LESSON PLAN – Networking Basics

This section focuses on the background knowledge around networking, both on the internet and locally. It should cover all theory and concepts required to move on later to more advanced lessons.

Overview

- Personal Introduction
- Concepts
 - Packets
 - IP Addresses
 - Subnet masks
 - Routing/Gateways
 - Domain Names
 - The Internet
 - $\circ \quad \text{Services and Ports} \\$
 - Firewalls
- Network Hardware
 - Ethernet
 - Wireless (802.11)
 - Routers
 - Switches
 - Hubs
 - Modems
- Networking Tools Overview
- Practical
 - Connect computer to Ethernet router
 - \circ $\;$ Manually specify an IP and mac address $\;$
 - \circ $\;$ Discover other computers on the network
 - Send 3 other students a file via netsend

Materials

- 1. Section Presentation (slides)
- 2. Overview Sheet
- 3. Practical and Assignment Sheet
- 4. Sharing Routers (enough for 1 port per student)