Lab Number: 1. Installation and Configuration

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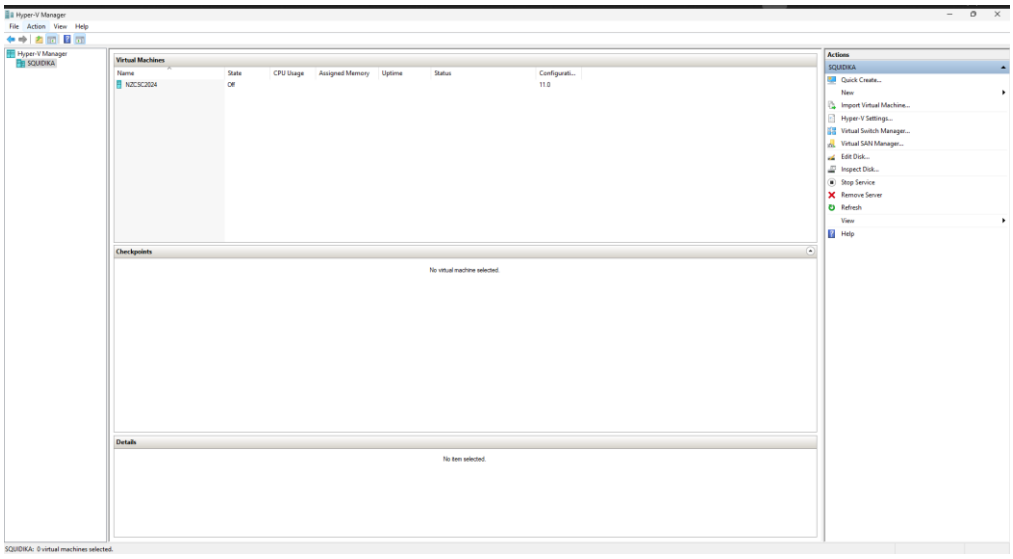
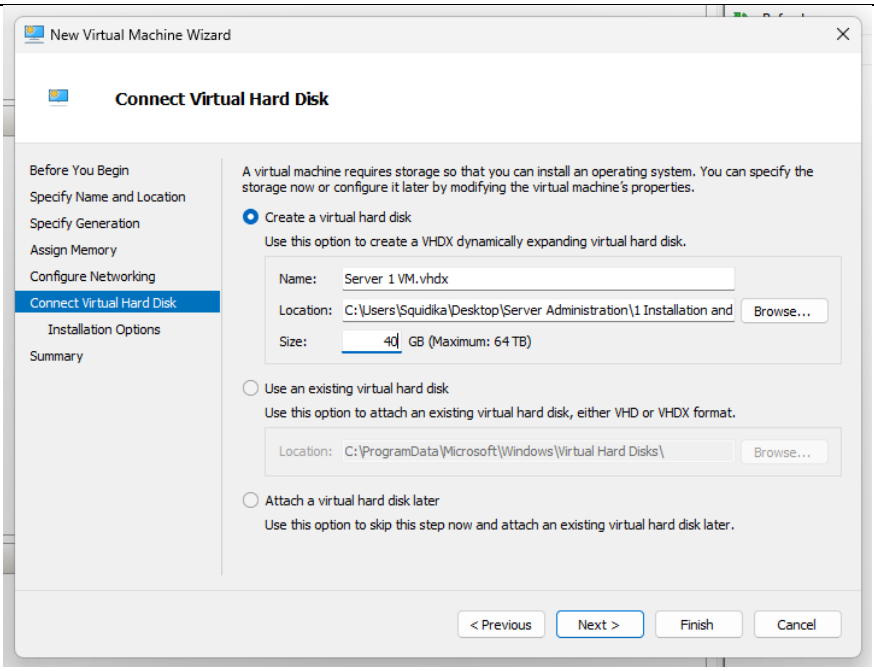
Section Summary	Section 1: installation and initial configuration Goals Complete the following implementation tasks for both WS1 and WS2: • Create 2 server virtual machines and install Windows Server 2019 Datacenter. • Create 1 client machine and install Windows 10 • Set the default administrator user password, time-zone, date-time format and power settings. • Design a Class B IP addressing scheme for your network and configure the manual IPv4 address configurations. • Use the control panel to discover and configure settings • Set a Windows Registry variable • Turn windows firewall/defender off • Cable the network and test ping connectivity between devices. Implementation steps 1. Install VMware Workstation Professional (VMware) on your laptop/device using the supplementary instructions. 2. Install Windows Server 2019 Data Centre (Desktop experience) virtual machine using VMware and the ISO files provided by your tutor. a. Minimum Hard disk size: 40GB b. Bridged network adapter – to physical network adapter c. Minimum RAM: 4GB d. Multi-file 3. Set the following on each server using the control panel: a. **Your user and the default Administrator user password: Router01 (**blank by default) **b. Give each server a computer name: WS1 or WS2 respectively** c. Timezone: Auckland, NZ d. Calendar: Gregorian e. First day of week: Sunday f. Short date format: e.g. 5/4/2021 g. Long date format: e.g. Wednesday, 5 April 2021 h. Time format: e.g. 9:40:07 AM i. Power: High performance plan

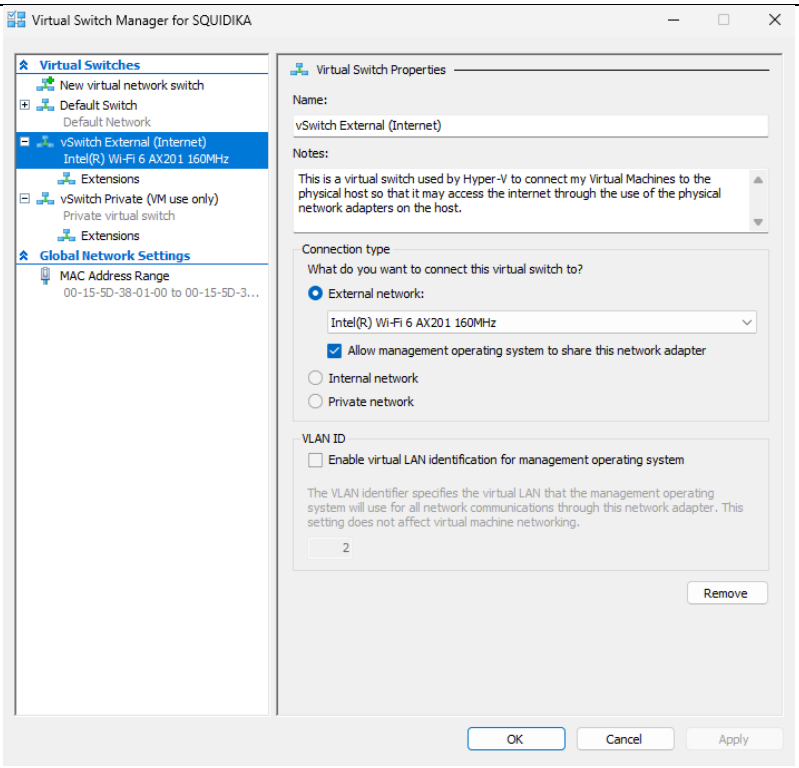
	4. Design the IP addressing scheme for your network and manually configure: a. IPv4 address b. Subnet mask c. Leave default gateway blank d. DNS server: WS1 IP address e. Alternate DNS server: WS2 IP address 5. Turn on Network discovery and file sharing through the control panel 6. Find the default settings for '**processor scheduling'** and '**Data prevention and execution'** in Control Panel. 7. Update any required drivers for any hardware components highlighted in Device Manager. 8. Set the HKEY_CLASSES_ROOT->.ac3 windows registry settings to: **audio**. 9. Cable the network as indicated in the project diagram. 10. Turn Windows firewall/defender off 11. Use command prompt to ensure WS1, WS2 and the client VMs are connected.
1.	For the duration of my labs, I will be using Hyper-V. 

2.a

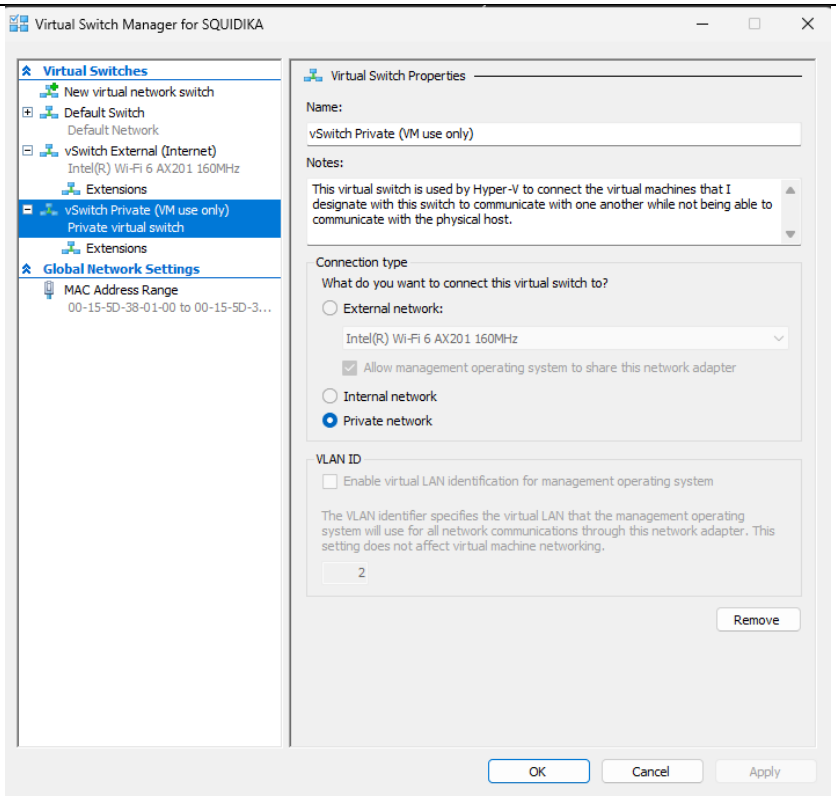


40GB Virtual Disk

2.b



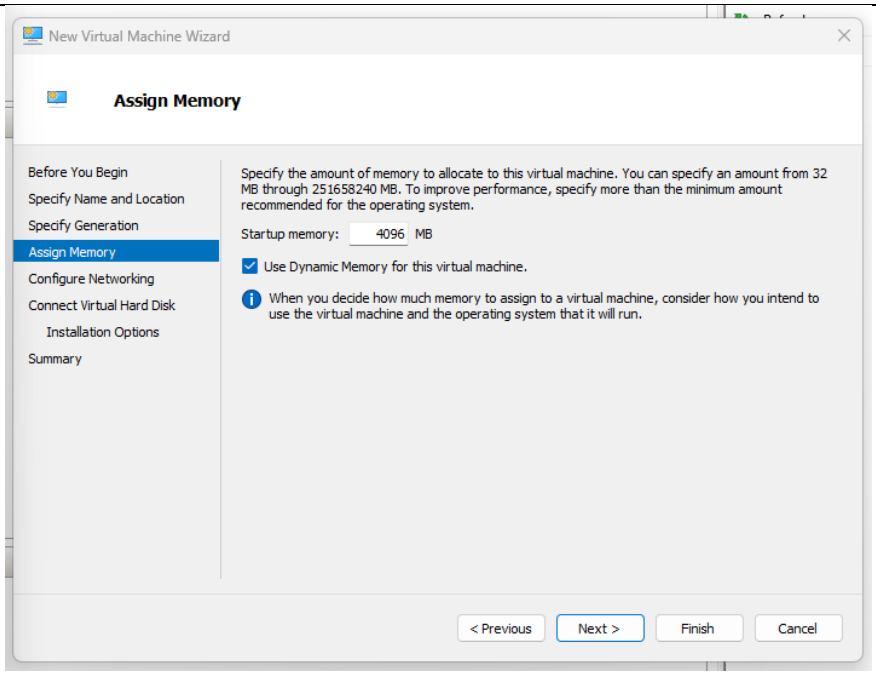
External Switch



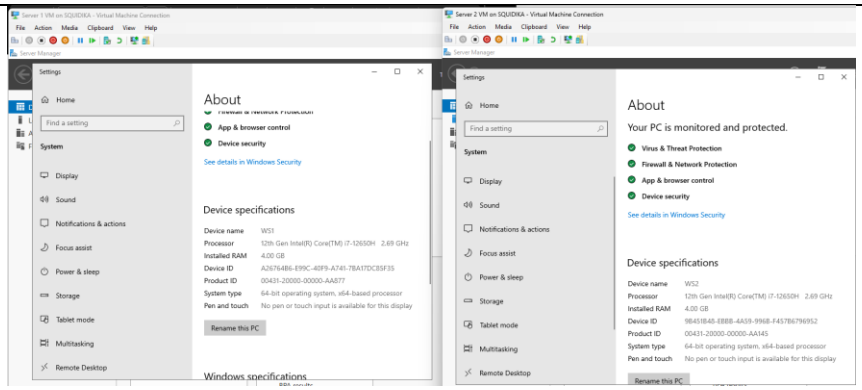
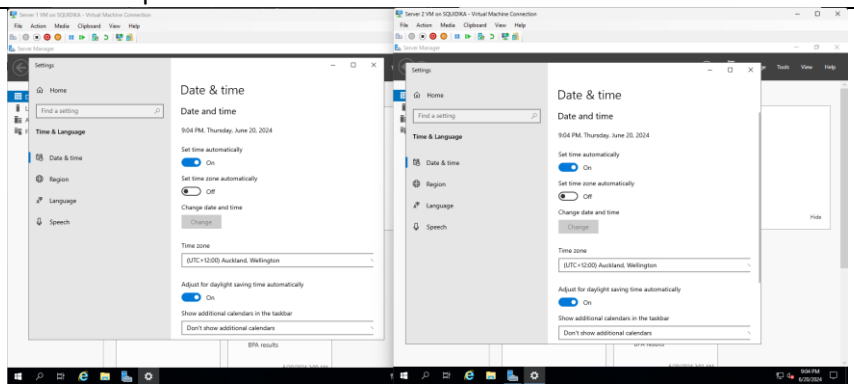
Private Switch

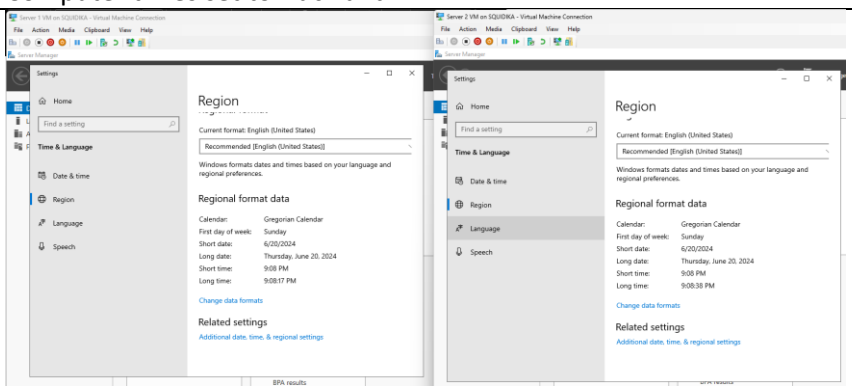
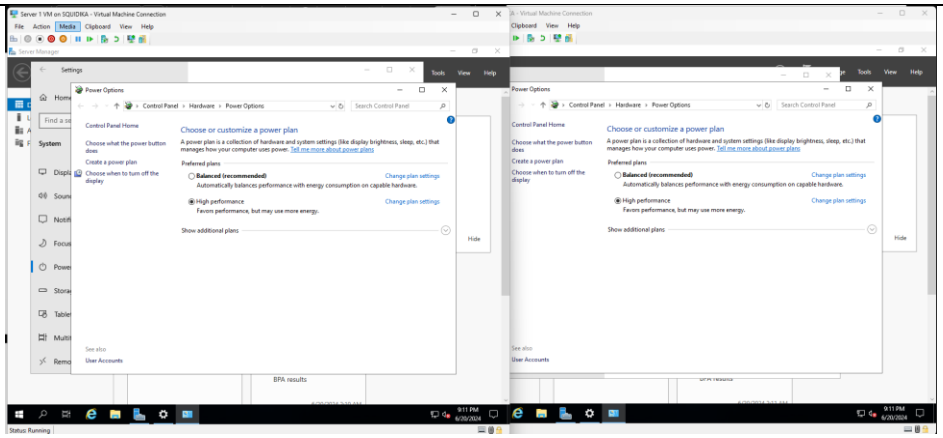
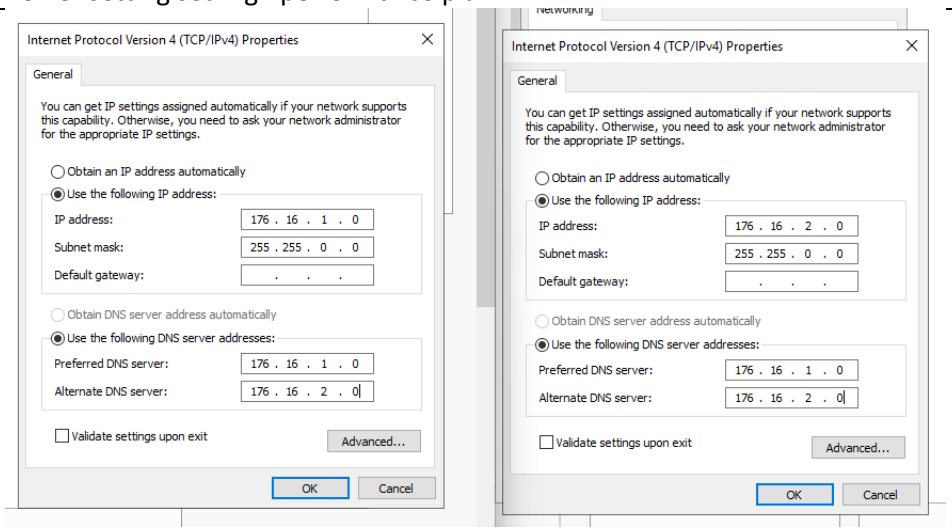
Creation of External and Private vSwitches to create an internal network between VM's and external network to interact with the internet.

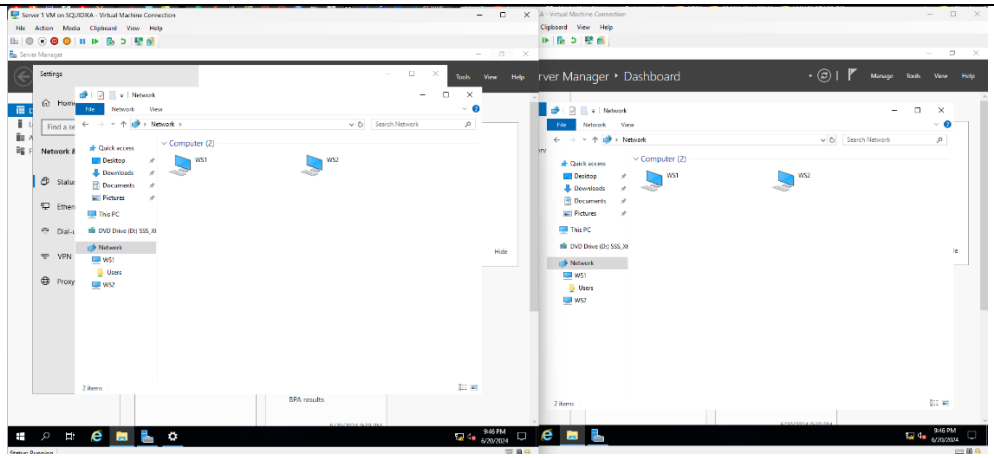
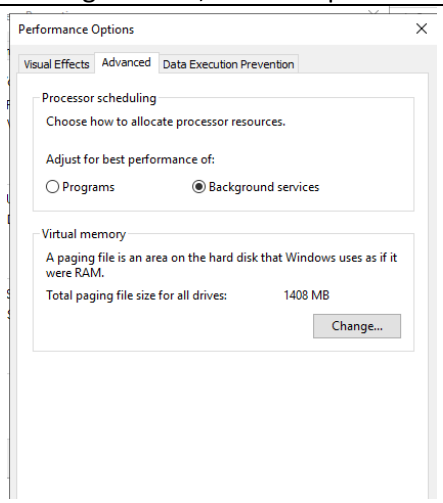
2.c

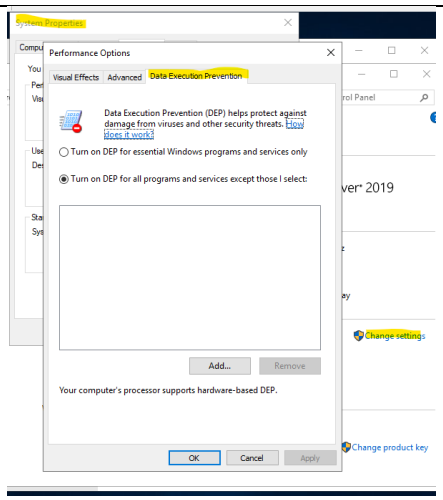
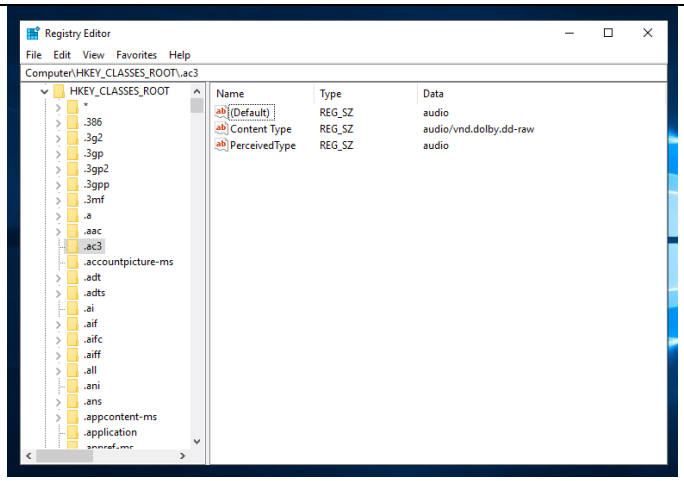
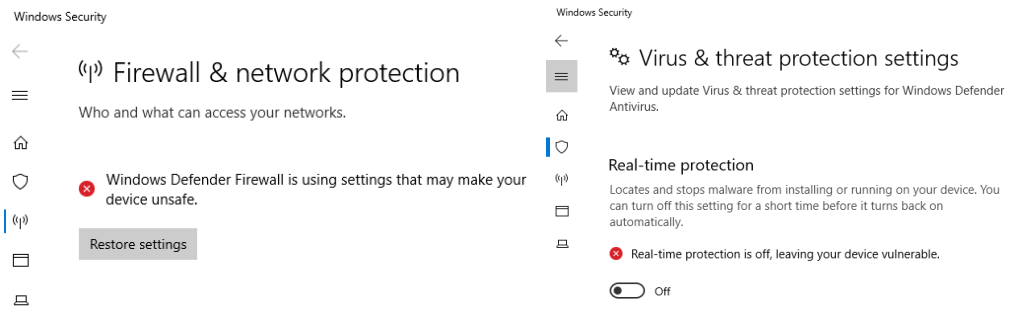


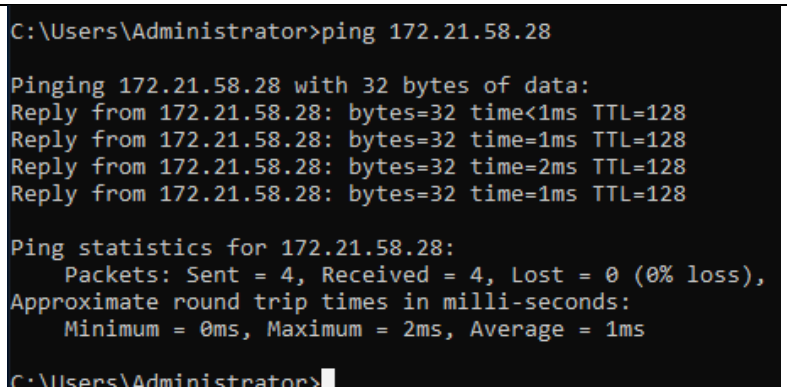
Assigned 4GB RAM

2.d	Not enabled on Hyper-V
3.a	 Password Router1
3.b	 Server computer names sets
3.c	

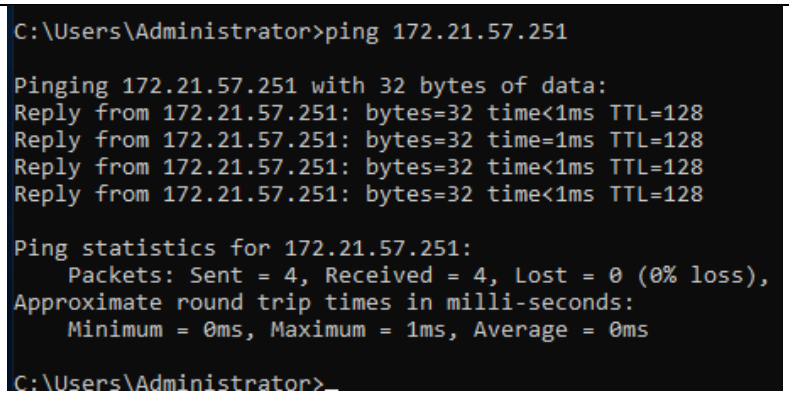
	Computer times set to Auckland
3.d	 Calendar set above
3.e	First day of the week set above
3.f	Short date set above
3.g	Long date set above
3.h	Time format set above
3.i	 Power setting set High performance plan
4.a	 Configure class B ip address scheme:

	Network address - 176.16.0.0/16
4.b	Subnet mask set 255.255.248.0
4.c	Default gateway blank
4.d	DNS set to WS1 IP address
4.e	Alternate DNS set to WS2 IP address
5	 Sharing enabled, both computers discoverable on the network.
6	 Default processor scheduling

	 Default Data prevention and execution
7	Drivers updated
8	 HKEY_CLASSES_ROOT->.ac3 windows registry default set to audio
9	Lab set up locally on device, no connection to ethernet required
10	 Fire wall and defender off
11	Basic ping between both server on the private network.



WS2 > WS1



WS1 > WS2

List At the three most useful Internet resources that you used (provided by the tutor)

- Install Window server on VM
- https://www.youtube.com/watch?v=7LxauswRUoE

- Date and time format
- https://www.youtube.com/watch?v=al0aBV6n9O0

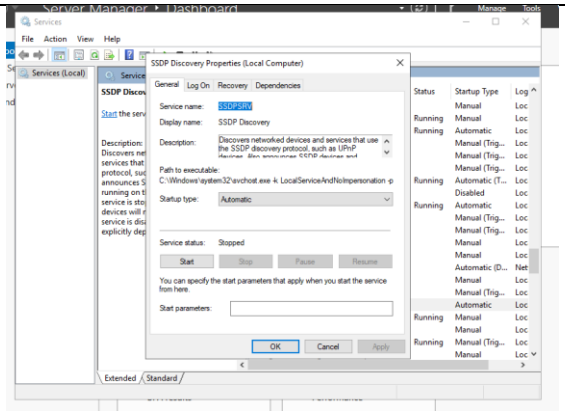
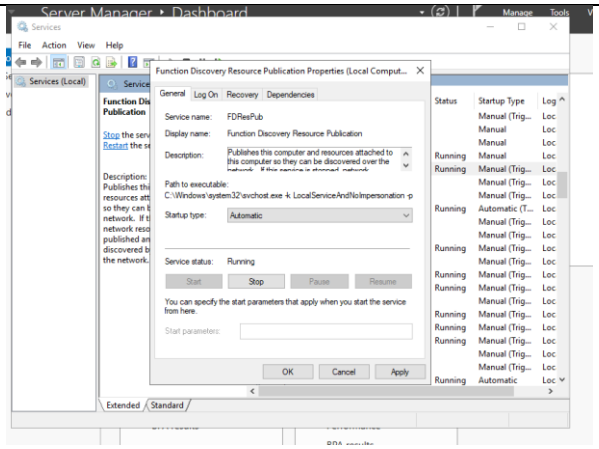
- Windows Power settings
- https://www.youtube.com/watch?v=y0R8eZ7enwY

List all (at least three) Internet resources that you found and used that were not provided by the tutor)

- https://www.microsoftpressstore.com/articles/article.aspx?p=2201312&seqNum=5

- https://docs.microsoft.com/en-us/troubleshoot/windows-server/deployment/use-device-manager-configure-devices

- https://www.computerhope.com/issues/ch001348.htm

Problem	Solution
Network discovery disabled.	 Set SSDP Discovery to Automatic and restart the service.
Sharing discovery disabled.	 Set Function Discovery Resource Publication to Automatic and restart the service.