



VICTORIA UNIVERSITY OF  
**WELLINGTON**  
TE HERENGA WAKA

## CYBR371: SYSTEM AND NETWORK SECURITY 2024– T1

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### *Lab 3: Denial of Service & MitM Attacks*

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*Submission Deadline: 23:59:00 (NZST) on Sunday, 28 April 2024*

Complete the following netlabs (accessible from `nuku/modules/`):

- Denial of Service Attacks
- ARP Spoofing and MiTM Attacks.

Write the answers to the questions in the order they appear in this document. Submit the file (.pdf) using the ecs submission system (i.e. Lab3). <https://apps.ecs.vuw.ac.nz/submit/CYBR371/Lab3>.

## 1 Part 1 - Denial of Service Attacks

- Q 1.1** [4 points] Why aren't new operating systems susceptible to Ping of Death attack? (250 words max)
- Q 1.2** [4 points] How can you make the Ping of Death packets effective against a target these days? (250 words max)
- Q 1.3** [8 points] Briefly explain the countermeasures to stop and defend against a Smurf attack? (250 words max).
- Q 1.4** [8 points] Did the Smurf attack slow down the network? Compare the average ping response time before and during the Smurf attack.

## 2 Part 2 - ARP Spoofing and MiTM Attacks

- Q 2.1** [8 points] Is Ettercap using ARP spoofing to manipulate http images and JavaScripts? Explain your answer (250 words max).
- Q 2.2** [4 points] What would be the effect if instead of http, we had https? Explain your answer (150 words max).
- Q 2.3** [4 points] What would you change to replace every image in the html page with an image of VUW logo!?