# COMP3000

# Computing Project

# 2020/2021

**Project Title:**

# Network Management Application with Enhanced Security

## Links:

**Source Code:** <https://github.com/jwhite96/COMP3000>

**Backlog:** <https://tasks.office.com/live.plymouth.ac.uk/en-US/Home/Planner/#/plantaskboard?groupId=434e3152-1419-4e0c-b2c3-c4e0d0d4a459&planId=JwVQaMjgi06AWHtSP1mLf5YABBy3>

## Project Vision:

For [who?]

Whose [problem]

The [name of your product]

Is a [type of product]

That [what are the key reasons]

* More and more usage of SDN for managing networks
* Improved security features compared to most systems
* Separation of the management and data plane, having one centralised controller for the network

## Risk Plan:

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Risk ID** | **Risk Category** | **Risk Description** | **Impact Score (1-5)** | **Likelihood %** | **Risk Rating** | **Risk Response** | **Contingency Plan** |
| **Project Execution** | | | | | | | |
| R1 | Project Execution | Project too complicated/difficult to complete | 5 | 25% | 1.25 | Risk Avoidance | Thorough technical analysis and prototyping |
| R2 | Project Execution | Run time performance issues | 3 | 25% | 0.75 | Mitigation | Code optimization to improve performance |
| R3 | Project Execution | MVC compatibility issues | 3 | 40% | 1.2 | Mitigation | Adequate testing during each development stage to check each component is compatible |
| R4 | Project Execution | Project not within scope | 3 | 30% | 0.9 | Risk Avoidance | Ensure project is still within scope during supervisor meetings |
| R5 | Project Execution | Changes to technologies during development | 2 | 35% | 0.7 | Mitigation | None |
| **Personnel Risk** | | | | | | | |
| R6 | Personnel | Insufficient knowledge to complete system requirements | 4 | 25% | 1 | Risk Avoidance | Ensure enough research is carried out before development begins (mostly during sprint zero) |
| R7 | Personnel | Unexpected illness or personal issues | 2 | 30% | 0.6 | Mitigation | Alter current schedule and pushback tasks into next sprints if required |
| **Schedule Risk** | | | | | | | |
| R8 | Schedule | Unexpected server downtime/maintenance | 1 | 75% | 0.75 | Acceptance | None |
| R9 | Schedule | Time constraints due to other commitments | 3 | 30% | 0.9 | Mitigation | Improved planning and alteration to current schedule |
| R10 | Schedule | Issues related to the COVID-19 Pandemic | 2 | 60% | 1.2 | Mitigation | [*Dependant on restrictions and changes*] |
| **Compliance Risk** | | | | | | | |
| R11 | Compliance | Potential copyright infringement with similar products | 1 | 25% | 0.25 | Acceptance | As this is project is for educational purposes this risk can be accepted but will still need to be taken into consideration |
| R12 | Compliance | Unintentional regulatory noncompliance’s | 1 | 10% | 0.1 | Acceptance | Same as above |
| **Loss** | | | | | | | |
| R13 | Loss | Accidental loss of work | 3 | 20% | 0.6 | Mitigation | Create multiple backups to keep loss to a minimum |
| R14 | Loss | Theft/Fraud | 4 | 10% | 0.4 | Acceptance | None |

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| **Risk Category** | **Definition** |
| Project Execution | Risks affecting the development of the project e.g. systems, technologies, code etc. |
| Personnel | Risks affecting the human aspect of the project |
| Schedule | Risks that could affect the schedule and cause time delays during development |
| Compliance | Risks associated with failure to meet regulatory standards |
| Loss | Risks related to the loss of work, hardware or data |

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| **Risk Response** | **Definition** |
| Risk Avoidance | Eliminating the risk before it occurs |
| Mitigation | Reducing the damage caused when this risk occurs |
| Acceptance | Accepting the risk |

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| --- | --- |
| **Probability Level** | **Range** |
| High | Greater than 50% |
| Significant | 30-50% chance |
| Moderate | 10-29% chance |
| Low | Less than 10% chance |