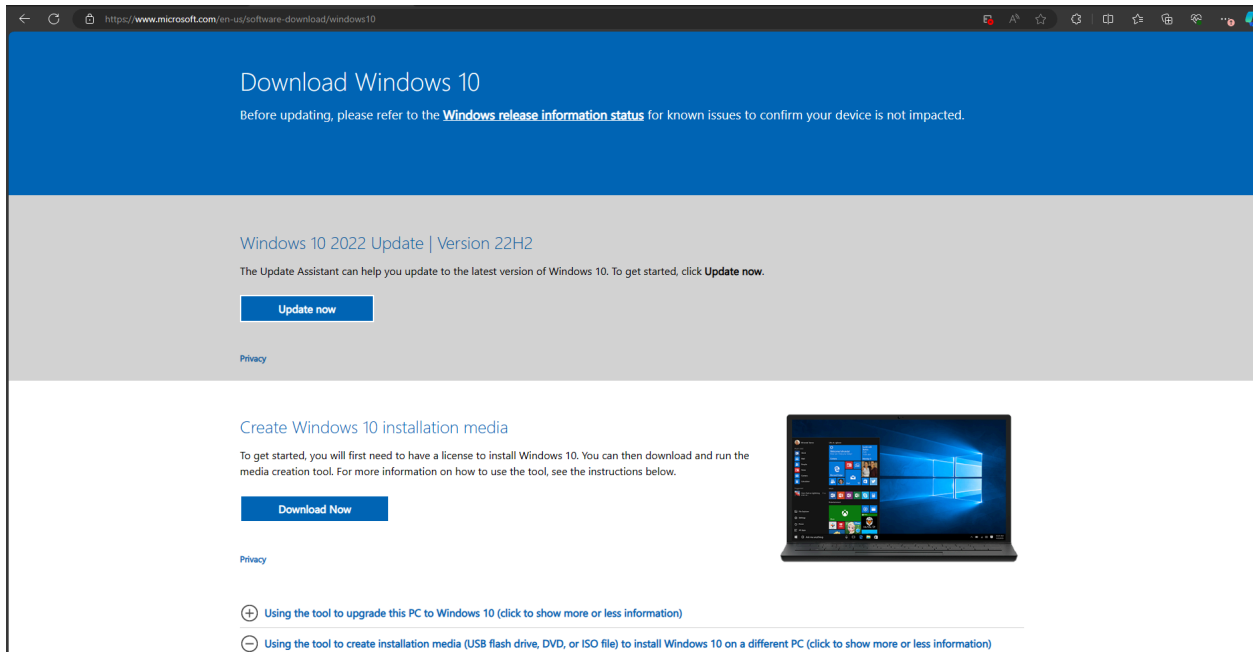


AD administrative lab

Boe Bourgeois

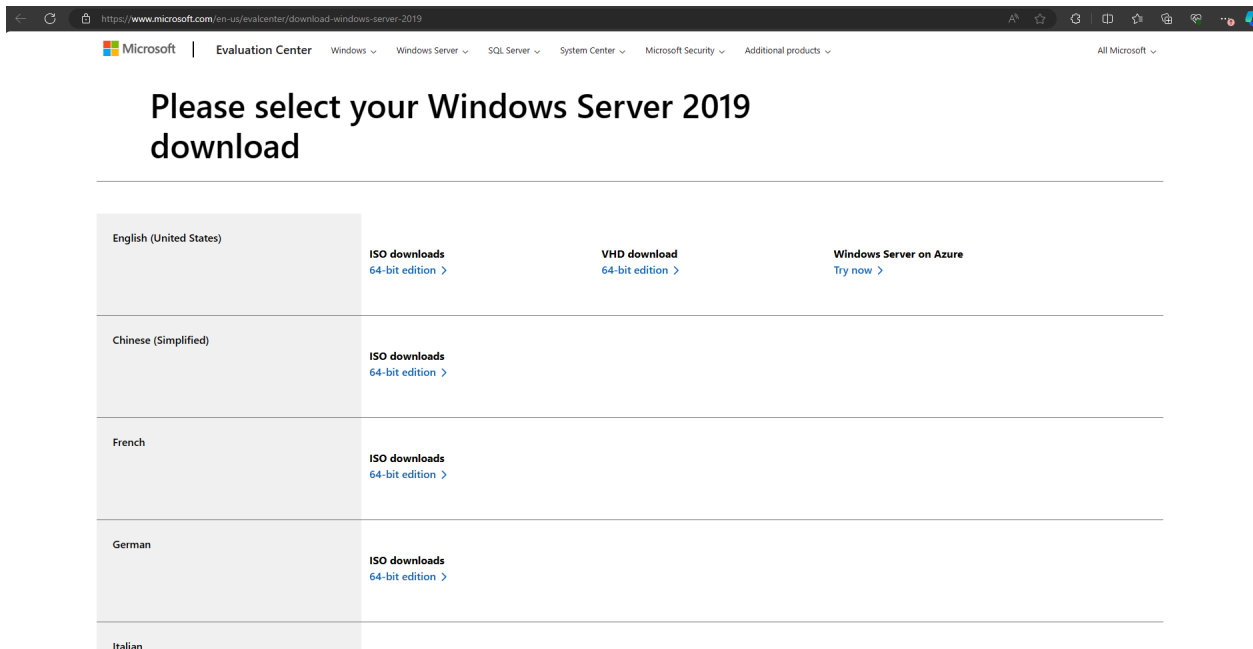
Tools to download

Windows 10



The screenshot shows the Microsoft website for downloading Windows 10. The page has a blue header with the text "Download Windows 10" and a sub-header "Before updating, please refer to the [Windows release information status](#) for known issues to confirm your device is not impacted." Below this, there is a section for the "Windows 10 2022 Update | Version 22H2" with a button labeled "Update now". Further down, there is a section for "Create Windows 10 installation media" with a button labeled "Download Now" and a small image of a laptop displaying the Windows 10 desktop. At the bottom, there are two links: "Using the tool to upgrade this PC to Windows 10 (click to show more or less information)" and "Using the tool to create installation media (USB flash drive, DVD, or ISO file) to install Windows 10 on a different PC (click to show more or less information)".

Windows server 2019



The screenshot shows the Microsoft website for downloading Windows Server 2019. The page has a blue header with the text "Please select your Windows Server 2019 download". Below this, there is a table with four columns: "Language", "ISO downloads", "VHD download", and "Windows Server on Azure". The table lists five languages: English (United States), Chinese (Simplified), French, German, and Italian. Each language row has links for "ISO downloads 64-bit edition" and "VHD download 64-bit edition". The "Windows Server on Azure" column has a link "Try now".

Language	ISO downloads	VHD download	Windows Server on Azure
English (United States)	ISO downloads 64-bit edition	VHD download 64-bit edition	Try now
Chinese (Simplified)	ISO downloads 64-bit edition		
French	ISO downloads 64-bit edition		
German	ISO downloads 64-bit edition		
Italian			

Vmbox



The screenshot shows the VirtualBox.org homepage. At the top left is the VirtualBox logo. The main heading is "VirtualBox". Below it, a "Welcome to VirtualBox.org!" message is followed by a paragraph describing VirtualBox as a powerful x86 and AMD64/Intel64 virtualization product. A large blue button labeled "Download VirtualBox 7.0" is prominently displayed. To the right of the button, a "Hot picks" section lists two items: "Pre-built virtual machines for developers at Oracle Tech Network" and "Hyperbox Open-source Virtual Infrastructure Manager project site". On the far right, a "News Flash" section contains several bullet points with dates and release information, including "May 3rd, 2024 VirtualBox 7.0.18 released" and "April 16th, 2024 VirtualBox 7.0.16 released". A left sidebar contains links for "About", "Screenshots", "Downloads", "Documentation", "End-user docs", "Technical docs", "Contribute", and "Community".

VirtualBox

search...
Login Preferences
Start Page Index History

Welcome to VirtualBox.org!

VirtualBox is a powerful x86 and AMD64/Intel64 virtualization product for enterprise as well as home use. Not only is VirtualBox an extremely feature rich, high performance product for enterprise customers, it is also the only professional solution that is freely available as Open Source Software under the terms of the GNU General Public License (GPL) version 3. See "About VirtualBox" for an introduction.

Presently, VirtualBox runs on Windows, Linux, macOS, and Solaris hosts and supports a large number of guest operating systems including but not limited to Windows (NT 4.0, 2000, XP, Server 2003, Vista, 7, 8, Windows 10 and Windows 11), DOS/Windows 3.x, Linux (2.4, 2.6, 3.x, 4.x, 5.x and 6.x), Solaris and OpenSolaris, OS/2, OpenBSD, NetBSD and FreeBSD.

VirtualBox is being actively developed with frequent releases and has an ever growing list of features, supported guest operating systems and platforms it runs on. VirtualBox is a community effort backed by a dedicated company: everyone is encouraged to contribute while Oracle ensures the product always meets professional quality criteria.

Download VirtualBox 7.0

Hot picks:

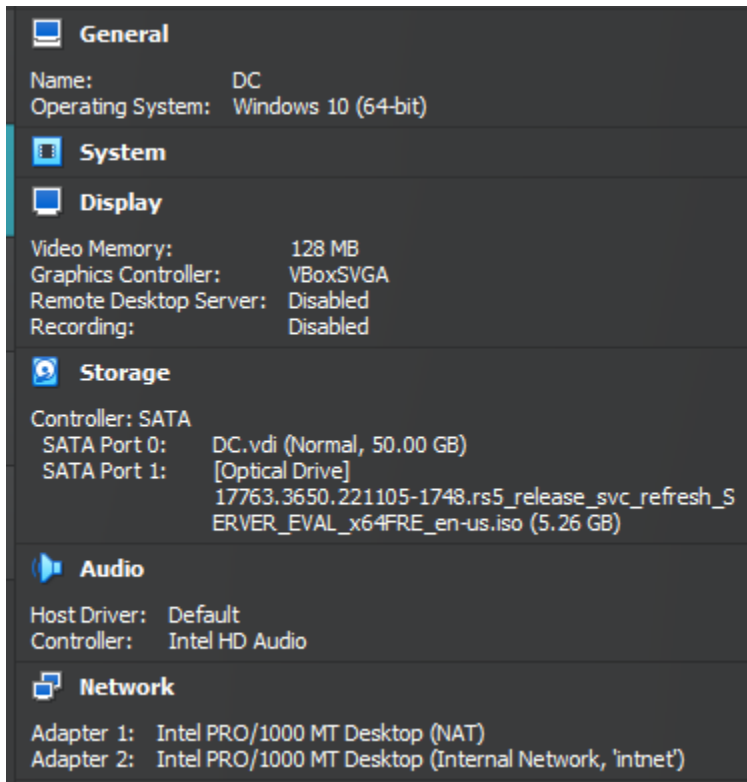
- Pre-built virtual machines for developers at [Oracle Tech Network](#)
- Hyperbox** Open-source Virtual Infrastructure Manager [project site](#)

News Flash

- New May 3rd, 2024 VirtualBox 7.0.18 released!**
Oracle today released a 7.0 maintenance release which improves stability and fixes regressions. See the [Changelog](#) for details.
- New April 16th, 2024 VirtualBox 7.0.16 released!**
Oracle today released a 7.0 maintenance release which improves stability and fixes regressions. See the [Changelog](#) for details.
- Notice March 21th, 2024 Change of login server.**
Starting today, Oracle Single Sign On will ask for your account credentials at [signon.oracle.com](#) and the username and password are now have to be entered on separate pages.
- New January 16th, 2024 VirtualBox 7.0.14 released!**
Oracle today released a 7.0 maintenance release which improves stability and fixes regressions. See the [Changelog](#) for details.
- New January 16th, 2024 VirtualBox 6.1.50 released!**
Oracle today released a 6.1 maintenance release which improves stability and fixes regressions.

Setting up vm

Dc control



The screenshot shows the settings for a Virtual Machine named "DC". The settings are organized into several categories: General, System, Display, Storage, Audio, and Network. Under General, the Name is "DC" and the Operating System is "Windows 10 (64-bit)". Under Display, the Video Memory is set to 128 MB, Graphics Controller is VBoxSVGA, Remote Desktop Server is Disabled, and Recording is Disabled. Under Storage, the Controller is SATA, and there are two ports: SATA Port 0 with a DC.vdi (Normal, 50.00 GB) and SATA Port 1 with an Optical Drive containing the file 17763.3650.221105-1748.rs5_release_svc_refresh_SERVER_EVAL_x64FRE_en-us.iso (5.26 GB). Under Audio, the Host Driver is Default and the Controller is Intel HD Audio. Under Network, there are two adapters: Adapter 1 is Intel PRO/1000 MT Desktop (NAT) and Adapter 2 is Intel PRO/1000 MT Desktop (Internal Network, 'intnet').

General

Name: DC
Operating System: Windows 10 (64-bit)

System

Display

Video Memory: 128 MB
Graphics Controller: VBoxSVGA
Remote Desktop Server: Disabled
Recording: Disabled

Storage

Controller: SATA
SATA Port 0: DC.vdi (Normal, 50.00 GB)
SATA Port 1: [Optical Drive]
17763.3650.221105-1748.rs5_release_svc_refresh_SERVER_EVAL_x64FRE_en-us.iso (5.26 GB)

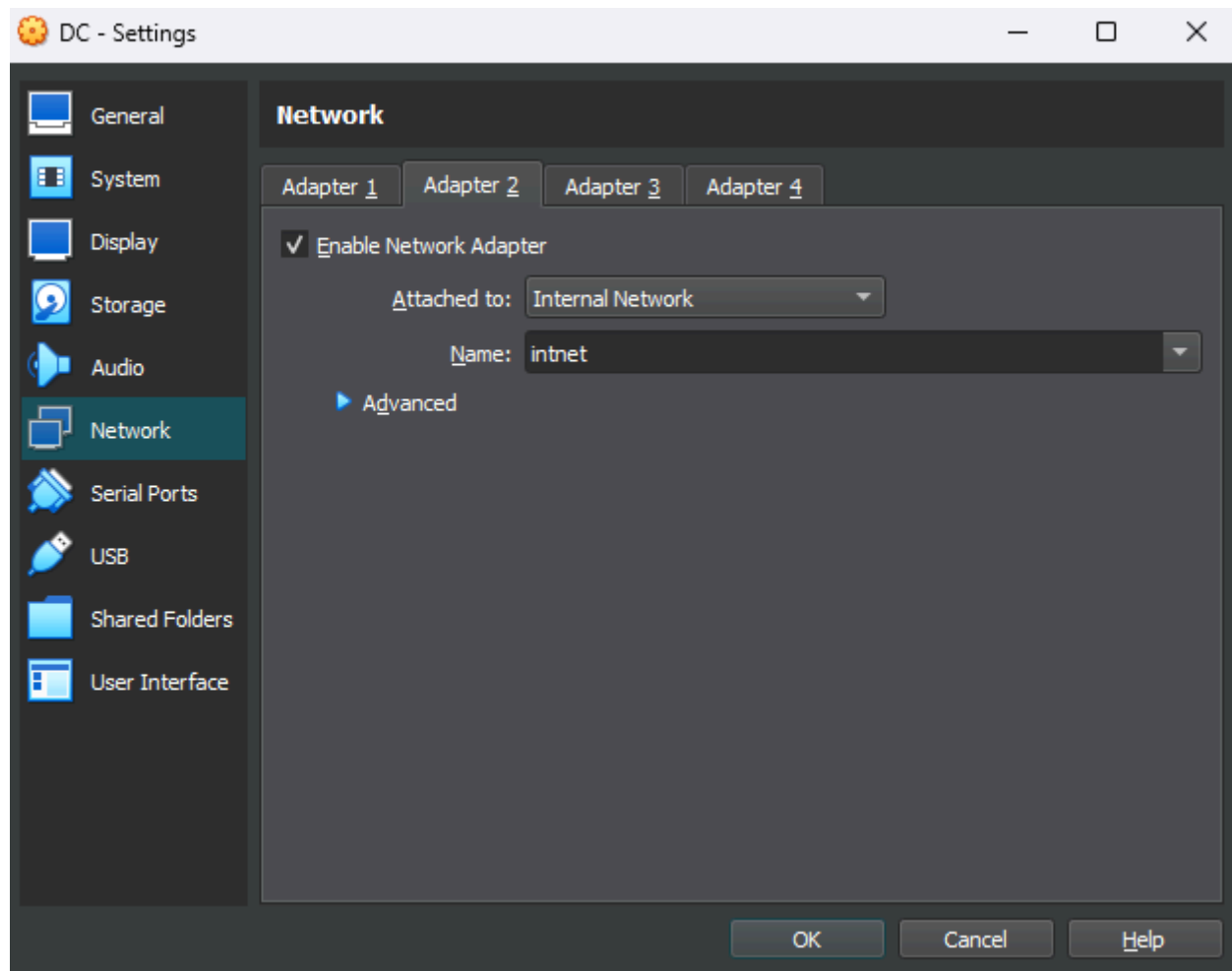
Audio

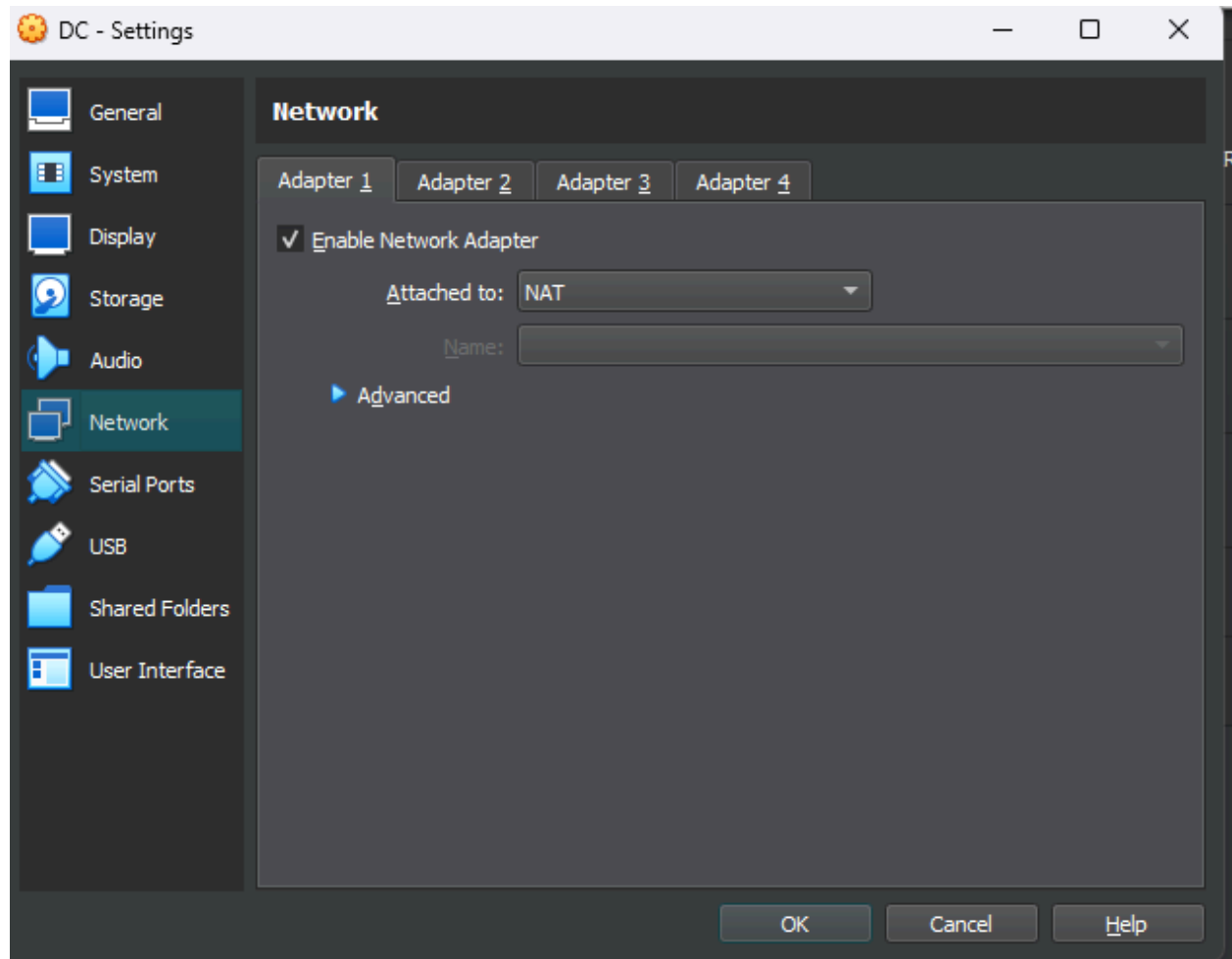
Host Driver: Default
Controller: Intel HD Audio

Network

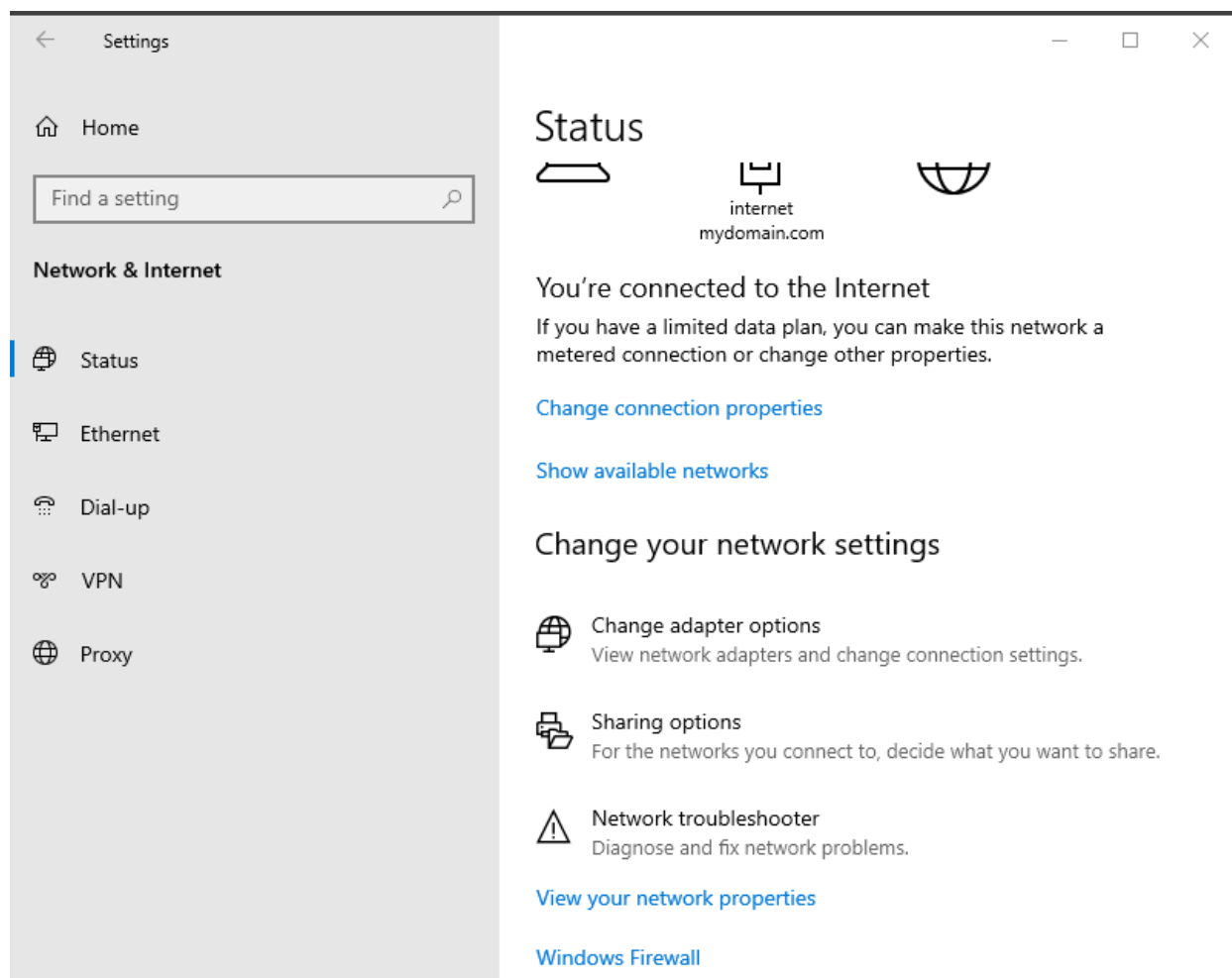
Adapter 1: Intel PRO/1000 MT Desktop (NAT)
Adapter 2: Intel PRO/1000 MT Desktop (Internal Network, 'intnet')


change adapters





Checking adapter setting and renaming them.




 Network Connections

←

→

⌵


⬆




<< Network and Internet >




Network Connections


⌵



Search Network Connections 


Organize ⌵

 ⌵  

- 

inside

mydomain.com

Intel(R) PRO/1000 MT Desktop Ad...
- 

internet

mydomain.com

Intel(R) PRO/1000 MT Desktop Ad...

2 items





internet
mydomain.com
Intel(R) PRO/1000 MT Desktop



internet Status



Network Connection Details

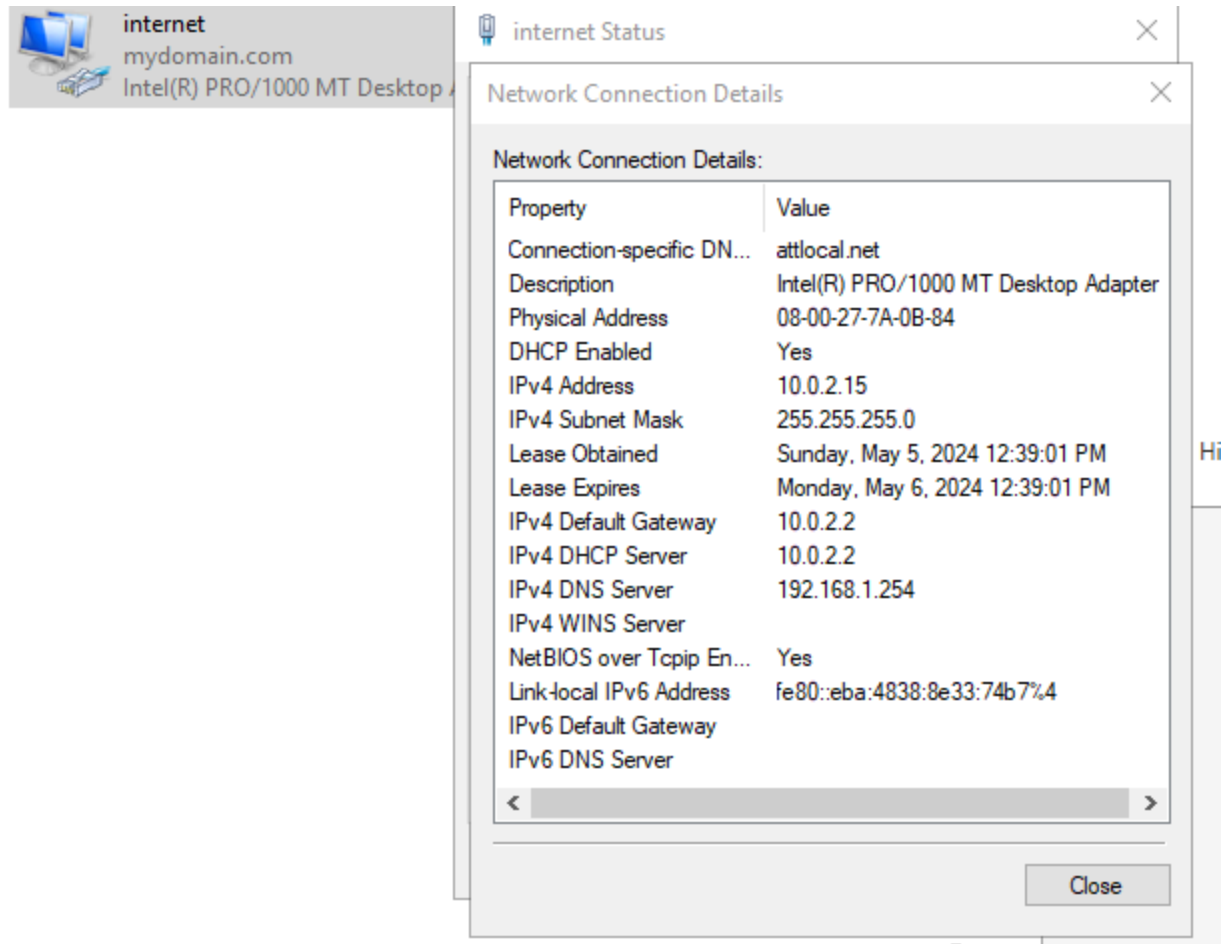


Network Connection Details:

Property	Value
Connection-specific DN...	attlocal.net
Description	Intel(R) PRO/1000 MT Desktop Adapter
Physical Address	08-00-27-7A-0B-84
DHCP Enabled	Yes
IPv4 Address	10.0.2.15
IPv4 Subnet Mask	255.255.255.0
Lease Obtained	Sunday, May 5, 2024 12:39:01 PM
Lease Expires	Monday, May 6, 2024 12:39:01 PM
IPv4 Default Gateway	10.0.2.2
IPv4 DHCP Server	10.0.2.2
IPv4 DNS Server	192.168.1.254
IPv4 WINS Server	
NetBIOS over Tcpi...	Yes
Link-local IPv6 Address	fe80::eba:4838:8e33:74b7%4
IPv6 Default Gateway	
IPv6 DNS Server	



Close





Creating scope

- Local Server
- All Servers
- AD DS
- DHCP
- DNS
- File and Storage Services
- IIS
- Remote Access


- 1 Configure this local server
- 2 Add roles and features
- 3 Add other servers to manage
- 4 Create a server group
- 5 Connect this server to cloud services

Roles: 6 | Server groups: 1 | Servers total: 1

AD DS	1	DHCP	1
 Manageability Events Services Performance BPA results		 Manageability Events Services Performance BPA results	

Scope [172.16.0.0] 172.16.0.100-200 Properties ? X

General DNS Advanced

 Scope

Scope name: 172.16.0.100-200

Start IP address: 172 . 16 . 0 . 100

End IP address: 172 . 16 . 0 . 200

Subnet mask: 255 . 255 . 255 . 0 Length: 24

Lease duration for DHCP clients

☒ Limited to:

Days: 8 Hours: 0 Minutes: 0

☐ Unlimited

Description:

OK Cancel Apply

DHCP

File

Action

View

Help

←

→

DHCP

▼

DC.mydomain.com

▼

IPv4

>

Scope [172.16.0.0] 172.16.0.100-200

Server Options

Policies

>

Filters

>

IPv6

Contents of DHCP

DC.mydomain.com

Status

ROLES AND SERVER GROUPS

Roles: 6 | Server groups: 1 | Servers total: 1



AD DS

1



Manageability

Events

Services

Performance

BPA results



DHCP

1



Manageability

Events

Services

Performance

BPA results



DNS

1



Manageability

Events

Services

Performance

BPA results



File and Storage
Services

1



Manageability

Events

Services

Performance

BPA results



IIS

1



Manageability



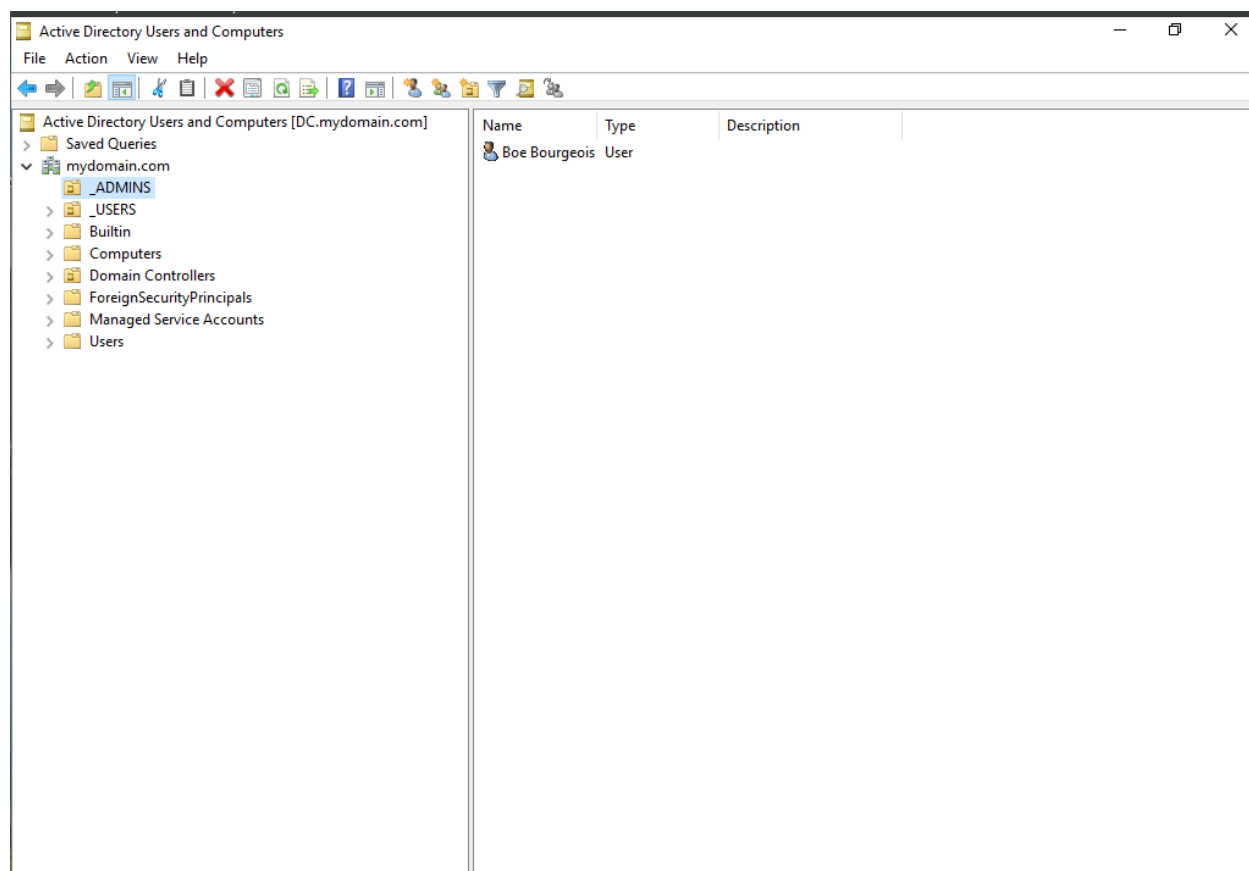
Remote Access

1



Manageability

Create admin and users



Active Directory Users and Computers

File Action View Help

Active Directory Users and Computers [DC.mydomain.com]

- > Saved Queries
- ▼ mydomain.com
 - > _ADMINS
 - > _USERS
 - > Built-in
 - > Computers
 - > Domain Controllers
 - > ForeignSecurityPrincipals
 - > Managed Service Accounts
 - > Users

Name	Type	Description
mydomain.c...	Domain	
Saved Queries		Folder to store your favo...

Active Directory Users and Computers [DC.mydomain.com]

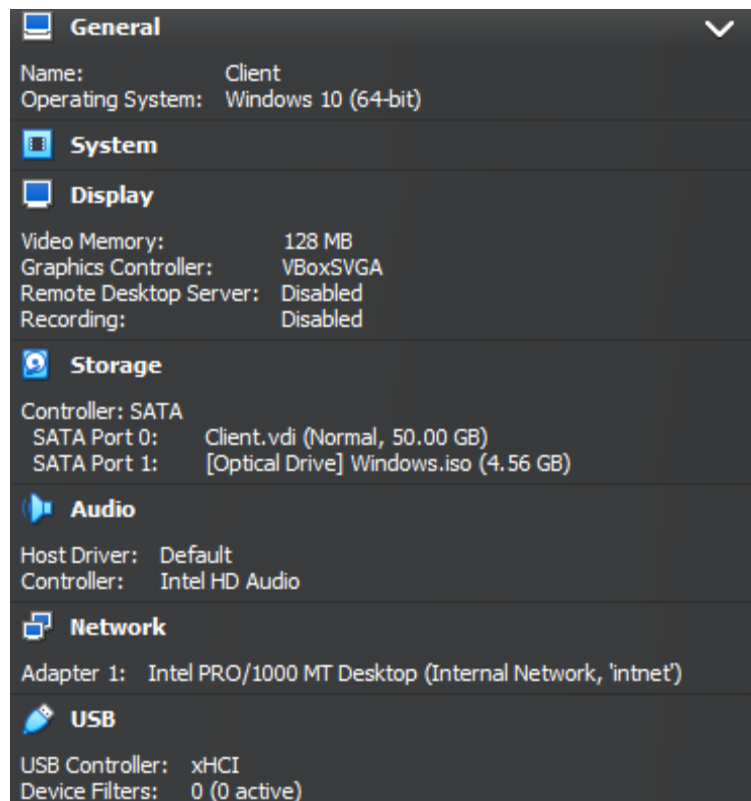
- > Saved Queries
- ▼ mydomain.com
 - > _ADMINS
 - > _USERS
 - > Built-in
 - > Computers
 - > Domain Controllers
 - > ForeignSecurityPrincipals
 - > Managed Service Accounts
 - > Users

Name	Type	Description
Administrator	User	Built-in account for ad...
Allowed RO...	Security Group...	Members in this group c...
Cert Publish...	Security Group...	Members of this group ...
Cloneable D...	Security Group...	Members of this group t...
Denied ROD...	Security Group...	Members in this group c...
DHCP Admi...	Security Group...	Members who have ad...
DHCP Users	Security Group...	Members who have vie...
DnsAdmins	Security Group...	DNS Administrators Gro...
DnsUpdateP...	Security Group...	DNS clients who are per...
Domain Ad...	Security Group...	Designated administrato...
Domain Co...	Security Group...	All workstations and ser...
Domain Con...	Security Group...	All domain controllers i...
Domain Gue...	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
Enterprise A...	Security Group...	Designated administrato...
Enterprise K...	Security Group...	Members of this group ...
Enterprise R...	Security Group...	Members of this group ...
Group Polic...	Security Group...	Members in this group c...
Guest	User	Built-in account for gue...
Key Admins	Security Group...	Members of this group ...
Protected Us...	Security Group...	Members of this group ...
RAS and IAS ...	Security Group...	Servers in this group can...
Read-only D...	Security Group...	Members of this group ...
Schema Ad...	Security Group...	Designated administrato...

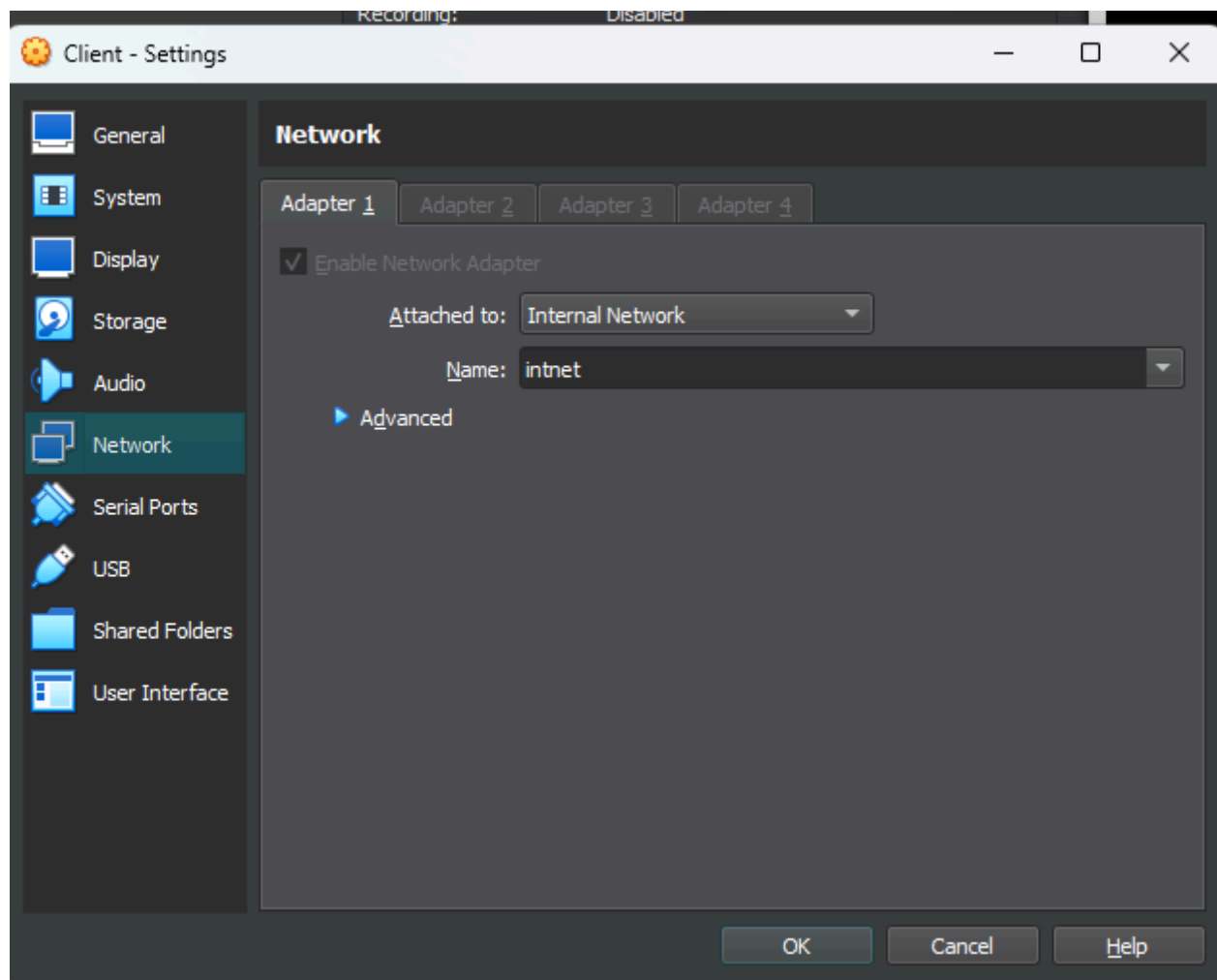
Active Directory Users and Computers [DC.mydomain.com]	Name	Type	Description
<ul style="list-style-type: none"> Saved Queries mydomain.com <ul style="list-style-type: none"> _ADMI _USERS Builti Computers Domain Controllers ForeignSecurityPrincipals Managed Service Accounts Users 	aabbrev	User	
	aacre	User	
	abargo	User	
	abilderback	User	
	abirk	User	
	ablackwater	User	
	ablaker	User	
	abonavita	User	
	abreedlove	User	
	aburt	User	
	acarron	User	
	acastleberry	User	
	acoke	User	
	acosey	User	
	adandrea	User	
	adeguzman	User	
	ademello	User	
	adove	User	
	aebinger	User	
	afasching	User	
	afegan	User	
	afiles	User	
	afleitas	User	
	afouk	User	
	afreitag	User	
	agaliano	User	
	agannon	User	
	agardner	User	
	ageisel	User	
	agoltz	User	
	aguo	User	
	ahamamoto	User	

PROPERTIES			
For DC			
TASKS			
Computer name	DC	Last installed updates	Never
Domain	mydomain.com	Windows Update	Download updates only, us
		Last checked for updates	Today at 12:21 PM
Windows Defender Firewall	Domain: On	Windows Defender Antivirus	Real-Time Protection: On
Remote management	Enabled	Feedback & Diagnostics	Settings
Remote Desktop	Disabled	IE Enhanced Security Configuration	Off
NIC Teaming	Disabled	Time zone	(UTC-08:00) Pacific Time (U
inside	172.16.0.1, IPv6 enabled	Product ID	00431-10000-00000-AA484
internet	IPv4 address assigned by DHCP, IPv6 enabled		
Operating system version	Microsoft Windows Server 2019 Standard Evaluation	Processors	AMD Ryzen 9 3900X 12-Co
Hardware information	innotek GmbH VirtualBox	Installed memory (RAM)	5.31 GB
		Total disk space	49.46 GB

Setup client vm



Change adapter



Checking connection to DC vm

Home

Find a setting

System

Display

Sound

Notifications & actions

Focus assist

Power & sleep

Storage

Tablet

Multitasking

Projecting to this PC

About

Copy

[Change product key or upgrade your edition of Windows](#)

[Read the Microsoft Services Agreement that applies to our services](#)

[Read the Microsoft Software License Terms](#)

Related settings

[BitLocker settings](#)

[Device Manager](#)

[Remote desktop](#)

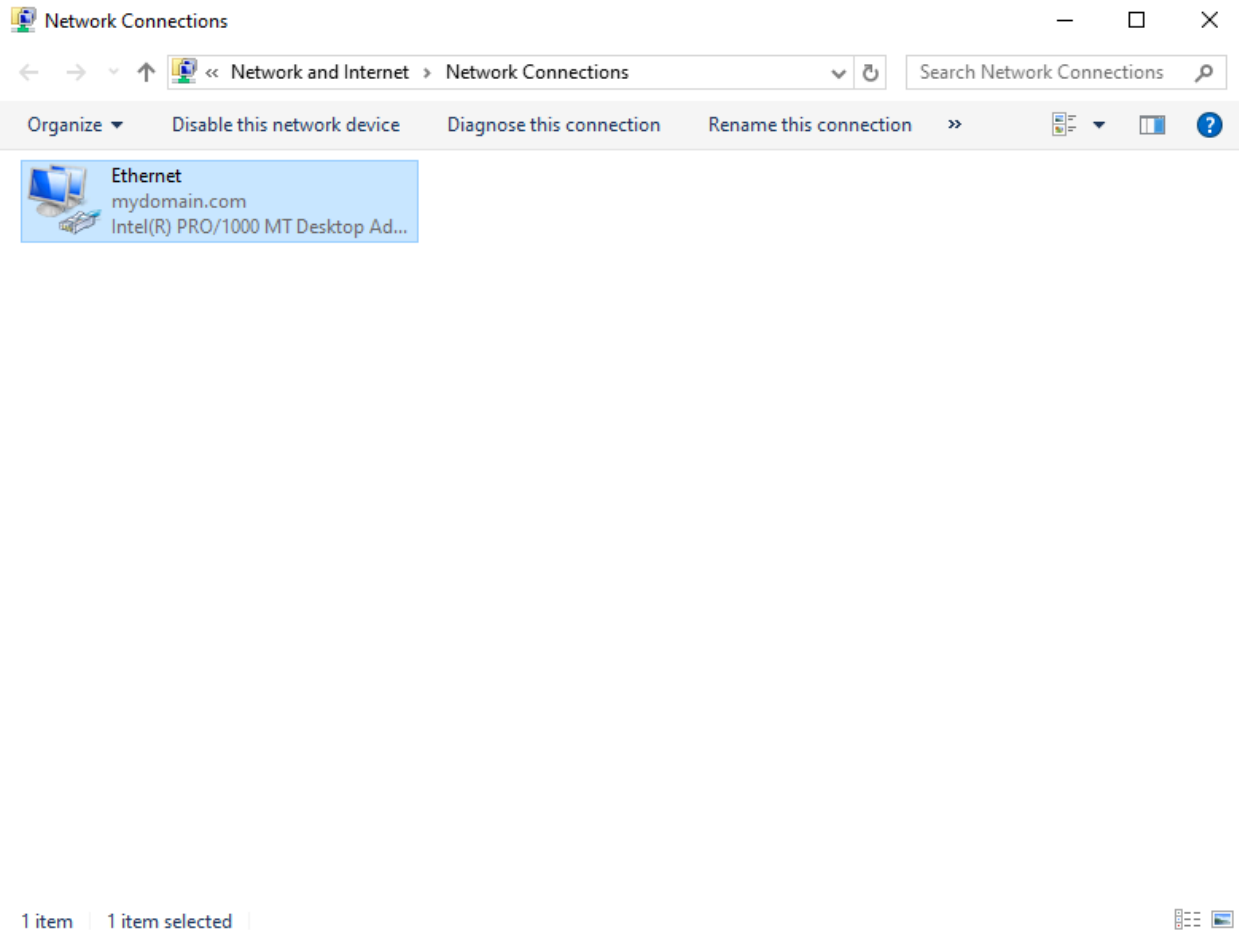
[System protection](#)

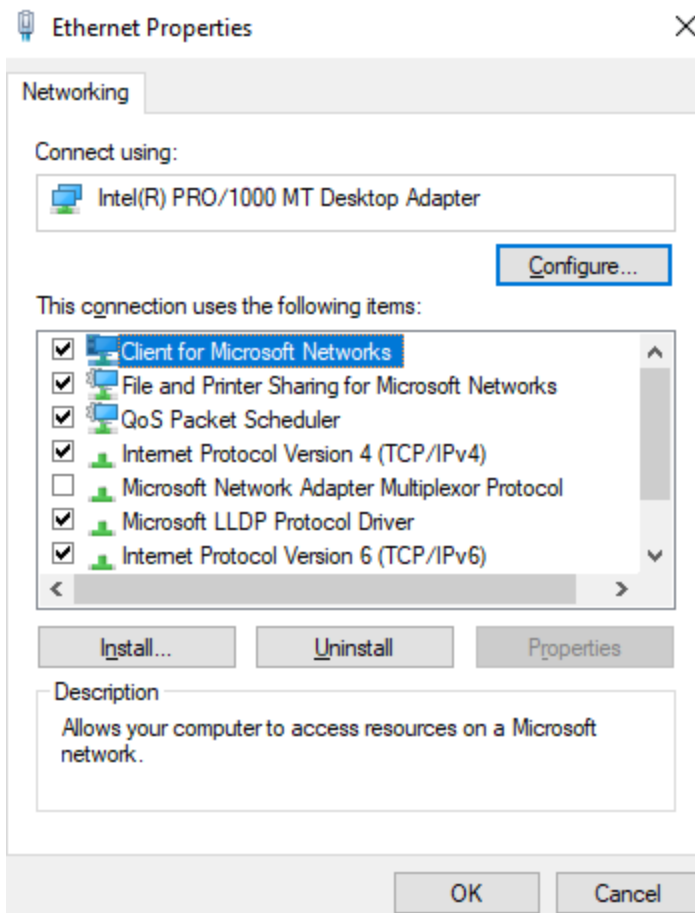
[Advanced system settings](#)

[Rename this PC \(advanced\)](#)

[Get help](#)

[Give feedback](#)





```
Microsoft Windows [Version 10.0.19045.3803]
(c) Microsoft Corporation. All rights reserved.

C:\Users\bbourgeois>whoami
mydomain\bbourgeois

C:\Users\bbourgeois>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : mydomain.com
    Link-local IPv6 Address . . . . . : fe80::1881:7689:fbe5:c25f%3
    IPv4 Address. . . . . : 172.16.0.100
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 172.16.0.1

C:\Users\bbourgeois>
```

Creating users

AD_PS-master

FileHomeShareView

<>AD_PS-masterSearch AD_PS-master

Quick access

Desktop

Downloads

Documents

Pictures

AD_PS-master

This PC

CD Drive (D:) SSS_X64

Network

Name	Date modified	Type	Size
.gitignore	5/4/2024 9:52 PM	GITIGNORE File	2 KB
1_CREATE_USERS	5/4/2024 9:52 PM	Windows PowerS...	2 KB
Generate-Names-Create-Users	5/4/2024 9:52 PM	Windows PowerS...	2 KB
names	5/4/2024 9:53 PM	Text Document	16 KB

4 items

Windows PowerShell ISE

File Edit View Tools Debug Add-ons Help

1_CREATE_USERS.ps1 X

```
1 # ----- Edit these Variables for your own Use Case ----- #
2 $PASSWORD_FOR_USERS = "Password1"
3 $USER_FIRST_LAST_LIST = Get-Content .\names.txt
4 # ----- #
5
6 $password = ConvertTo-SecureString $PASSWORD_FOR_USERS -AsPlainText -Force
7 New-ADOrganizationalUnit -Name _USERS -ProtectedFromAccidentalDeletion $false
8
9 foreach ($n in $USER_FIRST_LAST_LIST) {
10     $first = $n.Split(" ")[0].ToLower()
11     $last = $n.Split(" ")[1].ToLower()
12     $username = "$($first.Substring(0,1))$($last)".ToLower()
13     Write-Host "Creating user: $($username)" -BackgroundColor Black -ForegroundColor Green
14
15     New-AdUser -AccountPassword $password `
16         -GivenName $first `
17         -Surname $last `
18         -DisplayName $username `
19         -Name $username `
20         -EmployeeID $username `
21         -PasswordNeverExpires $true `
22         -Path "ou=_USERS,$([ADSI]"").distinguishedName)" `
23         -Enabled $true
24 }
```

PS C:\Users\A-BBourgeois>