

<EXAMPLE FOR THEME-A PORTFOLIO ITEM - END>

Network Engineer - KSB mapping to EPA Assessment Methods (Knowledge) - Appendix A

KSB #	KNOWLEDGE	ASSESSMENT METHODS
K6 Core	The approaches and techniques used throughout the digital and technology solution lifecycle and their applicability to an organisation's standards and pre-existing tools.	Professional Discussion underpinned by a portfolio
K7 Core	The roles, functions and activities within digital technology solutions within an organisation.	Professional Discussion underpinned by a portfolio
K8 Core	How teams work effectively to produce digital and technology solutions.	Professional Discussion underpinned by a portfolio
K9 Core	The concepts and principles of leadership.	Professional Discussion underpinned by a portfolio
K10 Core	Management techniques and theories. For example, effective decision making, delegation and planning methods, time management and change management.	Professional Discussion underpinned by a portfolio
K11 Core	The nature and scope of common vulnerabilities in digital and technology solutions. For example, the risks of unsecure coding and unprotected networks.	Professional Discussion underpinned by a portfolio
K12 Core	The role of data management systems within Digital and Technology Solutions.	Professional Discussion underpinned by a portfolio
K13 Core.	Principles of data analysis for digital and technology solutions.	Professional Discussion underpinned by a portfolio
K14 Core.	A range of quantitative and qualitative data gathering methods and how to appraise and select the appropriate method.	Professional Discussion underpinned by a portfolio
K16 Core.	Fundamental computer networking concepts in relation to digital and technology solutions. For example, structure, cloud architecture, components, quality of service.	Professional Discussion underpinned by a portfolio
K19 Core	Relevant legal, ethical, social and professional standards to a digital and technology solution. For example, Diversity, Accessibility, Intellectual Property, Data Protection Acts, Codes of Practice, Regulatory and Compliance frameworks.	Professional Discussion underpinned by a portfolio
K20 Core	Sustainable development approaches as applied to digital and technology solutions such as green computing.	Professional Discussion underpinned by a portfolio
K63: Network Engineer	The benefits and risks of cloud computing and the common integration deployments (private, public, hybrid). Including the benefits and risks of virtualisation as a concept; key features of virtualisation and current cloud platforms available.	Professional Discussion underpinned by a portfolio
K64: Network Engineer	The main factors that affect network performance, and how to mitigate these on network performance by implementing changes to QoS. For example, Traffic Shaping, Policing, Queuing, Topology (physical and logical), and Network Policy (Traffic Analysis, DPI (Deep Packet Inspection).	Professional Discussion underpinned by a portfolio
K65: Network Engineer	Principles of failure modes in protocols. For example, why a protocol may 'hang' and the effect of data communication errors and approaches to addressing failures to optimise network performance.	Professional Discussion underpinned by a portfolio
K67: Network Engineer	SDN (Software Defined Networking) and Network Function Virtualisation Core Principles. For example, Control Plane Separation, flexibility, overlay networks, disassociation of software and hardware layers.	Professional Discussion underpinned by a portfolio

KSB #	KNOWLEDGE	ASSESSMENT METHODS
K68: Network Engineer	Key elements of mobile networks. For example, RAN (Radio Access Network), EPC (Evolved Packet Core), IMS (IP Multimedia Subsystem) including some specific key functions such as S/P/U-Gateways and the concepts in communicating over free-space media such as interference, ground bounce, encryption and in mobile endpoint platforms such as tracking user location and roaming.	Professional Discussion underpinned by a portfolio

Network Engineer - KSB mapping to EPA Assessment Methods (Skills)

KSB #	SKILL	ASSESSMENT METHODS
S4 Core	Initiate, design, code, test and debug a software component for a digital and technology solution.	Professional Discussion underpinned by a portfolio
S7 Core	Work effectively within teams, leading on appropriate digital technology solution activities.	Professional Discussion underpinned by a portfolio
S8 Core	Apply relevant organisational theories. For example, change management principles, marketing approaches, strategic practice, and IT service management to a digital and technology solutions project.	Professional Discussion underpinned by a portfolio
S9 Core	Apply relevant security and resilience techniques to a digital and technology solution. For example, risk assessments, mitigation strategies.	Professional Discussion underpinned by a portfolio
S10 Core	Initiate, design, implement and debug a data product for a digital and technology solution.	Professional Discussion underpinned by a portfolio
S11 Core	Determine and use appropriate data analysis techniques. For example, Text, Statistical, Diagnostic or Predictive Analysis to assess a digital and technology solutions.	Professional Discussion underpinned by a portfolio
S12 Core	Plan, design and manage simple computer networks with an overall focus on the services and capabilities that network infrastructure solutions enable in an organisational context.	Professional Discussion underpinned by a portfolio
S15 Core	Apply relevant legal, ethical, social and professional standards to a digital and technology solution.	Professional Discussion underpinned by a portfolio
S58 Network Engineer	Monitor performance and ensure networks are configured correctly and perform as expected by designers or architects. Undertake capacity management and audit of IP addressing and hosted devices.	Professional Discussion underpinned by a portfolio
S59 Network Engineer	Investigate, troubleshoot and resolve data network faults in local and wide area environments, using information from multiple sources, Physically or Remotely by console connection. Recommend and implement short term fixes to restore service and, or quality of experience and recommend longer term changes to prevent recurrence or reduce impact of future occurrences.	Professional Discussion underpinned by a portfolio
S61 Network Engineer	Secure network systems by establishing and enforcing policies and defining and monitoring access. Support and administer firewall environments in line with IT security policy.	Professional Discussion underpinned by a portfolio

Network Engineer - KSB mapping to EPA Assessment Methods (Behaviours)

KSB #	BEHAVIOUR	ASSESSMENT METHODS
B1 Core	Has a strong work ethic and commitment to meet the standards required.	Professional Discussion underpinned by a portfolio
B2 Core	Reliable, objective and capable of both independent and team working.	Professional Discussion underpinned by a portfolio
B4 Core	Commits to continuous professional development; maintaining their knowledge and skills in relation to developments in digital and technology solutions that influence their work.	Professional Discussion underpinned by a portfolio
B6 Core	Participates in and shares best practice in their organisation, and the wider community for aspects relevant to digital and technology solutions.	Professional Discussion underpinned by a portfolio
B7 Core	Maintains awareness of trends and innovations in the subject area, utilising a range of academic literature, online sources, community interaction, conference attendance and other methods which can deliver business value.	Professional Discussion underpinned by a portfolio
B8 Core	Champions diversity and inclusion in their work ensuring that digital technology solutions are accessible.	Professional Discussion underpinned by a portfolio

Grading - Professional Discussion underpinned by a portfolio – Appendix B

This grading rubric applies to the Professional Discussion assessment, which is based on your six-item portfolio. Each item in your portfolio must clearly map to the relevant Knowledge, Skills, and Behaviours (KSBs) required for this assessment element.

Your portfolio will be submitted at the Gateway stage as you enter the End Point Assessment (EPA) period. It is essential that:

- Your portfolio aligns directly with the specified KSBs.
- You are prepared to expand on and clarify how your work demonstrates these KSBs during the discussion.
- This ensures that assessors can confidently evaluate your competence against both Pass and Distinction criteria.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Core - The Organisational Context (**A: Underlying Principles)** K7	Reviews the roles, functions and activities relevant to technology solutions within an organisation. (K7)	N/A
Core - Leading and Working Together (**A: Underlying Principles)** K8 K9 K10 S7 S8 B4 B6 B7	Explains how teams work effectively to produce a digital and technology solution applying relevant organisational theories using up to date awareness of trends and innovations. (K8, S7, B4, B6, B7) Describes the concepts and principles of leadership and management as they relate to their role and how they apply them. (K9, K10, S8)	N/A
Network Engineer - Underlying Principles K64 K65	Describe key factors that affect network performance and provide some mitigation strategies to increase quality of service. (K64/NEK4) Explains the principles of failure modes in protocols and how they could be addressed. (K65/NEK5)	N/A
Core – Technical Concepts **(Theme B)** K6 K11 K12 K14 K16	Critically evaluates the nature and scope of common vulnerabilities in digital and technology solutions (K11) Explains core technical concepts for digital and technology solutions, including: The approaches and techniques used throughout the digital and technology solution lifecycle and their applicability to an organisation's standards and pre-existing tools. (K6) Data gathering, data management, and data analysis. (K12, K14) Computer networking concepts. (K16)	N/A
Core - Applied Technical Solutions **(Theme B)** K13 S4 S9 S10 S11 S12	Demonstrates the use of core technical concepts for digital and technology solutions, including: Initiate, design, code, test and debug a software component for a digital and technology solution. (S4) Security and resilience techniques. (S9) Initiates, designs, implements and debugs a data product for a digital and technology solution. (S10) Plans, designs and manages simple computer networks. (S12)	N/A

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	Applies the principles of data analysis for digital and technology solutions. (K13, S11)	
Network Engineer - Technical Solutions **(Theme B)** K63 K67 K68 S58 S61	Explains the benefits and risks of cloud computing and the common integration deployments (private, public, hybrid) including the benefits and risks of virtualisation as a concept, key features of virtualisation and current cloud platforms available. (K63) Explains Software Defined Networking and Network Function Virtualisation Core Principles. (K67) Describe the key elements of mobile networks including some specific key functions and communication concepts. (K68) Explains how they undertake network performance monitoring, including capacity management and auditing of IP addressing. (S58) Explains how they secure network systems, apply security policies, access and firewalls. (S61)	**For Distinction:** Critically provide a comparative analysis between different cloud models stating their risks, strengths and weaknesses, considering their organisational needs. (K63) **For Distinction:** Critically evaluates how they undertake network performance monitoring, including capacity management and auditing of IP addressing**. (S58)**
Network Engineer - Innovation and Response **(Theme C)** (S59)	Explains approaches for investigating, troubleshooting and resolving network faults. (S59)	**For Distinction:** Compare and contrast approaches for investigating, troubleshooting and resolving network faults. (S59)
Core - Social Infrastructure - Legal, Ethical and Sustainability **(Theme D)** K19 K20 S15 B1 B2 B8	Applies relevant legal, ethical, social and professional standards to digital and technology solutions considering both technical and non-technical audiences and in line with organisational guidelines. (K19, S15, B1, B2, B5) Explains sustainable development approaches within digital technologies as they relate to their role including diversity and inclusion. (K20, B8)	**For Distinction:** Justifies the application of relevant legal, ethical, social and professional standards to digital and technology solutions. (K19, S15) **For Distinction:** Evaluates the impact of sustainable digital technology practices of their organisation. (K20)

KSB Professional Discussion underpinned by a portfolio Mapping Block – Appendix C

KSB mapping blocks are tools used to align portfolio evidence with the specific Knowledge, Skills, and Behaviours (KSBs) required by the assessment criteria. These blocks play a crucial role in ensuring that each item in the portfolio clearly demonstrates how it meets the relevant standards.

Below are examples of Knowledge, Skills, and Behaviours (KSB) mapping blocks. These will be used in the portfolio assessment template to show how each piece of evidence supports the associated KSBs within each theme. The following examples illustrate how to use these blocks effectively throughout the assessment process.

Theme A: Underlying Principles 1				
Core - The Organisational Context	Reviews the roles, functions and activities relevant to technology solutions within an organisation. (K7)			
K7				

Theme A: Underlying Principles 2								
Core - Leading and Working Together	Explains how teams work effectively to produce a digital and technology solution applying relevant organisational theories using up to date awareness of trends and innovations. (K8, S7, B4, B6, B7) Describes the concepts and principles of leadership and management as they relate to their role and how they apply them. (K9, K10, S8)							
K7	**K8**	**K9**	**K10**	**S7**	**S8**	**B4**	**B6**	**B7**

Theme A: Underlying Principles 3				
Network Engineer - Underlying Principles	Describe key factors that affect network performance and provide some mitigation strategies to increase quality of service. (K64/NEK4)			
	Explains the principles of failure modes in protocols and how they could be addressed. (K65/NEK5)			
K64	**K65**			

Theme B: Technical Solutions 1				
Core – Technical Concepts **(Theme B)**	Critically evaluates the nature and scope of common vulnerabilities in digital and technology solutions (K11)			
	Explains core technical concepts for digital and technology solutions: The approaches and techniques used throughout the digital and technology solution lifecycle and their applicability to an organisation's standards and pre-existing tools. (K6)			
	Explains core technical concepts for digital and technology solutions: Data gathering, data management, and data analysis. (K12, K14)			
	Explains core technical concepts for digital and technology solutions: Computer networking concepts. (K16)			
K6	**K11**	**K12**	**K14**	**K16**

Theme B: Technical Solutions 2					
Core - Applied Technical Solutions **(Theme B)**	**Demonstrates the use of core technical concepts for digital and technology solutions** Initiate, design, code, test and debug a software component for a digital and technology solution. (S4)				
	Demonstrates the use of core technical concepts for digital and technology solutions Security and resilience techniques. (S9)				
	Demonstrates the use of core technical concepts for digital and technology solutions Initiates, designs, implements and debugs a data product for a digital and technology solution. (S10)				
	Demonstrates the use of core technical concepts for digital and technology solutions Plans, designs and manages simple computer networks. (S12)				
	Applies the principles of data analysis for digital and technology solutions. (K13, S11)				
K13	**S4**	**S9**	**S10**	**S11**	**S12**

Theme B: Technical Solutions 3					
Network Engineering - Technical Solutions **(Theme B)**	Explains the benefits and risks of cloud computing and the common integration deployments (private, public, hybrid) including the benefits and risks of virtualisation as a concept, key features of virtualisation and current cloud platforms available. (K63)			**For Distinction:** Critically provide a comparative analysis between different cloud models stating their risks, strengths and weaknesses, considering their organisational needs. (K63)	
	Explains Software Defined Networking and Network Function Virtualisation Core Principles. (K67)				
	Describe the key elements of mobile networks including some specific key functions and communication concepts. (K68)				
	Explains how they undertake network performance monitoring, including capacity management and auditing of IP addressing. (S58)			**For Distinction:** Critically evaluates how they undertake network performance monitoring, including capacity management and auditing of IP addressing. (S58)	
	Explains how they secure network systems, apply security policies, access and firewalls. (S61)				
K63	**K67**	**K68**	**S58**	**S61**	

Theme C: Innovation & Response					
Network Engineer - Innovation and Response **(Theme C)**	Explain approaches for investigating, troubleshooting and resolving network faults. (S59)			**For Distinction:** Compare and contrast approaches for investigating, troubleshooting and resolving network faults. (S59)	
S59					

Theme D: Legal, Ethics & Landscape		
Core - Social Infrastructure - Legal, Ethical and Sustainability **(Theme D)**	Applies relevant legal, ethical, social and professional standards to digital and technology solutions considering both technical and non-technical audiences and in line with organisational guidelines. (K19, S15, B1, B2, B5)	**For Distinction:** Justifies the application of relevant legal, ethical, social and professional standards to digital and technology solutions. (K19, S15)
	Explains sustainable development approaches within digital technologies as they relate to their role including diversity and inclusion. (K20, B8)	**For Distinction** Evaluates the impact of sustainable digital technology practices of their organisation. (K20)

K19	K20	S15	B1	B2	B5	B8