Chief Examiner Report

T Level Technical Qualification in Digital Support Services QN: 603/6901/2

Summer 2025– Occupational Specialism Network Cabling

Introduction

Summer 2025– occupational specialism (OS) Network Cabling

Assessment dates: **19 March 2025 to 08 May 2025**

Paper number: **P002711, P002712 and P002713**

This report contains information in relation to the externally assessed component provided by the chief examiner, with an emphasis on the standard of student work within this assessment.

The report is written for providers, with the aim of highlighting how students have performed generally, as well as any areas where further development or guidance may be required to support preparation for future opportunities.

Key points:

- grade boundaries
- standard of student work
- evidence creation
- responses to the external assessment tasks
- administering the external assessment

It is important to note that students should not sit this external assessment until they have received the relevant teaching of the qualification in relation to this component.

Grade boundaries

Grade boundaries for the series are:

	Overall
Max	203
Distinction	142
Merit	107
Pass	73

Grade boundaries are the lowest mark with which a grade is achieved.

For further detail on how raw marks are scaled and the aggregation of the OS element, please refer to the Qualification Specification.

Administering the external assessment

The external assessment is invigilated and must be conducted in line with our Regulations for the Conduct of External Assessment document. Students may require additional pre-release material to complete the tasks. These must be provided to students in line with our regulations.

Students must be given the resources to carry out the tasks and these are highlighted within the Qualification Specific Instructions for Delivery (QSID) document.

Standard of student work

This is the second series in which students have completed the occupational specialism (OS) in Network Cabling. The OS is a synoptic assessment which students undertake in the final year of their T Level qualification.

The OS consists of three assignments which students complete during the assessment period.

Performance for this cohort has been largely in line with the performance of the summer 2024 cohort. Students were able to access the various tasks across the three assignments, with some students completing the tasks in greater depth than others.

Evidence creation

There was a range of evidence presented once again this year across the three assignments for this OS. This included completed test plans, reports, screenshots of completed tasks, photographic evidence and packet tracer files.

There was a wide variety in the quality of the evidence, particularly the photographic evidence, that was submitted by students. In comparison to previous sessions, there has been an improvement in the photographic evidence provided, however, further clarity within images would be a benefit.

The quality of the evidence has improved this series, with more annotation of screenshots and photographic evidence being provided. This has made it easier for the examining team to understand the steps and processes that students have followed in generating their evidence. It is important that students continue to be aware that the list of evidence provided in the assignment briefs is the minimum level of evidence that is required. Students can include any evidence that they feel provides a fair reflection of their skills and knowledge and that they can provide more evidence if they feel it will better demonstrate this.

Responses to the external assessment tasks

Assignment 1

Task 1

Overall, students performed well in this task again this series. Students were able to create a physical network design proposal based on the scenario, which included a cabling diagram demonstrating the students proposed cabling design.

Students demonstrated a range of performance within their rationale for the network design. Higher performing students were able to consider a range of data that would be transmitted across the network, the security needed for the network and consider which parts of the network would require wired versus wireless access.

Students that did not perform as well were able to consider some of the requirements of the network but omitted others. Where these students had considered a requirement there tended to be a mixture of performance, with some considered in depth and others considered more briefly.

To achieve well in this task, students need to make sure that they are considering each of the requirements listed in the brief in good detail. It is important that they are referring to the information they have been provided about the business and how this will influence the decisions made when proposing the network design. Students should also ensure that they are considering the layout of the building and the business needs when considering the network design and the security features that will be needed to ensure that the IT infrastructure is fit for purpose.

Assignment 1

Task 2

Overall, students performed well in this task this series. Students were able to create a network diagram and provide evidence of the security measures that they planned to implement.

Students that performed well in this task were able to create a functioning network, which they captured using Cisco Packet Tracer. Their network layout included all the basic requirements of the network design as well as the network additions which they recommended in task 1, such as security features and wireless access points. These students were also able to provide a range of evidence which demonstrated their IP addressing scheme and the security measures they have implemented on the network.

Students that performed less well were able to produce their network in Cisco Packet Tracer, however, not all areas of the network were functioning correctly, and they did not include the additional devices that they had recommended in task 1. These students were able to provide some evidence that they had started to incorporate an IP addressing structure, but this may have been incomplete or only considered a limited number of the components of the network. They may also have provided some evidence of possible security measures, but these were not applied to the network.

To achieve well on this task students should ensure that they are including all components of the network that they proposed in task 1, including any factors such as security measures or wired / wireless networks in their packet tracer file and that all elements of the network are functioning correctly. Most students are able to implement good password protocols as part of the security considerations for this task. However, to achieve the top mark bands students would be expected to consider more than one security consideration, apply this and then evidence it within their assignment.

Most students in this series opted to provide annotated screenshots in their evidence as a supporting commentary. It is important that future cohorts continue to implement this, as it is the supporting commentary which explains to the examiner what the student is implementing and why. This justification is what enables the student to access those higher mark bands.

Assignment 2

Task 1

Overall, students were able to perform well in this task again this series. Students were asked to install a range of elements of the cabling system as provided in task 1.

Students that performed well in this task were able to demonstrate their skills in successfully installing the different elements of the cabling system. These students provided a range of evidence that demonstrated the steps they took and how this led to the successful installation of the cabling system. These students also included evidence of their PPE, as well as evidence that they had installed all relevant security protocols and controls. Their photographic evidence, screenshots and accompanying annotations were clear and demonstrated what steps they had taken at each stage, why they had taken the step and the outcome that this had produced. The photographic evidence was clear and made it easy for the examiner to see, particularly for the cabling elements of the task, that they had completed the tasks successfully.

Students that performed less well were able to demonstrate their skills in successfully installing the different elements of the cabling system and the security protocols; however, their evidence was not always detailed, and some steps of the installation was not included. These students also tended to focus on a more limited range of security protocols. The photographic evidence or the annotations were not always clear on the actions the student had taken and this made it more difficult to award marks.

To achieve well on this task students should ensure that their photographic evidence is clear and that the evidence can be seen clearly. They should ensure that they provide commentary to explain what each photograph or screenshot demonstrates what they are achieving and how this supports the

successful installation of the cabling system and security protocols. The evidence requirement in the brief is a guide to the minimum evidence that would be expected from students; however, students are free to include as much evidence as they feel demonstrates the steps they have taken so if students wish to include more evidence they should be encouraged to do so.

This series, there continued to be a lack of evidence of students using PPE. Whilst there were photographs of appropriate PPE the evidence, the photographs taken during the practical tasks do not show the students using the PPE or showed the students in non-PPE footwear / not using gloves / googles. To achieve higher marks, students should wear their PPE when completing tasks, include evidence of this, and include an explanation of what PPE they are using and how it helps them to adhere to relevant industry standards.

Assignment 2

Task 2

Overall, students were able to perform well in this task again this series. Students were once again asked to produce a test plan to test their cabling system and security protocols and to troubleshoot any issues that are present.

Students who performed well in this task utilised a number of different testing methods to test the data transmission capability of the cabling. These students tested a range of different components to ensure that data could be transmitted.

Students who performed less well tended to use a limited number of testing methods and repeated these multiple times rather than utilising a range of tests.

To achieve well on this task, students need to ensure that they are using a range of testing methods and not just repeating the same tests multiple times. The test plans for most students were briefer than would be expected, even for the better performing students. This was partially due to a successful installation, so students did not have the ability to troubleshoot issues. On the other hand, most brief plans were due to the limited range of tests being completed. Students should be ensuring they use a range of different tools and that they are also referring to how their installation meets any industry standards. Providing a wider range of tests and including more depth in the test plans should enable students to demonstrate their knowledge better for this task.

Assignment 3

Task 1

Overall, students were able to perform well in this task. Students were asked to troubleshoot issues with five different cables.

Students that performed well in this task were able to identify the faults in the cables, fix the faults and then demonstrate the cable working with cable testers. These students were able to take good quality images so that examiners could see that they had rewired the cables correctly and that they had correctly crimped the wires.

Students that performed less well in this task were able to identify and fix the faults in some, or all of the cables, however, the quality of the evidence remains an issue. Some students did not provide evidence to demonstrate that they had resolved the issues with the cables and some provided poor quality images so it was not possible to see the order of the wires in the cable or if the cable had been correctly crimped. Some students only provided evidence of one successful cable test which did not allow the examiner to determine if the cables were configured as pass through cables or not.

To achieve well in this task, students need to ensure that they have good quality evidence that clearly shows they have wired the cables correctly, that the cable is crimped and that they have tested the cable to show that it performs as requested in the brief. This evidence needs to be provided for each of the five

cables, even where students feel the evidence is the same for each cable, as without the evidence the examiner is unable to award marks. Students also need to make sure that their test plan explains what the issue they identified with the cable is, the steps they took to resolve this and the outcomes. Students could insert their photographic evidence into the test plan or they could provide a commentary next to their photographic evidence, whichever is most efficient for the student, to ensure that they are completing the test plan and they have all the evidence they need.

Assignment 3

Task 2

Overall, students were able to perform well in this task again this series. Students were provided with a Cisco Packet Tracer file and were asked to troubleshoot the issues with the network and to resolve these.

Students that performed well in this task were able to identify each of the issues with the network to resolve these. These students included the packet tracer file with the original issues and the packet tracer file once they had resolved all the issues to show that the network is now functioning. They also included a step by step test plan on what issues they identified, what actions they took and how this resolved the network issue.

Students that performed less well were able to identify some of the issues with the network and resolve them. Some students still did not include the packet tracer file after they had completed all their actions which made it difficult to award the students the marks as there is no evidence of the network functioning as expected.

To perform well in this task students are encouraged to provide screenshots of individual elements of the network in their test plan, as many already do, but they must ensure that they include the final image from the packet tracer showing all elements of the network functioning. Students should ensure that they are also looking at elements of the network, which may not be obvious issues. Each series there are some issues included within the network which do not affect the traffic across the network but could be resolved to ensure that the network functions more efficiently. In this series this was Printer1 which students could have changed to a wired connection if they wished. Students should make sure that they are not just relying on all elements of the network showing as green in the packet tracer.

Students should also ensure that they are providing depth in their test plans. They should explain what the issue is and how they plan to address it, ensuring to include evidence of the fix, as well as evidence to demonstrate that the issue has been resolved.

Assignment 3

Task 3

Overall, students were able to perform well in this task. In this series, the scenario given for the previous assignments was also utilised for this task to provide consistency for students. Students were asked to undertake a risk assessment of a client's network from the scenario provided.

Students that performed well in this task considered a range of risks that the business faced, identified the risk it posed and provide a range of solutions that were relevant to the business. These students were able to consider specific issues facing the business rather than considering groups of issues that the business needed to address. This enabled the students to provide more specific solutions.

Students that performed less well in this task were able to consider some of the risks facing the business and offer solutions, however, these tended to be more generic or addressing a group of issues rather than considering specific issues. This then meant that the solutions offered by the students tended to be more generic rather than bespoke to the business. Some of these students did tend to choose to include a wide range of risks, which they considered briefly, instead of considering a smaller number of risks in

more depth. To achieve the higher mark bands it is important that students ensure that they are providing a comprehensive consideration of the risks that they are choosing; the quality of their answers is likely to have a better outcome in their achievement.

To perform well in this task students should try to consider each risk on its own and how the business could address this. This would enable students to offer more specific solutions that would be more contextualised to the business.

Document information

The T Level Technical Qualification is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.

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