

Assignment 1

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Installing Windows Server

In this section, we installed Windows server using VMware. We added two hard drives, one 100g and one 40g, 4g's of memory, 2 processors with 1 core and finally two network adapters. We run slmgr /xpr to make sure we have activated windows, then we install VMware tools.

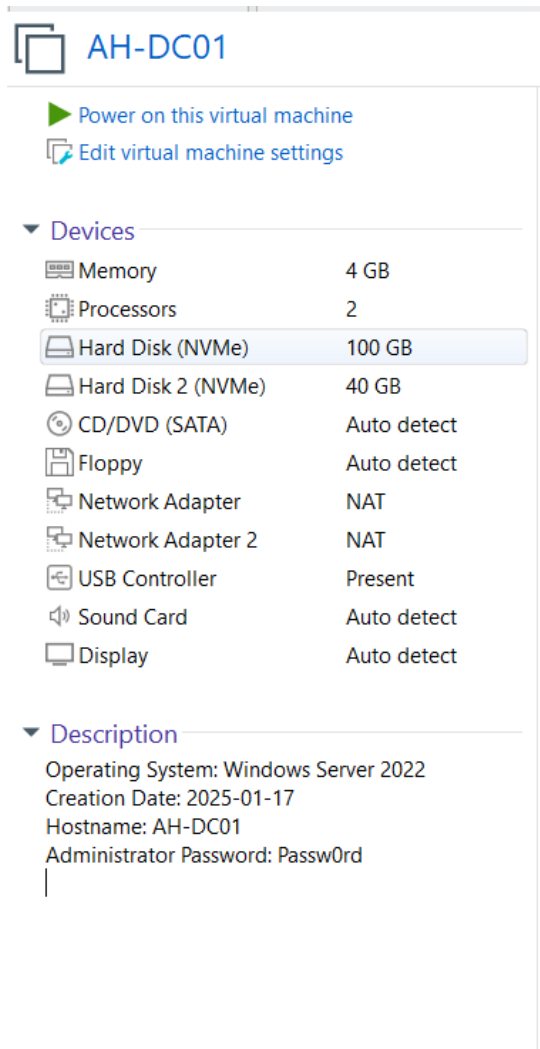
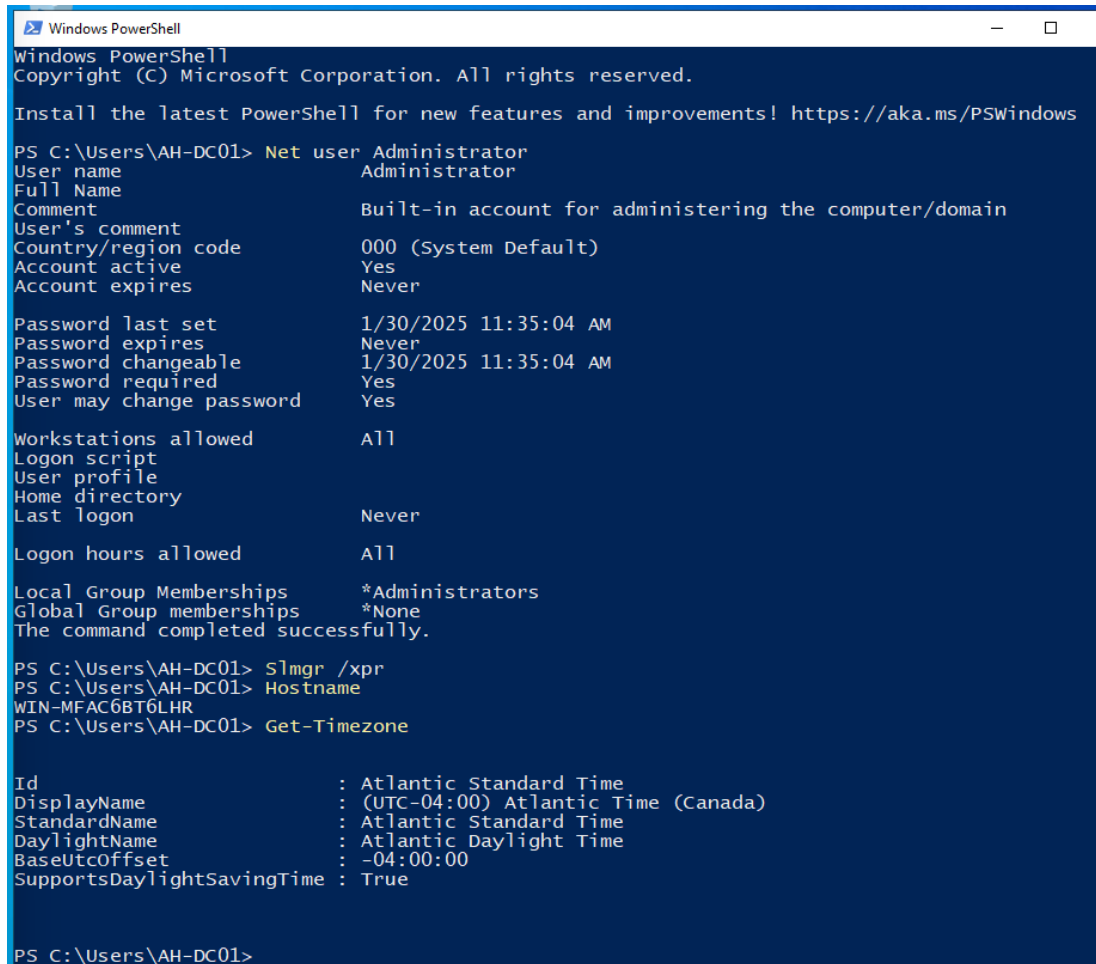


Figure 1. Description of Virtual Machine

PowerShell Commands

In this section, we will be running some PowerShell commands to tell us about the VM we just setup. These commands are Net User Administrator, slmgr /xpr, Hostname, and Get-TimeZone.



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\AH-DC01> Net user Administrator
User name           Administrator
Full Name
Comment             Built-in account for administering the computer/domain
User's comment
Country/region code 000 (System Default)
Account active       Yes
Account expires      Never

Password last set    1/30/2025 11:35:04 AM
Password expires     Never
Password changeable  1/30/2025 11:35:04 AM
Password required    Yes
User may change password Yes

Workstations allowed All
Logon script
User profile
Home directory
Last logon           Never

Logon hours allowed  All

Local Group Memberships  *Administrators
Global Group memberships *None
The command completed successfully.

PS C:\Users\AH-DC01> Slmgr /xpr
PS C:\Users\AH-DC01> Hostname
WIN-MFAC6BT6LHR
PS C:\Users\AH-DC01> Get-Timezone

Id                : Atlantic Standard Time
DisplayName        : (UTC-04:00) Atlantic Time (Canada)
StandardName       : Atlantic Standard Time
DaylightName       : Atlantic Daylight Time
BaseUtcOffset      : -04:00:00
SupportsDaylightSavingTime : True

PS C:\Users\AH-DC01>
```

Figure 2. Screenshot of PowerShell Commands output.

IP Configuration

In this section, we will be setting up our two nat controllers with proper dns and ip settings.

To do this, we use control panel to find our network adapters, then update the ips and dns ips to match the instructions.

```
Administrator: Windows PowerShell
ipconfig /all | Format-List

ComputerName           : WIN-MFAC6BT6LHR
InterfaceAlias         : Ethernet0
InterfaceIndex         : 6
InterfaceDescription   : Intel(R) 82574L Gigabit Network Connection #2
NetCompartment.CompartmentId : 1
NetCompartment.CompartmentDescription : Default Compartment
NetAdapter.LinkLayerAddress : 00-0C-29-E9-C3-F1
NetAdapter.Status      : Up
NetProfile.Name         : Network
NetProfile.NetworkCategory : Public
NetProfile.IPv6Connectivity : NoTraffic
NetProfile.IPv4Connectivity : Internet
IPv6LinkLocalAddress    : fe80::8d04:261f:bd74:d885%6
IPv4Address             : 192.168.179.20
IPv6DefaultGateway      :
IPv4DefaultGateway      : 192.168.179.2
NetIPv6Interface.NlMTU  : 1500
NetIPv4Interface.NlMTU  : 1500
NetIPv6Interface.DHCP   : Enabled
NetIPv4Interface.DHCP   : Disabled
DNSServer               : 192.168.179.20
                       : 8.8.8.8

ComputerName           : WIN-MFAC6BT6LHR
InterfaceAlias         : Ethernet1
InterfaceIndex         : 4
InterfaceDescription   : Intel(R) 82574L Gigabit Network Connection
NetCompartment.CompartmentId : 1
NetCompartment.CompartmentDescription : Default Compartment
NetAdapter.LinkLayerAddress : 00-0C-29-E9-C3-FB
NetAdapter.Status      : Up
NetProfile.Name         : Unidentified network
NetProfile.NetworkCategory : Public
NetProfile.IPv6Connectivity : NoTraffic
NetProfile.IPv4Connectivity : LocalNetwork
IPv6LinkLocalAddress    : fe80::51a:5f2e:a395:c22%4
IPv4Address             : 192.168.179.21
IPv6DefaultGateway      :
IPv4DefaultGateway      :
NetIPv6Interface.NlMTU  : 1500
NetIPv4Interface.NlMTU  : 1500
NetIPv6Interface.DHCP   : Enabled
NetIPv4Interface.DHCP   : Disabled
DNSServer               : fec0:0:0:ffff::1
                       : fec0:0:0:ffff::2
```

Figure 3. Updated Ip's.

Installing Active Directory

Next, we will install active directory and domain services. We do this through the add roles and features section of server manager. After AD and DS are installed, we restart the machine. We then promote our server to the primary domain controller. We do this by adding a new forest, entering our FQDN into the root domain name. We then accept the NETBIOS name, which is SERVER. We also accept the AD DS database, logfiles and SYSVOL locations. Lastly, we view our script settings and record them.

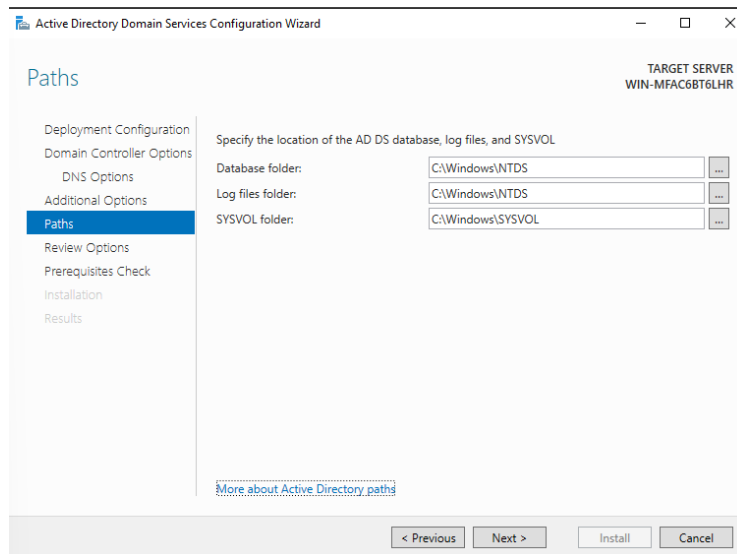


Figure 4. File path screenshot.

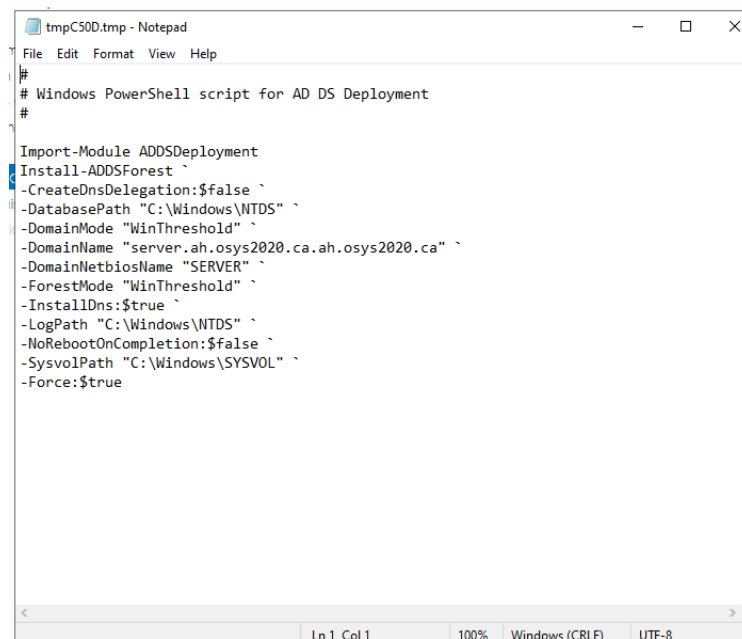


Figure 5. Script settings screenshot.

Setup DNS

In this section, we will be configuring our DNS server properties. To do this we open the DNS tool through server manager and click on the properties for our DNS. Under interface, we uncheck our IPv6 addresses. Under forwarders, we delete everything and add our gateway address.

Creating H:/ Data Drive

In this section, we will be creating a NTFS drive with the letter H and the label data with our current 40g second drive. To do this we access computer management then disk management. From there we create a simple volume on our 40g drive, following all the steps in the instructions.

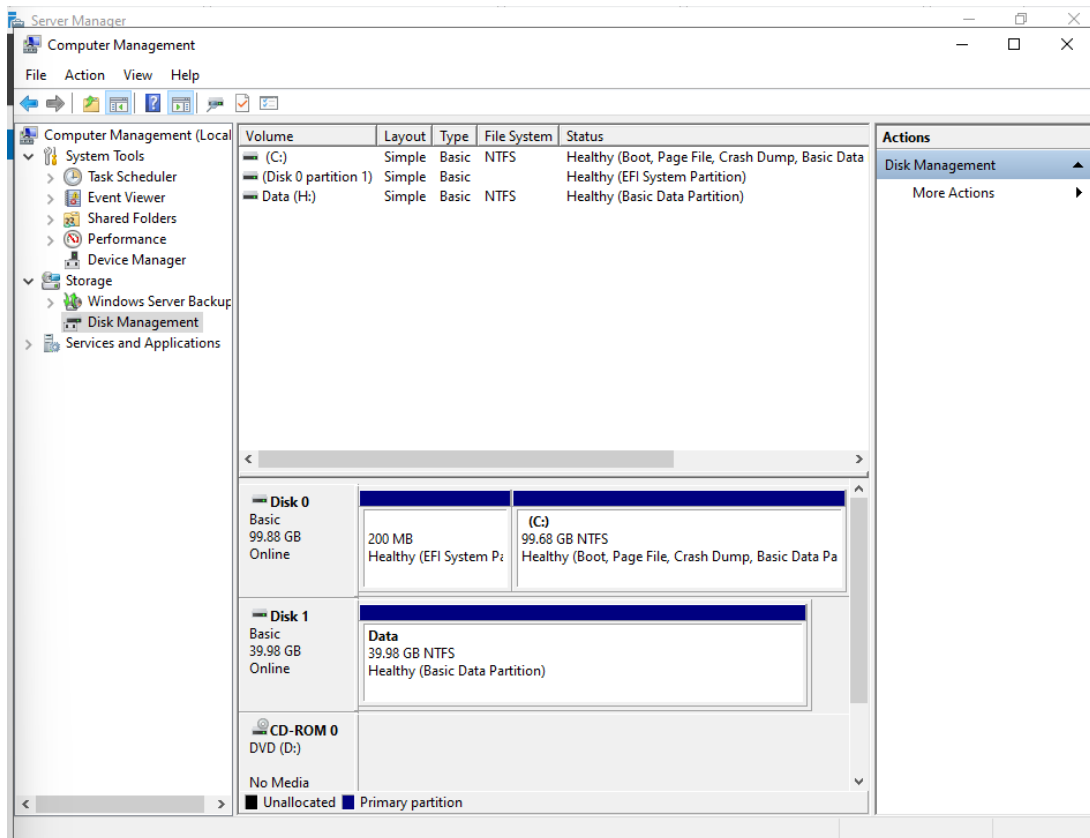


Figure 6. H disk created.

Adding Users and Groups

In this section, we will be using the users and computers tool in active directory to add a new OU called techs, a new group called SysOps_gp, and a new user called SysOp.ah. The new user will be a part of the Domain users group and SysOps_gp group.

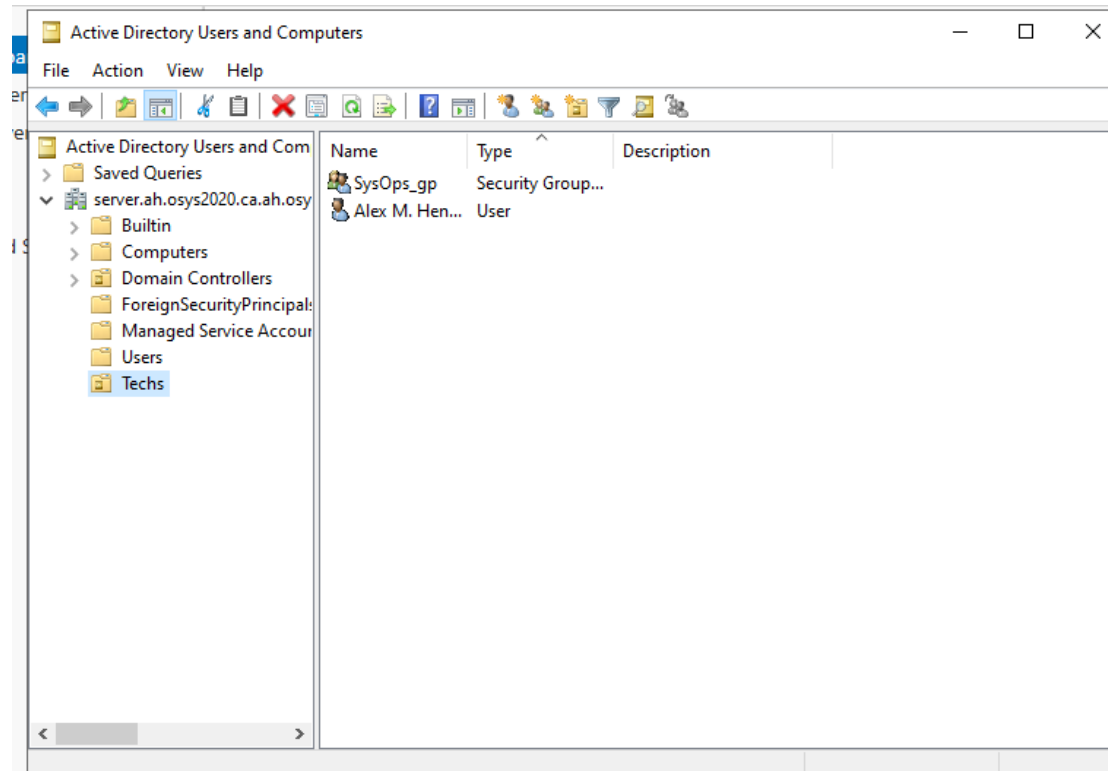


Figure 7. Users and Groups settings screenshot.

Setting a Password Lockout Policy

In this section, we will be using the group policy management to change our password policy. We will enforce password history limitations to 5, making users change their password after 60 days, set the minimum length to 7 characters, 3 attempts and the lockout duration to one minute.

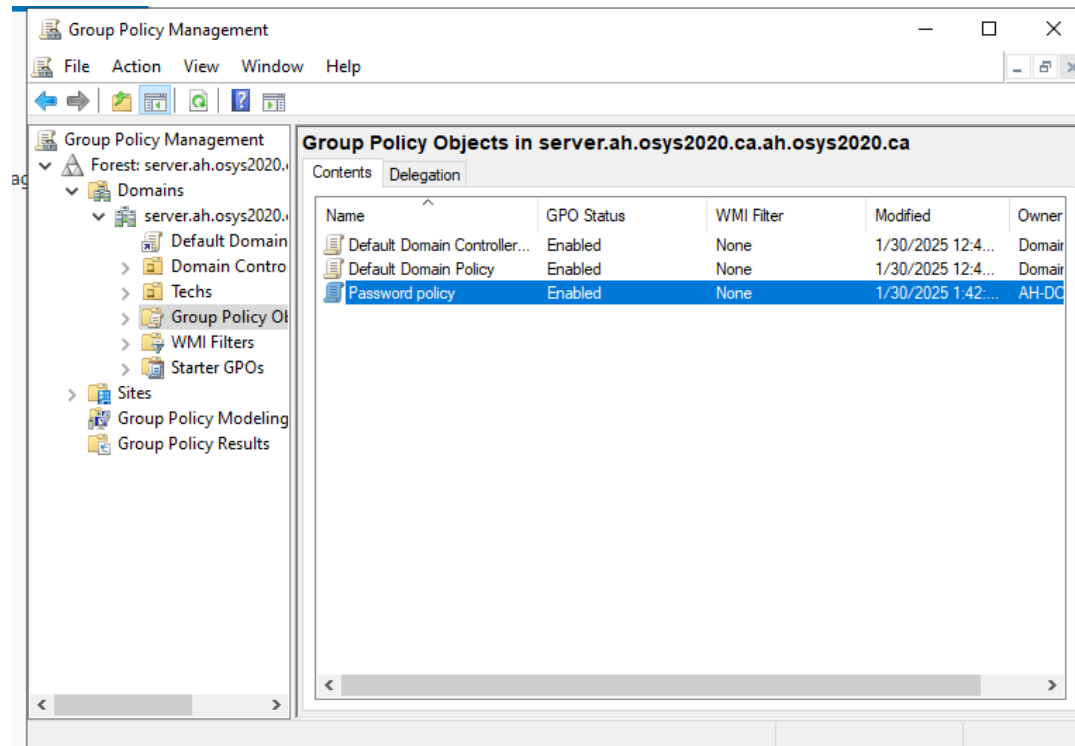


Figure 8. Password Policy Screenshot.

Creating a Server Gold Copy

We have made a lot of changes to the server, so we should make a gold copy.

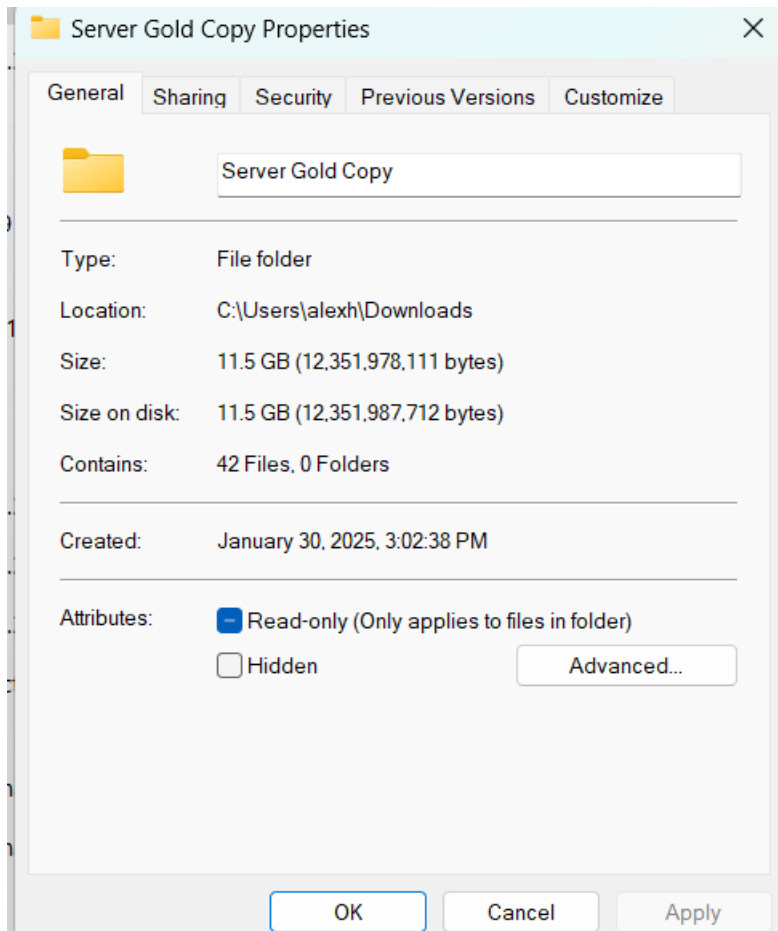





Figure 9. Gold cop created for server.

Windows 10 VM Installation











In this section, we will be installing Windows 10 using VMware. We added two hard drives, one 100g and one 40g, 8g's of memory and 2 processors with one core.

 AH-CL01

 Power on this virtual machine

 Edit virtual machine settings

▼ Devices

| | |
|--|-------------|
|  Memory | 8 GB |
|  Processors | 2 |
|  Hard Disk (NVMe) | 100 GB |
|  Hard Disk 2 (NVMe) | 40 GB |
|  CD/DVD (SATA) | Auto detect |
|  Floppy | Auto detect |
|  Network Adapter | NAT |
|  USB Controller | Present |
|  Sound Card | Auto detect |
|  Display | Auto detect |

▼ Description

OS: Windows 10 Education Pro
Date Created: 2025-01-28
HostName: AH-CLO1
Password: Passw0rd
|

Figure 10. Windows 10 client created

Adding New Client to our Domain

Now, we must add our new client to our Domain. To do this we change our IP addressing, changing the primary DNS to be the DNS server IP. We leave the secondary DNS blank. We then add the client to the domain using powershell. The command is `Add-Computer -ah.osys2022.ca -OUPath "OU=Techs,DC=AHDC01,DC=local" -Credential (Get-Credential)`. We then enter the domain admin login credentials.

Creating a Gold Copy

Now that our client is connected to the Server, we must create a gold copy.

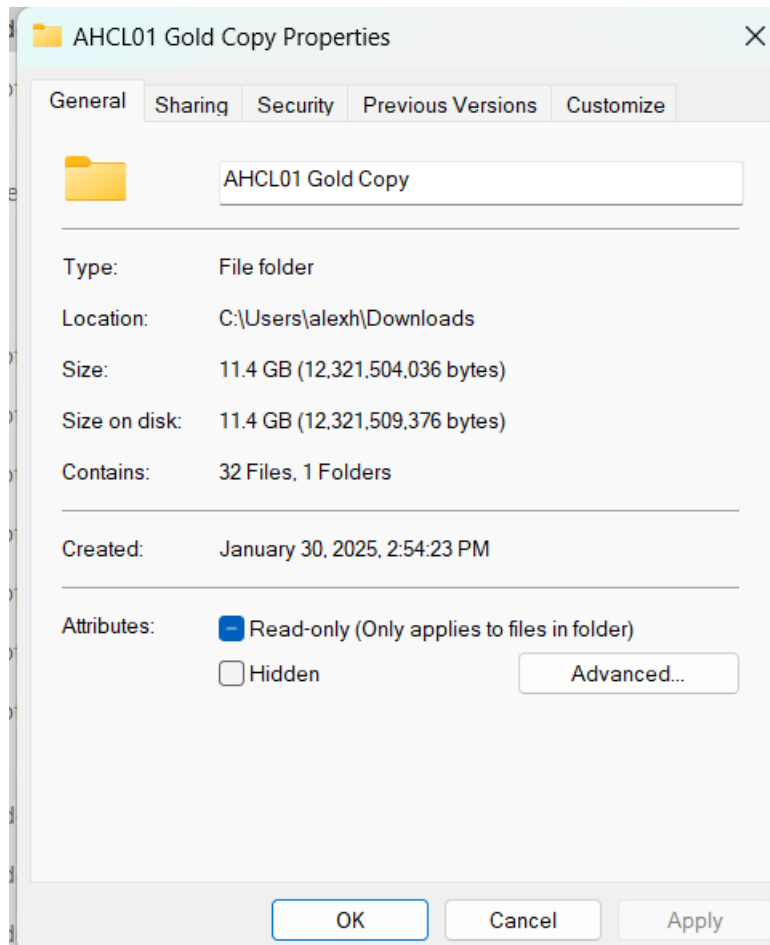


Figure 11. Windows 10 Client Gold Copy.