T-LEVELS | Institute for Apprenticeships & Technical Education

T Level Technical Qualification in Digital Support Services

Employer set project (ESP)

Core skills

Digital Infrastructure & Network Cabling

Project brief - Task 3

v1.1: Specimen assessment materials
16 November 2023
603/6901/2

NCFE

SAM

T Level Technical Qualification in Digital Support Services
Employer set project (ESP)

Core skills

Project brief

Digital Infrastructure & Network Cabling

Contents

Student instructions **3**
Task 3: 4 hours **5**
Control document C: full specification of requirements. **7**
Control document D: layout of dealership. **8**
Document information **9**

SAMPLE

Student instructions

- read the project brief carefully before starting your work
- you must work independently and make your own decisions as to how to approach the tasks within the employer set project (ESP)
- you must clearly name and date all of the work that you produce during each supervised session
- you must hand over all of your work to your tutor at the end of each supervised session
- you must not work on the assessment in between supervised sessions

Student information

- the ESP will assess your knowledge, understanding and skills from across the core content of the qualification
- in order to achieve a grade for the core component, you must attempt both of the external examinations and the ESP
- the combined marks from these assessments will be aggregated to form the overall core component grade (A* to E and U) – if you do not attempt one of the assessments, or fail to reach the minimum standard across all assessments, you will receive a U grade
- the maximum time you will have to complete all tasks for the employer set project is 12 hours 10 minutes:
  - your tutor will explain how this time is broken down per task and will confirm with you if individual tasks need to be completed across multiple sessions
  - at the end of each supervised session, your tutor will collect all employer set project assessment materials before you leave the room
  - you must not take any assessment material outside of the room (for example, via a physical memory device)
  - you must not upload any work produced to any platform that will allow you to access materials outside of the supervised sessions (including email)
- you can fail to achieve marks if you do not fully meet the requirements of the task, or equally if you are not able to efficiently meet the requirements of the task
- the project is assessed out of a total of 76 marks (this includes 2 marks for your use of maths in task 3, and 4 marks for your use of English throughout tasks 2, 3 and 4) – the individual task marks are also shown throughout the project brief booklet at the start of each task

Plagiarism

Plagiarism may result in the external assessment task being awarded a U grade.

SAMPLE

Presentation of work

- all of your work should be completed electronically using black font, Arial size 12pt unless otherwise specified
- any work not produced electronically must be agreed with your tutor, in which case the evidence you produce should be scanned and submitted as an electronic piece of evidence
- all your work should be clearly labelled with the relevant task number and your student details and be legible (for example, front page and headers)
- electronic files should be named using the following format – Surname_Initial_student number_evidence reference for example: Smith_J_123456789_Task3 for identification purposes – where evidence reference is shown, this should be replaced with the task number for which the work reflects and saved as a .pdf format
- all pages of your work should be numbered in the format page X of Y, where X is the page number and Y is the total number of pages
- you must complete and sign the External assessment cover sheet (EACS) – declaration of authenticity form and include it at the front of your assessment task evidence
- you must submit your evidence to the supervisor at the end of each session

SAMPLE

Task 3: 4 hours

You must read the information on all pages provided for this task before starting your response.

(24 marks)

Scenario

Currently only 2 access points (AP) are installed in the dealership. It is recognised that this is not appropriate or powerful enough for the demands of the business.

You have been provided with a full specification of requirements (document C) for the WiFi solution and a layout of the dealership (document D).

Your line manager has asked you to prepare a project proposal and WiFi solution, using the specification of requirements, detailing how you will deliver on the requirements whilst balancing flexibility, reliability, and security.

Instructions for students

Your project proposal (24 marks) should include:

- an introduction outlining the challenges for the WiFi configuration
- a detailed overview of how to implement the WiFi into the network
- your proposed solution detailed on a network diagram which will accompany the proposal
- a justification of any equipment, software or vendor-specific solutions you decide to use
- estimated costs for any equipment, software or cloud services recommended; your decisions should provide value for money whilst meeting the brief (you should use the internet to research this)
- an explanation of any potential network security issues with justification for recommended mitigations
- a final summary

When identifying costs, no preferred suppliers are identified, providing they are UK-based. All products must be purchased as new, with costs provided.

Evidence required for submission to NCFE

- a detailed project proposal in .pdf format
- a detailed network diagram in .pdf format

When you have completed this task, you should save in a .pdf format, and name your file:

- Surname_Initial_student number_evidence reference for example: Smith_J_123456789_Task3

Additional guidance

For this task you will be issued with control documents C and D.

This task will also assess your English skills.

This task will also assess your mathematical skills which are worth 2 marks.

SAMPLE

You will have access to a word processing application or other suitable software to enable you to complete this task.

Access to the internet is permitted.

Access to any online cloud storage is not permitted.

Use of online chat or emails is not permitted.

Access to previous class notes/teaching materials is not permitted.

You are permitted to have up to a maximum of 15 minutes rest break during this task. This must be supervised.

SAMPLE

Control document C: full specification of requirements.

Network setup

- network includes 3 servers, as shown in the following breakdown:
  - server 1 – Primary Domain Controller. DHCP and DNS
  - server 2 - file server
  - server 3 - web server
- a central POE switch that supports VLAN with 1Gb port speed
- network security appliance before the router
- only 2 basic access points (APs) are available onsite for testing purposes
- 10 iPads have been provided for the sales team to help with customer service
- 10 wired desktop locations for the sales team
- back office computers for the service, marketing, sales manager and administrative users

Current issues

The current issues identified have arisen during the testing of the network:

- due to the construction of the building, WiFi strength is inconsistent throughout
- limited to no signal strength is available outside on the forecourt
- no way to separate corporate sensitive traffic from general internet access
- low transfer speeds as the current 2 APs cannot handle the demands from the number of users
- limited security for example, no encryption
- GDPR/data protection issues with customer details on remote devices

Requirements

The requirements are:

- the sales team should be able to roam the entire site and expect connectivity
- the WiFi should be secure
- public WiFi should require the capture of an email and basic marketing details
- 2 APs should be fitted to the exterior of the building to support tablet useability on the forecourt
- corporate traffic should be isolated from public browsing
- public WiFi should provide an enjoyable experience for the customers

SAMPLE

Control document D: layout of dealership.

An early draft of the floor plan has been provided, the dealership measures approximately 50m in length and width at the widest part of the building.

The exterior forecourt spans a further 40m out from the front and right side of the building.

Document information

Copyright in this document belongs to, and is used under licence from, the Institute for Apprenticeships and Technical Education, © 2022–2023 .

'T-LEVELS' is a registered trade mark of the Department for Education.

'T Level' is a registered trade mark of the Institute for Apprenticeships and Technical Education.

The T Level Technical Qualification is a qualification approved and managed by the Institute for Apprenticeships and Technical Education. NCFE is currently authorised by the Institute to develop and deliver the Technical Qualification in Digital Support Services.

'Institute for Apprenticeships & Technical Education' and logo are registered trade marks of the Institute for Apprenticeships and Technical Education.

Owner: Head of Assessment Design

Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Published		September 2022
v1.1	Sample added as a watermark	November 2023	16 November 2023

SAMPLE