T Level Technical Qualification in Digital Support Services

Occupational specialism assessment (OSA)

Digital Support

Assignment 1 - Pass

Guide standard exemplification materials

v2.0: Specimen assessment materials
19 June 2023
603/6901/2

Internal reference: DSS-GSEM-18

T Level Technical Qualification in Digital Support Services Occupational specialism assessment

Guide standard exemplification materials

Digital Support

Assignment 1

Contents

Introduction

The material within this document relates to the Digital Support occupational specialism sample assessment. These exemplification materials are designed to give providers and students an indication of what would be expected for the lowest level of attainment required to achieve a pass or distinction grade.

The examiner commentary is provided to detail the judgements examiners will undertake when examining the student work. This is not intended to replace the information within the qualification specification and providers must refer to this for the content.

In assignment 1, the student must first plan a network installation, then install and configure a small network, before producing installation notes to inform the client of the work they have carried out.

After each live assessment series, authentic student evidence will be published with examiner commentary across the range of achievement.

Assignment 1:

Scenario

You are a digital support specialist who has been contracted to work for a new small food manufacturing company (the client) based in the North of England.

The client requires your digital expertise in planning to support a future network. There are currently no business control techniques in place as the company is only just starting out, and they are unaware of any measures on how to operate their data systems effectively, appropriately, and securely.

The client also requires your immediate support with preparing and installing a smaller network of computers and a mobile device for the employees within the company.

Task 1: prepare for installation

Time limit

8 hours

Task 1(a) must be completed prior to starting task 1(b).

Task 1(a) is allocated 3 hours 30 minutes.

Task 1(b) is allocated 4 hours 30 minutes.

You can use the time how you want but each task must be completed within the time limit.

(20 marks)

Student instructions

Based on the scenario, you are required to complete the relevant preparation that will enable you to set-up 100 computers, a switch, server and 5 colour printers including identifying the relevant software for the client in the future. The network would be required to be set-up within a 2 week window, to ensure all employees are up and running as quickly as possible.

You are required to:

1(a) Create a report to explain the security considerations required for the installation, configuration, and support of end-user services to ensure confidentiality, integrity and availability including:

- suitable recommendations on implementing business control techniques within the workplace (physical/administrative)
- explanations on how the client should operate the new data systems effectively, appropriately, and securely, considering GDPR/ DPA 2018 and its principles

(8 marks)

1(b) Plan and complete the relevant network planning documentation:

- health and safety risk assessment for the work to be undertaken
- network planning, including:
  - timescales
  - network design, including IP addressing scheme
  - inventory
  - security risk assessment for the work to be undertaken, according to ISO 27001 principles

(12 marks)

You will have access to the following equipment:

- a computer with office software pre-installed

Evidence required for submission to NCFE

The following evidence should be submitted:

- summary of all business controls documentation required (word processing document)
- summary of how to secure data systems effectively (word processing document)
- health and safety risk assessment (worksheet in appendix 1)
- network planning documentation including timescales and network design (word processing document)
- inventory log (worksheet in appendix 1)
- security risk assessment (worksheet in appendix 1)

Student evidence

Task 1(a)

Security recommendations for the implementation of business controls in the workplace

Introduction

As a business we have a responsibility to put in place controls to protect our networks and data from loss (accidental or deliberate), theft or damage. To be effective in this we need to ensure that adequate controls are put in place and best practice is that we should use a range of controls of different categories.

Categories of controls include:

- physical - any control which involves a physical action taking place or object in use (for example, locked doors, ID badges, air gapping).
- administrative - any control that involves a procedure or process that may control behaviour to improve security (for example, operating procedures, password policies or mandatory training)

We can also categorise controls based on how they operate:

- preventative – such as installing a keycard reader on the server room door to restrict access to the room.
- detective – such as CCTV cameras to identify who tries to gain access to the server room
- corrective – such as using logs to identify who has had access to areas
- deterrent – such as signs indicating that security measures are in place, such as the keycard or CCTV
- directive – such as the creation of policies around access and security
- compensating – such as having various backup policies in place to protect data rather than offsite duplicate servers
- recovery – such as fallover servers off site in case of emergency onsite, whilst expensive this allows for quick restoration

It is possible for controls to fit across multiple categories (for example, a CCTV camera would be an example of a physical control that is both detective and deterrent).

A good security posture will include a mix of both physical and administrative controls and will also include preventative, detective, corrective, deterrent, directive, compensating and recovery controls.

Recommendations

For our network it is recommended that we implement the following controls:

- locked server room
- CCTV cameras
- checking logs
- no entry signage in secure areas
- server rooms should be air conditioned
- password policy with password training
- server backups

Operating the data systems

As well putting these security controls in place it is important that data is handled correctly and securely. This is particularly the case with customer data and information as failure to do so could include a breach of the Data Protection Act (DPA) 2018 which incorporates the General Data Protection Regulation (GDPR) into British law.

The DPA 2018 includes the following principles:

- lawfulness, fairness, and transparency:
  - all data collected must be done in a legal manner
- purpose limitation:
  - we can only use data how we have told the customer we will
- data minimisation:
  - we can only collect data we need
- accuracy:
  - where we hold data on a customer, we need to make sure it is up to date
- storage limitation:
  - we can only keep data for as long as we need it
- integrity and confidentiality (security):
  - all data needs to be kept secure
- accountability:
  - we need to keep records of the data we are keeping

Summary

To ensure that we meet our obligations under the DPA 2018 and to ensure that we protect our networks and data (including company confidential data) adequately we need to implement a range of controls (administrative and physical) across our network. The recommendation above will give a range of preventative, detective, corrective, deterrent, directive, compensating and recovery controls that will maximise the protection our network has from a wide range of potential attacks.

Task 1(b)

Network design

Client specification

Network should include:

- 1 server
- 100 client PCs
- 5 colour printers
- switch

To meet this requirement, I am recommending that we install:

- server:
    - 1 server running Windows Server 2016
    - for security the server should also include antivirus software
- client PCs:
    - all client PCs should be installed with Windows 10 and joined to the server
    - all client PCs should be installed with the following software:
        - Office 365 (Word, Excel, PowerPoint and Outlook)
        - Adobe Acrobat
        - antivirus software
- switches:
    - we will need a managed switch to connect all devices to the network
- IP addressing:
    - it is recommended that the network is configured using the following IP addressing scheme:
        - network IP addressing:
            - network: 192.168.0.0/24
    - IP addresses:
        - 192.168.0.1 server
        - 192.168.0.10 to 14 printers
    - Windows computers:
        - 192.168.0.100 to 199

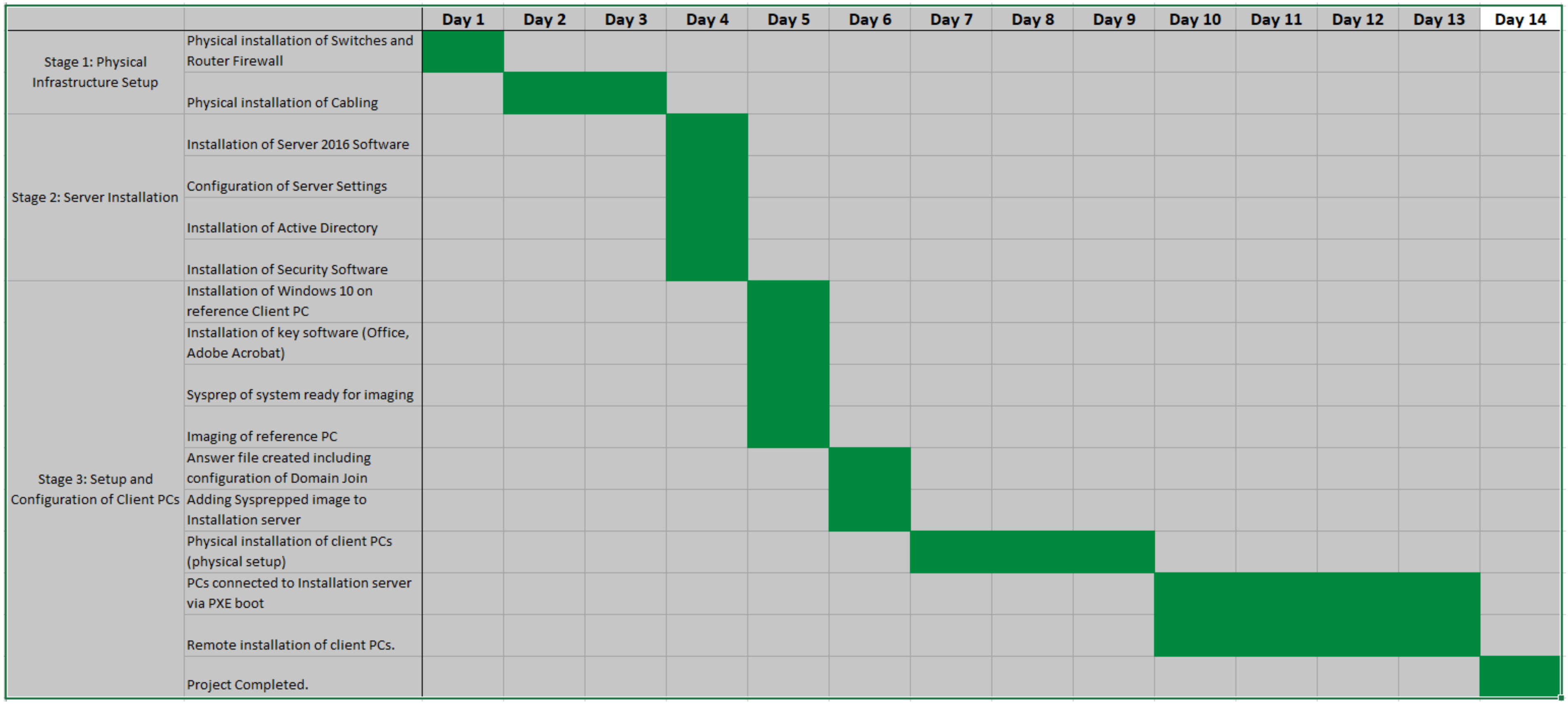
Full details of network configuration can be seen by consulting the network configuration diagram at the foot of this document.

Network installation plan

The network installation should be completed with the following steps:

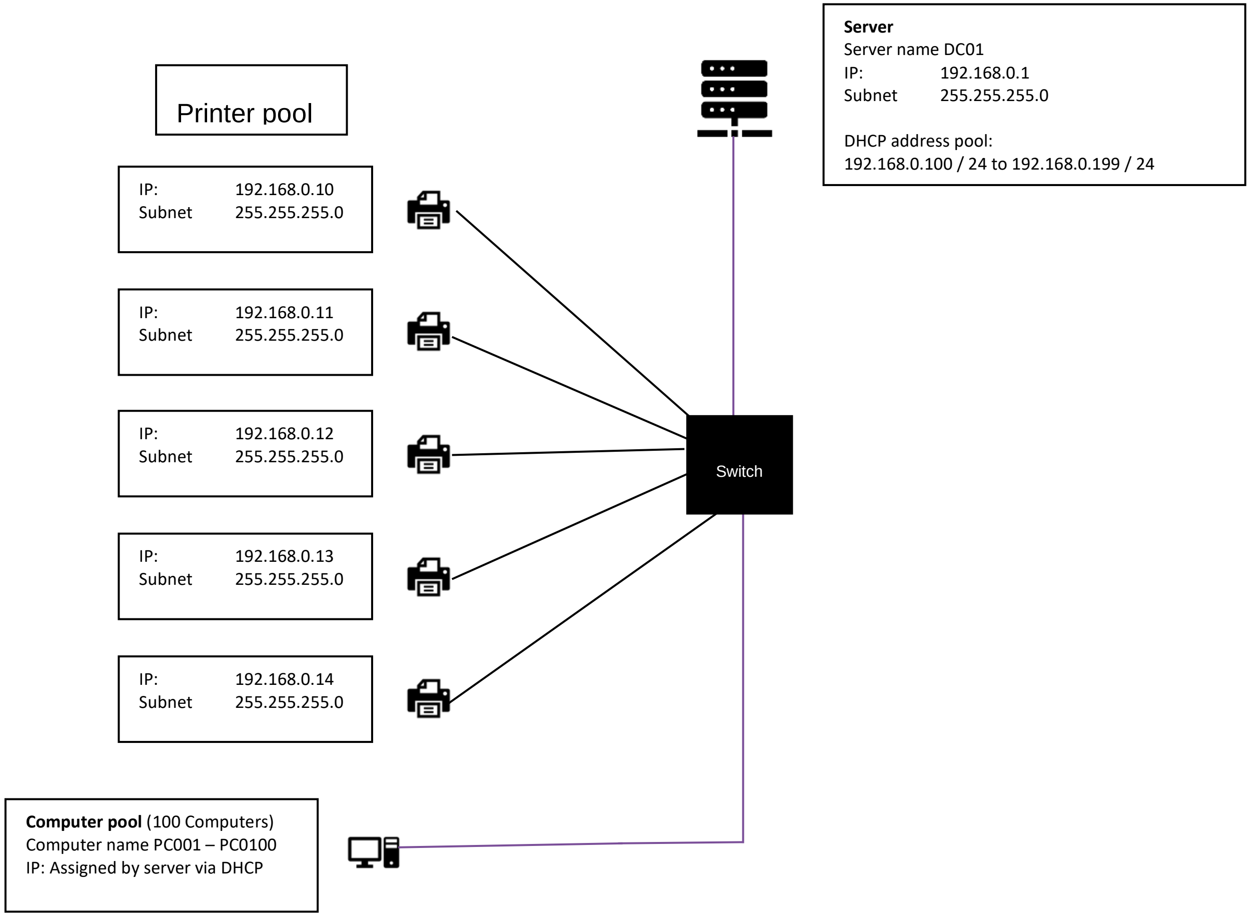
- **stage 1: physical infrastructure set-up:**
    - physical installation of switches and router firewall
    - physical installation of cabling
- **stage 2: server installation:**
    - installation of server 2016 software
    - configuration of server settings
    - installation of Active Directory
    - installation of security software
- **stage 3: set-up and configuration of client PCs:**
    - installation of Windows 10 on reference client PC
    - installation of key software (office, Adobe Acrobat)
    - preparing system ready for imaging
    - imaging of PC
    - adding image to installation server
    - physical installation of client PCs (physical set up)
    - PCs connected to installation server
    - remote installation of client PCs

Project completed.



		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Stage 1: Physical Infrastructure Setup	Physical installation of Switches and Router Firewall	🟩													
	Physical installation of Cabling		🟩	🟩											
Stage 2: Server Installation	Installation of Server 2016 Software				🟩										
	Configuration of Server Settings				🟩										
	Installation of Active Directory				🟩										
	Installation of Security Software				🟩										
Stage 3: Setup and Configuration of Client PCs	Installation of Windows 10 on reference Client PC					🟩									
	Installation of key software (Office, Adobe Acrobat)					🟩									
	Sysprep of system ready for imaging					🟩									
	Imaging of reference PC					🟩									
	Answer file created including configuration of Domain Join						🟩								
	Adding Sysprepped image to Installation server						🟩								
	Physical installation of client PCs (physical setup)							🟩	🟩	🟩					
	PCs connected to Installation server via PXE boot										🟩	🟩	🟩	🟩	
	Remote installation of client PCs.										🟩	🟩	🟩	🟩	
	Project Completed.														🟩

Network diagram



Task 2: install and configure a small network

Time limit

11 hours

You can use this time how you want but all parts of task 2 must be completed within the time limit.

(56 marks)

Student instructions

The client has asked you to install a new small network, against a set of requirements. These devices can be either virtual, physical or emulator.

All employees will use the computers centrally within head office, and any off-site employees will use a mobile device (laptop, tablet or phone) to be able to work remotely via the approved remote working solution.

The computers need to be set up allowing the employees to email, write letters to suppliers, update financial spreadsheets and create weekly presentations.

The computers will also need to access the internet and have instant messaging/video conferencing software such as Skype, GoToMeeting or Teams on Microsoft office 365 installed. Employees will require access to project management software in order to help them plan upcoming projects.

The client wants to ensure there is suitable software installed to mitigate any vulnerabilities to the system, including suitable back up security controls in place.

The client has also asked you to create installation notes for the software installations that took place, in order to support their staff responsible for IT. Your final task is therefore to create a useable document that briefs these individuals on the set-up of your system.

You will have access to the following equipment:

- 3 computers with full administrator rights, or virtual/emulator machine and software
- internet
- operating system
- word processing, presentation and spreadsheet software
- email software
- instant messaging software
- project management software
- mobile device or emulator
- IP address allocations for task 2 in line with provider’s own network IP addressing schema
- digital camera

2(a) You must install, configure and support a small-scale network which includes 3 workstations and one mobile device via WiFi and evidence (you should reference the IP addressing schema allocated to you by your provider):

- implementing physical network and network security measures to prevent the unauthorised access, misuse, modification or denial of a computer, information system or data (CIA and IAAA)
- install Windows Server and create Active Directory
- software licence management (software install log within appendix 1)

Note: you will need to provide annotated screenshots for the processes you follow and the implementations you make along with any key explanations for all decisions. As you carry out the various tasks, you will log all network security measures that have been implemented along with any software installations that are planned and how software licenses will be managed in the provided installation and configuration log (security risk assessment and software install log worksheets in appendix 1).

(18 marks)

Evidence required for submission to NCFE

The following evidence should be submitted:

- annotated screenshots (if using virtual machines) or photographs (if using physical machines/devices) showing the setup and successful implementation of the network and server/Active Directory install

2(b) Provide evidence of the following for the client:

- installing and setting up an operating system and antivirus software
- join computer to Active Directory domain
- installing and configuring application software suitable for the client
- implementing back up security controls
- install/update device drivers

Whilst waiting for the installation to take place, set-up and configure a WiFi mobile device for network connectivity:

- configure a mobile device to include device lock security measures, mobile locator application and back up
- carry out all necessary mobile device updates including anti-virus

Note: You will need to provide annotated screenshots/photographs for the processes you follow and any implementations you make. This will include completing the software installation log (worksheet in appendix 1) and explaining your justifications for your decisions. You will also need to show evidence of any drivers which require installing, alongside taking screenshots of device manager. When updating any software/OS updates, you must evidence that there are no further updates required on the system. The installation may take some time to complete and therefore you should continue with task 2(c).

(22 marks)

Evidence required for submission to NCFE

The following evidence should be submitted:

- screenshots (if using virtual machines) or photographs (if using physical machines/devices) showing the setup and successful implementation of software, device driver status and mobile device

2(c) Review the installation and configuration notes and log (started in task 1) that report the following information to the client, making sure it is up-to-date and correct:

- record of all operating system/software application installations and utilities, upgrades, uninstalls and any major configuration changes
- identify and explain any vulnerabilities detected in the current system set-up/network
- recommend actions to mitigate any vulnerabilities found

Note: You will have been filling in the installation and configuration log as you have been completing the task. You will need to review what you have done, ensure that all information contained is correct and also identify the vulnerabilities and mitigations required.

Apply your communication skills appropriately, using standard English. Use accurate spelling, punctuation and grammar. Consider your target audience.

(16 marks)

Evidence required for submission to NCFE

The following evidence should be submitted:

- annotated screenshots and/or photographs for the set-up and successful implementation of the network and server/active directory install
- screenshots and/or photographs for the set-up and successful implementation of software, device driver status and mobile device
- completed installation and configuration log (appendix 1)

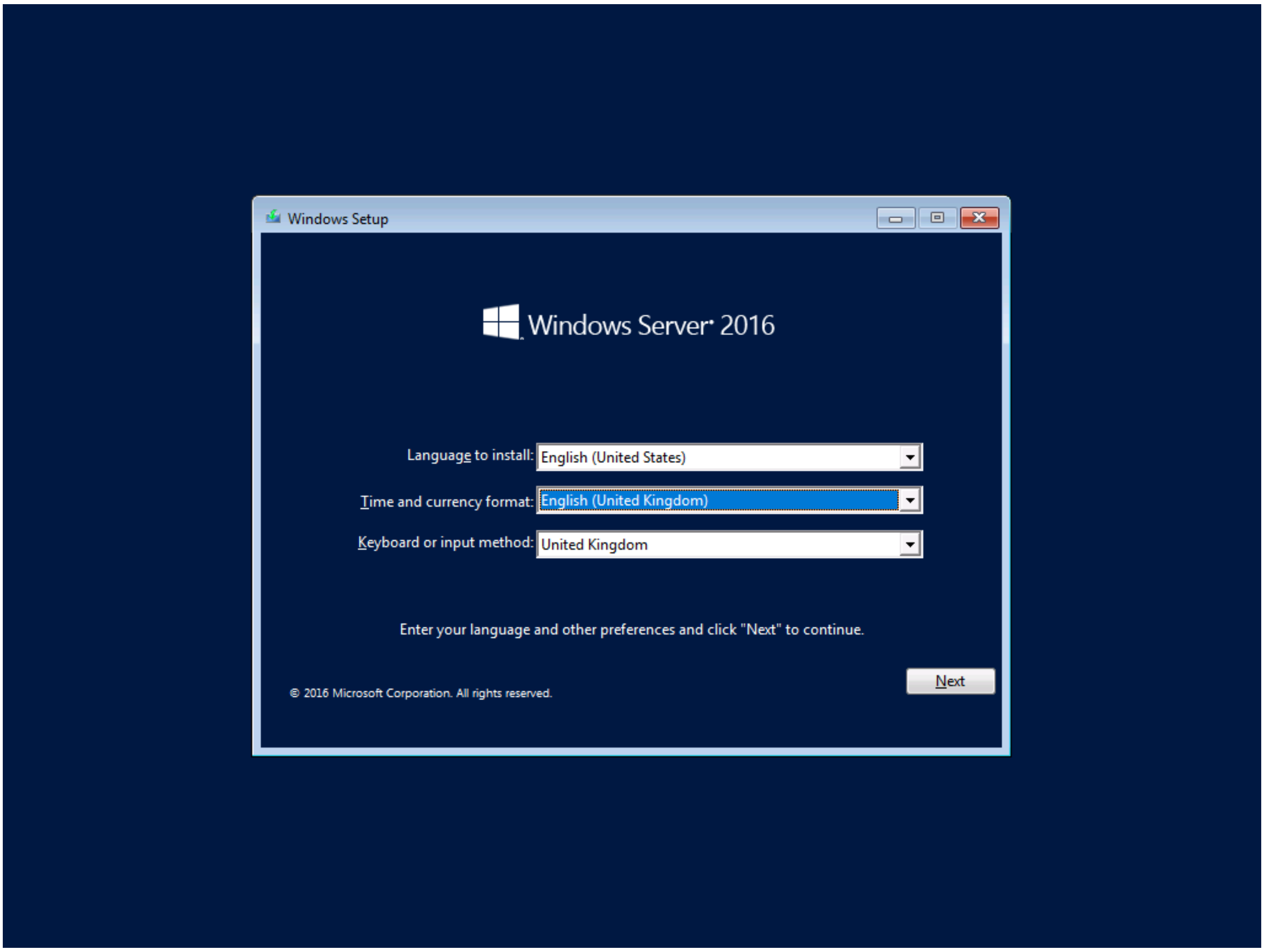
Student evidence

Task 2(a)

Evidence for this task will include a series of either screenshots or photographs documenting the installation process to show what I done. I have provided a descriptor for each key screenshot I would anticipate along with the appropriate commentary. It is likely that these screenshots will have been taken of an installation of server software such as Windows Server 2016.

Installing Windows Server 2016

Screenshot:



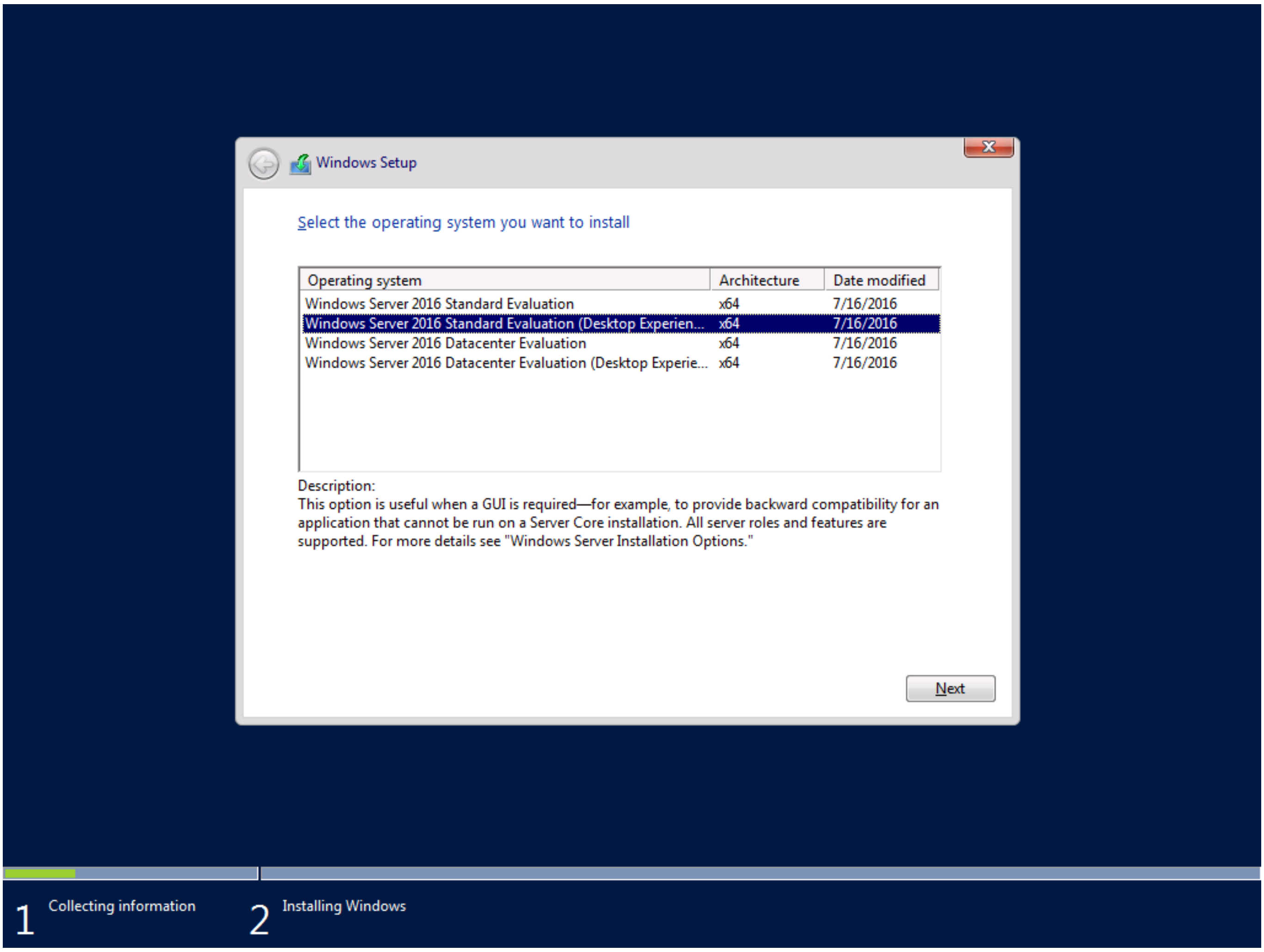
Language to install: English (United States)

Time and currency format: English (United Kingdom)

Keyboard or input method: United Kingdom

Enter your language and other preferences and click "Next" to continue.

- I select the correct language to install (UK) after booting Windows.



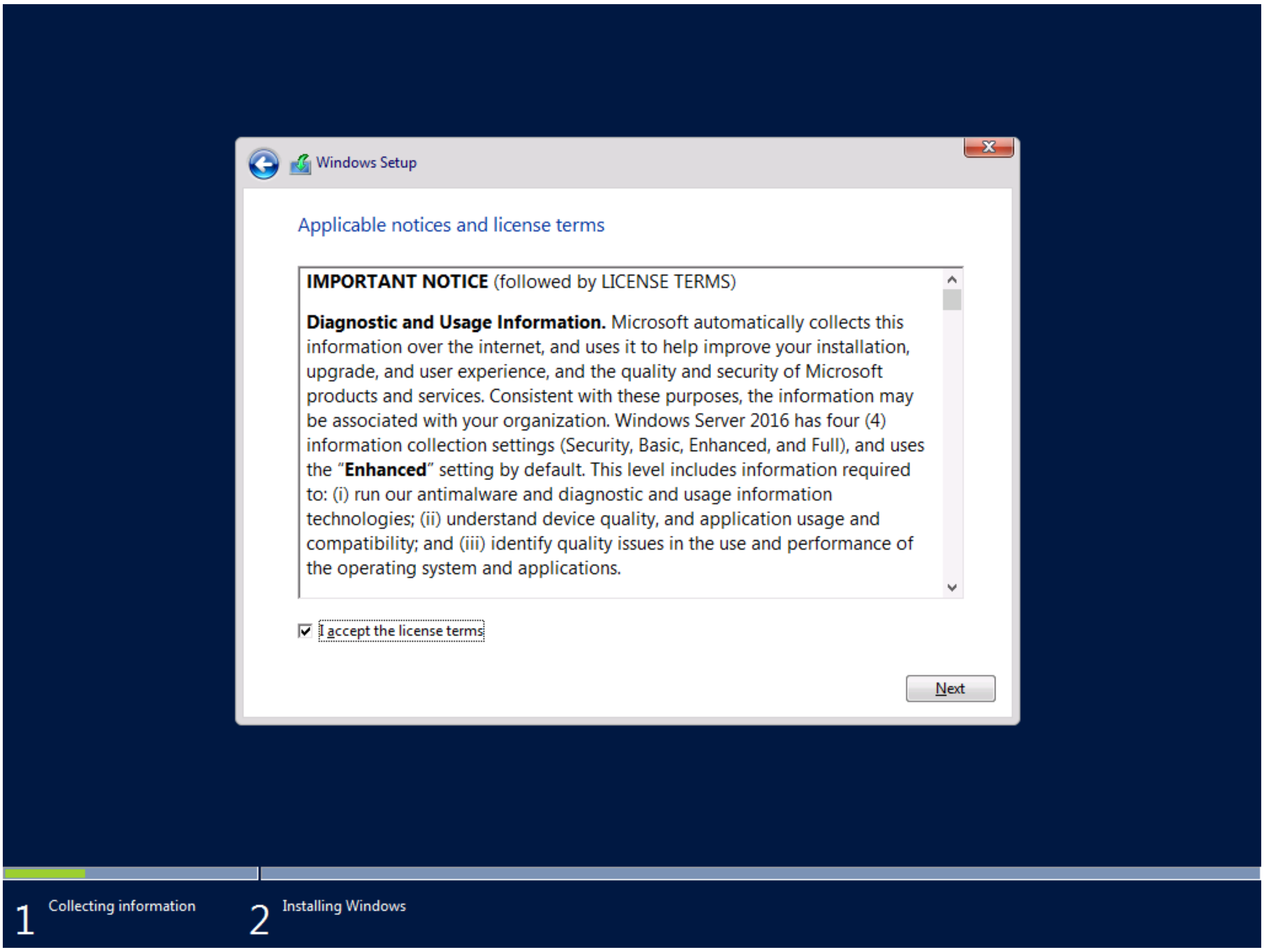
Windows Setup

Select the operating system you want to install

Operating system	Architecture	Date modified
Windows Server 2016 Standard Evaluation	x64	7/16/2016
Windows Server 2016 Standard Evaluation (Desktop Experien...	x64	7/16/2016
Windows Server 2016 Datacenter Evaluation	x64	7/16/2016
Windows Server 2016 Datacenter Evaluation (Desktop Experie...	x64	7/16/2016

Description:
This option is useful when a GUI is required—for example, to provide backward compatibility for an application that cannot be run on a Server Core installation. All server roles and features are supported. For more details see "Windows Server Installation Options."

- I choose the correct version of Windows. I also select the desktop experience. Otherwise, it will be command line only



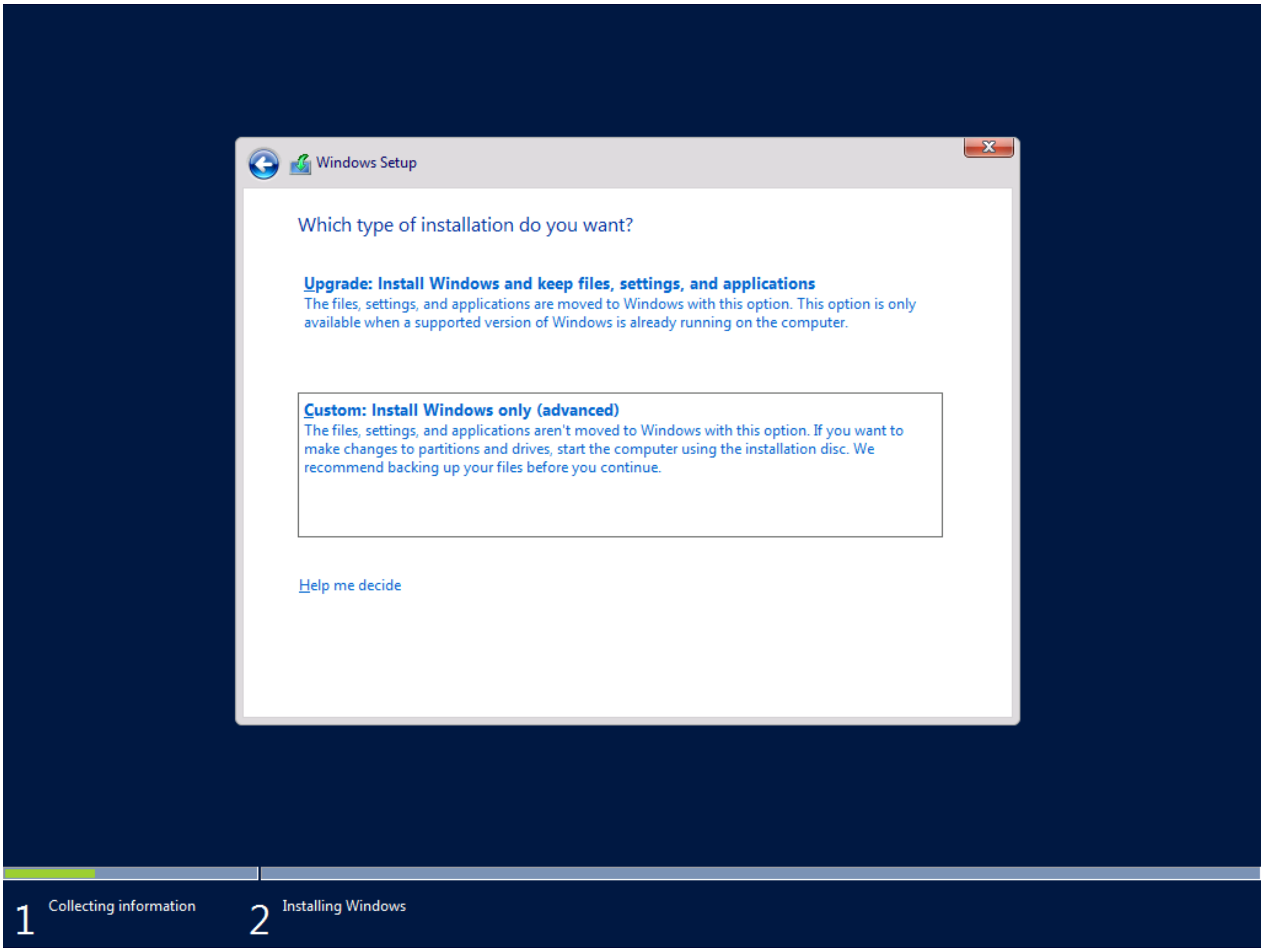
Applicable notices and license terms

IMPORTANT NOTICE (followed by LICENSE TERMS)

Diagnostic and Usage Information. Microsoft automatically collects this information over the internet, and uses it to help improve your installation, upgrade, and user experience, and the quality and security of Microsoft products and services. Consistent with these purposes, the information may be associated with your organization. Windows Server 2016 has four (4) information collection settings (Security, Basic, Enhanced, and Full), and uses the "**Enhanced**" setting by default. This level includes information required to: (i) run our antimalware and diagnostic and usage information technologies; (ii) understand device quality, and application usage and compatibility; and (iii) identify quality issues in the use and performance of the operating system and applications.

☑ I accept the license terms

- I agree to the licence as this is mandatory

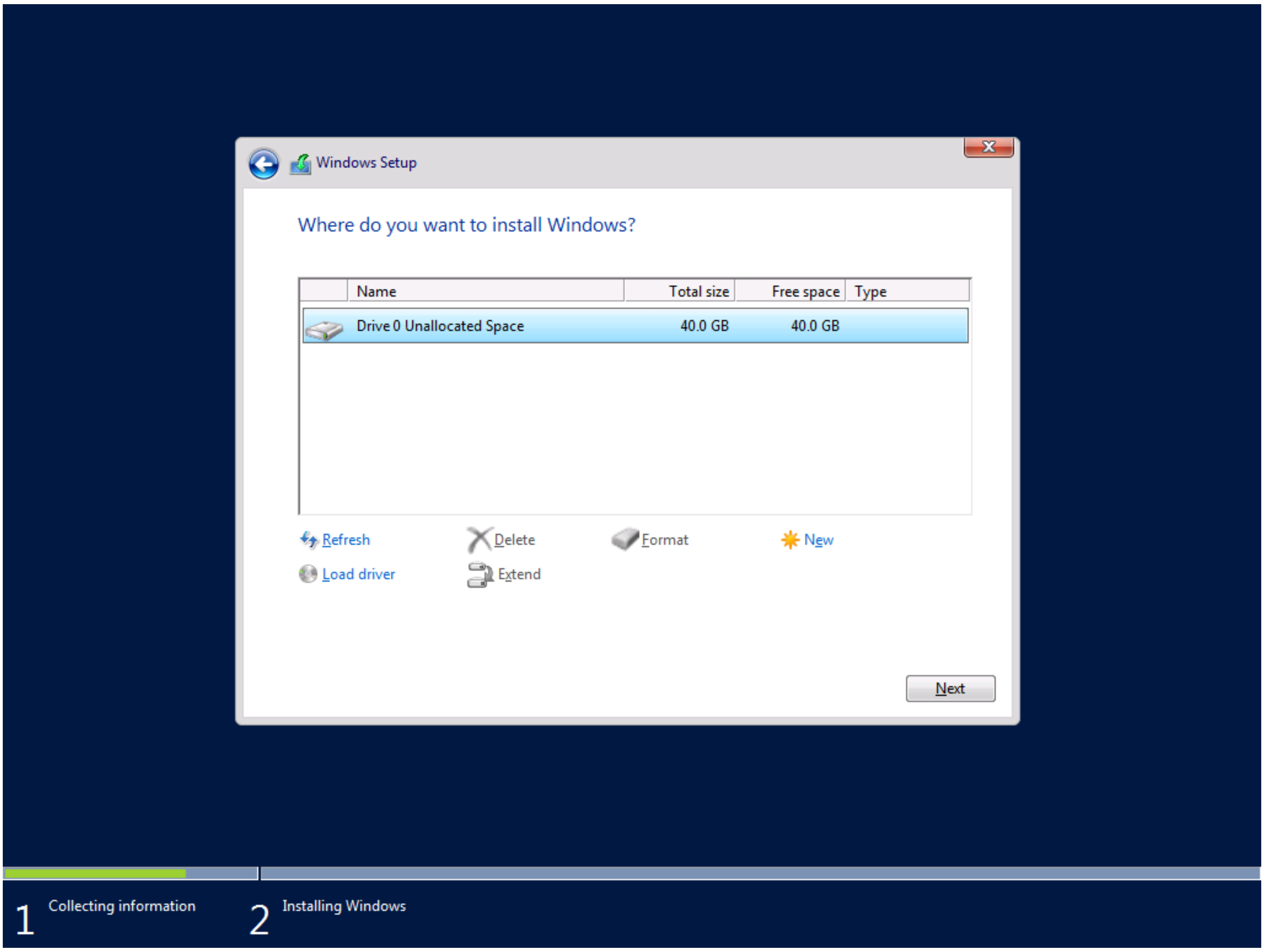


Which type of installation do you want?

Upgrade: Install Windows and keep files, settings, and applications
The files, settings, and applications are moved to Windows with this option. This option is only available when a supported version of Windows is already running on the computer.

Custom: Install Windows only (advanced)
The files, settings, and applications aren't moved to Windows with this option. If you want to make changes to partitions and drives, start the computer using the installation disc. We recommend backing up your files before you continue.

- I select custom so that I can choose the location to install to (below)

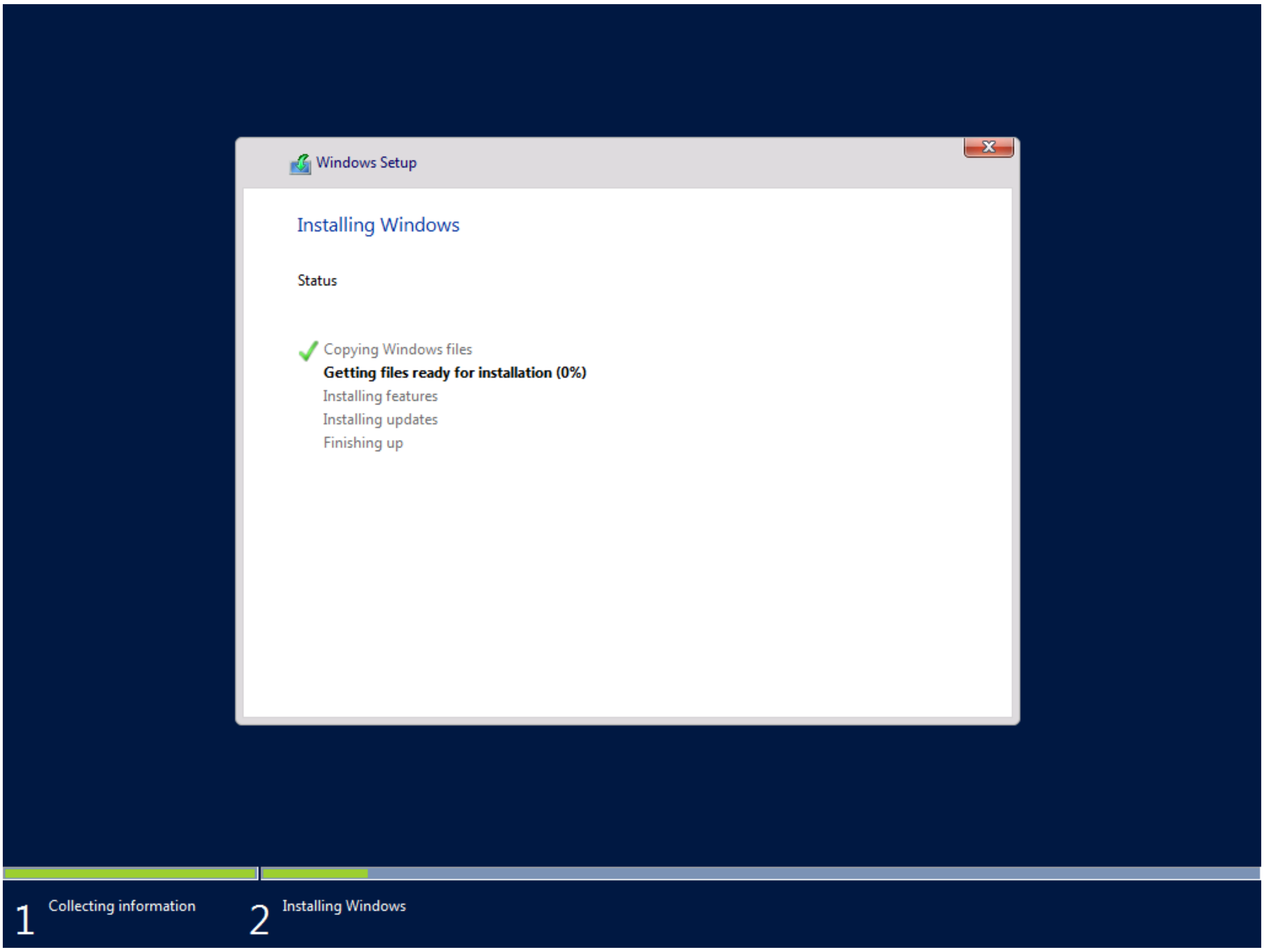


Windows Setup

Where do you want to install Windows?

	Name	Total size	Free space	Type
	Drive 0 Unallocated Space	40.0 GB	40.0 GB	

- I select the install location. In this case, it’s the only disk

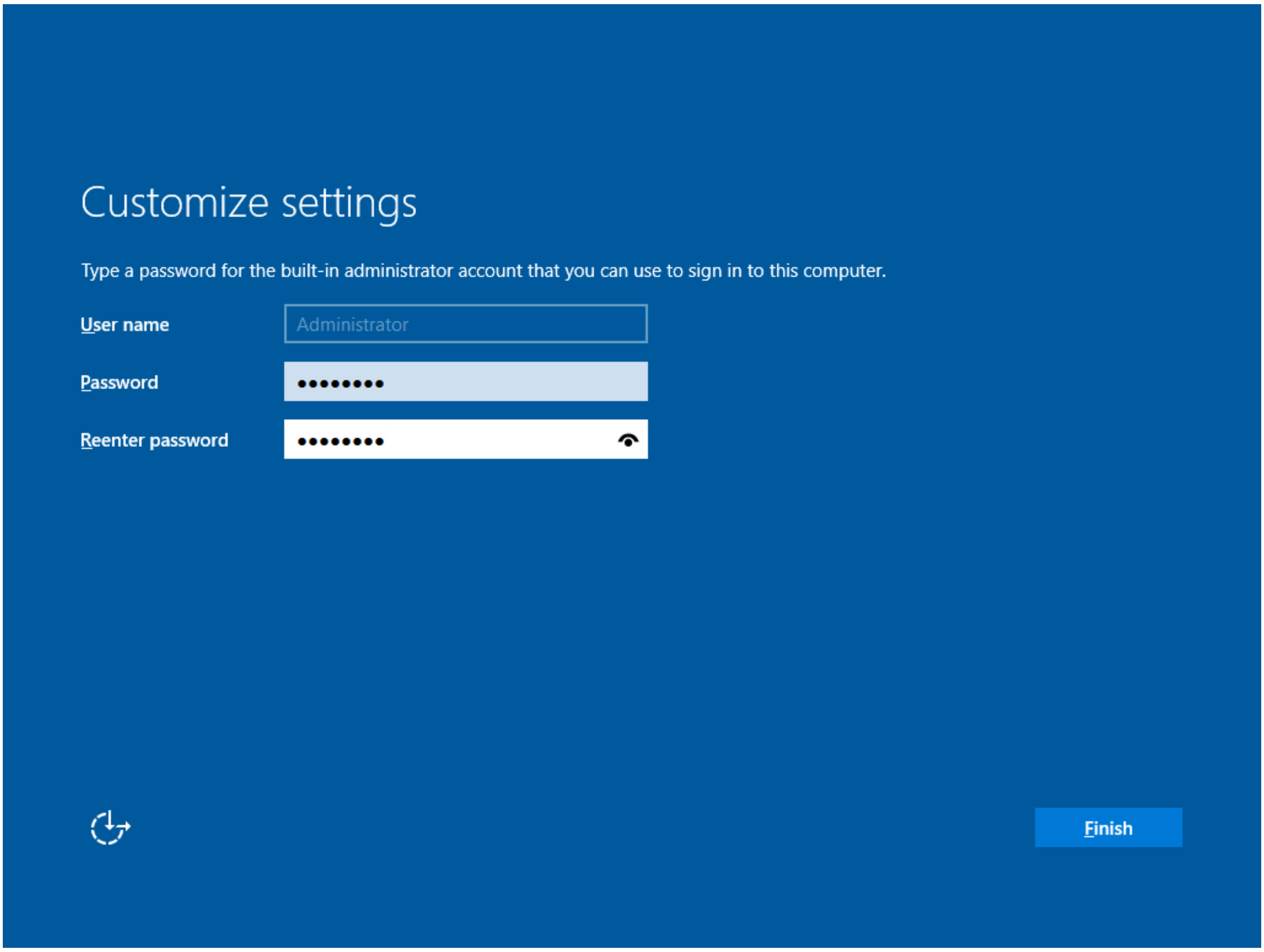


Installing Windows

Status

- ✓ Copying Windows files
- **Getting files ready for installation (0%)**
- Installing features
- Installing updates
- Finishing up

- Windows is now installing



Customize settings

Type a password for the built-in administrator account that you can use to sign in to this computer.

User name: Administrator

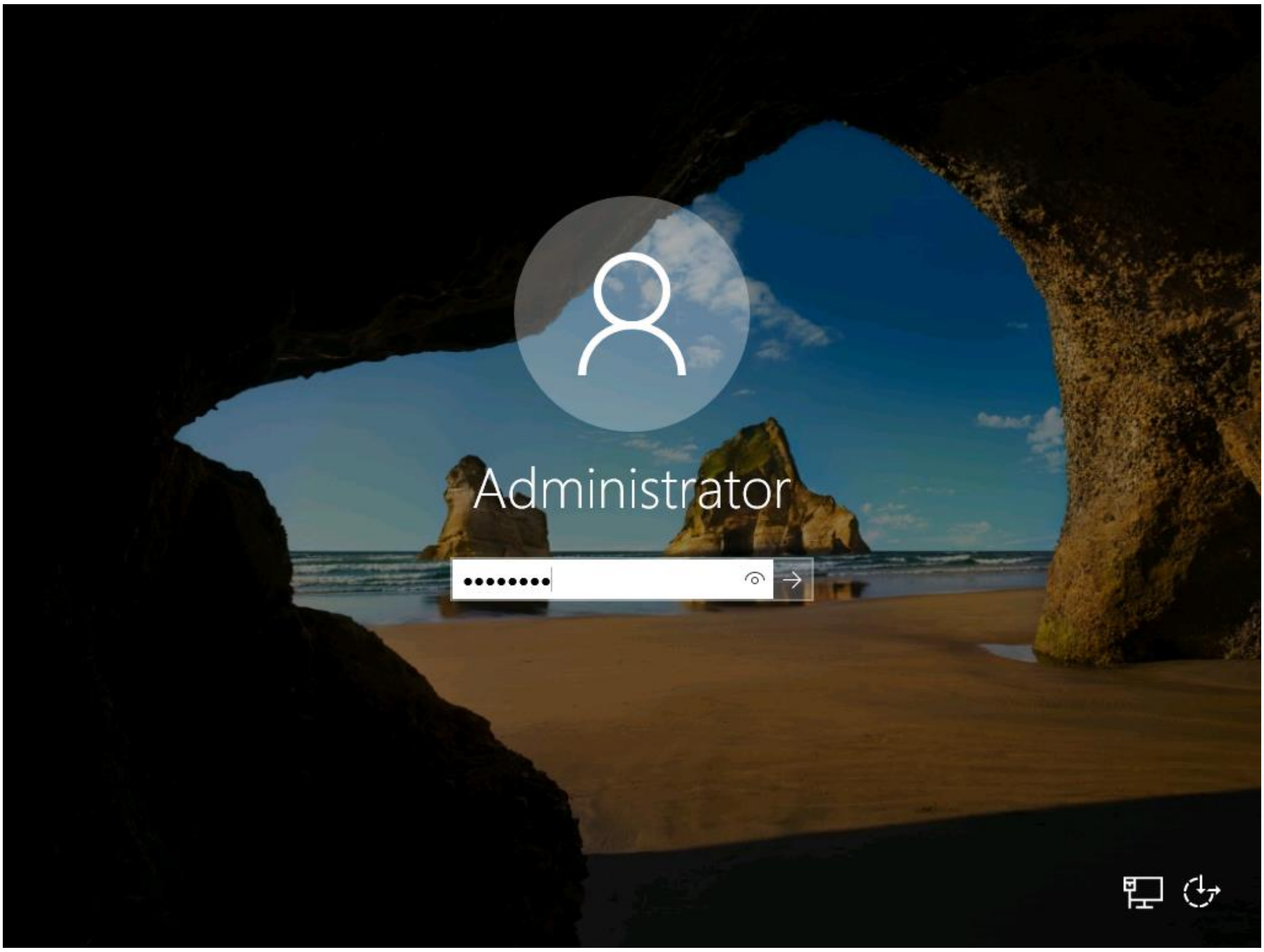
Password: ••••••••

Reenter password: ••••••••

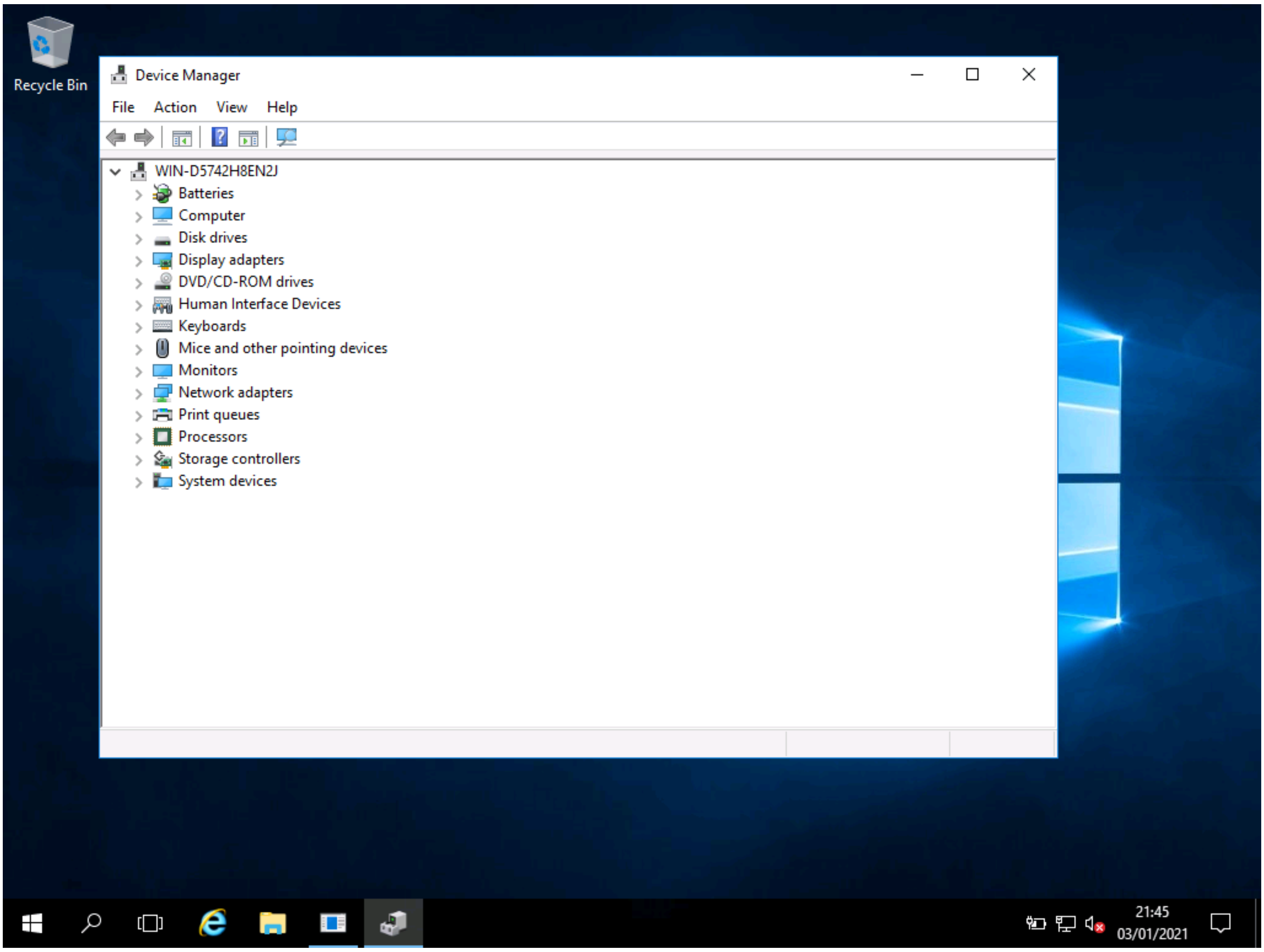
- I create an admin password for security

- These screenshots show me installing the server. Windows is now installed; I am prompted to set a password for the main local administrator account for the server

Screenshot:



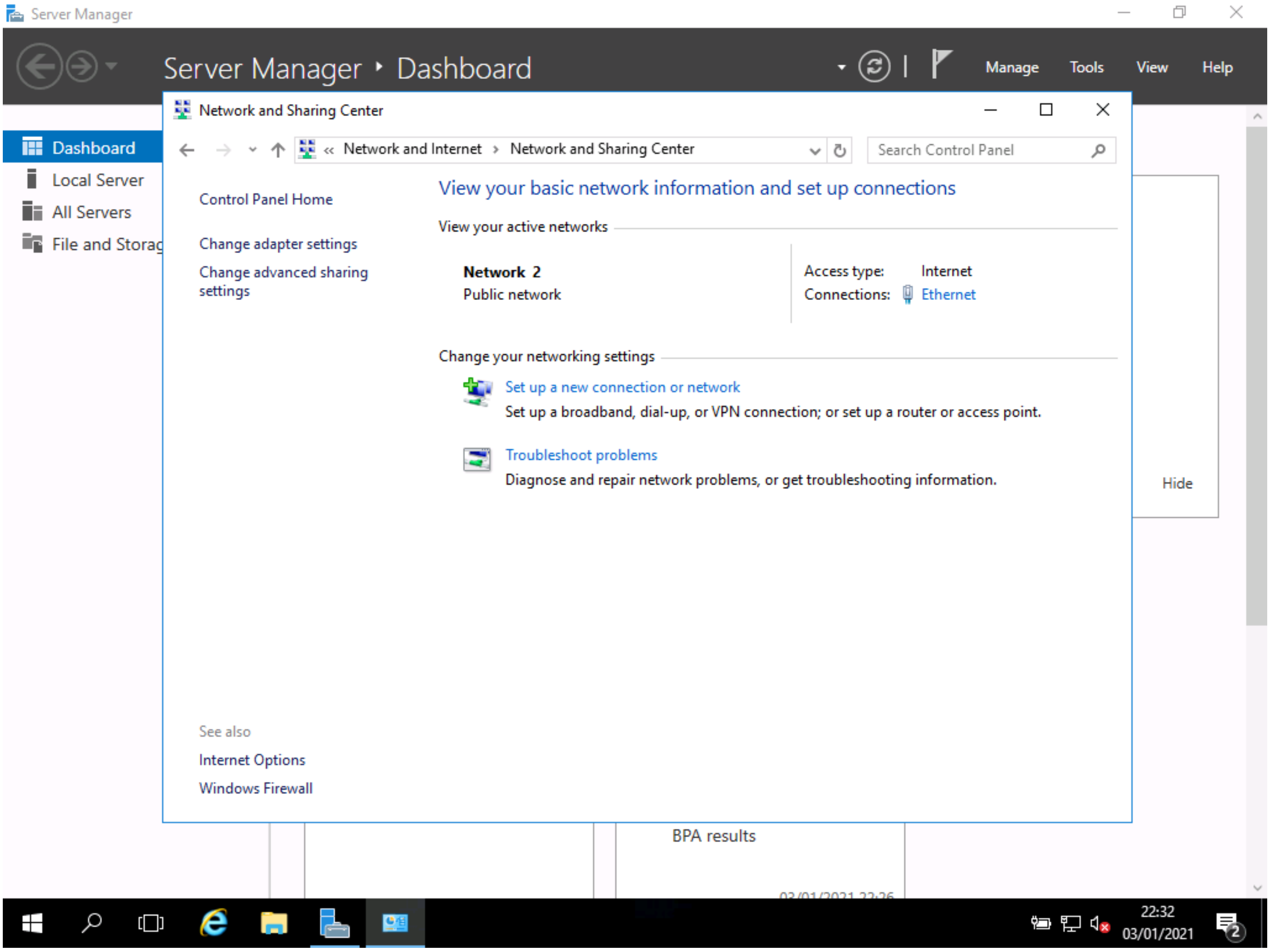
- I log in as administrator using the login and password previously set-up



- I have checked device manager. All drivers for this server have been detected and installed

Setting up network settings

Screenshots:



View your basic network information and set up connections

View your active networks

Network 2
Public network

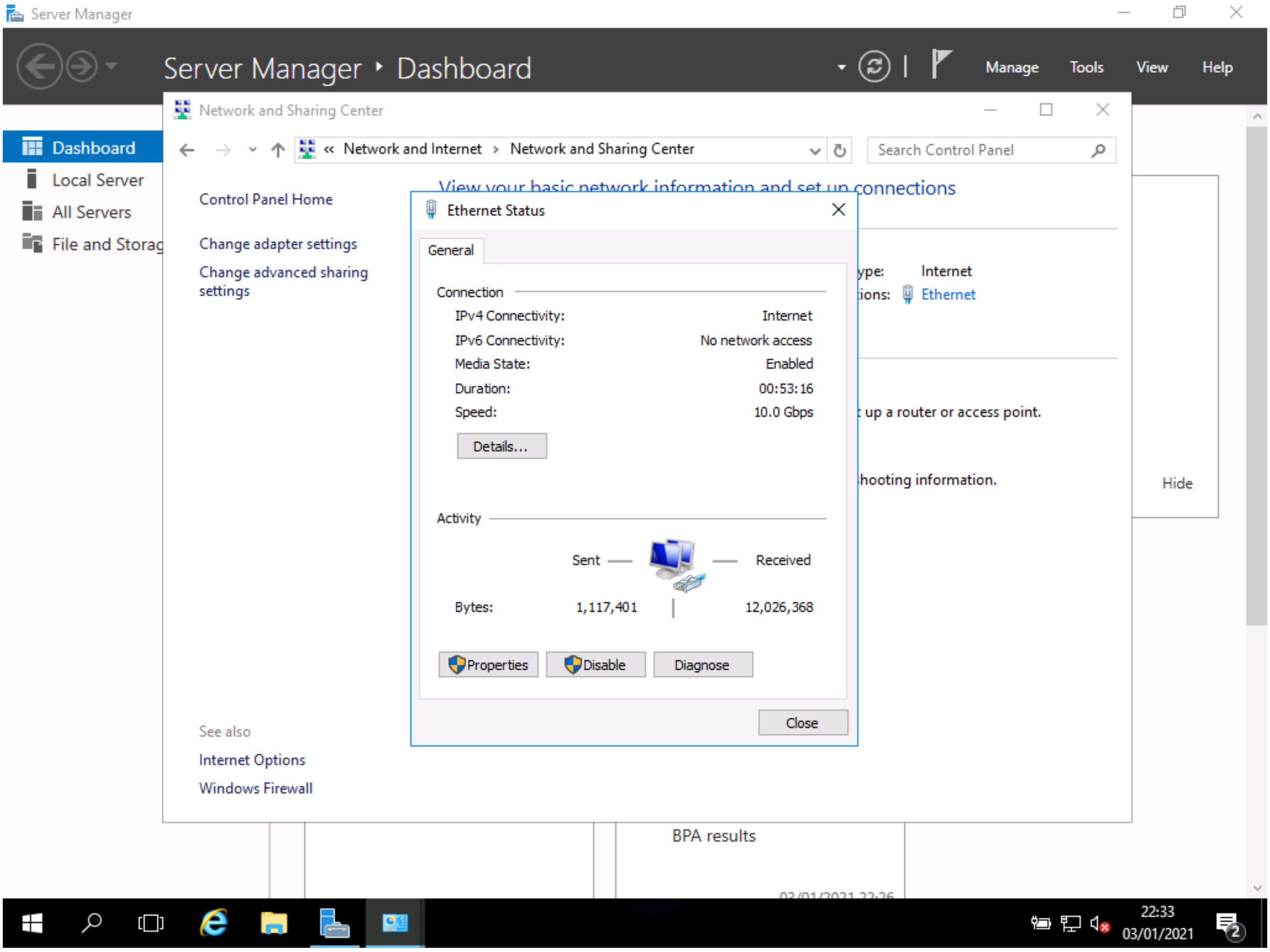
Access type: Internet
Connections: Ethernet

Change your networking settings

Set up a new connection or network
Set up a broadband, dial-up, or VPN connection; or set up a router or access point.

Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.

- I open the network settings



Ethernet Status

General

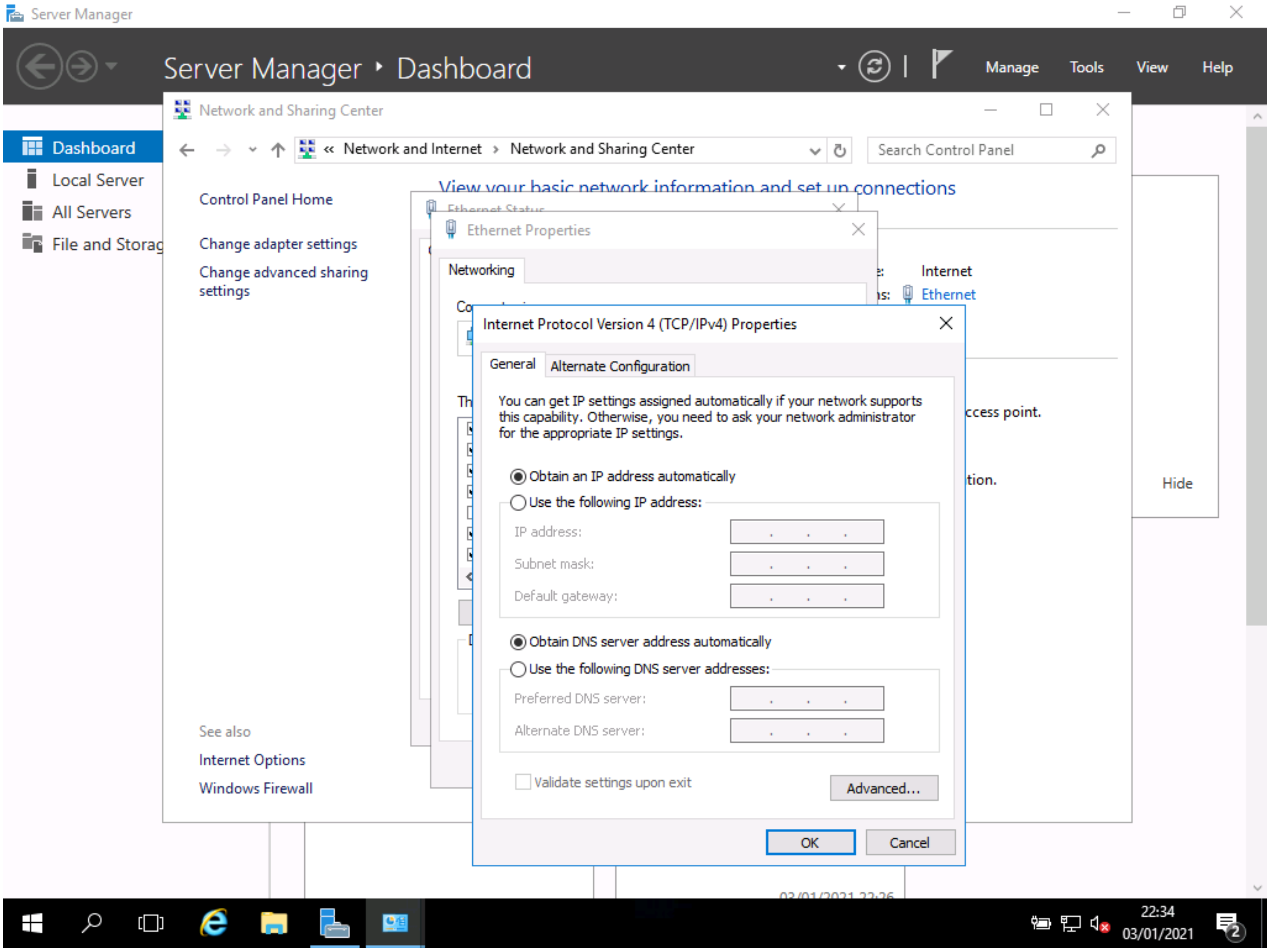
Connection

```
IPv4 Connectivity:                Internet
IPv6 Connectivity:       No network access
Media State:                       Enabled
Duration:                         00:53:16
Speed:                            10.0 Gbps
```

Activity

```
            Sent          Received
Bytes:  1,117,401       12,026,368
```

- I can see the selected network properties, and there is no connection



You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically

○ Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

● Obtain DNS server address automatically

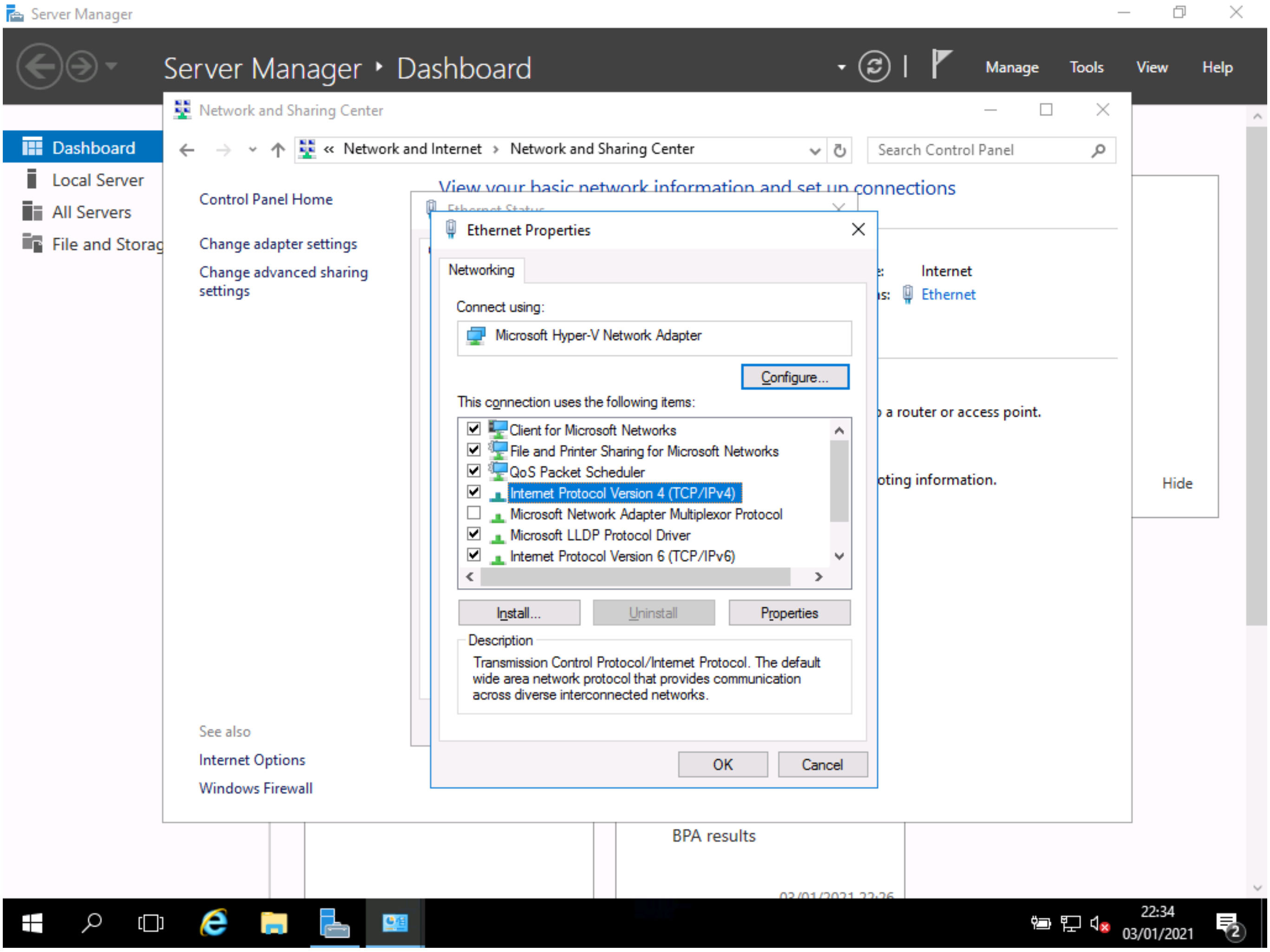
○ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

□ Validate settings upon exit

- I have located the properties for the network adapter



Ethernet Properties

Networking

Connect using:

Microsoft Hyper-V Network Adapter

Configure...

This connection uses the following items:

☑ Client for Microsoft Networks
☑ File and Printer Sharing for Microsoft Networks
☑ QoS Packet Scheduler
☑ Internet Protocol Version 4 (TCP/IPv4)
□ Microsoft Network Adapter Multiplexor Protocol
☑ Microsoft LLDP Protocol Driver
☑ Internet Protocol Version 6 (TCP/IPv6)

Install... Uninstall Properties

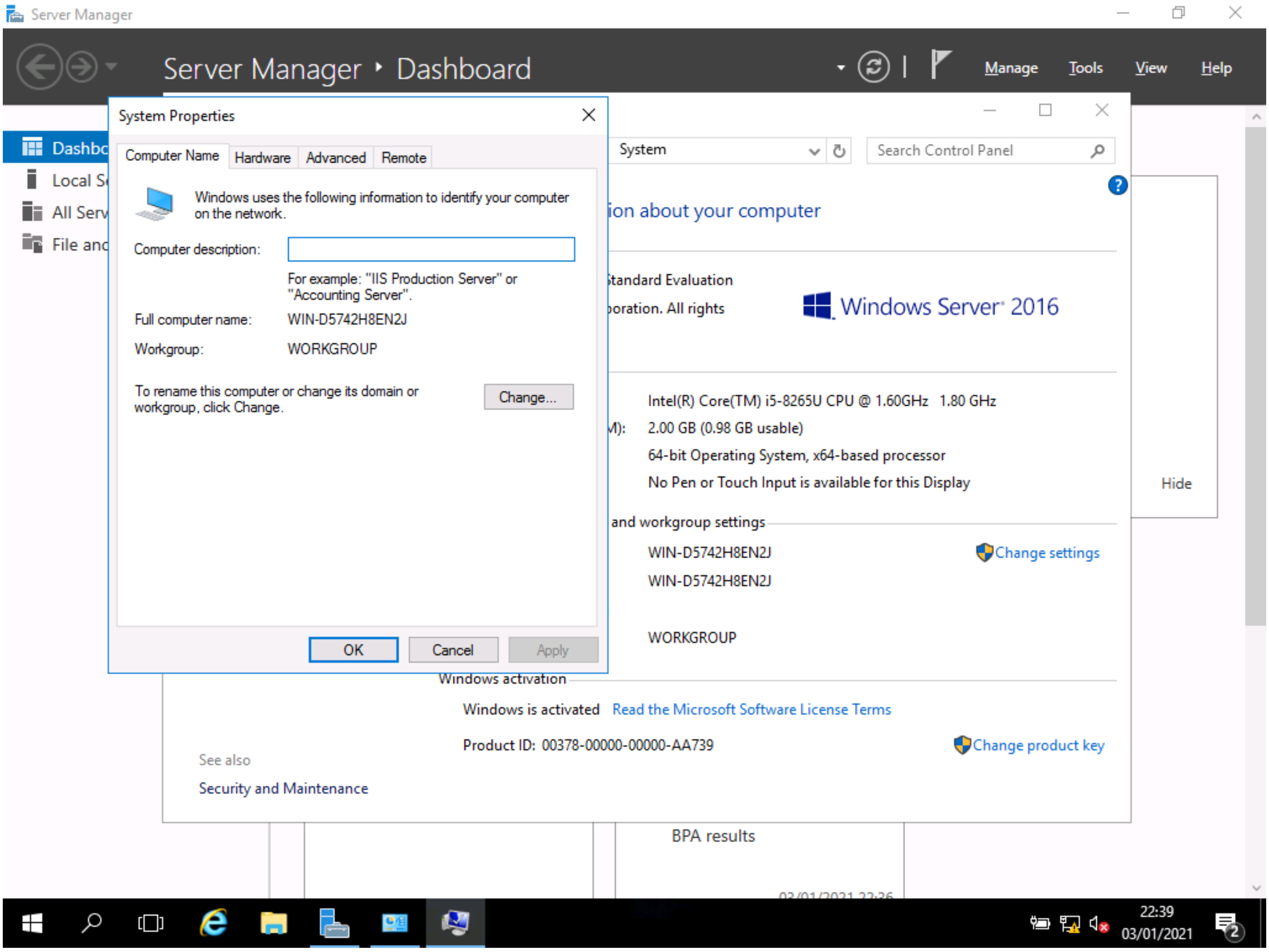
Description

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

OK Cancel

- These screenshots show me opening the properties for my network card and setting the IP address

Screenshots



System Properties

Computer Name | Hardware | Advanced | Remote

Windows uses the following information to identify your computer on the network.

Computer description:

For example: "IIS Production Server" or "Accounting Server".

Full computer name: WIN-D5742H8EN2J

Workgroup: WORKGROUP

To rename this computer or change its domain or workgroup, click Change. Change...

OK Cancel Apply

ion about your computer

tandard Evaluation

oration. All rights

Windows Server 2016

Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz 1.80 GHz

M): 2.00 GB (0.98 GB usable)

64-bit Operating System, x64-based processor

No Pen or Touch Input is available for this Display

and workgroup settings

WIN-D5742H8EN2J Change settings

WIN-D5742H8EN2J

WORKGROUP

Windows activation

Windows is activated Read the Microsoft Software License Terms

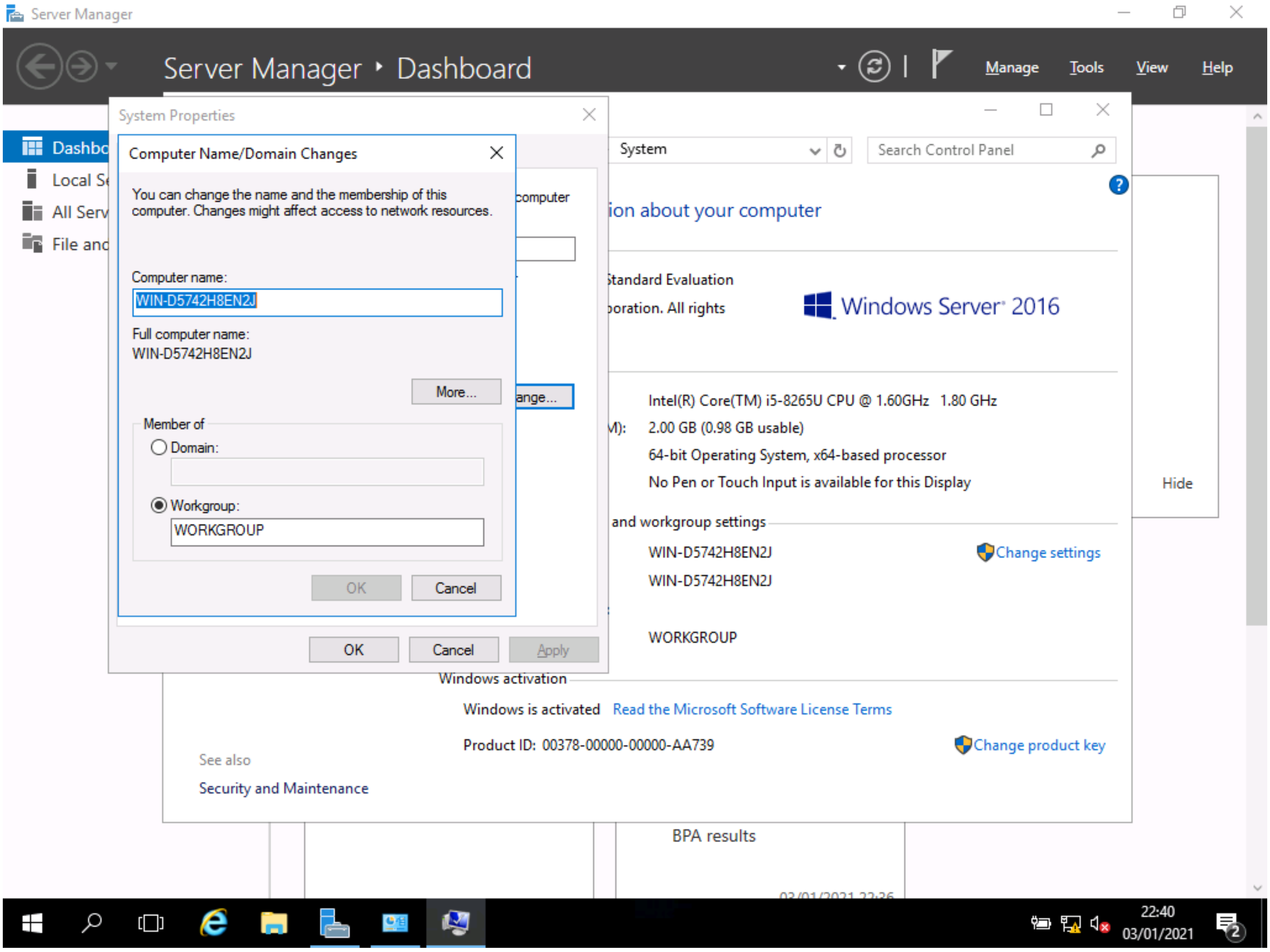
Product ID: 00378-00000-00000-AA739 Change product key

See also

Security and Maintenance

22:39
03/01/2021

- I can now rename the PC so that it is can easily be known



Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:
WIN-D5742H8EN2J

Full computer name:
WIN-D5742H8EN2J

Member of
○ Domain:
● Workgroup:
WORKGROUP

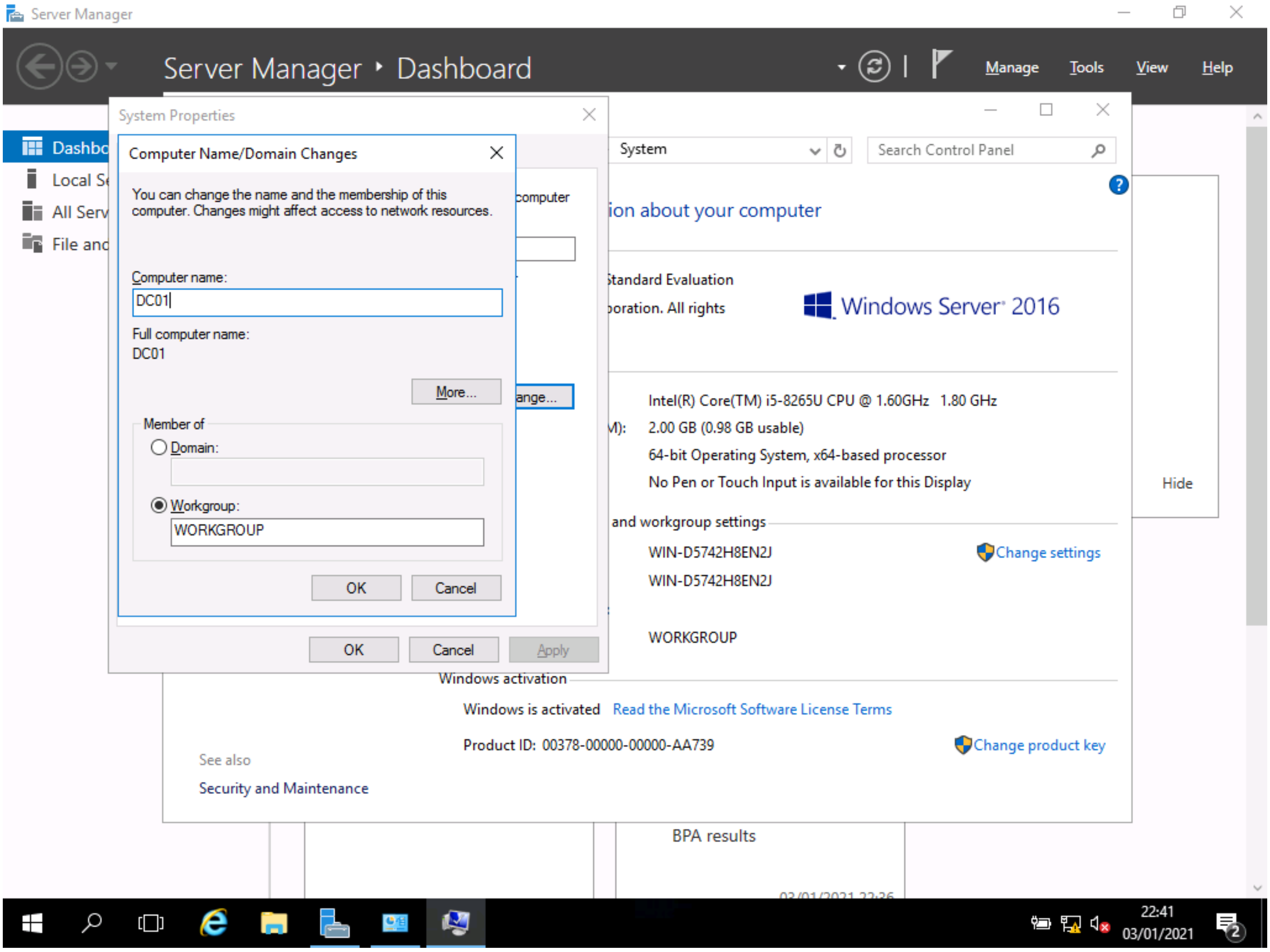
Standard Evaluation
poration. All rights

Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz 1.80 GHz
M): 2.00 GB (0.98 GB usable)
64-bit Operating System, x64-based processor
No Pen or Touch Input is available for this Display

and workgroup settings
WIN-D5742H8EN2J
WIN-D5742H8EN2J
WORKGROUP

Windows activation
Windows is activated
Product ID: 00378-00000-00000-AA739

- I give it a new name



Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name: DC01

Full computer name:
DC01

Member of
○ Domain:
● Workgroup: WORKGROUP

OK Cancel

ion about your computer

Standard Evaluation
poration. All rights

Intel(R) Core(TM) i5-8265U CPU @ 1.60GHz 1.80 GHz
M): 2.00 GB (0.98 GB usable)
64-bit Operating System, x64-based processor
No Pen or Touch Input is available for this Display

and workgroup settings
WIN-D5742H8EN2J
WIN-D5742H8EN2J
WORKGROUP

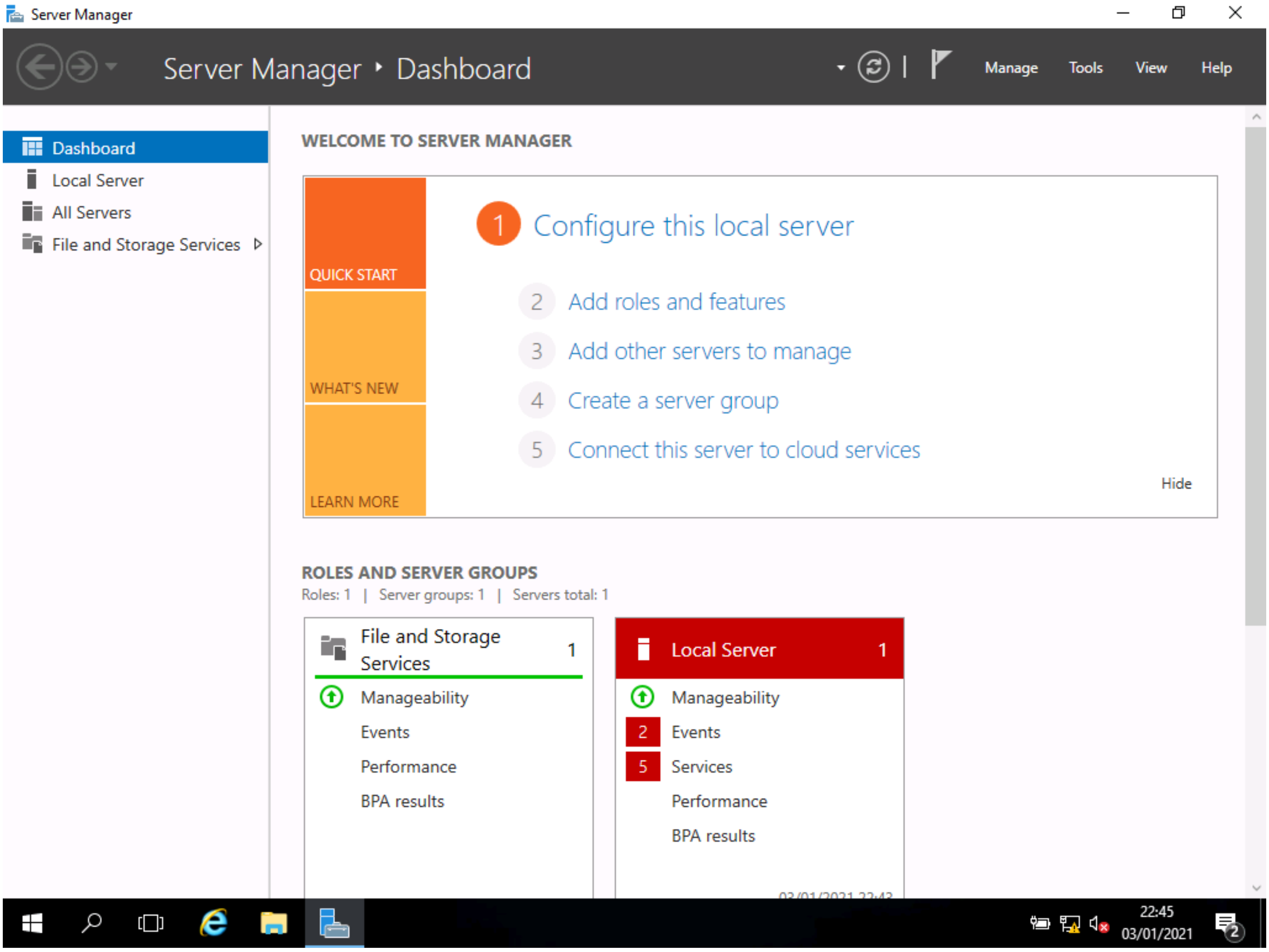
Windows activation
Windows is activated Read the Microsoft Software License Terms
Product ID: 00378-00000-00000-AA739

Adding name

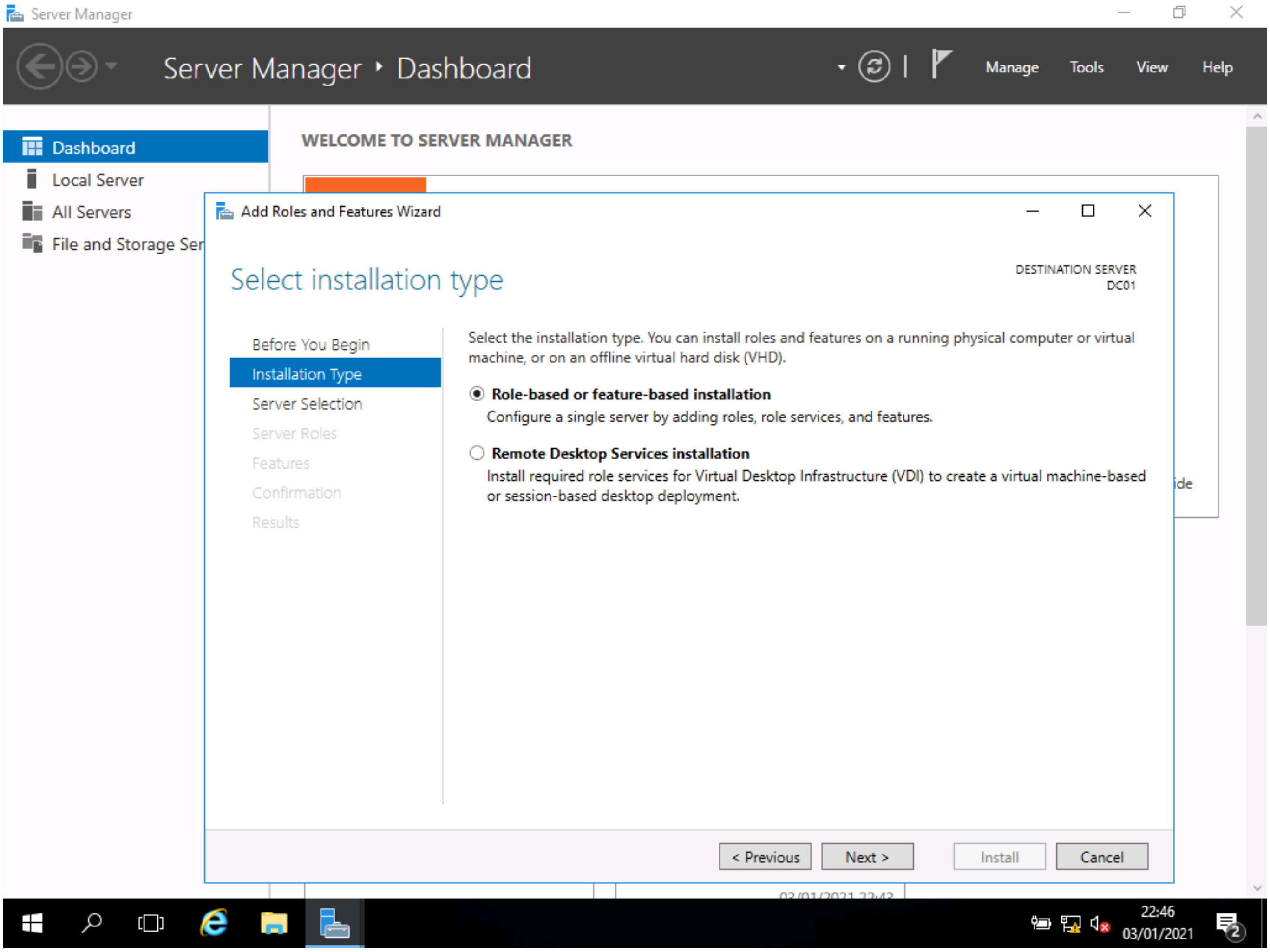
- The above 3 images show me opening the computer name settings and changing the computer name DC01

Allocating server roles

Screenshot



- I now open Server Manager



Select installation type

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

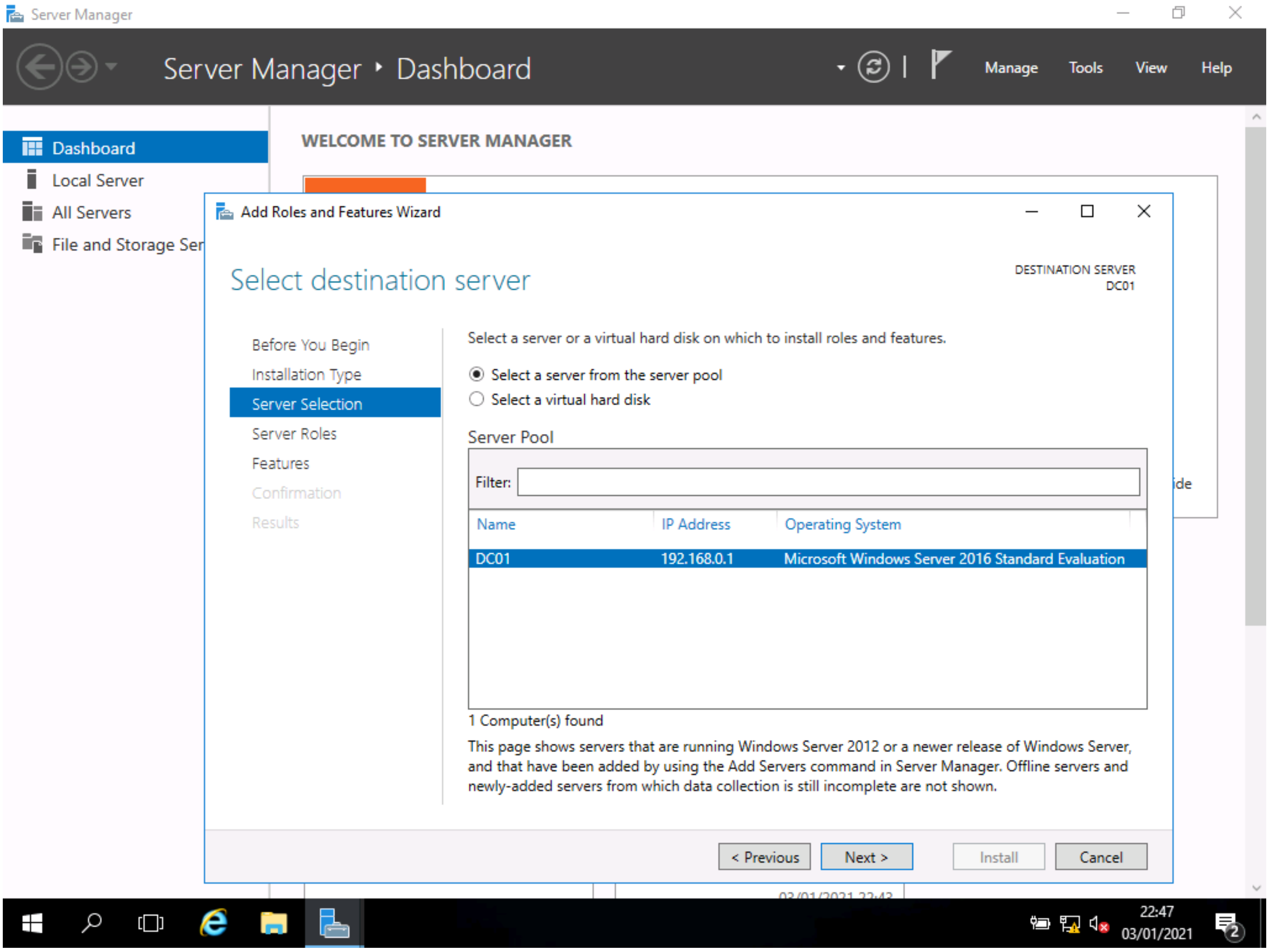
● **Role-based or feature-based installation**
Configure a single server by adding roles, role services, and features.

○ **Remote Desktop Services installation**
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

- I choose role-based installation to add the new roles as this is the easiest to use

- I can now set the roles for the server

Screenshot:



Select destination server

DESTINATION SERVER
DC01

Select a server or a virtual hard disk on which to install roles and features.

● Select a server from the server pool
○ Select a virtual hard disk

Server Pool

Filter:

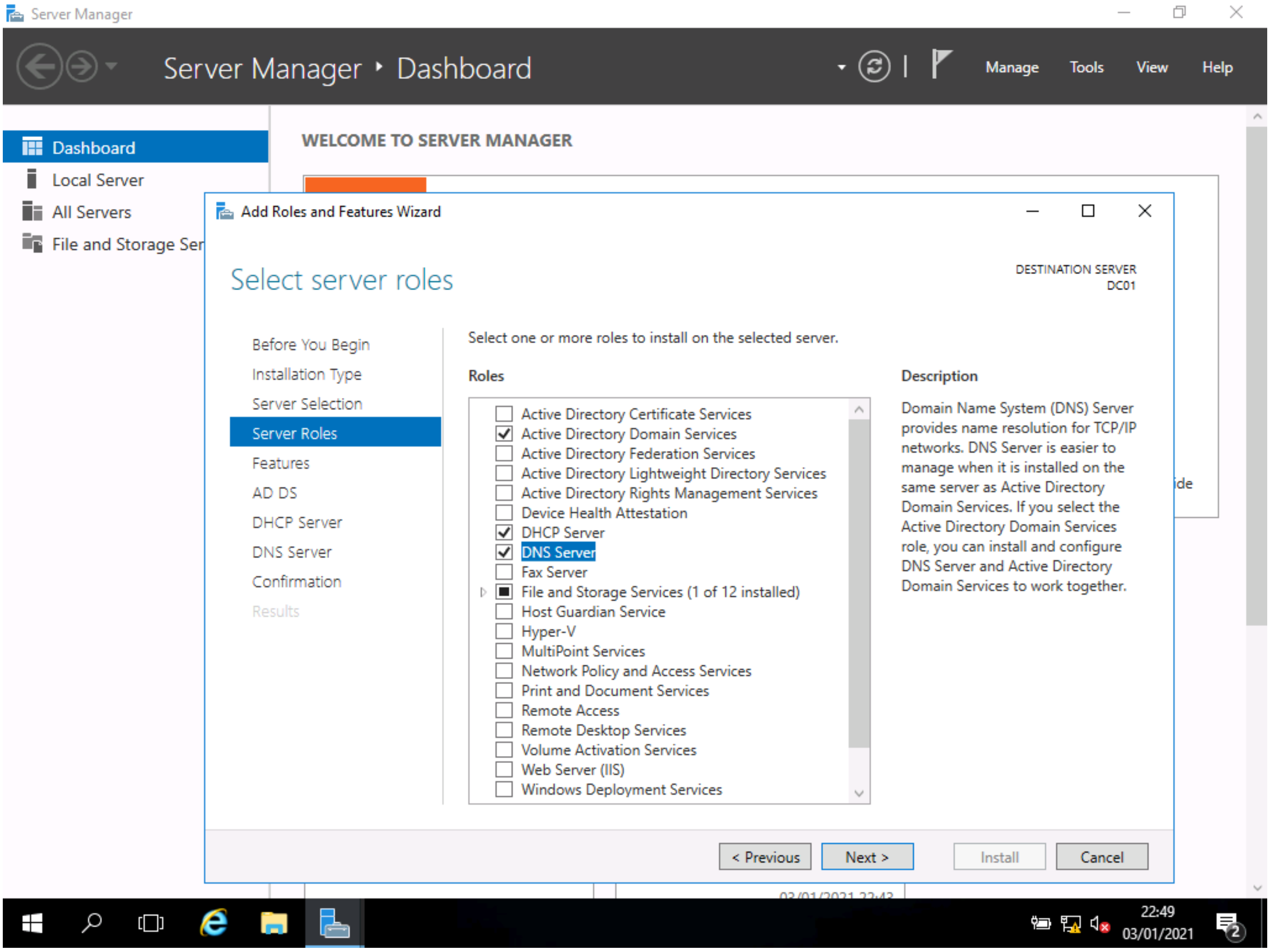
Name	IP Address	Operating System
DC01	192.168.0.1	Microsoft Windows Server 2016 Standard Evaluation

1 Computer(s) found

This page shows servers that are running Windows Server 2012 or a newer release of Windows Server, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

- I choose this server as it is the only one in the list

Screenshot:



Select server roles

DESTINATION SERVER
DC01

Select one or more roles to install on the selected server.

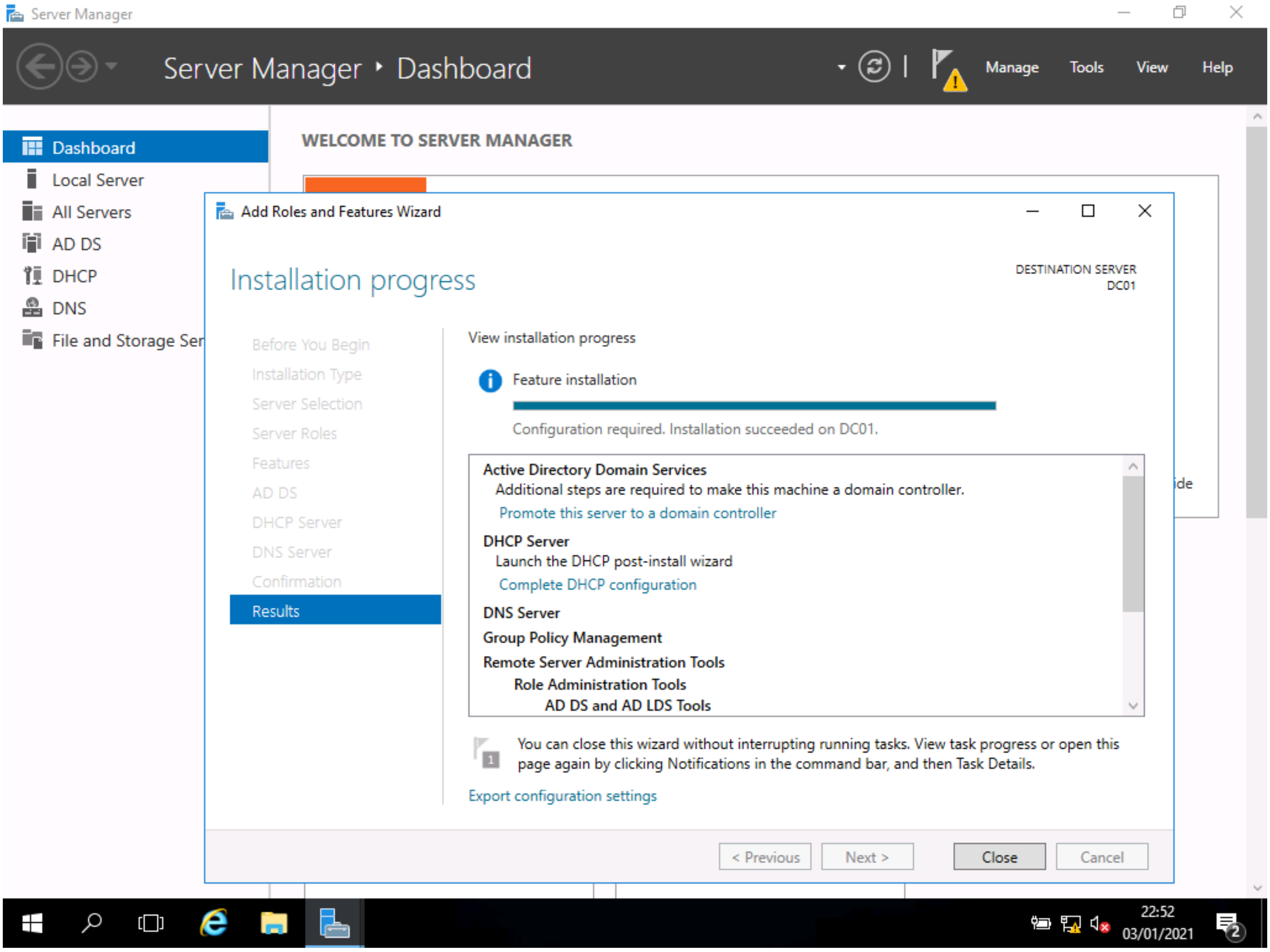
Roles

- □ Active Directory Certificate Services
- ☑ Active Directory Domain Services
- □ Active Directory Federation Services
- □ Active Directory Lightweight Directory Services
- □ Active Directory Rights Management Services
- □ Device Health Attestation
- ☑ DHCP Server
- ☑ DNS Server
- □ Fax Server
- ■ File and Storage Services (1 of 12 installed)
- □ Host Guardian Service
- □ Hyper-V
- □ MultiPoint Services
- □ Network Policy and Access Services
- □ Print and Document Services
- □ Remote Access
- □ Remote Desktop Services
- □ Volume Activation Services
- □ Web Server (IIS)
- □ Windows Deployment Services

Description

Domain Name System (DNS) Server provides name resolution for TCP/IP networks. DNS Server is easier to manage when it is installed on the same server as Active Directory Domain Services. If you select the Active Directory Domain Services role, you can install and configure DNS Server and Active Directory Domain Services to work together.

- I add the required features that I need to add, for example: Active Directory Domain Services, DHCP Server, DNS Server



Installation progress

DESTINATION SERVER
DC01

View installation progress

Feature installation

Configuration required. Installation succeeded on DC01.

Active Directory Domain Services
Additional steps are required to make this machine a domain controller.
Promote this server to a domain controller

DHCP Server
Launch the DHCP post-install wizard
Complete DHCP configuration

DNS Server

Group Policy Management

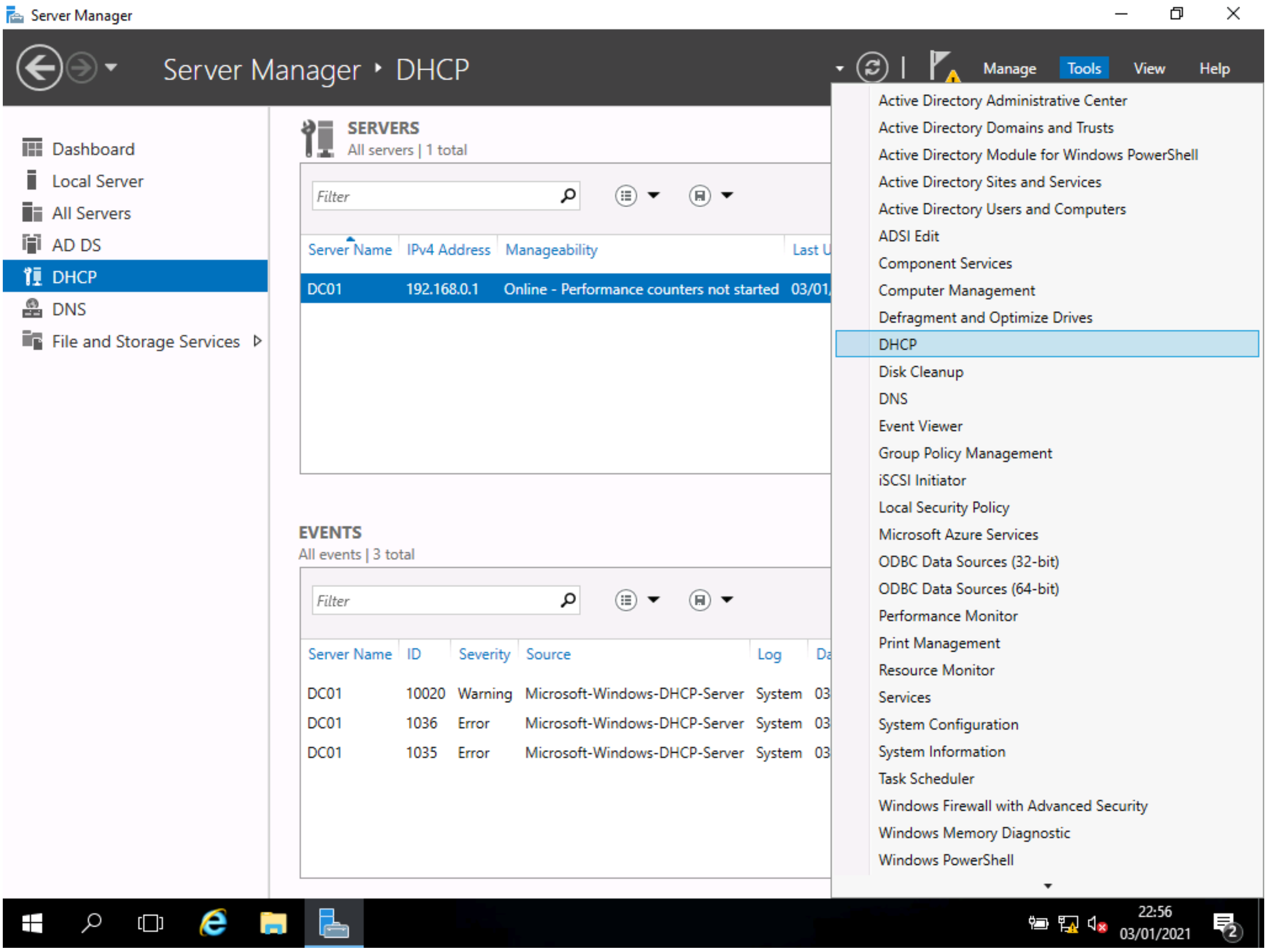
Remote Server Administration Tools
Role Administration Tools
AD DS and AD LDS Tools

You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

Export configuration settings

- These screenshots show the server roles of Active Directory, DNS, and DHCP
- Once the server has added the new roles and rebooted I can set-up the DHCP

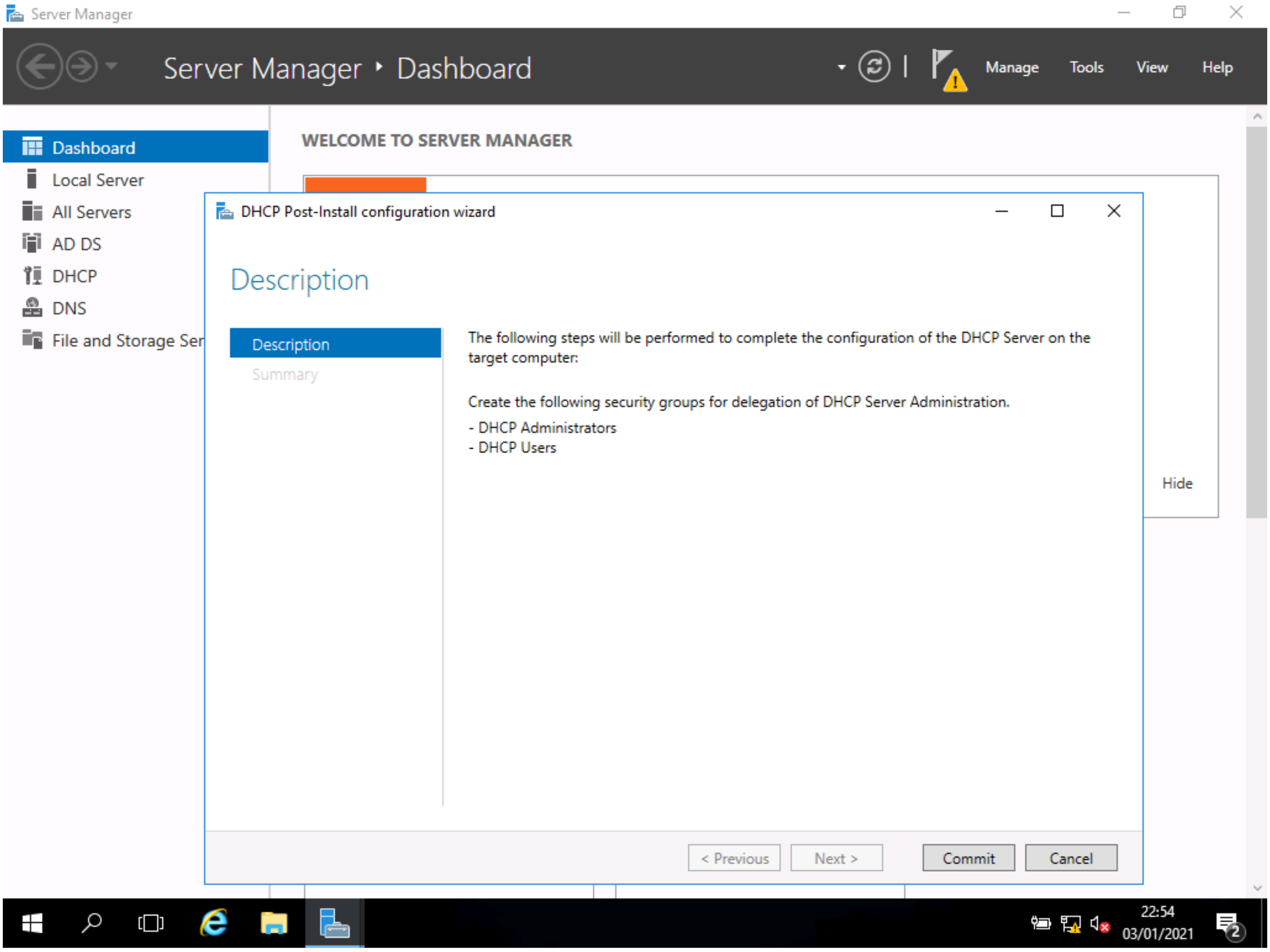
Setting up DHCP



Server Name	IPv4 Address	Manageability	Last U
DC01	192.168.0.1	Online - Performance counters not started	03/01,

Server Name	ID	Severity	Source	Log	Da
DC01	10020	Warning	Microsoft-Windows-DHCP-Server	System	03
DC01	1036	Error	Microsoft-Windows-DHCP-Server	System	03
DC01	1035	Error	Microsoft-Windows-DHCP-Server	System	03

- From tools, I choose DHCP

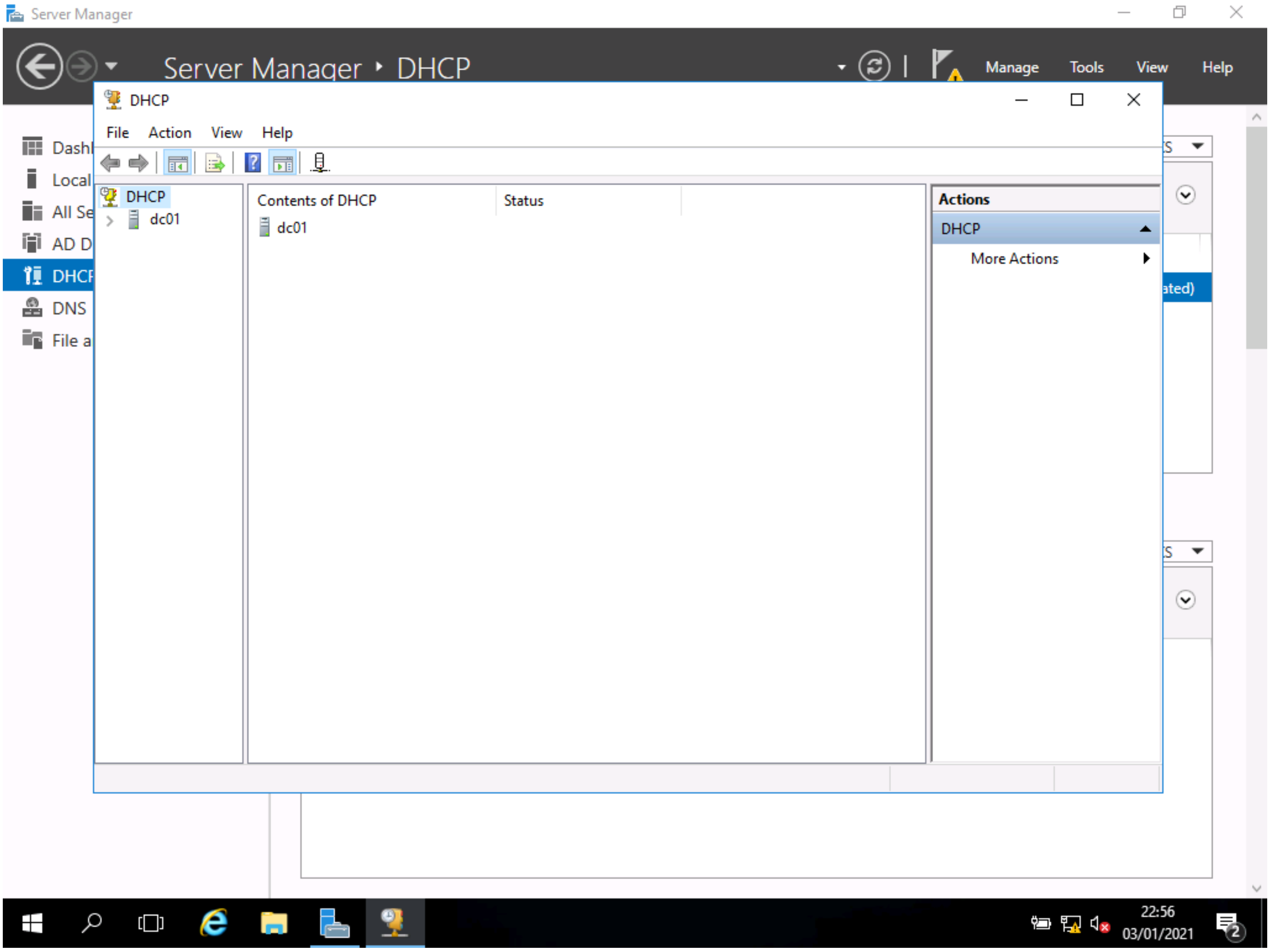


The following steps will be performed to complete the configuration of the DHCP Server on the target computer:

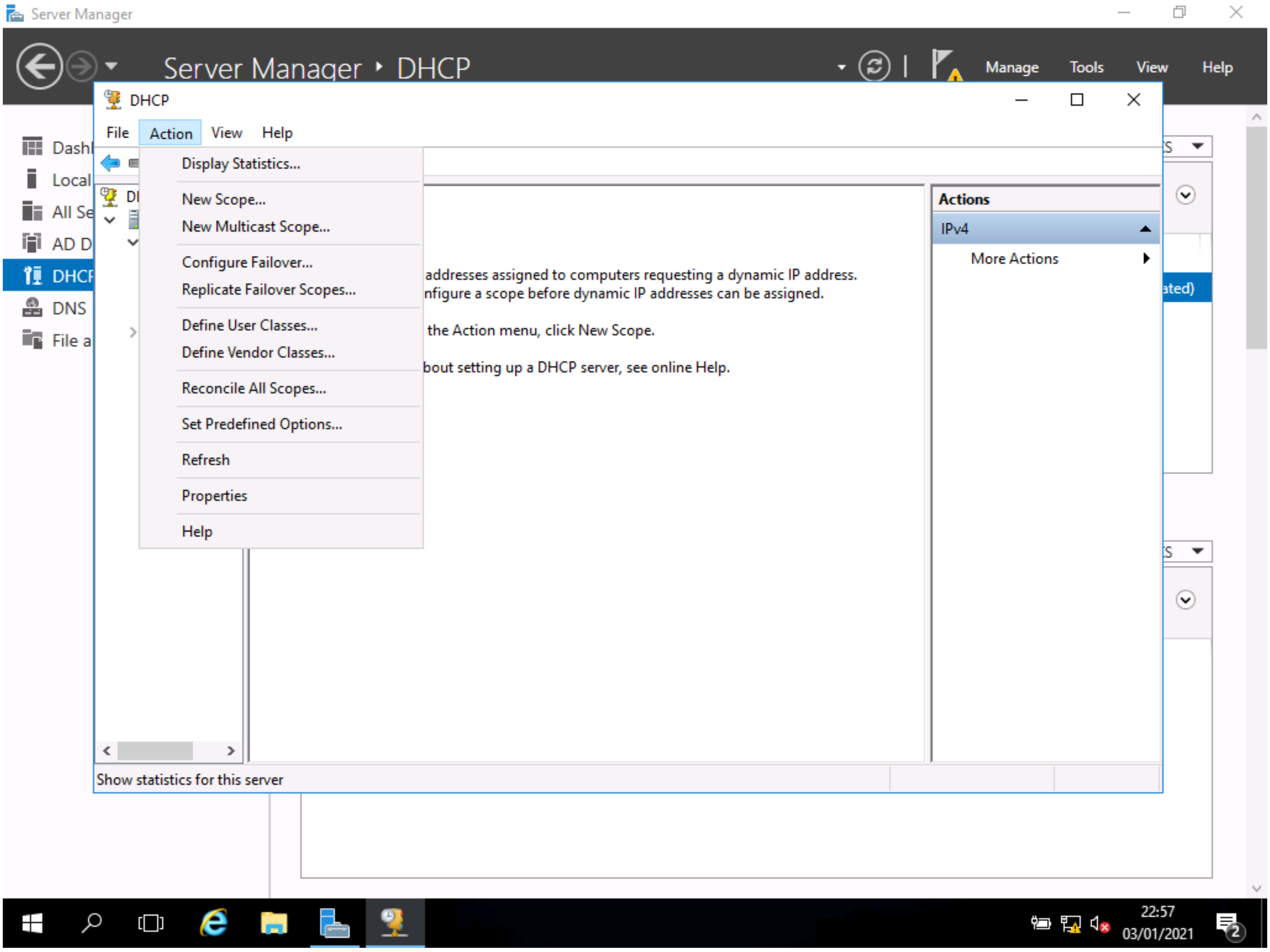
Create the following security groups for delegation of DHCP Server Administration.

- DHCP Administrators
- DHCP Users

- I click continue to go to the next step



- I have now added DHCP



addresses assigned to computers requesting a dynamic IP address.
nfigure a scope before dynamic IP addresses can be assigned.

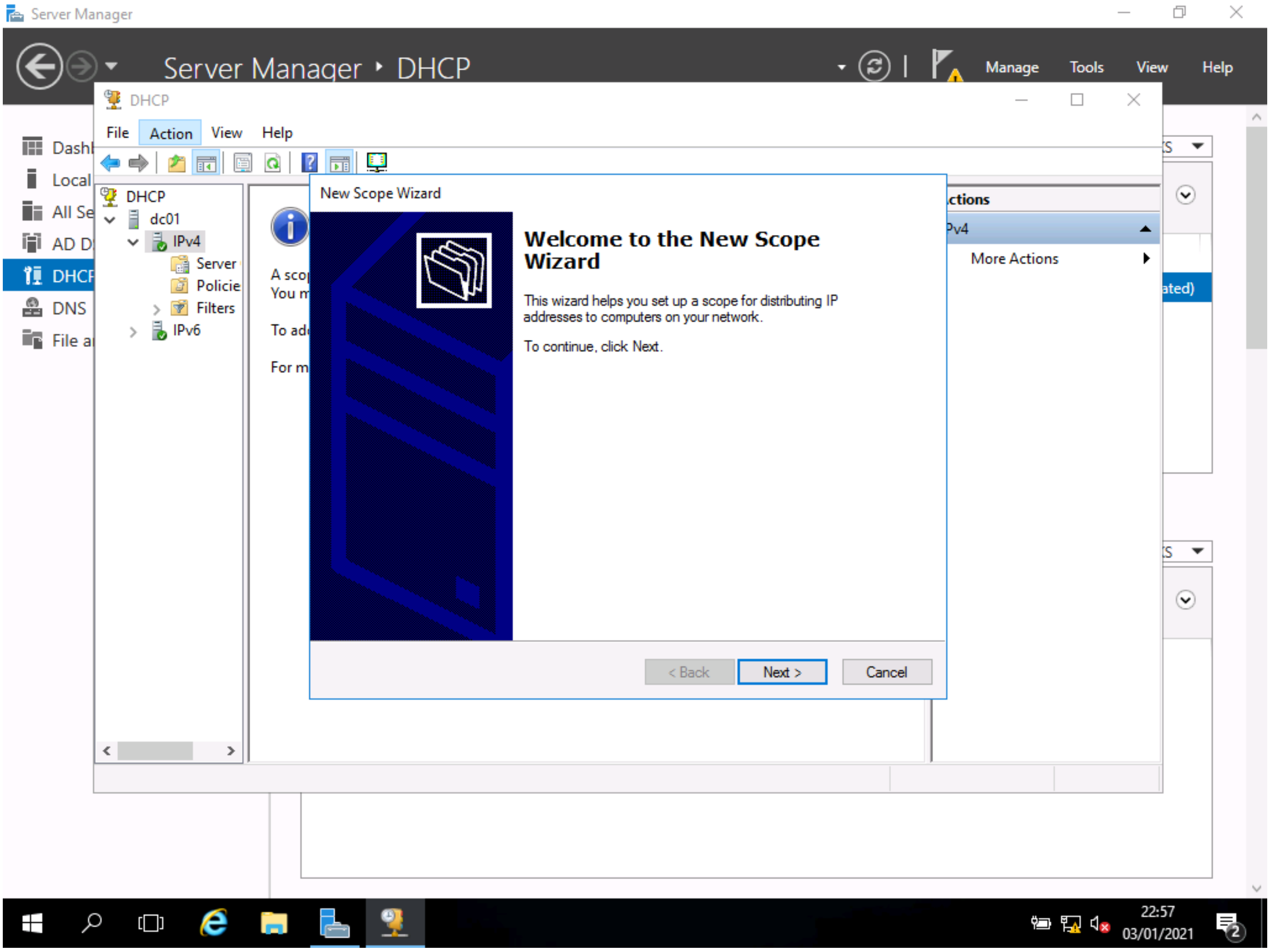
the Action menu, click New Scope.

bout setting up a DHCP server, see online Help.

Show statistics for this server

- I now add a new scope to give out the addresses

Selecting new scope



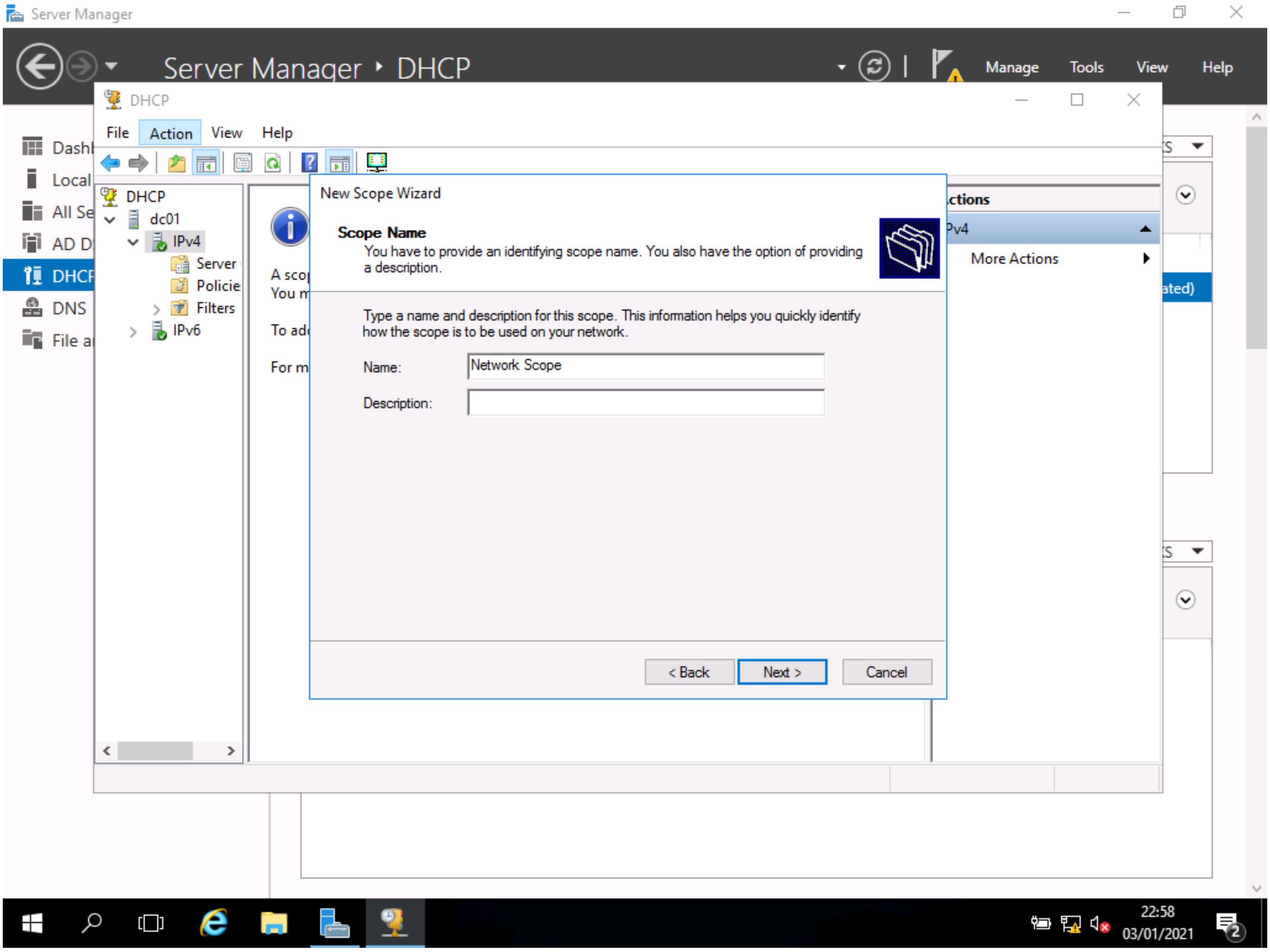
New Scope Wizard

Welcome to the New Scope Wizard

This wizard helps you set up a scope for distributing IP addresses to computers on your network.

To continue, click Next.

- I run the New Scope Wizard



New Scope Wizard

Scope Name

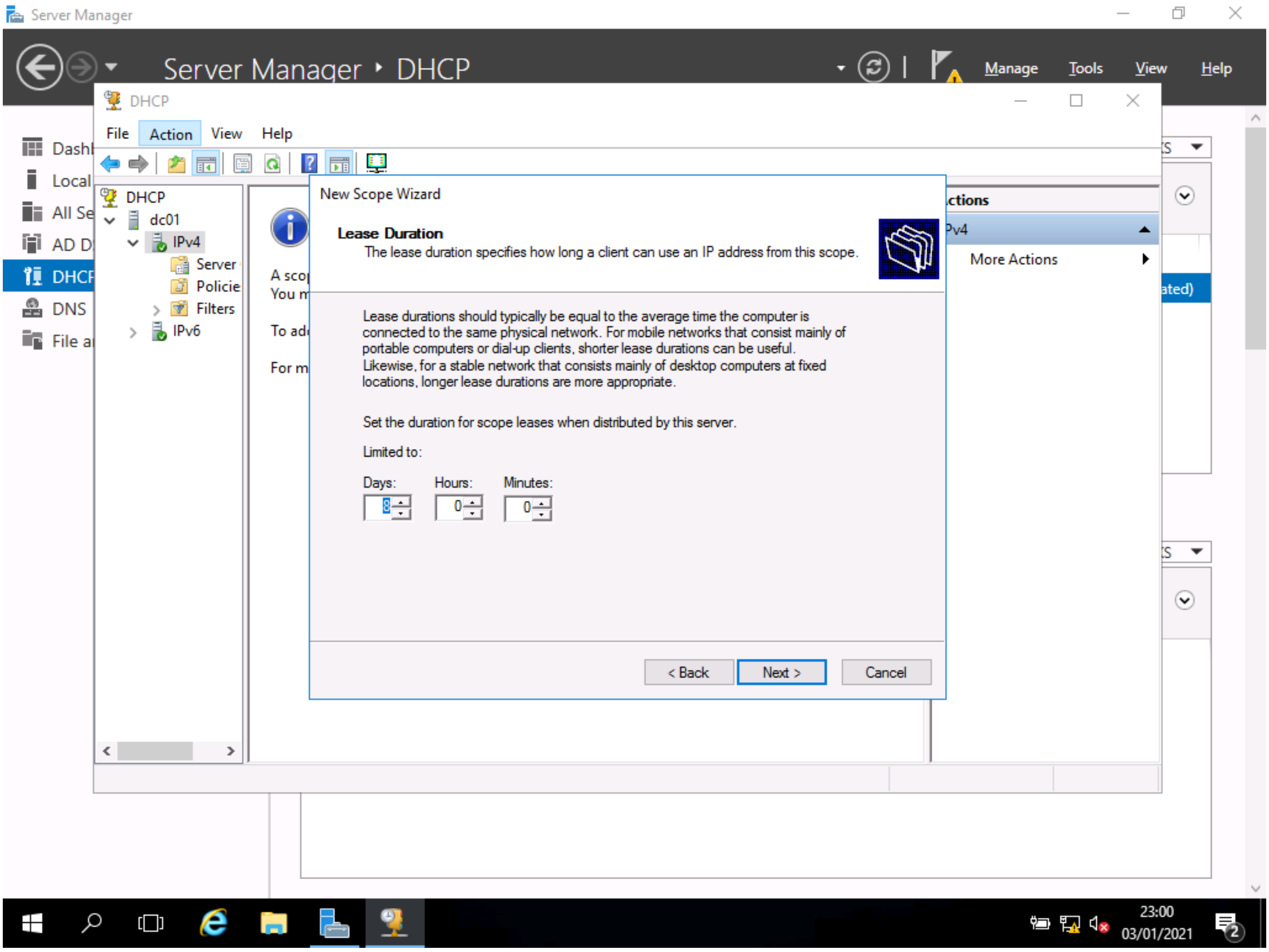
You have to provide an identifying scope name. You also have the option of providing a description.

Type a name and description for this scope. This information helps you quickly identify how the scope is to be used on your network.

Name: Network Scope

Description:

- I leave the default settings as these are OK to use



New Scope Wizard

Lease Duration

The lease duration specifies how long a client can use an IP address from this scope.

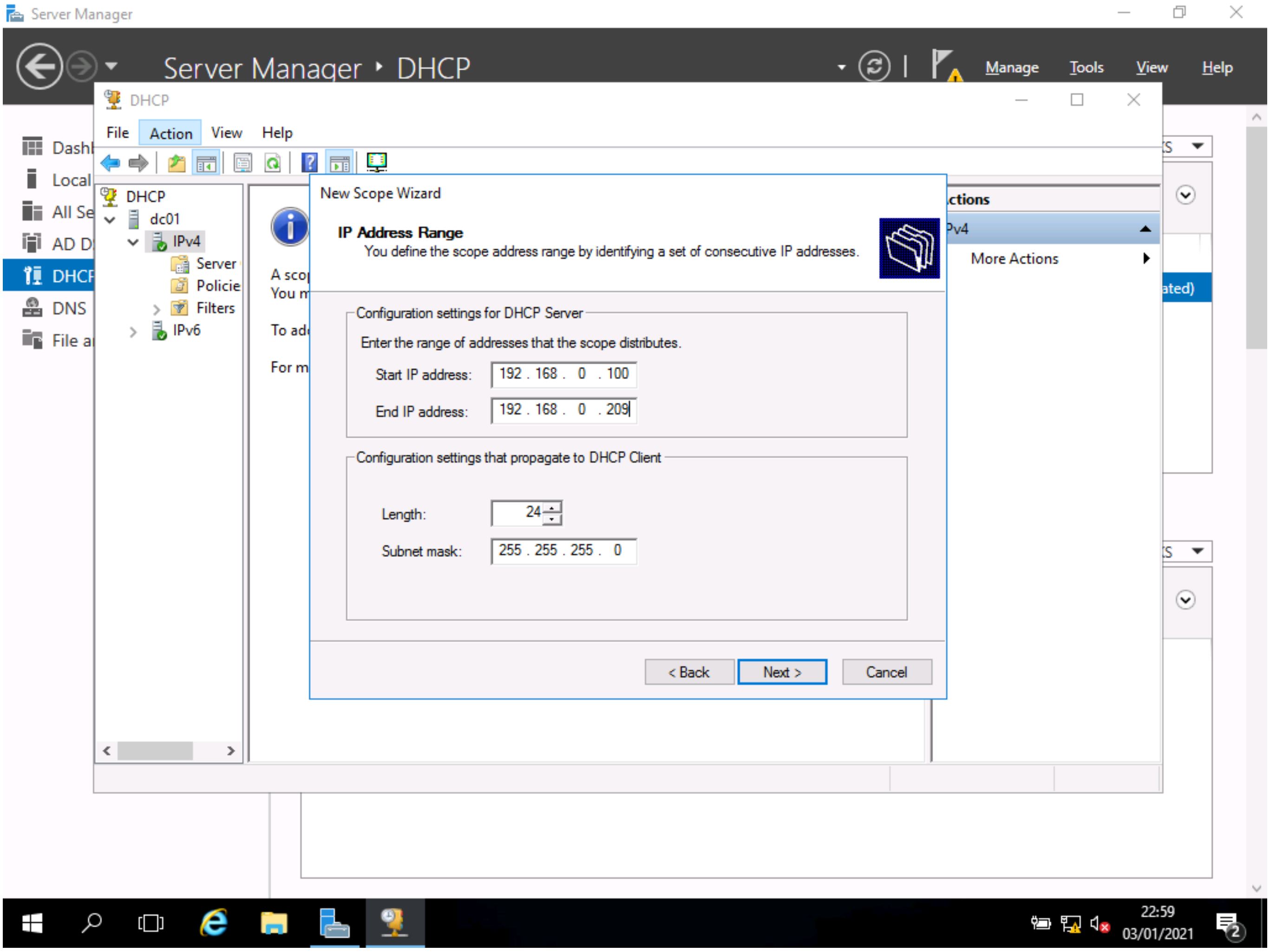
Lease durations should typically be equal to the average time the computer is connected to the same physical network. For mobile networks that consist mainly of portable computers or dial-up clients, shorter lease durations can be useful. Likewise, for a stable network that consists mainly of desktop computers at fixed locations, longer lease durations are more appropriate.

Set the duration for scope leases when distributed by this server.

Limited to:

Days: 8 Hours: 0 Minutes: 0

- I add a lease time of 8 days, which is the normal length of time set



New Scope Wizard

IP Address Range

You define the scope address range by identifying a set of consecutive IP addresses.

Configuration settings for DHCP Server

Enter the range of addresses that the scope distributes.

Start IP address: 192 . 168 . 0 . 100

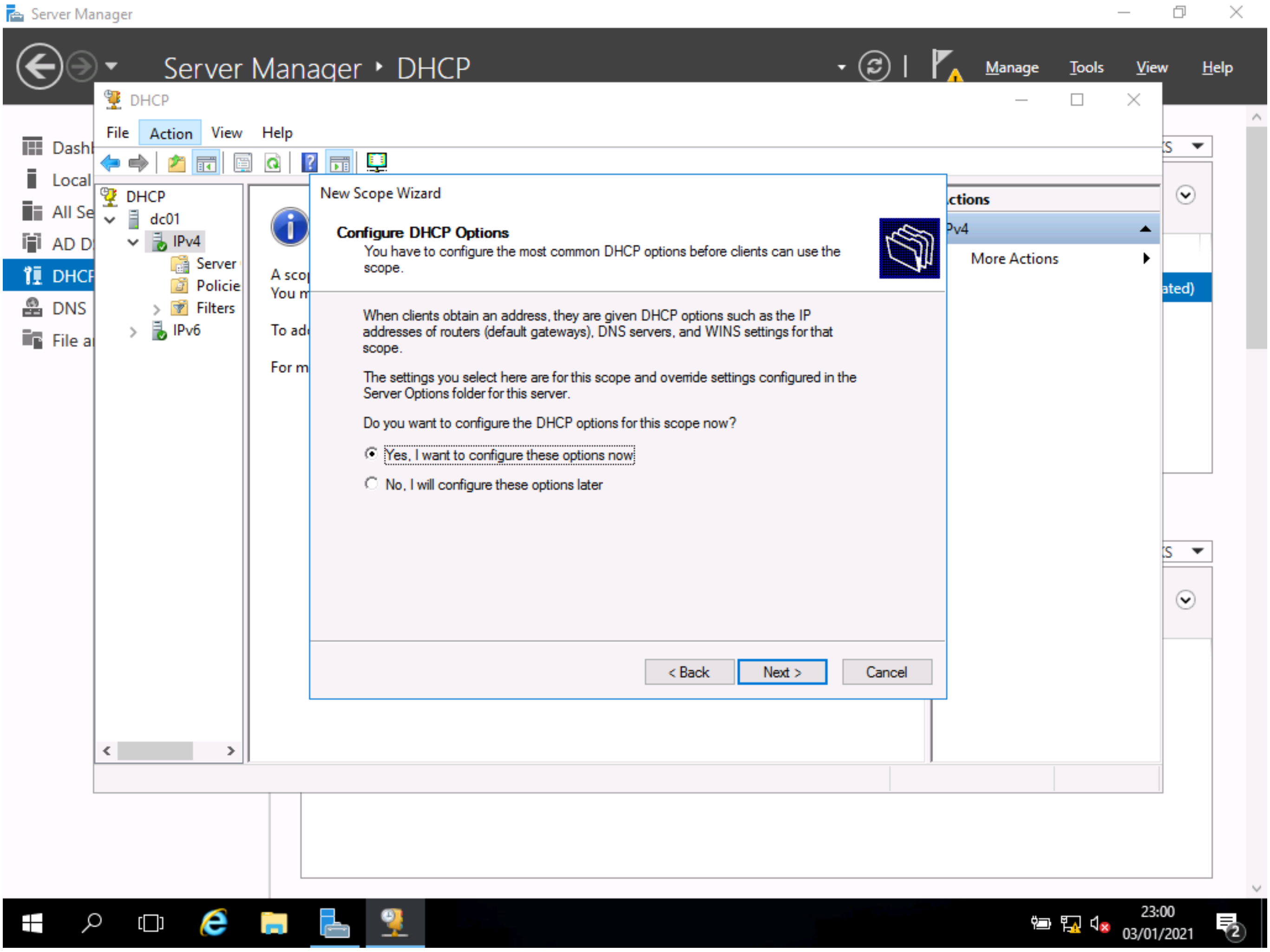
End IP address: 192 . 168 . 0 . 209

Configuration settings that propagate to DHCP Client

Length: 24

Subnet mask: 255 . 255 . 255 . 0

- I add a DHCP range for the addresses to give out.
- I add a range of addresses to use



New Scope Wizard

Configure DHCP Options

You have to configure the most common DHCP options before clients can use the scope.

When clients obtain an address, they are given DHCP options such as the IP addresses of routers (default gateways), DNS servers, and WINS settings for that scope.

The settings you select here are for this scope and override settings configured in the Server Options folder for this server.

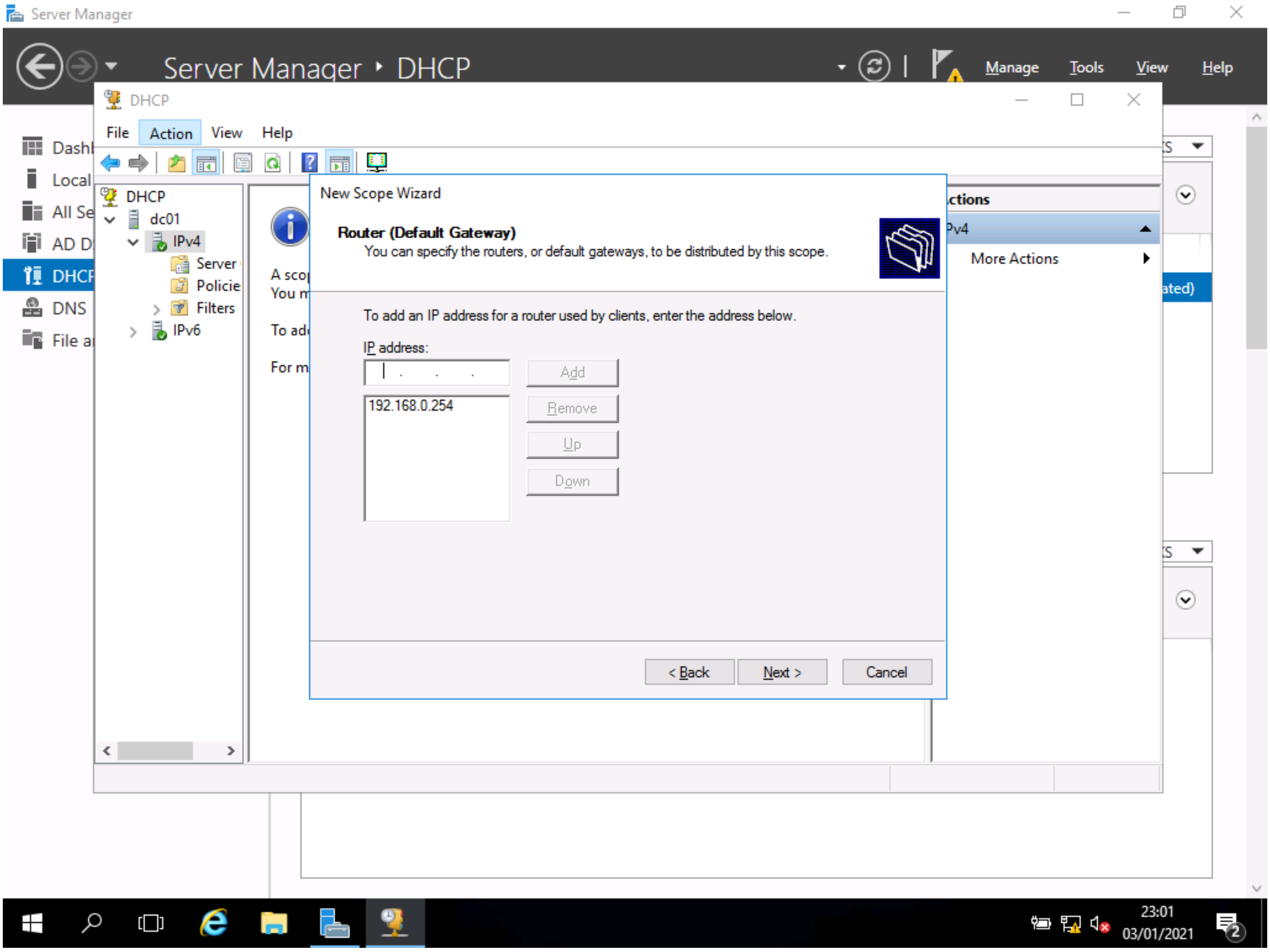
Do you want to configure the DHCP options for this scope now?

● Yes, I want to configure these options now

○ No, I will configure these options later

< Back | Next > | Cancel

- I add options



New Scope Wizard

Router (Default Gateway)

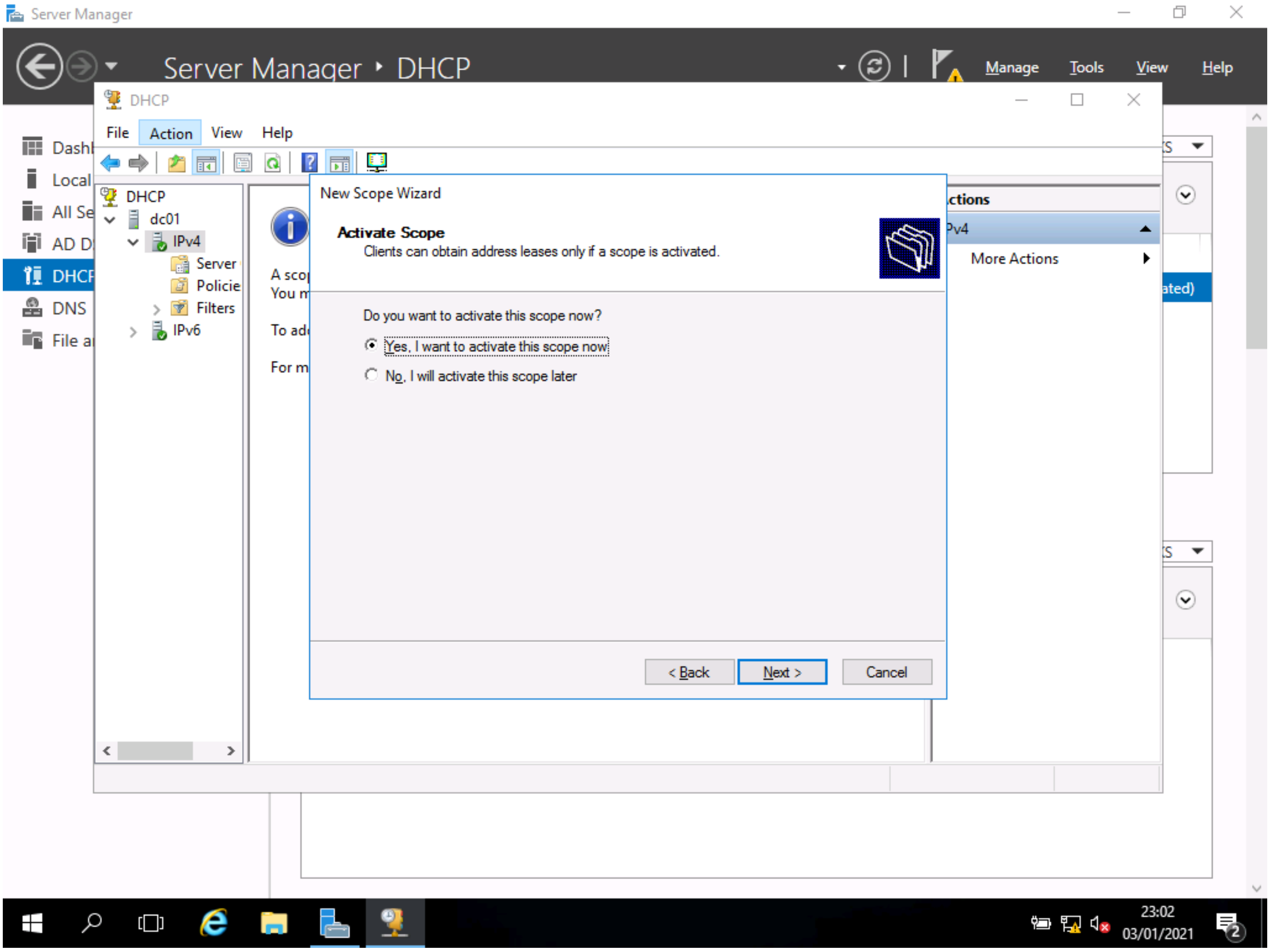
You can specify the routers, or default gateways, to be distributed by this scope.

To add an IP address for a router used by clients, enter the address below.

IP address:

192.168.0.254

- I set the Gateway address. This is the router for connecting to the internet



New Scope Wizard

Activate Scope

Clients can obtain address leases only if a scope is activated.

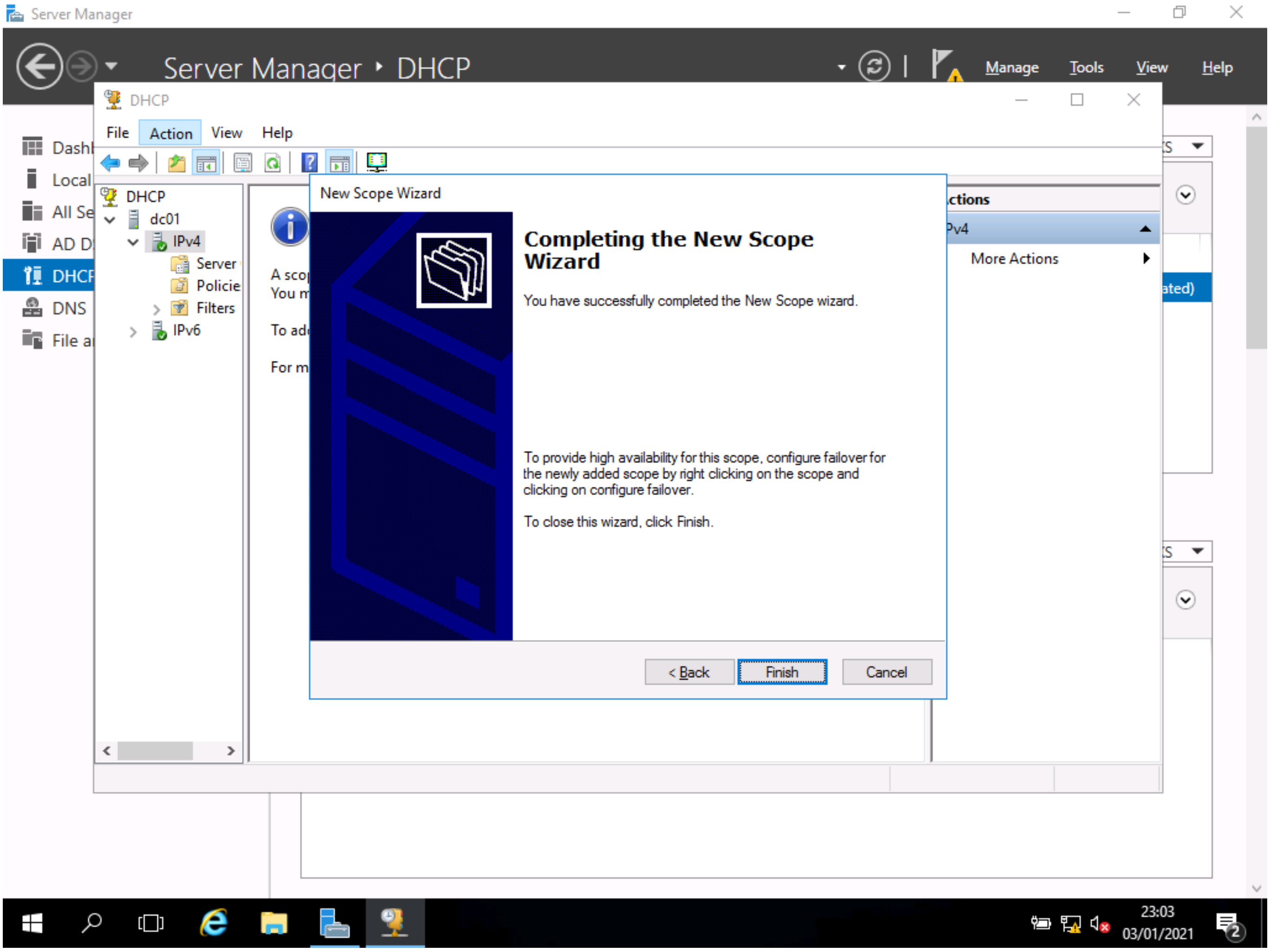
Do you want to activate this scope now?

● Yes, I want to activate this scope now

○ No, I will activate this scope later

< Back | Next > | Cancel

Once the scope is made, I need to activate it so that it will give out address



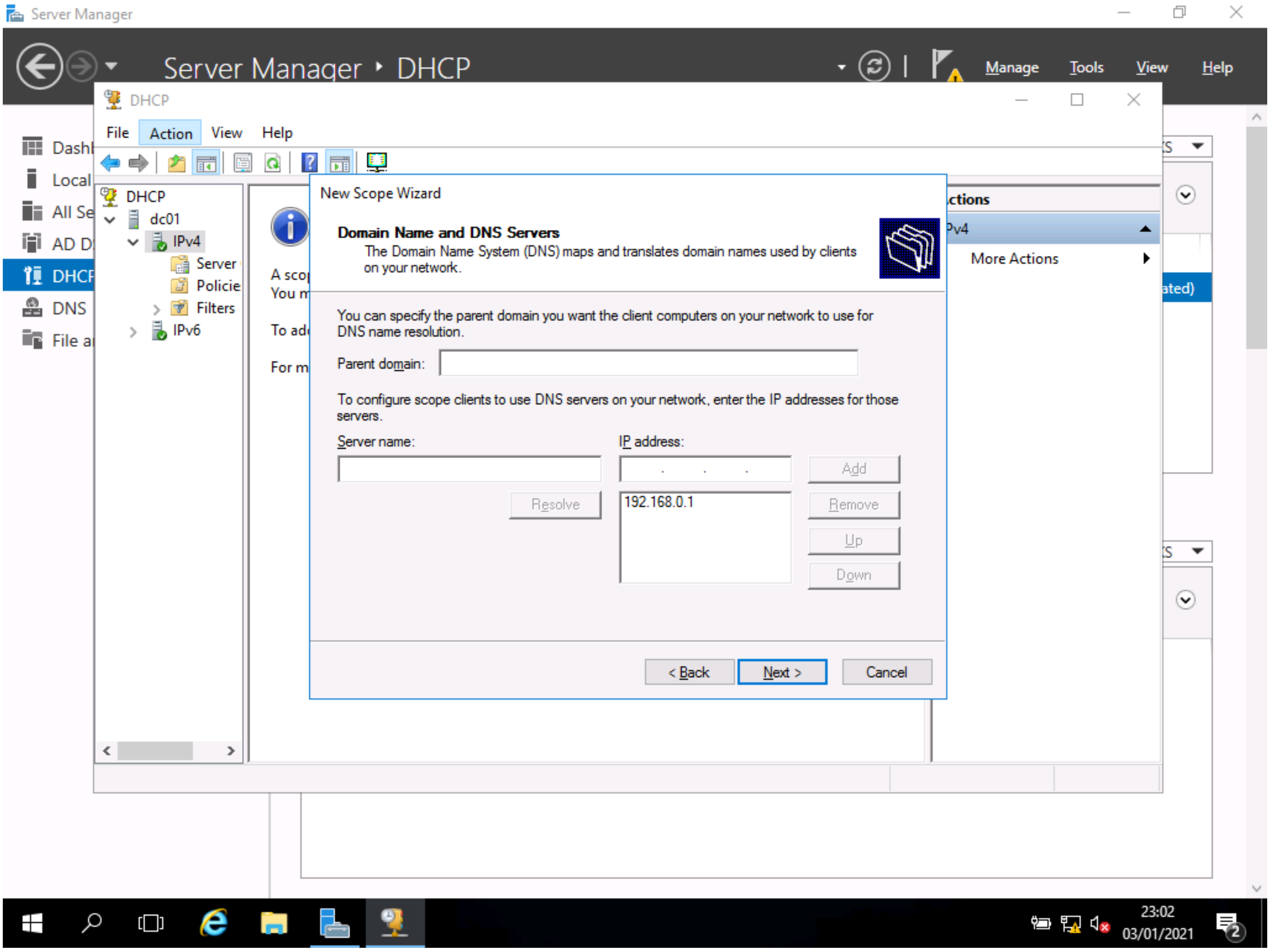
Completing the New Scope Wizard

You have successfully completed the New Scope wizard.

To provide high availability for this scope, configure failover for the newly added scope by right clicking on the scope and clicking on configure failover.

To close this wizard, click Finish.

I click finish to complete installation



New Scope Wizard

Domain Name and DNS Servers

The Domain Name System (DNS) maps and translates domain names used by clients on your network.

You can specify the parent domain you want the client computers on your network to use for DNS name resolution.

Parent domain:

To configure scope clients to use DNS servers on your network, enter the IP addresses for those servers.

Server name:

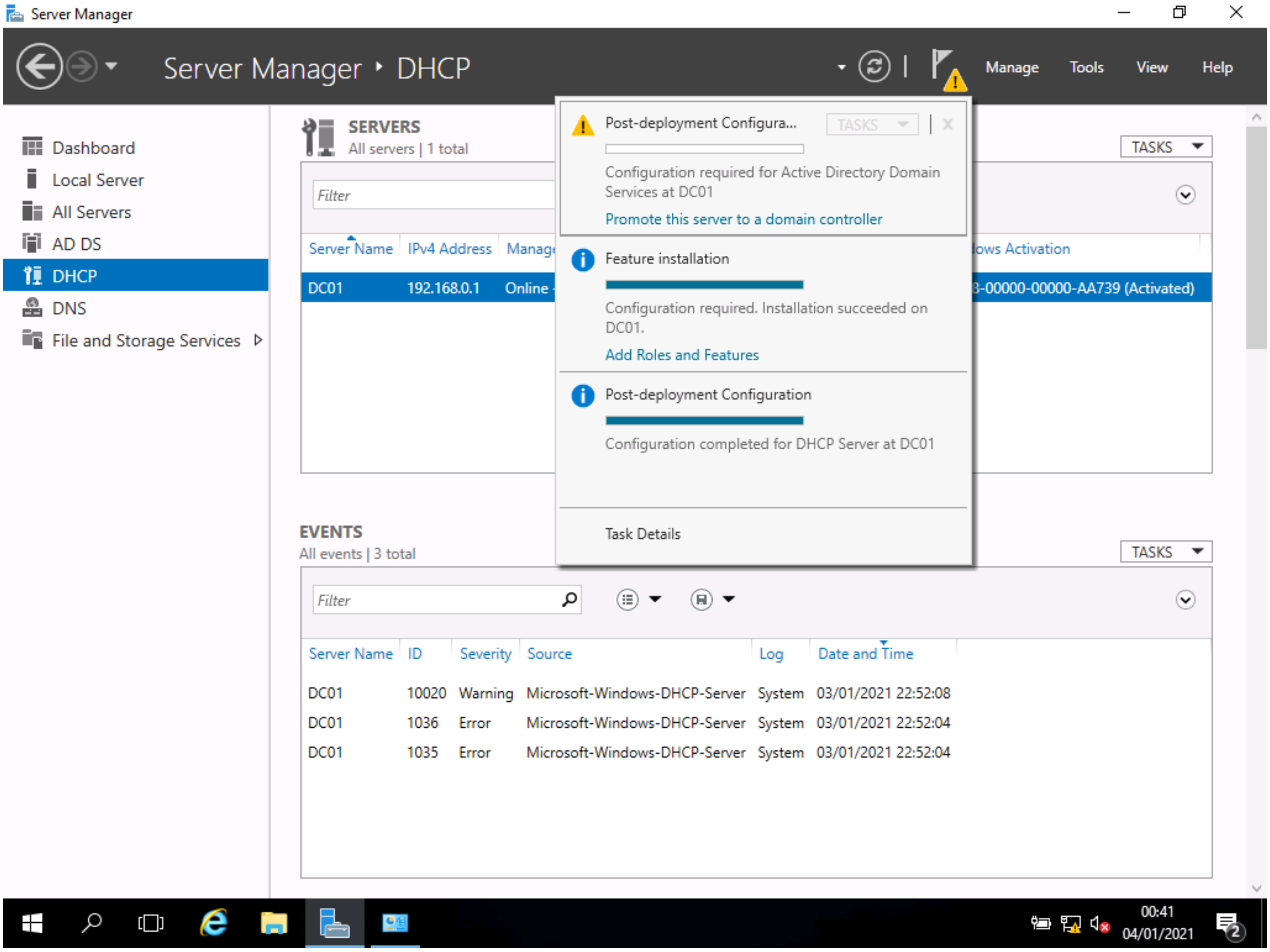
IP address:

192.168.0.1

- I have set-up DHCP and activated it

Setting up Active Directory

Screenshot:



Server Name	IPv4 Address	Manag	ows Activation
DC01	192.168.0.1	Online -	3-00000-00000-AA739 (Activated)

Post-deployment Configura...

Configuration required for Active Directory Domain Services at DC01

Promote this server to a domain controller

Feature installation

Configuration required. Installation succeeded on DC01.

Add Roles and Features

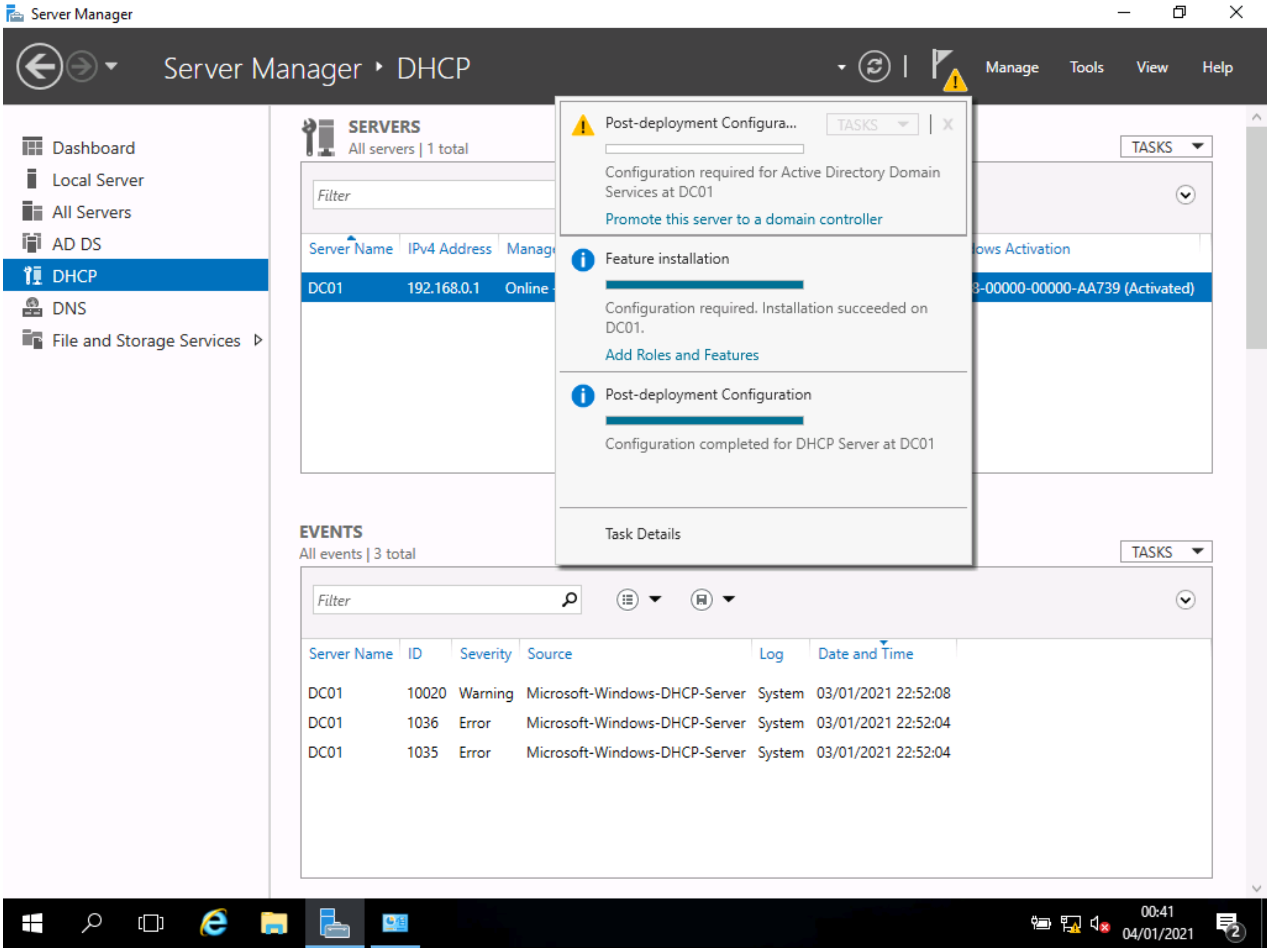
Post-deployment Configuration

Configuration completed for DHCP Server at DC01

Task Details

Server Name	ID	Severity	Source	Log	Date and Time
DC01	10020	Warning	Microsoft-Windows-DHCP-Server	System	03/01/2021 22:52:08
DC01	1036	Error	Microsoft-Windows-DHCP-Server	System	03/01/2021 22:52:04
DC01	1035	Error	Microsoft-Windows-DHCP-Server	System	03/01/2021 22:52:04

- I clicked on the yellow warning in server manager and selected promote this server to a domain controller



Post-deployment Configura...

Configuration required for Active Directory Domain Services at DC01

Promote this server to a domain controller

Feature installation

Configuration required. Installation succeeded on DC01.

Add Roles and Features

Post-deployment Configuration

Configuration completed for DHCP Server at DC01

Task Details

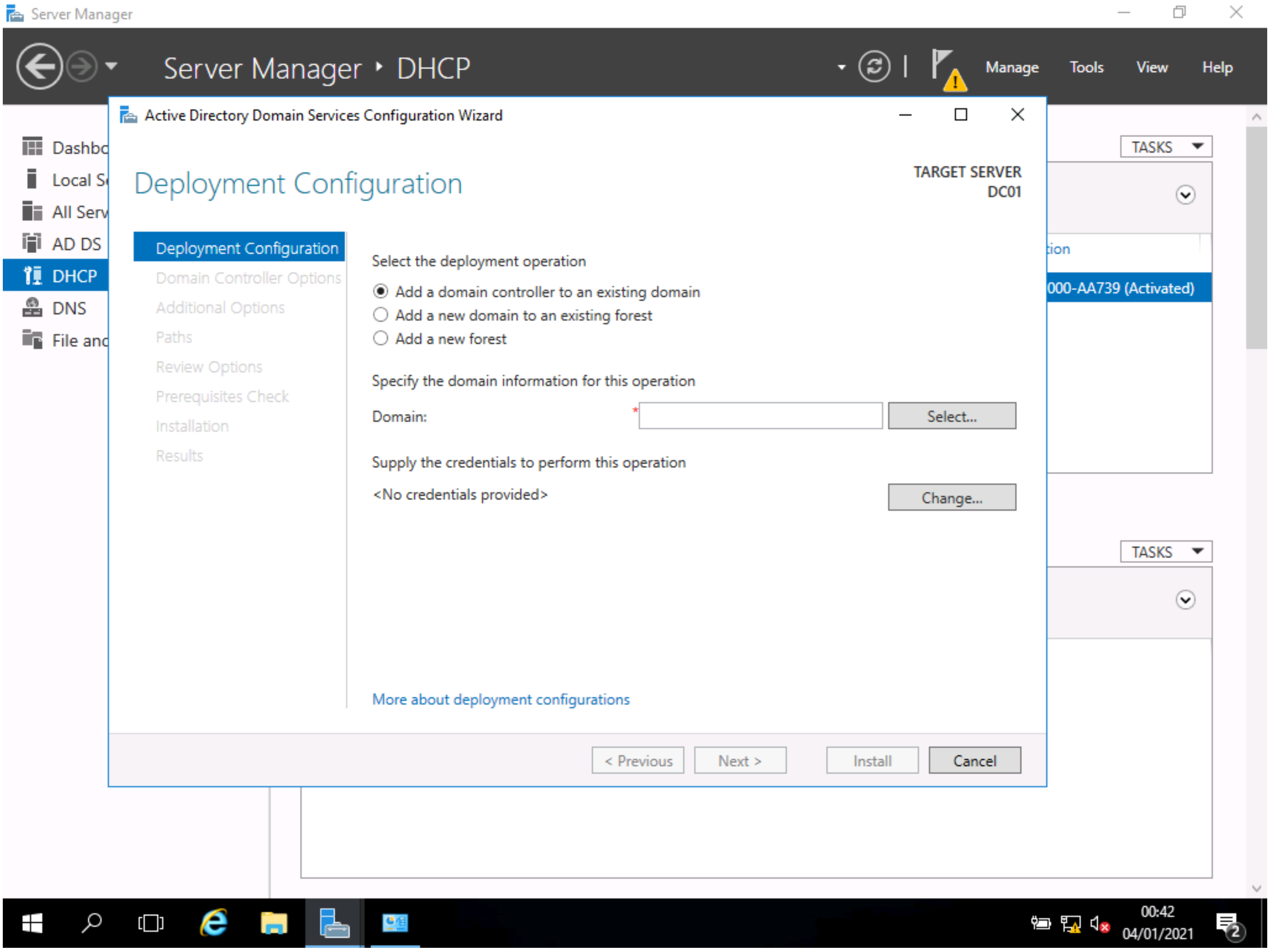
Server Name	IPv4 Address	Manag	ows Activation
DC01	192.168.0.1	Online -	3-00000-00000-AA739 (Activated)

Server Name	ID	Severity	Source	Log	Date and Time
DC01	10020	Warning	Microsoft-Windows-DHCP-Server	System	03/01/2021 22:52:08
DC01	1036	Error	Microsoft-Windows-DHCP-Server	System	03/01/2021 22:52:04
DC01	1035	Error	Microsoft-Windows-DHCP-Server	System	03/01/2021 22:52:04

Here we can see the progress of the new features we are installing on the server

Screenshots:

Set domain options



Active Directory Domain Services Configuration Wizard

Deployment Configuration

TARGET SERVER
DC01

Select the deployment operation

● Add a domain controller to an existing domain
○ Add a new domain to an existing forest
○ Add a new forest

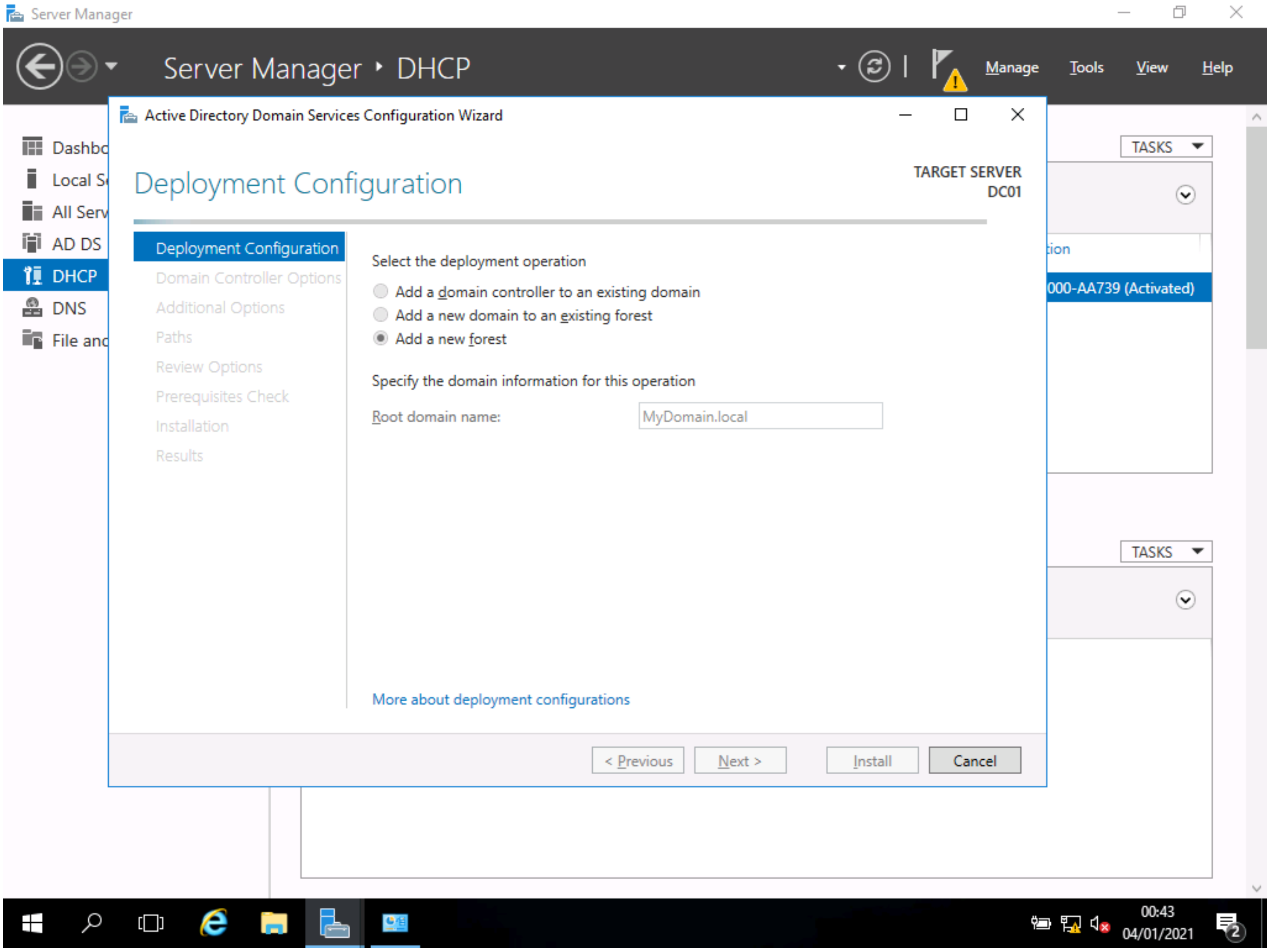
Specify the domain information for this operation

Domain: *

Supply the credentials to perform this operation

<No credentials provided>

- I add a Deployment Configuration to this PC



Active Directory Domain Services Configuration Wizard

Deployment Configuration

TARGET SERVER
DC01

Select the deployment operation

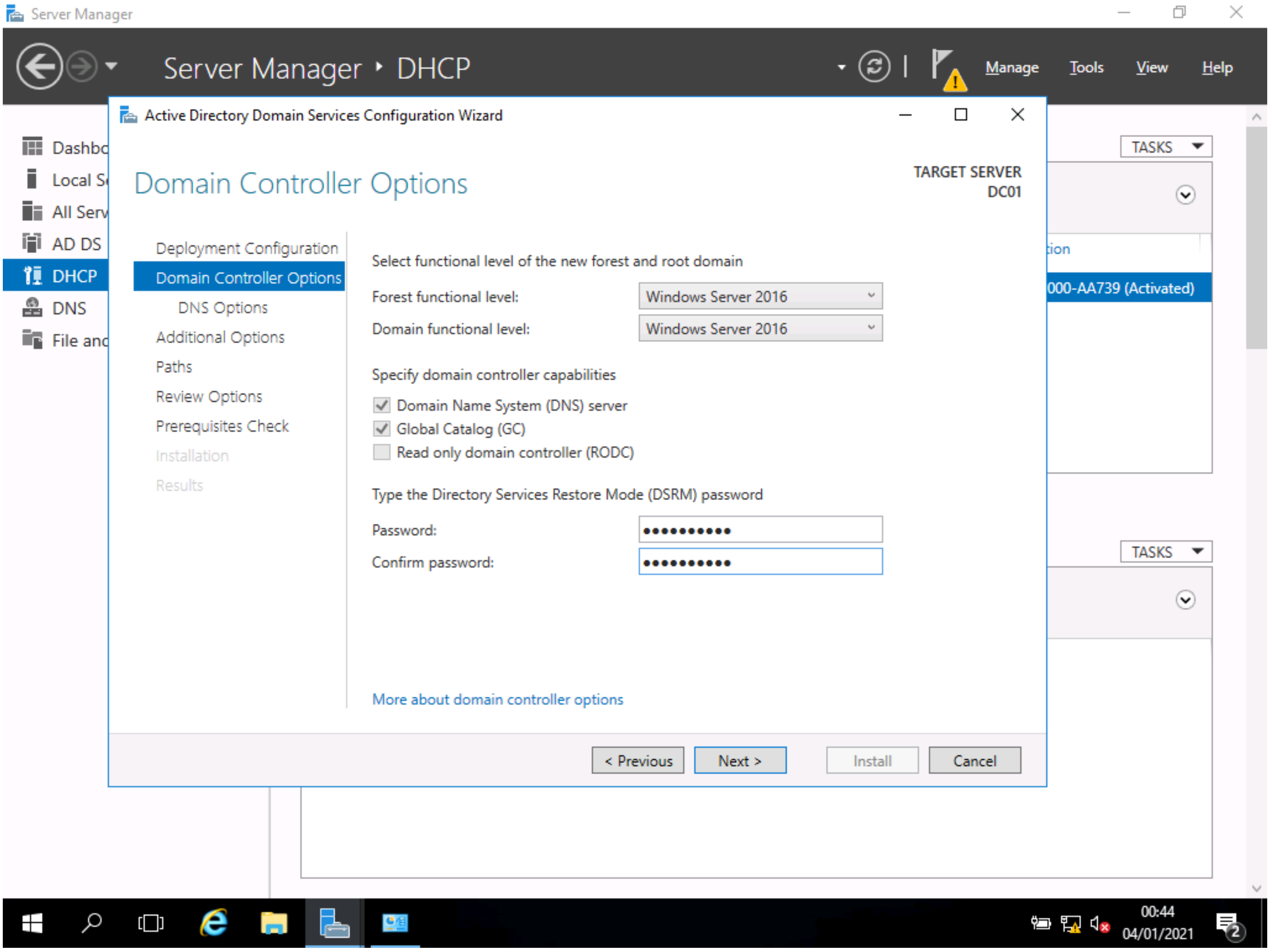
○ Add a domain controller to an existing domain
○ Add a new domain to an existing forest
● Add a new forest

Specify the domain information for this operation

Root domain name: MyDomain.local

More about deployment configurations

- I keep the default settings. This will make a new forest that you need when this is the first server



Domain Controller Options

TARGET SERVER
DC01

Select functional level of the new forest and root domain

Forest functional level: Windows Server 2016

Domain functional level: Windows Server 2016

Specify domain controller capabilities

☑ Domain Name System (DNS) server

☑ Global Catalog (GC)

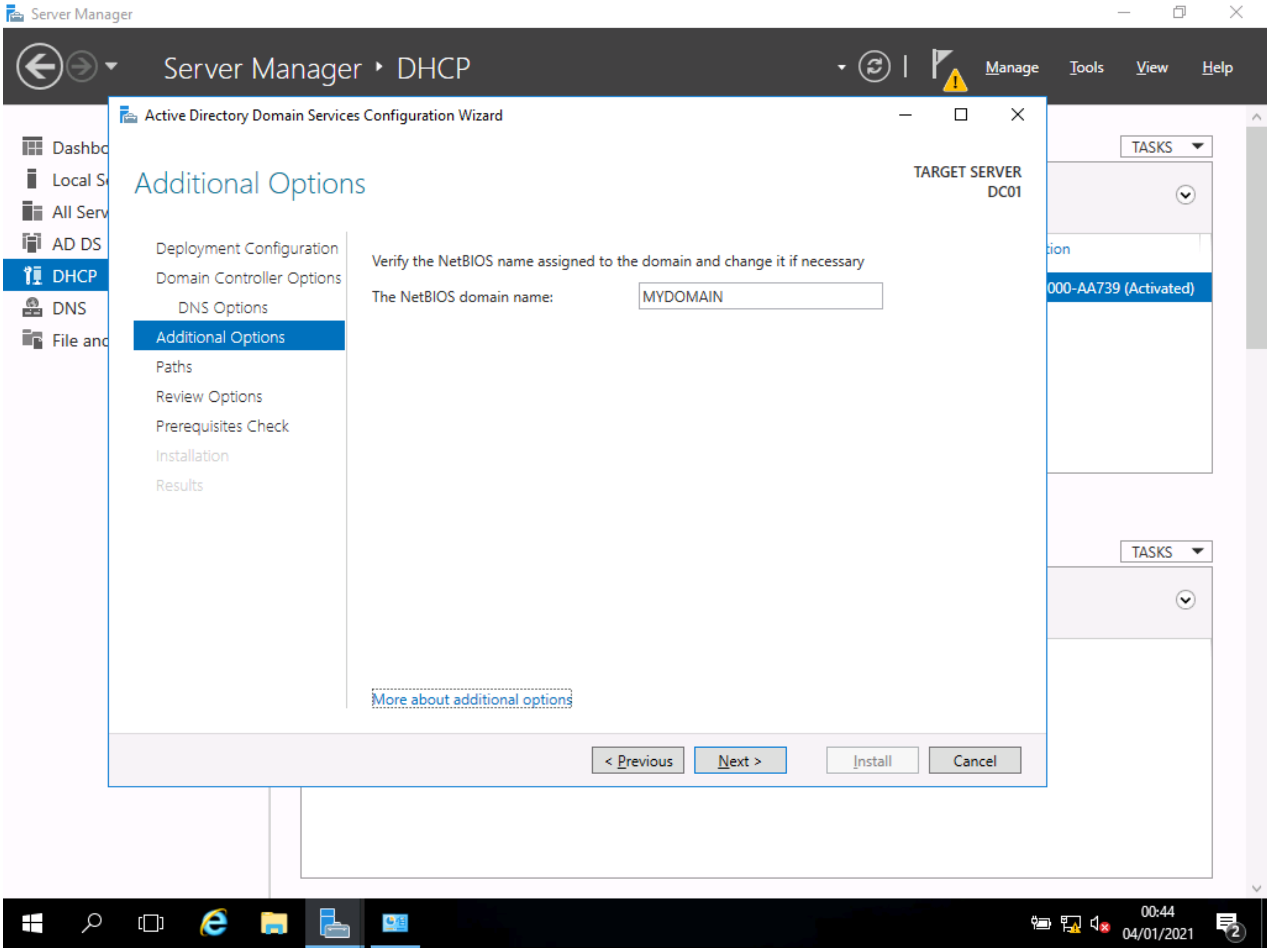
□ Read only domain controller (RODC)

Type the Directory Services Restore Mode (DSRM) password

Password: ●●●●●●●●●●●

Confirm password: ●●●●●●●●●●●

- I create a new domain



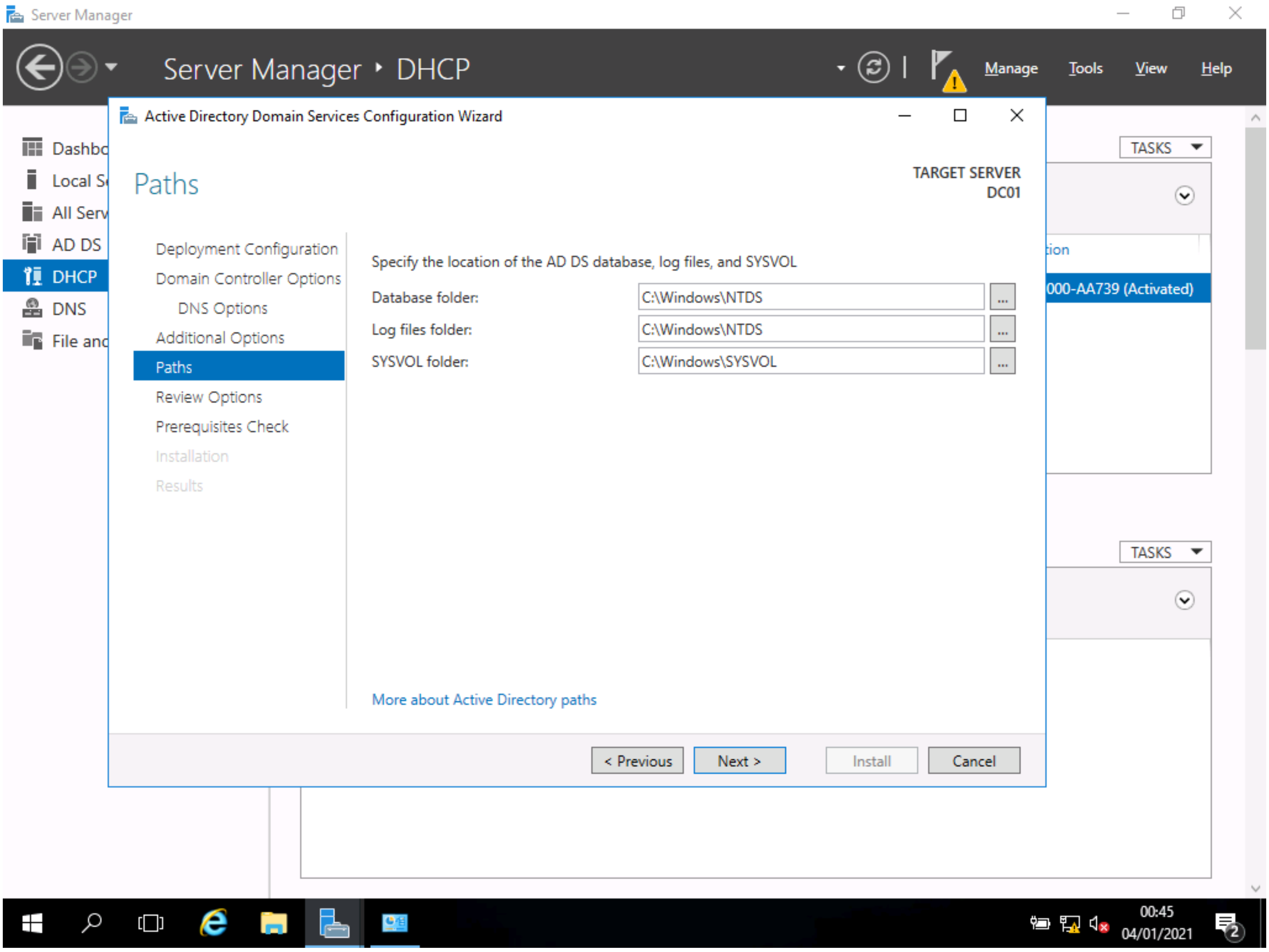
Additional Options

TARGET SERVER
DC01

Verify the NetBIOS name assigned to the domain and change it if necessary

The NetBIOS domain name: MYDOMAIN

- I set the options for compatibility with other servers



Paths

TARGET SERVER
DC01

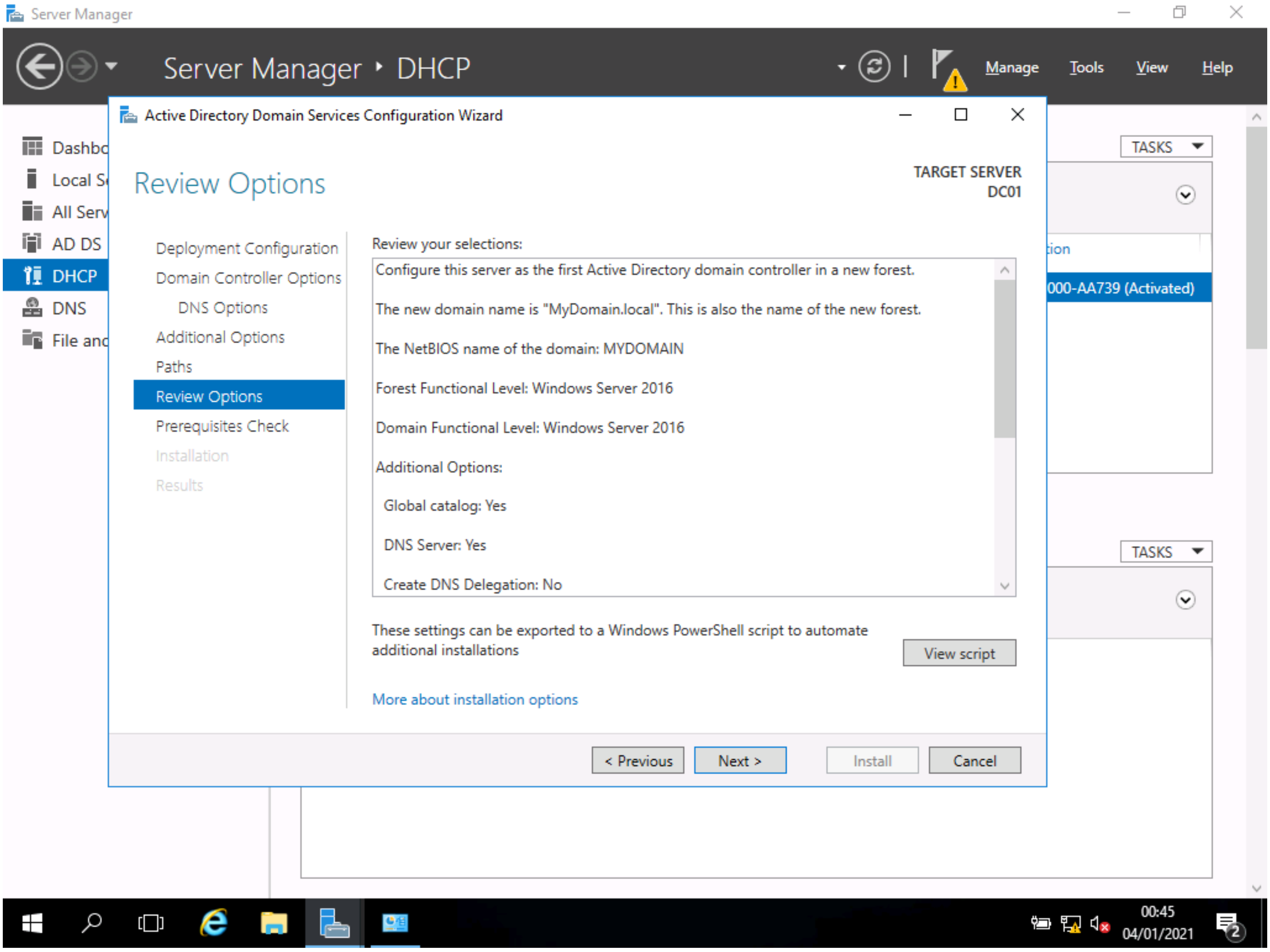
Specify the location of the AD DS database, log files, and SYSVOL

Database folder: C:\Windows\NTDS

Log files folder: C:\Windows\NTDS

SYSVOL folder: C:\Windows\SYSVOL

- I add DHCP to my domain



Review Options

TARGET SERVER
DC01

Review your selections:

Configure this server as the first Active Directory domain controller in a new forest.

The new domain name is "MyDomain.local". This is also the name of the new forest.

The NetBIOS name of the domain: MYDOMAIN

Forest Functional Level: Windows Server 2016

Domain Functional Level: Windows Server 2016

Additional Options:

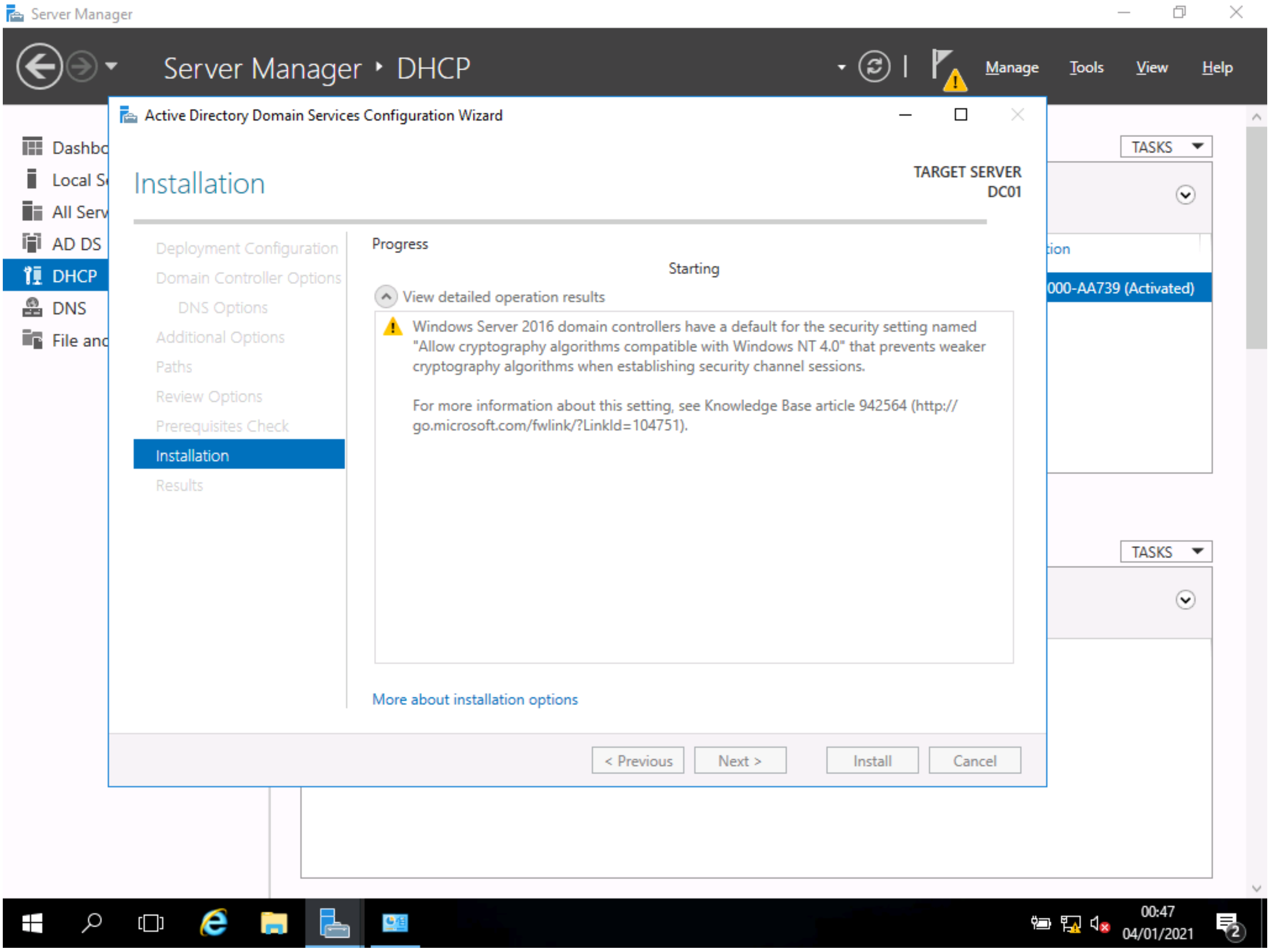
Global catalog: Yes

DNS Server: Yes

Create DNS Delegation: No

These settings can be exported to a Windows PowerShell script to automate additional installations

- I set the location of the log files



Installation

TARGET SERVER
DC01

Progress

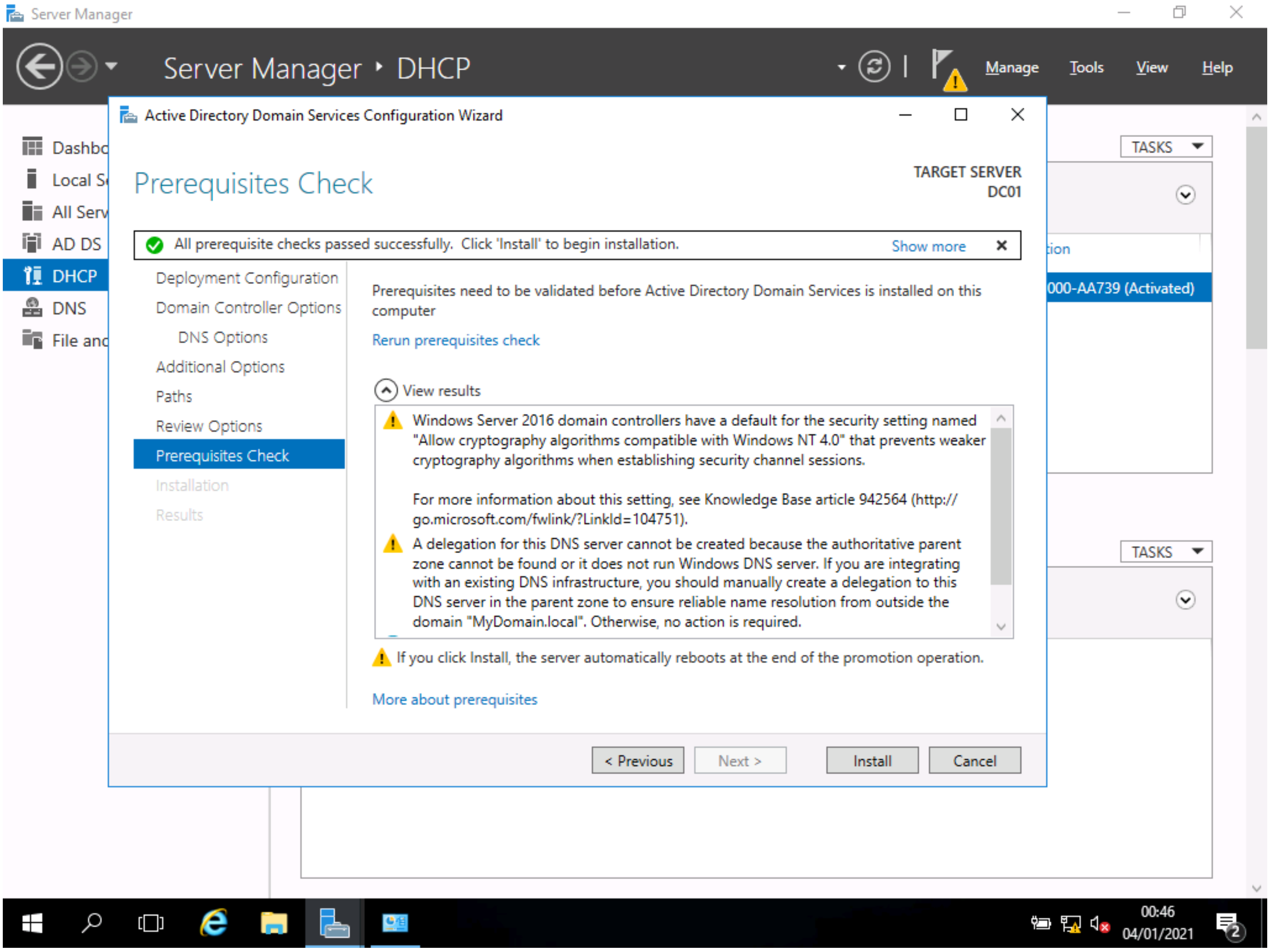
Starting

View detailed operation results

Windows Server 2016 domain controllers have a default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0" that prevents weaker cryptography algorithms when establishing security channel sessions.

For more information about this setting, see Knowledge Base article 942564 (http://go.microsoft.com/fwlink/?LinkId=104751).

Here we see a warning about the compatibility level and the need to change it if you have older servers in your network.



Prerequisites Check

TARGET SERVER
DC01

All prerequisite checks passed successfully. Click 'Install' to begin installation. Show more

Prerequisites need to be validated before Active Directory Domain Services is installed on this computer

Rerun prerequisites check

View results

Windows Server 2016 domain controllers have a default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0" that prevents weaker cryptography algorithms when establishing security channel sessions.

For more information about this setting, see Knowledge Base article 942564 (http://go.microsoft.com/fwlink/?LinkId=104751).

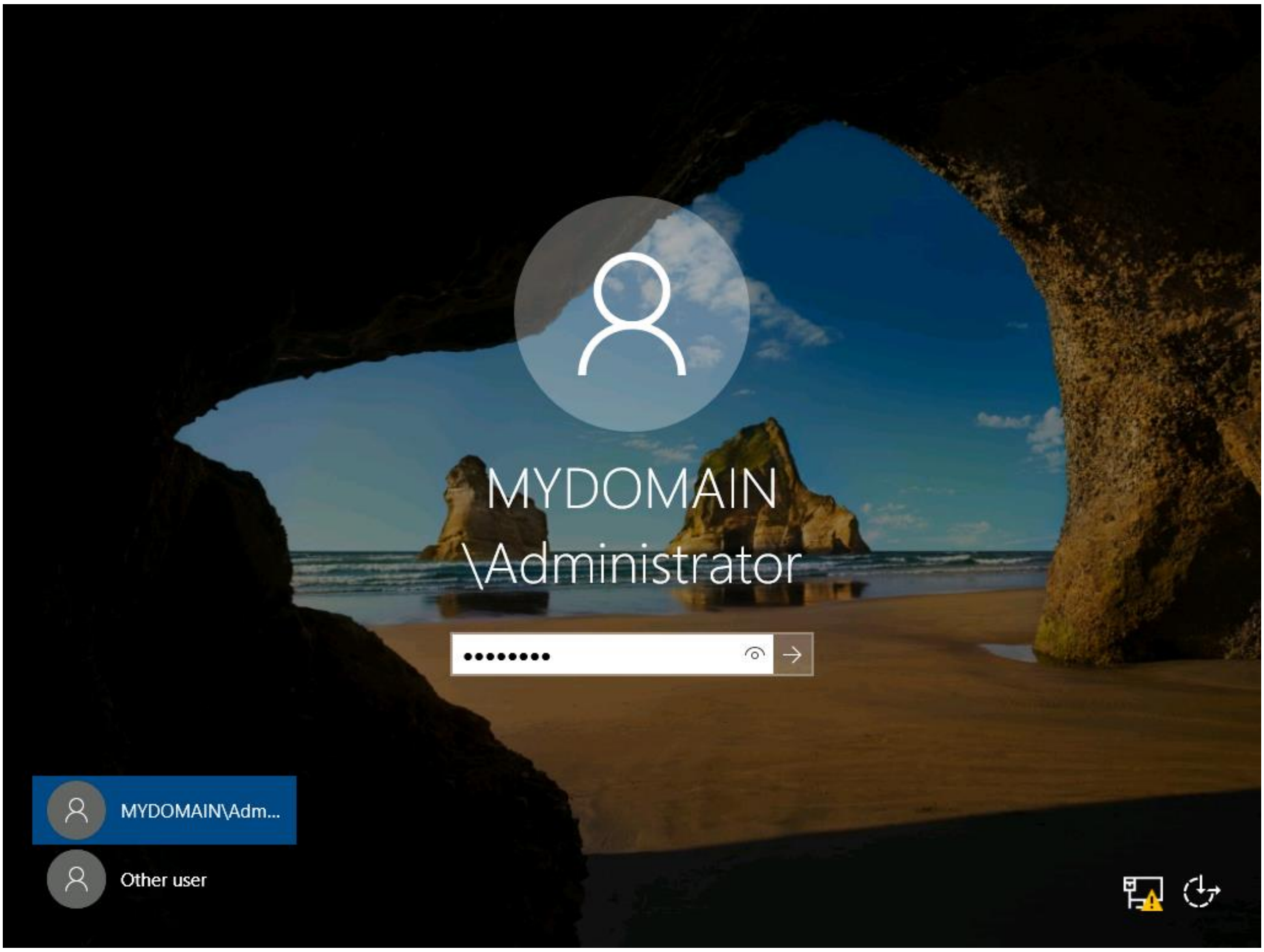
A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain "MyDomain.local". Otherwise, no action is required.

If you click Install, the server automatically reboots at the end of the promotion operation.

More about prerequisites

- I follow the Active Directory domain service (ADDS) configuration wizard calling my network MyDomain.Local

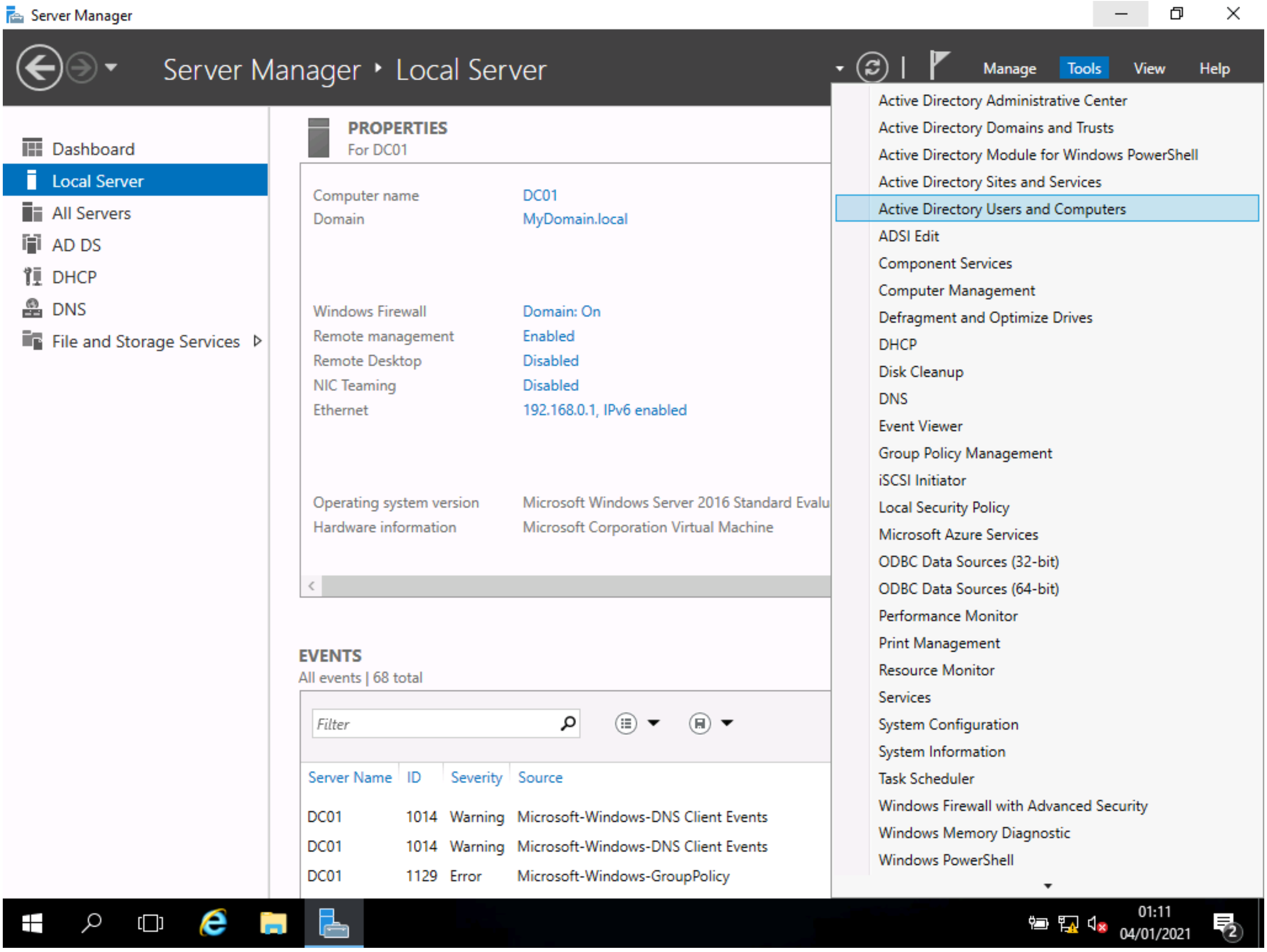
Screenshot:



- I now login to the domain as an administrator

Screenshots:

Active Directory is now installed


Server Manager
Server Manager ‣ Local Server
Manage
Tools
View
Help
Dashboard
Local Server
All Servers
AD DS
DHCP
DNS
File and Storage Services
Active Directory Administrative Center
Active Directory Domains and Trusts
Active Directory Module for Windows PowerShell
Active Directory Sites and Services
Active Directory Users and Computers
ADSI Edit
Component Services
Computer Management
Defragment and Optimize Drives
DHCP
Disk Cleanup
DNS
Event Viewer
Group Policy Management
iSCSI Initiator
Local Security Policy
Microsoft Azure Services
ODBC Data Sources (32-bit)
ODBC Data Sources (64-bit)
Performance Monitor
Print Management
Resource Monitor
Services
System Configuration
System Information
Task Scheduler
Windows Firewall with Advanced Security
Windows Memory Diagnostic
Windows PowerShell
Filter
01:11
04/01/2021

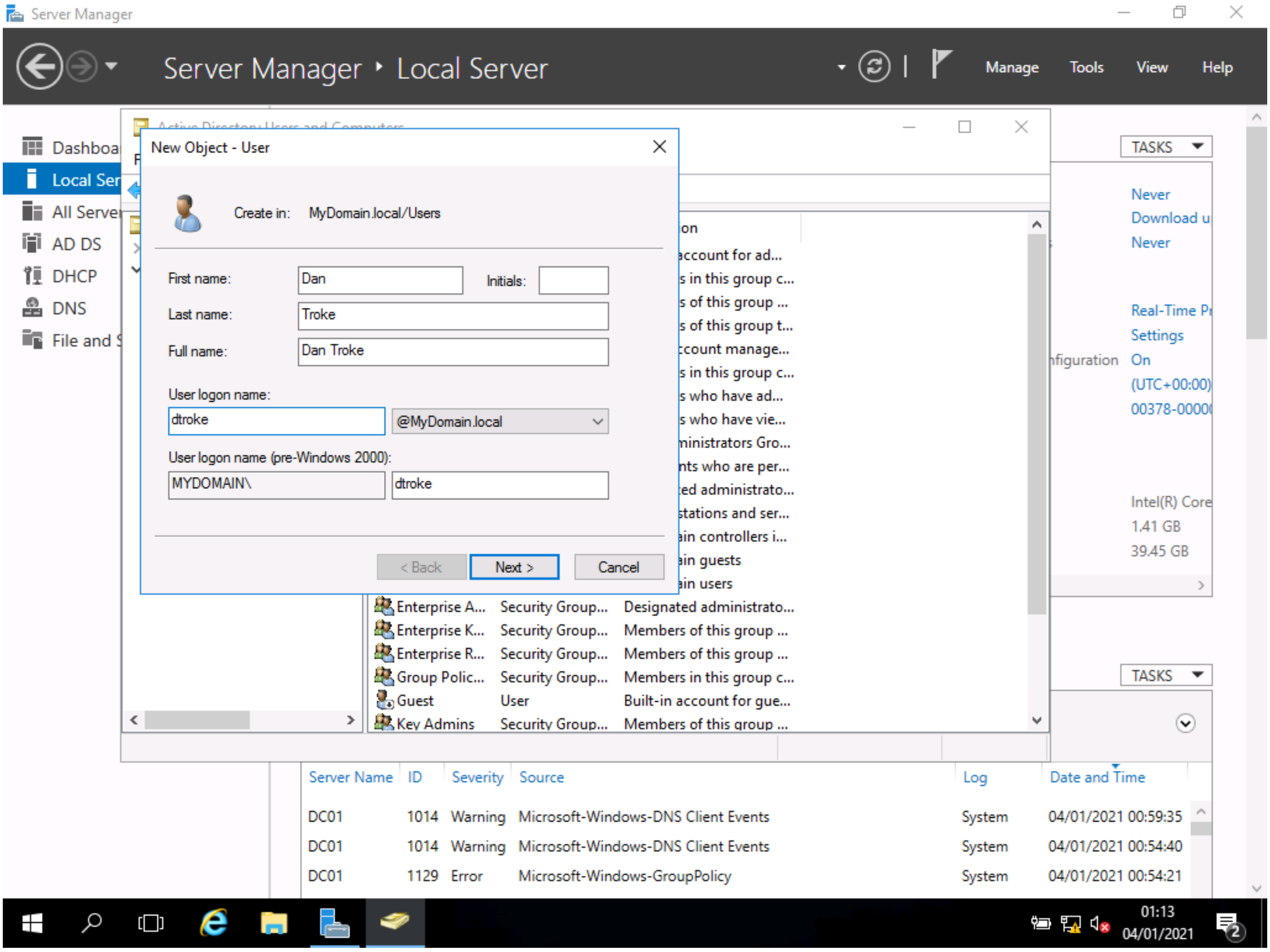
PROPERTIES
For DC01

Computer name	DC01
Domain	MyDomain.local
Windows Firewall	Domain: On
Remote management	Enabled
Remote Desktop	Disabled
NIC Teaming	Disabled
Ethernet	192.168.0.1, IPv6 enabled
Operating system version	Microsoft Windows Server 2016 Standard Evalu
Hardware information	Microsoft Corporation Virtual Machine

EVENTS
All events | 68 total

Server Name	ID	Severity	Source
DC01	1014	Warning	Microsoft-Windows-DNS Client Events
DC01	1014	Warning	Microsoft-Windows-DNS Client Events
DC01	1129	Error	Microsoft-Windows-GroupPolicy

- I can now add a new user



New Object - User

Create in: MyDomain.local/Users

First name: Dan

Initials:

Last name: Troke

Full name: Dan Troke

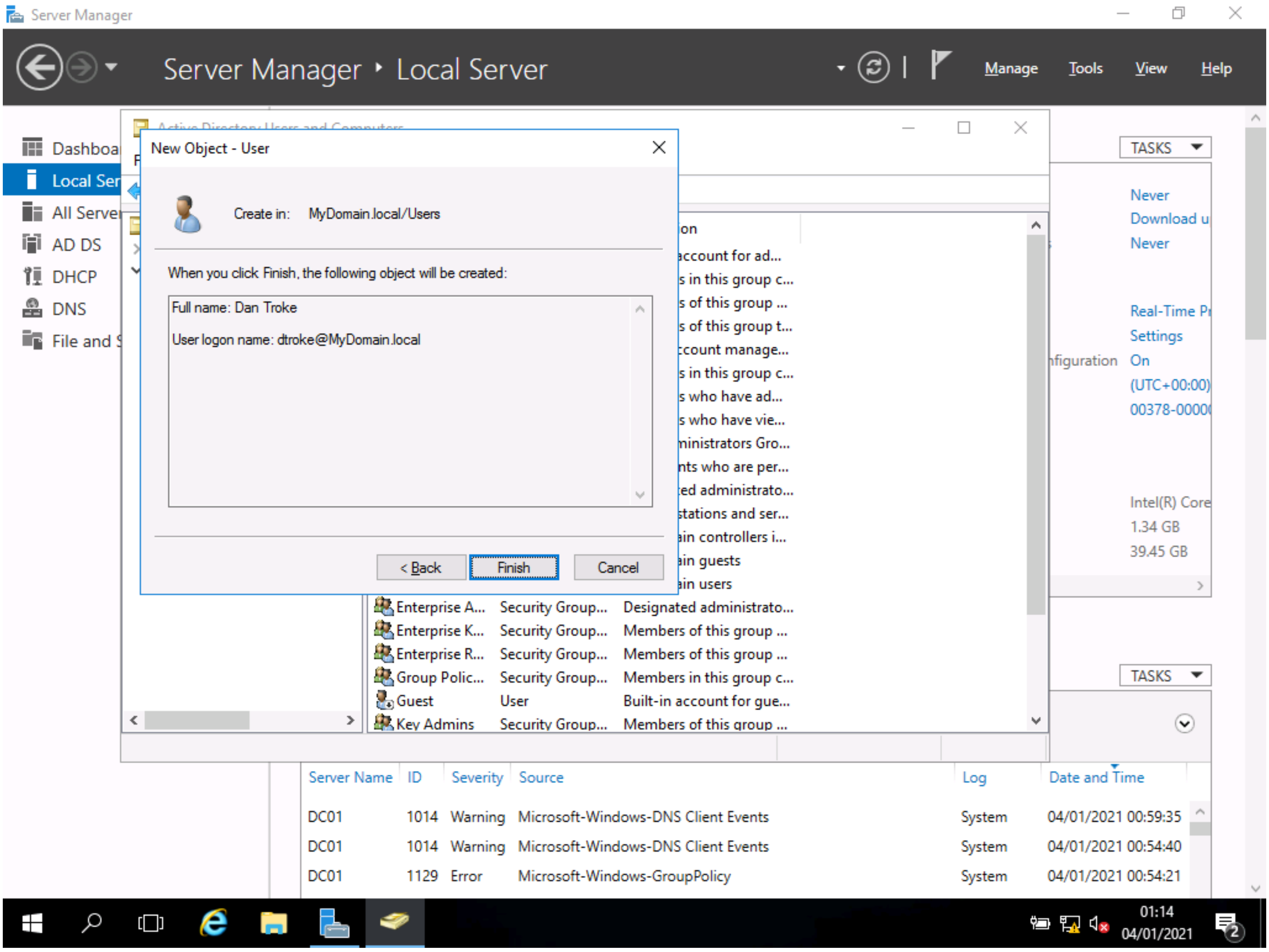
User logon name: dtroke @MyDomain.local

User logon name (pre-Windows 2000): MYDOMAIN\ dtroke

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 ...

Server Name	ID	Severity	Source	Log	Date and Time
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:59:35
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:54:40
DC01	1129	Error	Microsoft-Windows-GroupPolicy	System	04/01/2021 00:54:21

- I can now add new user details



New Object - User

Create in: MyDomain.local/Users

When you click Finish, the following object will be created:

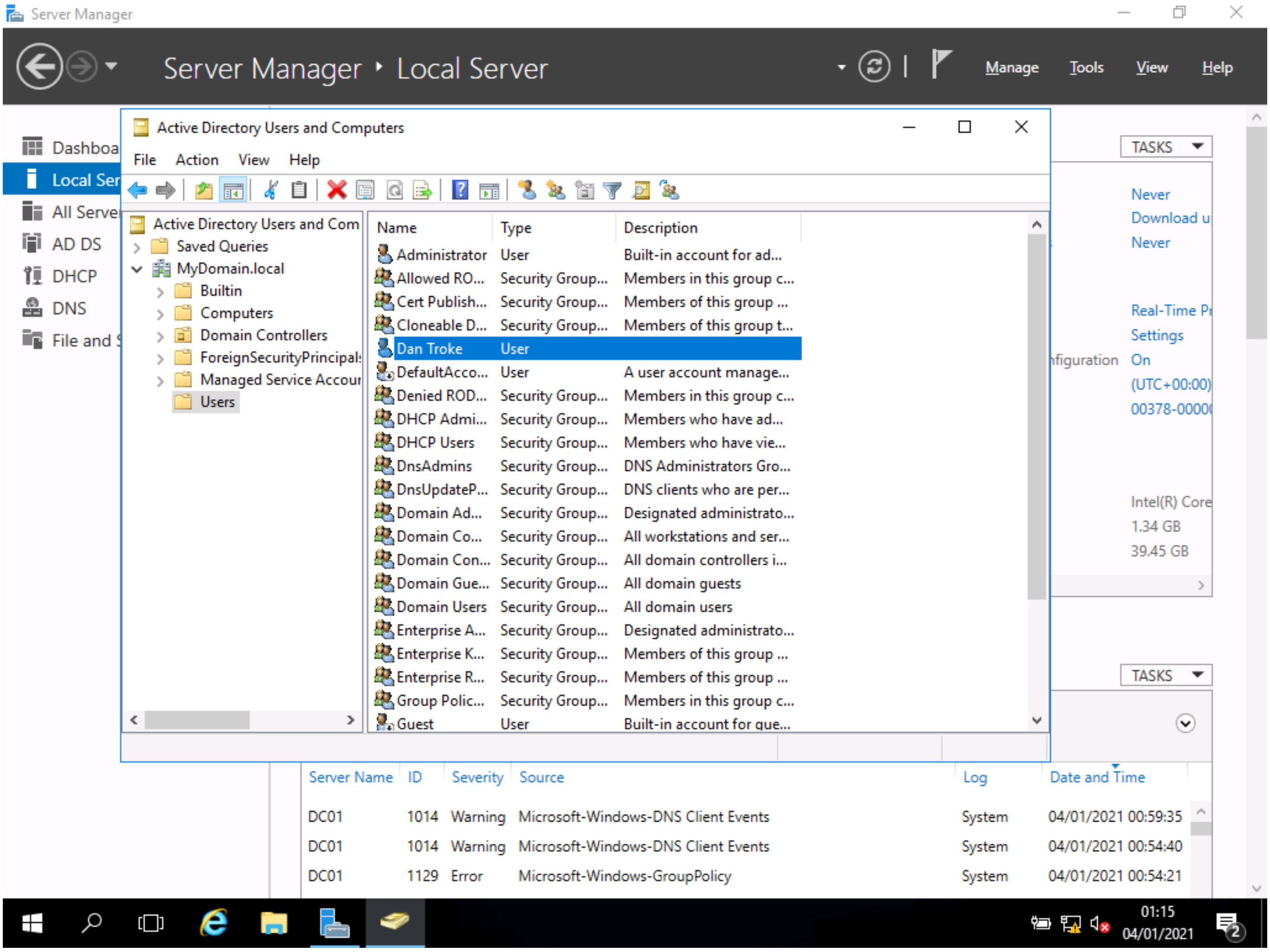
Full name: Dan Troke

User logon name: dtroke@MyDomain.local

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 ...

Server Name	ID	Severity	Source	Log	Date and Time
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:59:35
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:54:40
DC01	1129	Error	Microsoft-Windows-GroupPolicy	System	04/01/2021 00:54:21

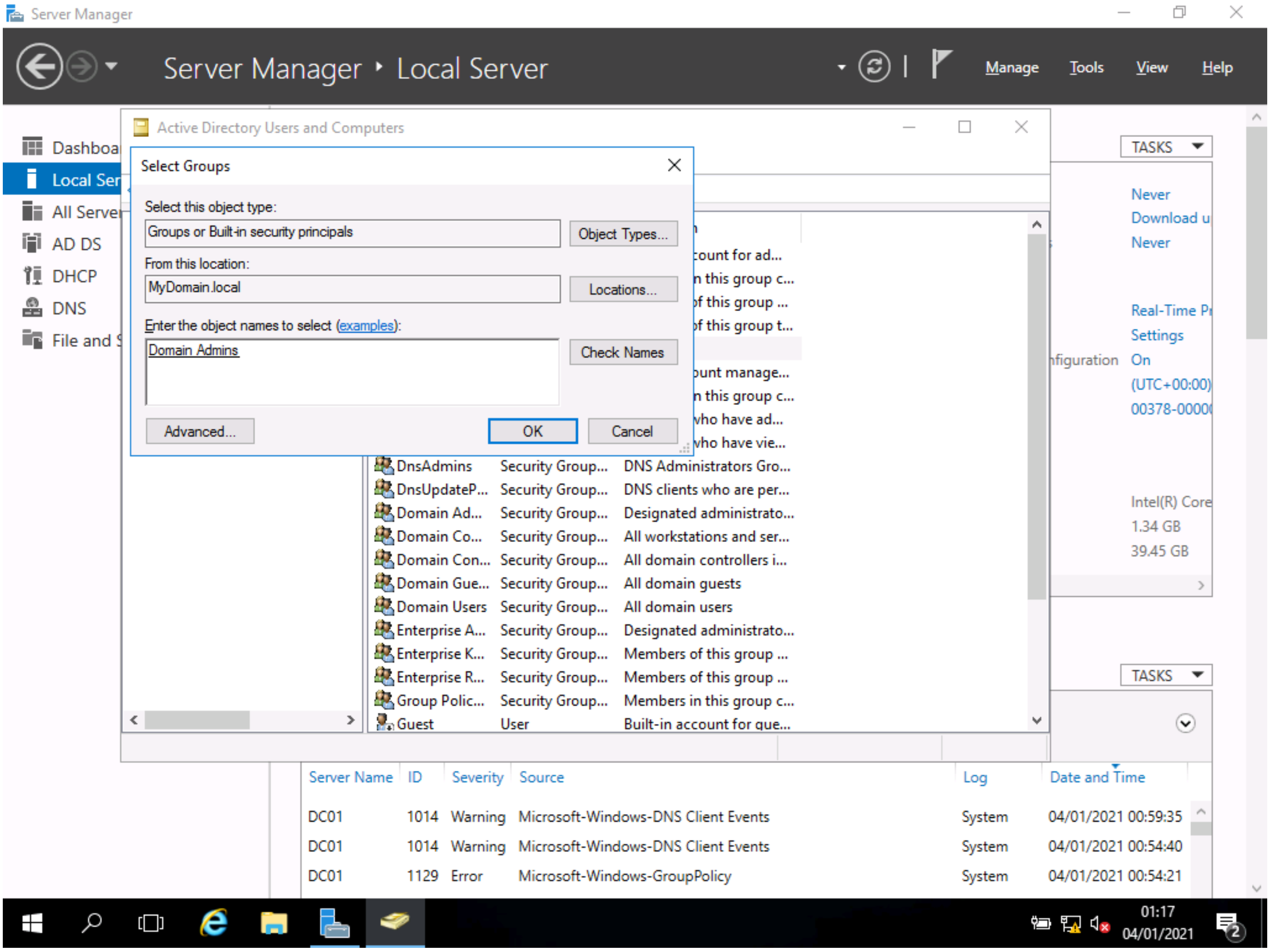
- I click finish to add/create the object



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...
Dan Troke	User	
DefaultAcco...	User	A user account manage...
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...

Server Name	ID	Severity	Source	Log	Date and Time
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:59:35
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:54:40
DC01	1129	Error	Microsoft-Windows-GroupPolicy	System	04/01/2021 00:54:21

- The new user is now added to the Active Directory of Users and Computers



Select Groups

Select this object type:
Groups or Built-in security principals

From this location:
MyDomain.local

Enter the object names to select (examples):
Domain Admins

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...

Never
Download u
Never
Real-Time Pr
Settings
nfiguration On
(UTC+00:00)
00378-0000
Intel(R) Core
1.34 GB
39.45 GB

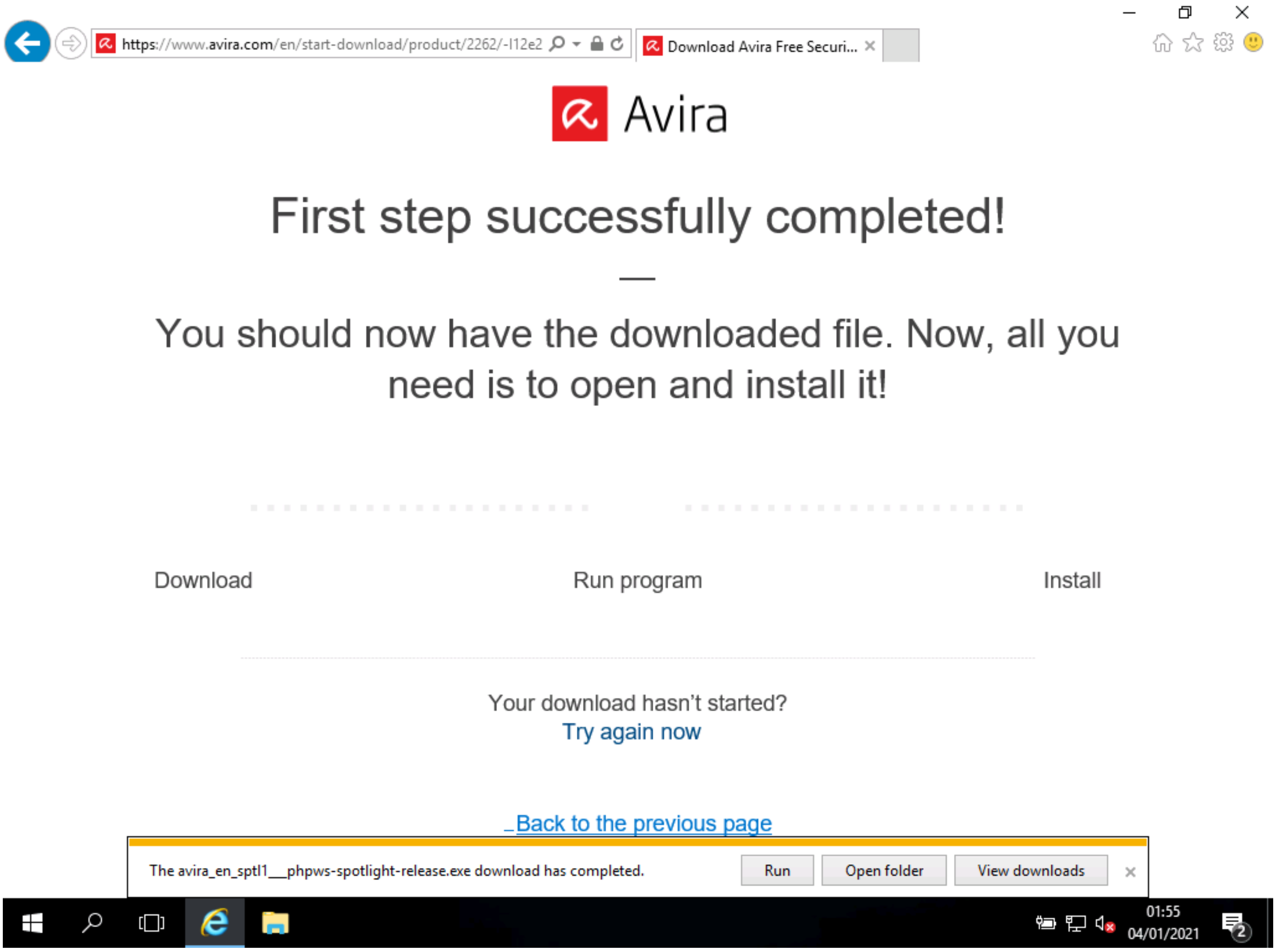
Server Name	ID	Severity	Source	Log	Date and Time
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:59:35
DC01	1014	Warning	Microsoft-Windows-DNS Client Events	System	04/01/2021 00:54:40
DC01	1129	Error	Microsoft-Windows-GroupPolicy	System	04/01/2021 00:54:21

01:17
04/01/2021

- I can add new user to the group that best suits their job
- The screenshots above show me accessing Active Directory and creating a user account called **dtroke** and making it a domain admin

Installing security software

Screenshots:



https://www.avira.com/en/start-download/product/2262/-I12e2

Download Avira Free Securi...

Avira

First step successfully completed!

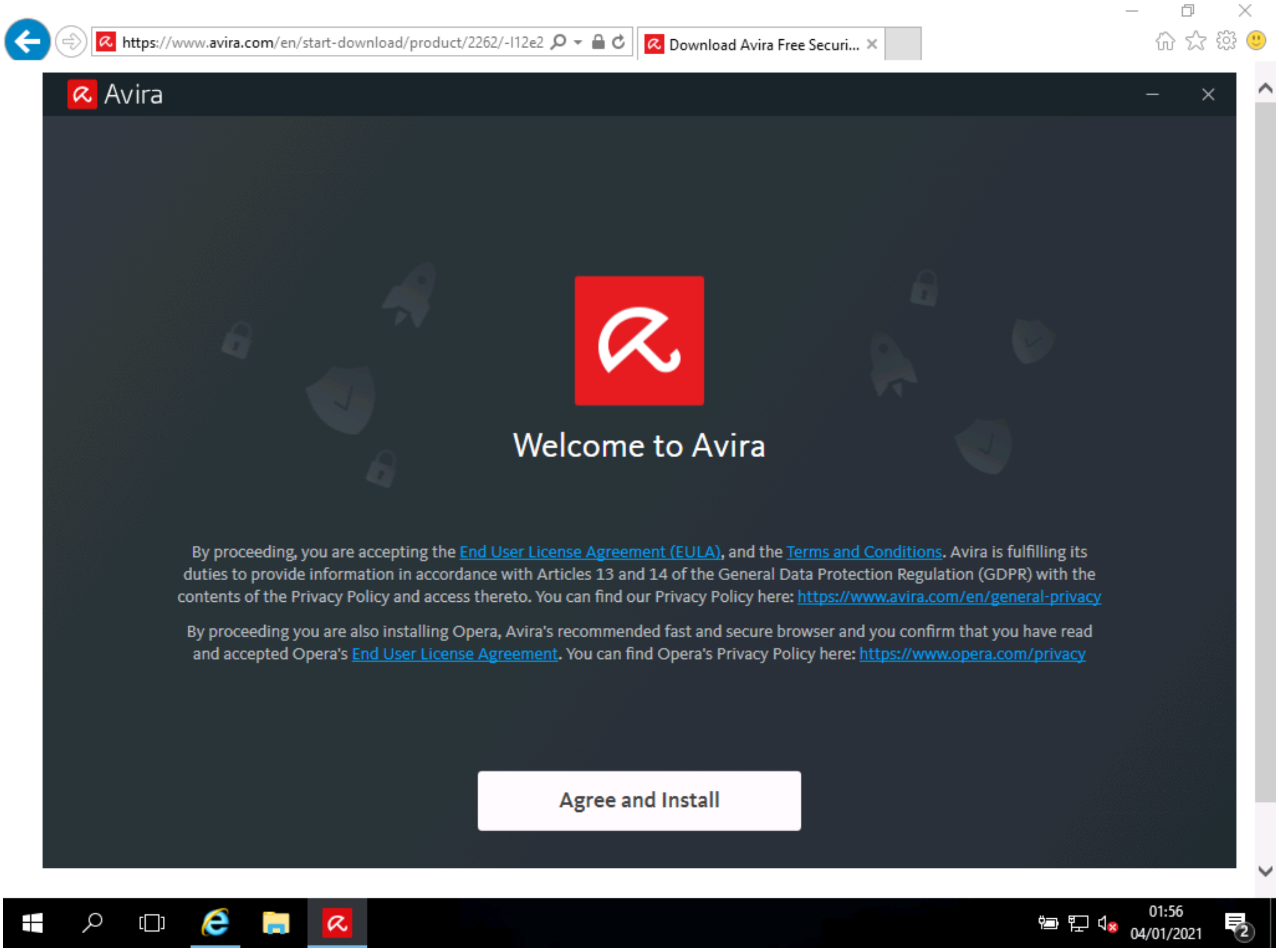
You should now have the downloaded file. Now, all you need is to open and install it!

Your download hasn't started?
Try again now

Back to the previous page

The avira_en_sptl1__phpws-spotlight-release.exe download has completed.

- I browse for the website and choose to use Avira. Here I download the programme


https://www.avira.com/en/start-download/product/2262/-I12e2
Download Avira Free Securi...
Avira
01:56
04/01/2021

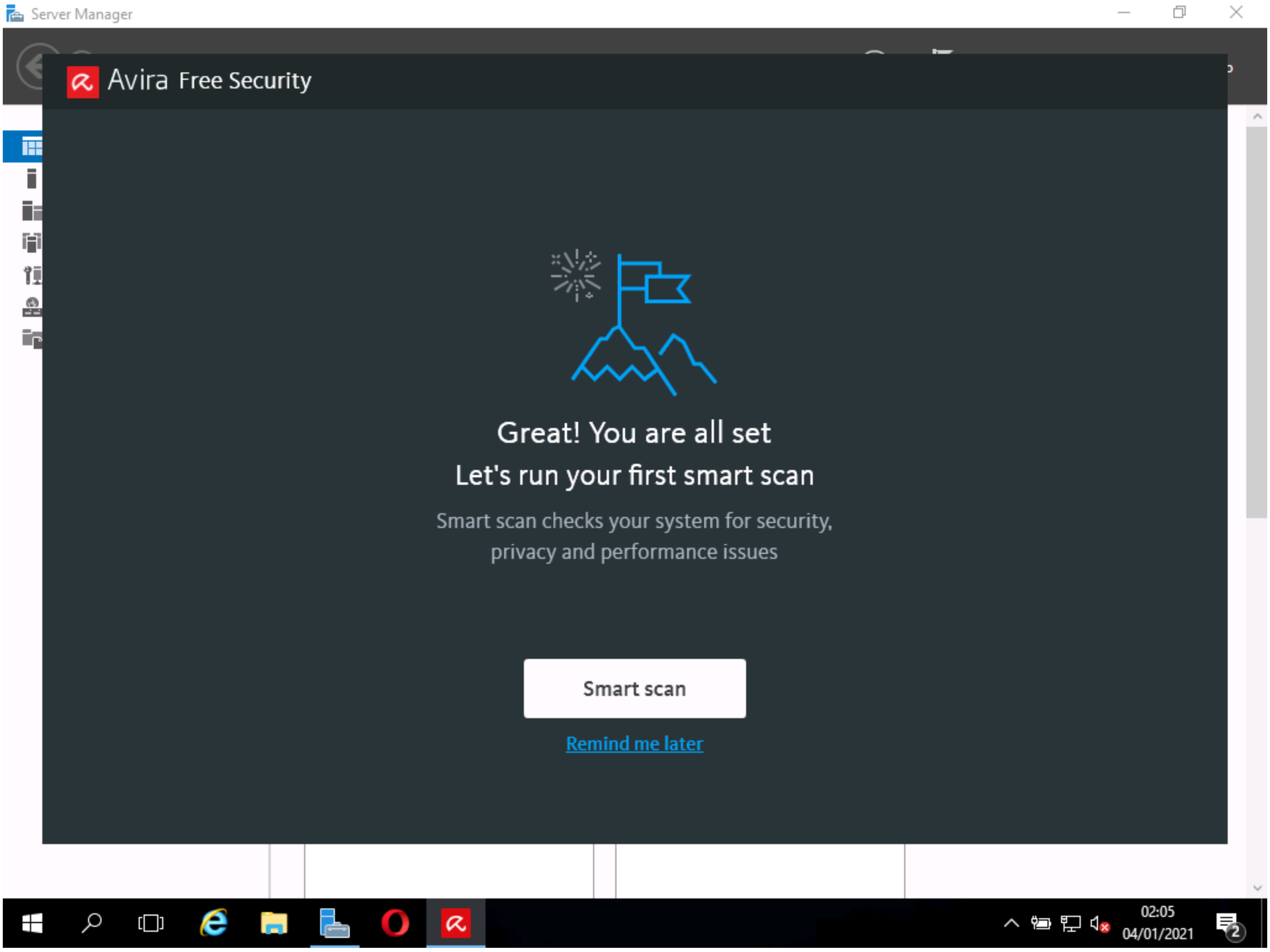
Welcome to Avira

By proceeding, you are accepting the End User License Agreement (EULA), and the Terms and Conditions. Avira is fulfilling its duties to provide information in accordance with Articles 13 and 14 of the General Data Protection Regulation (GDPR) with the contents of the Privacy Policy and access thereto. You can find our Privacy Policy here: https://www.avira.com/en/general-privacy

By proceeding you are also installing Opera, Avira's recommended fast and secure browser and you confirm that you have read and accepted Opera's End User License Agreement. You can find Opera's Privacy Policy here: https://www.opera.com/privacy

Agree and Install

- After the download is complete, I agree to the terms and install it



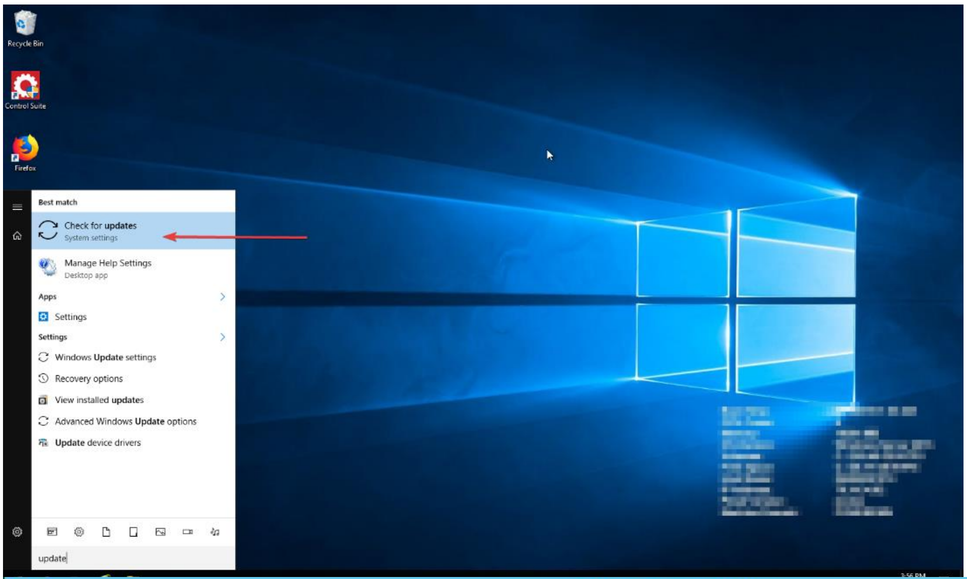
Avira Free Security

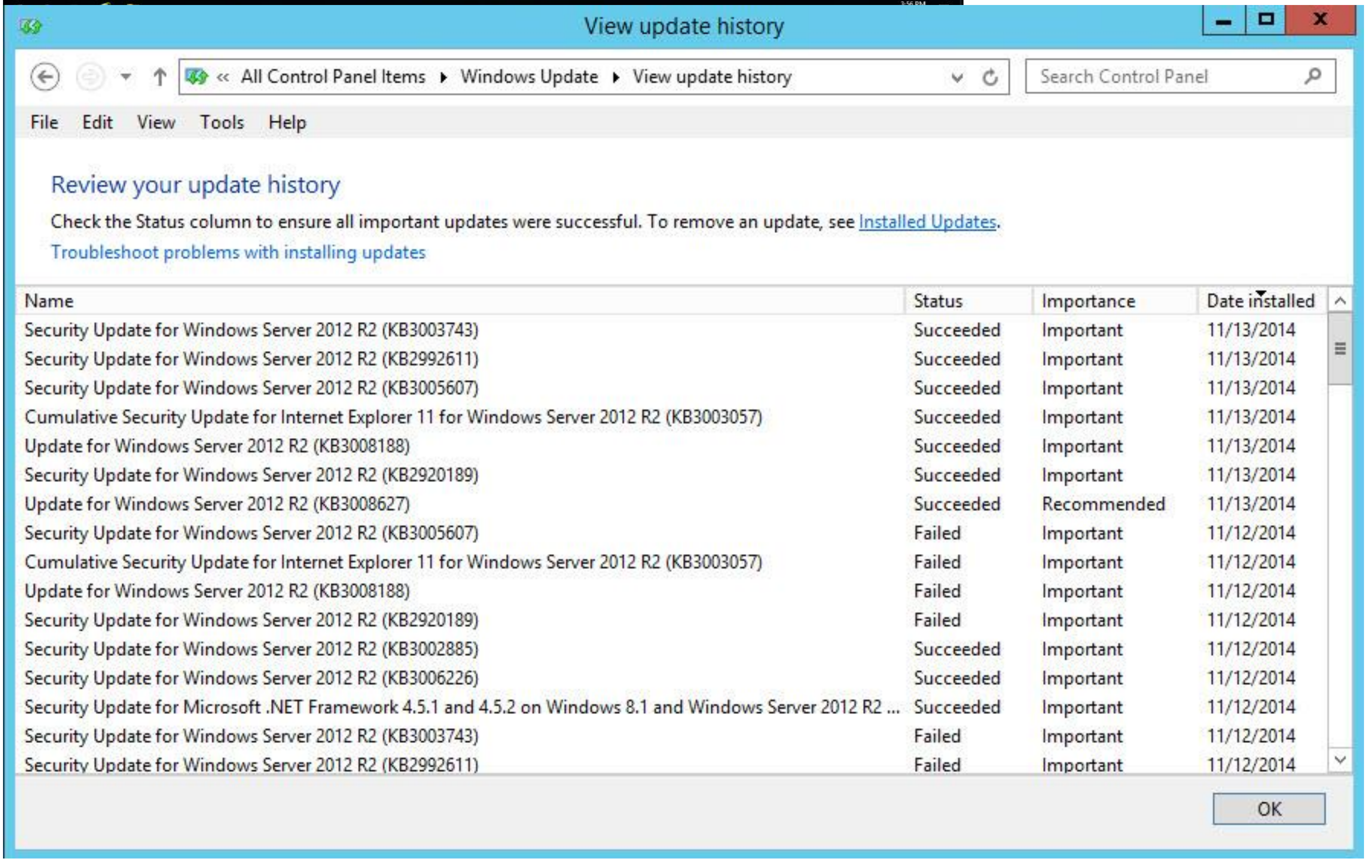
Great! You are all set

Let's run your first smart scan

Smart scan checks your system for security, privacy and performance issues

- Once installed, I can run a Smart scan




View update history
All Control Panel Items ▸ Windows Update ▸ View update history
Search Control Panel
File Edit View Tools Help
OK

Review your update history

Check the Status column to ensure all important updates were successful. To remove an update, see Installed Updates.

Troubleshoot problems with installing updates

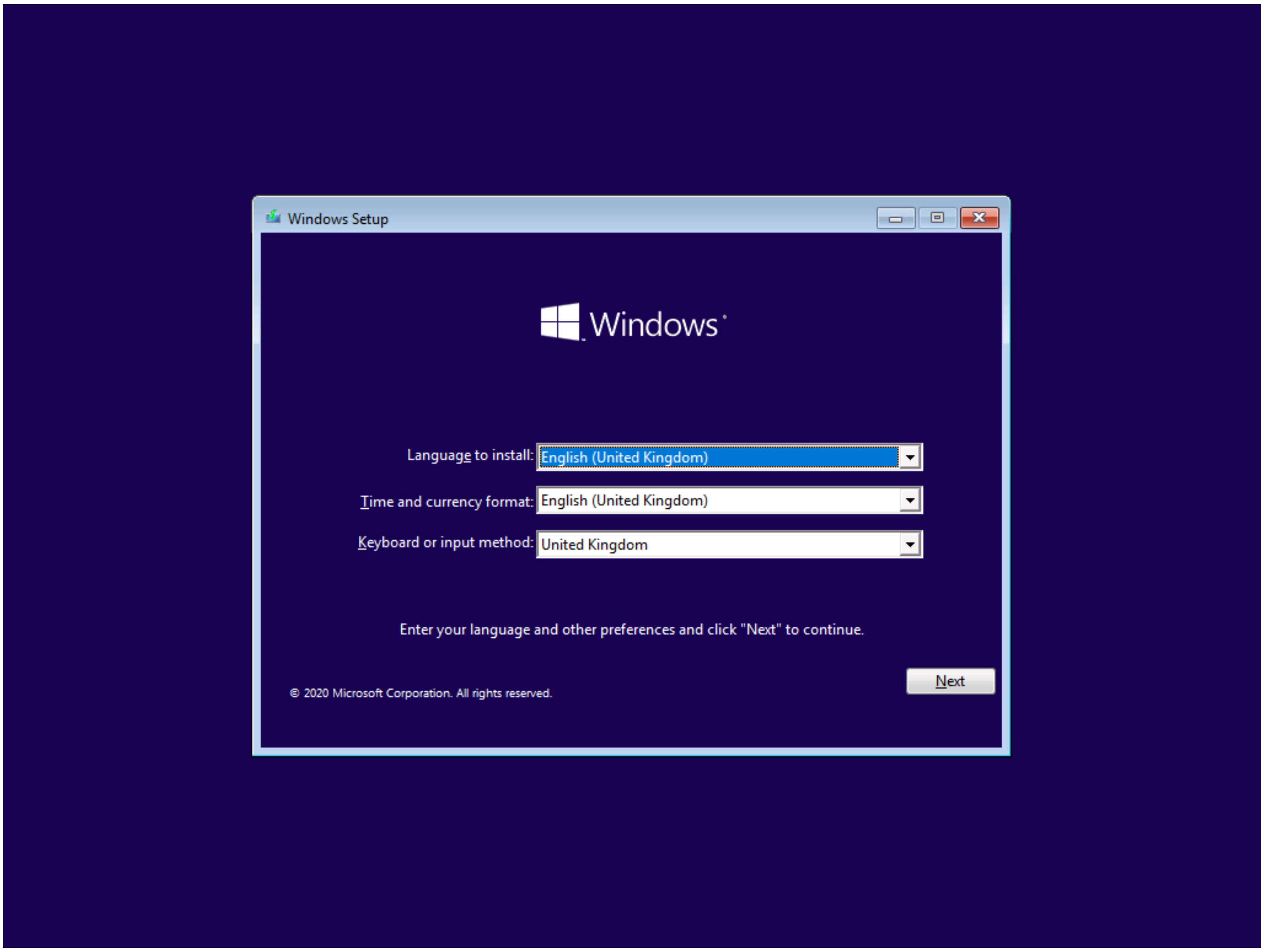
Name	Status	Importance	Date installed
Security Update for Windows Server 2012 R2 (KB3003743)	Succeeded	Important	11/13/2014
Security Update for Windows Server 2012 R2 (KB2992611)	Succeeded	Important	11/13/2014
Security Update for Windows Server 2012 R2 (KB3005607)	Succeeded	Important	11/13/2014
Cumulative Security Update for Internet Explorer 11 for Windows Server 2012 R2 (KB3003057)	Succeeded	Important	11/13/2014
Update for Windows Server 2012 R2 (KB3008188)	Succeeded	Important	11/13/2014
Security Update for Windows Server 2012 R2 (KB2920189)	Succeeded	Important	11/13/2014
Update for Windows Server 2012 R2 (KB3008627)	Succeeded	Recommended	11/13/2014
Security Update for Windows Server 2012 R2 (KB3005607)	Failed	Important	11/12/2014
Cumulative Security Update for Internet Explorer 11 for Windows Server 2012 R2 (KB3003057)	Failed	Important	11/12/2014
Update for Windows Server 2012 R2 (KB3008188)	Failed	Important	11/12/2014
Security Update for Windows Server 2012 R2 (KB2920189)	Failed	Important	11/12/2014
Security Update for Windows Server 2012 R2 (KB3002885)	Succeeded	Important	11/12/2014
Security Update for Windows Server 2012 R2 (KB3006226)	Succeeded	Important	11/12/2014
Security Update for Microsoft .NET Framework 4.5.1 and 4.5.2 on Windows 8.1 and Windows Server 2012 R2 ...	Succeeded	Important	11/12/2014
Security Update for Windows Server 2012 R2 (KB3003743)	Failed	Important	11/12/2014
Security Update for Windows Server 2012 R2 (KB2992611)	Failed	Important	11/12/2014

- I now check for Windows updates
- Antivirus is installed and Windows is up to date

Task 2(b)

Installation of client PC

Screenshots:



Language to install: English (United Kingdom)

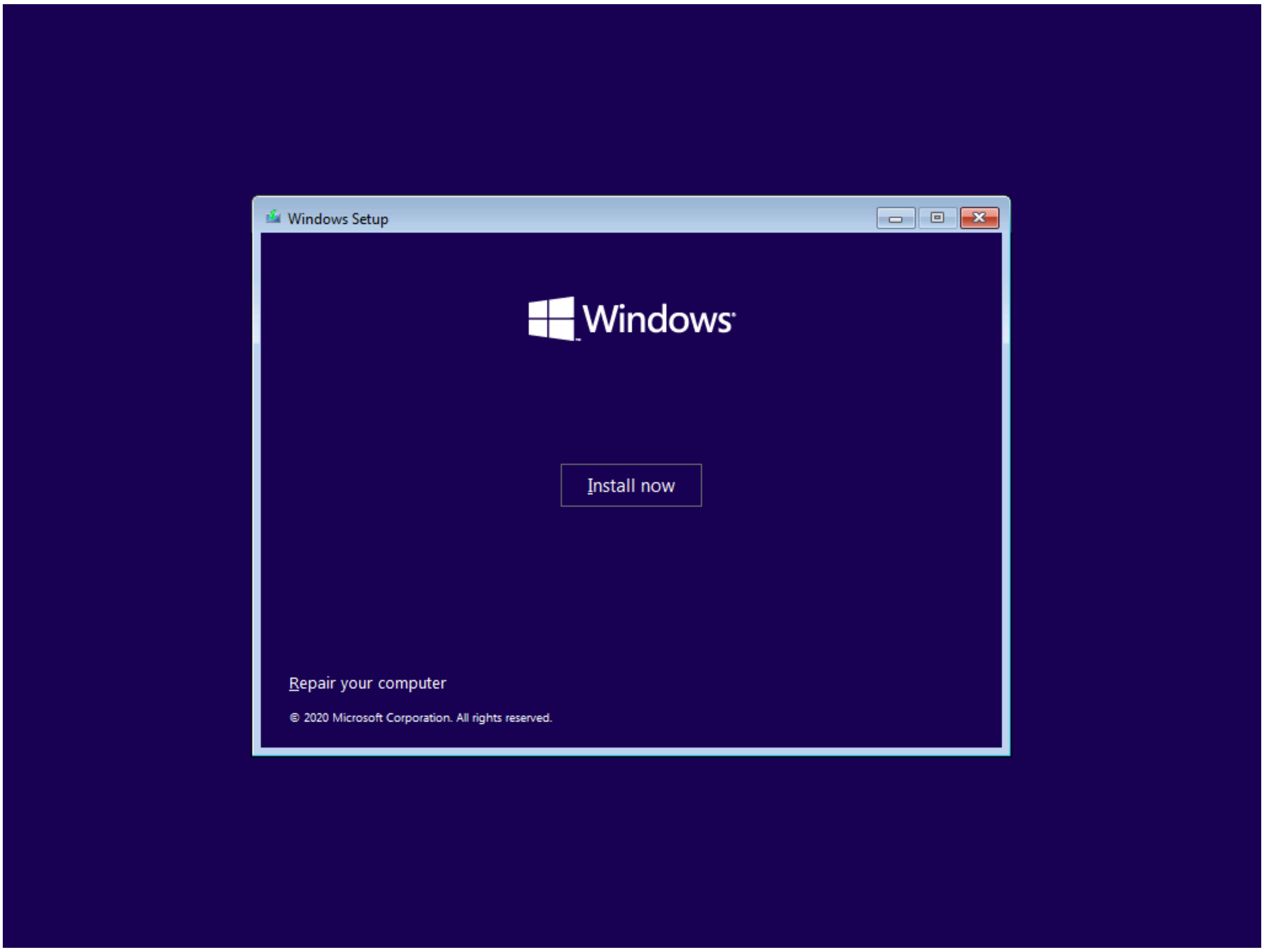
Time and currency format: English (United Kingdom)

Keyboard or input method: United Kingdom

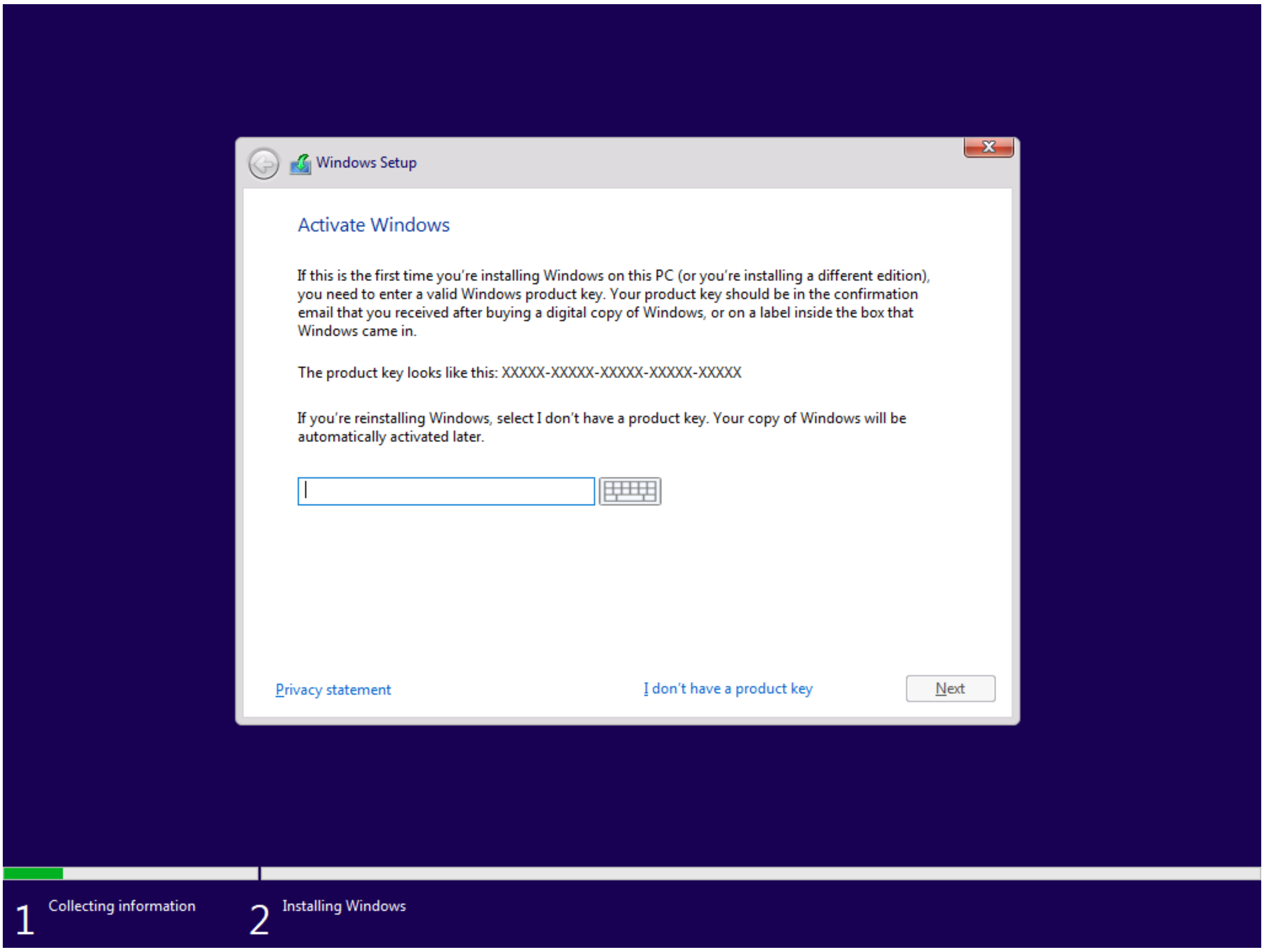
Enter your language and other preferences and click "Next" to continue.

© 2020 Microsoft Corporation. All rights reserved.

- I select the correct language for the UK



- I click install



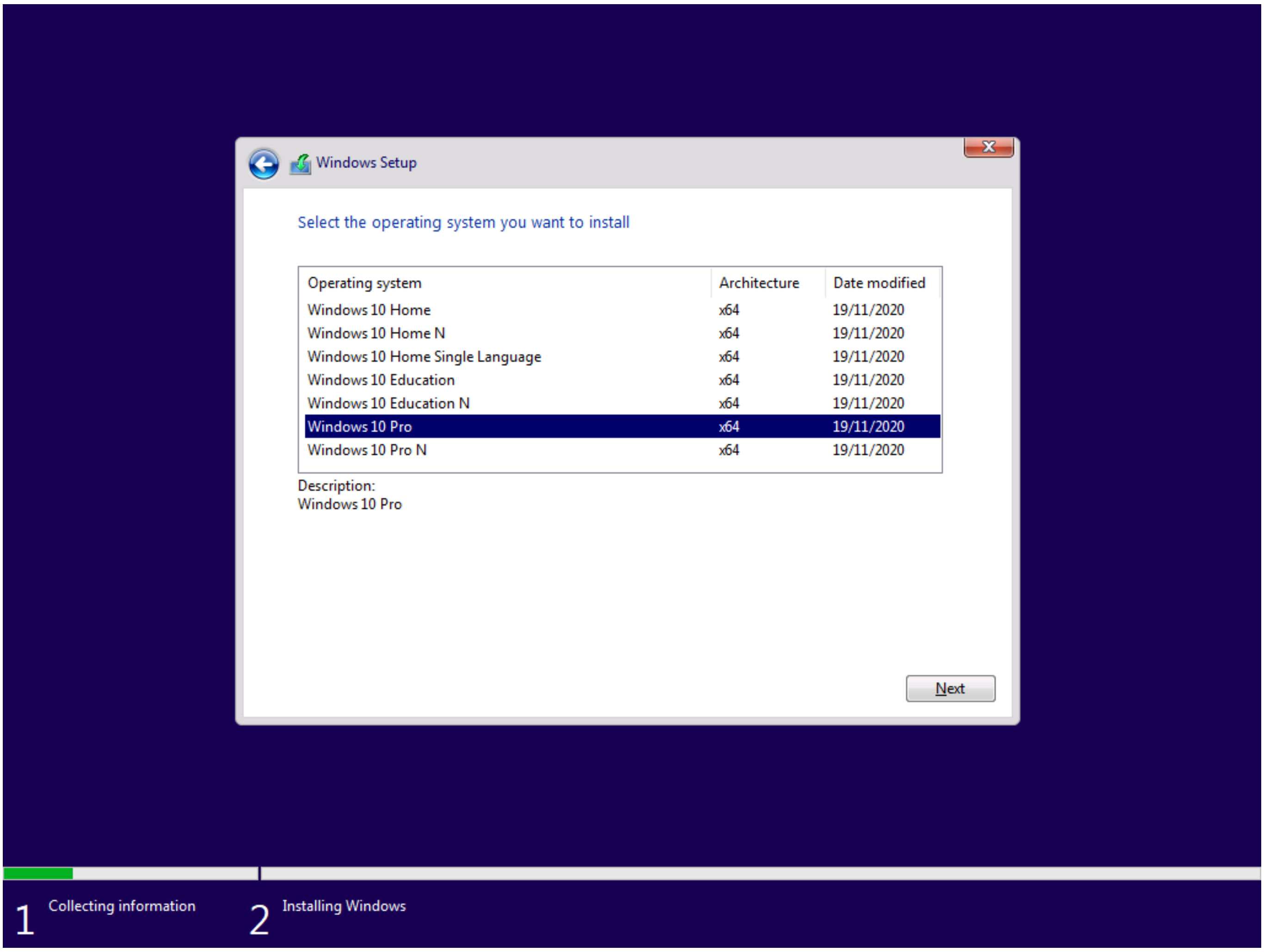
Activate Windows

If this is the first time you're installing Windows on this PC (or you're installing a different edition), you need to enter a valid Windows product key. Your product key should be in the confirmation email that you received after buying a digital copy of Windows, or on a label inside the box that Windows came in.

The product key looks like this: XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

If you're reinstalling Windows, select I don't have a product key. Your copy of Windows will be automatically activated later.

- I add the license number as proof of license

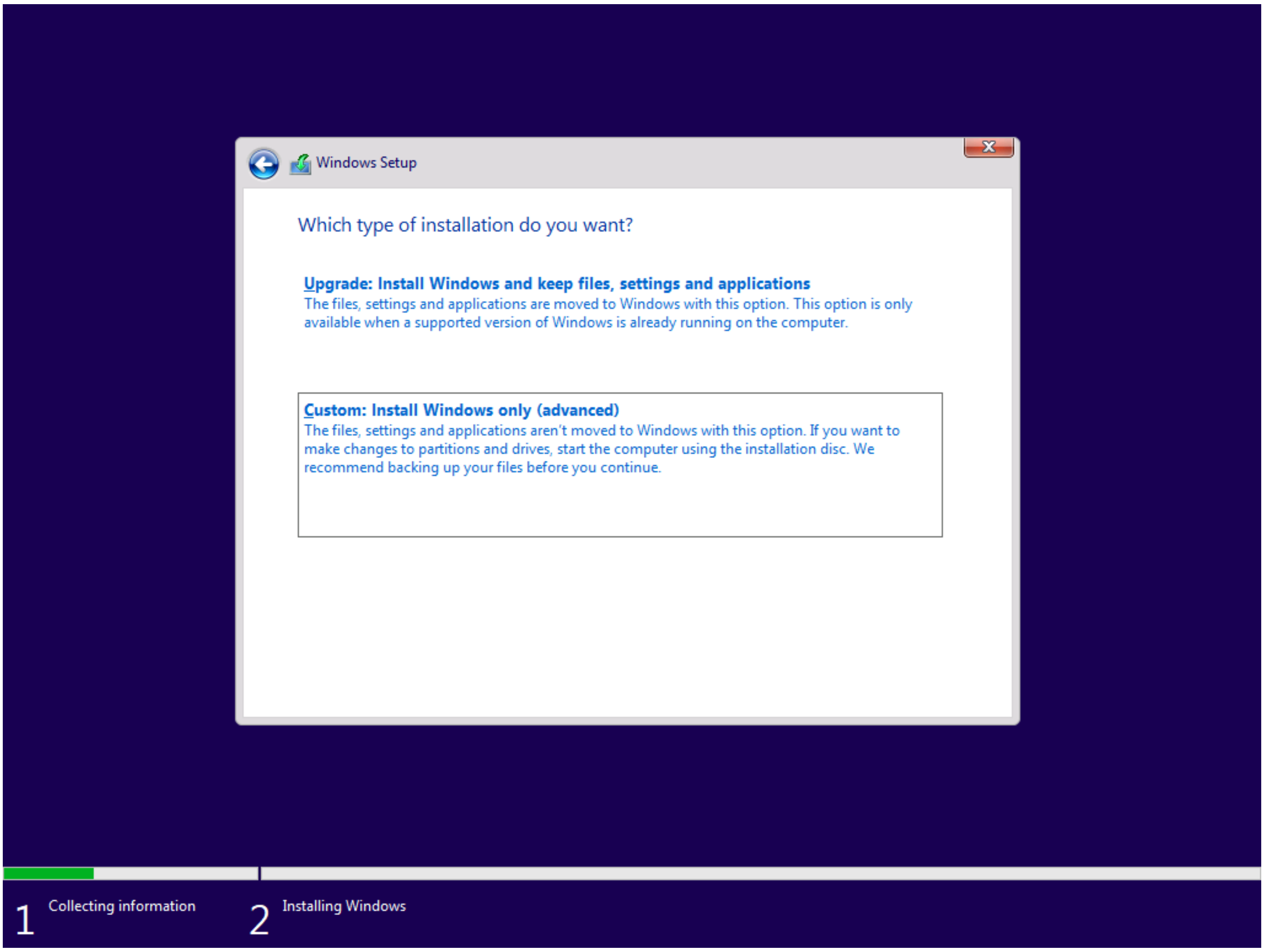


Select the operating system you want to install

Operating system	Architecture	Date modified
Windows 10 Home	x64	19/11/2020
Windows 10 Home N	x64	19/11/2020
Windows 10 Home Single Language	x64	19/11/2020
Windows 10 Education	x64	19/11/2020
Windows 10 Education N	x64	19/11/2020
Windows 10 Pro	x64	19/11/2020
Windows 10 Pro N	x64	19/11/2020

Description:
Windows 10 Pro

- select the correct version of Windows necessary. I am going to install Pro as this is a corporate machine

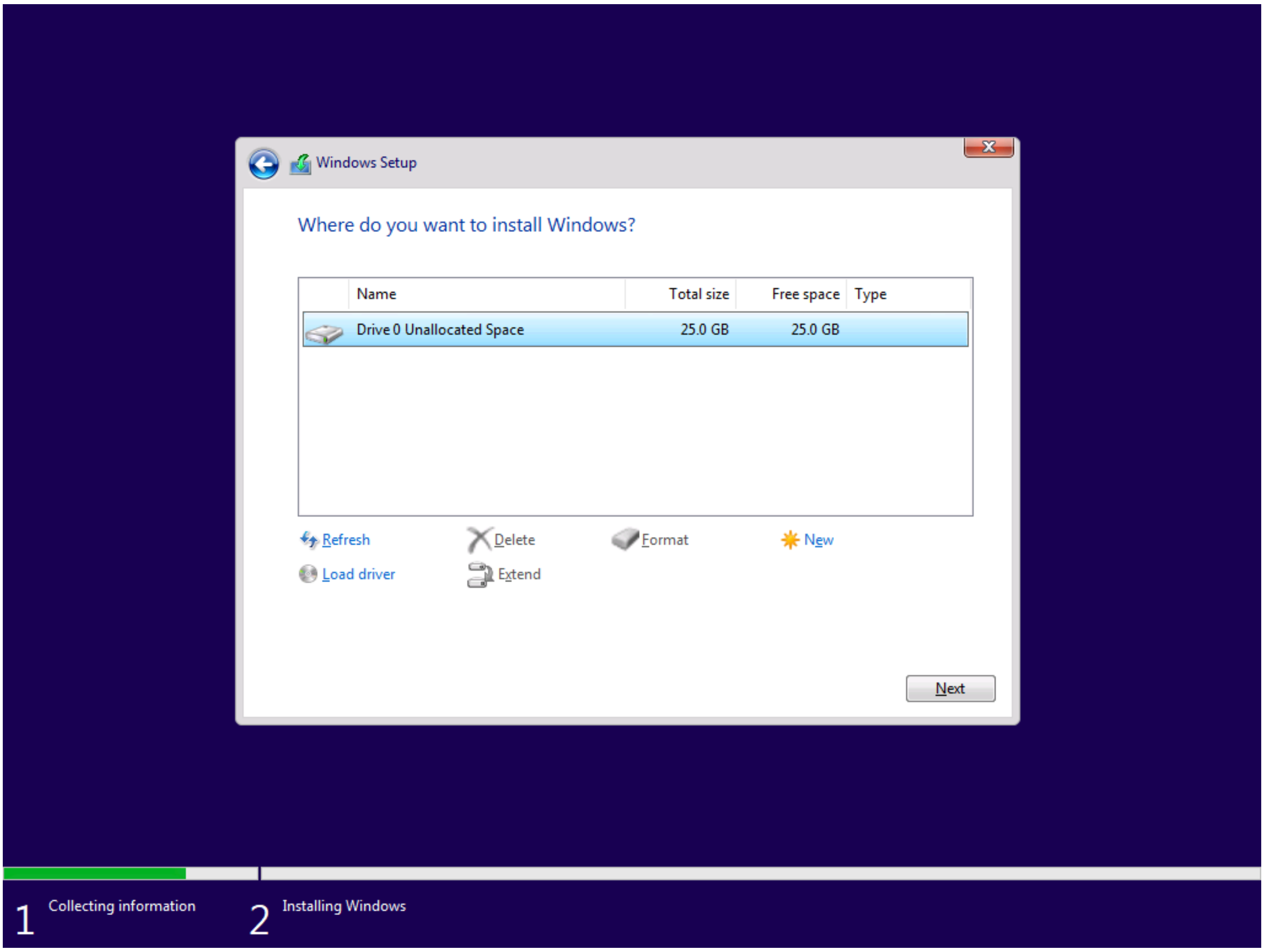


Which type of installation do you want?

Upgrade: Install Windows and keep files, settings and applications
The files, settings and applications are moved to Windows with this option. This option is only available when a supported version of Windows is already running on the computer.

Custom: Install Windows only (advanced)
The files, settings and applications aren't moved to Windows with this option. If you want to make changes to partitions and drives, start the computer using the installation disc. We recommend backing up your files before you continue.

- I use a custom install as this will keep the old data if there is any and let me choose more options

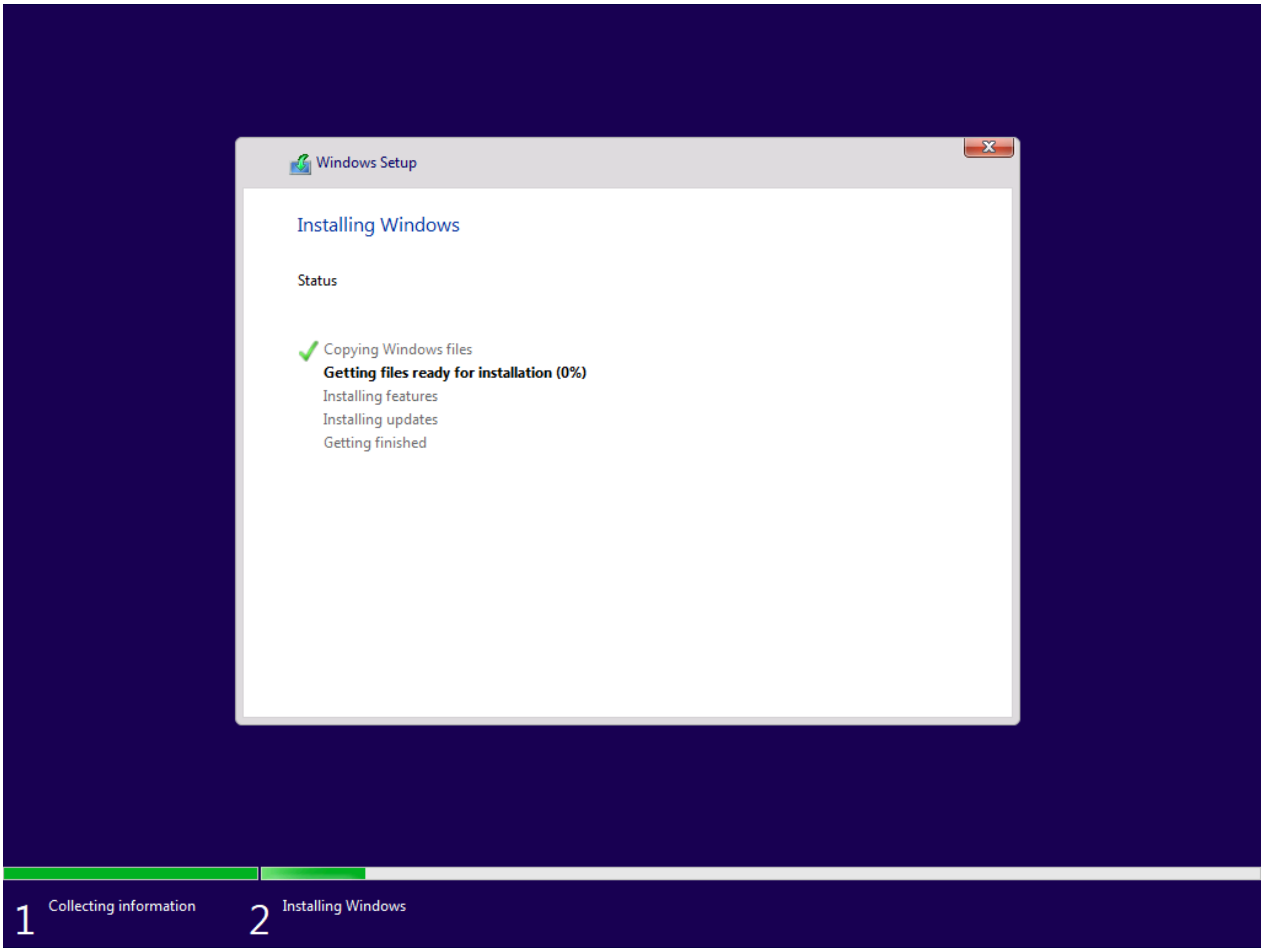


Windows Setup

Where do you want to install Windows?

Name	Total size	Free space	Type
Drive 0 Unallocated Space	25.0 GB	25.0 GB	

- I select the disk I wish to use. As there is only one disk, this is selected by default. I choose it



Windows Setup

Installing Windows

Status

✓ Copying Windows files

Getting files ready for installation (0%)

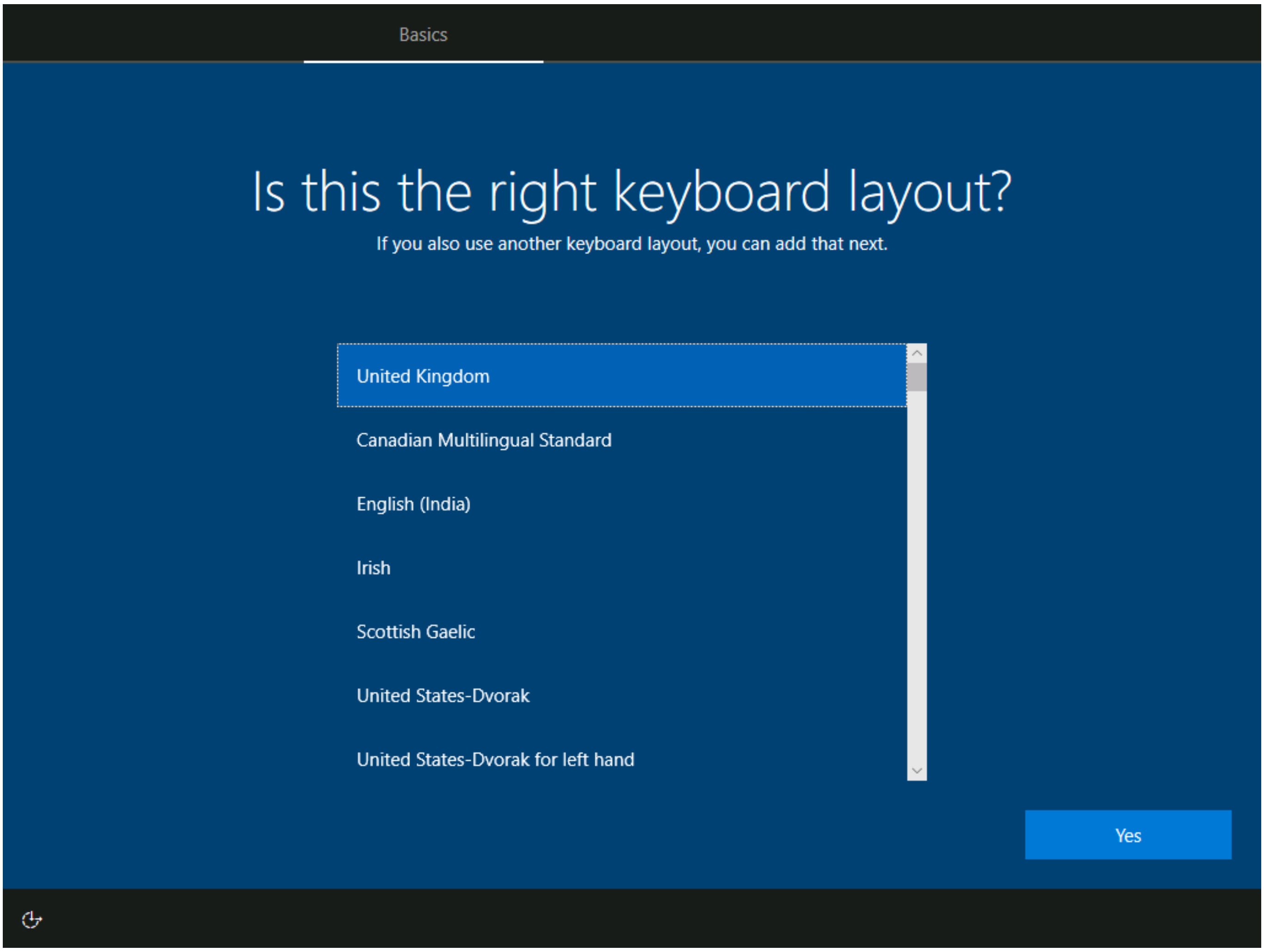
Installing features

Installing updates

Getting finished

- these screenshots show me installing Windows 10 onto the client computer

Screenshots:



Is this the right keyboard layout?

If you also use another keyboard layout, you can add that next.

United Kingdom

Canadian Multilingual Standard

English (India)

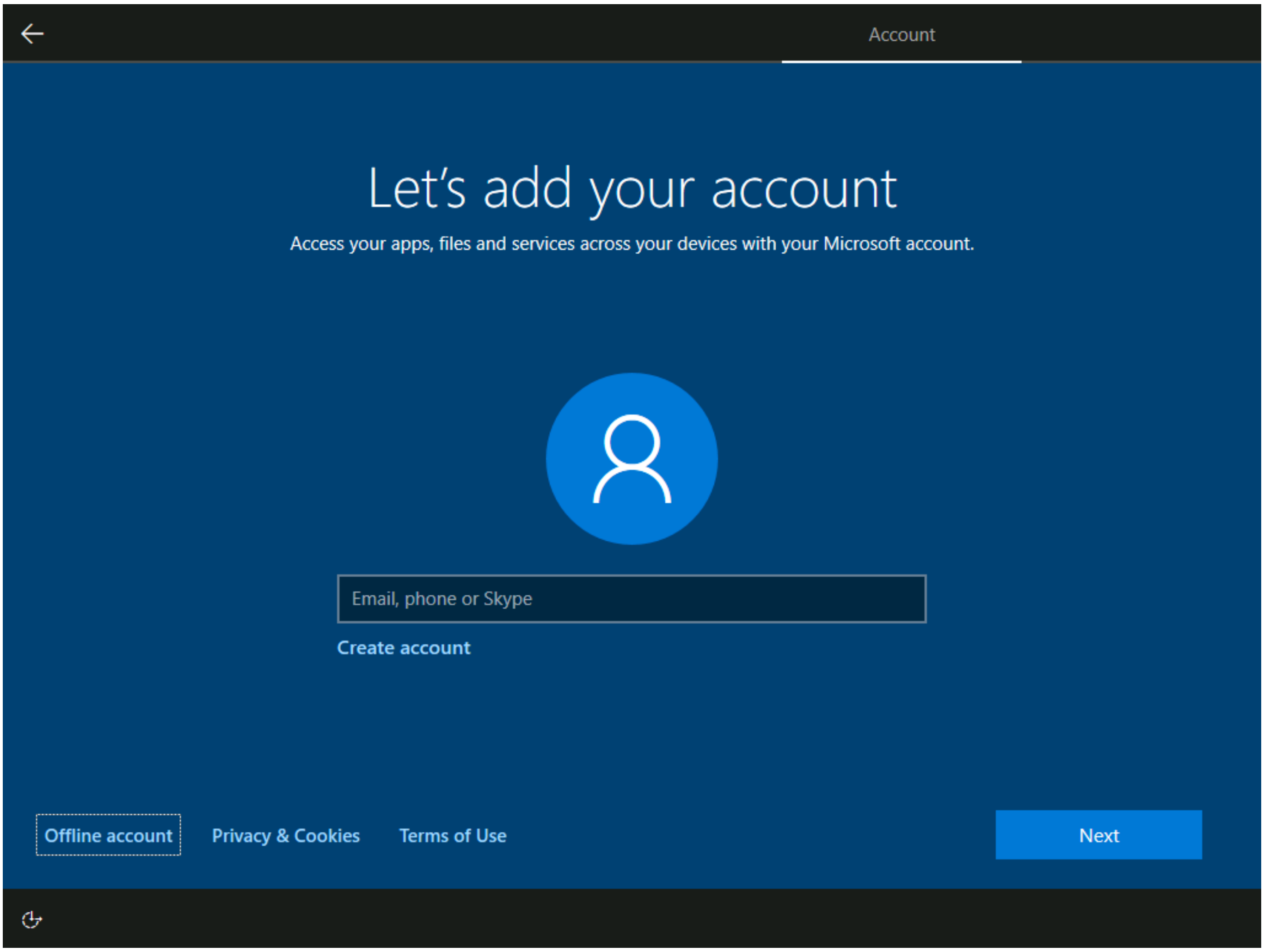
Irish

Scottish Gaelic

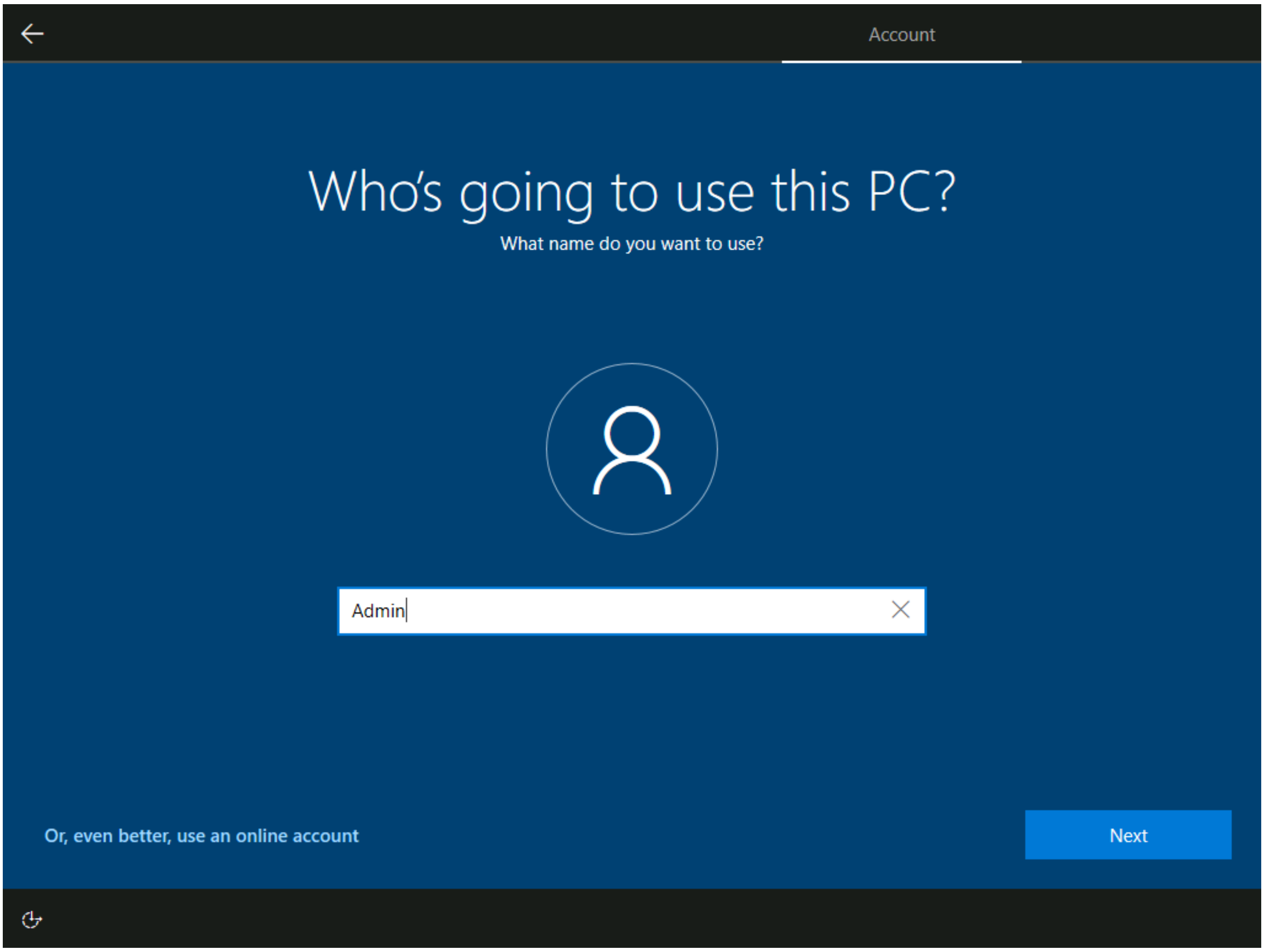
United States-Dvorak

United States-Dvorak for left hand

- I select the correct keyboard for use in the UK



- I add a local account for Microsoft



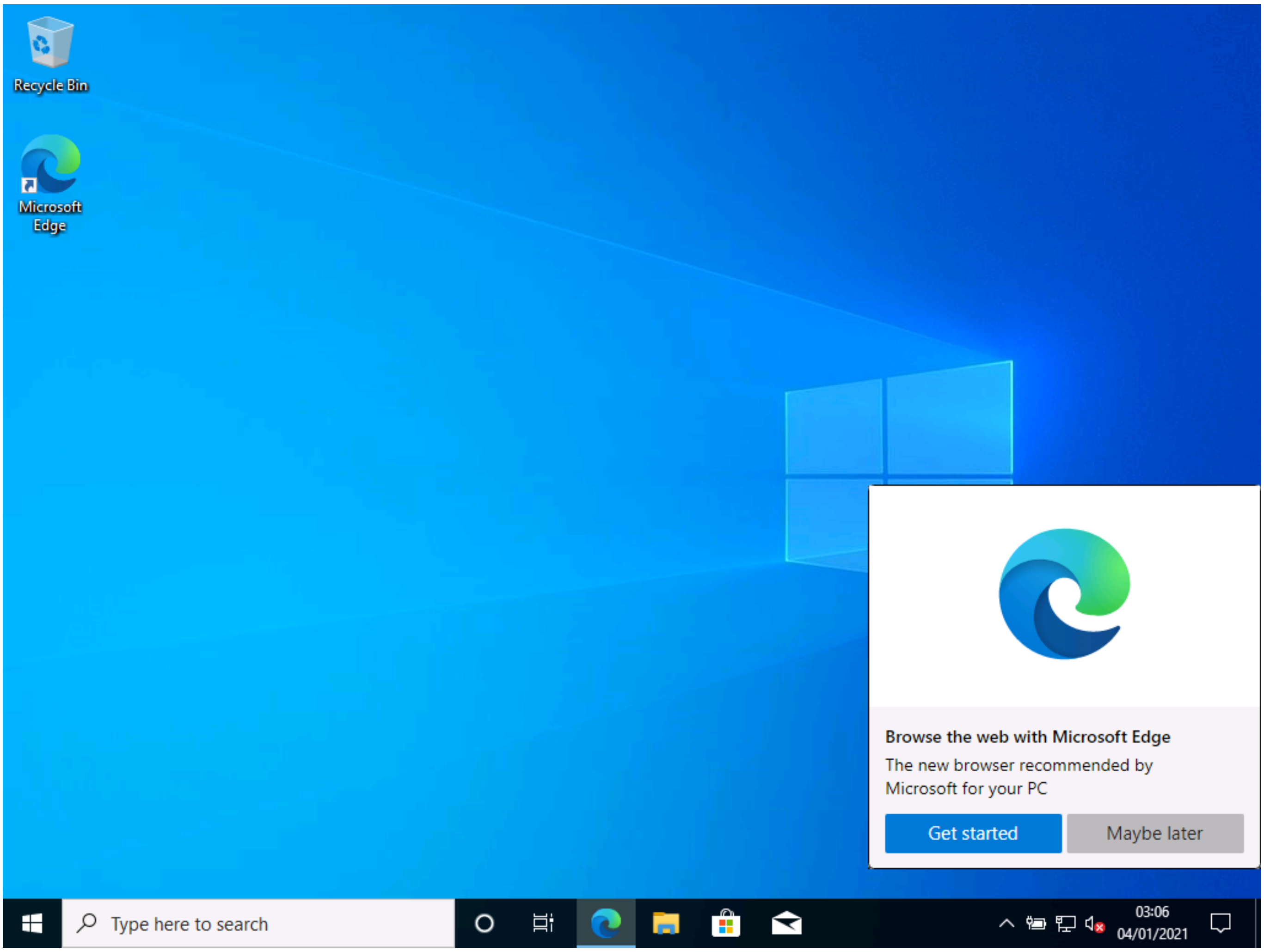
Who's going to use this PC?

What name do you want to use?

Admin

- These screenshots show me performing the initial set-up for first use of Windows 10

Screenshot:



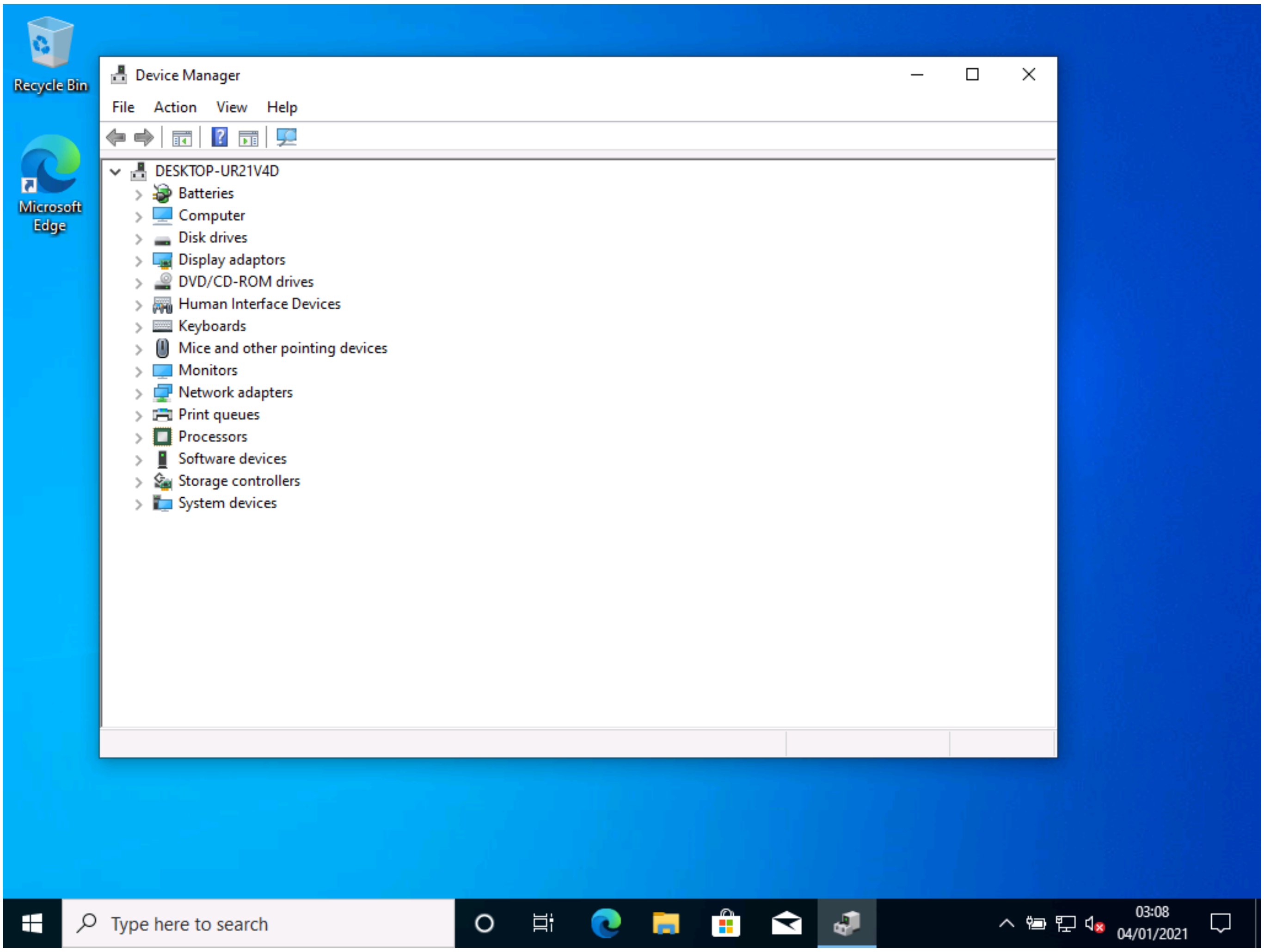
Browse the web with Microsoft Edge

The new browser recommended by Microsoft for your PC

- I have now logged into Windows 10 for the first time

Checking device drivers

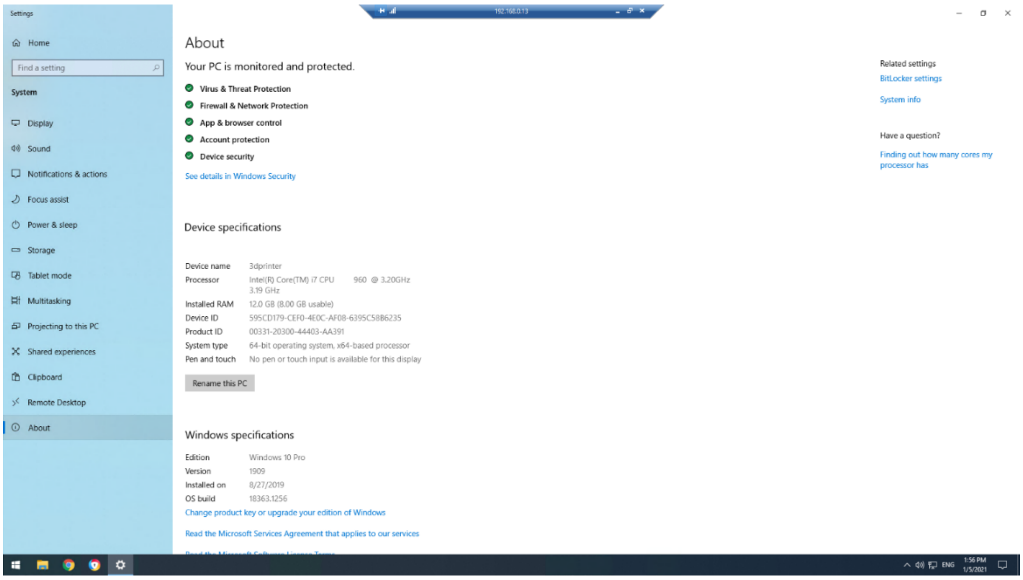
Screenshots:



- I check all drivers are installed

Network configuration/domain joining

Screenshots:



About

Your PC is monitored and protected.

- Virus & Threat Protection
- Firewall & Network Protection
- App & browser control
- Account protection
- Device security

See details in Windows Security

Device specifications

Device name	3dprinter
Processor	Intel(R) Core(TM) i7 CPU 960 @ 3.20GHz 3.19 GHz
Installed RAM	12.0 GB (8.00 GB usable)
Device ID	595CD179-CEF0-4E0C-AF08-6395C58B6235
Product ID	00331-20300-44403-AA391
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

Windows specifications

Edition	Windows 10 Pro
Version	1909
Installed on	8/27/2019
OS build	18363.1256

Change product key or upgrade your edition of Windows

Read the Microsoft Services Agreement that applies to our services

Related settings

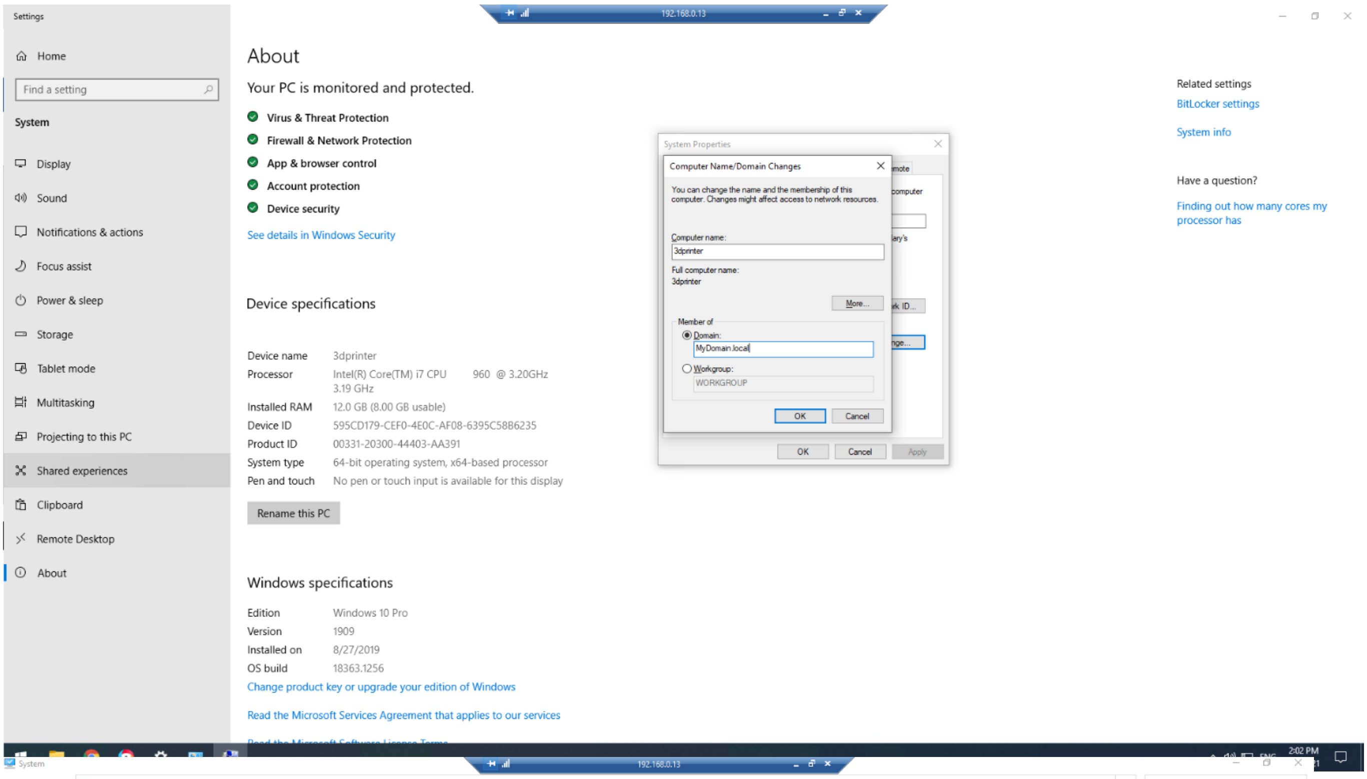
BitLocker settings

System info

Have a question?

Finding out how many cores my processor has

- I open settings



About

Your PC is monitored and protected.

- Virus & Threat Protection
- Firewall & Network Protection
- App & browser control
- Account protection
- Device security

See details in Windows Security

Device specifications

Device name	3dprinter
Processor	Intel(R) Core(TM) i7 CPU 960 @ 3.20GHz 3.19 GHz
Installed RAM	12.0 GB (8.00 GB usable)
Device ID	595CD179-CEF0-4E0C-AF08-6395C58B6235
Product ID	00331-20300-44403-AA391
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

Rename this PC

Windows specifications

Edition	Windows 10 Pro
Version	1909
Installed on	8/27/2019
OS build	18363.1256

Change product key or upgrade your edition of Windows

Read the Microsoft Services Agreement that applies to our services

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name: 3dprinter

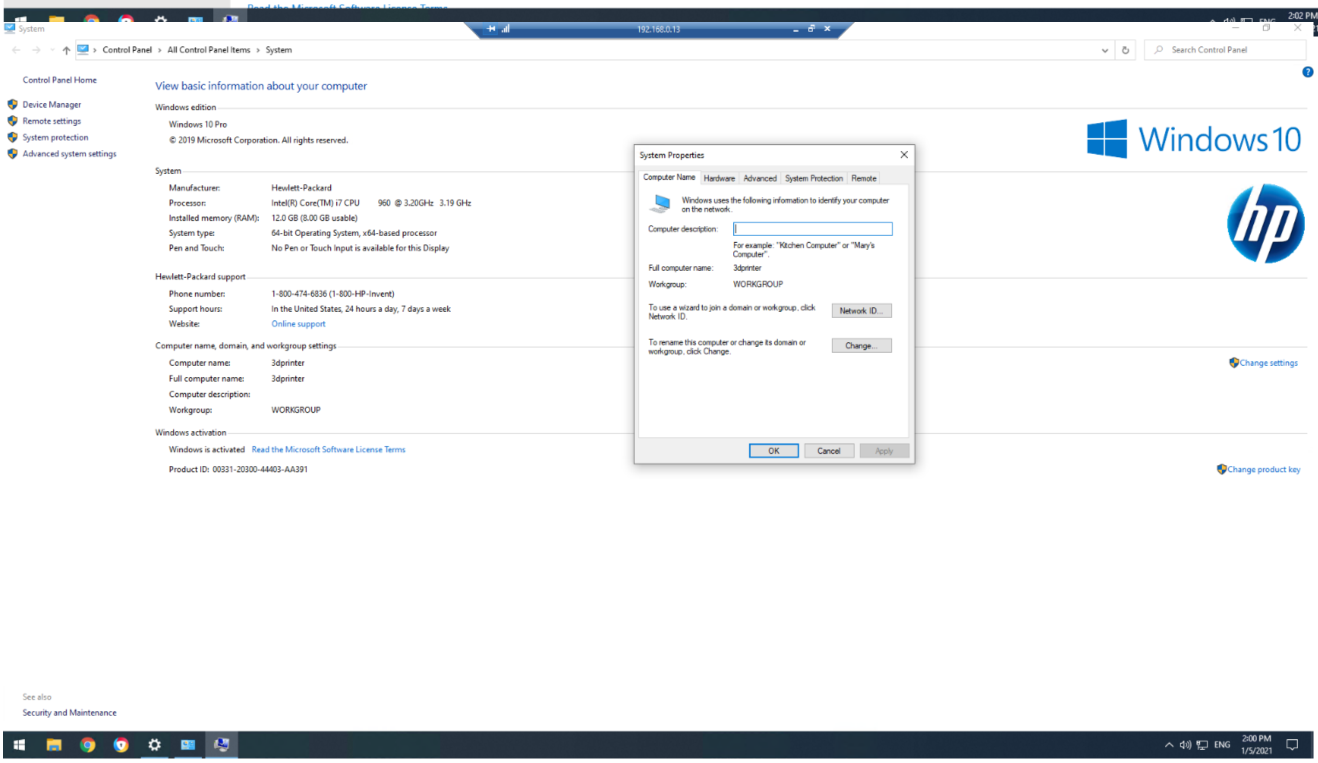
Full computer name:
3dprinter

More...

Member of
● Domain: MyDomain.local
○ Workgroup: WORKGROUP

OK Cancel

OK Cancel Apply



View basic information about your computer

Windows edition

Windows 10 Pro
© 2019 Microsoft Corporation. All rights reserved.

System

Manufacturer:	Hewlett-Packard
Processor:	Intel(R) Core(TM) i7 CPU 960 @ 3.20GHz 3.19 GHz
Installed memory (RAM):	12.0 GB (8.00 GB usable)
System type:	64-bit Operating System, x64-based processor
Pen and Touch:	No Pen or Touch Input is available for this Display

Hewlett-Packard support

Phone number:	1-800-474-6836 (1-800-HP-Invent)
Support hours:	In the United States, 24 hours a day, 7 days a week
Website:	Online support

Computer name, domain, and workgroup settings

Computer name:	3dprinter
Full computer name:	3dprinter
Computer description:	
Workgroup:	WORKGROUP

Windows activation

Windows is activated Read the Microsoft Software License Terms

Product ID: 00331-20300-44403-AA391

System Properties

Computer Name | Hardware | Advanced | System Protection | Remote

Windows uses the following information to identify your computer on the network.

Computer description:

For example: "Kitchen Computer" or "Mary's Computer".

Full computer name: 3dprinter

Workgroup: WORKGROUP

To use a wizard to join a domain or workgroup, click Network ID. Network ID...

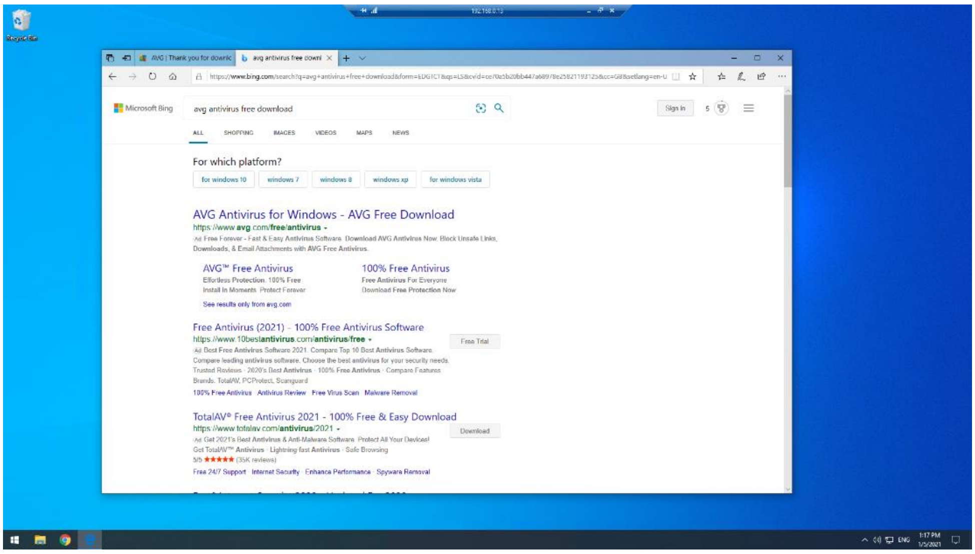
To rename this computer or change its domain or workgroup, click Change. Change...

OK Cancel Apply

- here I am joining the Domain I created above
- I have joined the **MyDomain.local,** using the domain admin account **dtroke** when prompted
- after joining the domain, the computer has rebooted, and I can now log in with the **dtroke** account

Security and installation of antivirus software

Screenshots:



https://www.bing.com/search?q=avg+antivirus+free+download&form=EDGTCT&qs=LS&cvid=ce70a5b20bb447a68978e25821193125&cc=GB&setlang=en-U

For which platform?

AVG Antivirus for Windows - AVG Free Download
https://www.avg.com/free/antivirus
Ad Free Forever - Fast & Easy Antivirus Software. Download AVG Antivirus Now. Block Unsafe Links, Downloads, & Email Attachments with AVG Free Antivirus.

AVG™ Free Antivirus
Effortless Protection. 100% Free
Install In Moments. Protect Forever

100% Free Antivirus
Free Antivirus For Everyone
Download Free Protection Now

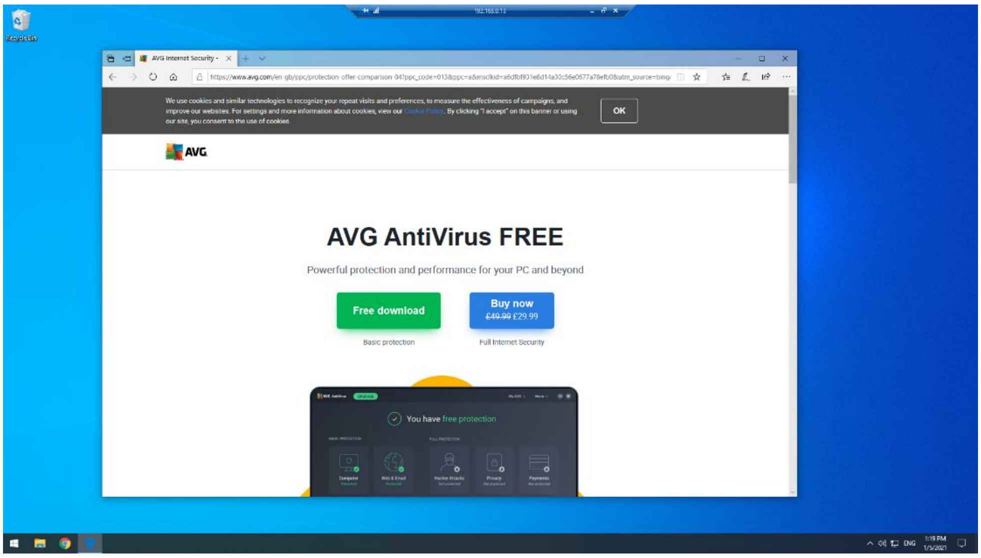
See results only from avg.com

Free Antivirus (2021) - 100% Free Antivirus Software
https://www.10bestantivirus.com/antivirus/free
Ad Best Free Antivirus Software 2021. Compare Top 10 Best Antivirus Software. Compare leading antivirus software. Choose the best antivirus for your security needs. Trusted Reviews · 2020's Best Antivirus · 100% Free Antivirus · Compare Features Brands: TotalAV, PCProtect, Scanguard
100% Free Antivirus · Antivirus Review · Free Virus Scan · Malware Removal

TotalAV® Free Antivirus 2021 - 100% Free & Easy Download
https://www.totalav.com/antivirus/2021
Ad Get 2021's Best Antivirus & Anti-Malware Software. Protect All Your Devices! Get TotalAV™ Antivirus · Lightning-fast Antivirus · Safe Browsing
5/5 ★★★★★ (35K reviews)
Free 24/7 Support · Internet Security · Enhance Performance · Spyware Removal

- I browse for antivirus software on the web

Screenshots:



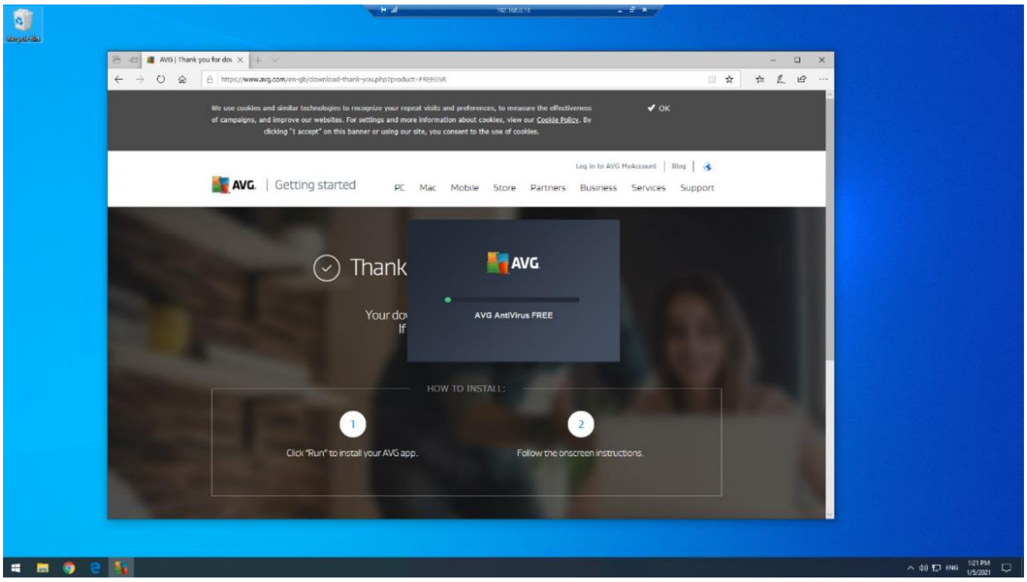
https://www.avg.com/en-gb/ppc/protection-offer-comparison-04?ppc_code=013&ppc=a&msclkid=a6dfbf931e8d14a30c56e0577a78efb08&utm_source=bing-

We use cookies and similar technologies to recognize your repeat visits and preferences, to measure the effectiveness of campaigns, and improve our websites. For settings and more information about cookies, view our Cookie Policy. By clicking "I accept" on this banner or using our site, you consent to the use of cookies.

AVG AntiVirus FREE

Powerful protection and performance for your PC and beyond

- I select the free download



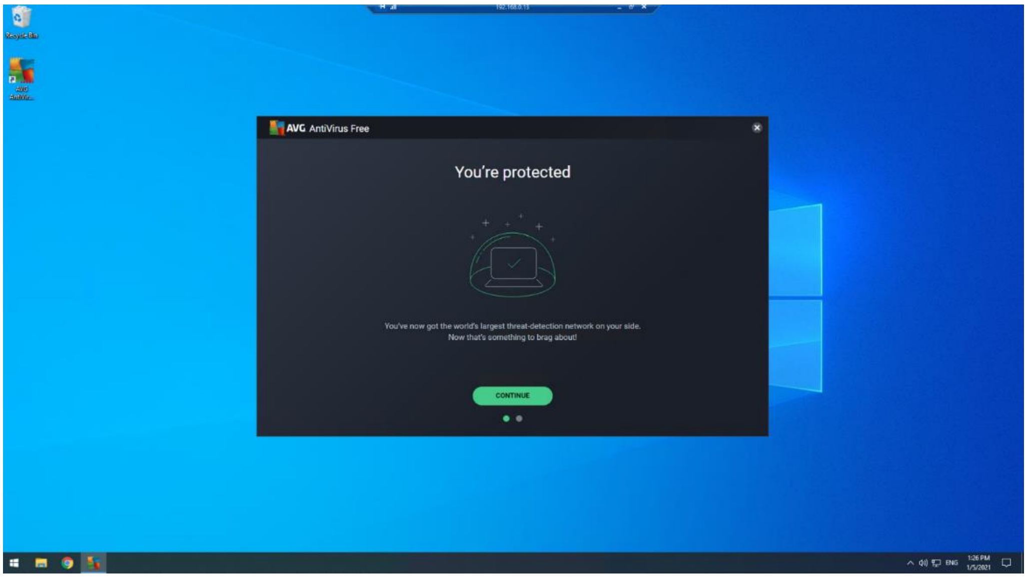
https://www.avg.com/en-gb/download-thank-you.php?product=FREEGSR

We use cookies and similar technologies to recognize your repeat visits and preferences, to measure the effectiveness of campaigns, and improve our websites. For settings and more information about cookies, view our Cookie Policy. By clicking "I accept" on this banner or using our site, you consent to the use of cookies.

Click "Run" to install your AVG app.

Follow the onscreen instructions.

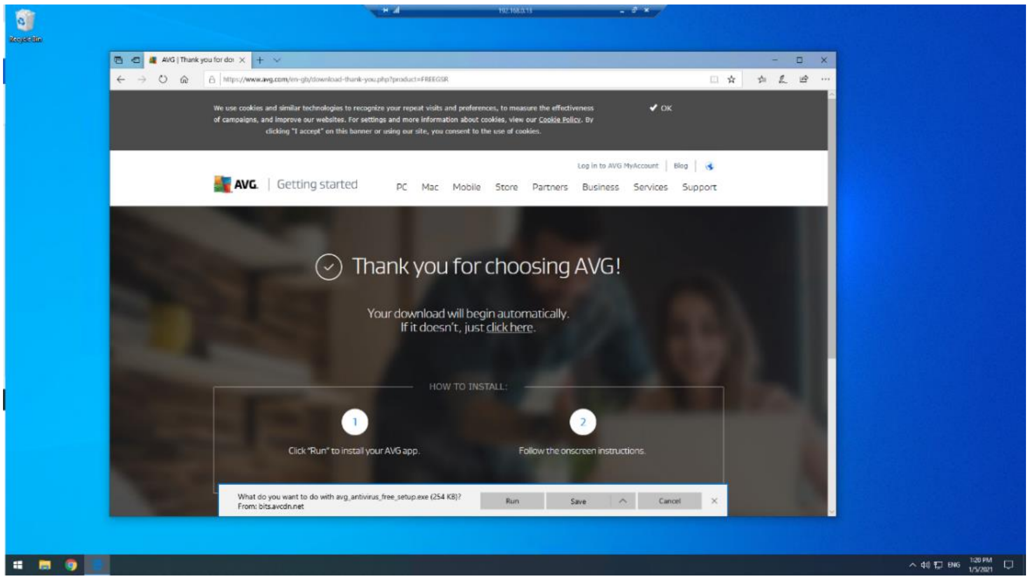
- I download the installer



You're protected

You've now got the world's largest threat-detection network on your side.
Now that's something to brag about!

- Antivirus software is now installed



https://www.avg.com/en-gb/download-thank-you.php?product=FREEGSR

We use cookies and similar technologies to recognize your repeat visits and preferences, to measure the effectiveness of campaigns, and improve our websites. For settings and more information about cookies, view our Cookie Policy. By clicking "I accept" on this banner or using our site, you consent to the use of cookies.

Thank you for choosing AVG!

Your download will begin automatically.
If it doesn't, just click here.

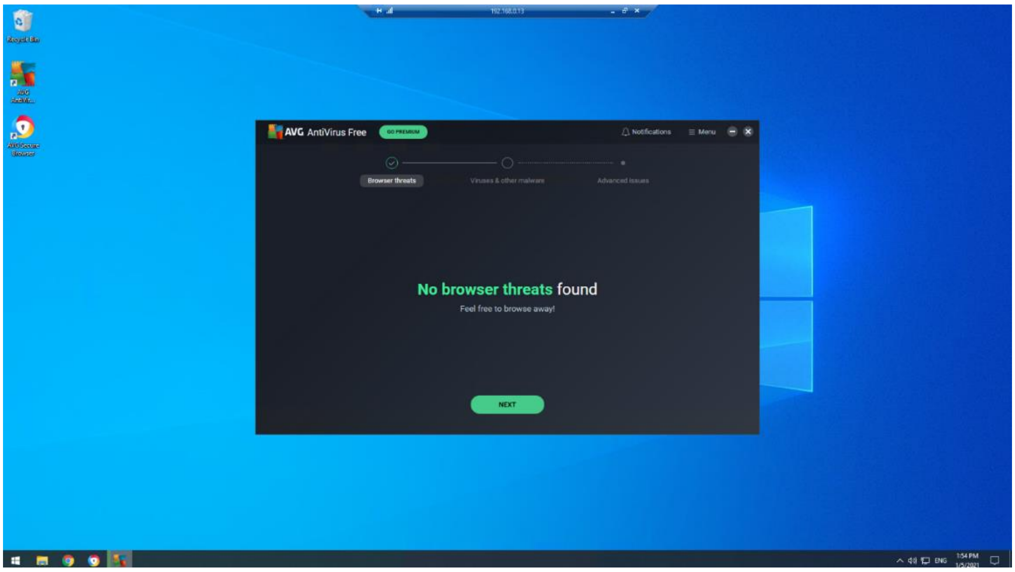
HOW TO INSTALL:

1 Click "Run" to install your AVG app.

2 Follow the onscreen instructions.

What do you want to do with avg_antivirus_free_setup.exe (254 KB)?
From: bits.avcdn.net

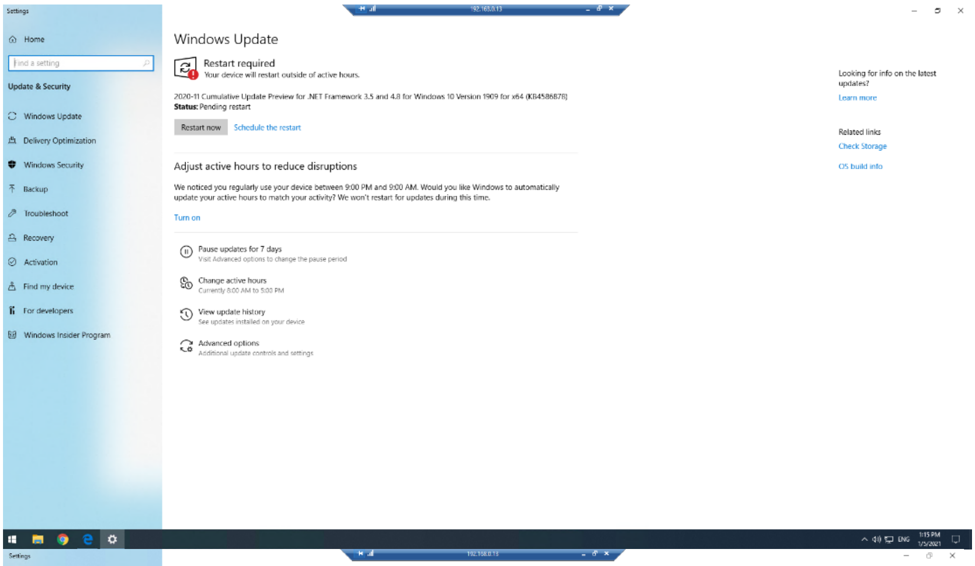
- Antivirus software is now installed ‘Thank you’ message from AVG



No browser threats found
Feel free to browse away!

- I run a virus scan to check for viruses

Screenshots:



Windows Update

Restart required
Your device will restart outside of active hours.

2020-11 Cumulative Update Preview for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909 for x64 (KB4586878)
Status: Pending restart

Adjust active hours to reduce disruptions

We noticed you regularly use your device between 9:00 PM and 9:00 AM. Would you like Windows to automatically update your active hours to match your activity? We won't restart for updates during this time.

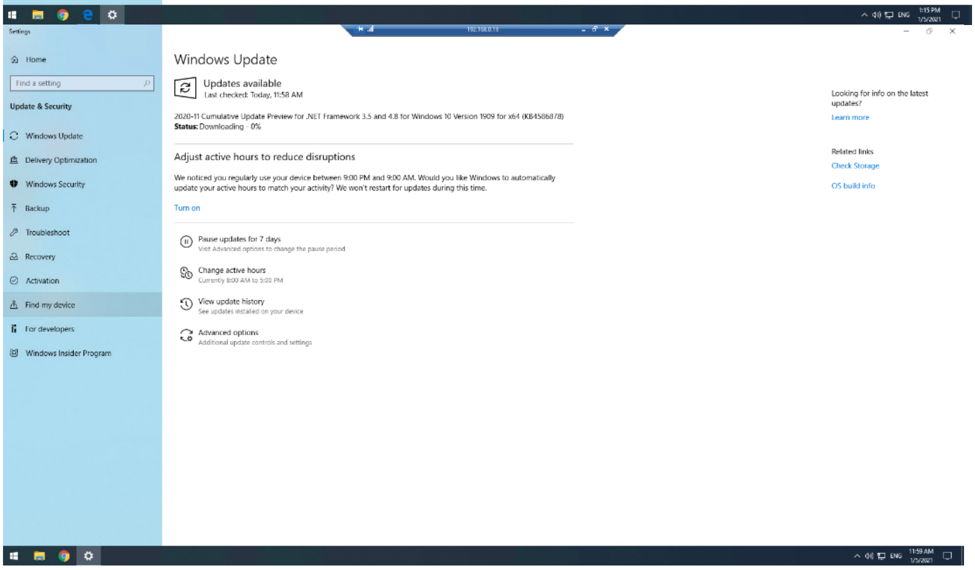
Pause updates for 7 days
Visit Advanced options to change the pause period

Change active hours
Currently 8:00 AM to 5:00 PM

View update history
See updates installed on your device

Advanced options
Additional update controls and settings

Looking for info on the latest updates?



Windows Update

Updates available
Last checked: Today, 11:58 AM

2020-11 Cumulative Update Preview for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909 for x64 (KB4586878)
Status: Downloading - 0%

Adjust active hours to reduce disruptions

We noticed you regularly use your device between 9:00 PM and 9:00 AM. Would you like Windows to automatically update your active hours to match your activity? We won't restart for updates during this time.

Pause updates for 7 days
Visit Advanced options to change the pause period

Change active hours
Currently 8:00 AM to 5:00 PM

View update history
See updates installed on your device

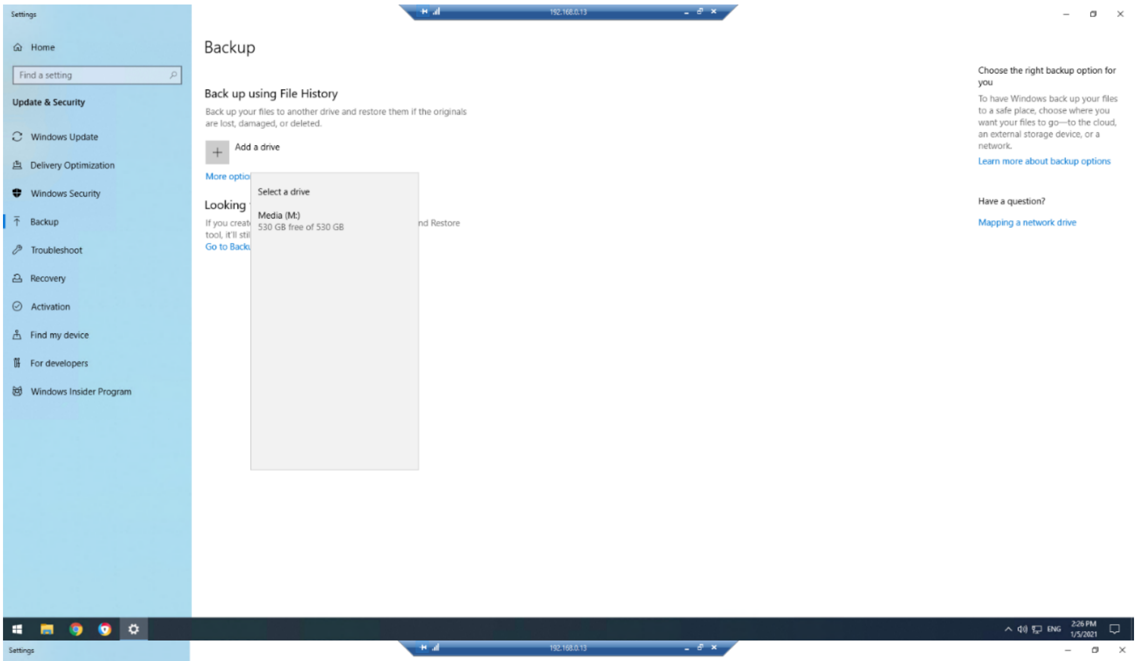
Advanced options
Additional update controls and settings

Looking for info on the latest updates?

- I check for Windows updates

Configuring backups

Screenshots:



Backup

Back up using File History

Back up your files to another drive and restore them if the originals are lost, damaged, or deleted.

+ Add a drive

More optio

Looking

If you creat nd Restore tool, it'll stil

Go to Backu

Select a drive

Media (M:)
530 GB free of 530 GB

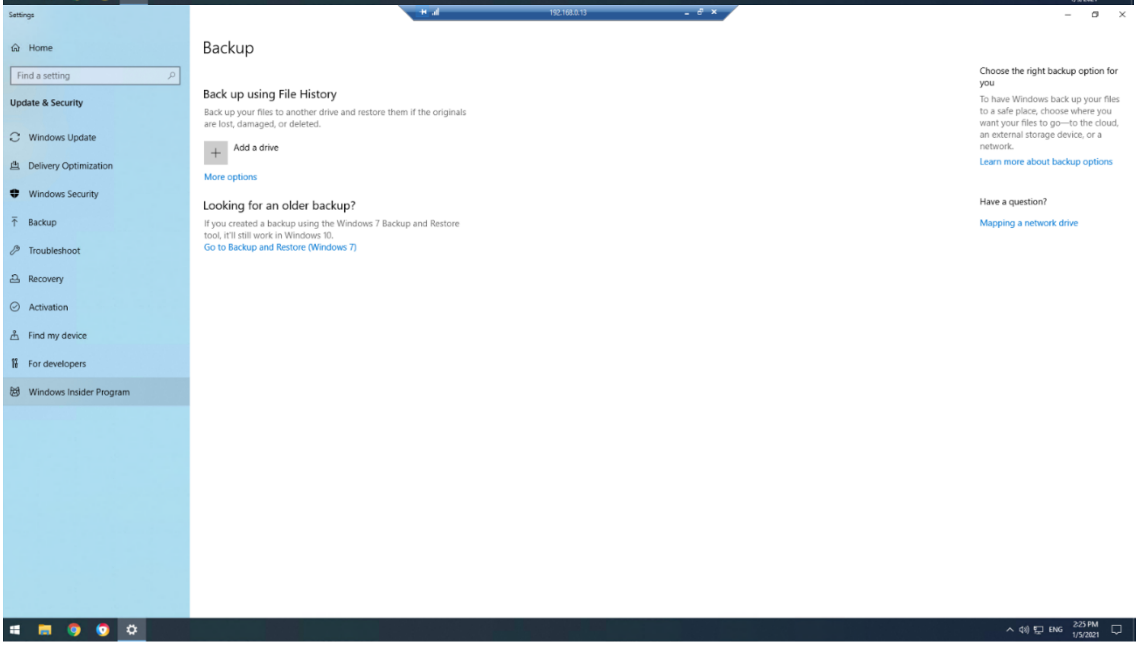
Choose the right backup option for you

To have Windows back up your files to a safe place, choose where you want your files to go—to the cloud, an external storage device, or a network.

Learn more about backup options

Have a question?

Mapping a network drive



Backup

Back up using File History

Back up your files to another drive and restore them if the originals are lost, damaged, or deleted.

+ Add a drive

More options

Looking for an older backup?

If you created a backup using the Windows 7 Backup and Restore tool, it'll still work in Windows 10.

Go to Backup and Restore (Windows 7)

Choose the right backup option for you

To have Windows back up your files to a safe place, choose where you want your files to go—to the cloud, an external storage device, or a network.

Learn more about backup options

Have a question?

Mapping a network drive

Client software

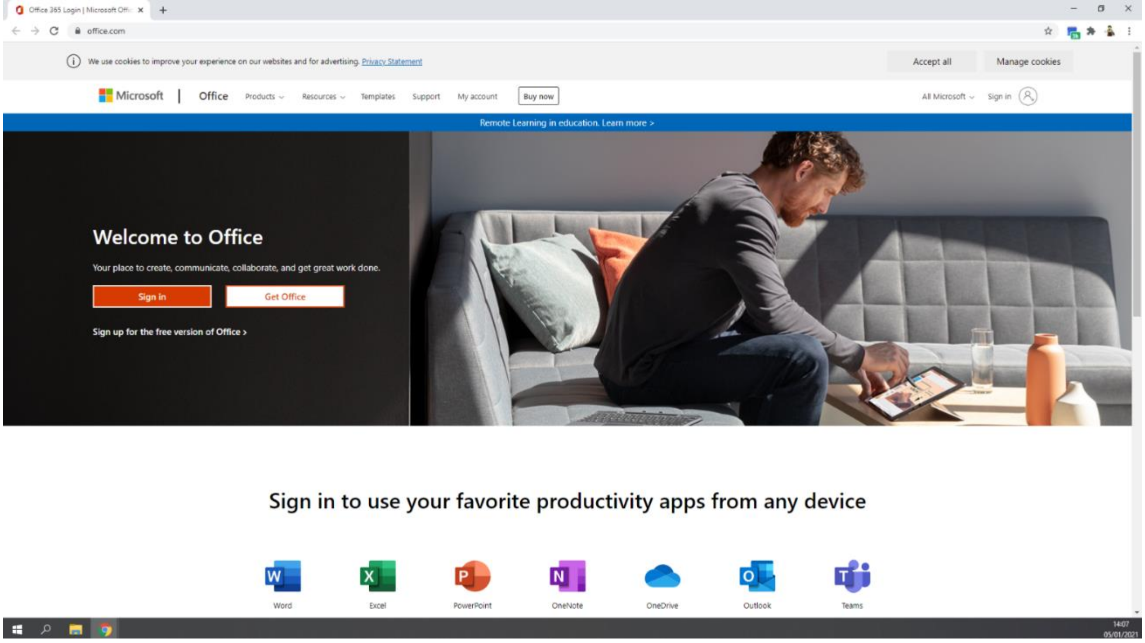
The following software was requested for installation:

- office software
- project management software
- instant messaging client software

As per the network installation specification, I will install Microsoft Office 2019 which included Microsoft Project and Microsoft Teams.

Screenshots:

Setting up email



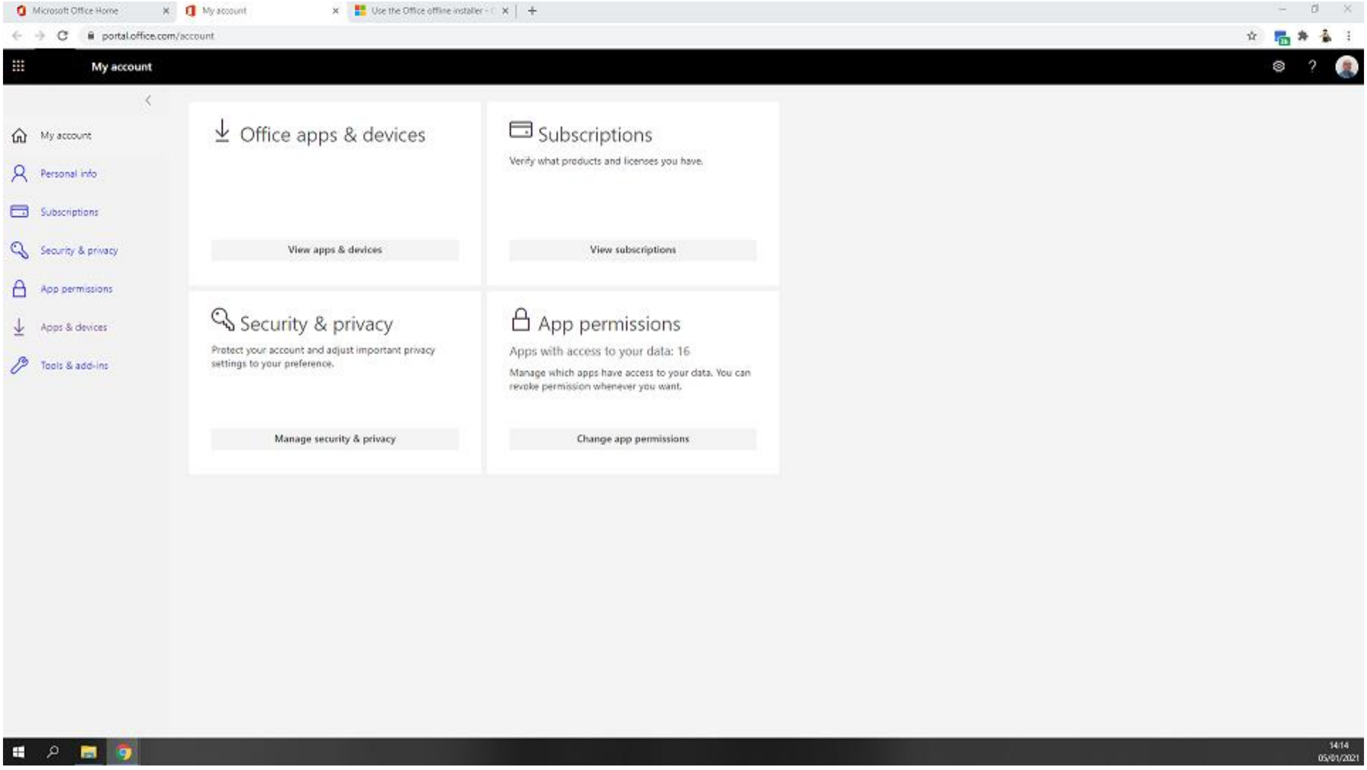
We use cookies to improve your experience on our websites and for advertising. Privacy Statement

Welcome to Office

Your place to create, communicate, collaborate, and get great work done.

Sign in to use your favorite productivity apps from any device

- I go to the Microsoft website



Verify what products and licenses you have.

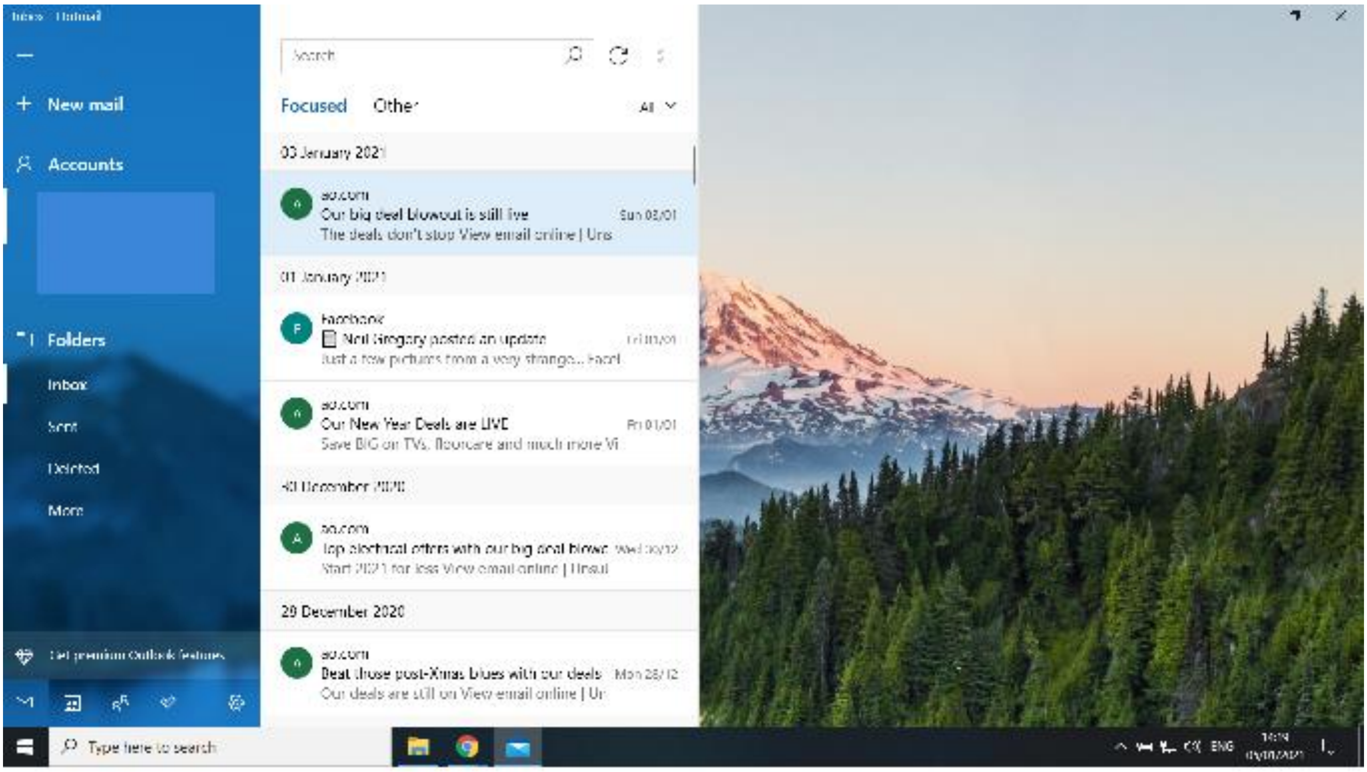
Protect your account and adjust important privacy settings to your preference.

Apps with access to your data: 16

Manage which apps have access to your data. You can revoke permission whenever you want.

- I search for what I need and set up the email

Screenshots:



03 January 2021

ao.com
Our big deal blowout is still live — Sun 03/01
The deals don't stop View email online | Uns

01 January 2021

Facebook
Neil Gregory posted an update — Fri 01/01
Just a few pictures from a very strange... Faceb

ao.com
Our New Year Deals are LIVE — Fri 01/01
Save BIG on TVs, floorcare and much more Vi

30 December 2020

ao.com
Top electrical offers with our big deal blowo — Wed 30/12
Start 2021 for less View email online | Unsub

28 December 2020

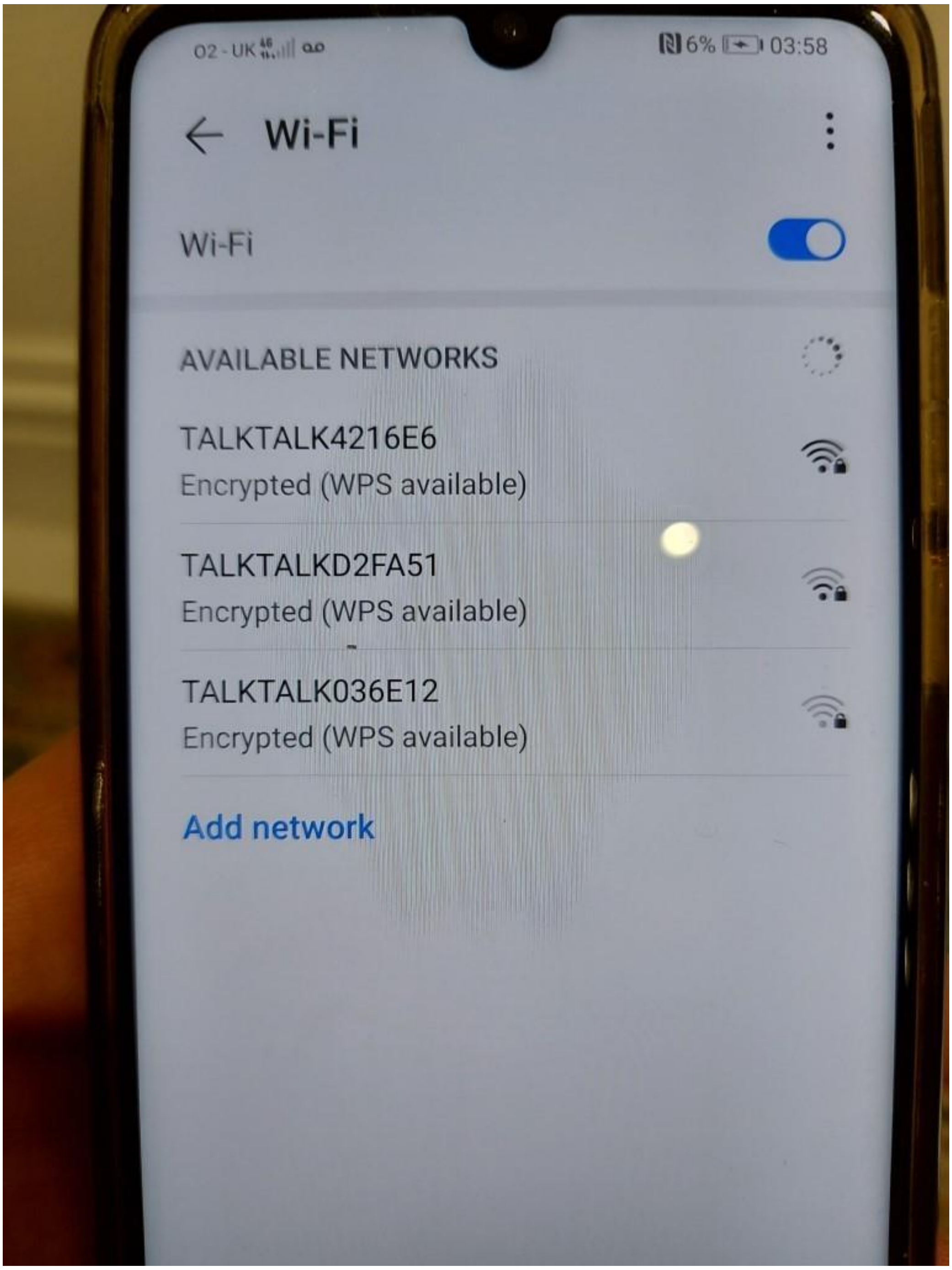
ao.com
Beat those post-Xmas blues with our deals — Mon 28/12
Our deals are still on View email online | Ur

- I have set the customer email up on the client PC using the provided email configuration settings. The screenshots show I can now send and receive email

Mobile phone set-up

Connecting to wireless network

Photos:



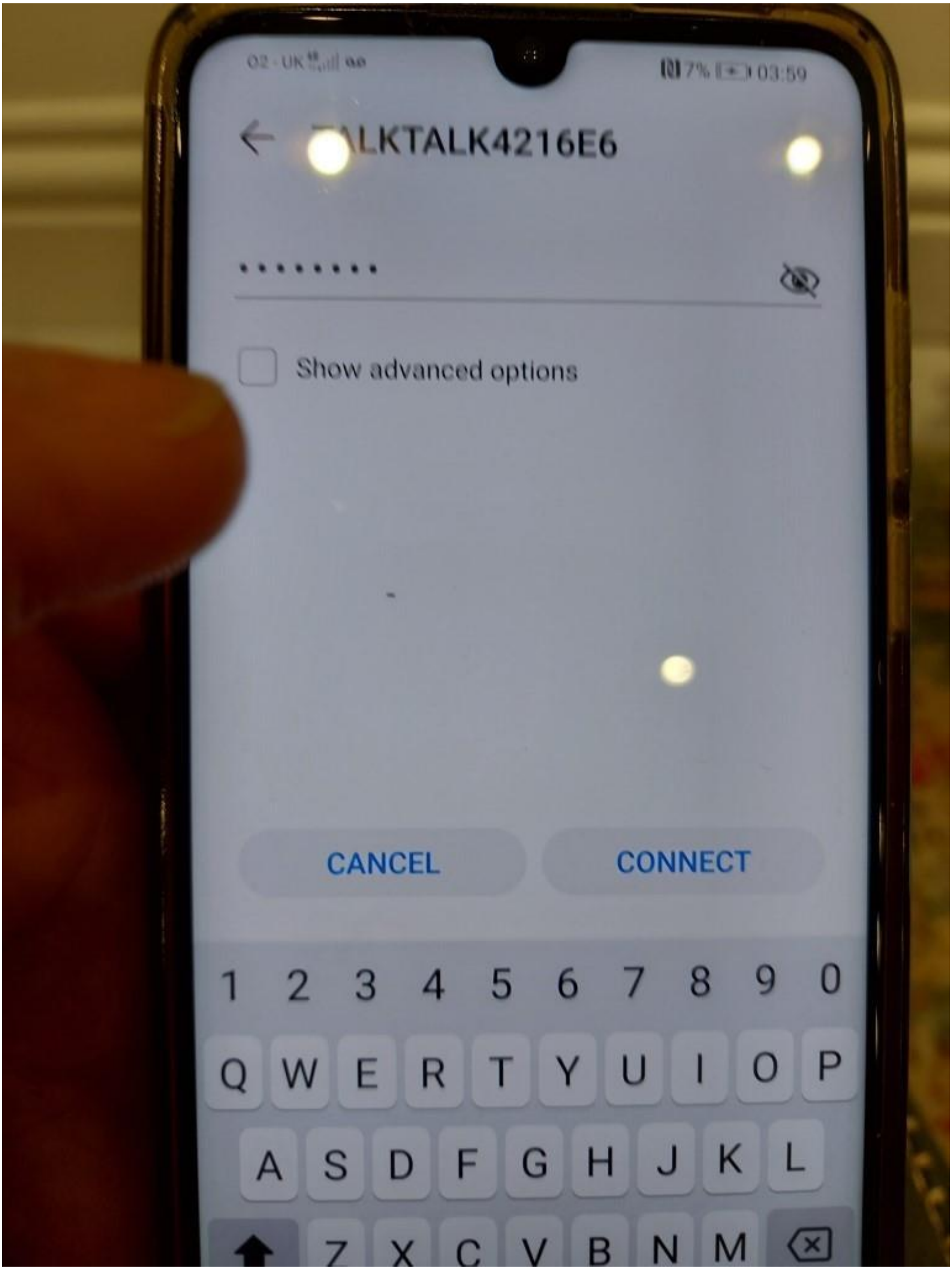
AVAILABLE NETWORKS

TALKTALK4216E6
Encrypted (WPS available)

TALKTALKD2FA51
Encrypted (WPS available)

TALKTALK036E12
Encrypted (WPS available)

- I open settings and scan for the company network I want



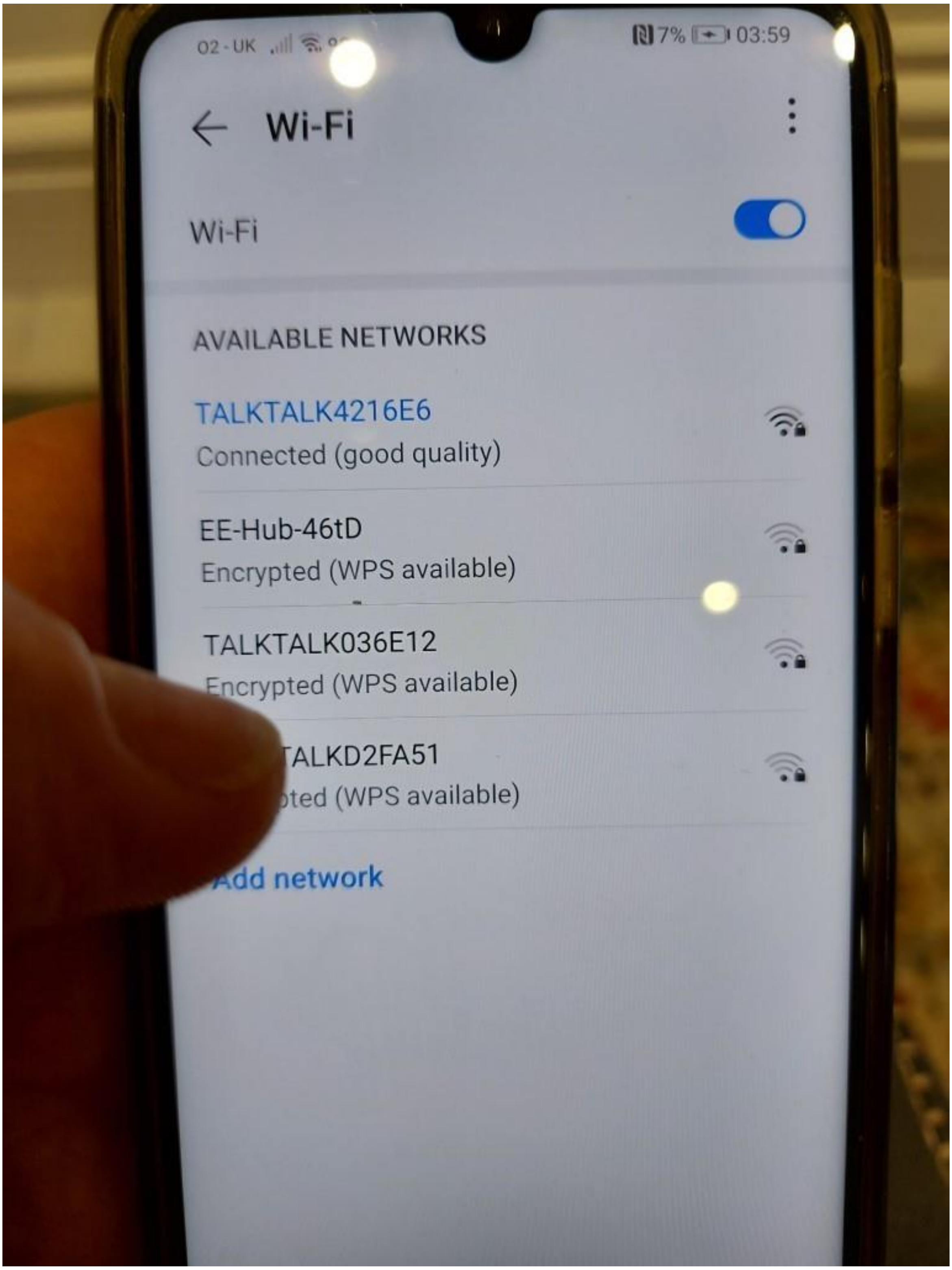
O2 - UK 7% 03:59

← TALKTALK4216E6

••••••••

□ Show advanced options

- I select the network and add the password



O2 - UK 7% 03:59

Wi-Fi

Wi-Fi

AVAILABLE NETWORKS

TALKTALK4216E6
Connected (good quality)

EE-Hub-46tD
Encrypted (WPS available)

TALKTALK036E12
Encrypted (WPS available)

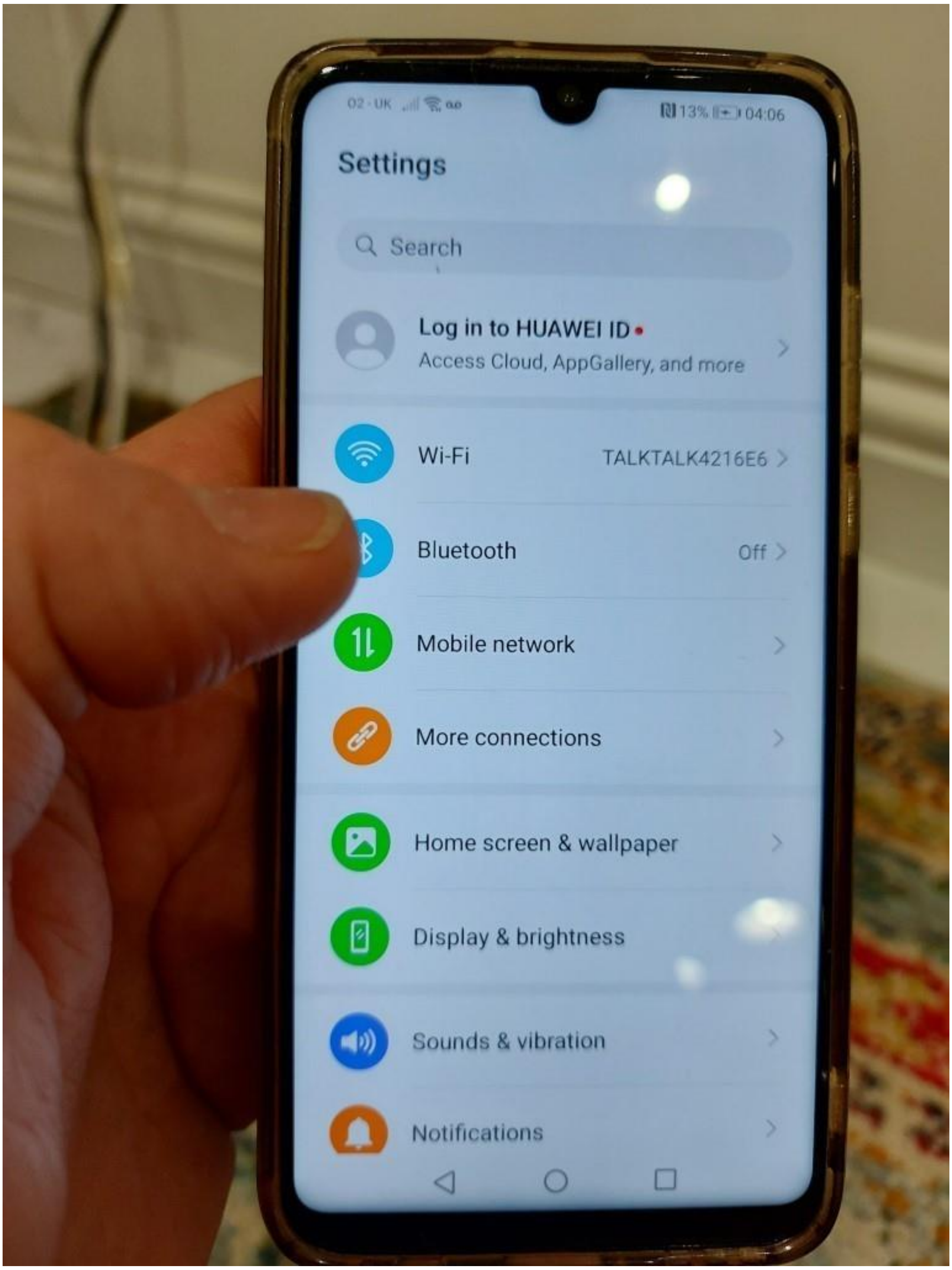
TALKD2FA51
pted (WPS available)

Add network

- I join the mobile phone to the office network

Implementing screen lock, fingerprint and Find My Phone

Photos:



Settings

Search

Log in to HUAWEI ID
Access Cloud, AppGallery, and more

Wi-Fi TALKTALK4216E6

Bluetooth Off

Mobile network

More connections

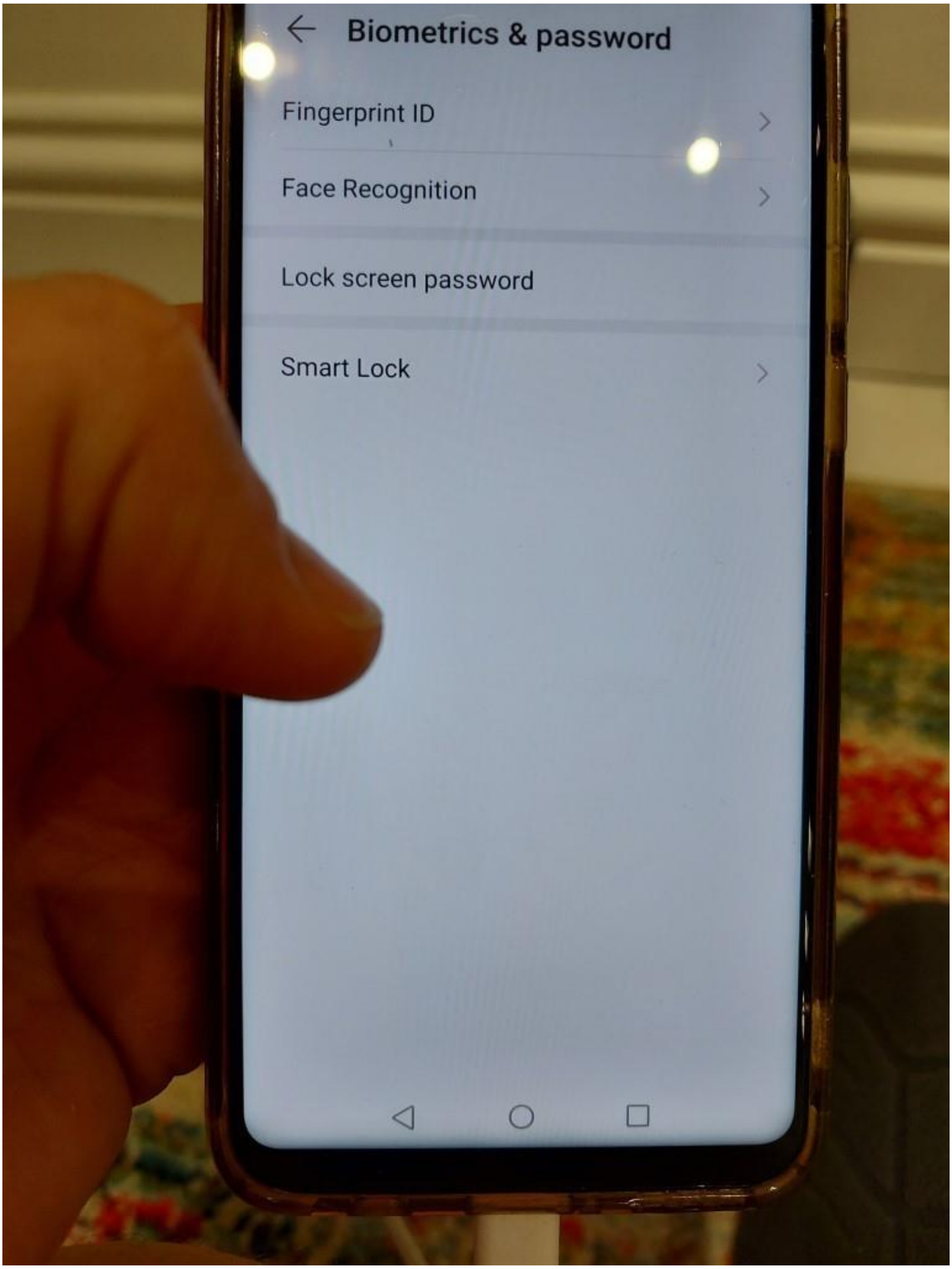
Home screen & wallpaper

Display & brightness

Sounds & vibration

Notifications

- I open settings and go to security



Biometrics & password

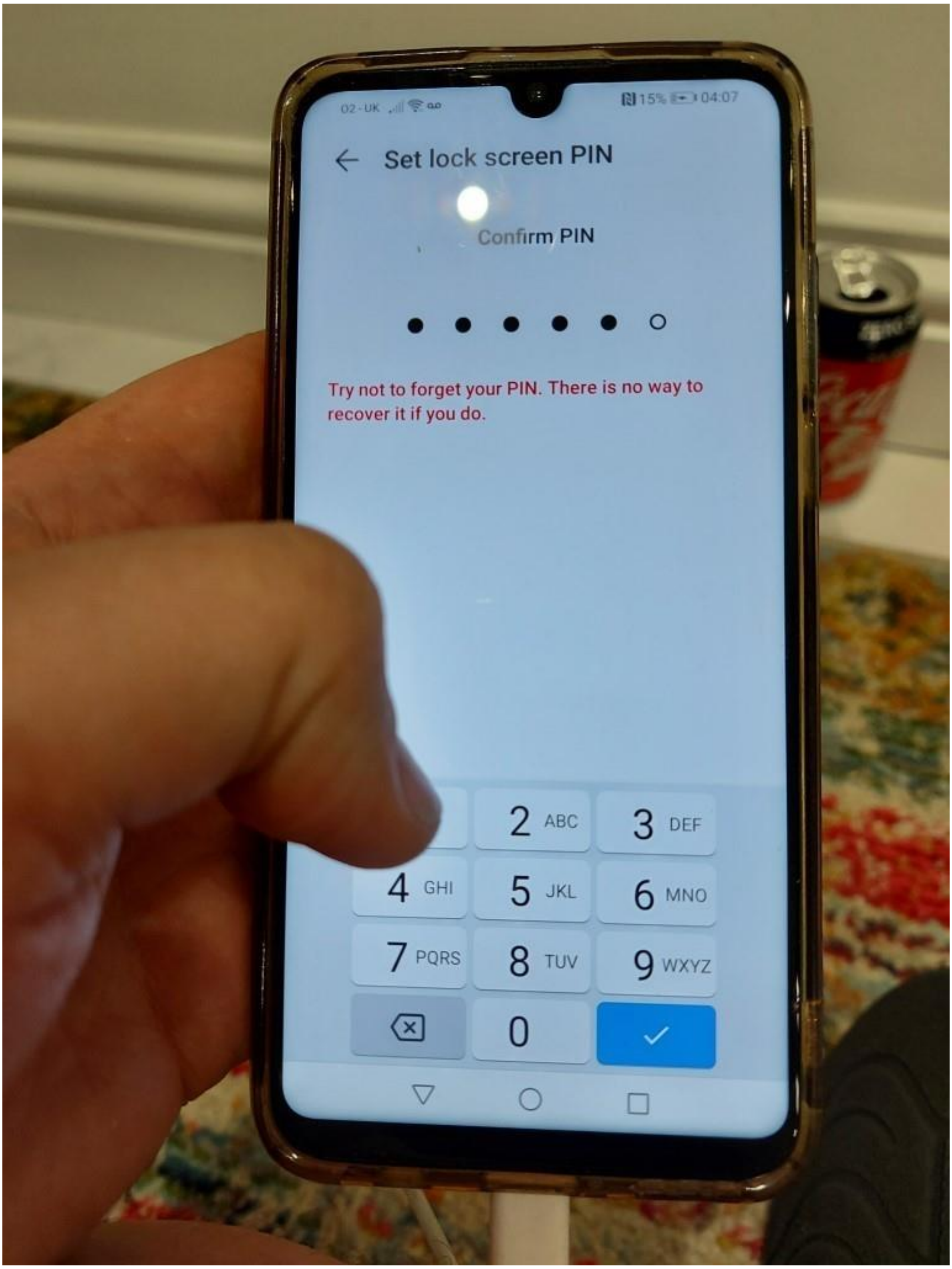
Fingerprint ID

Face Recognition

Lock screen password

Smart Lock

- I select password for the type of security

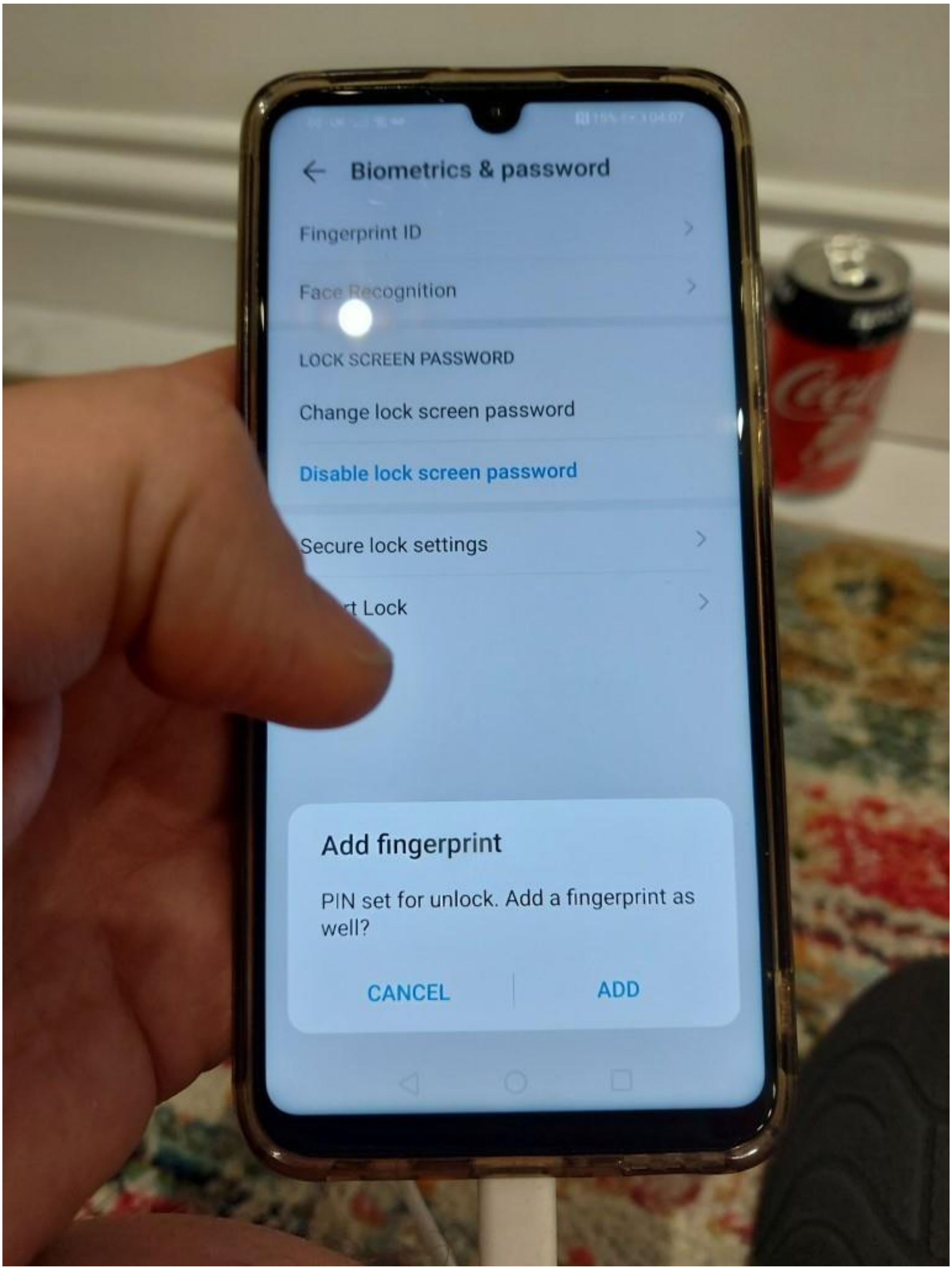


Set lock screen PIN

Confirm PIN

Try not to forget your PIN. There is no way to recover it if you do.

- I create a password/pin number for security

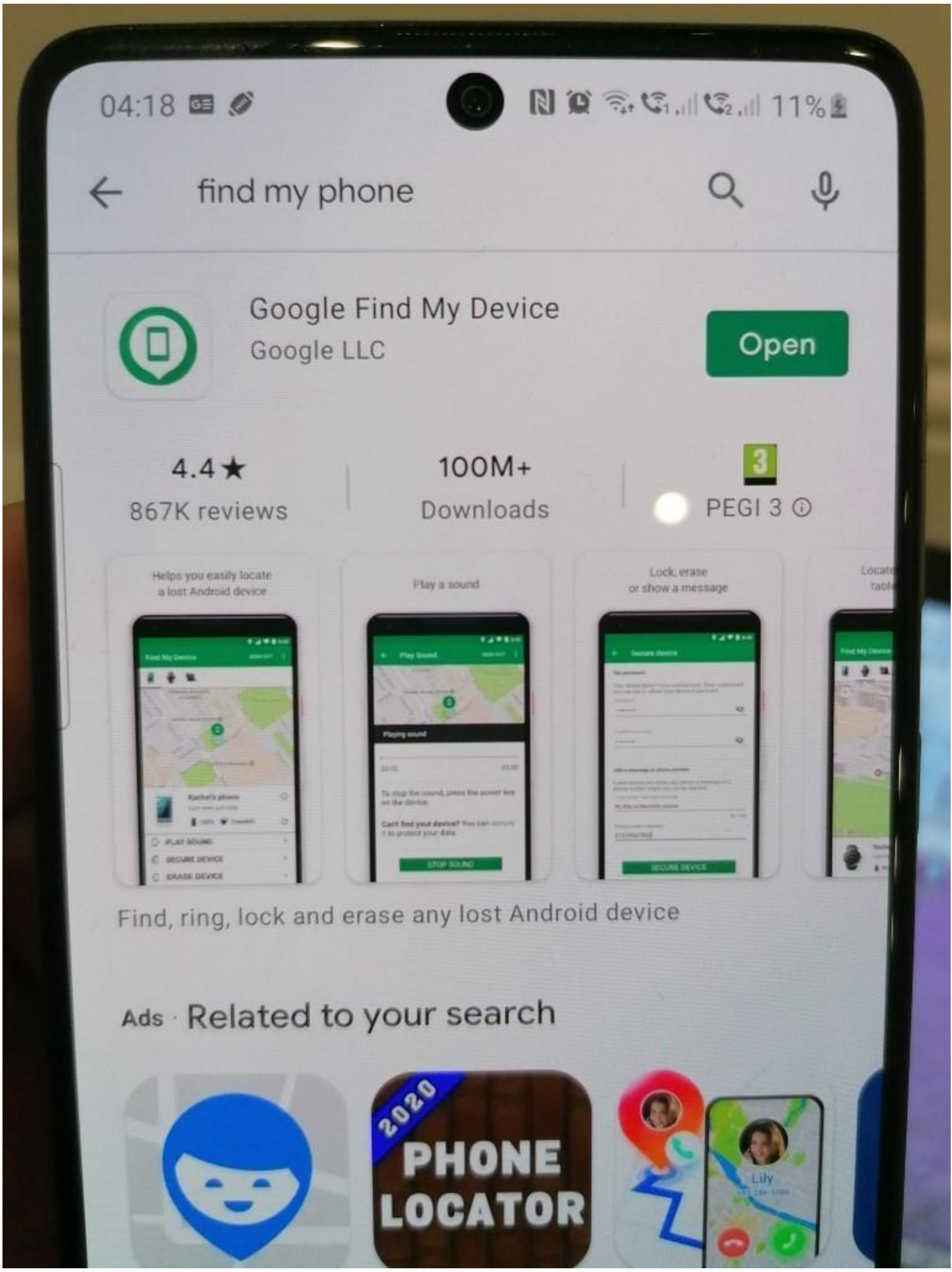


Add fingerprint

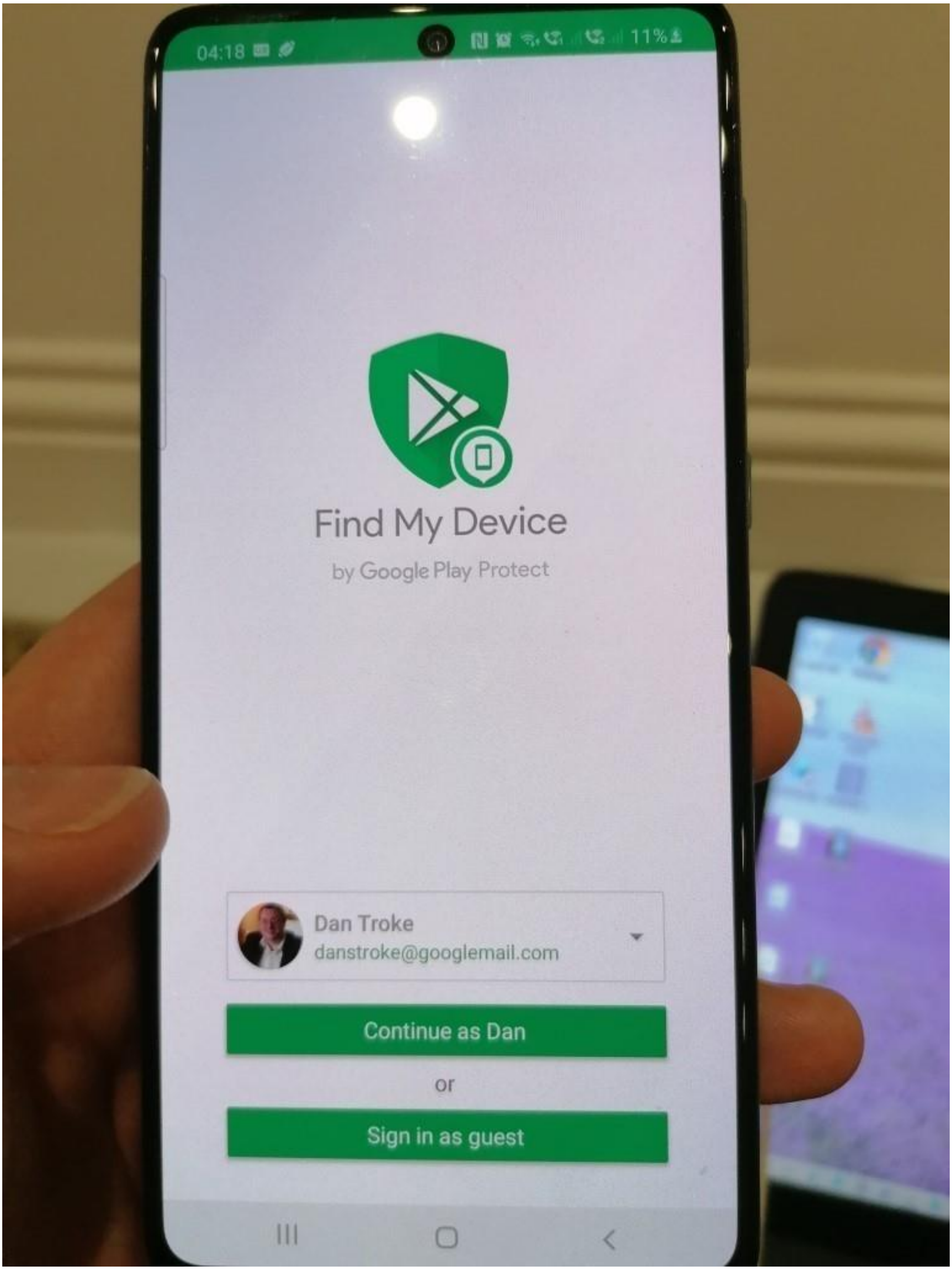
PIN set for unlock. Add a fingerprint as well?

- To improve security of the mobile device I have added a screen lock with a PIN number of 8330

Photos:


04:18
11%
find my phone
Google Find My Device
Google LLC
Open
4.4★
867K reviews
100M+
Downloads
3
PEGI 3
Helps you easily locate a lost Android device
Play a sound
Lock, erase or show a message
Find, ring, lock and erase any lost Android device
Ads · Related to your search
2020
PHONE LOCATOR
Lily
7

- I search the app store and open Find My Phone

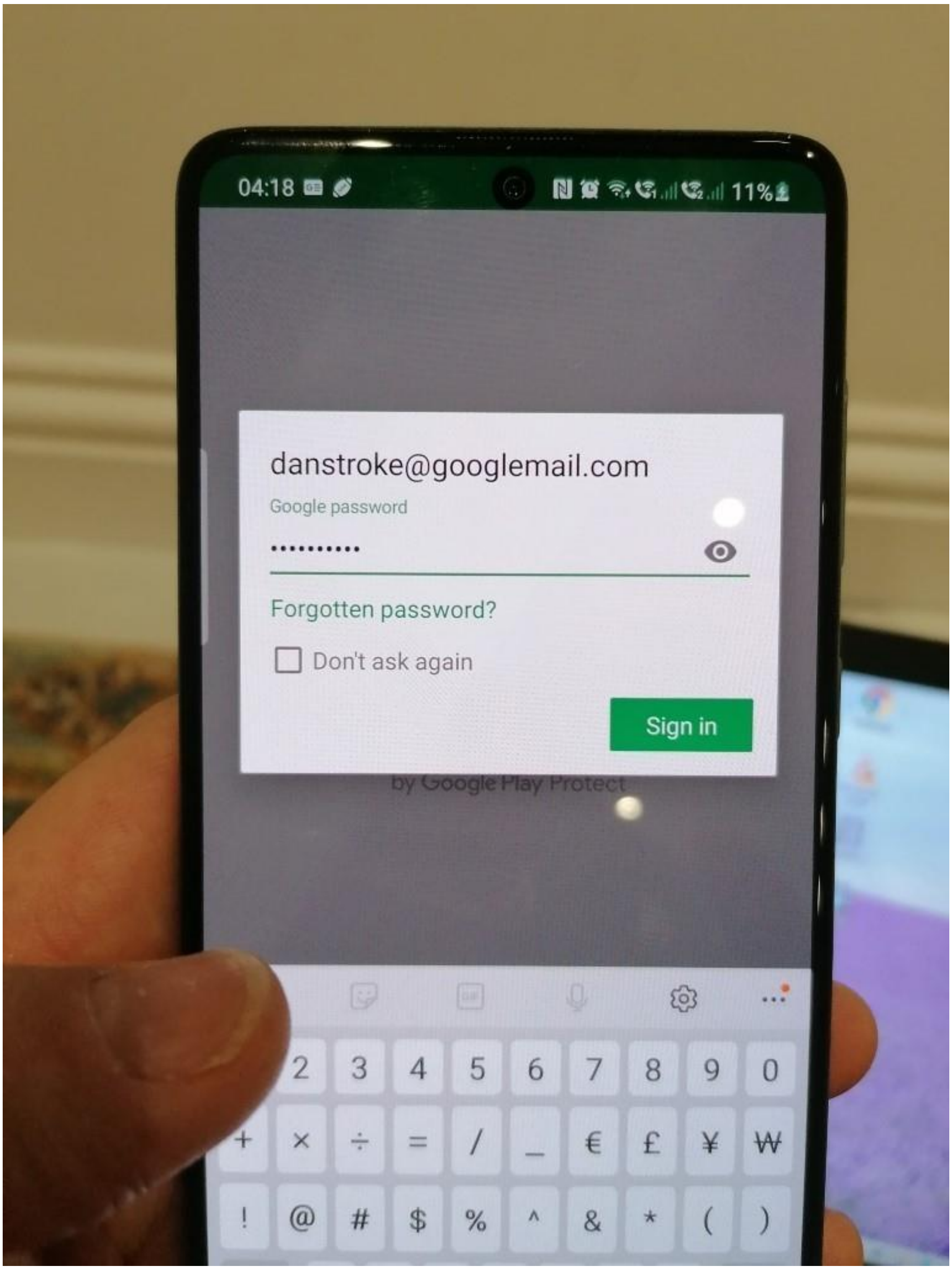


Find My Device

by Google Play Protect

Dan Troke
danstroke@googlemail.com

- I install it



danstroke@googlemail.com

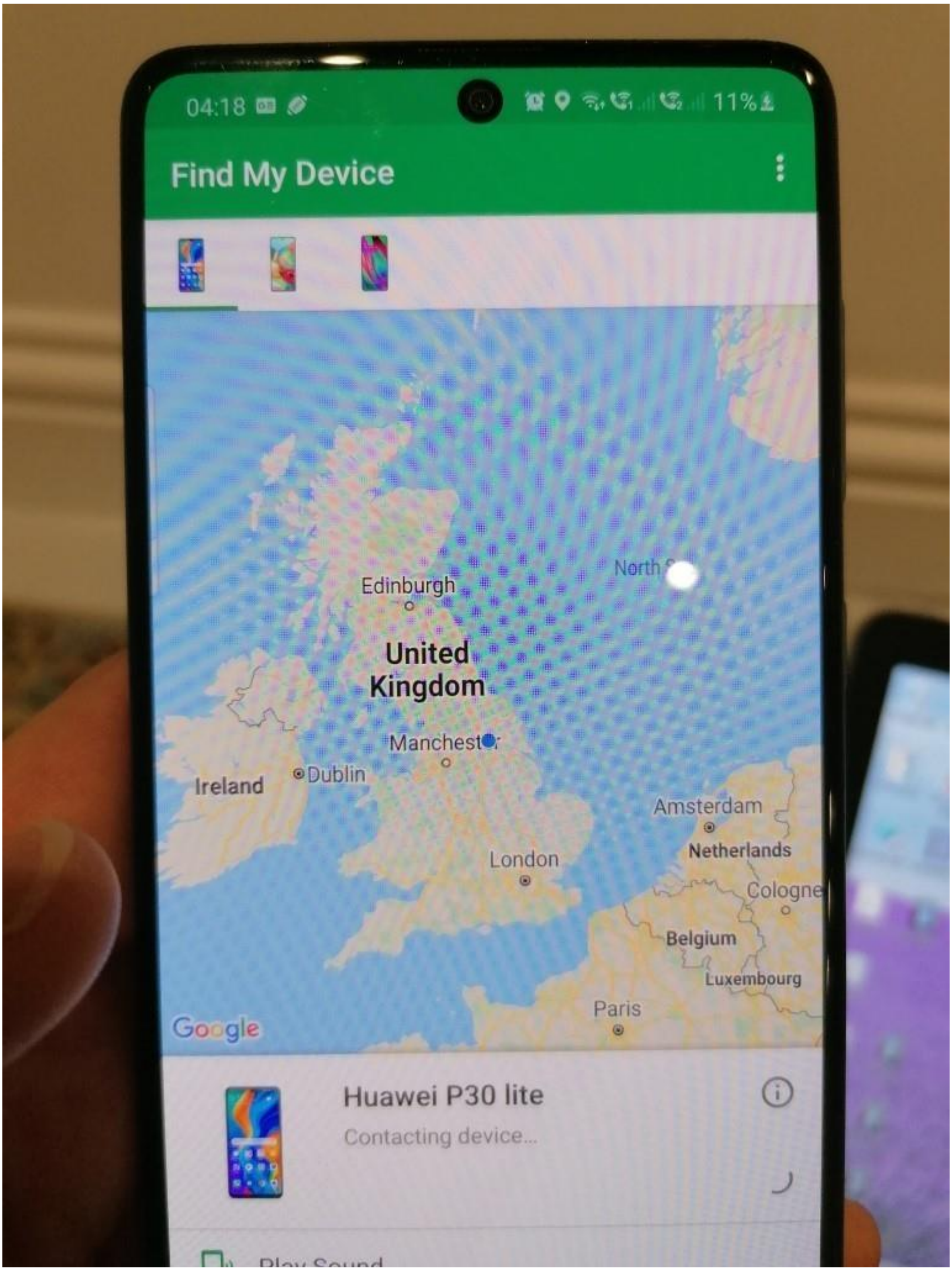
Google password

•••••••••••

Forgotten password?

□ Don't ask again

- I log in



- I can see my mobile phone’s location
- In case of loss or theft of the mobile phone, I have added the Find My Phone app to help

Task 2(c) (see Appendix 1 - Workbook - DSS-007-01 Assignment 1 pass)

Examiner commentary

The student has achieved the required standard for the following reasons:

This project overall meets the requirement of the brief, however, did not fully provide all of the details that could have been included.

- there was a basic business understanding taking into consideration legislation such as GDPR
- the student has taken basic health and safety and security considerations such as signs to prevent access to dangerous areas, but they could have done more to identify risks and mitigate them
- where practical tasks are part of the assignment, they have achieved the required outcomes of the task (installing Windows server, setting up Active Directory, installing Windows 10) but has not looked deeper. This is seen in the document by specifying a 100+ port server and not considering internet access as it is not explicitly requested
- where commentary is given it is generalised and does not use many technical terms. They demonstrate general understanding of concepts but have not shown detailed knowledge of the technical terminology used in the sector
- where technical understanding of concepts is required, some detail is seen (for instance when looking at IP addressing the student has identified appropriate IP addresses but not considered subnet mask)

Grade descriptors

The performance outcomes form the basis of the overall grading descriptors for pass and distinction grades.

These grading descriptors have been developed to reflect the appropriate level of demand for students of other level 3 qualifications, the threshold competence requirements of the role and have been validated with employers within the sector to describe achievement appropriate to the role.

Grade	Demonstration of attainment
Pass	The evidence showing installations and setup is logical and displays sufficient knowledge in response to the demands of the brief.
	The student makes some use of relevant knowledge and understanding of setting up systems and demonstrates an adequate understanding of perspectives or approaches associated with industry standards in digital support services roles.
	The student makes adequate use of facts/theories/approaches/concepts and attempts to demonstrate breadth and depth of knowledge and understanding in their configurations.
	The student is able to identify some information from appropriate sources and apply the appropriate information/appraise relevancy of information and can combine information to make decisions.
	The student makes sufficient judgements/takes appropriate action/seeks clarification with guidance and is able to make adequate progress towards prioritising and solving non-routine problems in real life situations.
	The student attempts to demonstrate skills and knowledge of the relevant concepts and techniques to plan, install, configure and test software systems and generally applies this across different contexts.
	The student shows adequate understanding of unstructured problems that have not been seen before, using sufficient knowledge to attempt to prioritise and solve problems with some attempt at reasoning.
Distinction	The evidence is precise, logical and provides a detailed and informative response to the demands of the brief.
	The student makes extensive use of relevant knowledge and has extensive understanding of the practices of the sector and demonstrates a depth of understanding of the different perspectives/approaches associated with digital support.
	The student makes decisive use of facts/theories/approaches/concepts, demonstrating extensive breadth and depth of knowledge and understanding and selects highly appropriate skills/techniques/methods.
	The student is able to comprehensively identify information from a range of suitable sources and makes exceptional use of appropriate information/appraises relevancy of information and can

	combine information to make coherent decisions.
	The student makes well-founded judgements/takes appropriate action/seeks clarification and guidance and is able to use that to reflect on real life situations in a digital support role.
	The student demonstrates extensive knowledge of relevant concepts and techniques reflected in a digital support role and precisely applies this across a variety of contexts and tackles unstructured problems that have not been seen before, using their knowledge to analyse and find suitable solutions to the problems.
	The student can thoroughly examine data/information in context and apply appropriate analysis in confirming or refuting conclusions and carrying out further work to justify strategies for solving problems, giving concise explanations for their reasoning.

* “Threshold competence” refers to a level of competence that:

- signifies that a student is well placed to develop full occupational competence, with further support and development, once in employment
- is as close to full occupational competence as can be reasonably expected of a student studying the TQ in a classroom-based setting (for example, in the classroom, workshops, simulated working and (where appropriate) supervised working environments)
- signifies that a student has achieved the level for a pass in relation to the relevant occupational specialism component

U grades

- if a student is not successful in reaching the minimum threshold for the core and/or occupational specialism component, they will be issued with a U grade

Document information

The T Level Technical Qualification is a qualification approved and managed by the Institute for Apprenticeships and Technical Education. NCFE is currently authorised by the Institute to develop and deliver the T Level Technical Qualification in Digital Support Services.

Owner: Head of Assessment Design

Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Published final version.		May 2021
v1.1	NCFE rebrand		September 2021
v2.0	Annual review 2023: Amends to grade descriptors to ensure clarity	June 2023	19 June 2023