# Assignment Brief 2 (RQF)

## Higher National Certificate/Diploma in Computing

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| **Student Name/ID Number:** | |
| **Unit Number and Title:** | **Unit 2: Networking** |
| **Academic Year:** | **2021 – 2022** |
| **Unit Assessor:** | **Van Ho** |
| **Assignment Title:** | **Networking Infrastructure** |
| **Issue Date:** | **April 1st, 2021** |
| **Submission Date:** | |
| **Internal Verifier Name:** | |
| **Date:** | |

**Submission Format:**

*Format:*

- The submission is in the form of an individual written report. This should be written in a concise, formal business style using single spacing and font size 12. You are required to make use of headings, paragraphs and subsections as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. Please also provide a bibliography using the Harvard referencing system.

*Submission*

- Students are compulsory to submit the assignment in due date and in a way requested by the Tutor.
- The form of submission will be a soft copy posted on http://cms.greenwich.edu.vn/.
- Remember to convert the word file into PDF file before the submission on CMS.

*Note:*

- The individual Assignment *must* be your own work, and not copied by or from another student.
- If you use ideas, quotes or data (such as diagrams) from books, journals or other sources, you must reference your sources, using the Harvard style.
- Make sure that you understand and follow the guidelines to avoid plagiarism. Failure to comply this requirement will result in a failed assignment.

**Unit Learning Outcomes:**

**LO3** Design efficient networked systems.

**LO4** Implement and diagnose networked systems.

**Assignment Brief and Guidance:**

**Assignment scenario** (cont.)

The CEO Mr. Nguyen is happy with your first report and now he has asked you to analyse the specification from the institution, as given earlier.

You need to design and implement the networking project within a given timeframe:

**Task 2**

Design efficient networked systems:

- Prepare a written step-by-step plan of how you are going to design a Local Area Network including a blueprint of your LAN.
- Justify your choice of devices for your network design.
- Produce a test plan to evaluate this design for the requirements of bandwidth and cost constraints as per user specifications.
- Justify the security requirements and quality of services needed for selection of accessories.
- Suggest a maintenance schedule to support the networked system.

**Task 3**

Implement test and diagnose networked systems:

- Implement a networked system based on your prepared design.
- Conduct verification with, e.g., Ping, extended ping, trace route, telnet, SSH, etc.
- Record the test results and analyse these against expected results.
- Investigate what functionalities would allow the system to support device growth and the addition of communication devices.
- Discuss the significance of upgrades and security requirements in your recommendations.

| Learning Outcomes and Assessment Criteria (Assignment 1): | | | |
|---|---|---|---|
| Learning Outcome | Pass | Merit | Distinction |
| **LO3** | **P5** Provide a logical/physical design of the networked system with clear explanation and addressing table.<br><br>**P6** Evaluate the design to meet the requirements. | **M3** Install and configure network services and applications on your choice. | **D2** Design a maintenance schedule to support the networked system. |
| **LO4** | **P7** Implement a networked system based on a prepared design.<br><br>**P8** Document and analyse test results against expected results. | **M4** Recommend potential enhancements for the networked systems. | **D3** Use critical reflection to evaluate own work and justify valid conclusions. |