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| **BTEC LEVEL 3 IT**  ASSIGNMENT FRONT SHEET |  |

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| **Student Name:** |  | **MAG:** |  |
| **Unit:** | Unit 5 - Managing Networks | **Assignment:** | 1 - Network Managers |
| **Issue Date:** |  | **Due Date:** |  |

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| **Learning outcomes covered by this assignment:** |
| **1 Know about networking management tools and technologies**  Network technologies, Networking operating systems, Networking protocols, Layout, Network devices, Networking tools, Emerging technologies, Impact of emerging technologies  **2 Understand network management functions**  Network management functions: configuration; fault management; account management; performance variables; other activities |

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| **TASK** | **CRITERIA** | **EVIDENCE** | **COMPLETED** |
| 1 | **P1** Describe network technologies | Presentation - outlining the different network technologies, network OSs, layouts, protocols & devices. |  |
| 2 | **P2** Outline the purpose of networking tools. | Presentation - additional slide(s) to your presentation that explains the purpose of networking tools. |  |
| 3 | **P3** Identify emerging network technologies. | Magazine article - describing emerging network technologies. |  |
| 4 | **P4** Explain the functions of network management. | Report - explaining the key functions of network management. |  |
| 3 | **M1** Describe the potential impact of emerging network technologies. | Magazine article - explaining the impact of emerging network technologies in the real world. |  |
| 4 | **M2** Explain the goals of fault management. | Report - explanation for each section of the goals of each aspect of fault management. |  |
| 5 | **D1** Justify the inclusion of routine performance management activities within a network manager’s role. | Report - justification of routine performance management activities |  |

**ASSIGNMENT TASKS**

**Scenario**

You have just been appointed Network Manager at Orpheus Free School. To support the development of the technicians within your team, you have decided to create a training pack that will enable them to better understand the role and knowledge required of a Network Manager.

**Task 1:**

Create a presentation to explain the different network topologies, network operating systems, protocols, layouts and devices (servers, workstations, switches, routers, network interface card) that could be used by a Network Manager. Give practical examples and/or diagrams where appropriate.

**[P1]**

**Task 2:**

In your presentation outline the purpose of networking tools in terms of fault management, performance management. Give examples where appropriate.

**[P2]**

**Task 3**

Write a magazine article, which is to be published in an industry leading publication, which identifies the emerging **network** technologies (e.g. *server virtualisation, video on demand*) you believe will play a vital role in the way your users will interact with computer systems and networks in the coming years. Your article should also include appropriate visuals.

**[P3]**

**For M1**

Your magazine article should explain the potential impact of the emerging network technologies. This could include: cabling, storage, control, mobile working, ease of use etc.

**[M1]**

**Task 4**

There are many network management functions that help administrators and operators manage and configure networks to keep them running effectively.

Produce a report explaining the functions of network management. This will contain sub-headings for sections:

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| * configuration * fault management * account management * performance variables   (e.g. network throughput, user response times, line utilisation) | * security * data logging * checking performance & traffic * reporting |

**For M2**

Add an explanation to each section of your report of the goals of fault management for each aspect - i.e. why it is necessary, the aim and the consequences of failing.

**[M2]**

**Task 5**

Add a section at the bottom of your report that justifies the inclusion of routine performance management activities within a network manager’s role. Explain what the tasks are and outline the benefits.

**[D1]**