



Level 4 Network Engineer

EPA Overview

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1. EPA headlines

- Must be on programme 366 days before entering gateway
- Must have a Portfolio and achieved Maths and English also prior to Gateway
- EPA window 4 months and up to a maximum of 6 months if re-sit required
- 2 x Assessment methods at EPA – Assessment method 1 - Simulation Assessment and Questioning. Assessment method 2 - Professional discussion underpinned by portfolio
- Simulation Assessment is carried out over 14 hours and completed over 2 consecutive days. Each Assessment task will last 7 hours
- Questioning on the Simulation Assessment lasts 45 mins
- Questioning on the Simulation Assessment - Minimum of 10 open ended questions
- Professional Discussion lasts 60 mins – Underpinned by Portfolio
- Professional Discussion - Minimum of 15 open ended questions

2. Gateway

Gateway is the point that the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard. In making this decision, the employer may take advice from the training provider, but the decision must ultimately be made by the employer.

Apprentices must have been on programme for at least 366 days prior to entering gateway, and must also meet the following gateway requirements for Level 4 Network Engineer programme:

- Portfolio of evidence
- Portfolio checklist
- EPA gateway form
- Employer declaration
- Level 2 English and Maths evidence

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

3. End Point Assessment

The EPA window for Level 4 Network Engineer is typically 3 months but may be extended to a maximum of 6 months if an apprentice is required to resit or retake any assessment(s).

For the End Point Assessment, the learner must complete the following assessments:

- Assessment method 1: Simulation Assessment and Questioning
- Assessment method 2: Professional Discussion underpinned by Portfolio

Assessment Method 1: Simulation Assessment and Questioning

The Simulation Assessment and Questioning assessment is graded Pass, Distinction or Fail.

Component 1: Simulation Assessment

Apprentices must complete 2 simulation assessments in a virtual lab environment online where they will demonstrate the KSBs mapped to this assessment method. This assessment will be carried out over a total of 14 hours, over 2 consecutive working days. Assessment task 1



(Network Failure) will be completed and submitted online by the end of day 1 and assessment task 2 (Network Optimisation) will be completed and submitted online by the end of day 2.

As part of each simulation assessment task the apprentice will be required to submit a virtual lab report consisting of evidence of completed test activity along with decision-making evidence including:

- The completed lab file (with all saved and completed work)
- Test plans
- Accompanying notes which explain why the apprentice chose a particular network engineering solution or to explain the approach they took during the simulation. Explanatory diagrams should also be included.

Prior to the assessment, the apprentice will be provided with clear instructions on the tasks they must complete, including the timescales they are working to. Each of the simulation tasks will have a brief and instructions for the apprentice including how required outputs should be formatted.

The brief and instructions will specify what systems, tools and platforms will be required to complete the tasks. This information will be contained within the software package for delivering the assessment. The software package will not be seen in advance and will be given to the apprentice at the start of each simulation task.

The following activities must be observed during the simulation assessment:

Lab report and physical lab activity:

- Detect and resolve network failures:
 - Switch or Router configuration fault for remote access
 - Configure dynamic routing protocols
- Improve network performance:
 - Poor / insecure Wi-Fi configuration
 - Network response time is low
 - IPv4 or / IPv 6 problems
- Install and manage network architectures
- Test and analyse network issues
- Plan and work effectively
- Troubleshooting
- Fault diagnostics

Outputs from the lab activities could comprise the following:

- Ticketing Systems/replies/escalation
- Data Reports and log files

Component 2: Questioning

The scenario demonstration questioning is carried out with an Independent Assessor sourced by the EPAO. The questioning will last 45 minutes, with a discretionary 10% additional time to allow the apprentice to complete their last answer. The apprentice will be asked a minimum of 10 questions based on the knowledge, skills, and behaviours identified for this assessment method.

The Independent Assessor will have a minimum of one week to assess the work submitted by the apprentice and generate appropriate questioning. The outputs from the simulated assessment will be shared with the apprentice by the Independent Assessor online throughout

the questioning. The apprentice will not be allowed to have access to the simulated assessment outputs in advance of the questioning session.

Assessment Method 2: Professional Discussion underpinned by Portfolio

The Professional Discussion underpinned by Portfolio assessment is graded Pass, Distinction or Fail.

The professional discussion is carried out with an Independent Assessor sourced by the EPAO. The professional discussion will last 60 minutes, with a discretionary 10% additional time to allow the apprentice to complete their last answer. The apprentice will be asked a minimum of 15 open questions based on the knowledge, skills, and behaviours identified for this assessment method.

The portfolio will be compiled by the learner whilst on programme and should relate to the KSBs for this assessment. The portfolio underpins the professional discussion but is not directly assessed and therefore will not be marked. A copy of the portfolio must be available to the apprentice during the professional discussion.

4. Grading

Simulation Assessment and Questioning	Professional Discussion underpinned by Portfolio	Final Grade
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

5. Resit and Retakes

Apprentices who fail one or more assessment method will be offered the opportunity to take a resit or a retake at the employer's discretion. The employer will need to agree that either a resit or retake is an appropriate course of action. A resit does not require further learning, whereas a retake does.

Apprentices will have a supportive action plan to prepare for a resit or a retake of any failed assessment. All assessments must be successfully completed within the maximum EPA window, otherwise the full EPA will need to be resat or retaken.

Where any assessment method must be resat or retaken, the apprentice will be awarded a maximum EPA grade of Distinction.

Further information on the Level 4 Network Engineer EPA can be found in the [assessment plan](#). A full list of the Knowledge, Skills and Behaviours (KSBs) can be found on the Institute for Apprenticeships website [here](#).

