T Level Technical Qualification in Digital Support Services

Occupational specialism assessment (OSA)

Digital Infrastructure

Assignment 2 - Workbook - Pass

Guide standard exemplification materials

v1.1: Specimen assessment materials

603/6901/2

Internal reference: DSS-GSEM-23

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Assignment 2

Workbook - Pass

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About this workbook

Introduction

All evidence should be placed in this workbook.

Save your document regularly as you work through the assignment. It is recommended you save after inserting each piece of evidence.

Submit this workbook in .pdf format at the end of the assignment using the file naming convention.

Surname_Initial_student number_Workbook2

For example Smith_J_123456789_Workbook2.pdf

Evidence

All print screens and photographs should be numbered and linked to the task.

For example, task 1, evidence 2 would be shortened to 1.2.

1.2 – Shows the SATA cable being installed

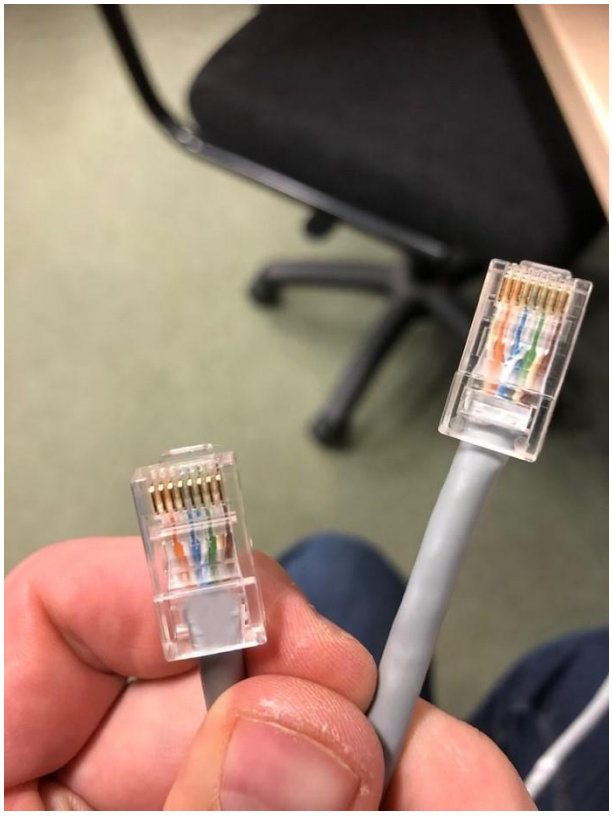
Task 1

RJ45 connected

All the copper connectors connect with the cable

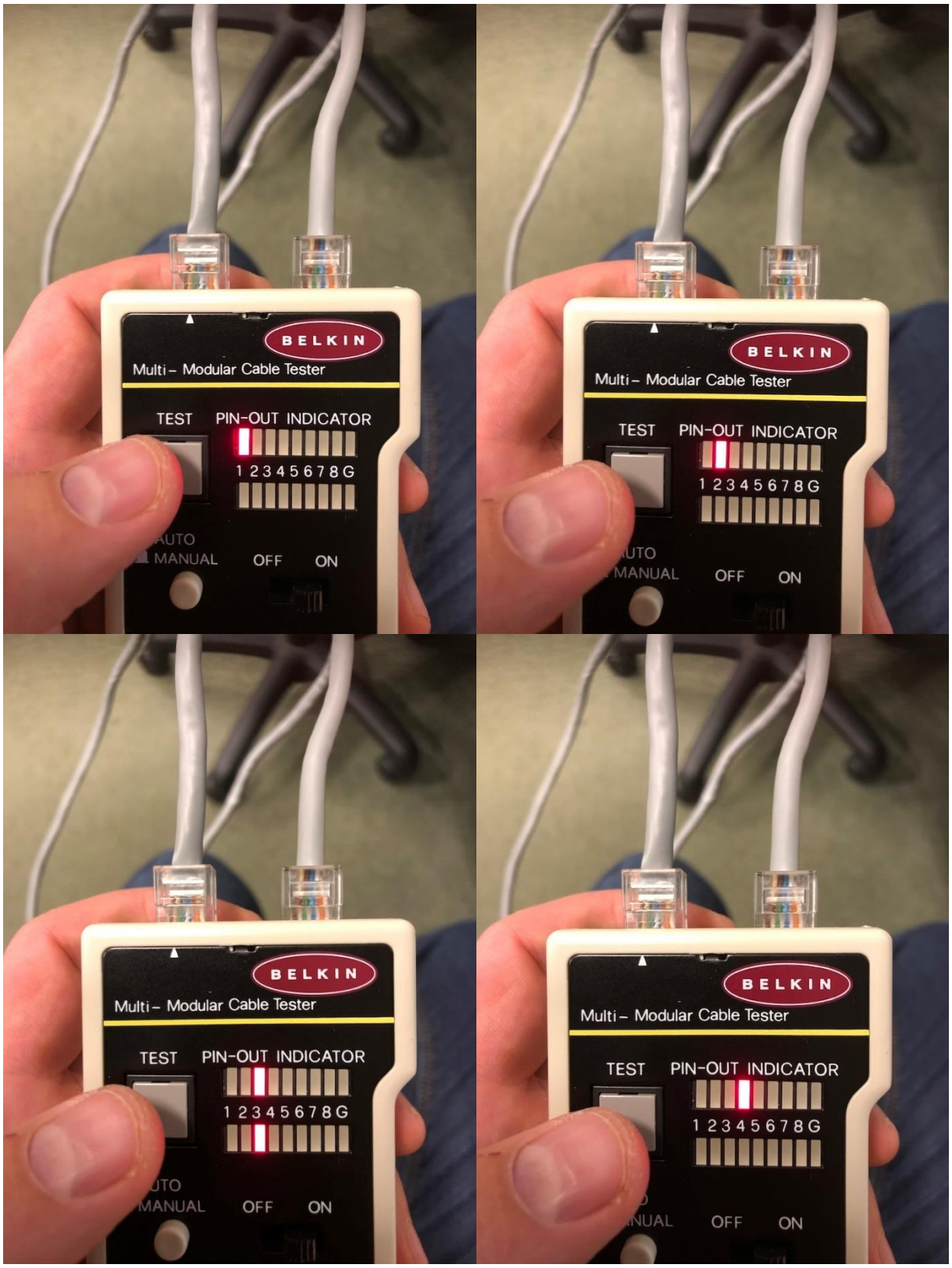
All the ends of the cable are arranged correctly

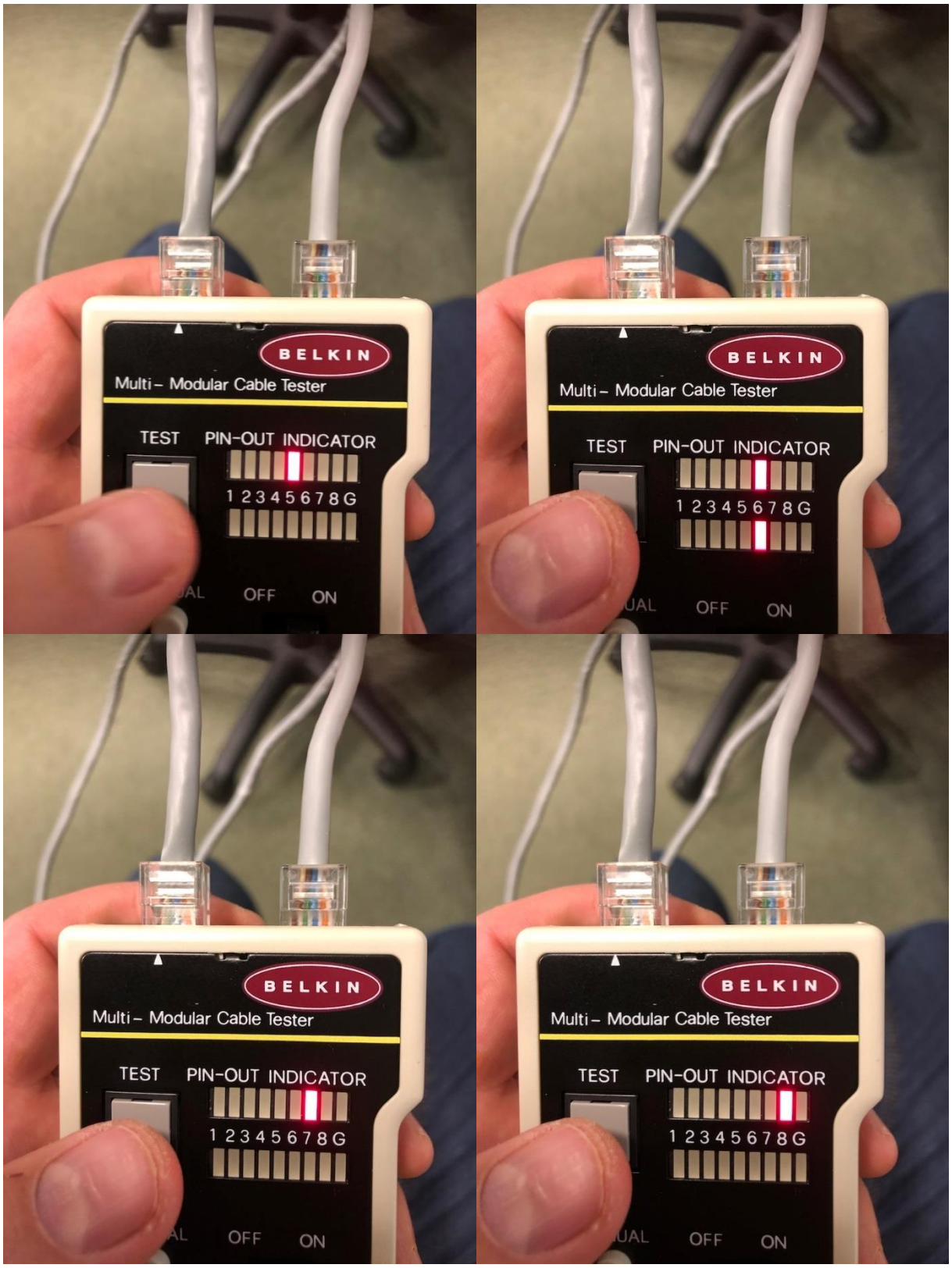
The plastic cover is at the right depth to catch under the fixing in the RJ45 end



Cable testing

The cable tester lights show that each strand is working correctly


BELKIN
Multi – Modular Cable Tester
TEST
PIN-OUT INDICATOR
1 2 3 4 5 6 7 8 G
MANUAL
OFF
ON

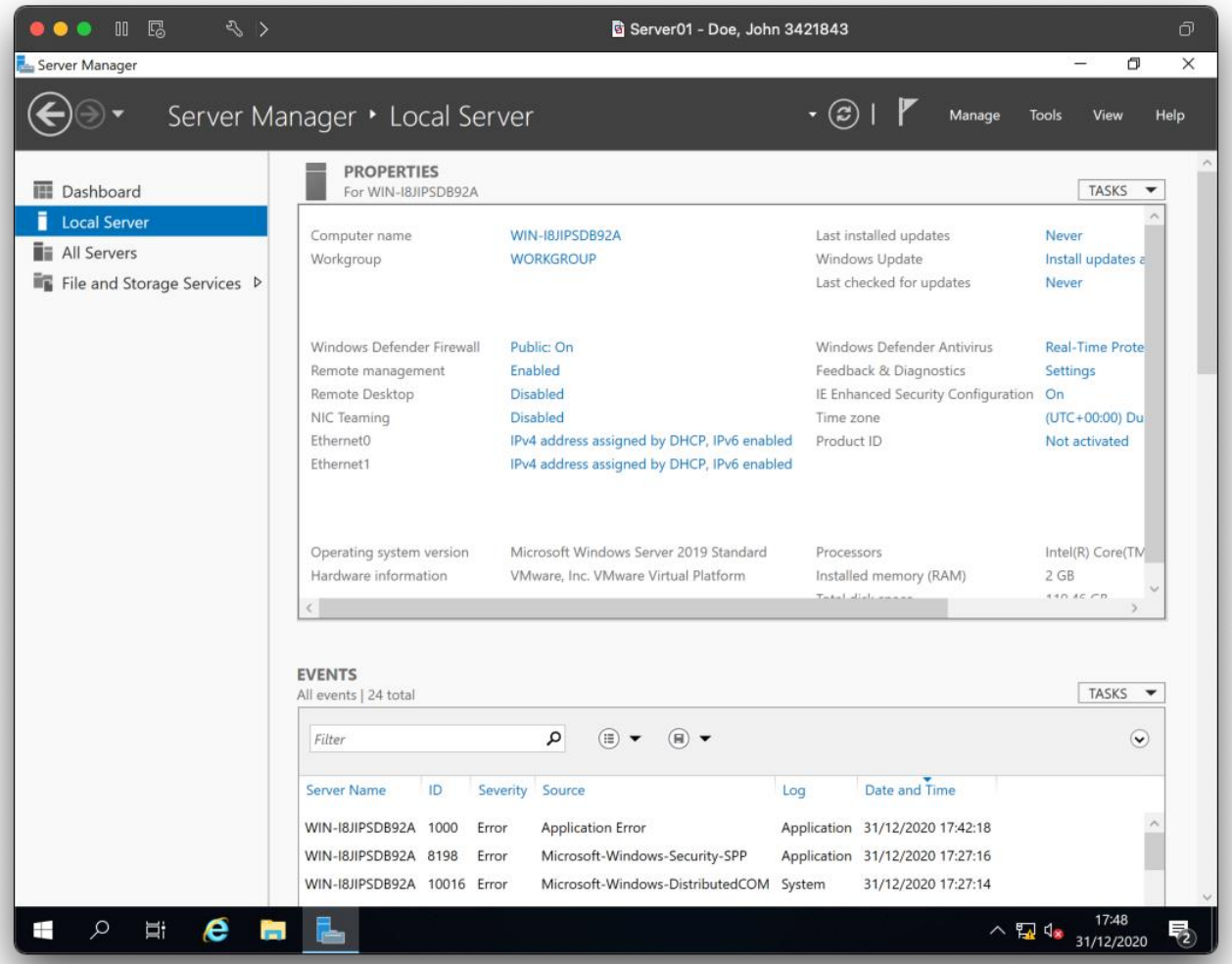

BELKIN
Multi – Modular Cable Tester
TEST
PIN-OUT INDICATOR
1 2 3 4 5 6 7 8 G
OFF
ON

Task 2

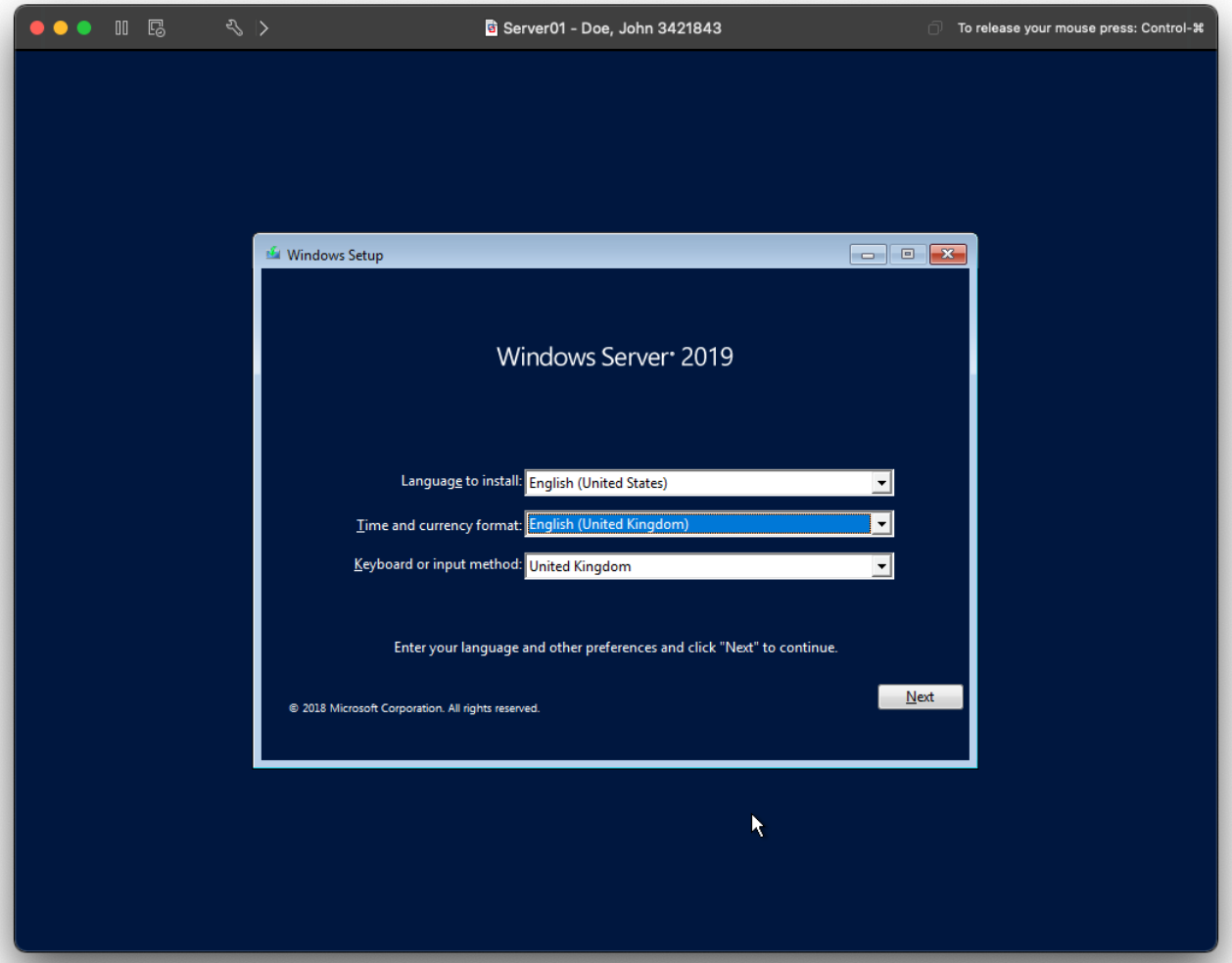
Step A

Server01 installation and configuration

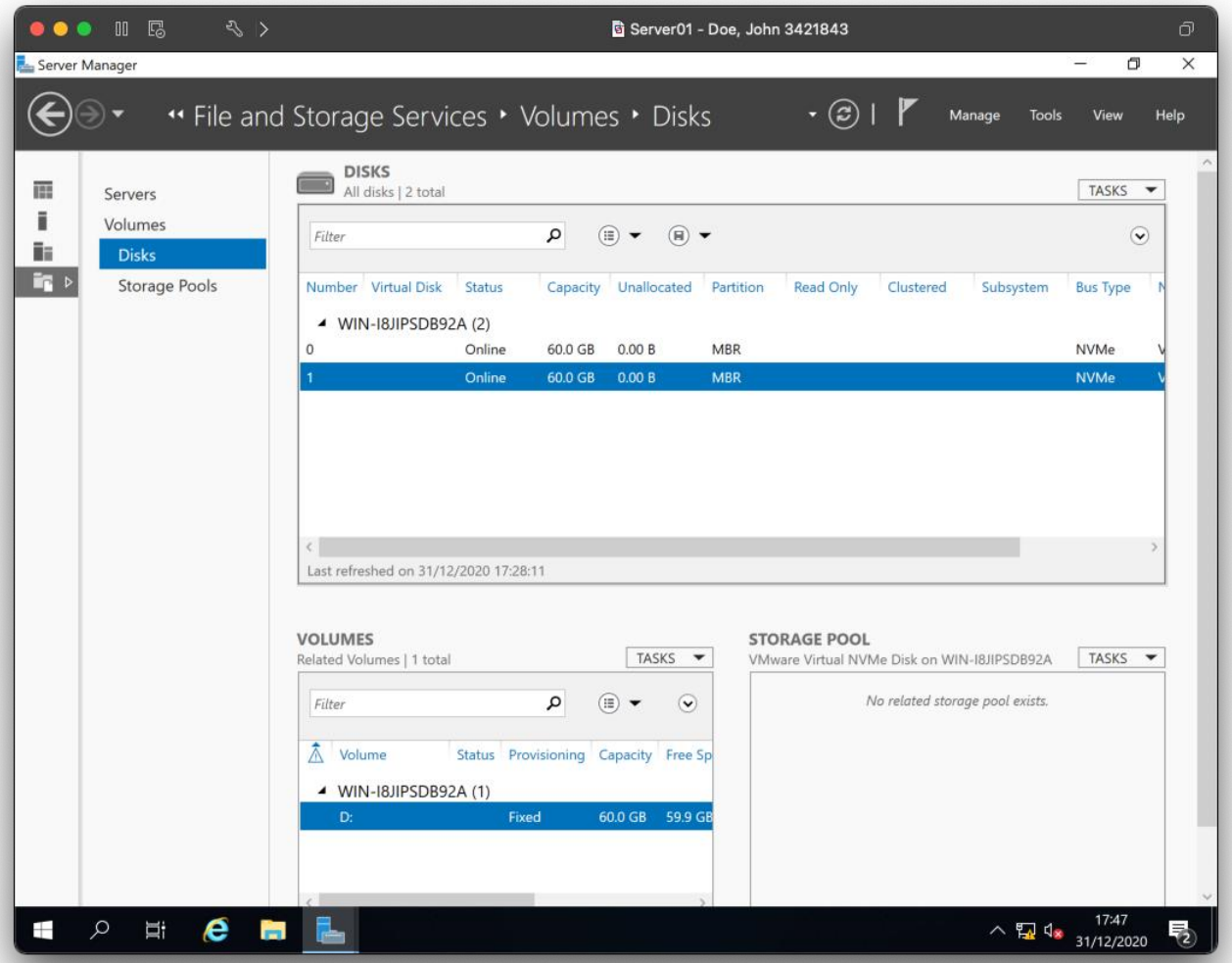
- operating system installed



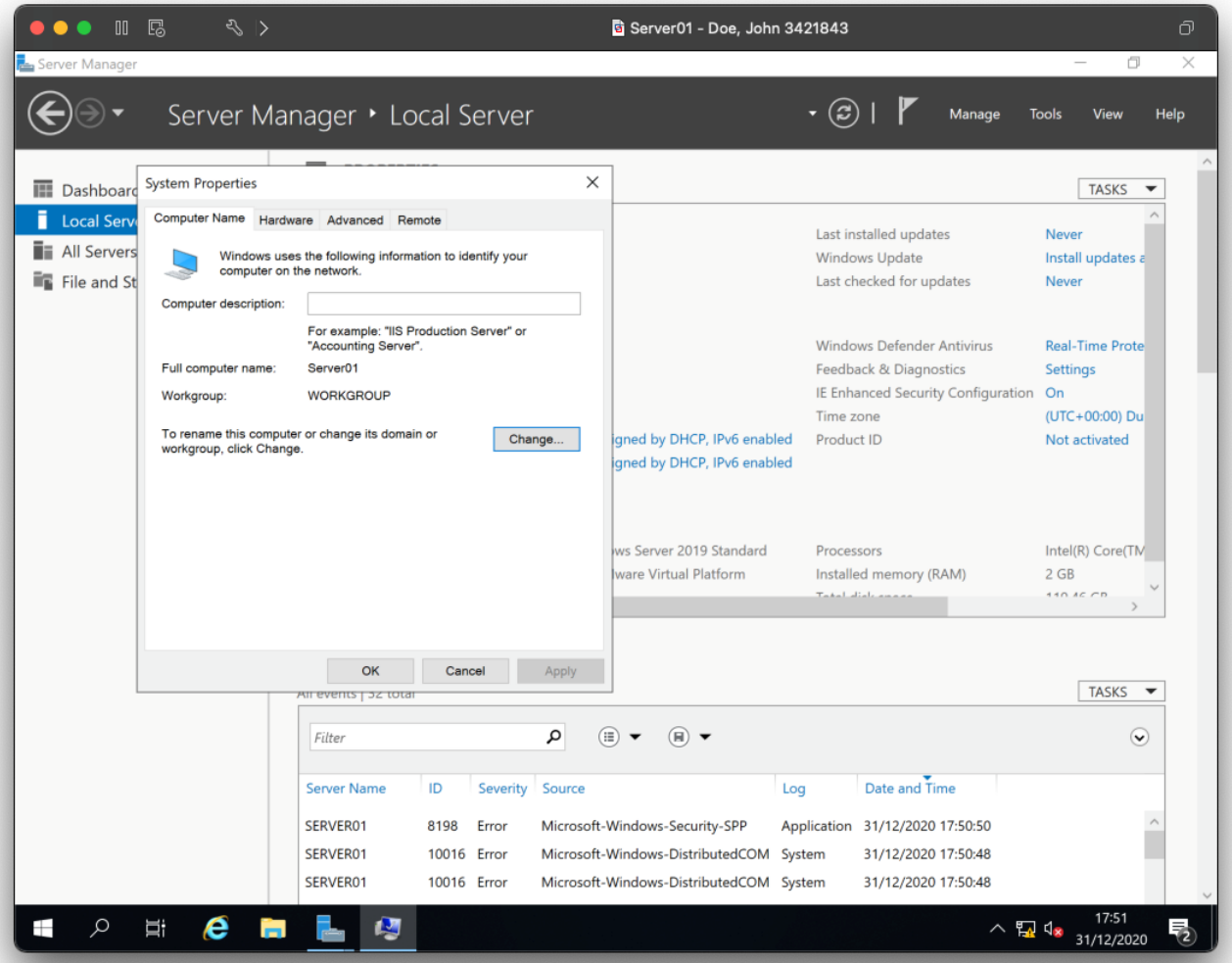
- suitable region and language settings



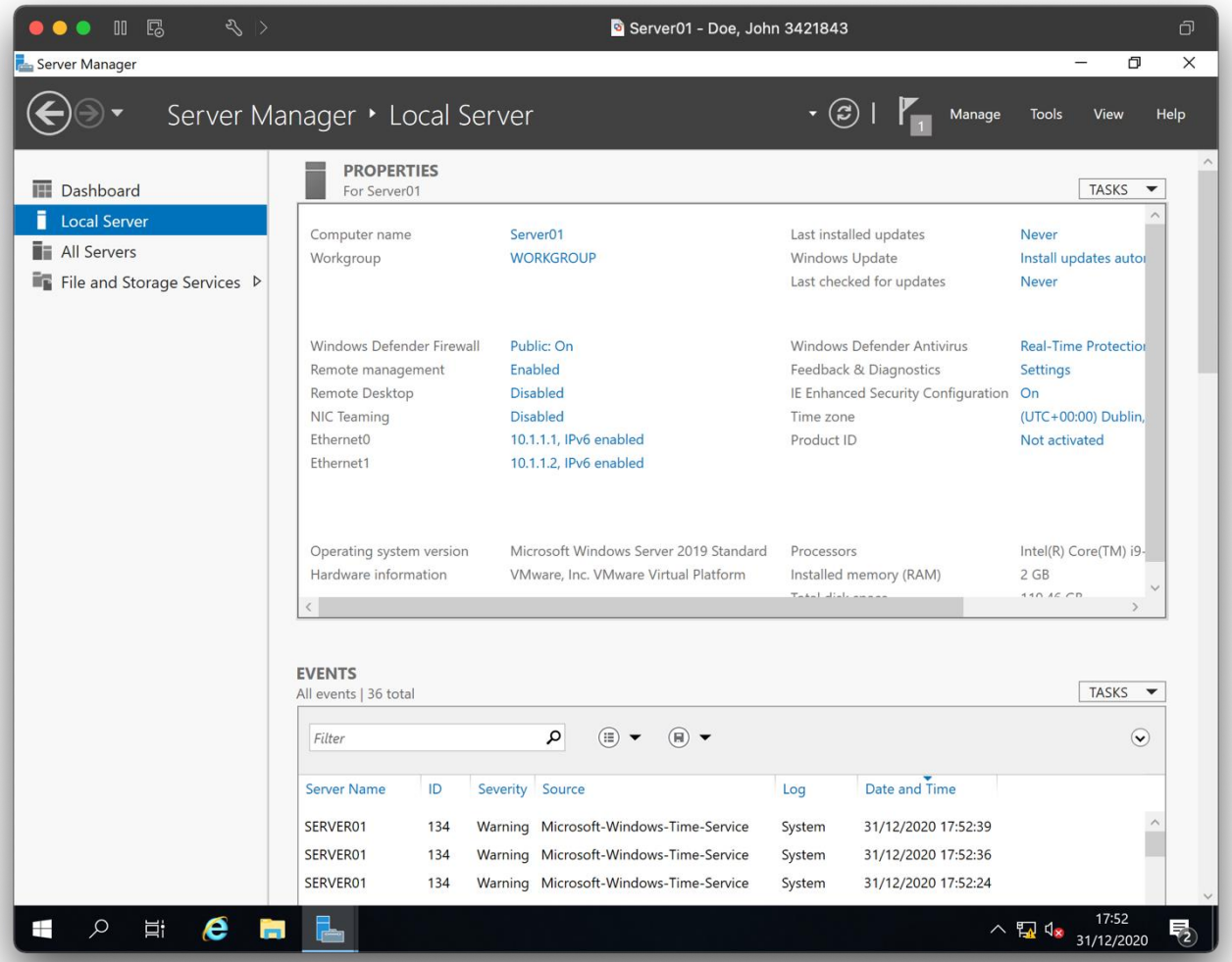
- disk partitions



- machine named correctly

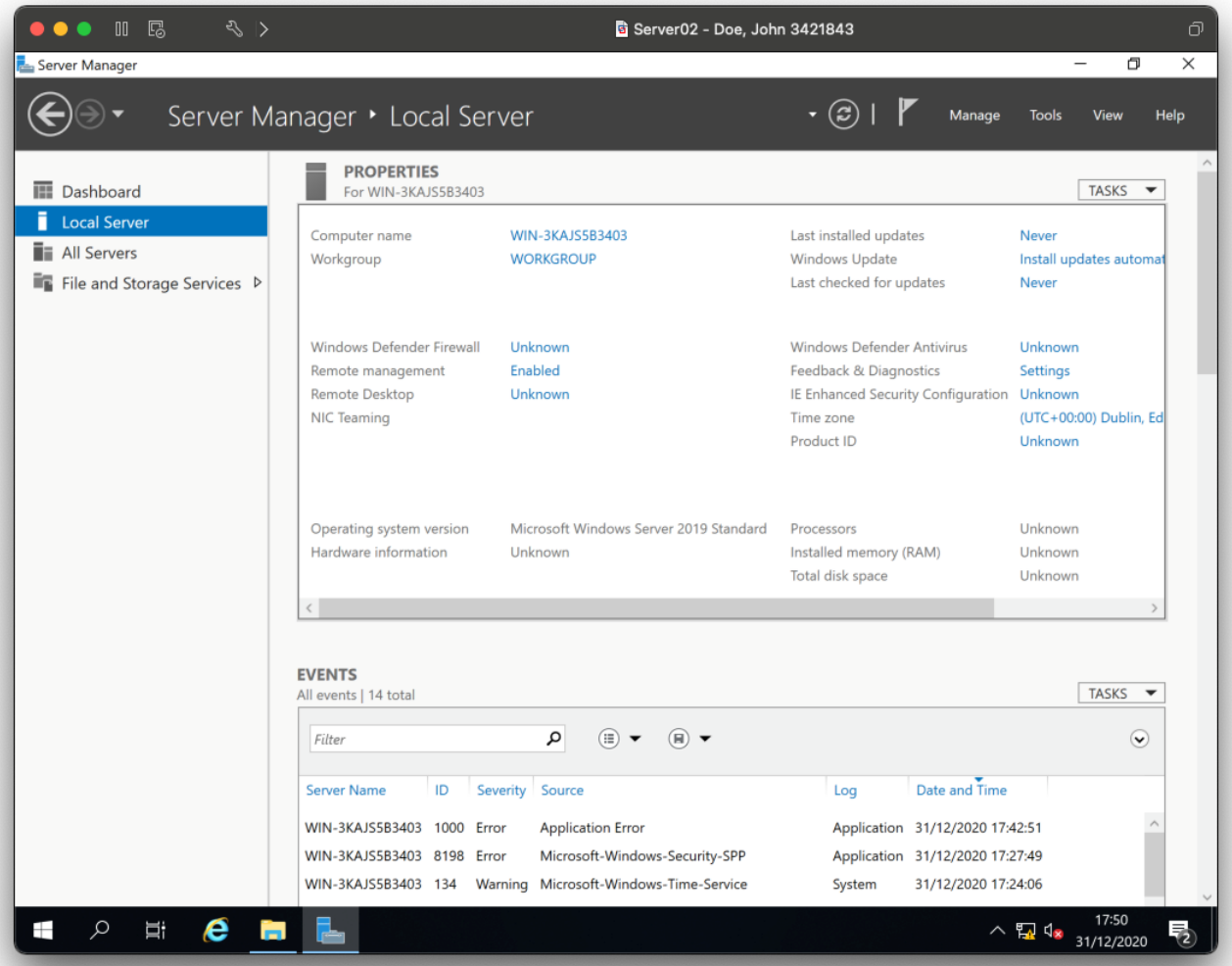


- fixed IP addressing set

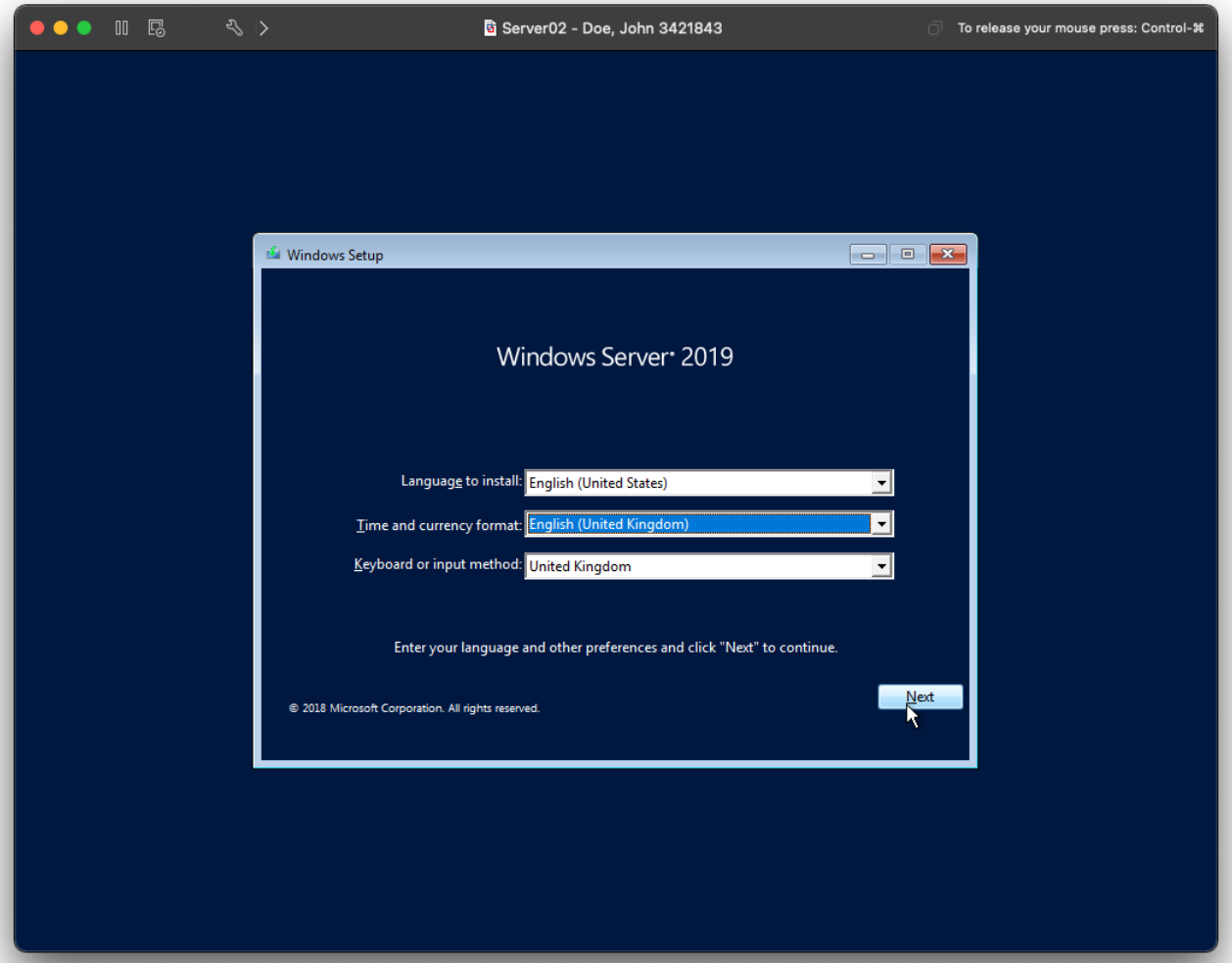


Server02 installation and configuration

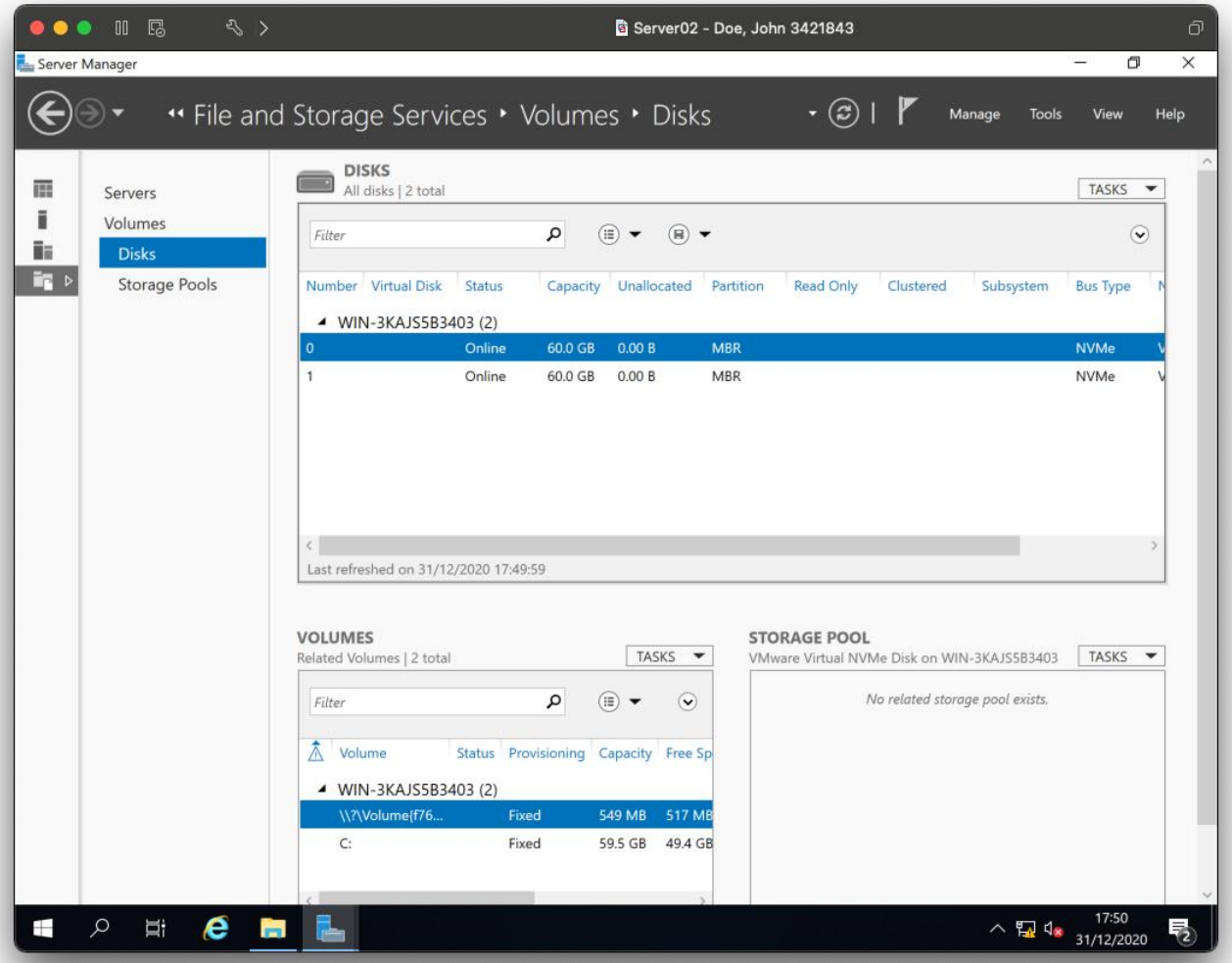
- operating system installed



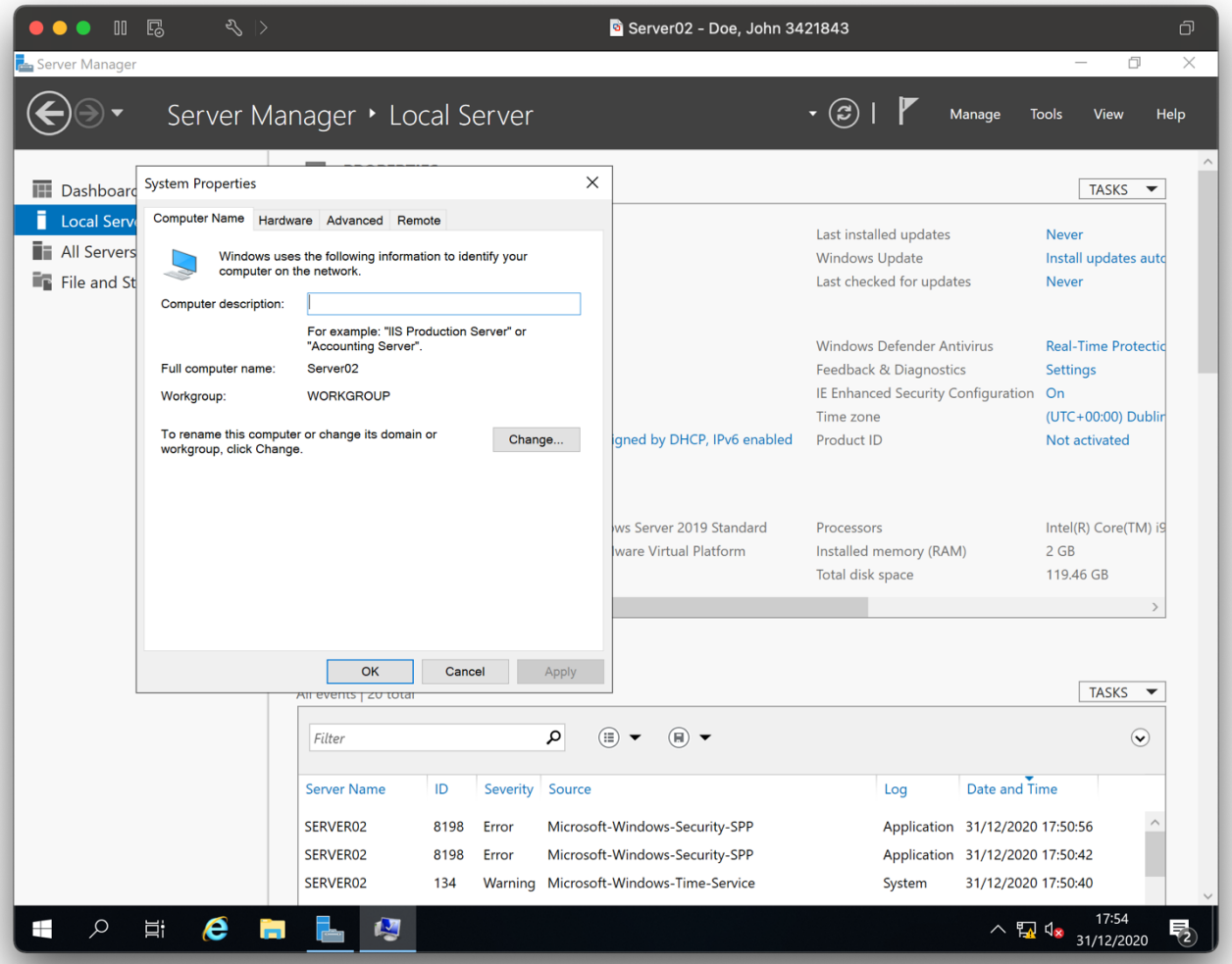
- suitable region and language settings



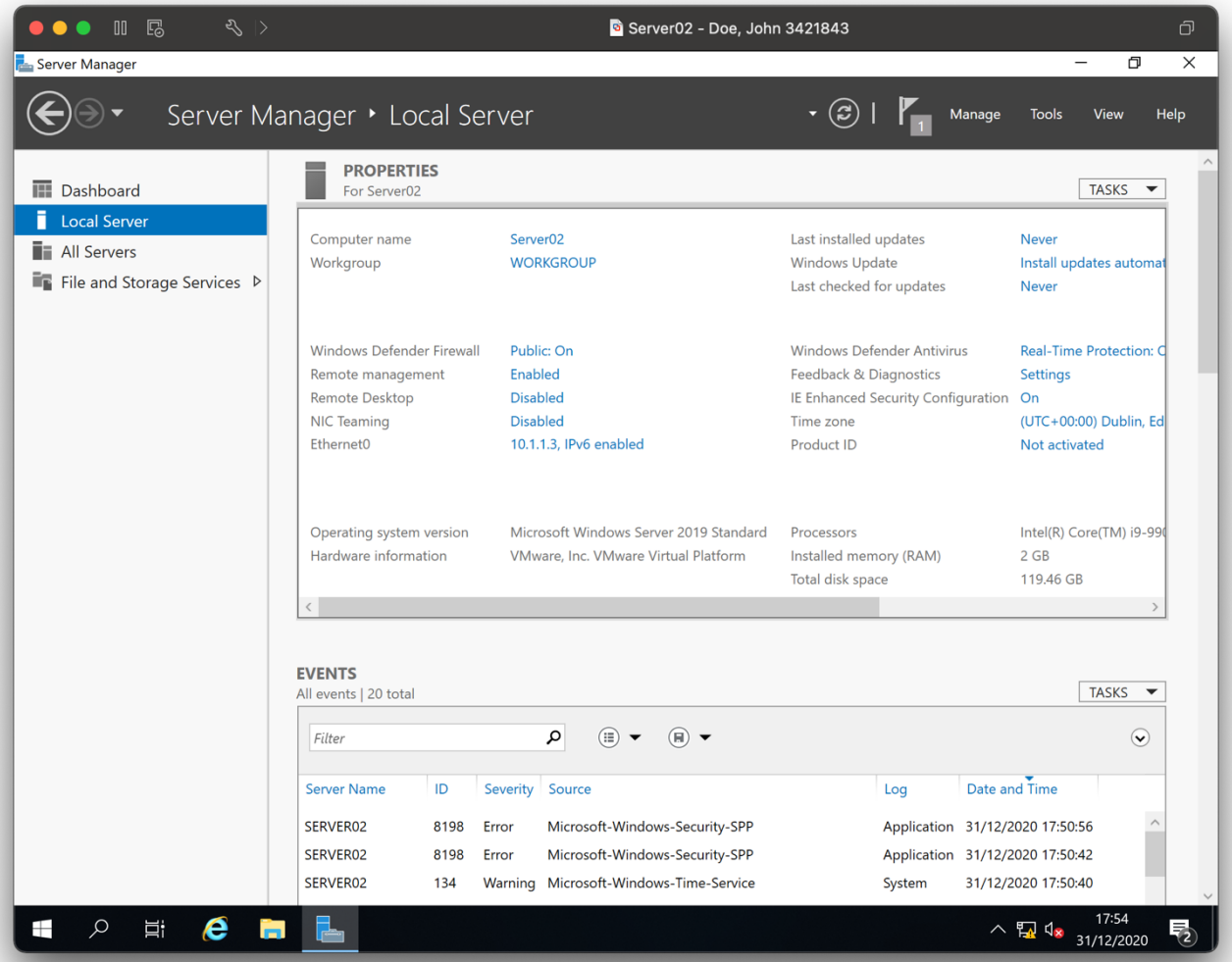
- disk partitions



- machine named correctly

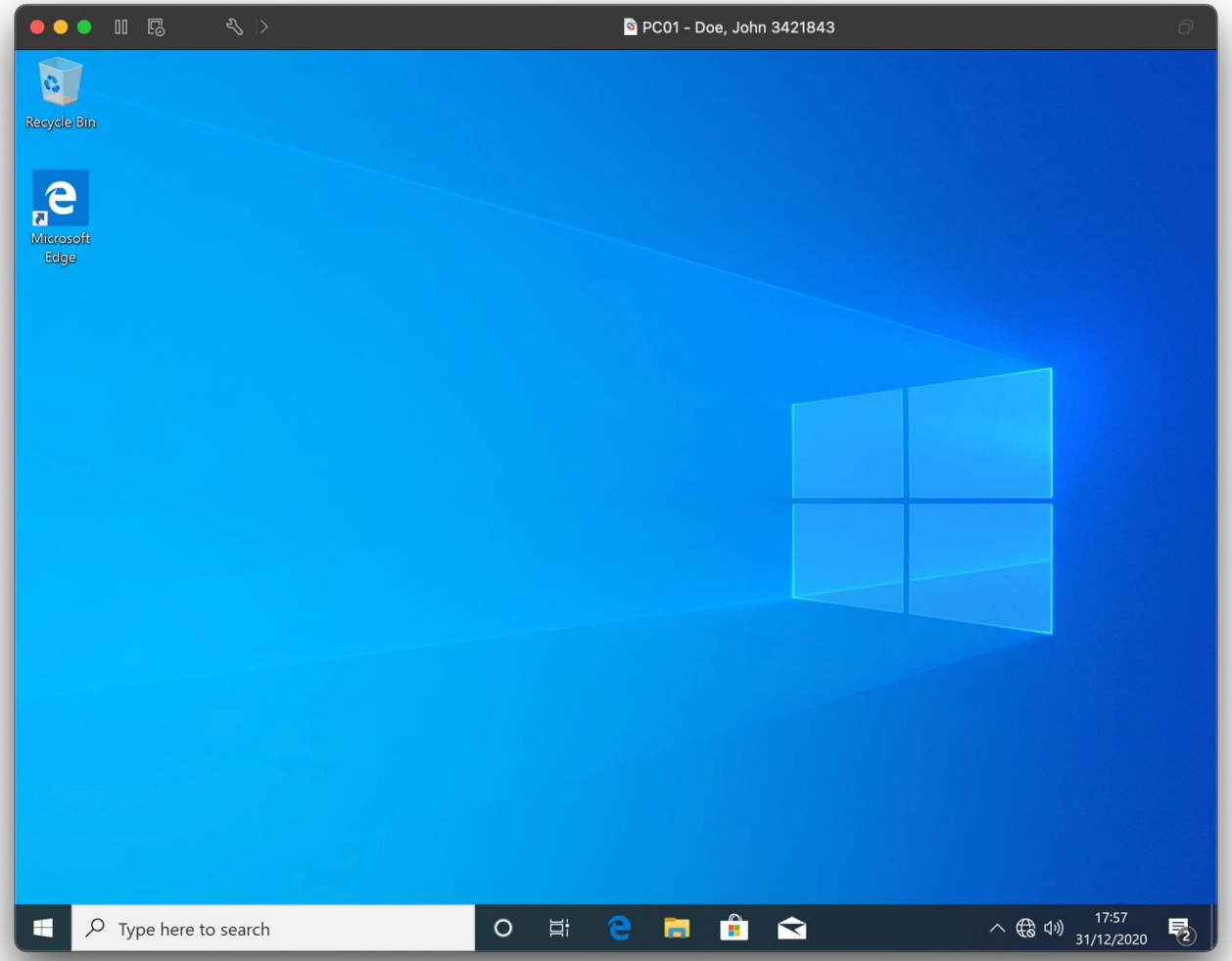


- fixed IP addressing set

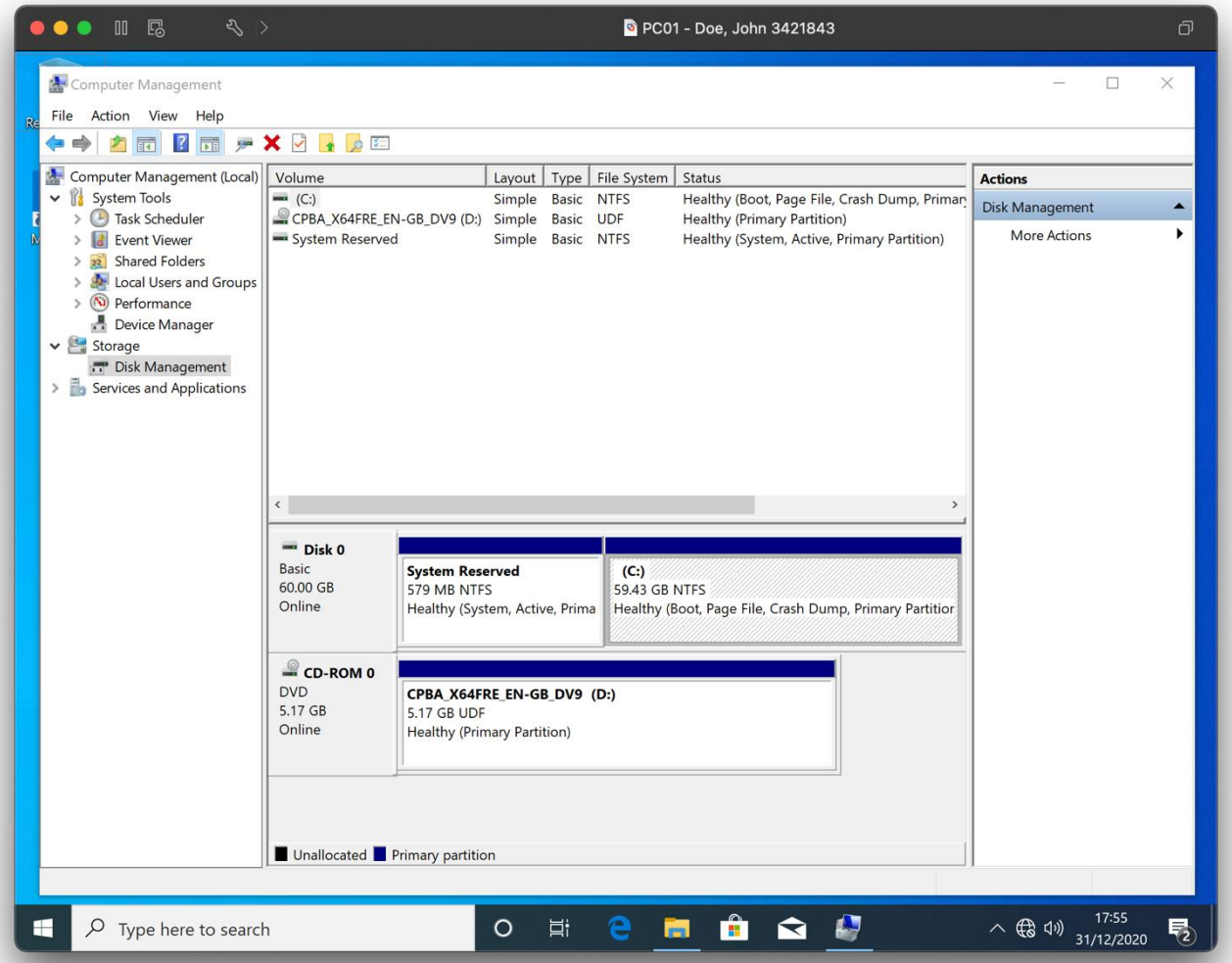


PC01 installation and configuration

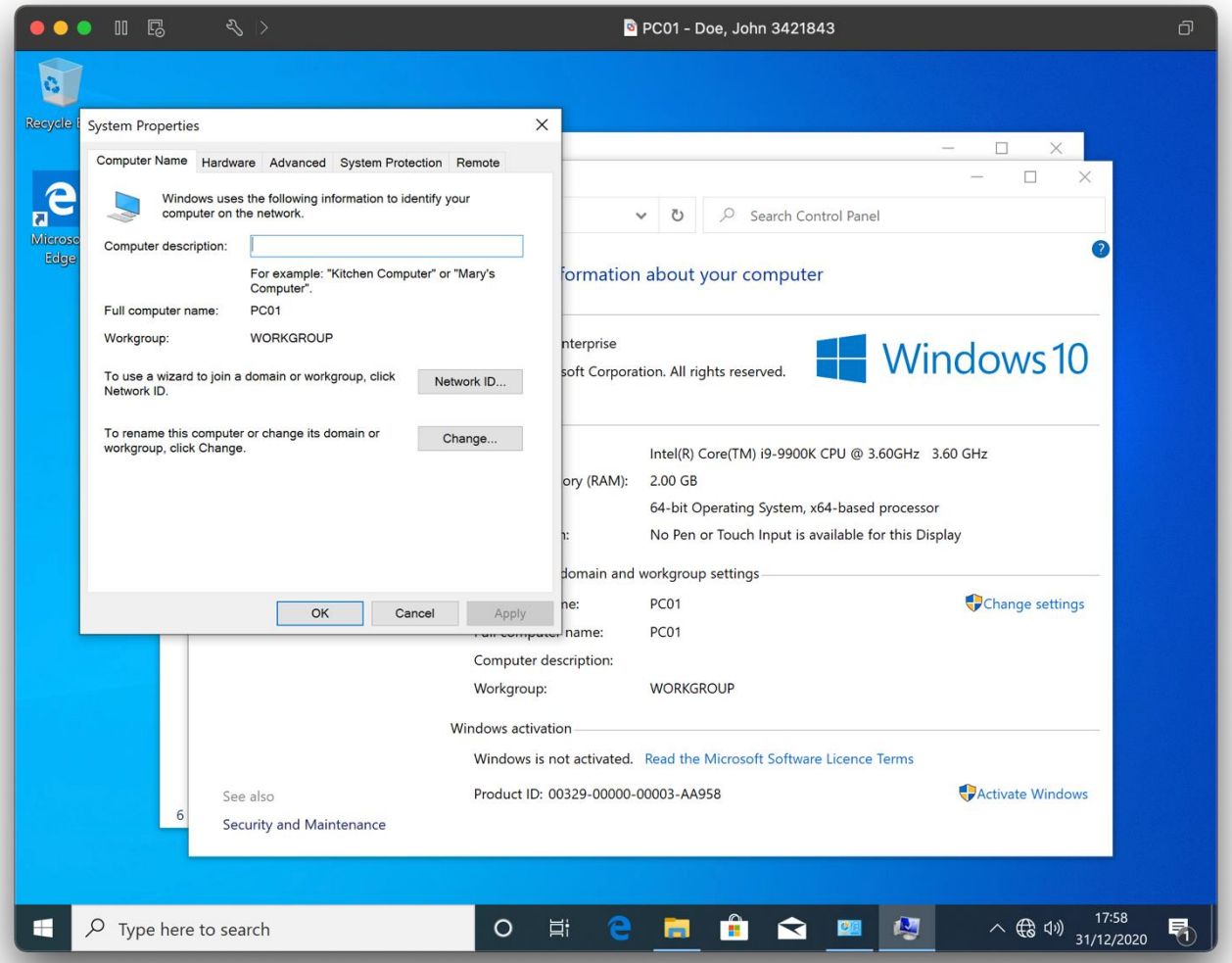
- operating system installed



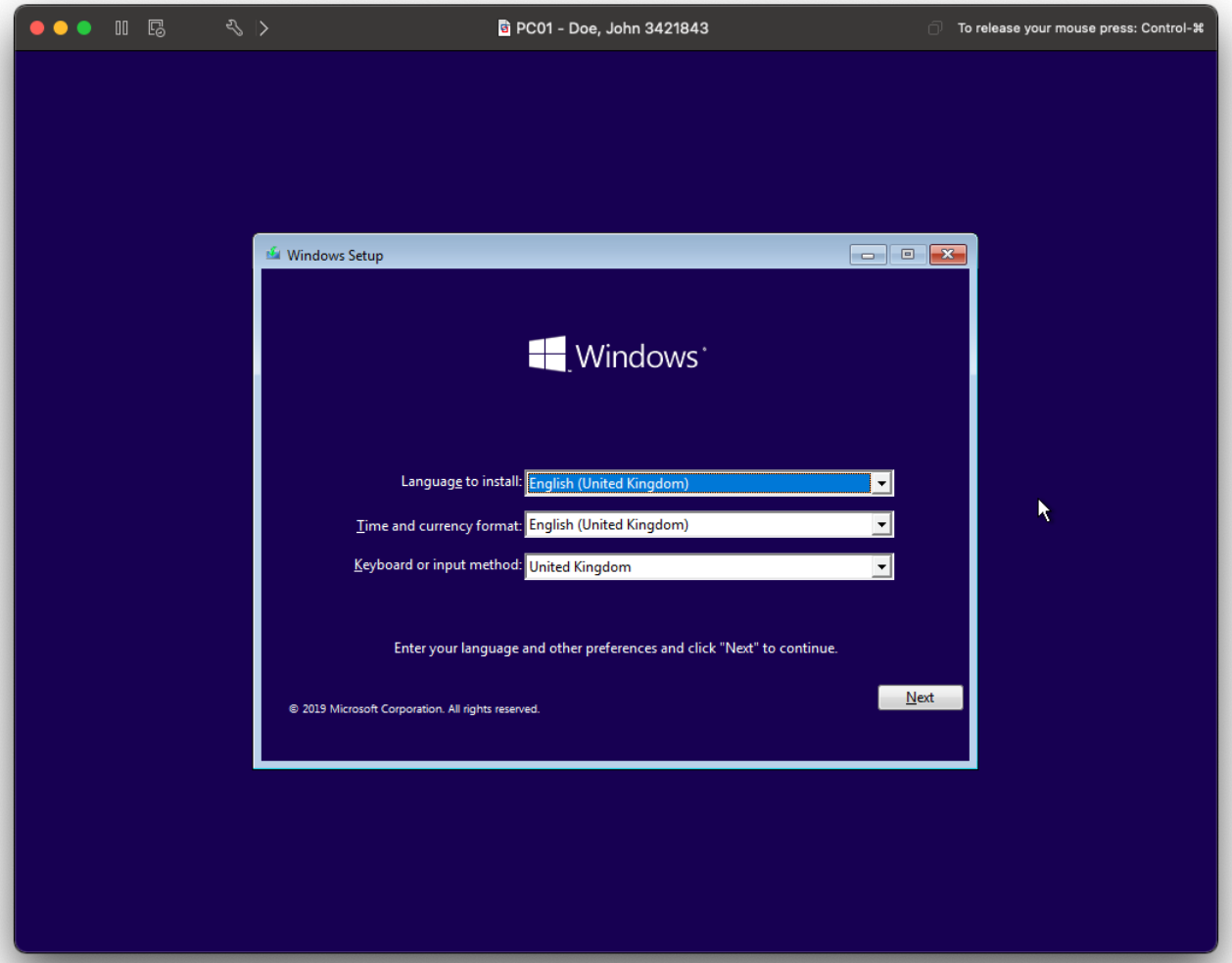
- disk partitions



- machine named correctly

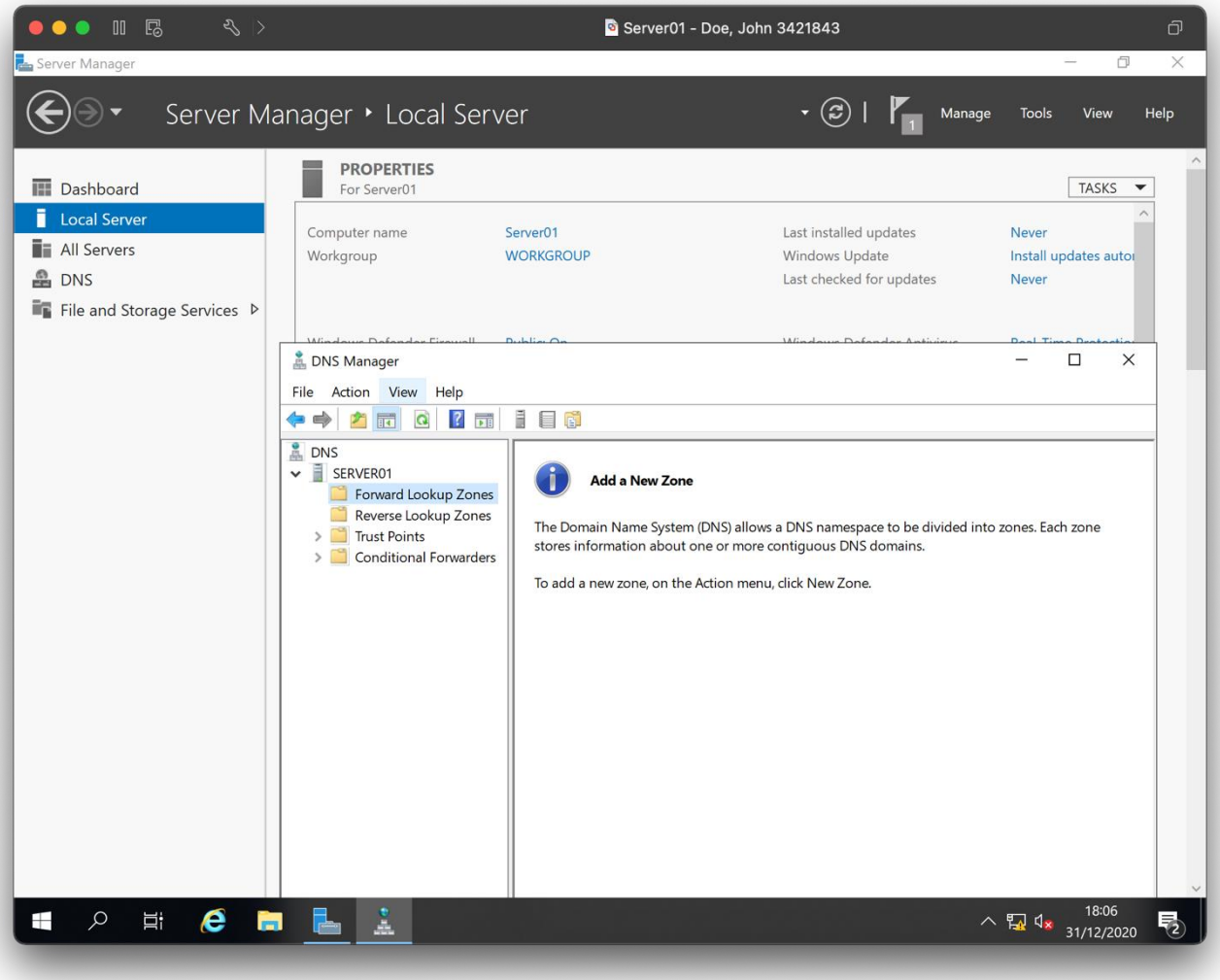


- suitable region and language settings

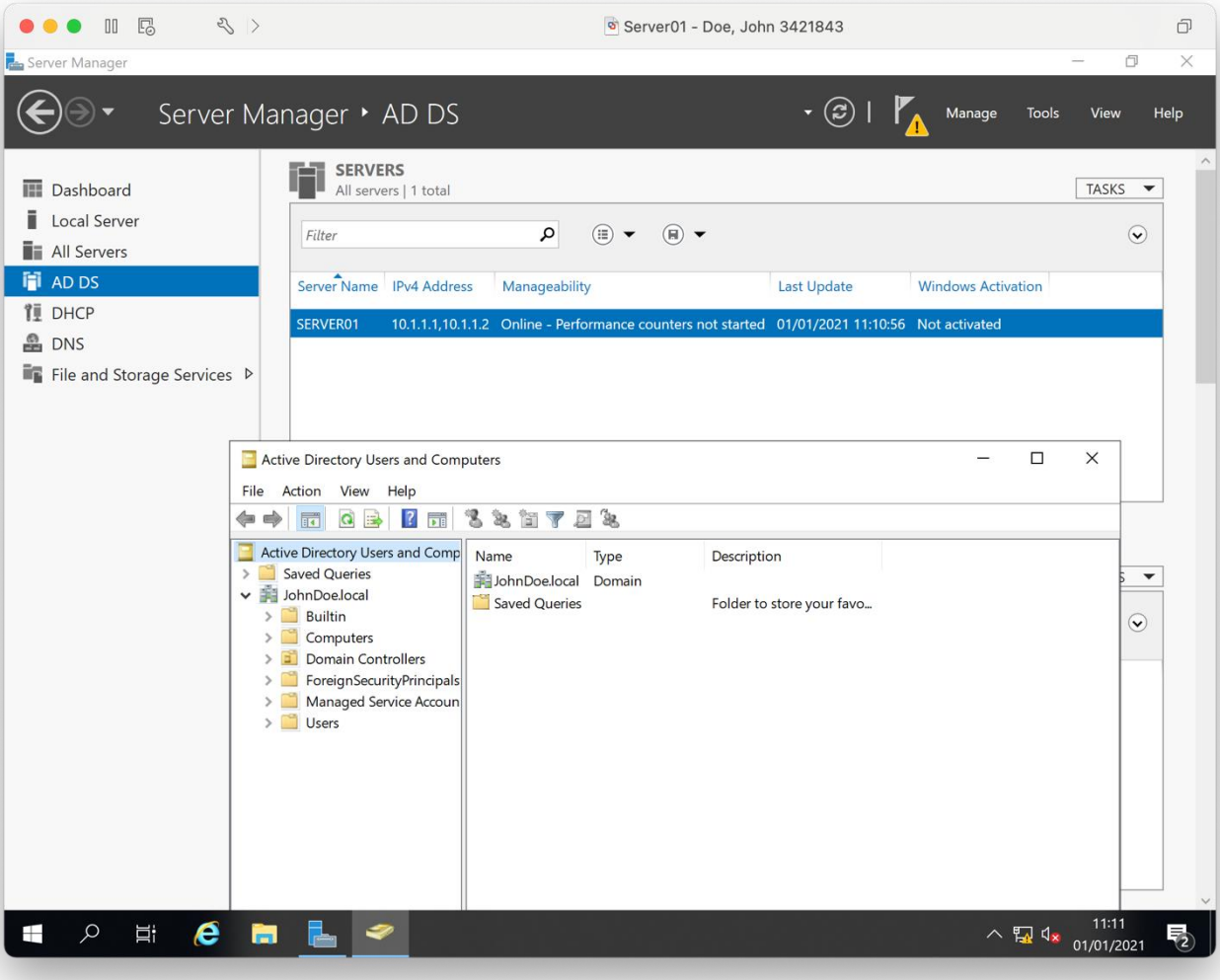


Step B

DNS configuration

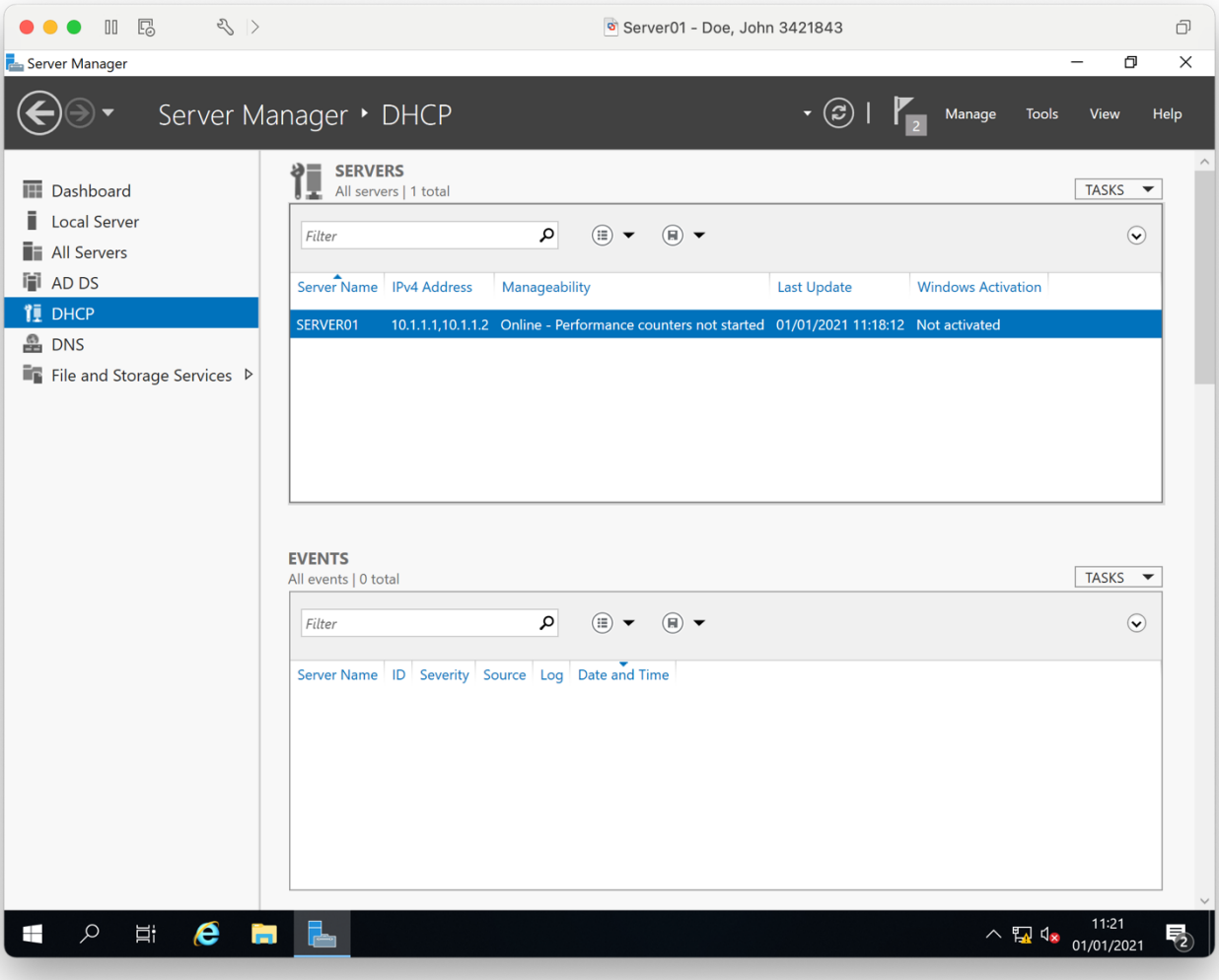


Directory service

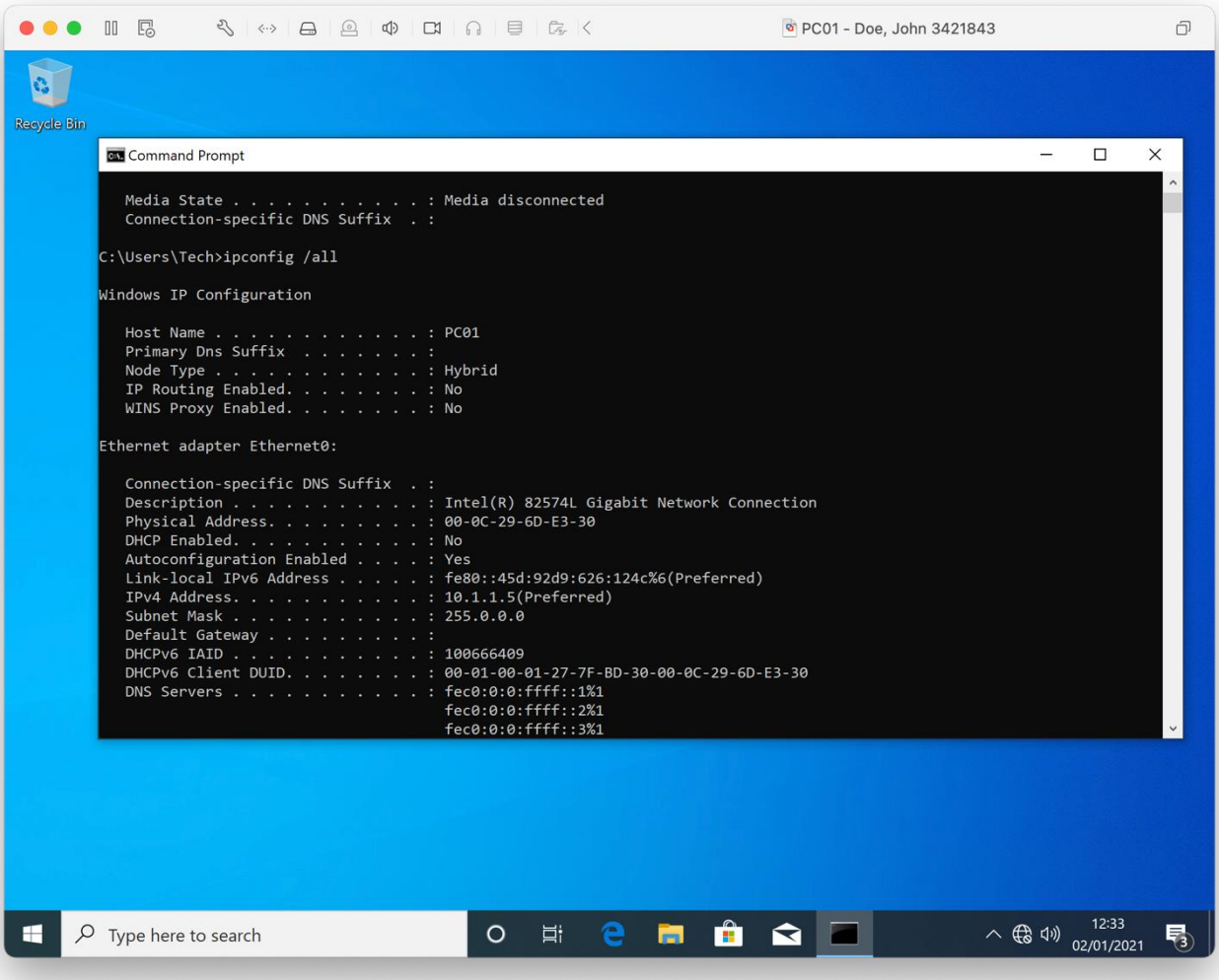


DHCP

- DHCP service installed

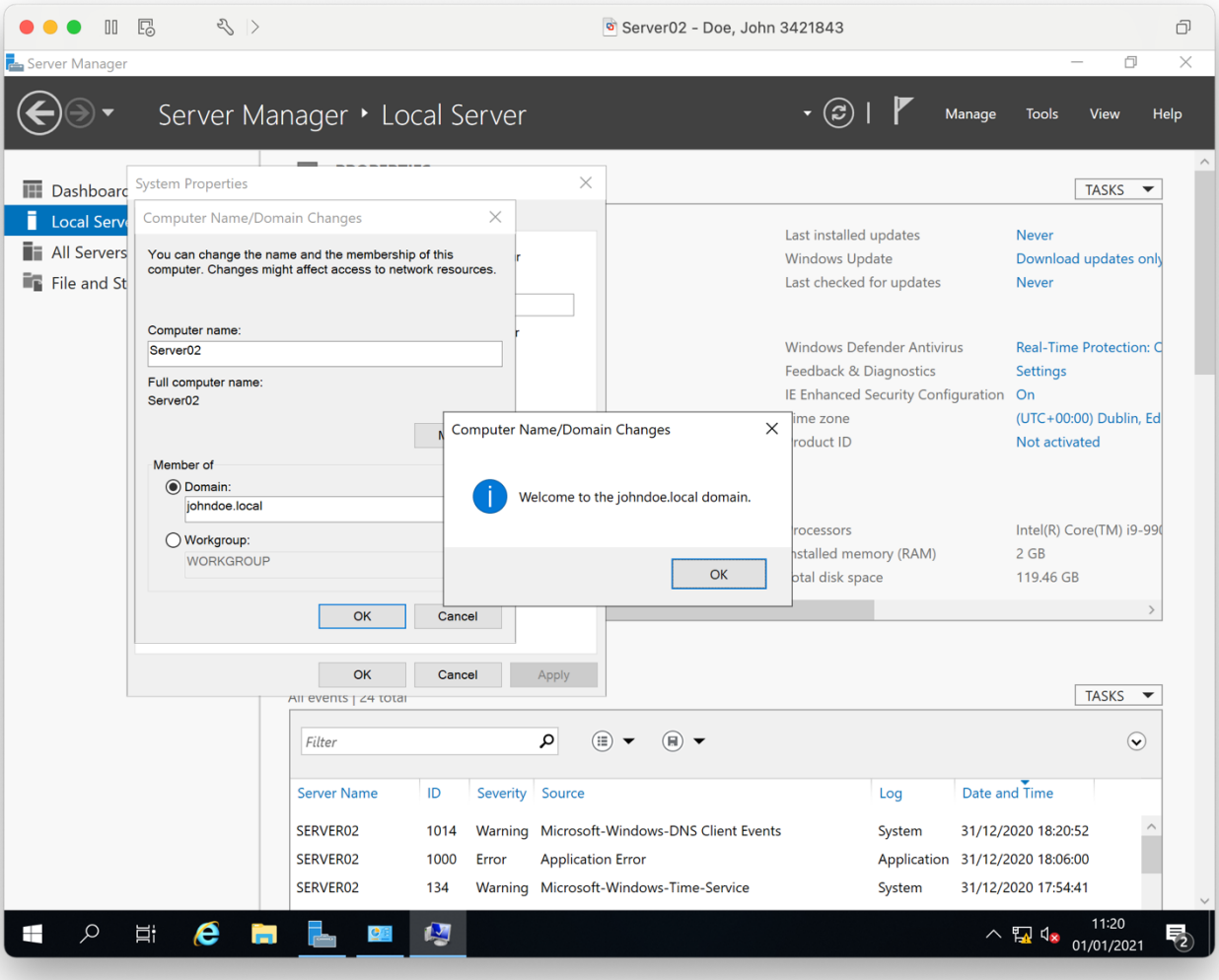


PC01 has been assigned a DHCP address using IPCONFIG /ALL

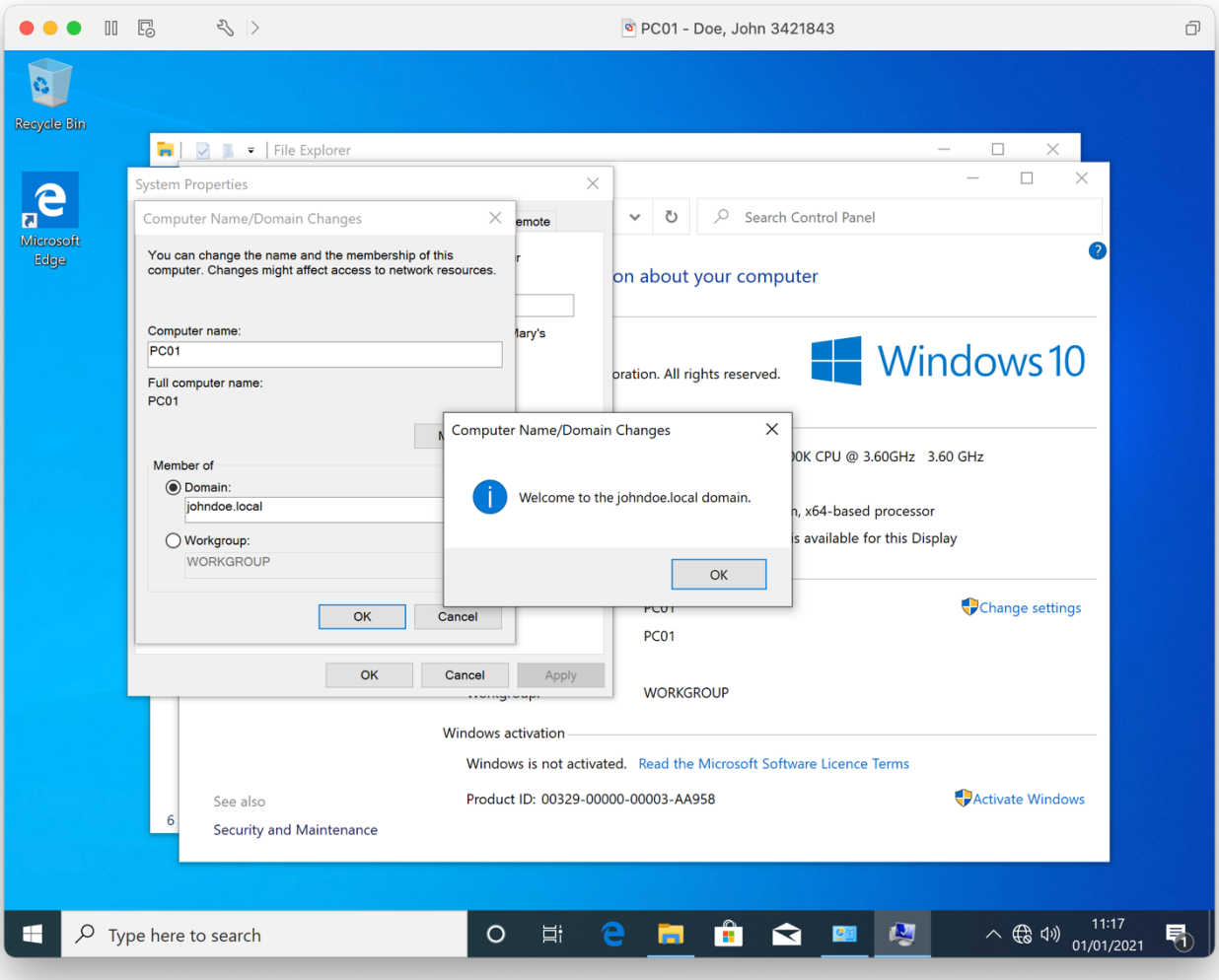


Domain joins

Server02 domain joined to (FirstnameSurname).local>



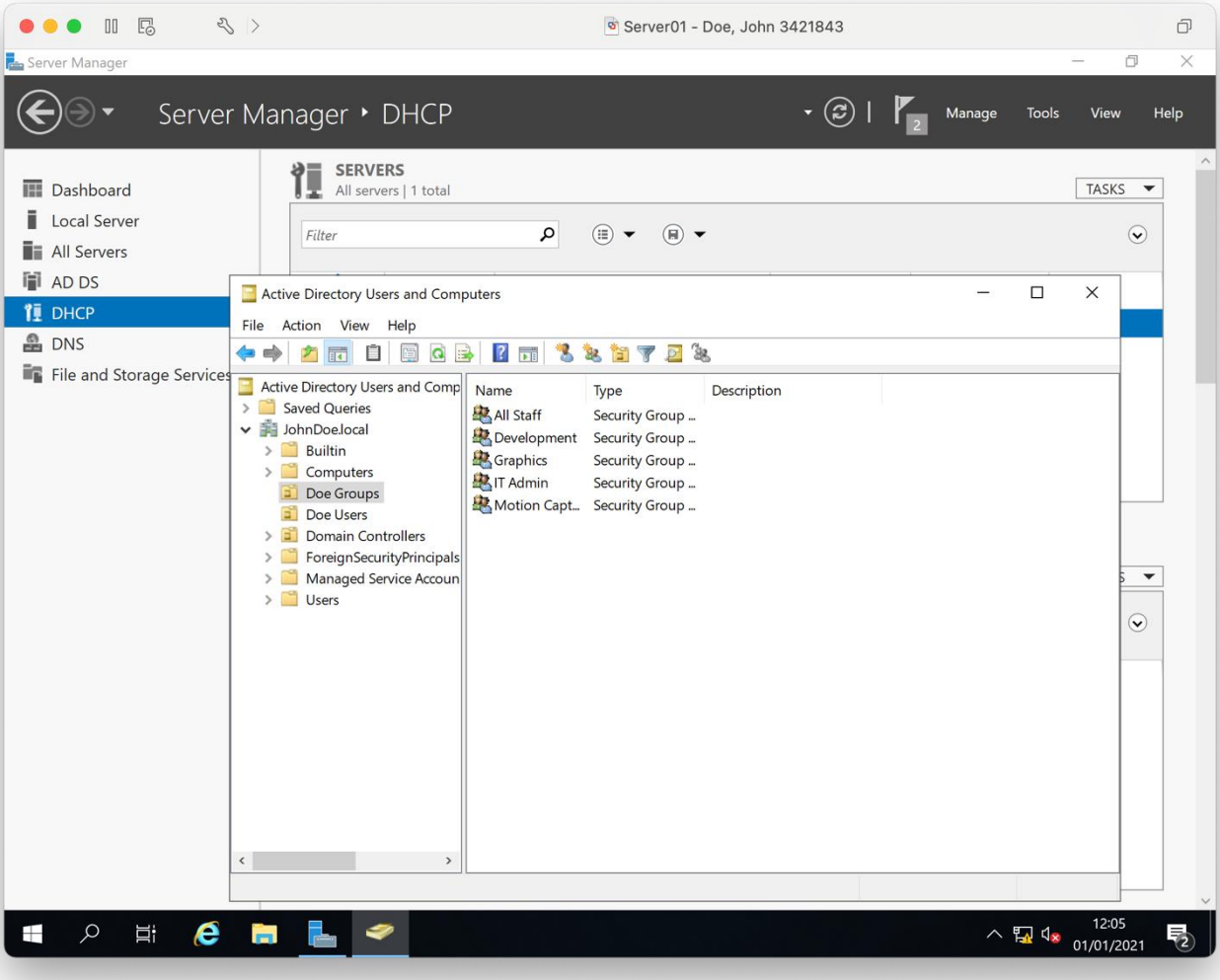
PC01 domain joined at logon to (FirstnameSurname).local



Reverse lookup

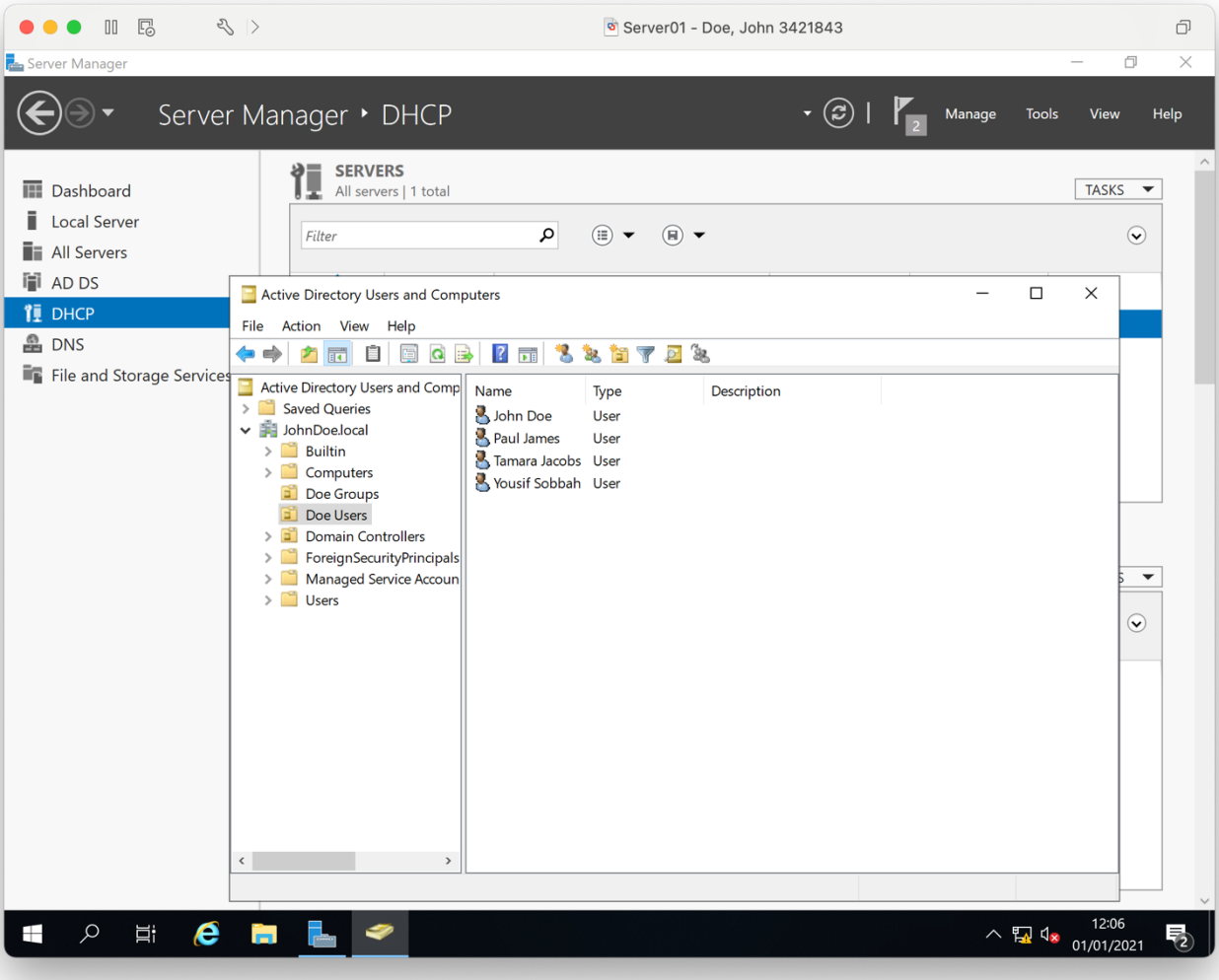
Step C

Group creation

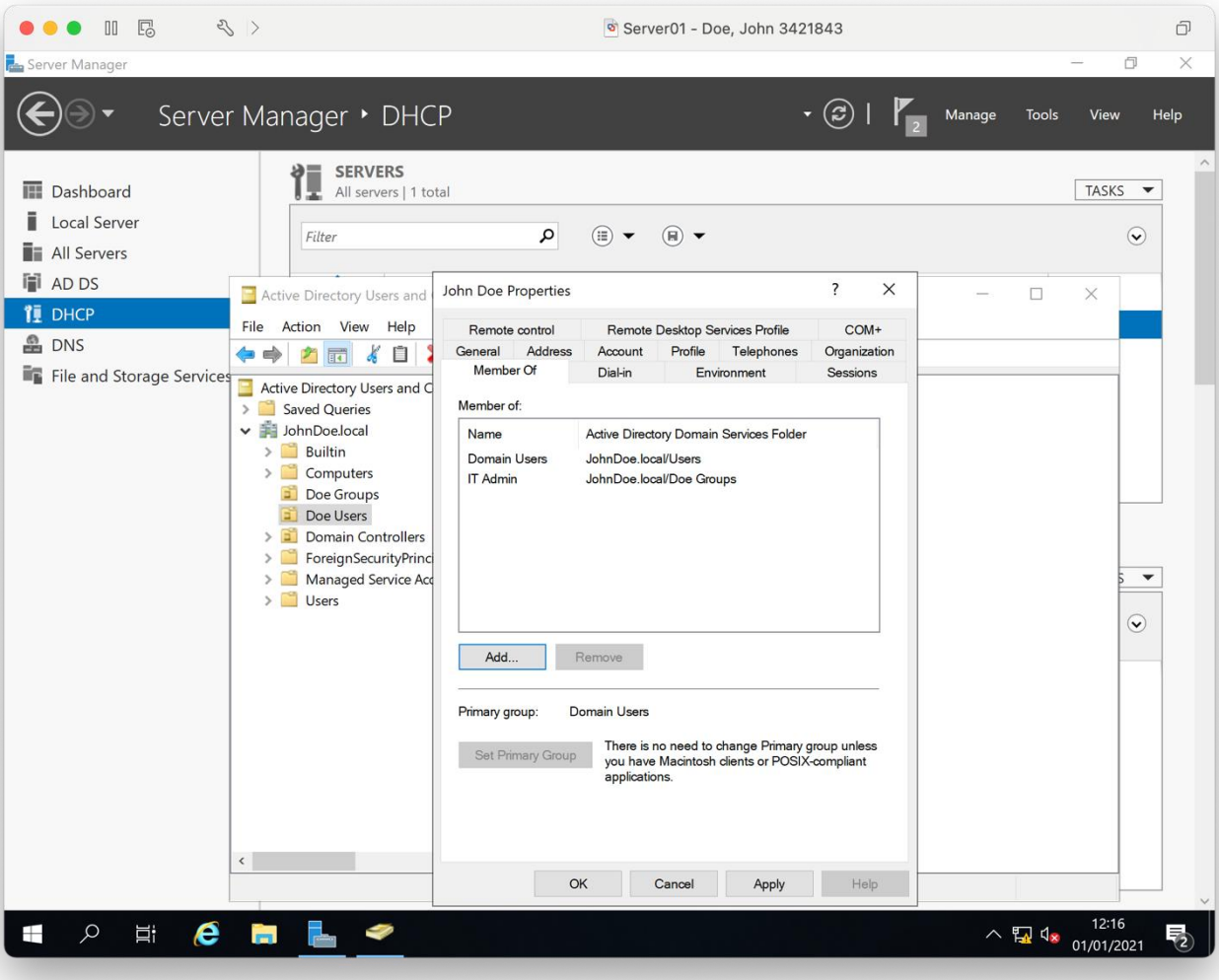


User creation

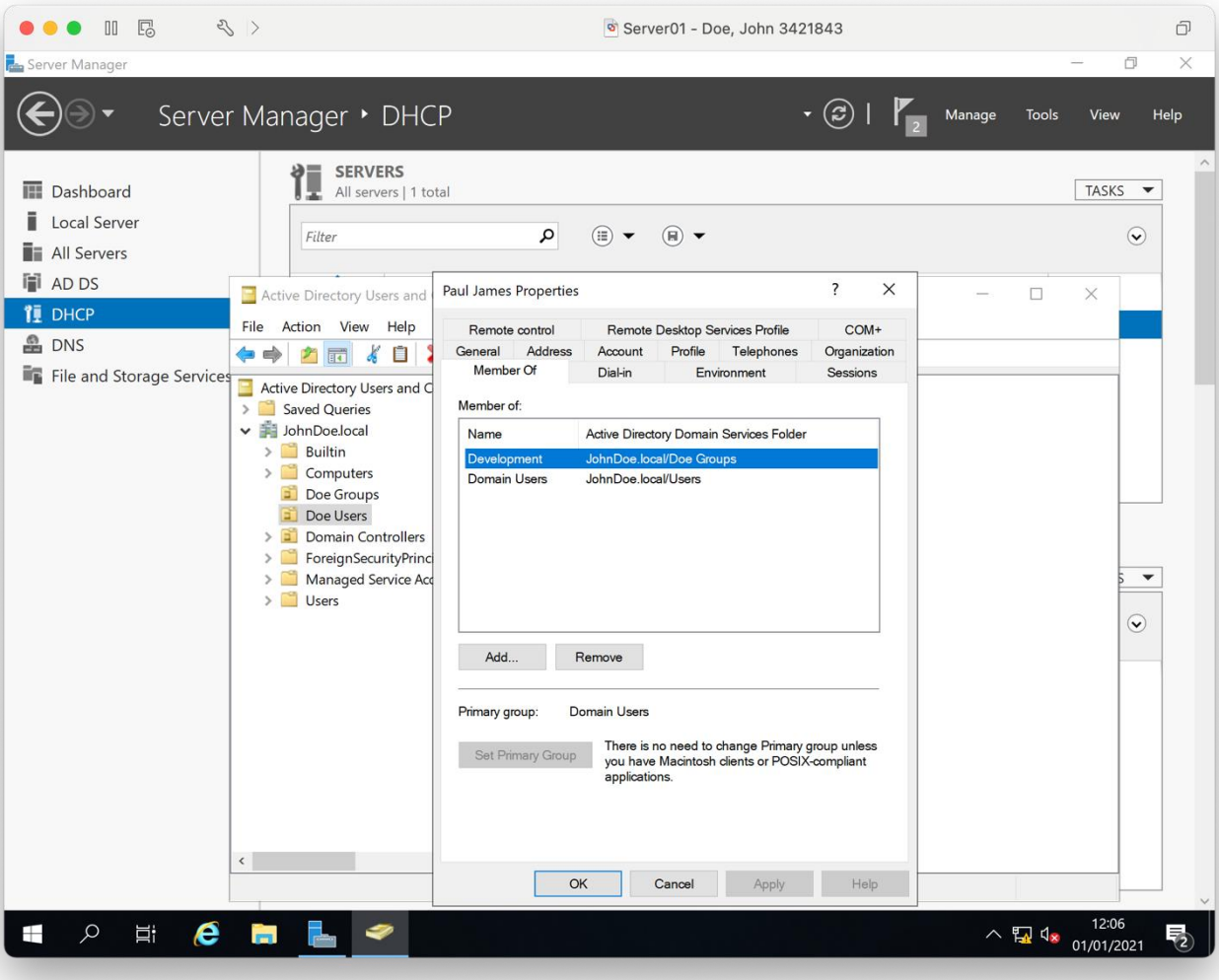
Users -Your first and surname, Paul James, Tamara Jacob and Yousif Sobbah has been created



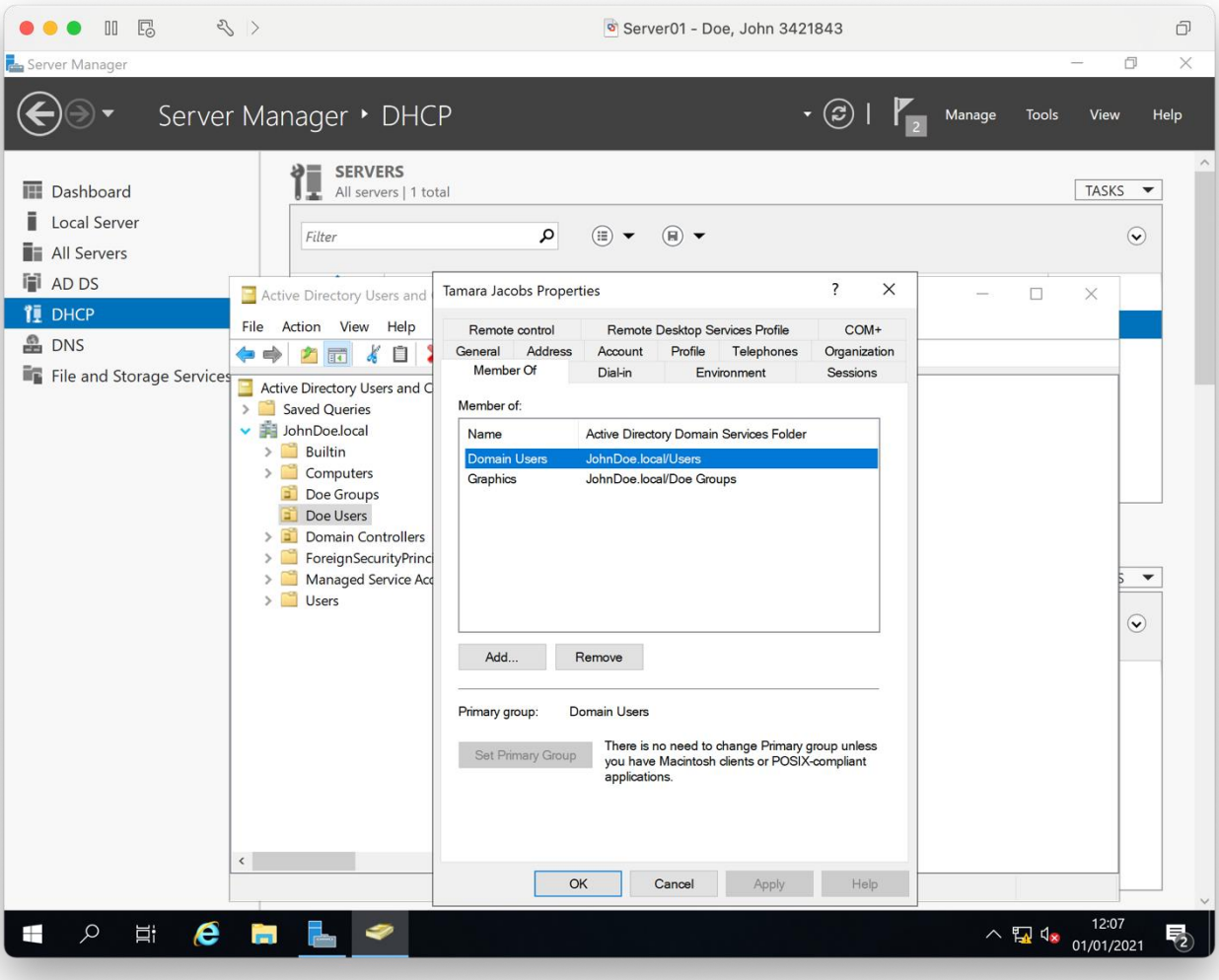
Your first and surname is now a member of the group IT admin



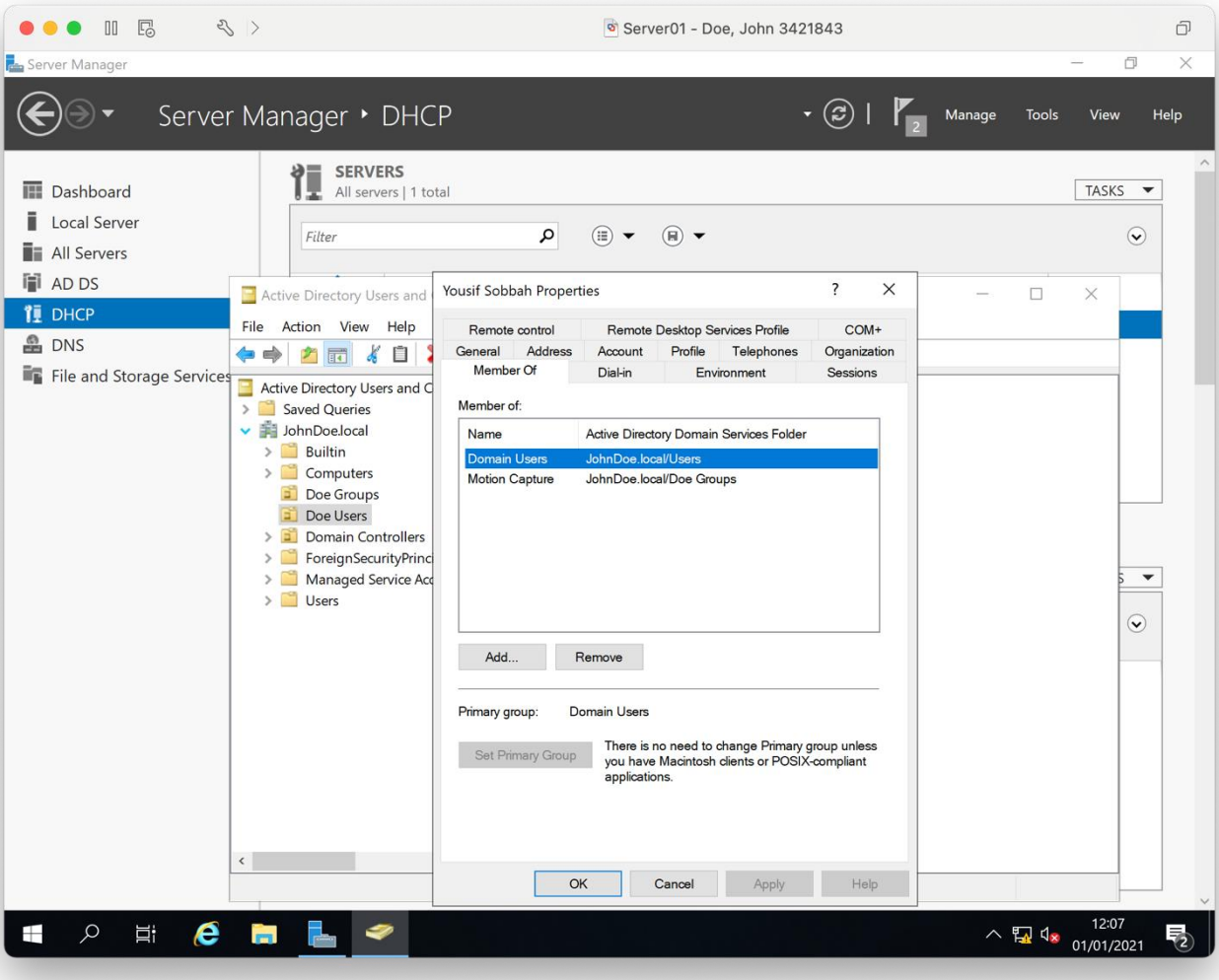
Paul James is now a member of the group Development



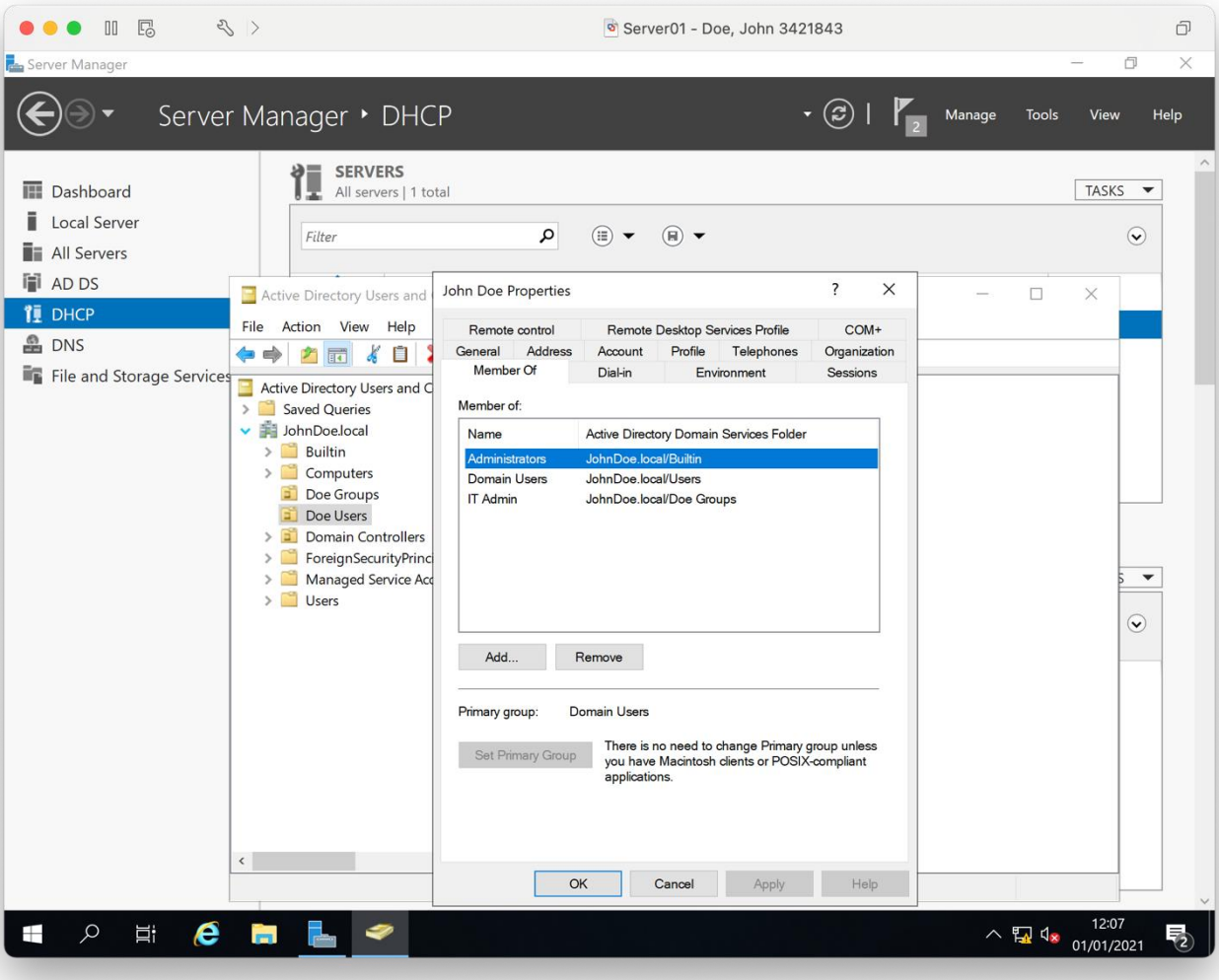
Tamara Jacobs is now a member of the group Graphics



Yousif Sobbah is now a member of the group Motion Capture

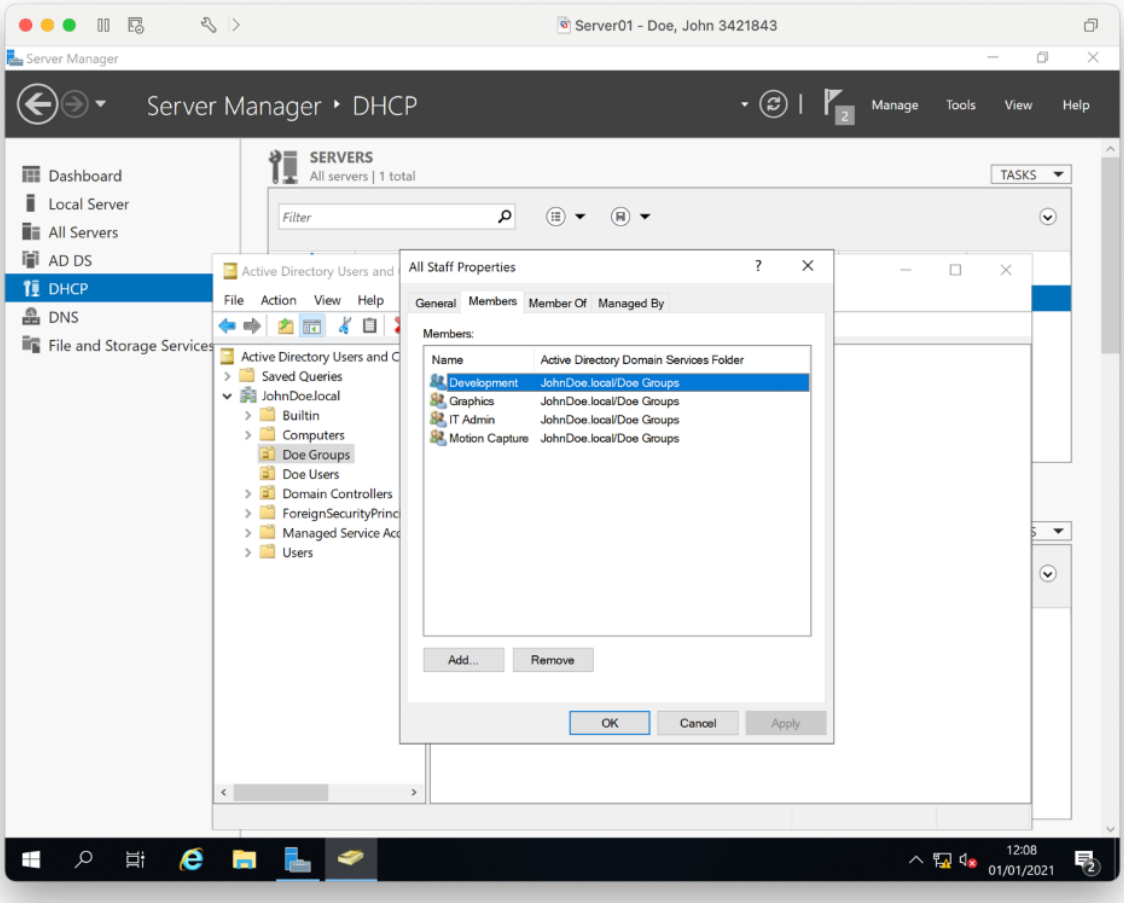


Your first and surname has been made an Administrator



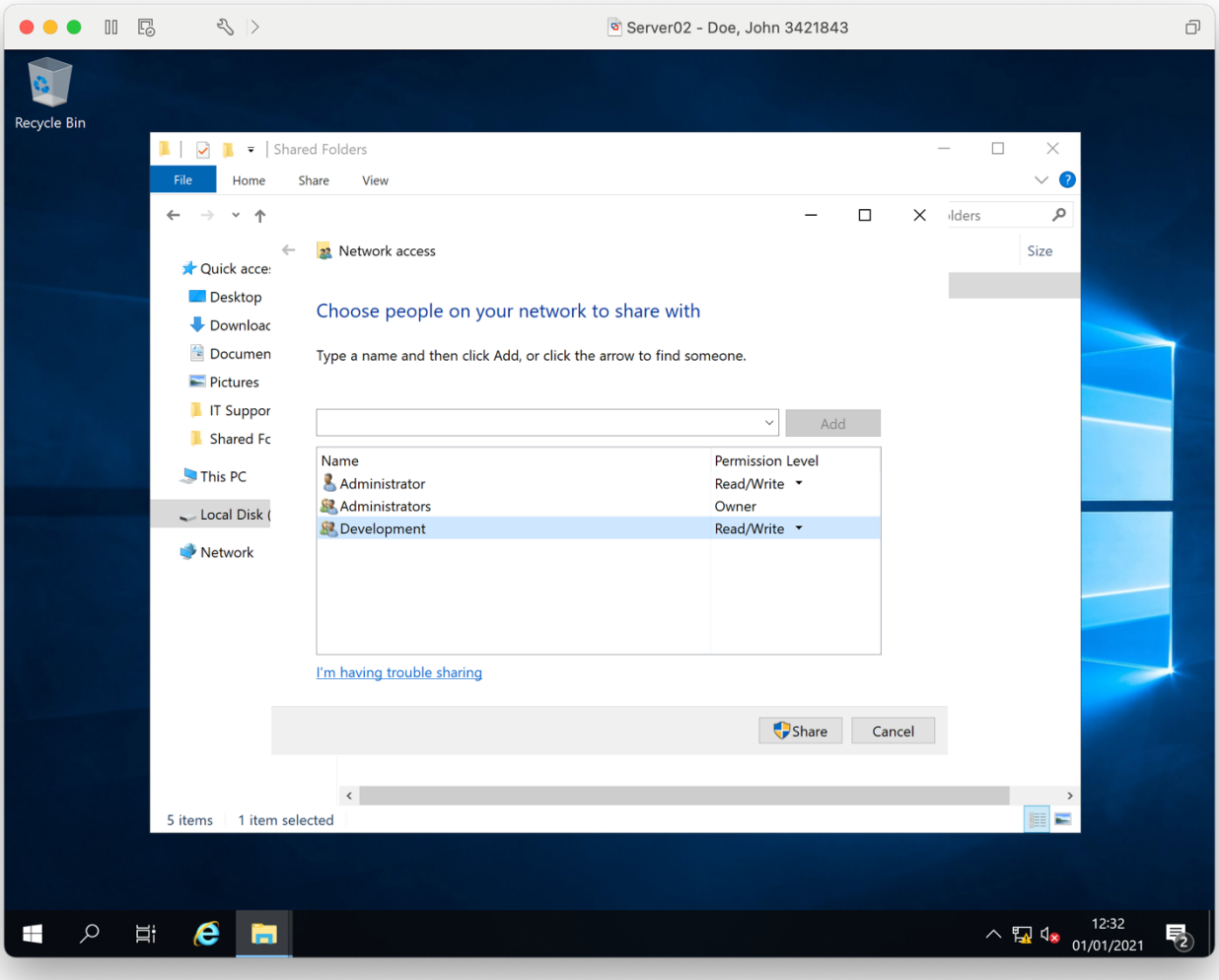
Staff added to groups

The groups development, graphics, motion capture, IT admin have been added to the all staff groups to allow for group permissions to be used.

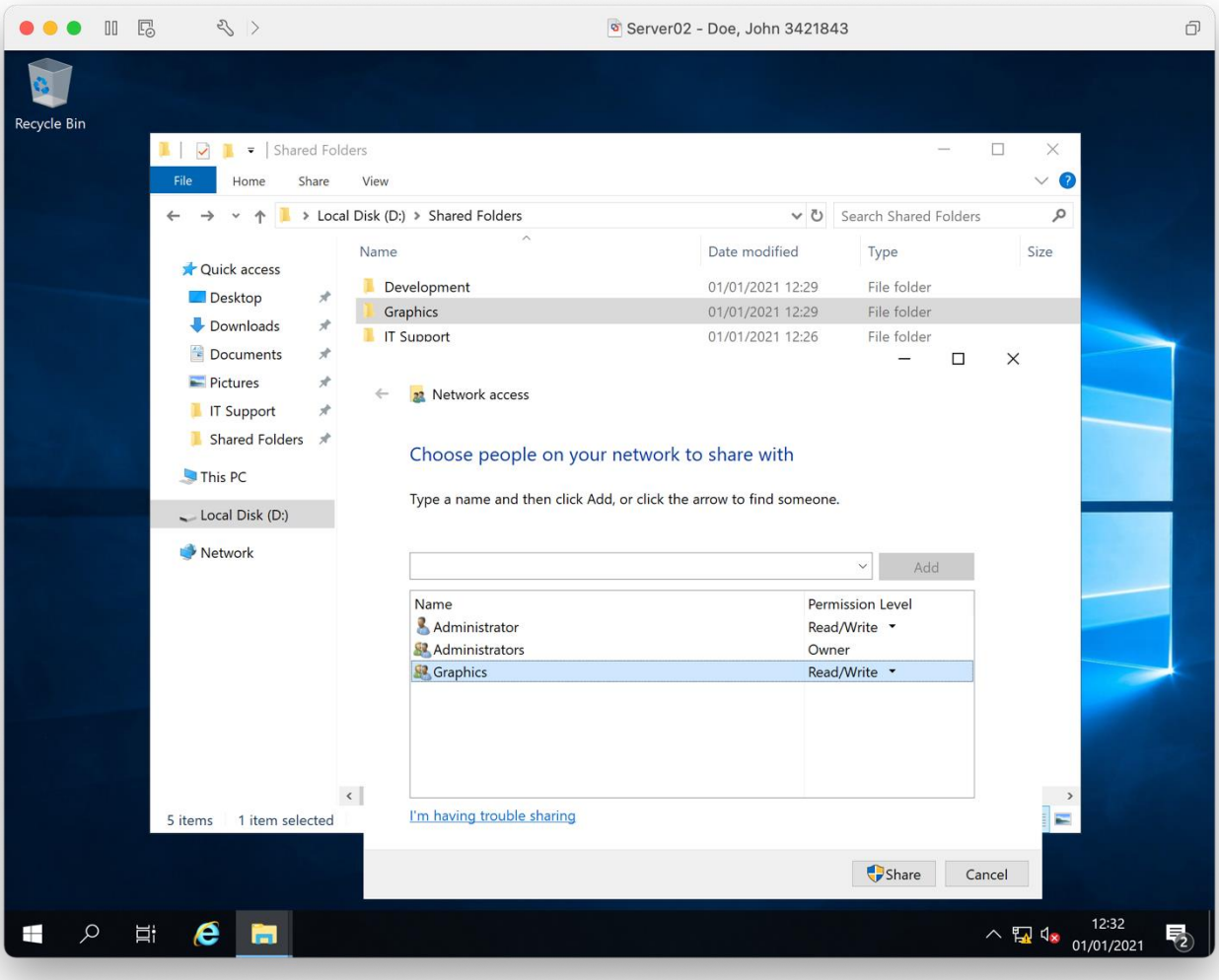


Folder permissions

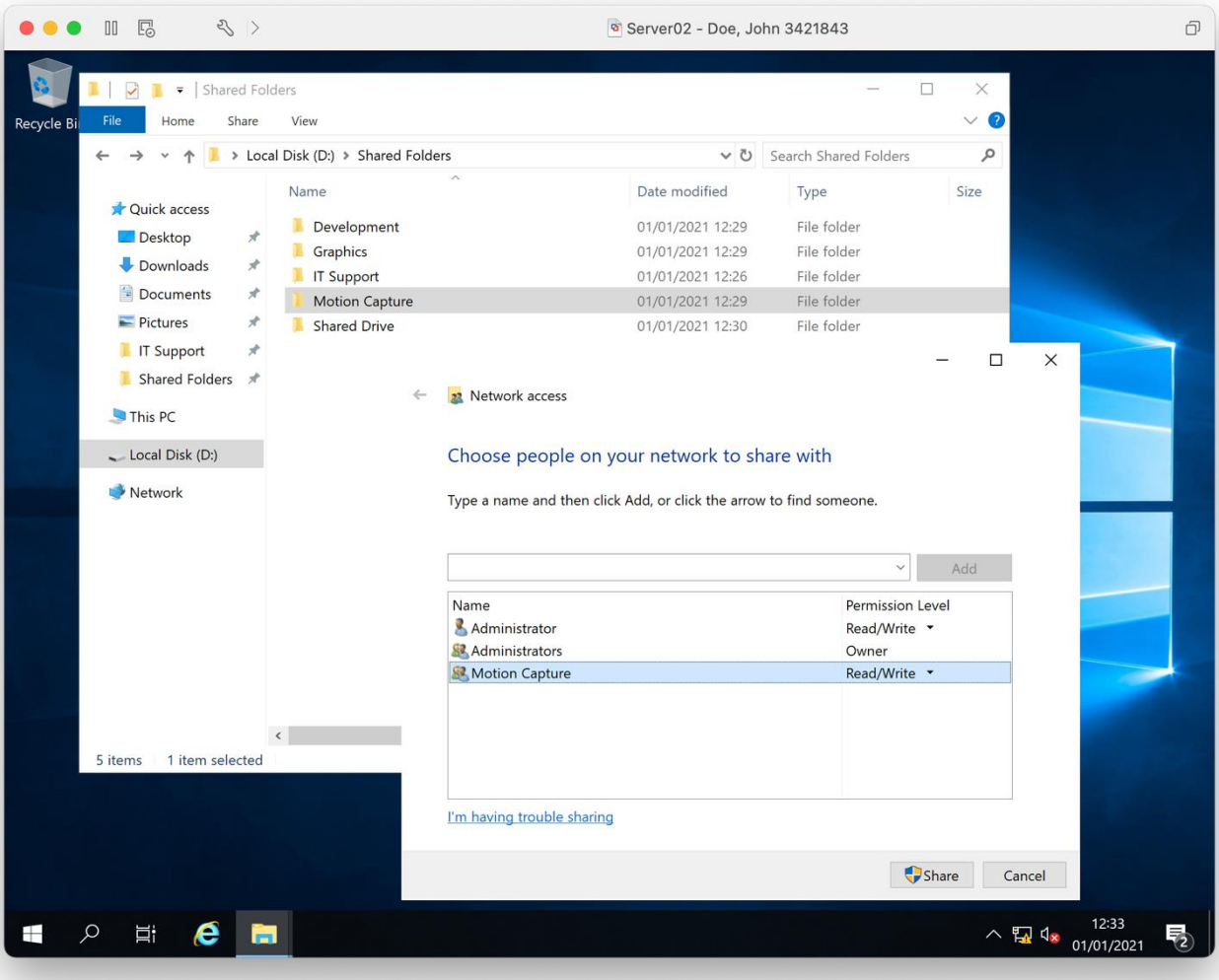
Development folder has the group Development added with Read/Write permission



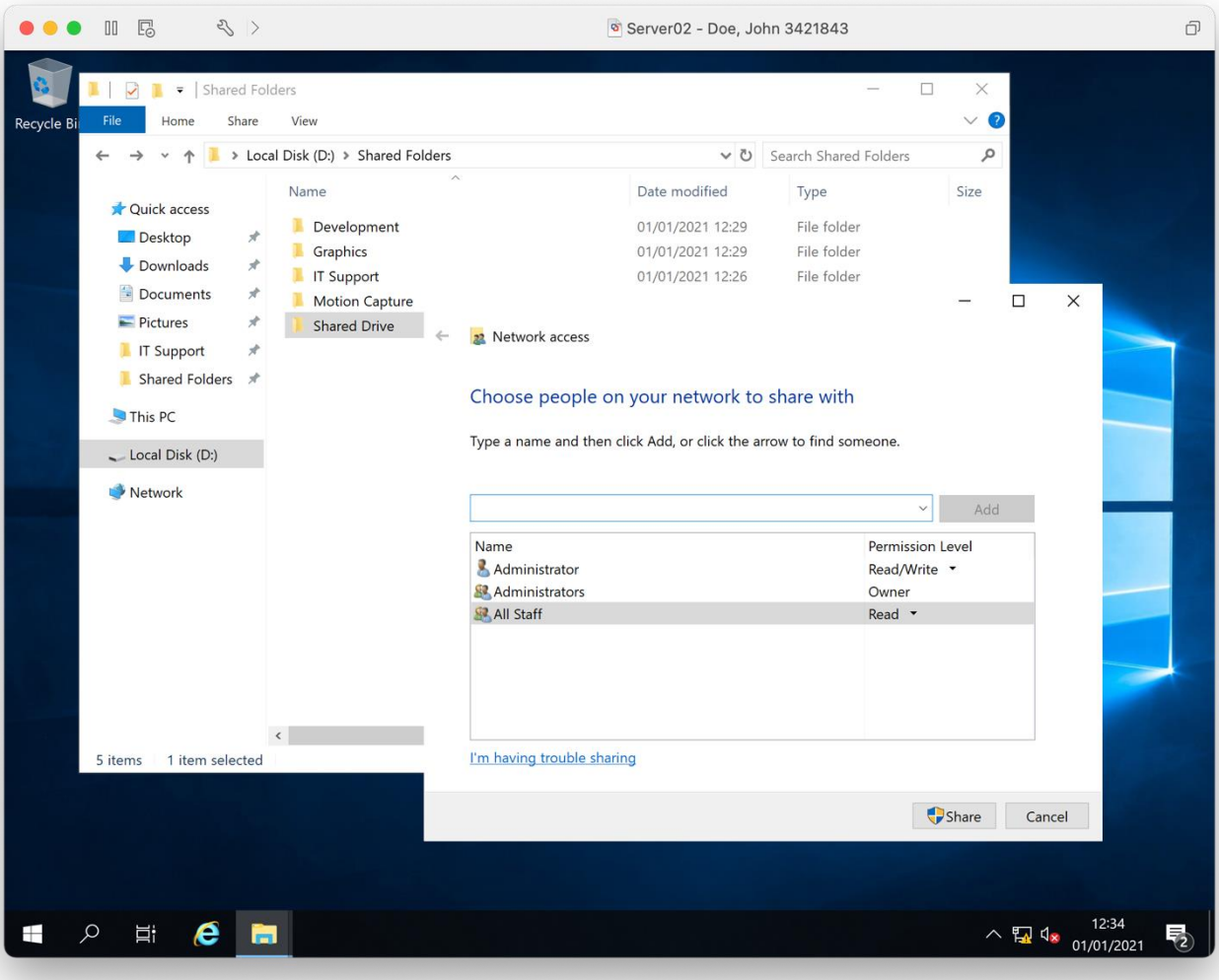
Graphics has the group Graphics added with Read/Write permission



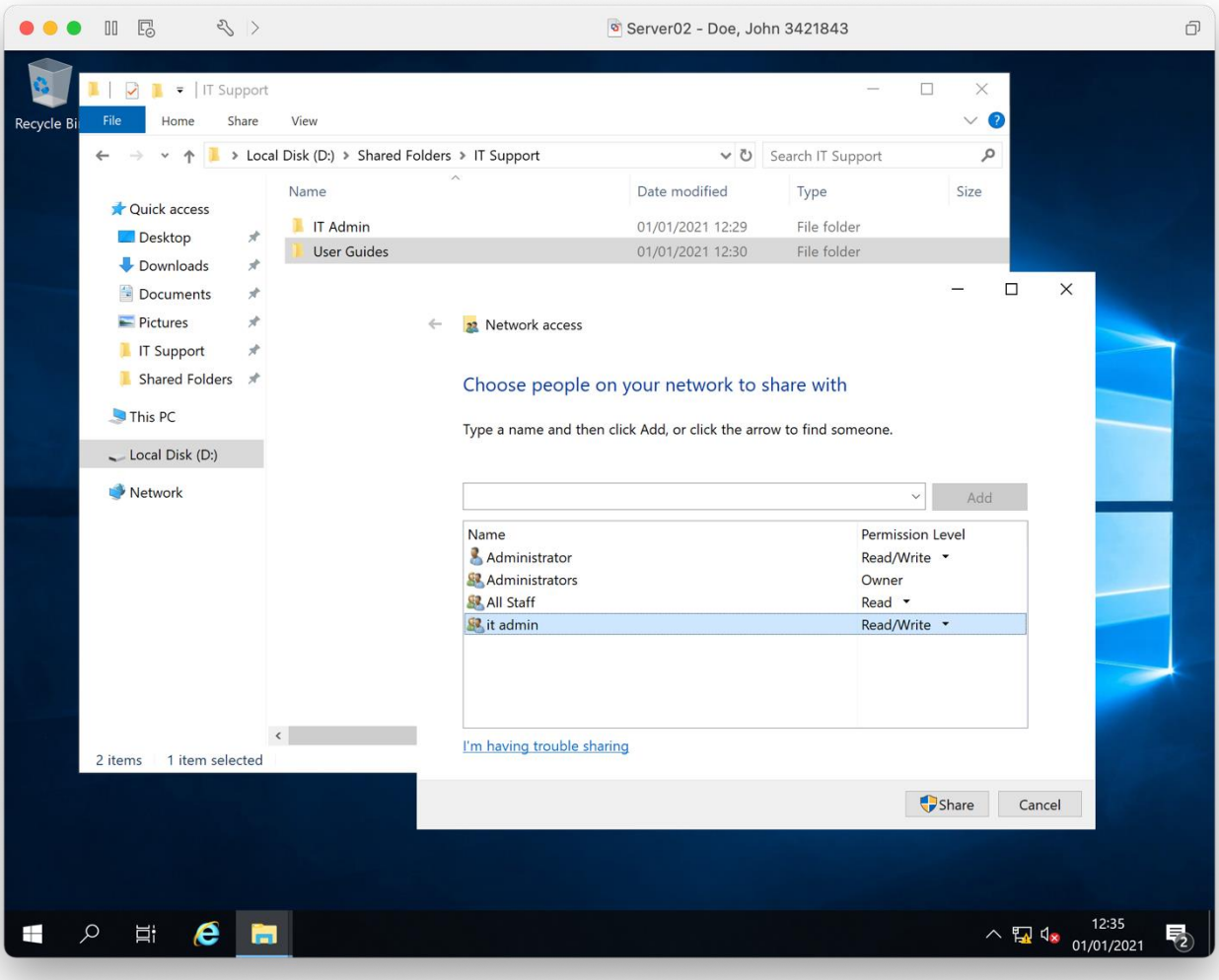
Motion Capture has the group Motion capture added with Read/Write permission



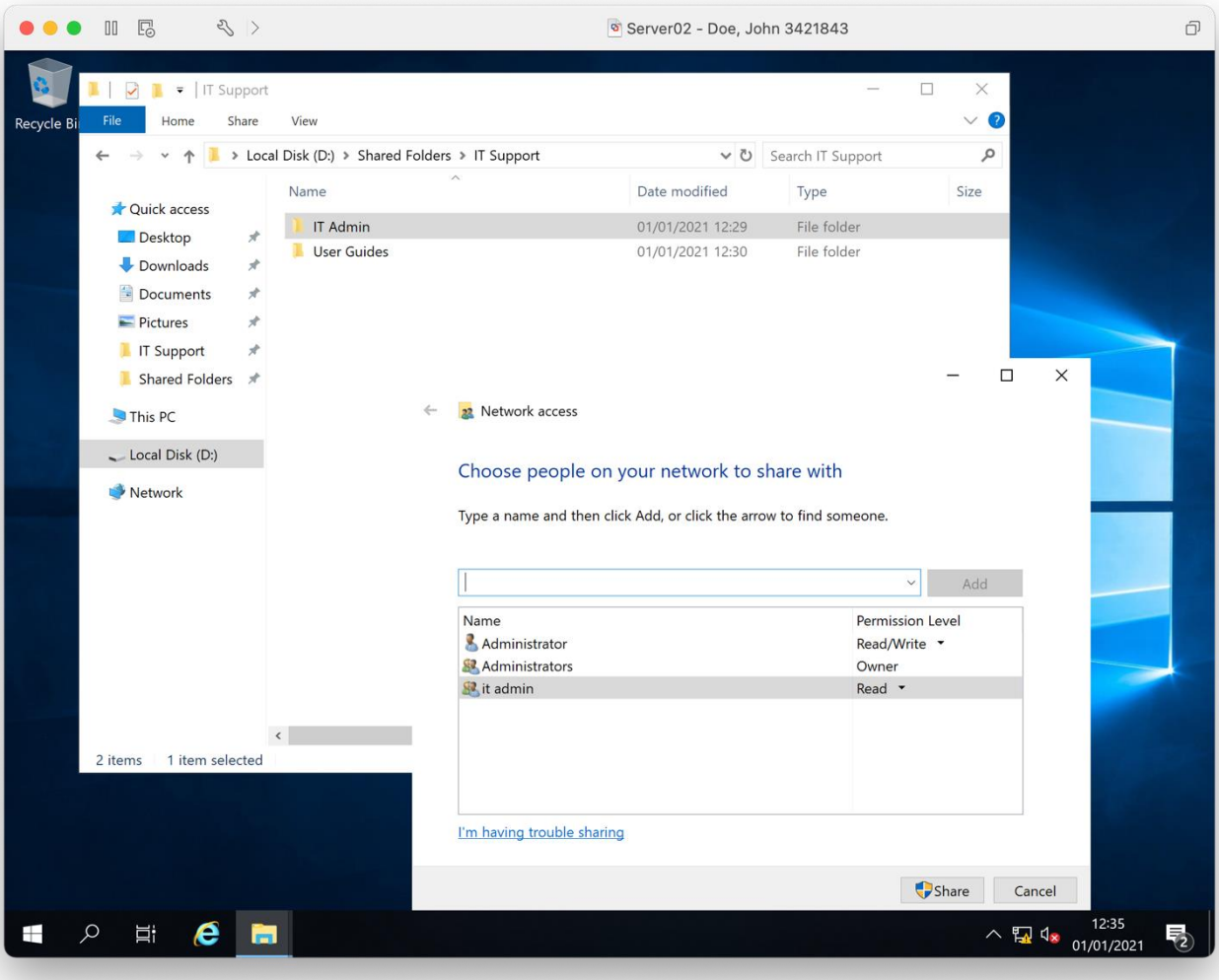
Shared Drive has the group All staff added with Read permission



User Guides has the group All Staff added with Read permission and IT admin added with Read/Write permission



IT admin has the group IT admin added with Read and write permission



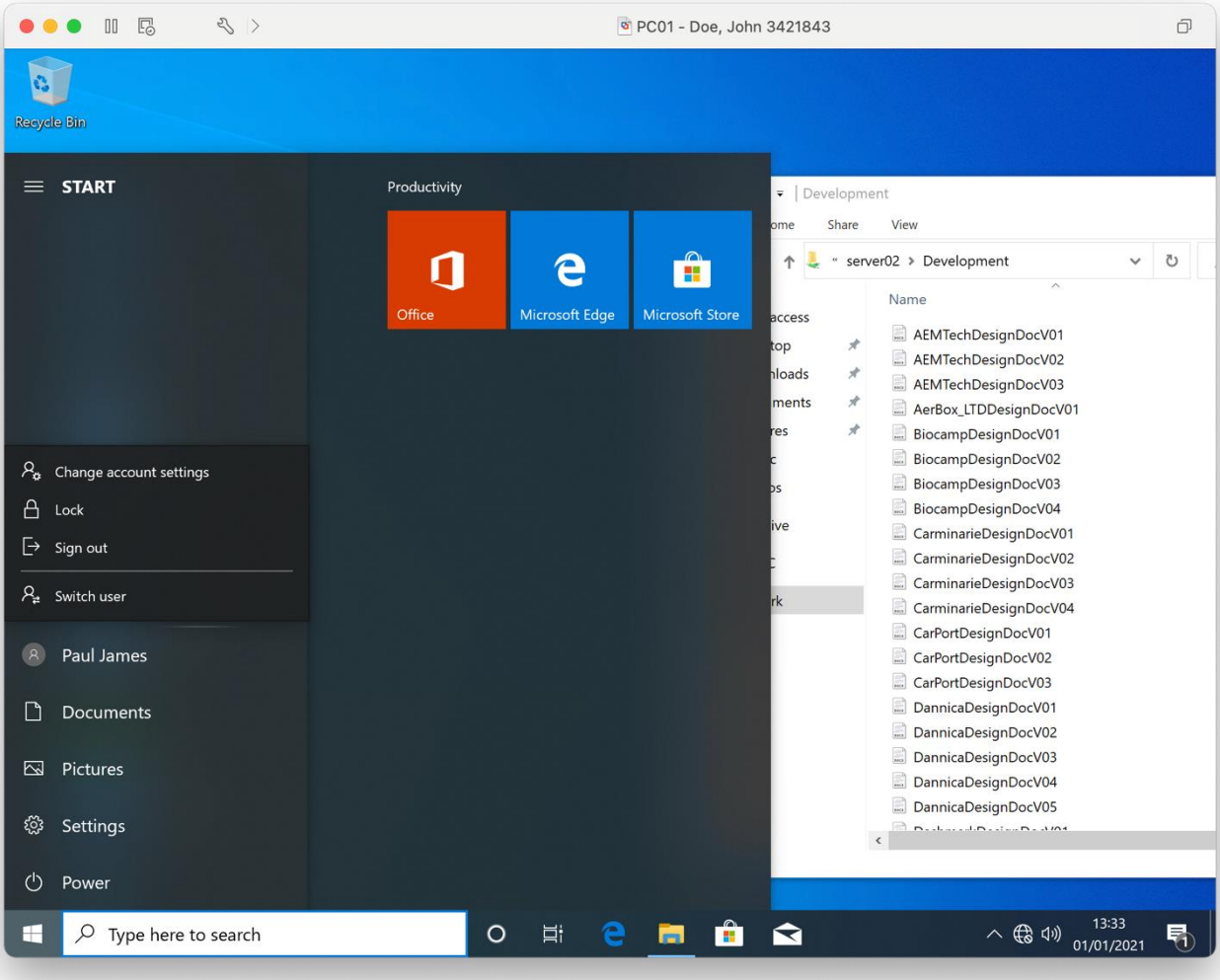
Folder testing

Add more rows to the table as required

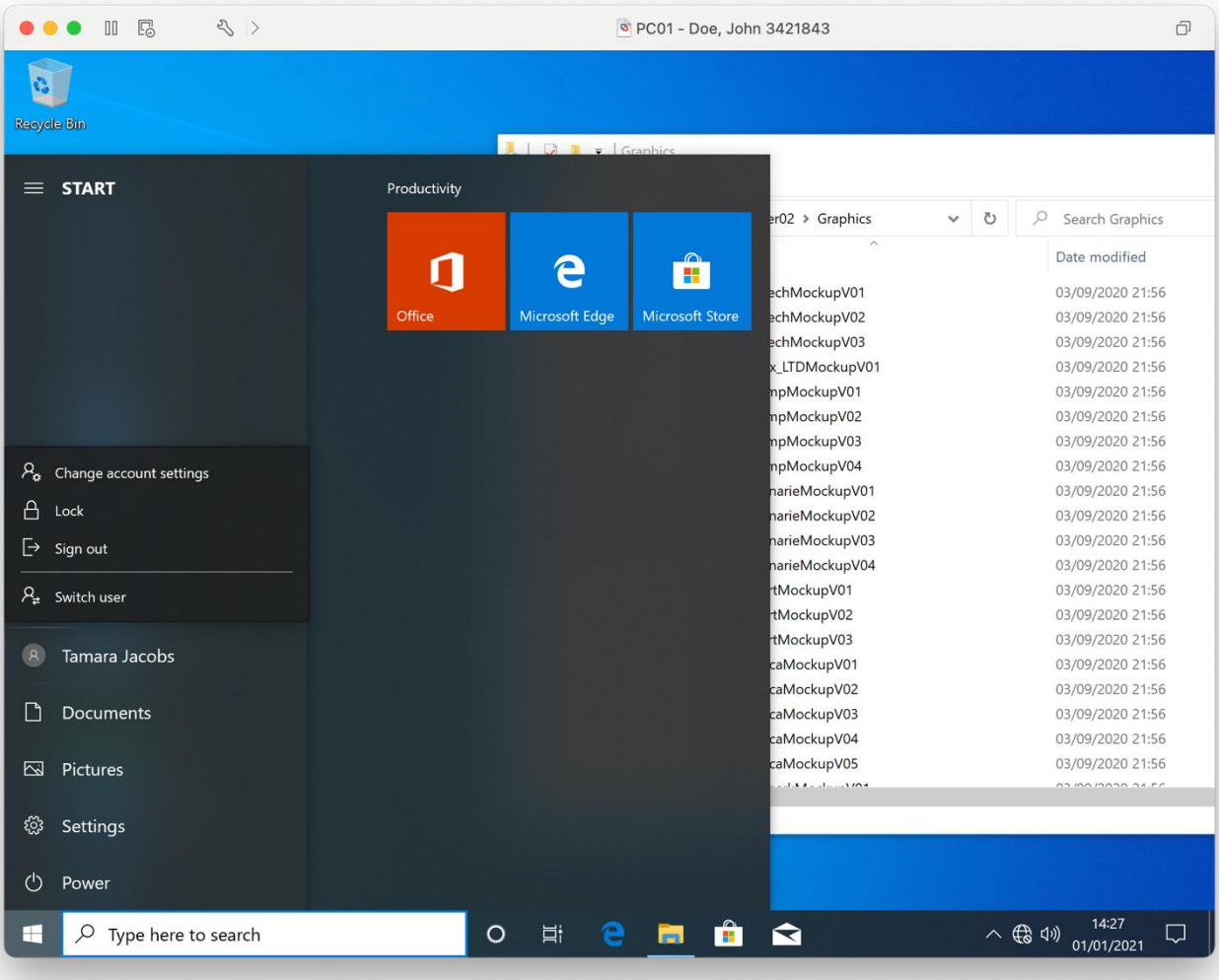
Test ID	**Folder being tested**	**User account** (Test data)	**Test description and expected outcome**	**Actual outcome**
1	Development	Paul James	Testing that a valid member of the Development group as Read access	The user was able to read files stored in the folder
2	Graphics	Tamara Jacobs	Testing that a valid member of the Graphics group as Read access	The user was able to read files stored in the folder
3	Motion Capture	Yousif Sobbah	Testing that a valid member of the Motion capture group as Read access	The user was able to read files stored in the folder

4	Shared Drive	Tamara Jacobs	Testing that a valid member of the All Staff group as Read access	The user was able to read files stored in the folder
5	User Guides	Tamara Jacobs	Testing that a valid member of the All Staff group as Read access	The user was able to read files stored in the folder
6	User Guides	Your first and Surname	Testing that a valid member of the IT admin group as Read access	The user was able to read files stored in the folder
7	IT admin	Your first and Surname	Testing that a valid member of the IT admin group as Read access	The user was able to read files stored in the folder
8	Development	Paul James	Testing that a valid member of the Development group has Read/Write access	The user was able to write to files stored in the folder
9	Graphics	Tamara Jacobs	Testing that a valid member of the Graphics has Read/Write access	The user was able to write to files stored in the folder
10	Motion Capture	Yousif Sobbah	Testing that a valid member of the Motion capture group as Read/Write access	The user was able to write to files stored in the folder
11	User Guides	Your first and Surname	Testing that a valid member of the IT admin group as Read/Write access	The user was able to write to files stored in the folder
12	IT admin	Your first and Surname	Testing that a valid member of the IT admin group as Read/Write access	The user was able to write to files stored in the folder

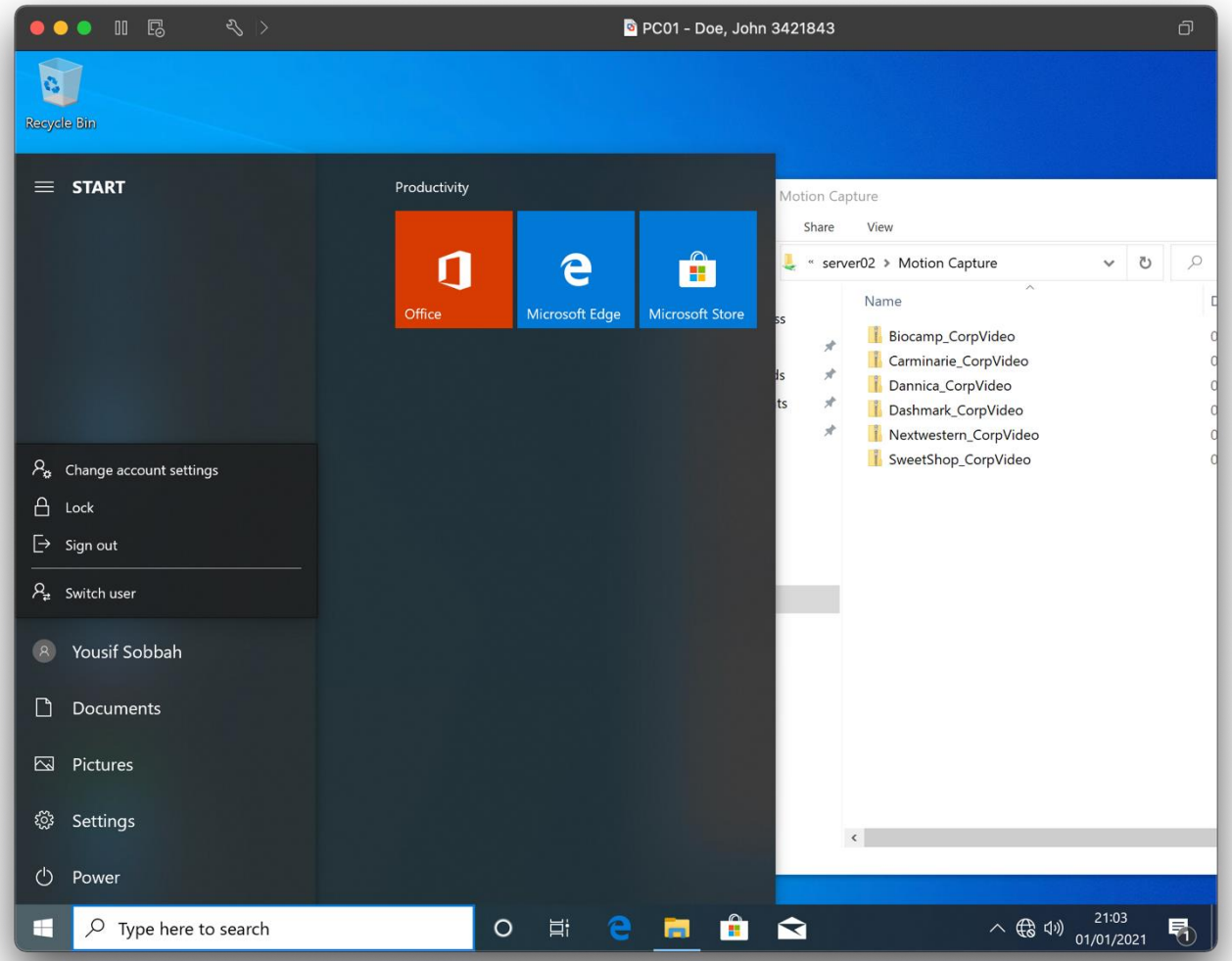
Print screen showing the result of test number 1, showing the folder opens correctly


PC01 - Doe, John 3421843
Recycle Bin
START
Productivity
Office
Microsoft Edge
Microsoft Store
Change account settings
Lock
Sign out
Switch user
Paul James
Documents
Pictures
Settings
Power
Type here to search
13:33
01/01/2021
Development
Share
View
server02 › Development
Name
AEMTechDesignDocV01
AEMTechDesignDocV02
AEMTechDesignDocV03
AerBox_LTDDesignDocV01
BiocampDesignDocV01
BiocampDesignDocV02
BiocampDesignDocV03
BiocampDesignDocV04
CarminarieDesignDocV01
CarminarieDesignDocV02
CarminarieDesignDocV03
CarminarieDesignDocV04
CarPortDesignDocV01
CarPortDesignDocV02
CarPortDesignDocV03
DannicaDesignDocV01
DannicaDesignDocV02
DannicaDesignDocV03
DannicaDesignDocV04
DannicaDesignDocV05

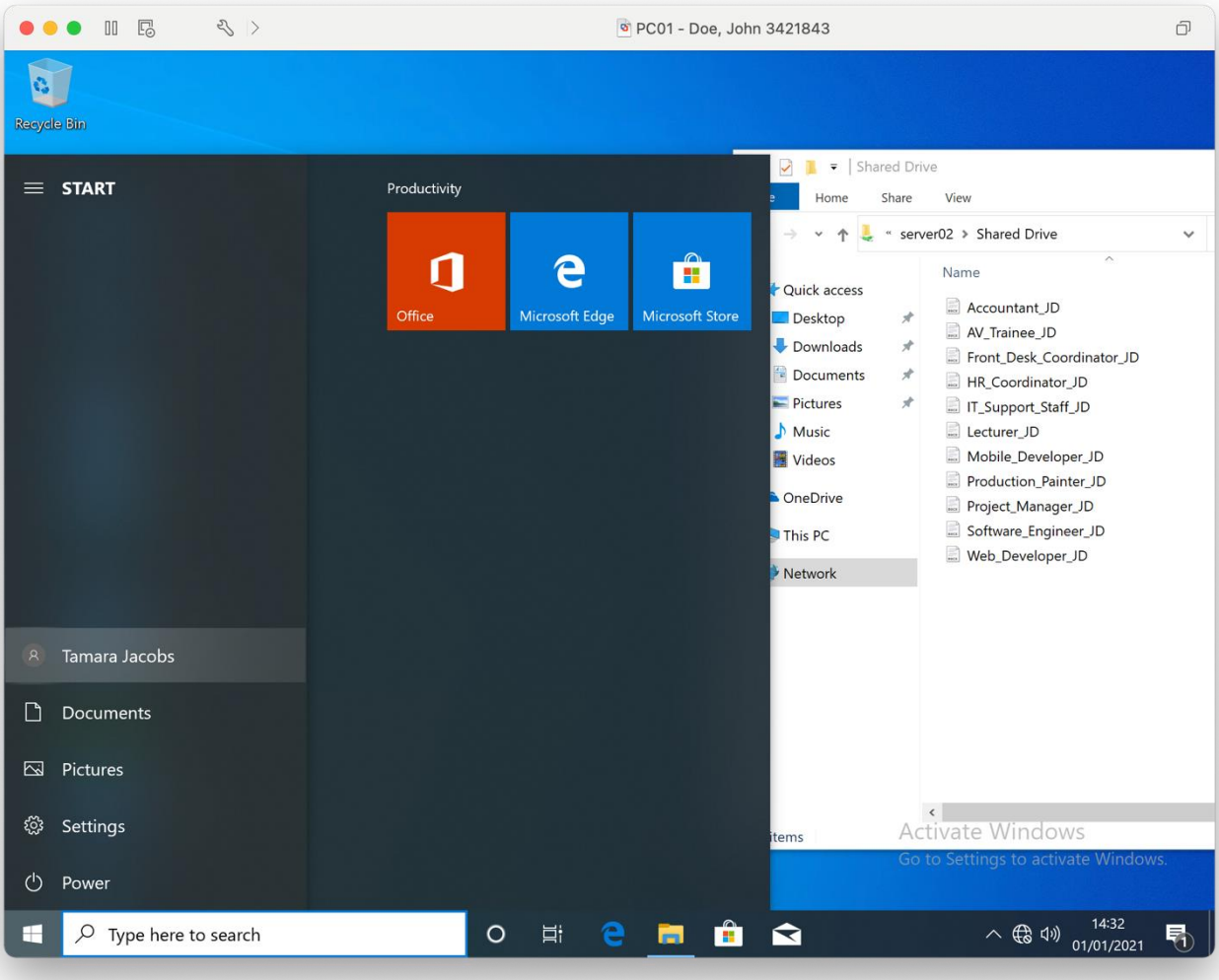
Print screen showing the result of test number 2, showing the folder opens correctly



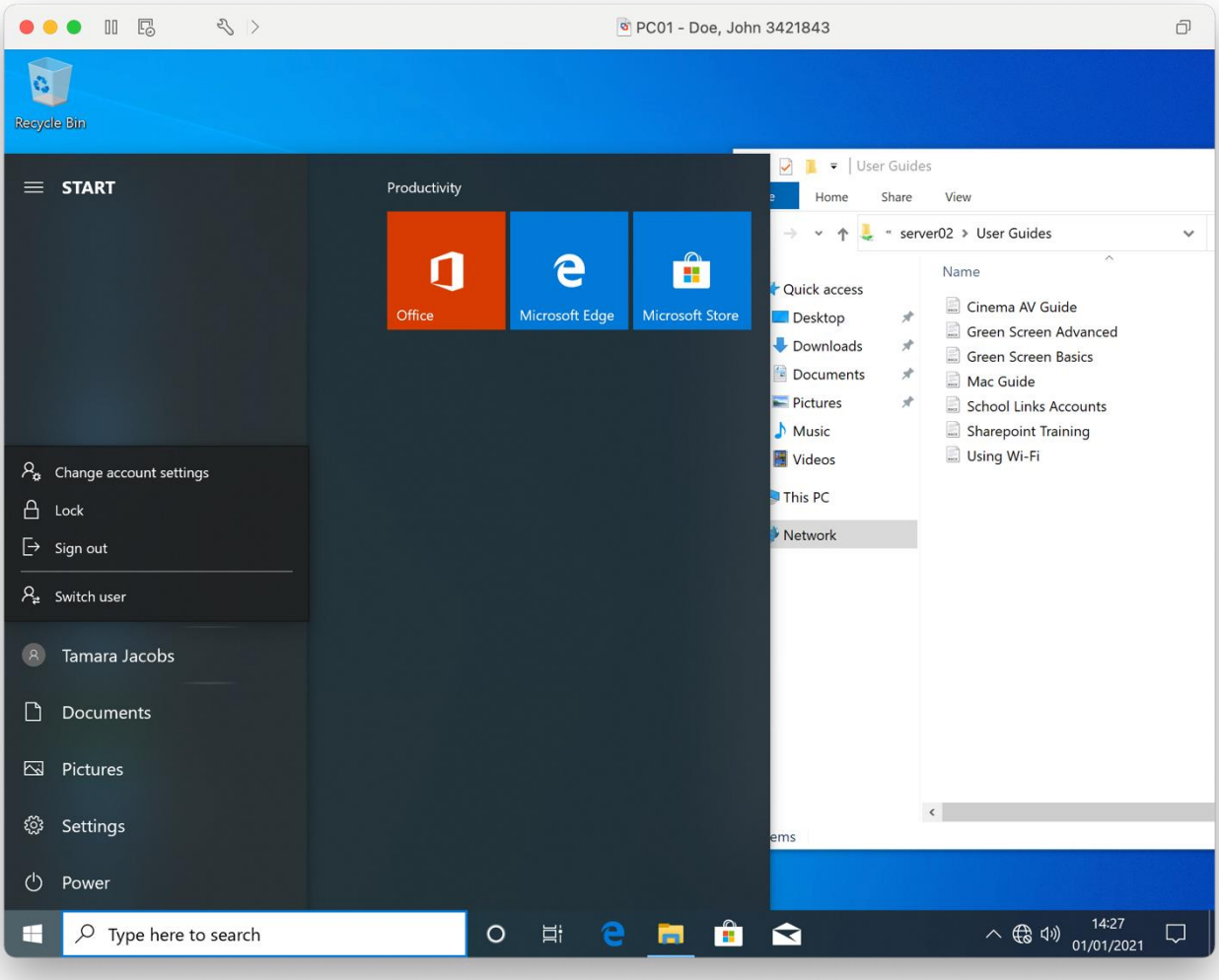
Print screen showing the result of test number 3, showing the folder opens correctly



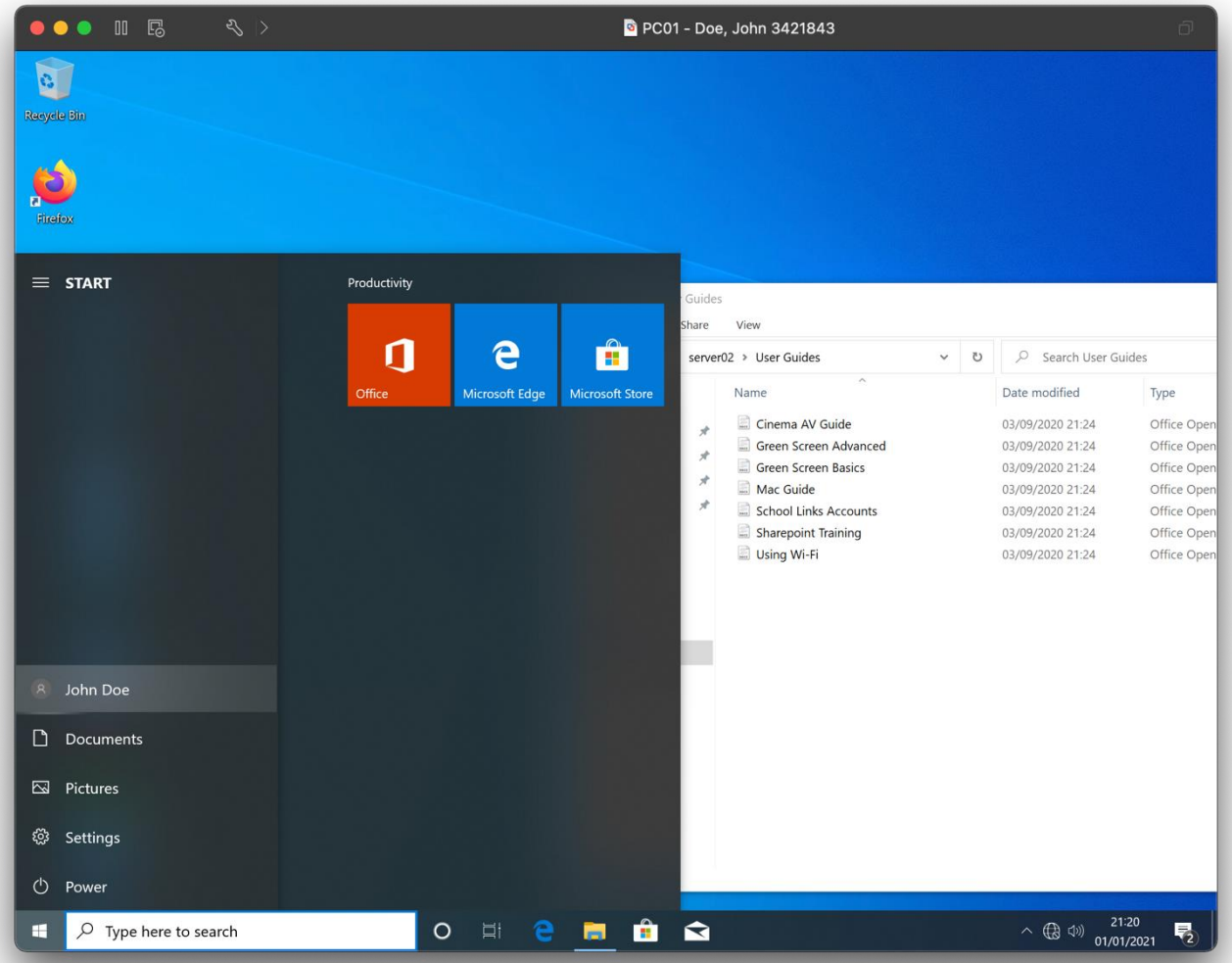
Print screen showing the result of test number 4, showing the folder opens correctly



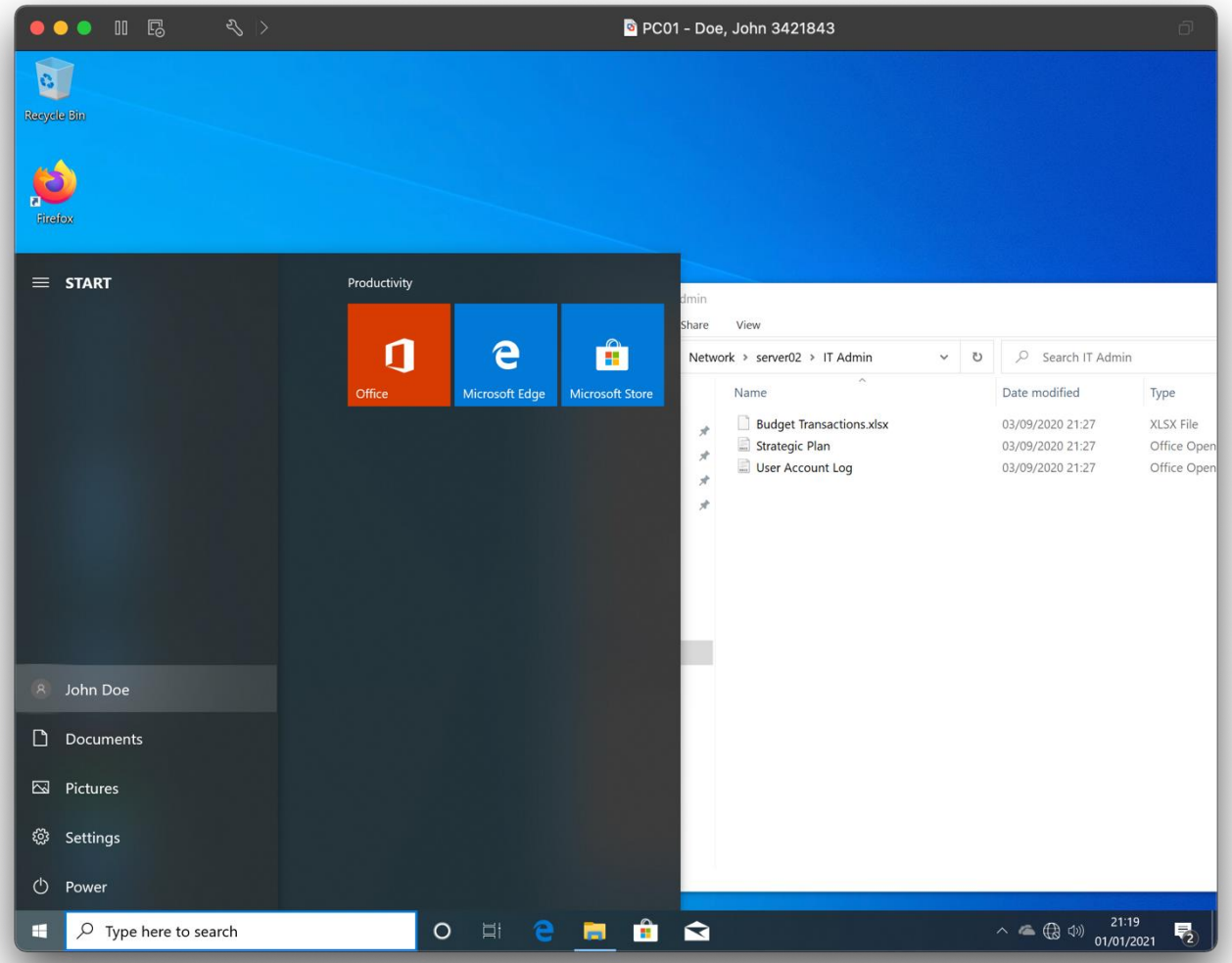
Print screen showing the result of test number 5, showing the folder opens correctly



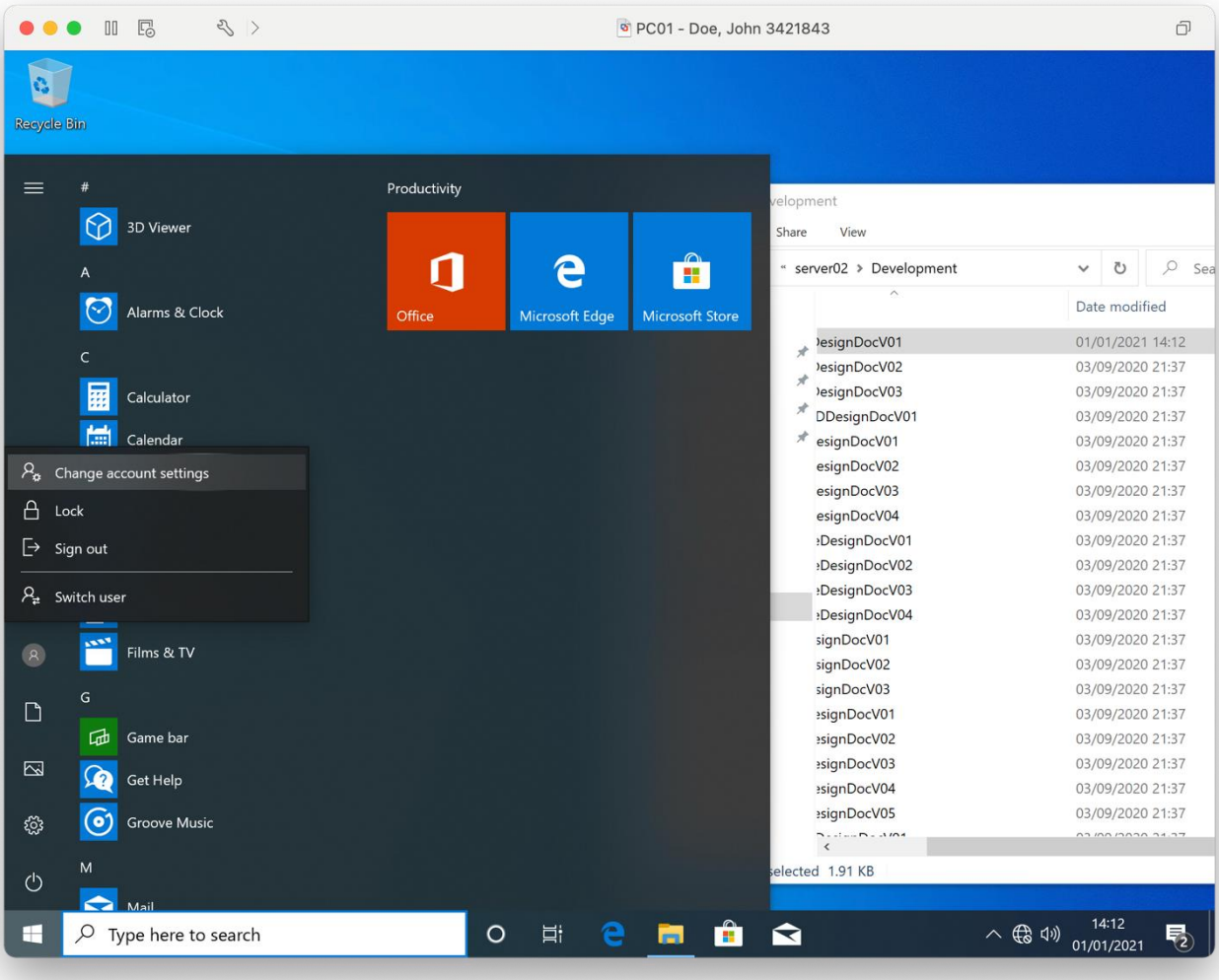
Print screen showing the result of test number 6, showing the folder opens correctly



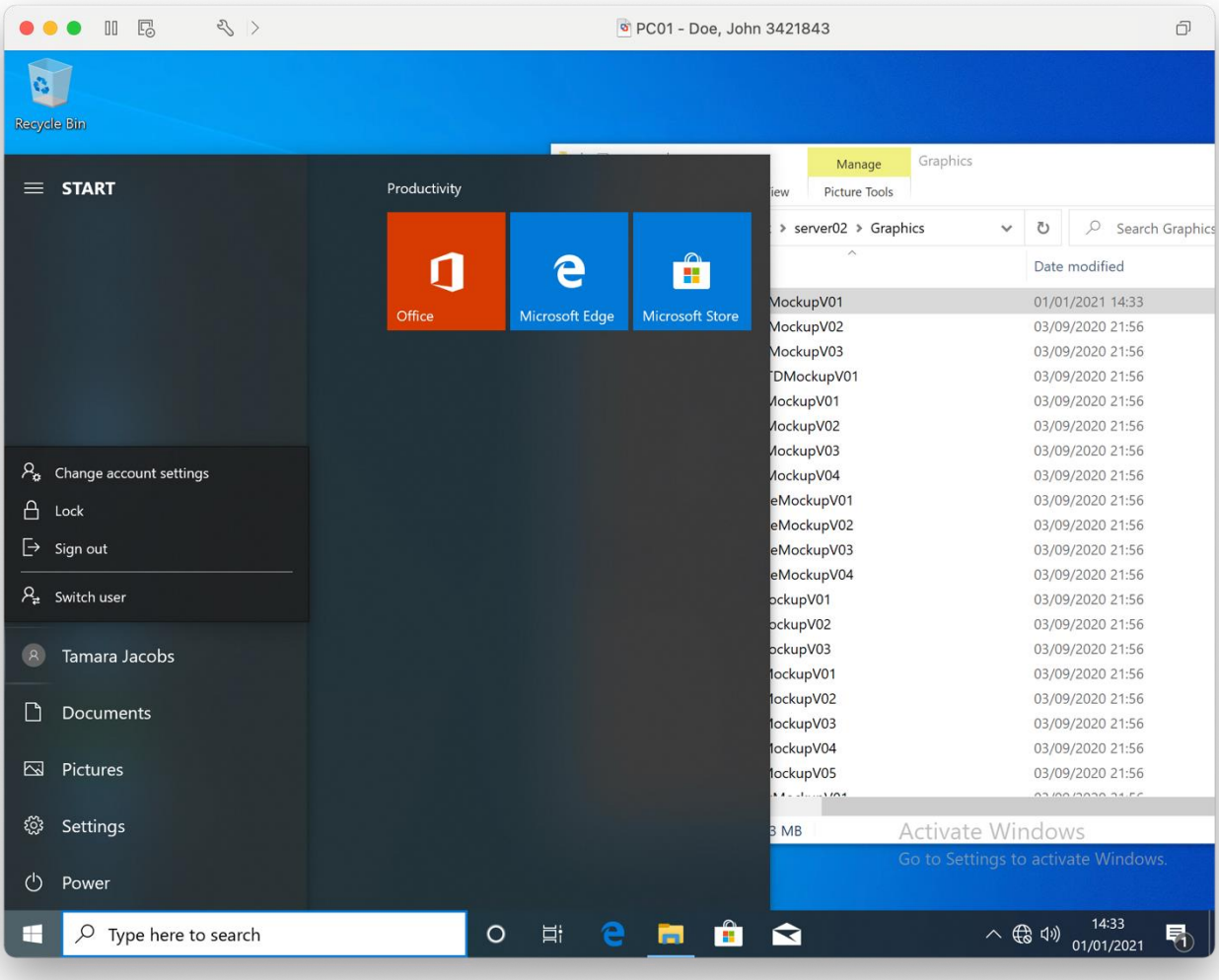
Print screen showing the result of test number 7, showing the folder opens correctly



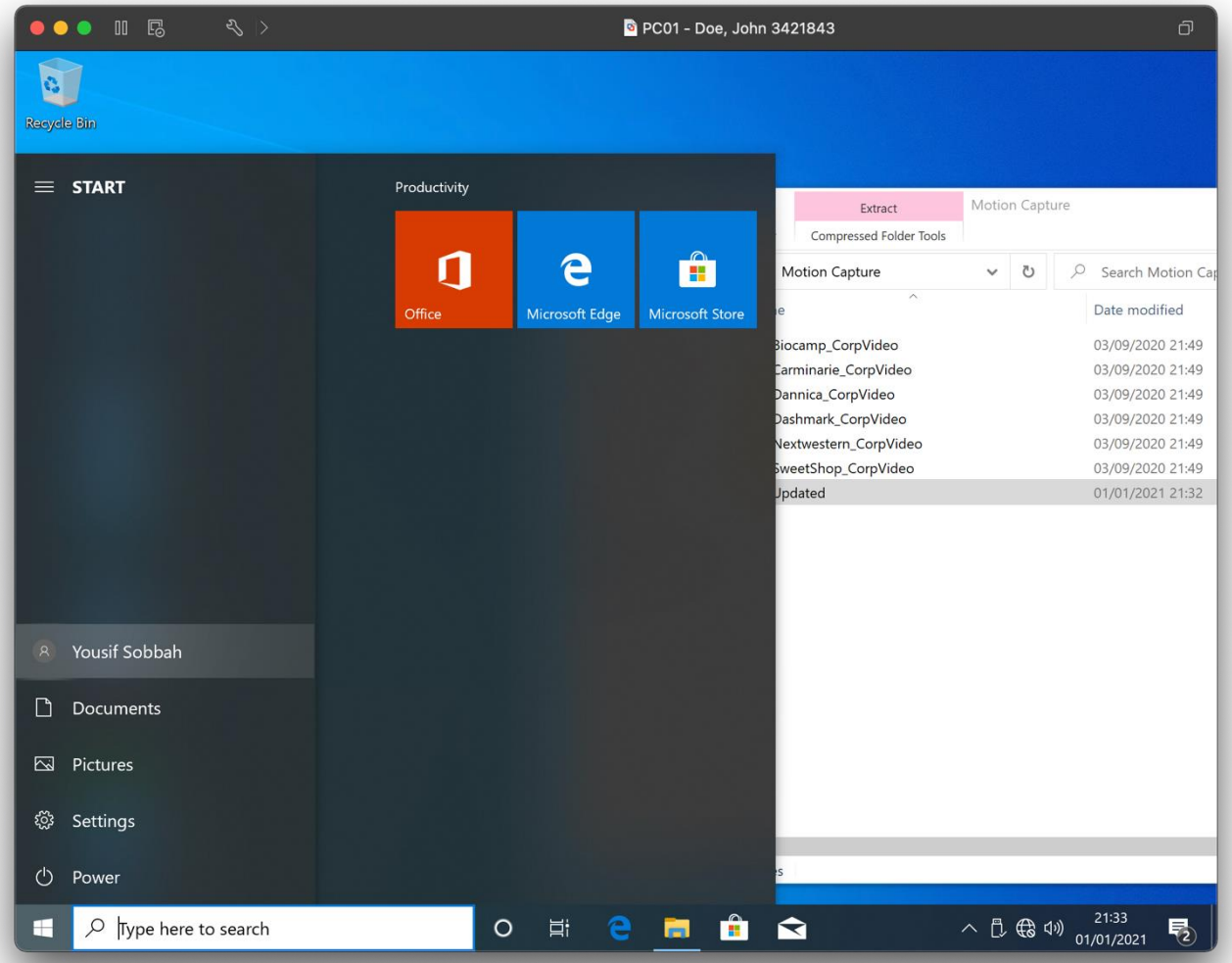
Print screen showing the result of test number 8, showing the file has been opened and saved back correctly



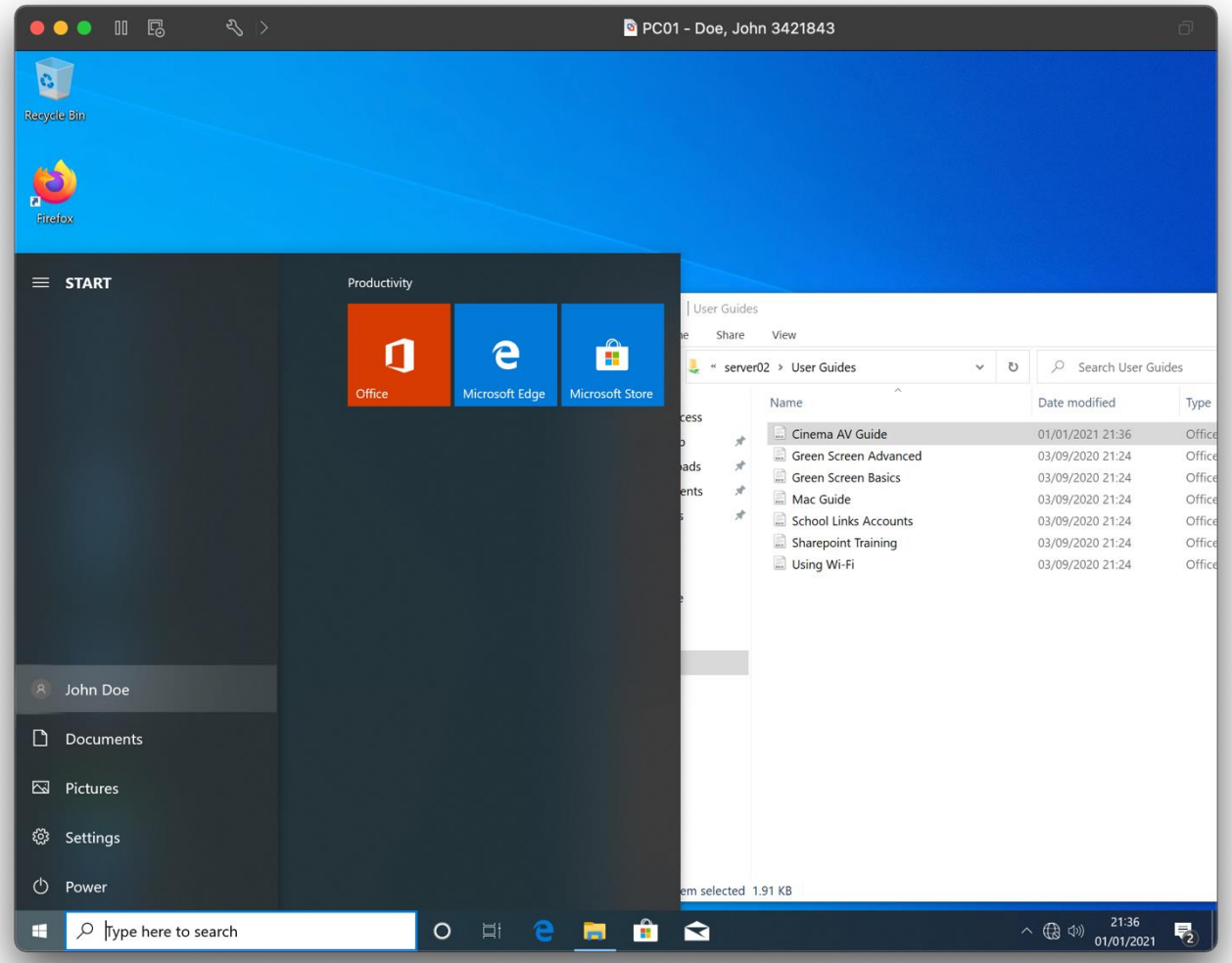
Print screen showing the result of test number 9, showing the file has been opened and saved back correctly



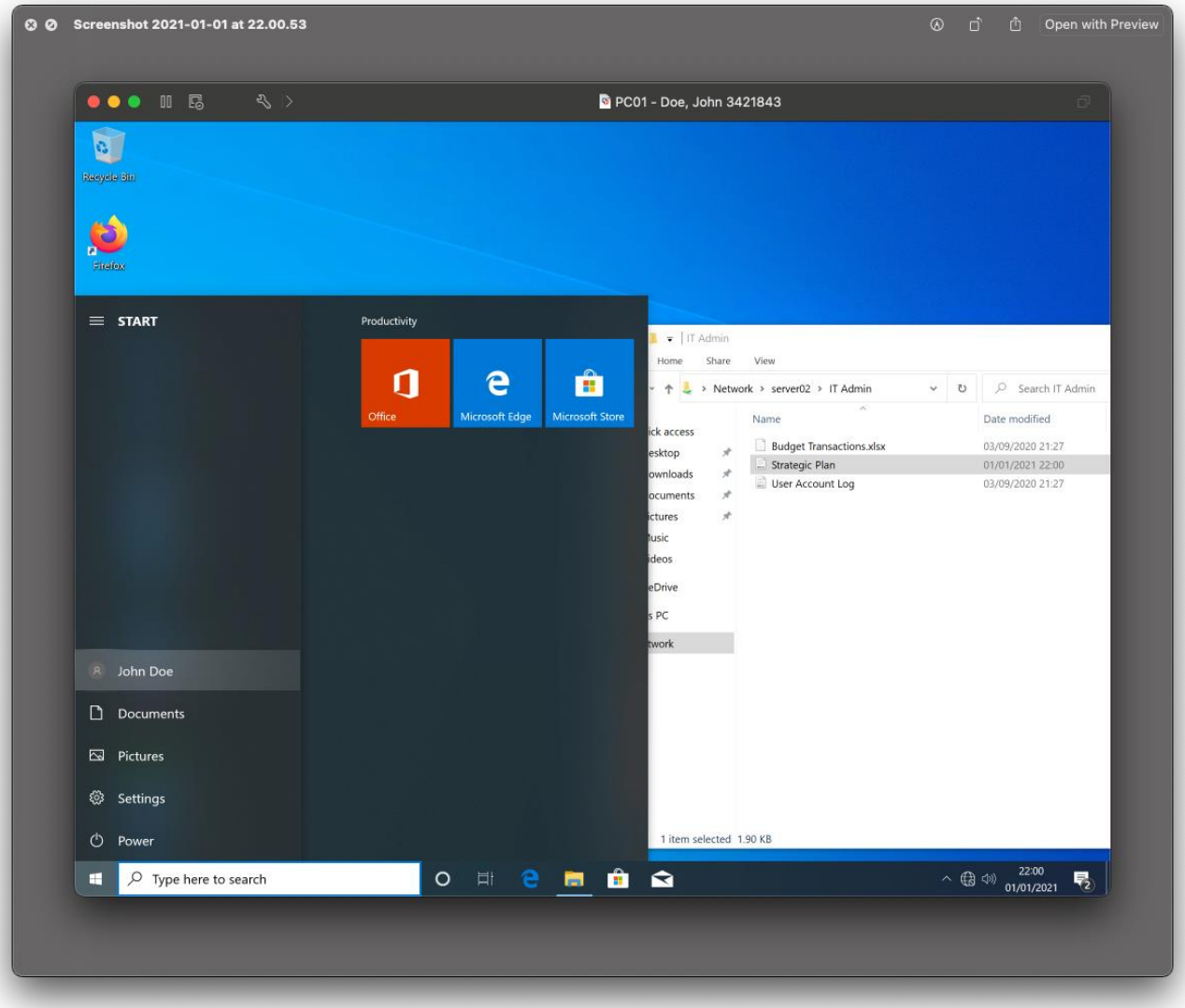
Print screen showing the result of test number 10, showing the file has been opened and saved back correctly

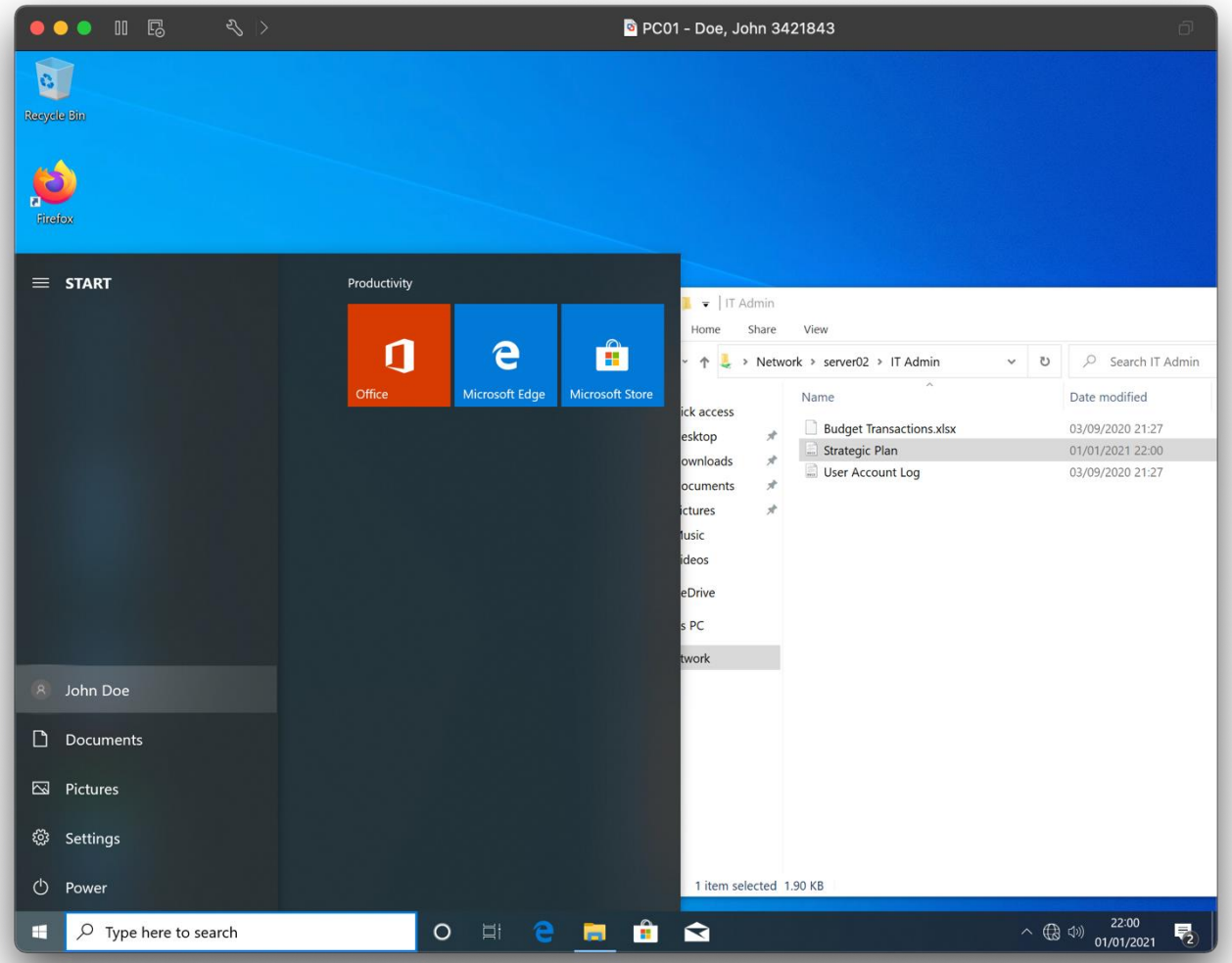


Print screen showing the result of test number 11, showing the file has been opened and saved back correctly



Print screen showing the result of test number 12, showing file has been opened and saved back correctly

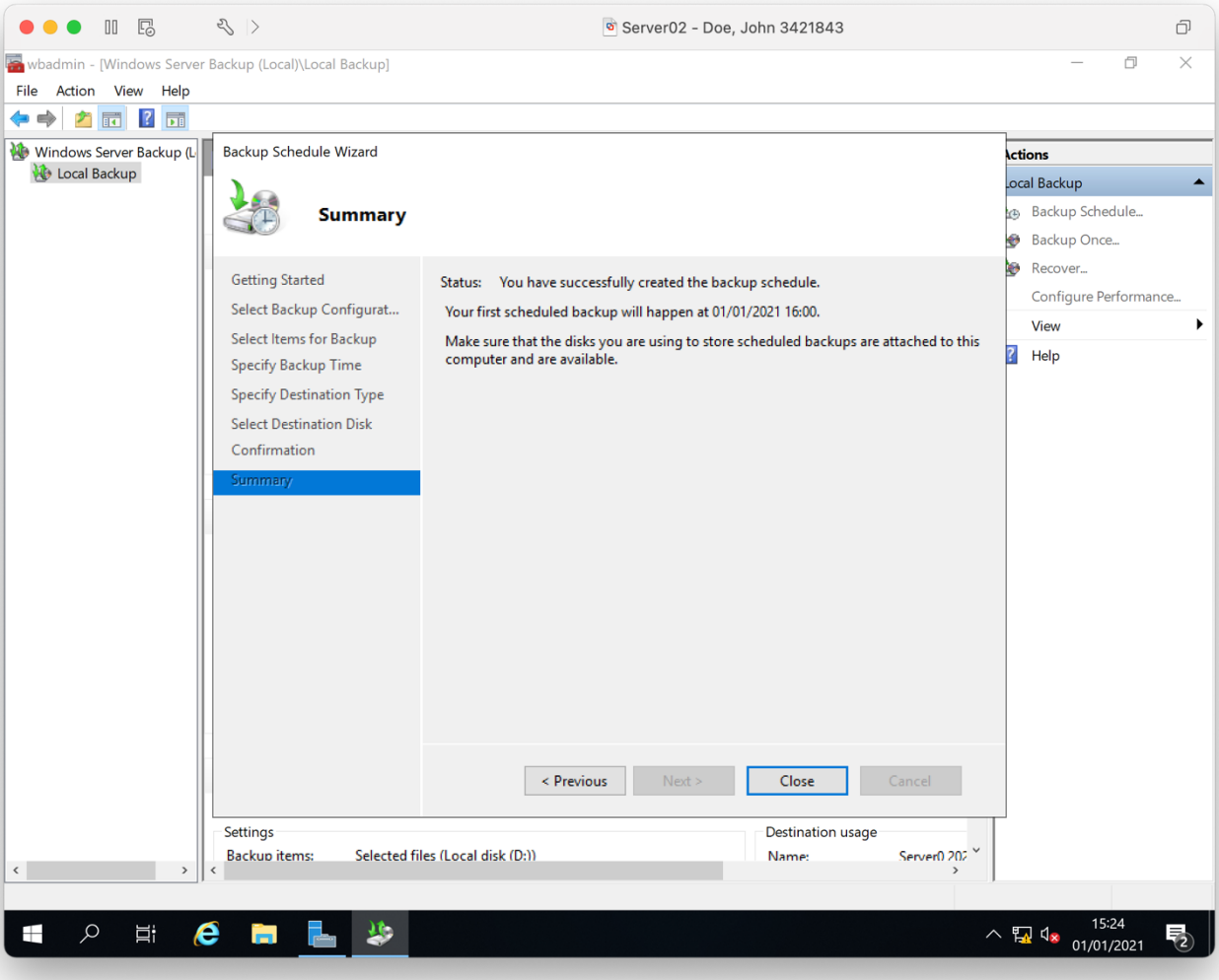



PC01 - Doe, John 3421843
Recycle Bin
Firefox
START
Productivity
Office
Microsoft Edge
Microsoft Store
John Doe
Documents
Pictures
Settings
Power
IT Admin
Home
Share
View
Network
server02
IT Admin
Search IT Admin
Name
Date modified
Budget Transactions.xlsx
03/09/2020 21:27
Strategic Plan
01/01/2021 22:00
User Account Log
03/09/2020 21:27
1 item selected 1.90 KB
Type here to search
22:00
01/01/2021

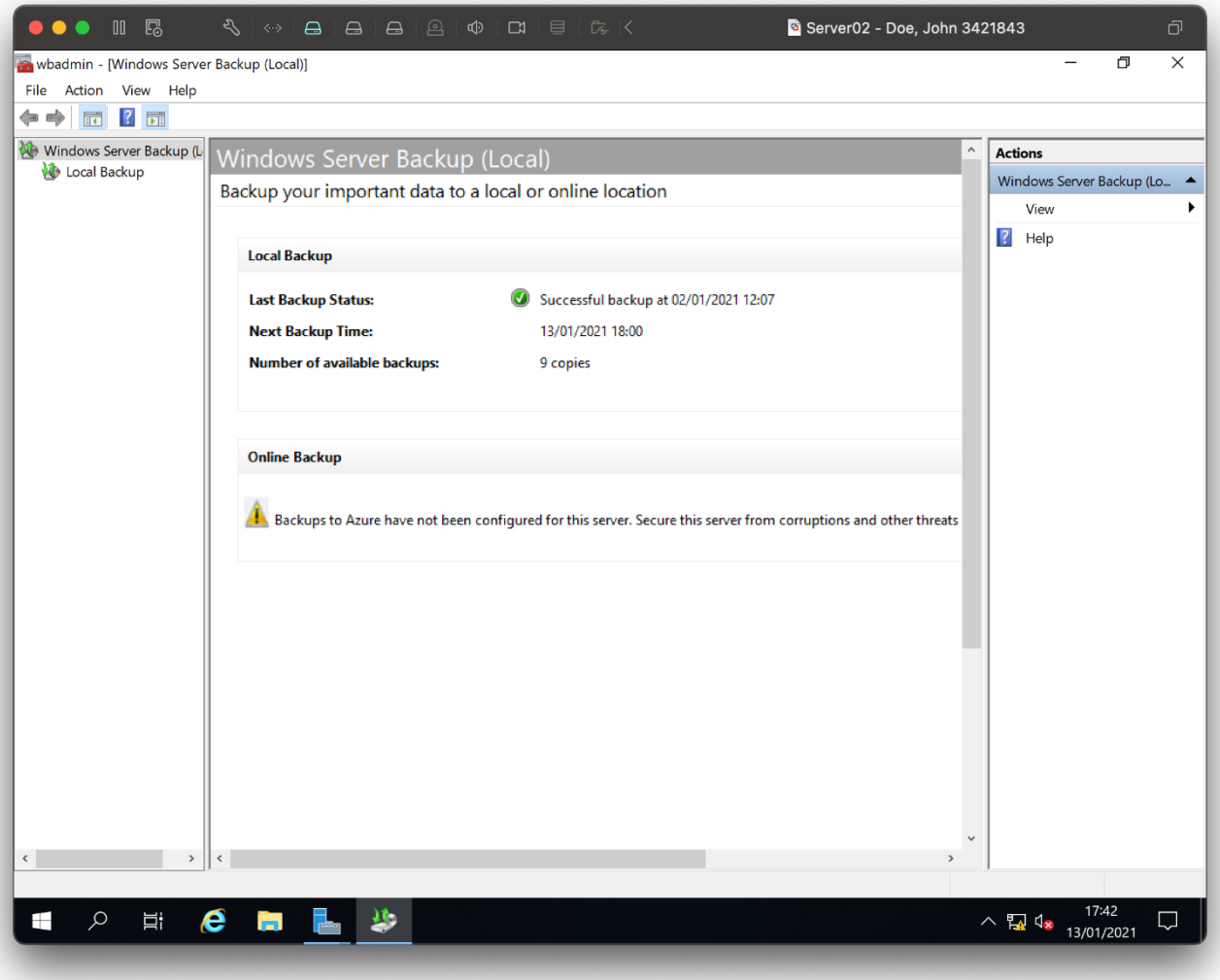
Step D

Create backup

Print screen showing the scheduled backup has been put in place from the backup manager dialogue box

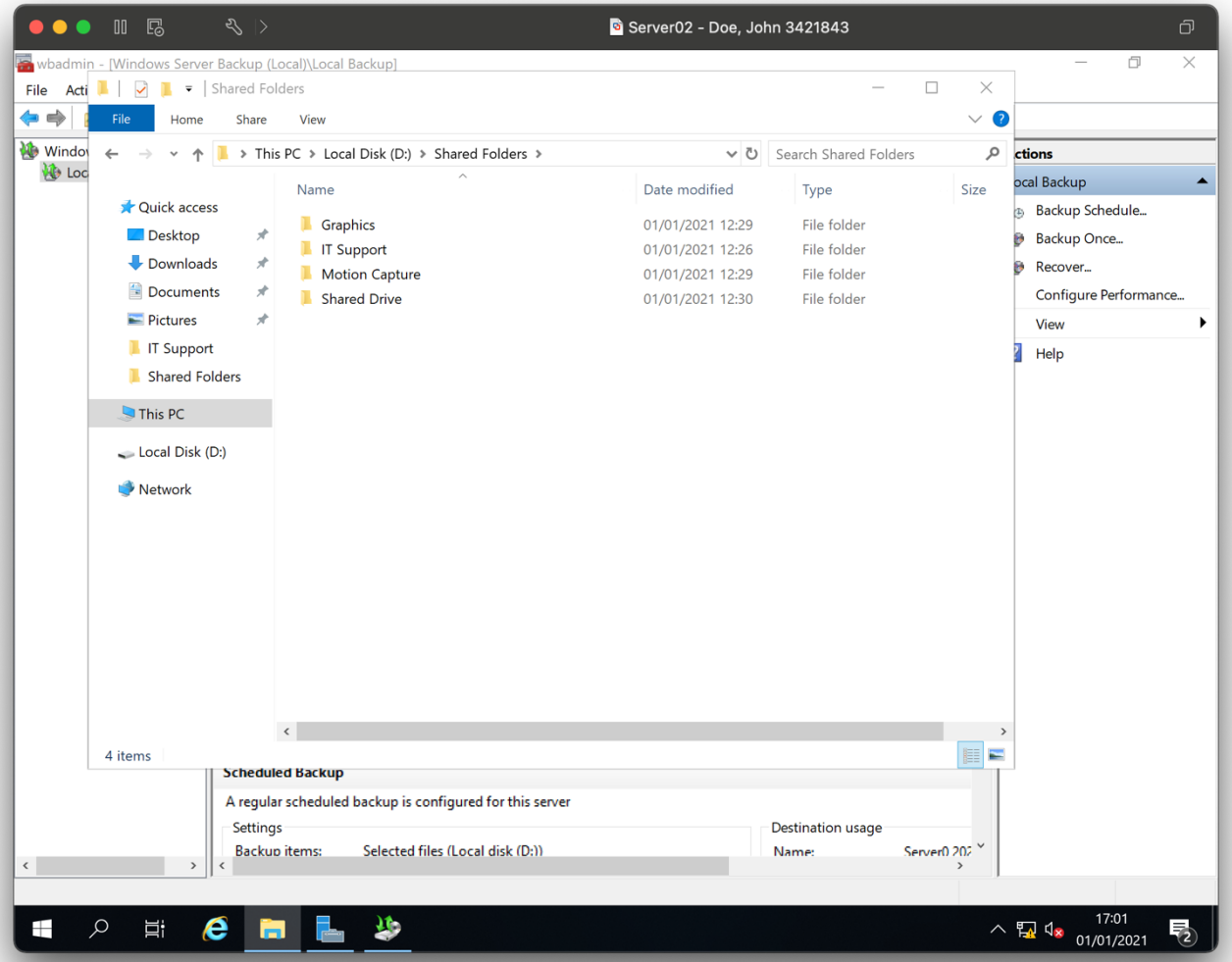


Print screen showing the scheduled backup has been completed from the backup manager dialogue box

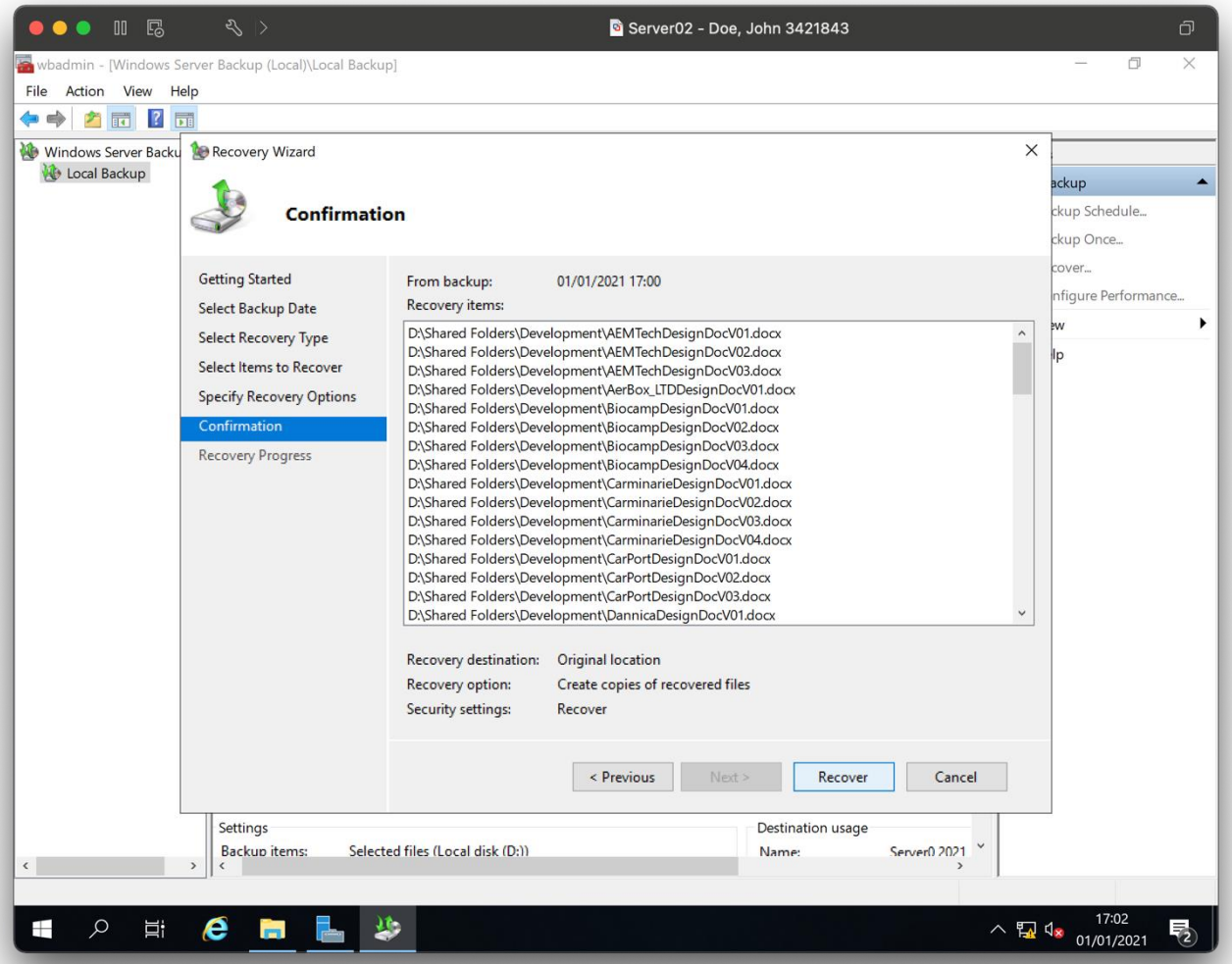


Backup restoration

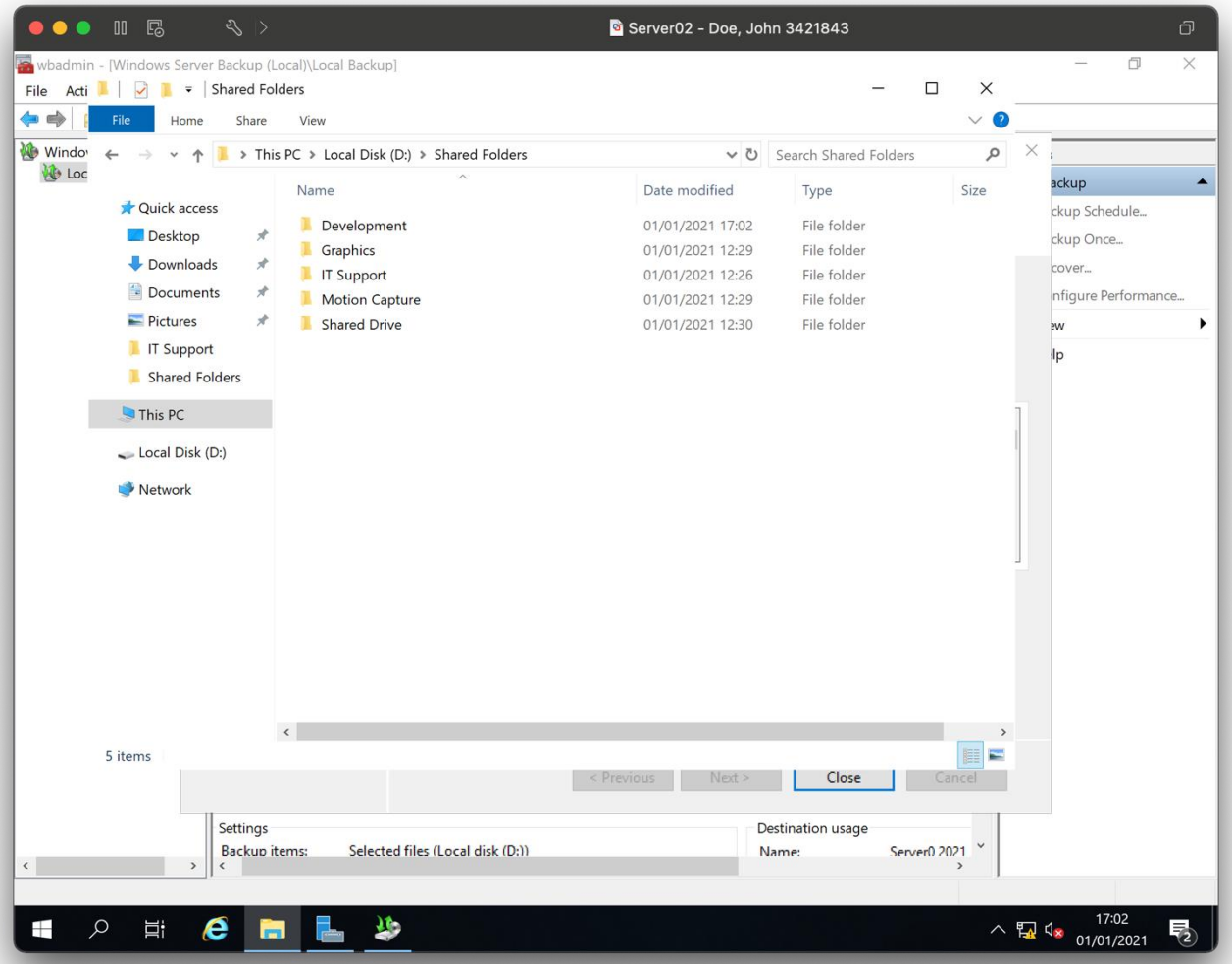
Showing that the folder development has been deleted



Print screen showing the file selected in the restoration dialogue box



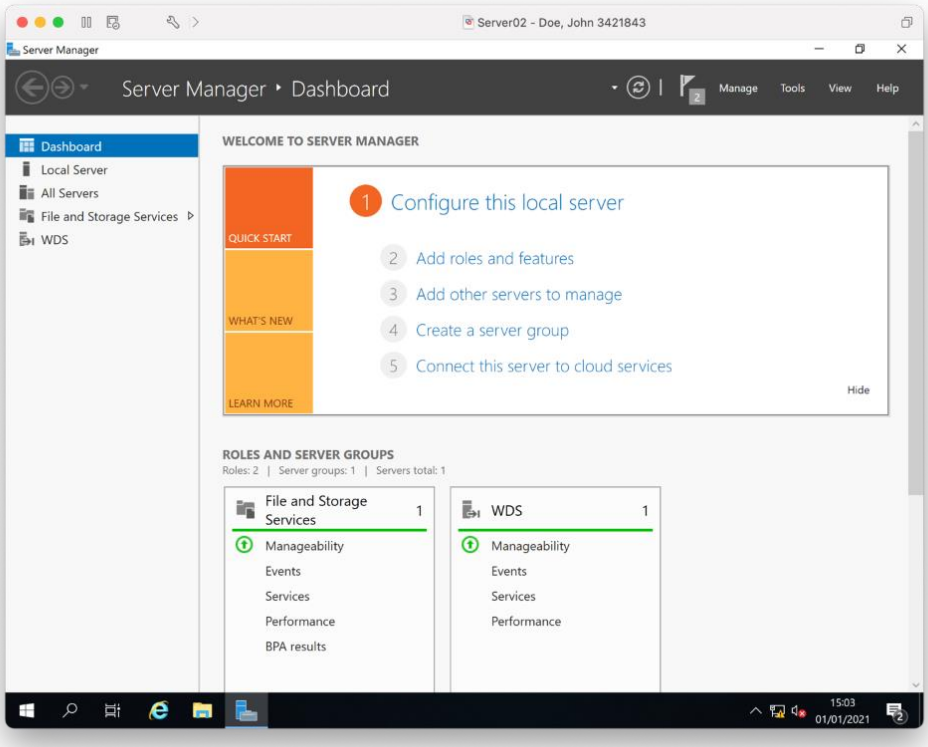
Print screen showing the successful restoration of the folder back to a suitable location



Step E

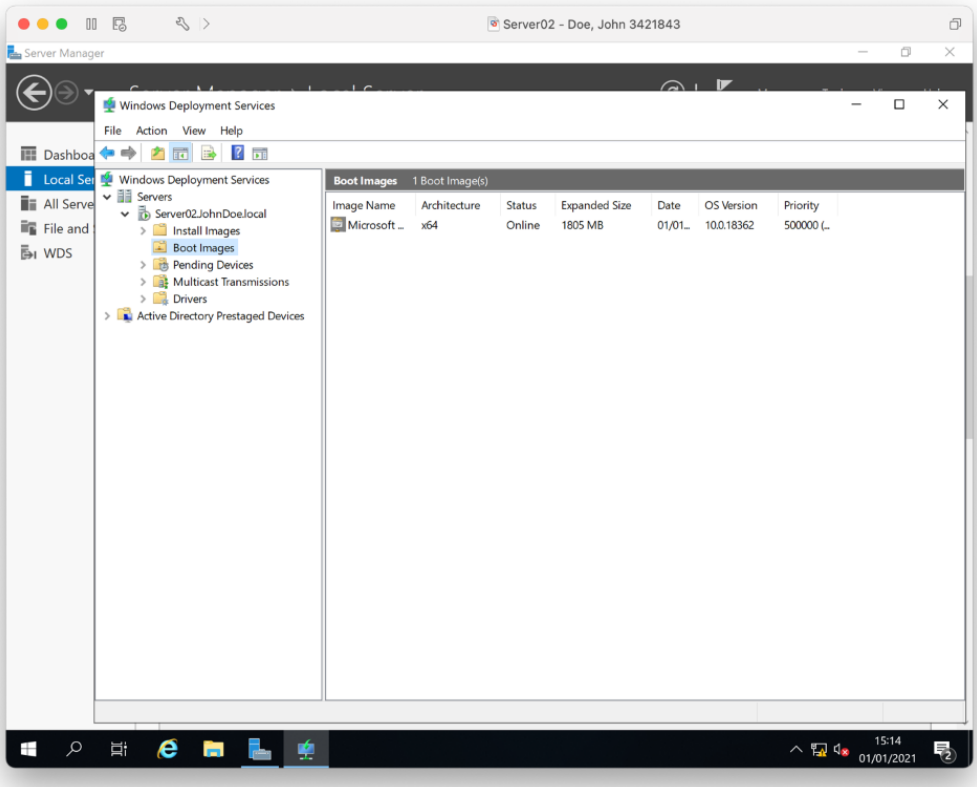
Role installation

Print screen showing the Windows deployment role has been installed and shown in server manager dialogue box.

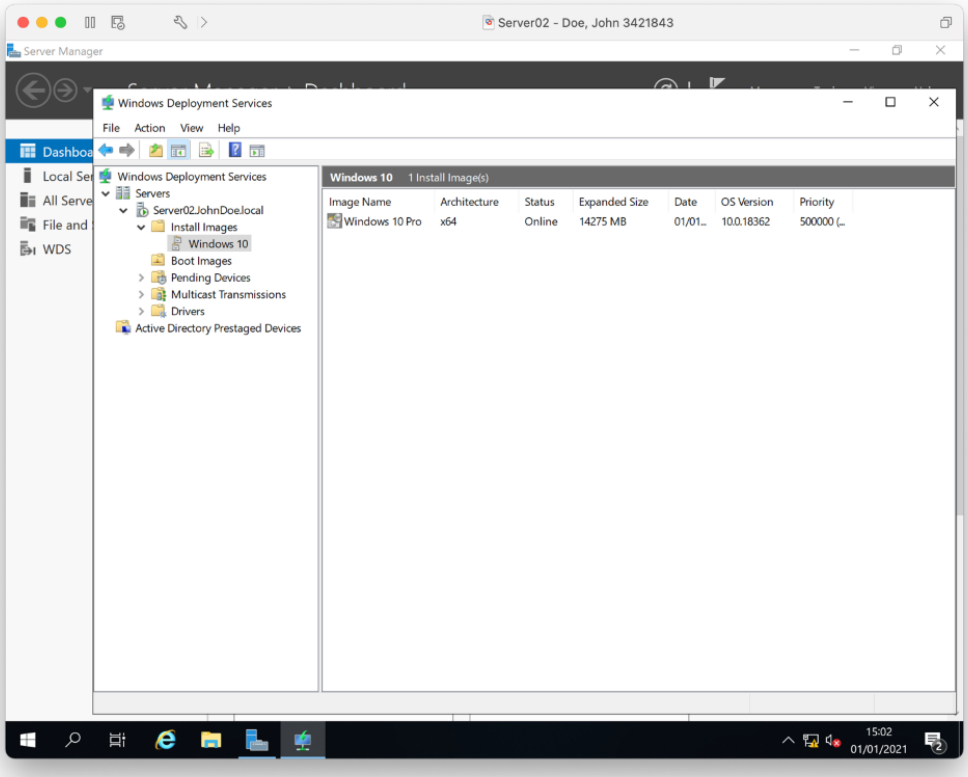


Configuration

Windows deployment role has been configured on server showing boot image added.

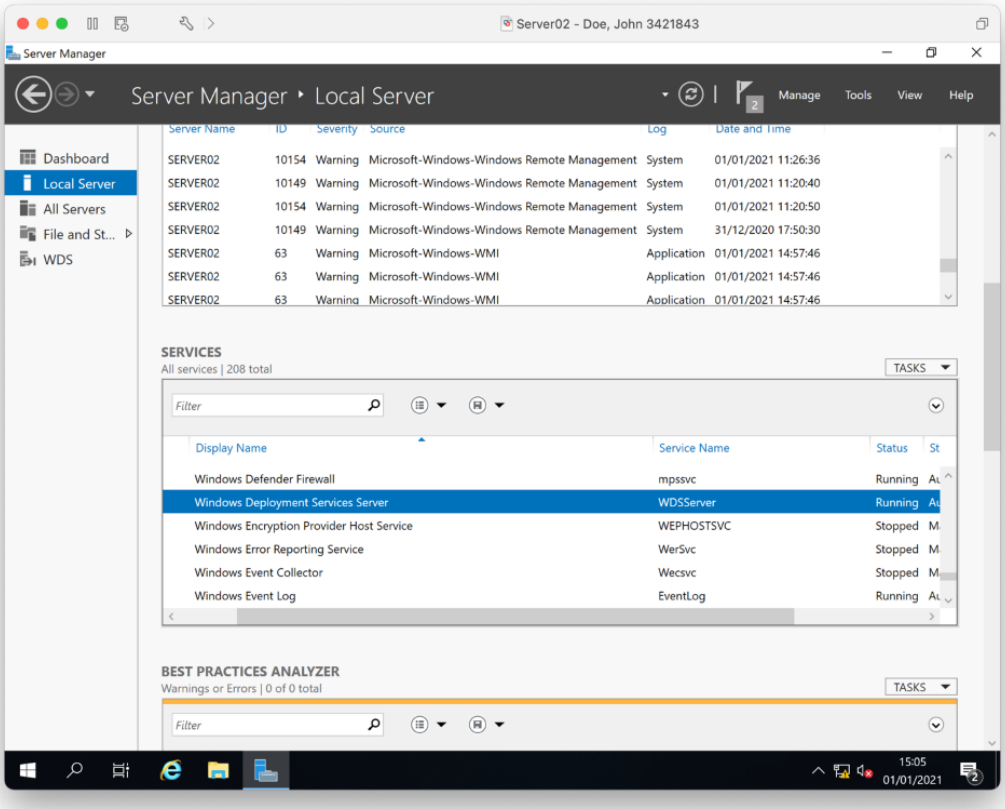


Windows deployment role has been configured on server showing install image added.



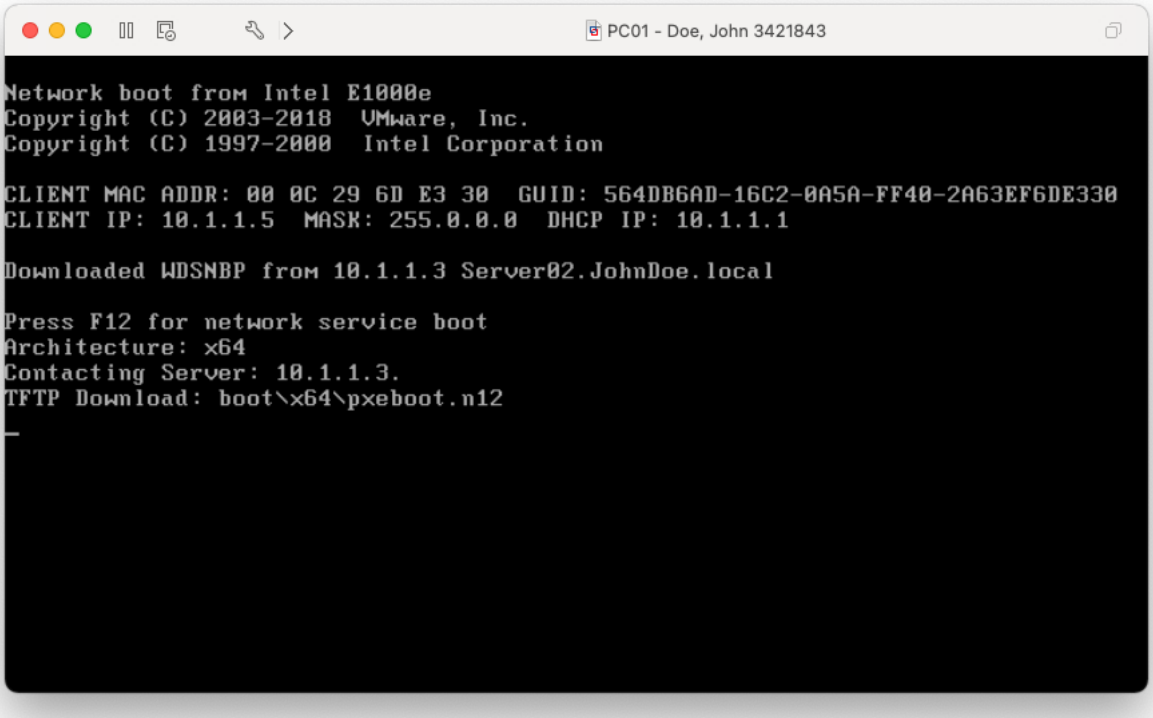
Activation

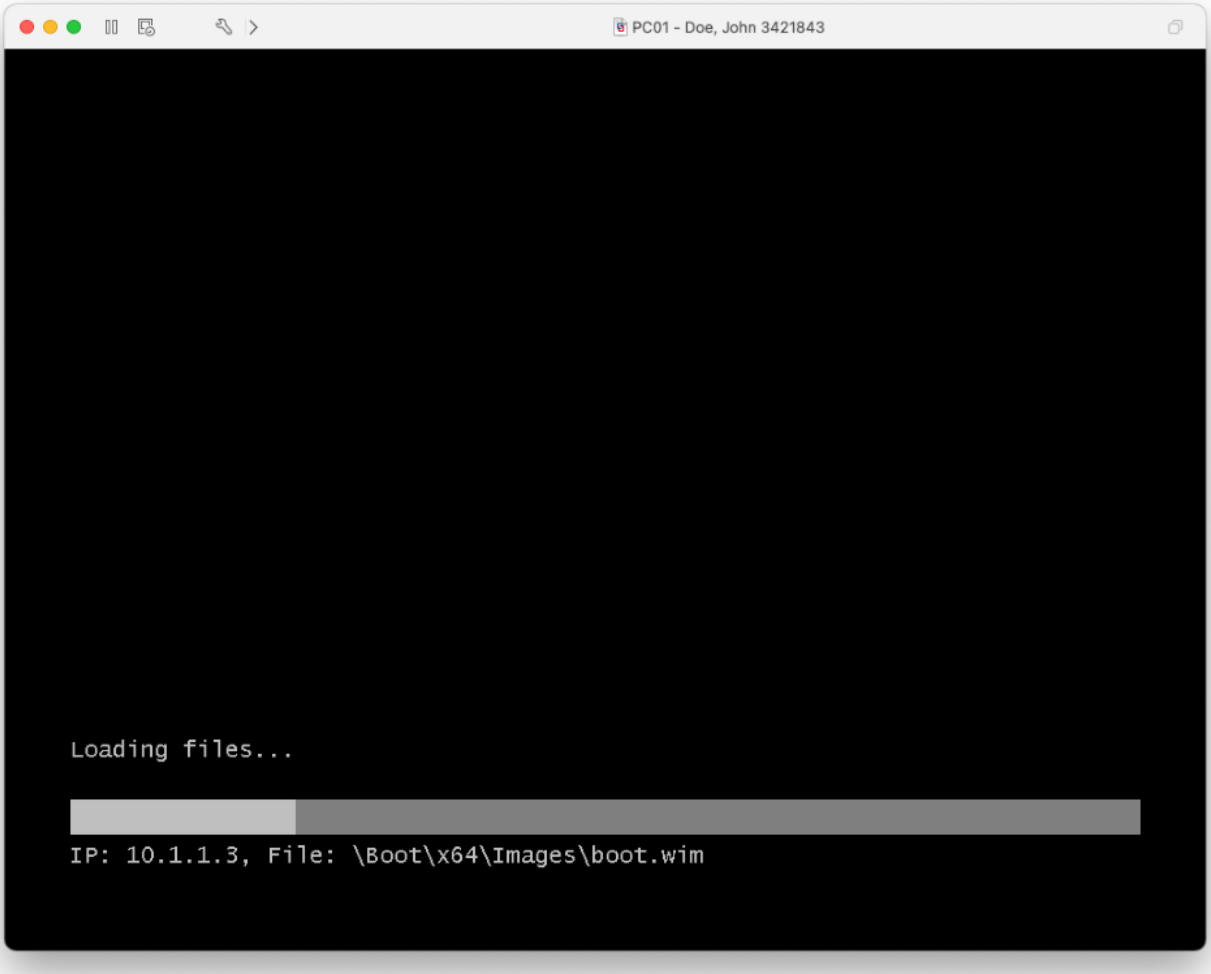
Windows deployment role is running using server manage, task manager dialogue box.



Role testing

PC01 network boots, it can make a connection with the Windows deployment server.

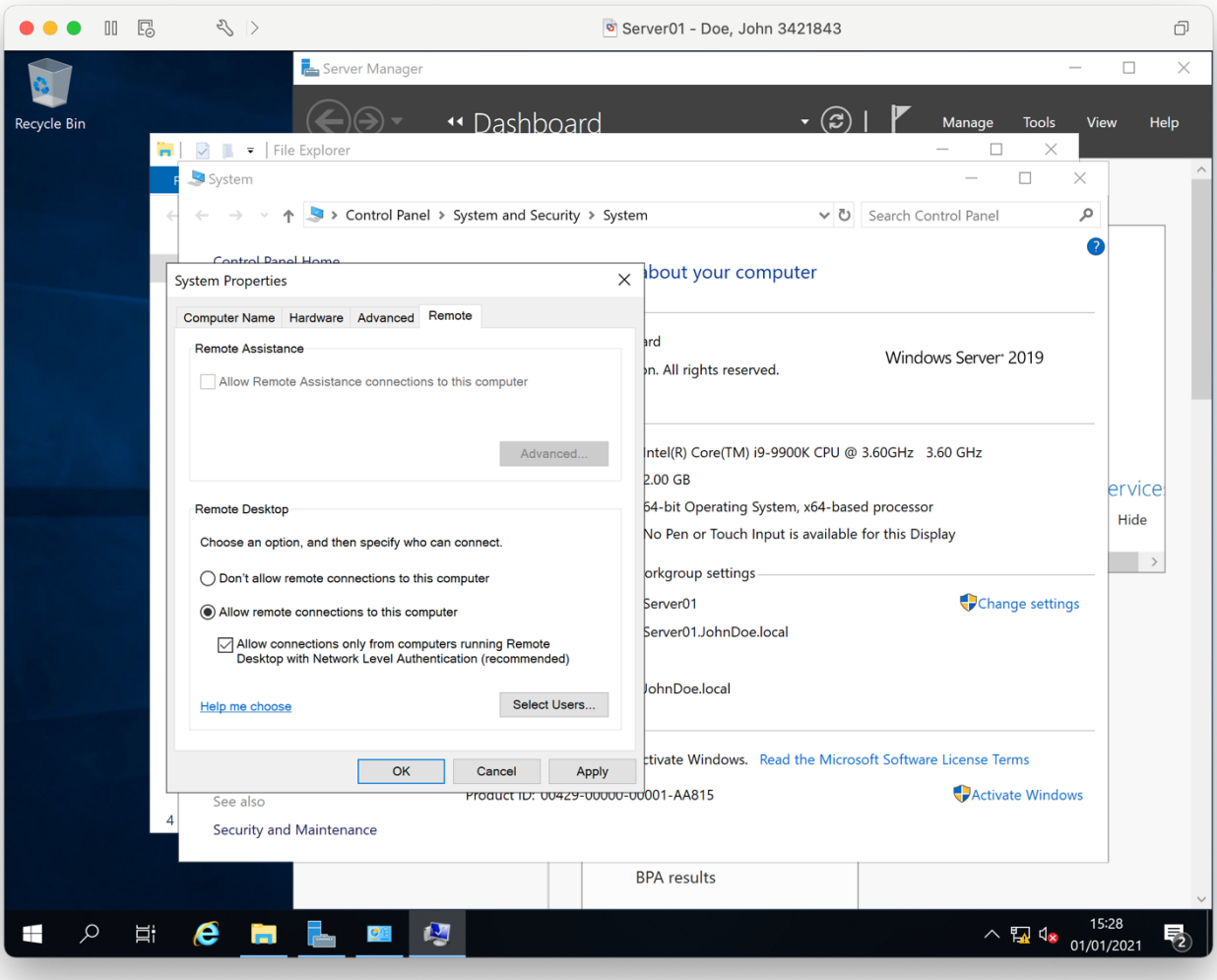




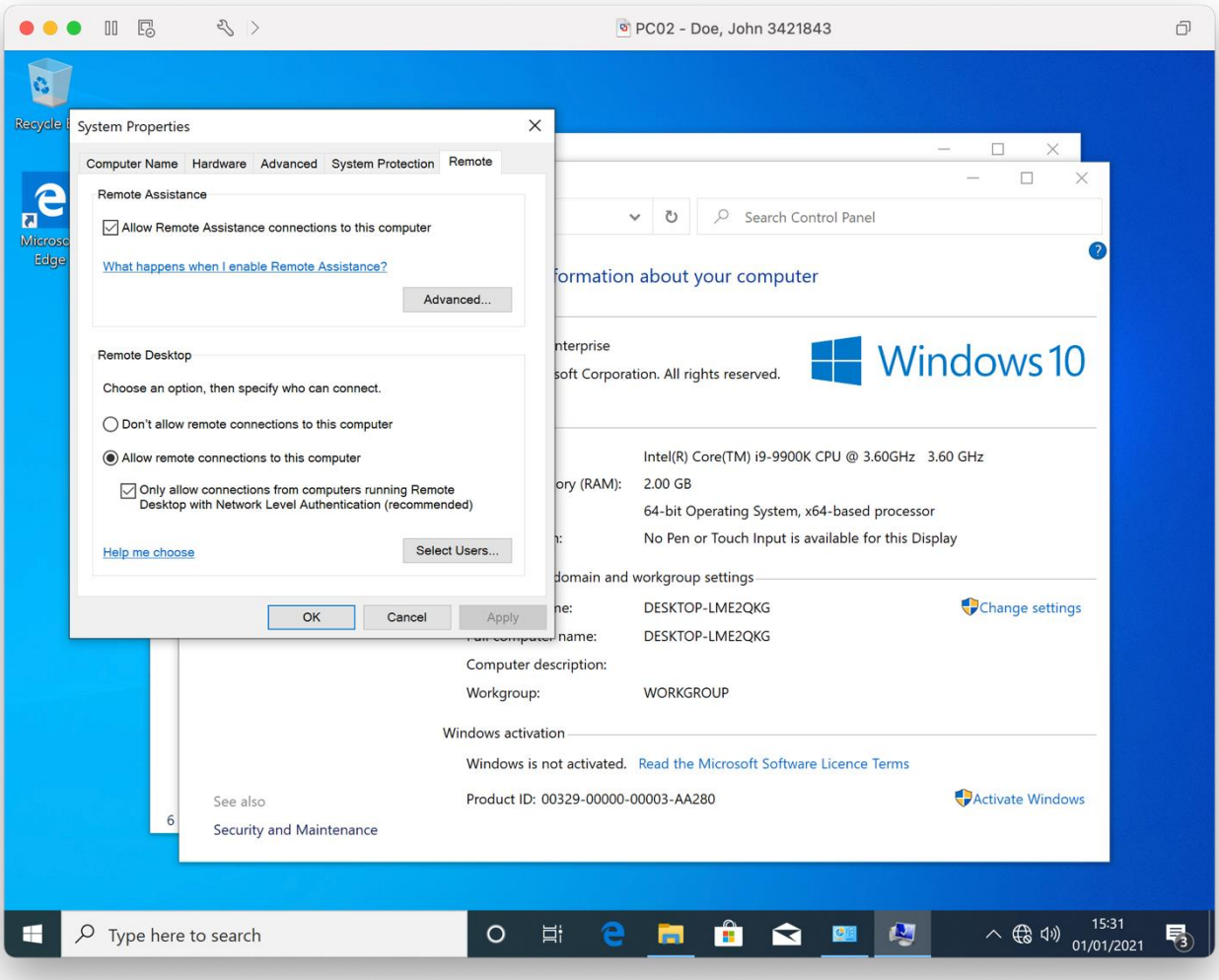
Step F

Configuration

Print screen showing the remote desktop has been enabled on the server in system properties

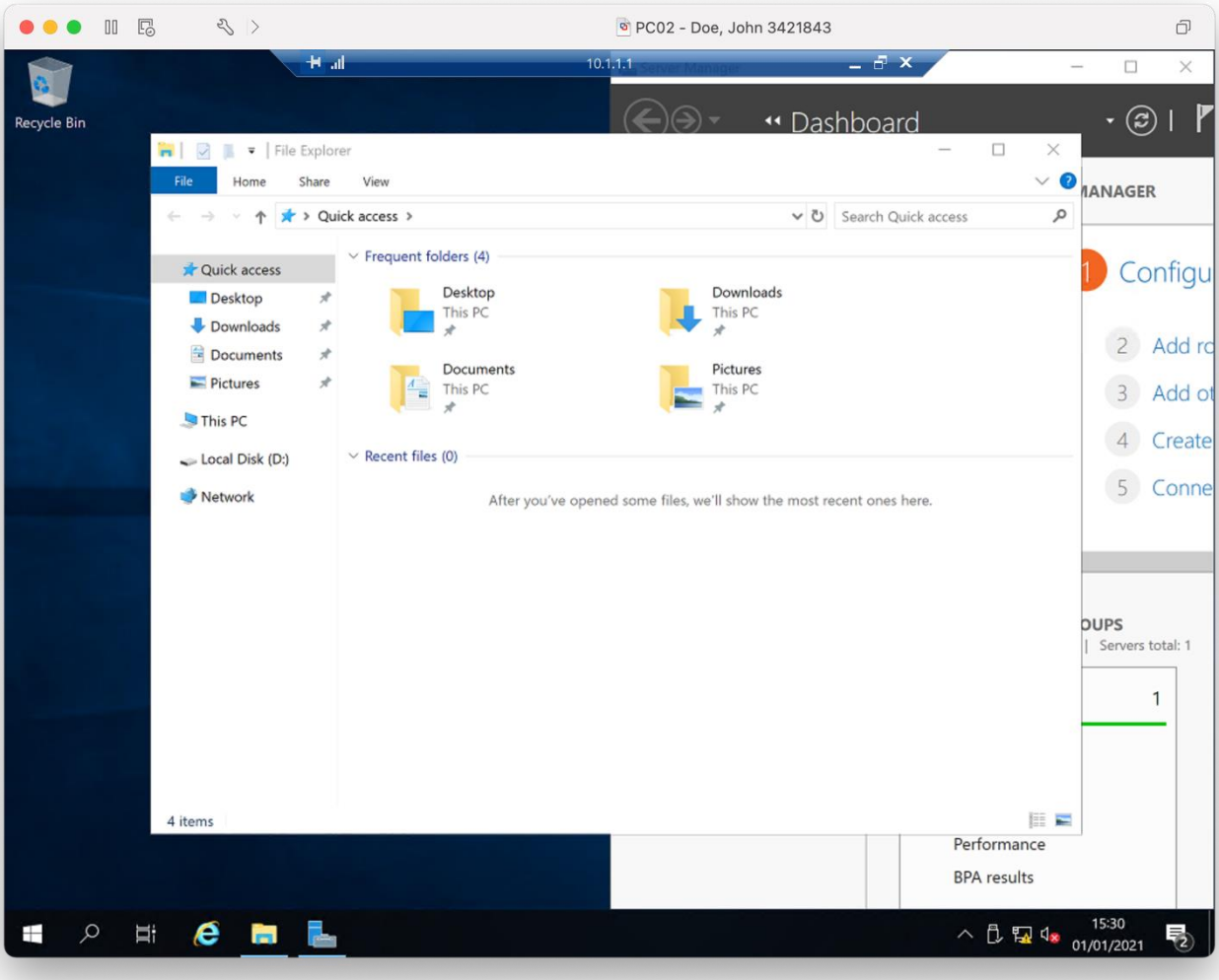

Server01 - Doe, John 3421843
Recycle Bin
Server Manager
Dashboard
Manage
Tools
View
Help
File Explorer
System
Control Panel › System and Security › System
Search Control Panel
System Properties
Computer Name
Hardware
Advanced
Remote
Remote Assistance
Allow Remote Assistance connections to this computer
Advanced...
Remote Desktop
Choose an option, and then specify who can connect.
Don't allow remote connections to this computer
Allow remote connections to this computer
Allow connections only from computers running Remote Desktop with Network Level Authentication (recommended)
Help me choose
Select Users...
OK
Cancel
Apply
Windows Server 2019
Change settings
Activate Windows
See also
Security and Maintenance
BPA results
15:28
01/01/2021

Print screen showing remote access has been enabled for PC02 in system properties



Accessing

Server in a remote desktop window being administered



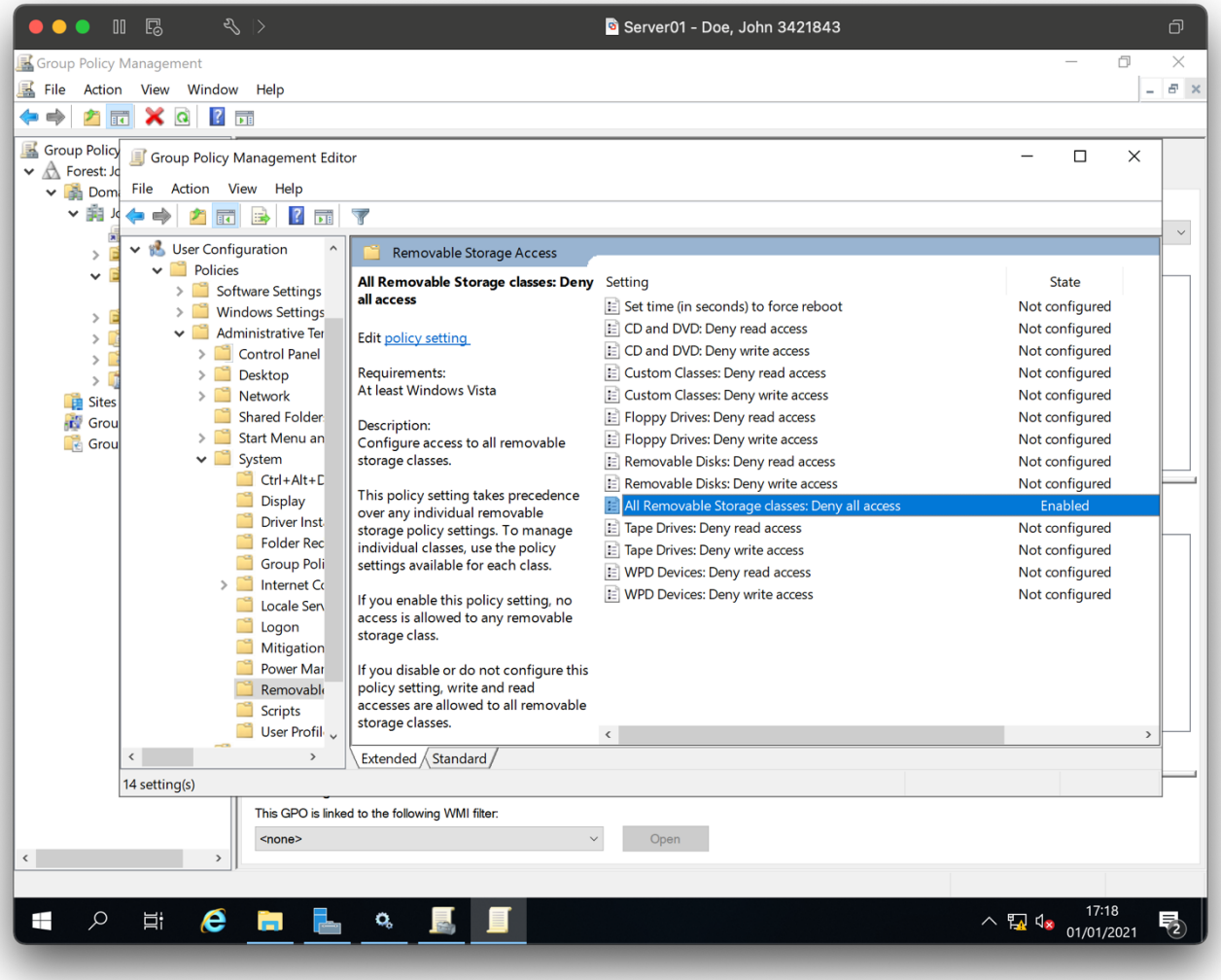
Step G

SNMP

Step H

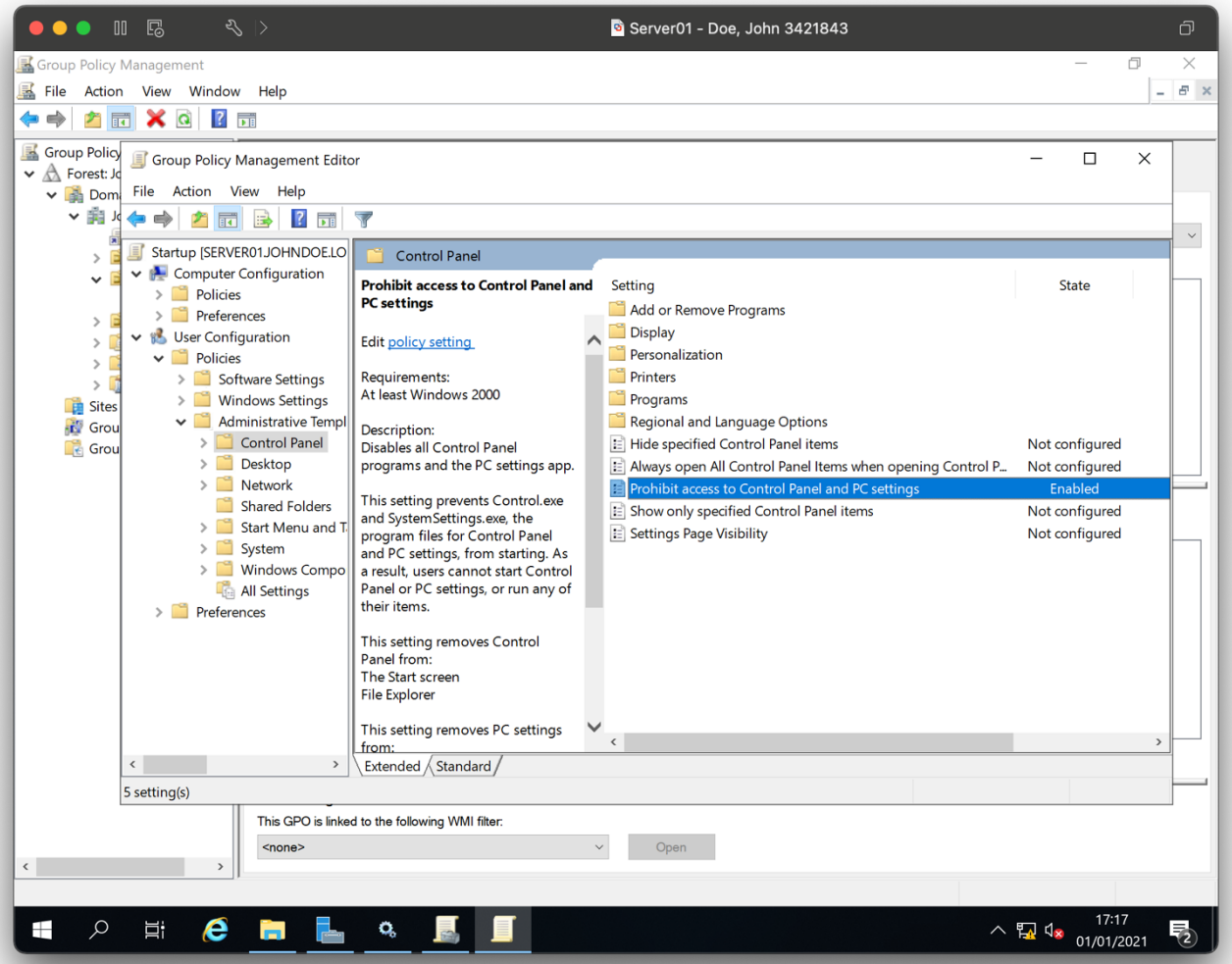
Policy 1 – disable USB support

Print screen on Server01 showing the blocking of removeable devices have been enabled in group policy



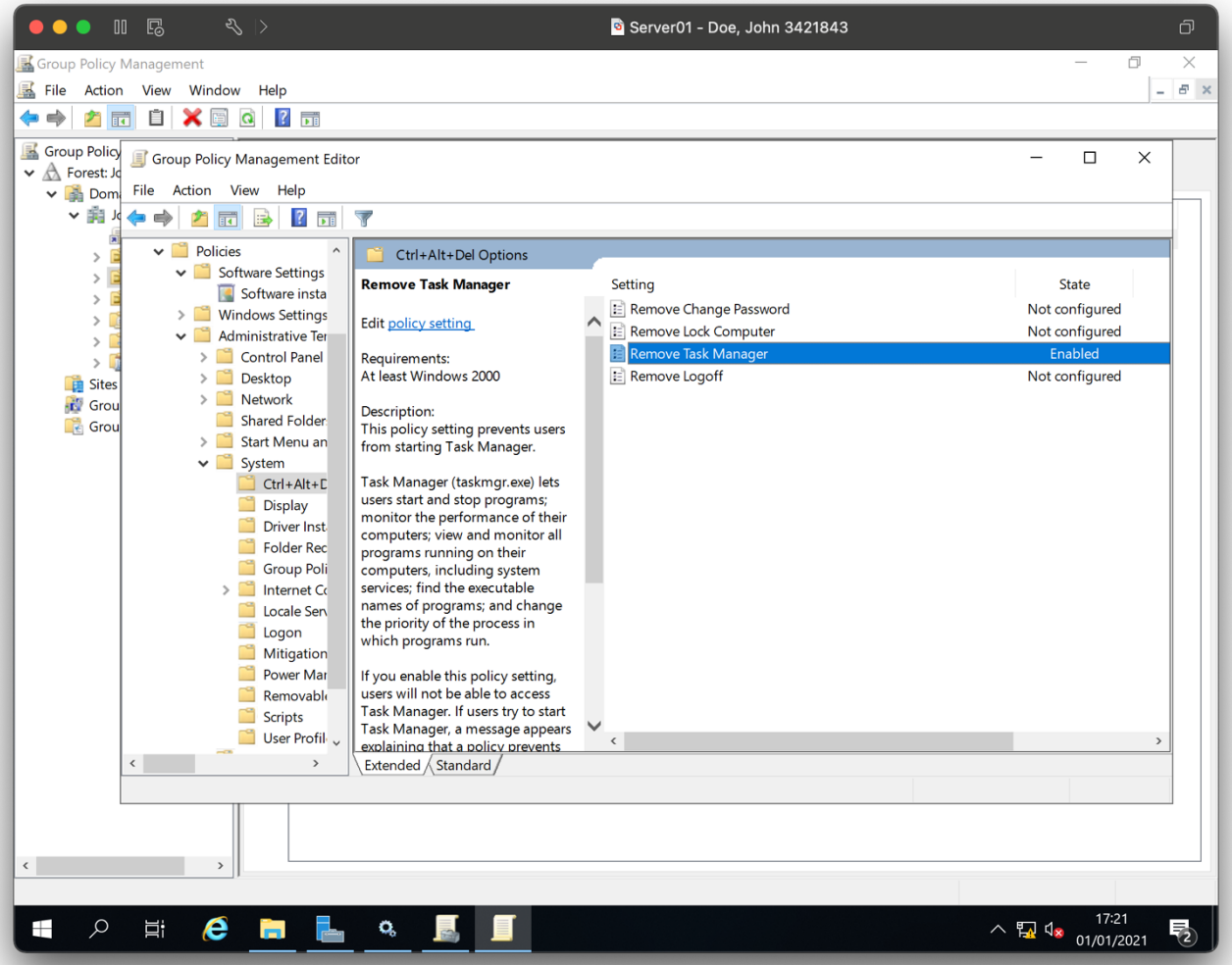
Policy 2 – disable access to the control panel

Print screen on Server01 showing control panel access have been enabled in group policy


Server01 - Doe, John 3421843
Group Policy Management
File Action View Window Help
Group Policy Management Editor
File Action View Help
Startup [SERVER01JOHNDOE.LO
Computer Configuration
Policies
Preferences
User Configuration
Policies
Software Settings
Windows Settings
Administrative Templ
Control Panel
Desktop
Network
Shared Folders
Start Menu and T
System
Windows Compo
All Settings
Preferences
Control Panel
Prohibit access to Control Panel and PC settings
Edit policy setting
Requirements:
At least Windows 2000
Description:
Disables all Control Panel programs and the PC settings app.
This setting prevents Control.exe and SystemSettings.exe, the program files for Control Panel and PC settings, from starting. As a result, users cannot start Control Panel or PC settings, or run any of their items.
This setting removes Control Panel from:
The Start screen
File Explorer
This setting removes PC settings from:
Setting
State
Add or Remove Programs
Display
Personalization
Printers
Programs
Regional and Language Options
Hide specified Control Panel items
Not configured
Always open All Control Panel Items when opening Control P...
Not configured
Prohibit access to Control Panel and PC settings
Enabled
Show only specified Control Panel items
Not configured
Settings Page Visibility
Not configured
Extended
Standard
5 setting(s)
This GPO is linked to the following WMI filter:
<none>
Open
17:17
01/01/2021

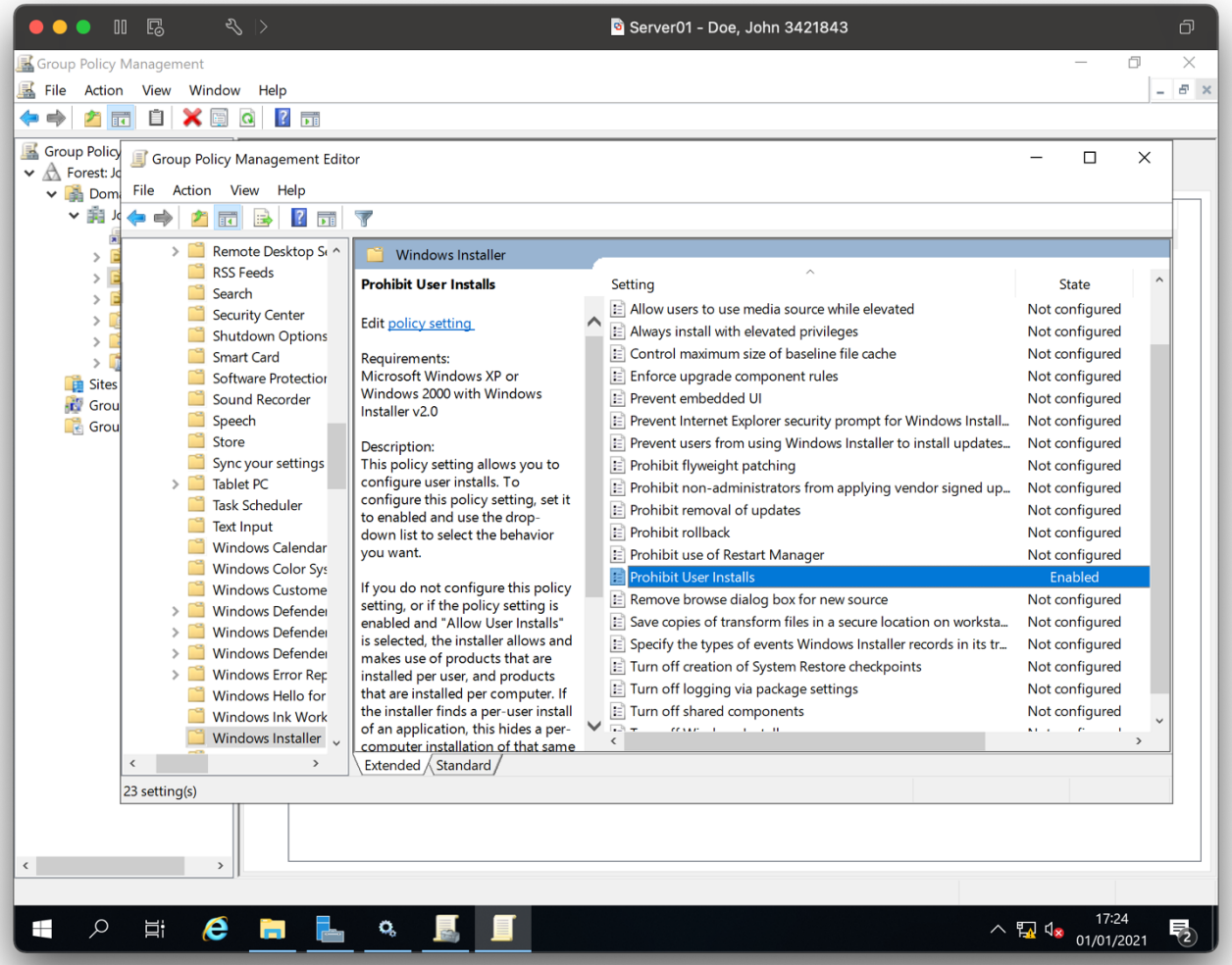
Policy 3 – Disable task manager access

Print screen on Server01 showing that task manager access is denied in group policy



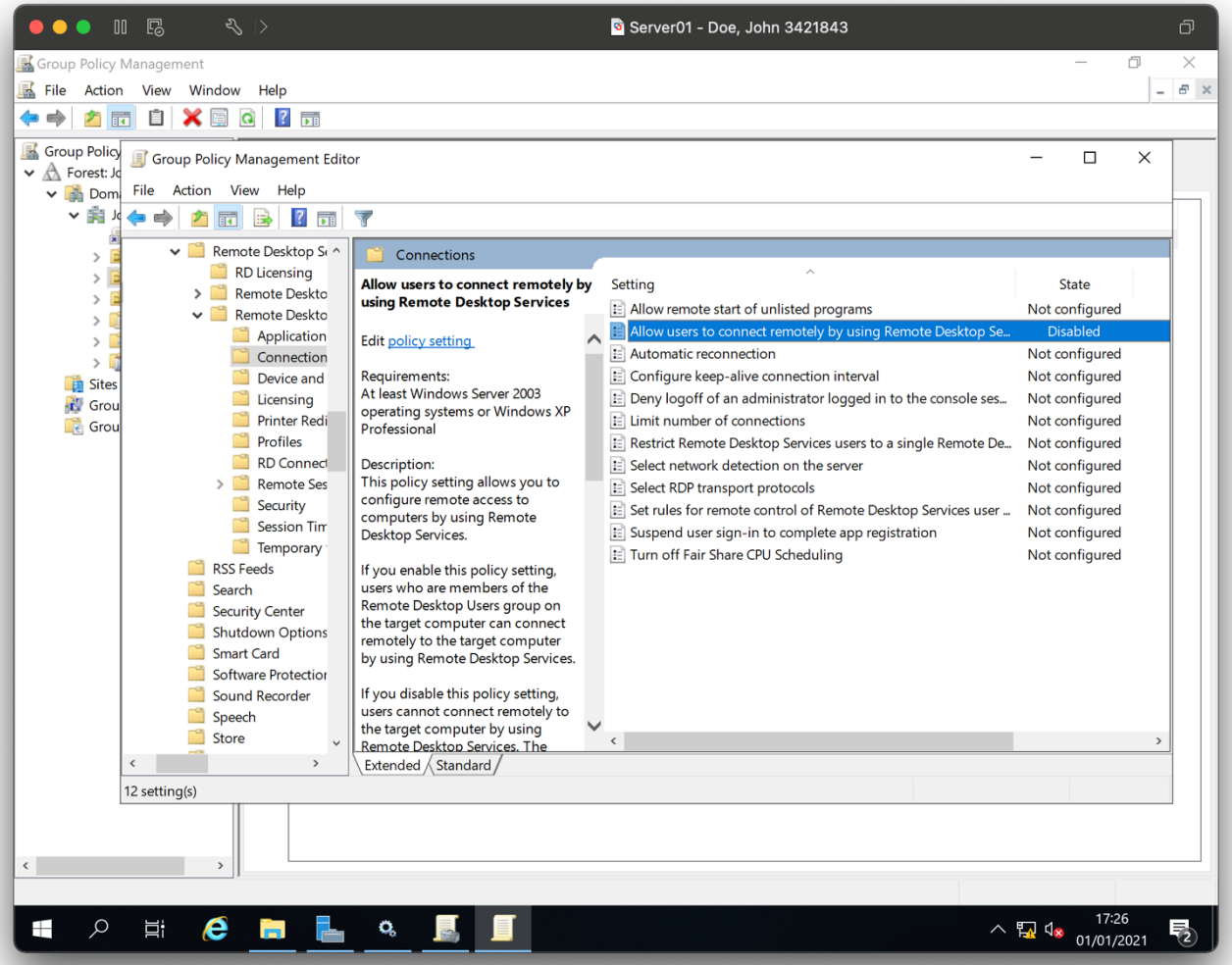
Policy 4 – prevent the installing of applications

Print screen on Server01 showing the prevention of installing applications in group policy



Policy 5 – disable remote desktop]

Print screen on Server01 showing remote desktop has been disabled in group policy



Step I

Installation and configuration of the wireless device

Step A

(3 marks)

Processes	Settings	Marks	Evidence required
Install the provided server operating system on Server01 and Server02 Use suitable configurations that match your current time zone and provide evidence of the successful installation of the server operating system on both Server01 and Server02	All hard disks should be partitioned to a single 100% partition, and the machines named Server01 and Server02 Server01 and Server02 should have fixed IP addresses	**1**	Provide print screen or photographic evidence of the following: ☑ Server01 disk partitions ☑ Server01 IP address (1) Set ☑ Server01 IP address (2) Set ☑ Server01 name set ☑ Server01 regional settings, date and time
		1	☑ Server02 disk partitions ☑ Server02 IP address set ☑ Server02 name set ☑ Server02 regional settings, date and time
Install the provided desktop operating system on PC01	All hard disks should be partitioned to a single 100% partition Use suitable region-specific settings, otherwise the defaults should be taken	**1**	Provide print screen or photographic evidence of the following: ☑ PC01 disk partitions ☑ PC01 name set ☑ PC01 regional settings, date and time

Step B

(8 marks)

Processes	Settings	Marks	Evidence required
Install and configure DNS		**8**	☑ print screen showing DNS has been installed
Install and configure a directory service	Install a directory service with the domain name set as (First nameSurname).local, for example: JohnSmith.local		☑ print screen showing the directory service has been installed and configured
Install DHCP service on Server01			☑ print screen showing the DHCP service installed
Implement a DHCP scope using the IP range provided earlier			☐ print screen showing the DHCP scope configured
Evidence PC01 is using DHCP to join the network			☑ print screen showing PC01 has been assigned a DHCP address
Domain join Server02 and PC01 to Server01 forming the start of the network			☑ print screen showing Server02 domain joined ☑ print screen showing PC01 domain joined
Install and confirm a reverse DNS lookup works on Server02 using **NSLOOKUP**			☐ print screen showing Server02 successfully completed a reverse lookup

Step C

(8 marks)

Processes	Settings	Marks	Evidence required

Create the following groups in your directory service	All Staff, Developer, Graphics, Motion Capture, IT admin	**1**	☑ print screen showing the 5 groups created in your directory service

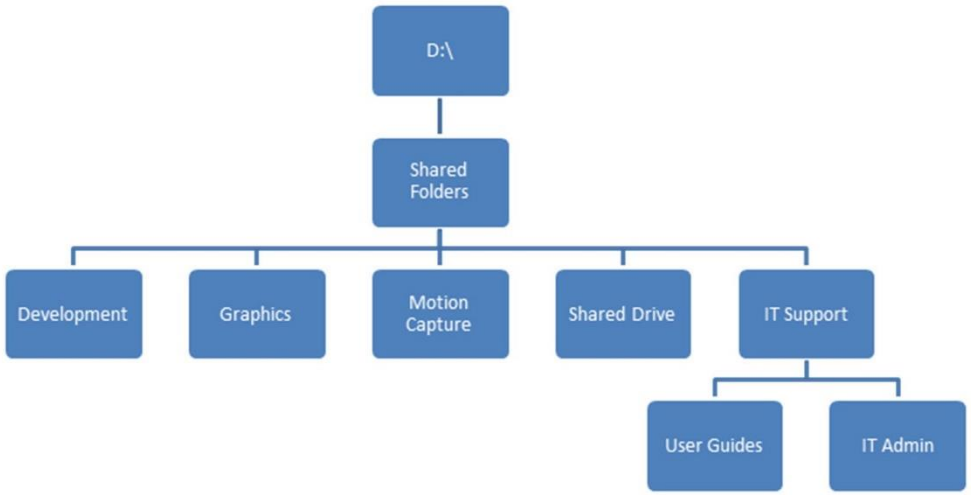
Populate the directory service with the following user accounts making sure they are added to the correct group and each user has the right privilege:

User account	Privileges	Job description	Group
Your first and surname	Administrator	IT admin	IT admin
Paul James	Standard user	Developer	Development
Tamara Jacobs	Standard user	Graphics artist	Graphics
Yousif Sobbah	Standard user	Motion capture specialist	Motion capture

1

☑ print screen evidence that each user has the correct name, privilege, job description and has been added to the correct group

Using the group called **all staff,** add the following groups to this group: • development • graphics • motion capture • IT admin	**1**	☐ print screen showing all 5 groups added to the all staff group

Processes	Settings	Marks	Evidence required
Create the following folder structure on second partition of Server02  		**N/A**	Marks are **not** awarded for creating the folder structure and you do **not** need to submit evidence for this task

<table>
<tr><th>Processes</th><th>Settings</th><th></th><th>Marks</th><th>Evidence required</th></tr>
<tr><td>Apply the following privileges to each of the folders using the groups created earlier</td><td colspan="2"><table>
<tr><th>Folder</th><th>Group</th><th>Permission</th></tr>
<tr><td>Development</td><td>IT admin</td><td>Read/Write</td></tr>
<tr><td>Graphics</td><td>Development</td><td>Read/Write</td></tr>
<tr><td>Motion Capture</td><td>Motion Capture</td><td>Read/Write</td></tr>
<tr><td>Shared Drive</td><td>All staff</td><td>Read</td></tr>
<tr><td>User Guides</td><td>All staff</td><td>Read</td></tr>
<tr><td>IT admin</td><td>IT admin</td><td>Read/Write</td></tr>
</table></td><td></td><td>1</td><td>☑ print screens showing each folder with correct privileges</td></tr>
<tr><td colspan="2">Using the files provided, populate the folder structure</td><td></td><td></td><td></td></tr>
<tr><td colspan="2">Using the test plan template provided in the workbook, prove that the privileges work correctly using both a valid and invalid user
Note: the shared drive only requires a valid user to be tested</td><td></td><td>4</td><td>☑ completed test plan
☑ print screens showing folder privileges have been tested</td></tr>
</table>

Step D

(3 marks)

Processes	Settings	Marks	Evidence required
Using an external hard disk drive or an additional virtual disk to Server02, implement a scheduled backup of the shared folders to run every hour to the second physical hard or external storage device		**3**	☑ print screen showing scheduled backup set
Confirm the backup has been taken successfully by restoring the contents of the backup **Note**: you might need to return to this step later to collect the required evidence			☑ print screens showing a successful backup ☑ print screens showing a successful restoration

Step E

(4 marks)

Processes	Settings	Marks	Evidence required
Using Server02, install **and** configure a **single** application service from the following list:	• desktop deployment • media server • database server • IT helpdesk • web server • print server	**4**	☐ print screens showing the service being installed and configured
Prove the service has been tested and works			☐ print screens showing the service is running ☐ print screens showing the service being tested

Step F

(2 marks)

Processes	Settings	Marks	Evidence required
Create a remote connection from PC02 to Server01 **Note**: you are **not** permitted to domain join the computer		**2**	☑ print screens showing the remote connection process

Step G

(4 marks)

Processes	Settings	Marks	Evidence required
Implement a SNMP on all machines on the network		**4**	☐ print screens from PC01 and Server02 showing that SNMP has been enabled
Verify that SNMP data is being collected by the traps and can be viewed			☐ a series of print screens showing the SNMP data is being collected centrally

Step H

(10 marks)

Processes	Settings	Marks	Evidence required
Using policies, implement 5 rules that will make the domain joined PC01 more secure		**10**	☑ provide a short description of each policy and what it will achieve ☑ provide a print screen showing each of the policies created on Server01
Carry out testing to prove the policies have been applied correctly			☑ provide evidence of each policy applied on PC01

Step I

(7 marks)

Processes	Settings	Marks	Evidence required
Using the wireless device provided, integrate the device into your network		**7**	Provide print screen or photographic evidence of the following: ☑ set an IP address for the device ☑ connect to a wireless AP or other such device ☑ install the required drivers or management software ☑ configure the device with suitable settings ☐ evidence that SNMP data is being captured
Test that the device works and is accessible from any 2 machines			☐ a series of print screens and photographs showing connection and configuration of the wireless device

Review and submit

You have now reached the end of the assignment. It is recommended that you review all the evidence required for the assignment to ensure all print screens and photographs have been provided.

Submit this workbook in .pdf format at the end of the assignment using the file naming convention.

Surname_Initial_student number_Workbook2

For example: Smith_J_123456789_Workbook2.pdf

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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.		January 2023