

Project: Small Office Network Design & Deployment

Overview

Designed and implemented a small office network as part of a Certificate III ICT Networking project. The deployment included LAN design, printer infrastructure, security implementation and testing.

Tools & Skills

Router & Switch | Windows 10 | DHCP | WPA2 Encryption | Windows Firewall | Troubleshooting Tools (ping, ipconfig, tracert)

Key Tasks

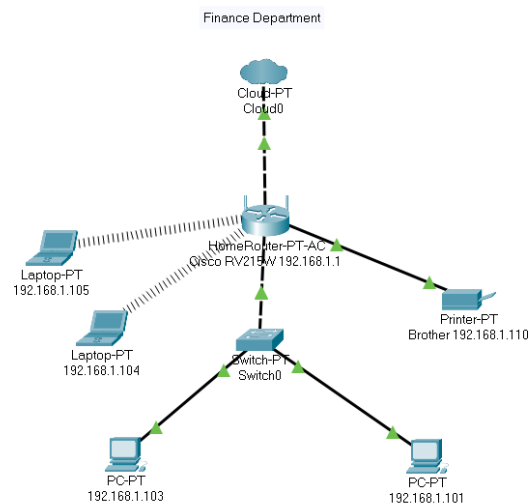
- Gathered client requirements and created network topology
- Configured desktops, laptops, router, and printer with secure connectivity
- Implemented Windows Firewall, password authentication, and WPA2 router encryption
- Performed troubleshooting with ping, ipconfig, tracert, and speed test
- Created maintenance schedule.

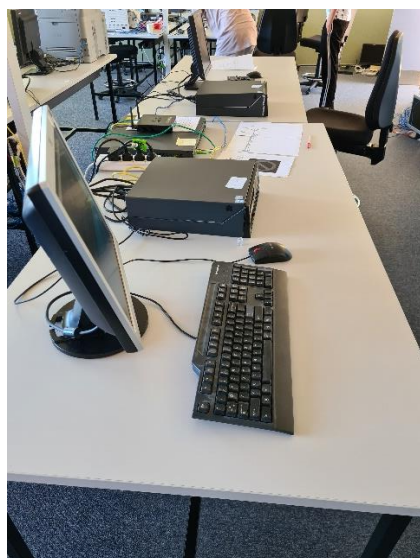
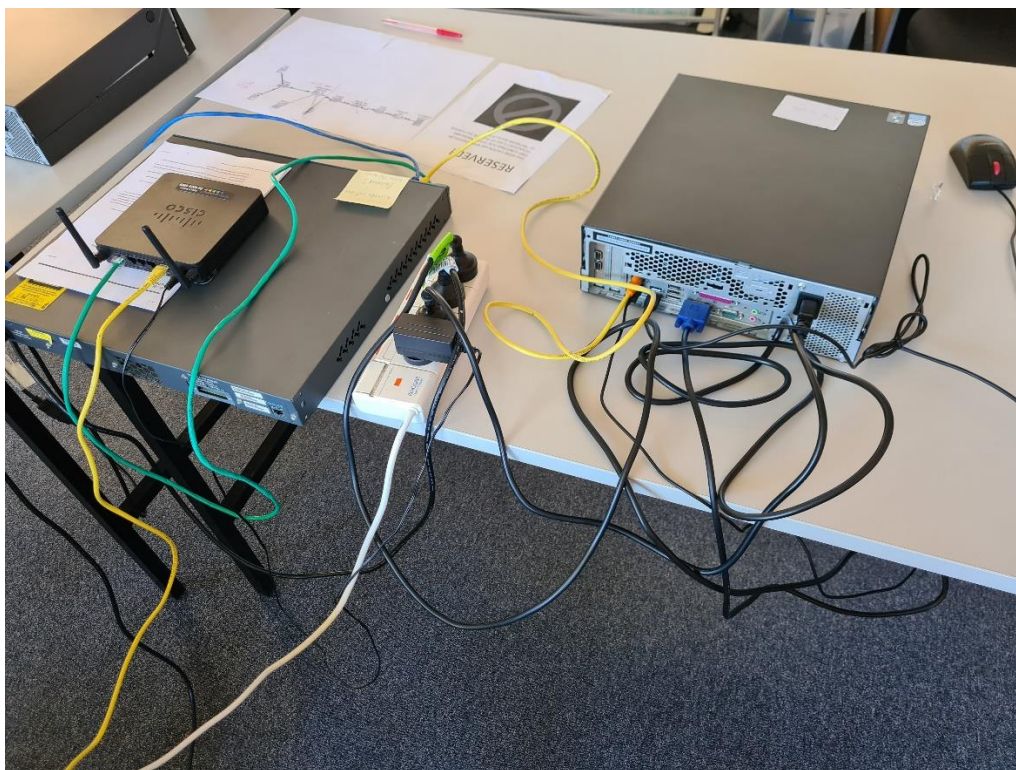
Outcome

Delivered a fully functional small office network with documented procedures, secure connectivity, and client sign-off.

Note

Final Network Diagram



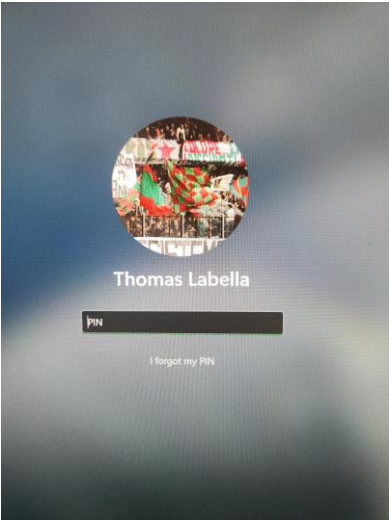
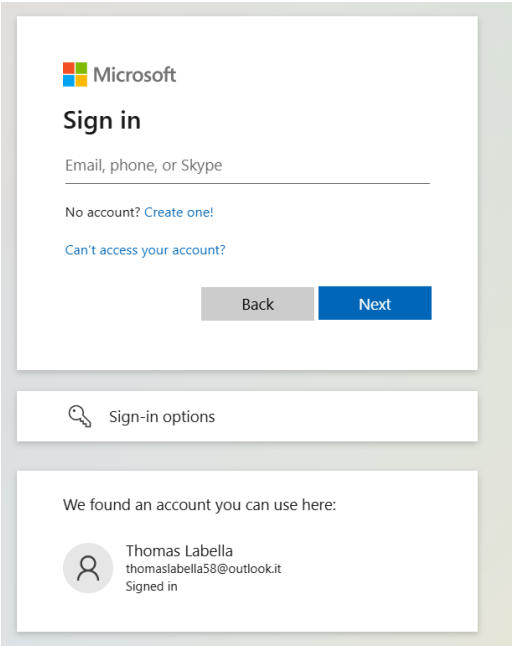


Network Configurations Details

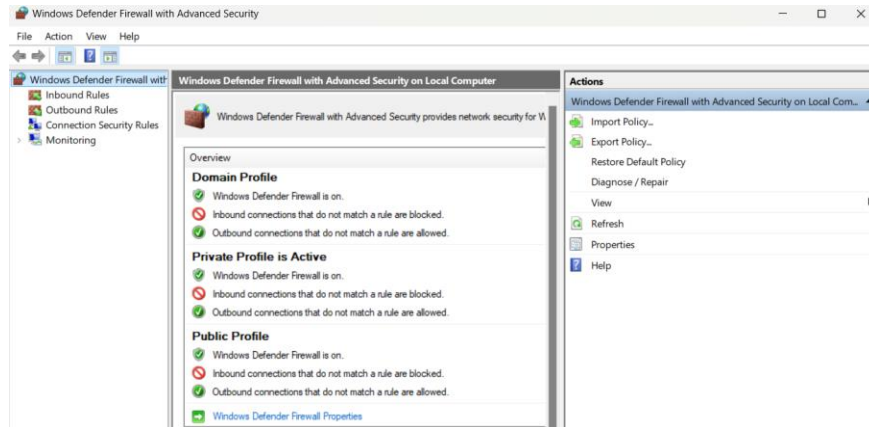
DEVICE DETAILS	IP ADDRESSING (IF DYNAMIC LIST DHCP)
Home Router (Cisco RV215W)	192.168.1.1
Desktop 1	DHCP
Desktop 2	DHCP
Printer	192.168.1.110
Laptop 1	DHCP
Laptop 2	DHCP
Switch	Cisco

Security Features

Authentication passwords



Windows Firewall



WPA2 Router encryption

Wireless Settings

2.4GHz | 5GHz

☒ Enable Wireless Radio

Network Name (SSID): ☐ Hide SSID

Security:

Version: ☐ Auto ☒ WPA2-PSK

Encryption: ☐ Auto ☐ TKIP ☒ AES

Password:

Mode:

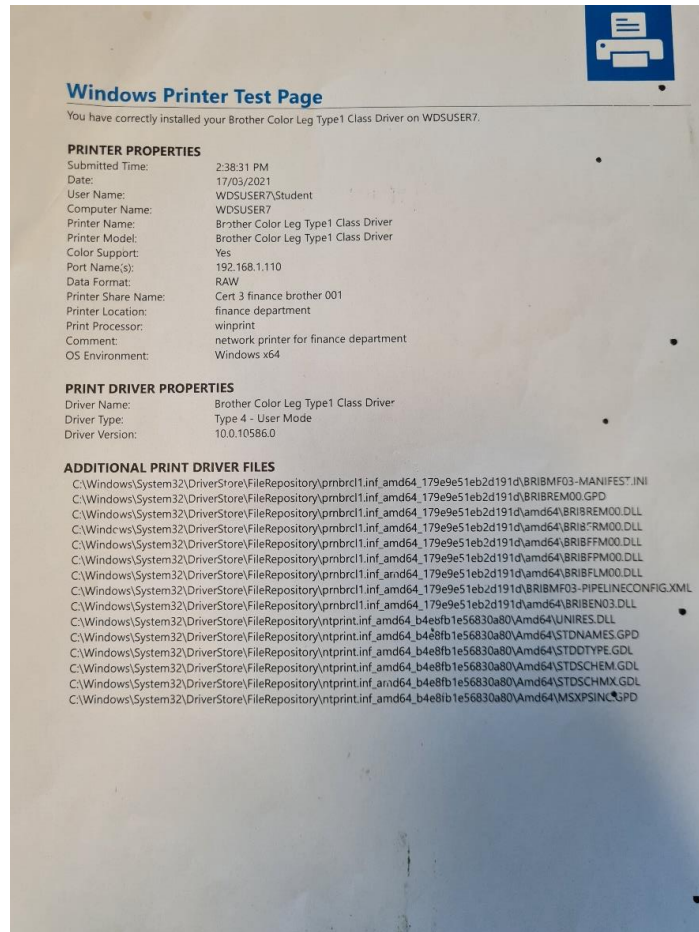
Channel:

Channel Width:

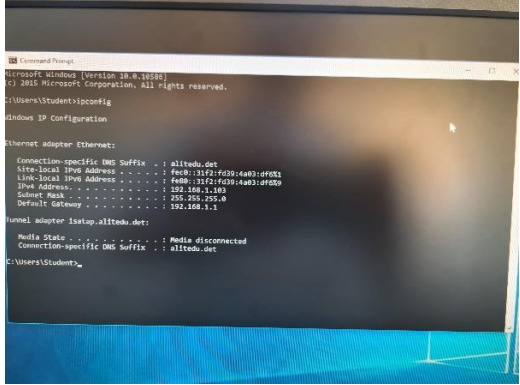
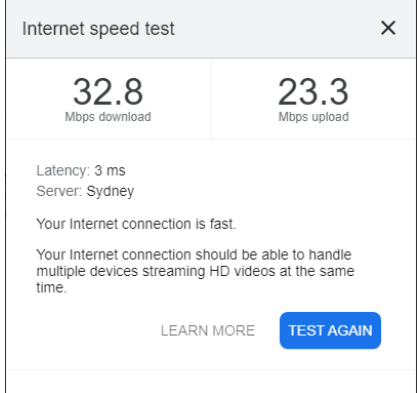
Transmit Power: ☐ Low ☐ Middle ☒ High

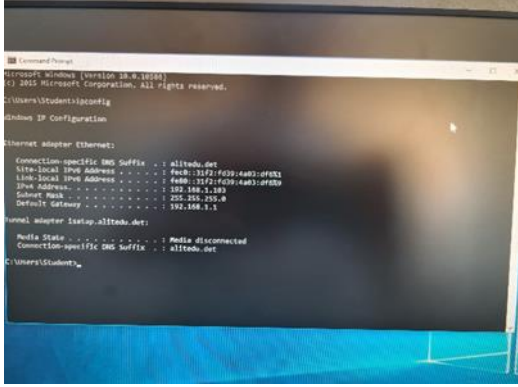
Save

Printing Infrastructure Design Breakdown



Final Testing

Test	Test Performed	Test Results
1	Ping test.	 <p>OK</p>
2	Speed test.	 <p>OK</p>
3	Speech printer test.	OK
4	Ipconfig.	

		 <p>OK</p>
5	Trace route tool.	OK

Maintenance Schedule for Printer and other hardware

<i>Preventative Maintenance Task</i>	<i>Daily</i>	<i>Weekly</i>	<i>Monthly</i>	<i>When Required</i>
Clean drum unit of the printer.		✓		Printing quality.
Clean laser scanner windows.			✓	Printing quality.
Check operating system updates.			✓	Operating system functionality.
Data backups for computers.			✓	Data collection.
Check integrity and performance by using			✓	Hardware and software performance.

diagnostic tools.				
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