**BCS Digital Industries Apprenticeship**

**Template 5 - Summative Portfolio Checklist**

**Level 4 Network Engineer Apprenticeship**

**Version 6.0**

**August 2020**

**Change History**

Any changes made to the project shall be clearly documented with a change history log. This shall include the latest version number, date of the amendment and changes made. The purpose is to identify quickly what changes have been made.

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| Version Number and Date | Changes Made |
| V5.0  May 2019 | Change History table added to document. Major changes to document format (no Standard specific content changes). |
| V6.0  August 2020 | Overview section paragaph updated |
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## Overview

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This template is to support the training provider in working with the apprentice and employer to ensure the successful completion of the summative portfolio.

The checklists can be used by training providers to help them manage the process through to completion, although training providers may also substitute their own processes and documentation as they see fit.

The apprentice should gather artefacts and record information that can evidence their activities undertaken in the workplace. The portfolio of evidence should demonstrate that the apprentice can fulfil the full range of competencies which are required by the standard, as shown in this template.

The apprenticeship standards are designed to cover a wide range of different job roles. If the evidence in the portfolio is weak due to limited exposure within the day to day activities of the workplace, the synoptic project should be considered and selected to allow the apprentice to demonstrate that they are competent in those criteria and to provide the breadth and depth to meet the specified minimum requirements of the Occupational Brief.

**Summative Portfolio Declaration**

**Apprentice Declaration**

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| Name |  |
| ULN |  |
| Declaration | I confirm that all the evidence submitted is my own work and it has been completed as specified. |
| Signature |  |
| Date |  |

**Line Manager Declaration (Employer)**

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| Name |  |
| Company |  |
| Declaration | I confirm that the work contained within this portfolio has, to the best of my knowledge, been completed solely by \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Signature |  |
| Date |  |

**Training Provider Declaration**

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| Name |  |
| Company |  |
| Declaration | I confirm that the work contained within this portfolio has, to the best of my knowledge, been completed solely by \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Signature |  |
| Date |  |

**Summative Portfolio Acceptable Evidence Format**

BCS’ intention is to allow flexibility in the format that evidence can take in order to reflect the type of records that an apprentice could realistically be expected to have access to. Typical acceptable evidence includes:

* photographic or video evidence of activity;
* witness statement;
* observation reports;
* annotated screenshots;
* signed-off work records;
* printed outputs of pre- and post-configuration settings;
* peer reviews.

It is important to note that when the summative portfolio is submitted to EPA gateway it is locked and will no longer be editable by the apprentice, for this reason links to external content will not be accepted as suitable evidence.

**Technical Competencies Evidence Checklist**

The defined competence areas are listed below. Not all employer businesses are identical so there will be variation in the types of activity that will be carried out in the course of each apprentice’s daily work; however, the apprentice must be able to demonstrate evidence of every competence.

**Competence – Design**

**Can design simple networks from a well-defined specification and apply appropriate security products and processes.**

**Minimum expected requirement:**

Apprentices can show a solid understanding of networks and are able to use the required techniques, tools, documentation and deviceswhen designing secure networks.

* The OSI and TCP/IP Models;
* Types of networks;
* Topologies;
* Network devices;
* Media;
* Network Services;
* Network addressing schemes;
* Network planning documentation.

Typically, this will have a minimum of two servers, at least 30 end point devices, a switch and with protection from known and standard threats.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Installation and Configuration**

**Can install and configure network components, including switches, routers and firewalls.**

**Minimum expected requirement:**

Apprentices can install and configure the elements required to implement a secure network, including:

* Media;
* Hardware devices;
* Software.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Optimisation**

**Can optimise the performance of network systems and services.**

**Minimum expected requirement:**

Apprentices can demonstrate how network performance can be optimised and be able to implement techniques to optimise performance as directed.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Monitoring and Testing**

**Can monitor, test and adjust network systems and performance to meet accepted standards using diagnostic tools, analysers and other equipment.**

**Minimum expected requirement:**

Apprentices can demonstrate a minimum of three diagnostic techniques and tools that can be used to interrogate and gather informationregarding network performance and evaluate this information to allow network performance to be optimised.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

Can maintain security and performance of the network against known and standard threats.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Diagnostics**

**Can apply diagnostic tools and techniques to identify the causes of network performance issues.**

**Minimum expected requirement:**

Apprentices can show a solid understanding of the techniques and can apply a minimum of three tools to identify network performance issues and apply these to identify performance issues.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Troubleshooting**

**Can apply structured approaches to troubleshooting network issues and repair faults in hardware, software products and the network.**

**Minimum expected requirement:**

Apprentices can show a minimum of three techniques to gather information and use a minimum of two tools to troubleshoot issues and be able to isolate, repair or escalate faults.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

They can communicate solutions and record in line with organisational procedures.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – System Upgrades**

**Can undertake system upgrades to network hardware, software and operating systems.**

**Minimum expected requirement:**

Apprentices can use a minimum of 3 techniques to upgrade, apply and test hardware and software to at least three different network configurations ensuring that the network meets the organisation’s requirements and minimises downtime.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Network Integration**

**Can integrate network related software into an existing network environment.**

**Minimum expected requirement:**

Apprentices can demonstrate how to implement the integration of end users software solutions into an existing network environment.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

They can develop, implement and communicate these end user plans.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Interpretation of Information**

**Can interpret written requirements and technical specifications for network activities and maintain accurate records of network maintenance activities.**

**Minimum expected requirement:**

Apprentices can receive information from a manager, customer or technical specialist and interpret the information to accurately implement the defined requirements.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

They can monitor and identify maintenance requirements and implement required maintenance procedures.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

They can record accurate data and outcomes of work undertaken.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Technical Support**

**Can log and respond to network service calls and provide technical network support to end users as required.**

**Minimum expected requirement:**

Apprentices can demonstrate high levels of communication, organisational and prioritisation skills when dealing with clients and be able record details relating to an issue, whether face-to-face, remote or in writing.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Documentation**

**Can document work done in accordance with agreed procedures.**

**Minimum expected requirement:**

Apprentices can show a solid understanding of the organisational procedures dealing with recording of information relating to IT systems and apply them effectively for internal and external customers.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

Can record information as specified in organisational polices and SLA.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Service Level Support**

**Can operate within the parameters of service level agreements, standards and/or agreed response times.**

**Minimum expected requirement:**

Apprentices can show a sound understanding of the Service Level Agreements (SLA) and how they impact their role as a network engineer.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

They can respond appropriately and in line with agreed timescales.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Competence – Business Environment**

**Can operate effectively in the business environment and responds to business issues related to network engineering.**

**Minimum expected requirement:**

Apprentices can show a sound understanding of the factors that impact on a business environment to enable them to carry out their role as a network engineer effectively.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Minimum expected requirement:**

They can work independently and demonstrate how they work securely within the business and recognise when there are factors effecting the network performance, including business needs, downtime, security of data and access controls.

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| **List the evidence in the portfolio that fulfils this requirement:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  NOTE: this box will expand as required |

**Generic Levels of Responsibility Evidence Checklist**

Areas of responsibility and associated typical evidence are shown below.

**Proficiency – Business Skills**

* **Demonstrates an analytical and systematic approach to issue resolution.**
* **Takes the initiative in identifying and negotiating appropriate personal development opportunities.**
* **Demonstrates effective communication skills.**
* **Contributes fully to the work of teams.**
* **Plans, schedules and monitors own work (and that of others where applicable) competently within limited deadlines and according to relevant legislation, standards and procedures.**
* **Appreciates the wider business context, and how their role relates to other roles and to the business of the employer of client.**

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| **List the evidence in the portfolio that fulfils these requirements:**  **Demonstrates an analytical and systematic approach to issue resolution:**  **Takes the initiative in identifying and negotiating appropriate personal development opportunities:**  **Demonstrates effective communication skills:**  **Contributes fully to the work of teams:**  **Plans, schedules and monitors own work (and that of others where applicable) competently within limited deadlines and according to relevant legislation, standards and procedures:**  **Appreciates the wider business context, and how their role relates to other roles and to the business of the employer of client:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  **Demonstrates an analytical and systematic approach to issue resolution:**  **Takes the initiative in identifying and negotiating appropriate personal development opportunities:**  **Demonstrates effective communication skills:**  **Contributes fully to the work of teams:**  **Plans, schedules and monitors own work (and that of others where applicable) competently within limited deadlines and according to relevant legislation, standards and procedures:**  **Appreciates the wider business context, and how their role relates to other roles and to the business of the employer of client:**  NOTE: this box will expand as required |

**Proficiency – Complexity**

* **Performs a range of work, sometimes complex and non-routine, in a variety of environments.**
* **Applies a methodical approach to issue definition and resolution.**
* **Undertakes all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools.**

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| **List the evidence in the portfolio that fulfils these requirements:**  **Performs a range of work, sometimes complex and non-routine, in a variety of environments.**  **Applies a methodical approach to issue definition and resolution.**  **Undertakes all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools.**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  **Performs a range of work, sometimes complex and non-routine, in a variety of environments.**  **Applies a methodical approach to issue definition and resolution.**  **Undertakes all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools.**  NOTE: this box will expand as required |

**Proficiency – Autonomy**

* **Works under general direction.**
* **Uses discretion in identifying and responding to complex issues and assignments.**
* **Usually receives specific instructions and has work reviewed at frequent milestones.**
* **Determines when issues should be escalated to a higher level.**

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| **List the evidence in the portfolio that fulfils these requirements:**  **Works under general direction:**  **Uses discretion in identifying and responding to complex issues and assignments:**  **Usually receives specific instructions and has work reviewed at frequent milestones:**  **Determines when issues should be escalated to a higher level:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  **Works under general direction:**  **Uses discretion in identifying and responding to complex issues and assignments:**  **Usually receives specific instructions and has work reviewed at frequent milestones:**  **Determines when issues should be escalated to a higher level:**  NOTE: this box will expand as required |

**Proficiency – Influence**

* **Interacts with and influences colleagues.**
* **Has working level contact with customers, suppliers and partners.**
* **May supervise others or make decisions which impact the work assigned to individuals or phases of projects.**
* **Makes decisions which influence the success of projects and team objectives.**

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| **List the evidence in the portfolio that fulfils this requirement:**  **Interacts with and influences colleagues:**  **Has working level contact with customers, suppliers and partners:**  **May supervise others or make decisions which impact the work assigned to individuals or phases of projects:**  **Makes decisions which influence the success of projects and team objectives:**  NOTE: this box will expand as required |

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| **Reflections on applying knowledge learnt:**  **Interacts with and influences colleagues:**  **Has working level contact with customers, suppliers and partners:**  **May supervise others or make decisions which impact the work assigned to individuals or phases of projects:**  **Makes decisions which influence the success of projects and team objectives:**  NOTE: this box will expand as required |