

Successfully created the VM...

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named "CreateVm-MicrosoftWindowsServer.WindowsServer-[REDACTED]". The status is "Deployment succeeded" with the message: "Deployment 'CreateVm-MicrosoftWindowsServer.WindowsServer-[REDACTED]' was successful." Below this, there are sections for "Deployment details" and "Next steps". The "Deployment details" section includes fields for Deployment name, Subscription, Resource group, Start time, and Correlation ID. The "Next steps" section lists three recommended actions: "Setup auto-shutdown" (Recommended), "Monitor VM health, performance and network dependencies" (Recommended), and "Run a script inside the virtual machine" (Recommended). At the bottom, there are "Go to resource" and "Create another VM" buttons, along with a "Give feedback" link and a "Tell us about your experience with deployment" button. On the right side of the page, there are promotional cards for "Cost Management", "Microsoft Defender for Cloud", "Free Microsoft tutorials", and "Work with an expert".

VM information...

The screenshot shows the Microsoft Azure Virtual Machine Overview page for a virtual machine named "GuoBastionHost". The main pane displays the "Properties" tab, which includes sections for "Virtual machine", "Networking", "Size", and "Source image details". The "Virtual machine" section shows details like Computer name (GuoBastionHost), Operating system (Windows (Windows Server 2019 Datacenter)), VM generation (V2), VM architecture (x64), Agent status (Ready), Agent version (2.7.41491.1095), Hibernation (Disabled), Host group (-), Host (-), Proximity placement group (-), Colocation status (N/A), Capacity reservation group (-), and Disk controller type (SCSI). The "Networking" section shows a single network interface with Public IP address (-) and Private IP address (-). The "Size" section shows the VM is Standard B2ms, with 2 vCPUs and 8 GB RAM. The "Source image details" section shows the source image publisher is MicrosoftWindowsServer, offer is WindowsServer, and plan is 2019-datacenter-gensecond. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect (with sub-options for Connect and Bastion), Networking (with sub-options for Network settings, Load balancing, Application security groups, and Network manager), Settings (with sub-options for Disks), and Azure Spot.

“...explain what the purpose is of this DNS name?”

This DNS name makes it easy to access the VM without having to remember its IP address, therefore, it is more human readable. It provides a stable, human-friendly way to connect, whether you're inside the Azure virtual network or accessing it from the internet.

Changing the DNS name...

The screenshot shows the Microsoft Azure portal interface for a virtual machine named "GuoBastionHost". The main pane displays the "Properties" tab with detailed information about the VM, including its computer name, operating system (Windows), and networking details. The networking section shows a public IP address (IPv4) and a private IP address (IPv6). The "Networking" section also lists the virtual network/subnet and the DNS name, which is highlighted with a black redaction box. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Windows Admin Center, Networking, Network settings, Load balancing, Application security groups, Network manager, Settings, and Disks.

This is a record from Squarespace (Apparently Google Domains = Squarespace now) ...

The screenshot shows the Squarespace DNS Settings page. The left sidebar includes links for Overview, DNS (which is selected and underlined), Website, Email, Permissions, and Billing. The main content area is titled "DNS Settings" and includes a sub-section for "Squarespace Defaults". It lists two records: one for "@" with type A and priority 0, and another for "www" with type CNAME and priority 0. Both records have a TTL of 4 hrs. Below this is a "Custom records" section with an "ADD RECORD" button. It shows a single record for "remote" with type CNAME, priority N/A, and TTL 1 hr. The "DATA" field for all records is redacted with black bars.

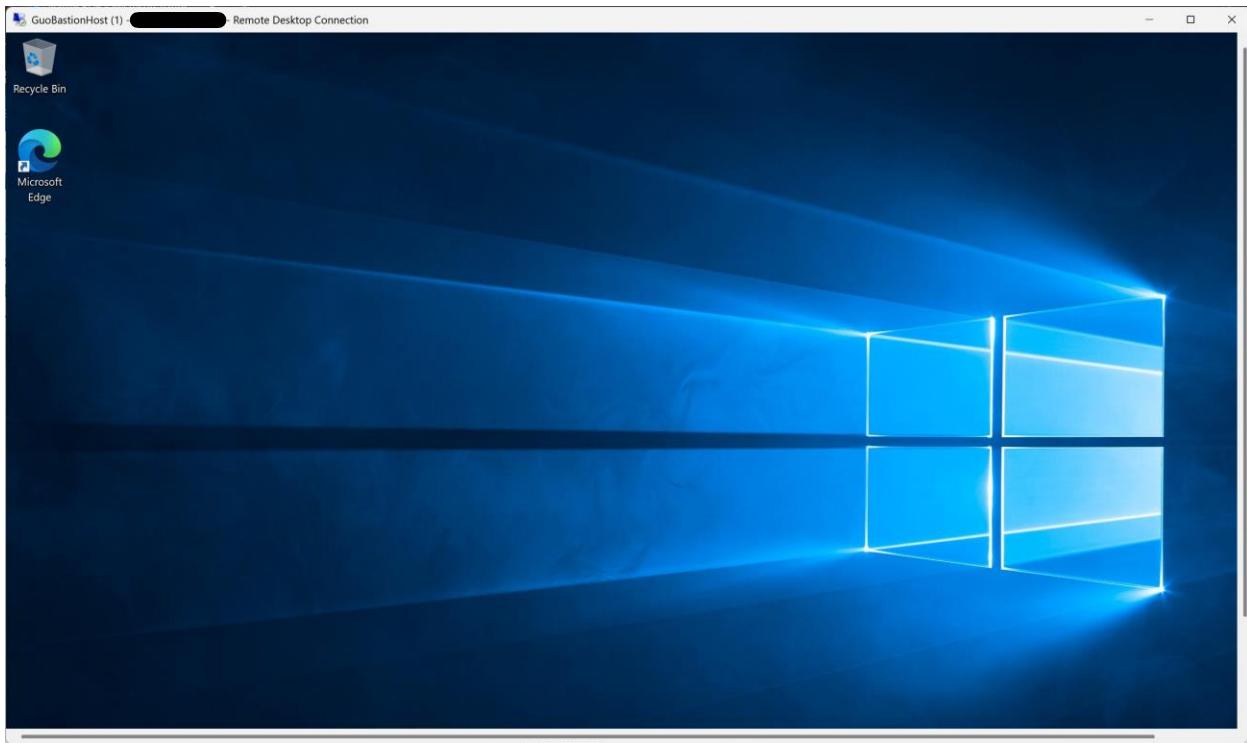
Using the *nslookup* command...

```
C:\Users\shiha>nslookup [REDACTED]
Server: [REDACTED]
Address: [REDACTED]

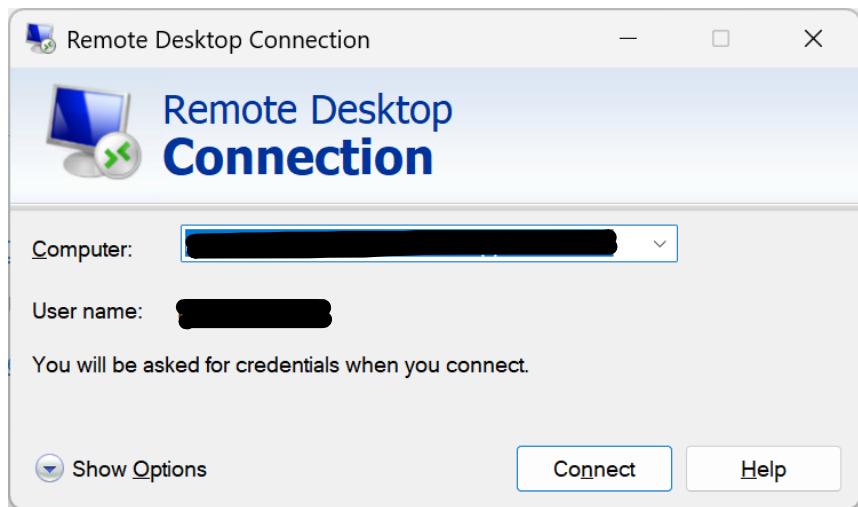
Non-authoritative answer:
Name: [REDACTED]
Address: [REDACTED]

C:\Users\shiha>
```

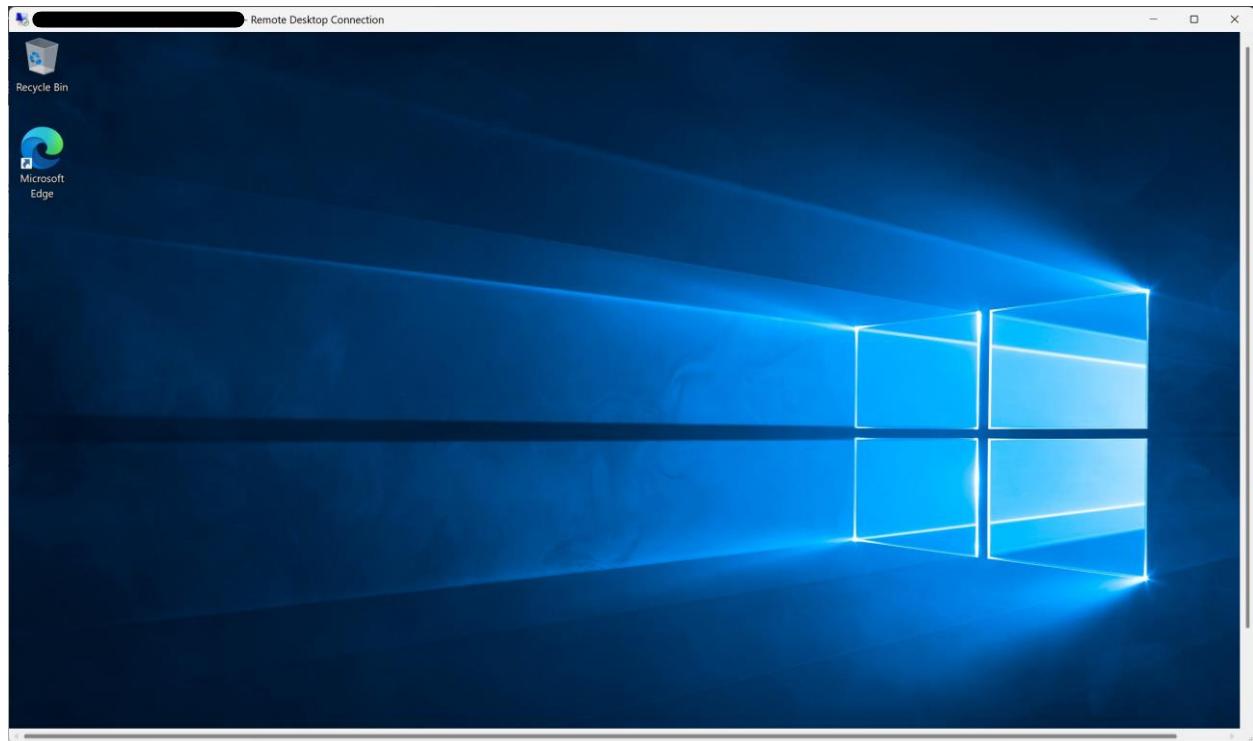
Successfully connected to the VM...



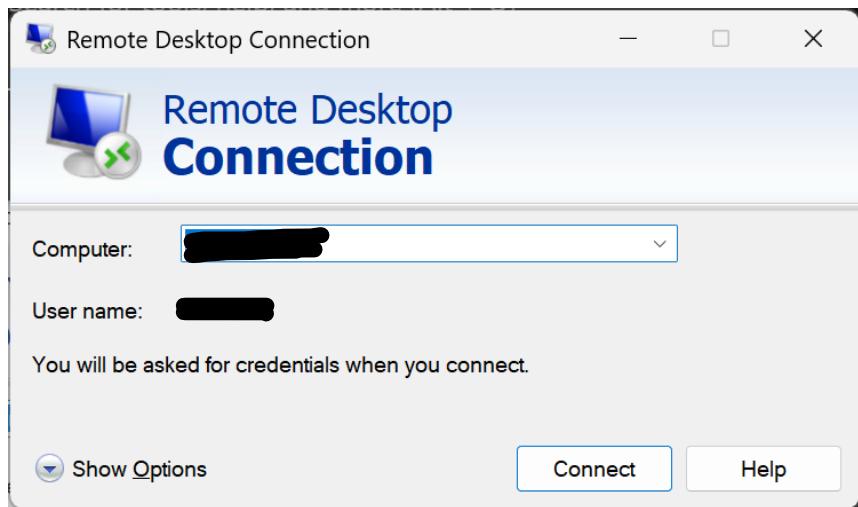
Connecting using the DNS name...



Successfully connected to the VM using the DNS name...



Connecting using the public IP...



Successfully connected to the VM using the public IP...



“Which DNS record remote or remote2 is the better DNS record to use for this purpose and why?”

Just for this purpose, record *remote2* is better. This is because *remote2* directly points to a static IP address (████████). Which means, no additional DNS resolution is required, making it slightly faster. On the other hand, using record *remote* will be slightly slower as it

requires an additional DNS lookup. However, maybe *remote* is easier to “remember” in some cases.

Successfully created the VM (GuoDC1) ...

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named "CreateVm-MicrosoftWindowsServer.WindowsServer". The status is "Deployment is in progress". The deployment details table shows three resources: one "OK" and two "Created". A message box indicates "Deployment succeeded" with the message: "Deployment 'CreateVm-MicrosoftWindowsServer.WindowsServer' to resource group [REDACTED] was successful." The right sidebar includes links for Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert.

VM information...

The screenshot shows the Microsoft Azure Virtual Machine Overview page for a virtual machine named "GuoDC1". The properties section displays the following details:

Virtual machine	
Computer name	[REDACTED]
Operating system	Windows (Windows Server 2019 Datacenter)
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.7.4149.1095
Hibernation	Disabled
Host group	-
Host	-
Proximity placement group	-
Colocation status	N/A
Capacity reservation group	-
Disk controller type	SCSI

Networking details include:

Networking	
Public IP address	-
Public IP address (IPv6)	-
Private IP address	[REDACTED]
Private IP address (IPv6)	-
Virtual network/subnet	[REDACTED]
DNS name	-

Size details include:

Size	
Size	Standard B2ms
vCPUs	2
RAM	8 GiB

Source image details include:

Source image details	
Source image publisher	MicrosoftWindowsServer
Source image offer	WindowsServer
Source image plan	2019-datacenter-gensecond

VM successfully created (GuoFile1) ...

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named 'CreateVm-MicrosoftWindowsServer.WindowsServer'. The status is 'Deployment is in progress' and has moved to 'Deployment succeeded'. The deployment was created by 'Azure for Students' and started at [REDACTED] with Correlation ID: [REDACTED]. The deployment details table shows three resources: one 'Created' and two 'OK'. The right sidebar includes links for Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert.

VM information...

The screenshot shows the Microsoft Azure Virtual Machine Overview page for a VM named 'GuoFile1'. The properties section displays the following details:

Property	Value
Computer name	GuoFile1
Operating system	Windows (Windows Server 2019 Datacenter)
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.7.41491.1095
Hibernation	Disabled
Host group	-
Host	-
Proximity placement group	-
Colocation status	N/A
Capacity reservation group	-
Disk controller type	SCSI
Azure Spot	-
Azure Spot eviction policy	-

Networking details include:

Setting	Value
Public IP address	-
Public IP address (IPv6)	-
Private IP address	[REDACTED]
Private IP address (IPv6)	-
Virtual network/subnet	[REDACTED]
DNS name	-

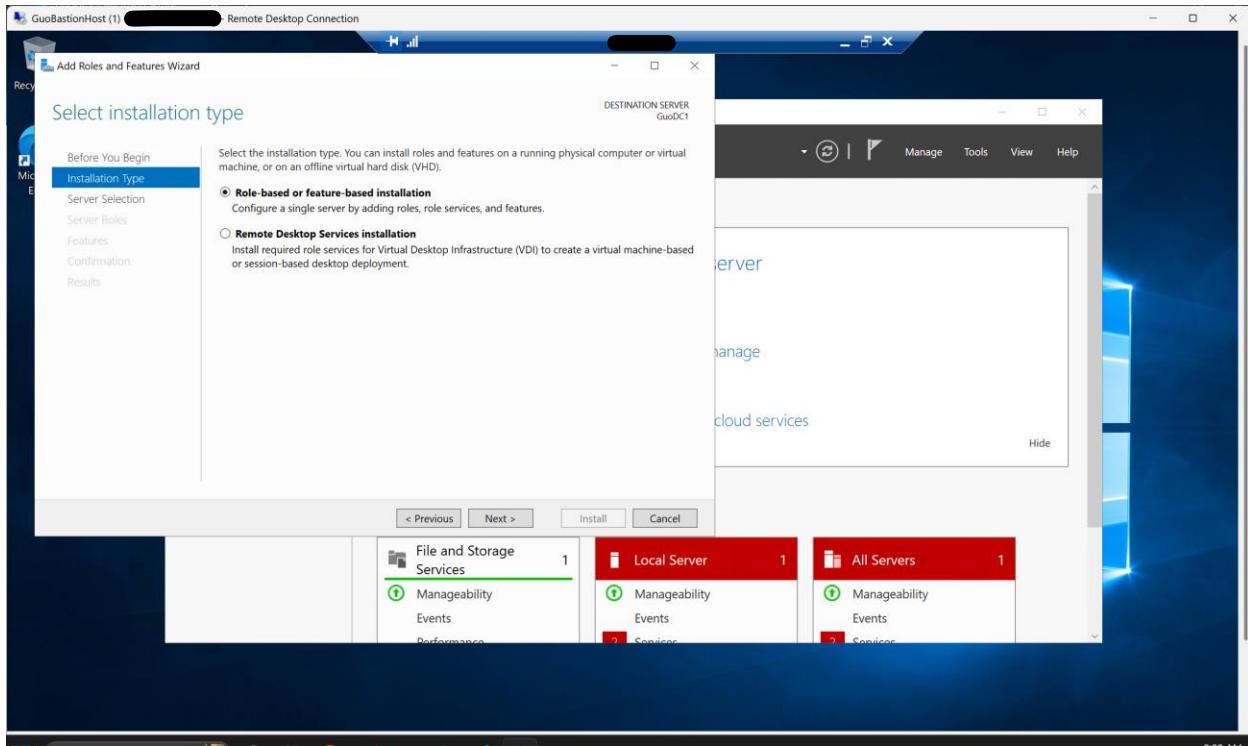
Size details include:

Setting	Value
Size	Standard B2as v2
vCPUs	2
RAM	8 GiB

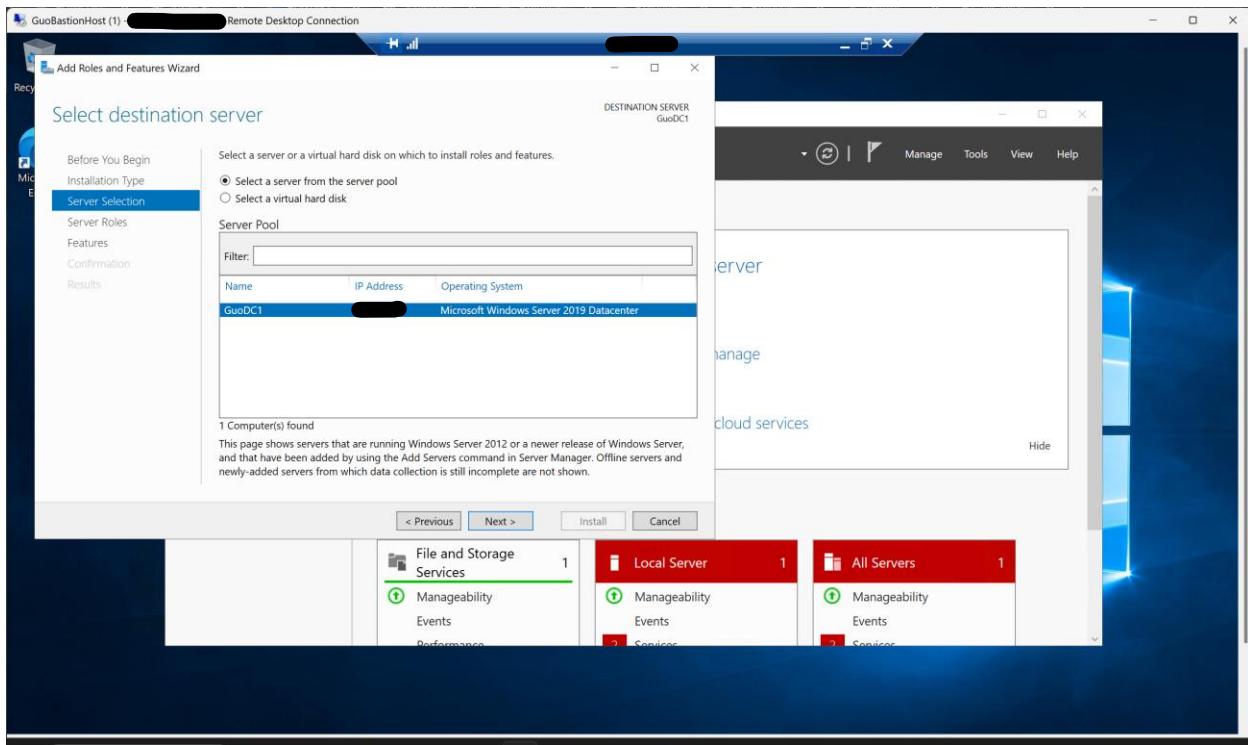
Source image details include:

Setting	Value
Source image publisher	MicrosoftWindowsServer
Source image offer	WindowsServer
Source image plan	2019-datacenter-gensecond

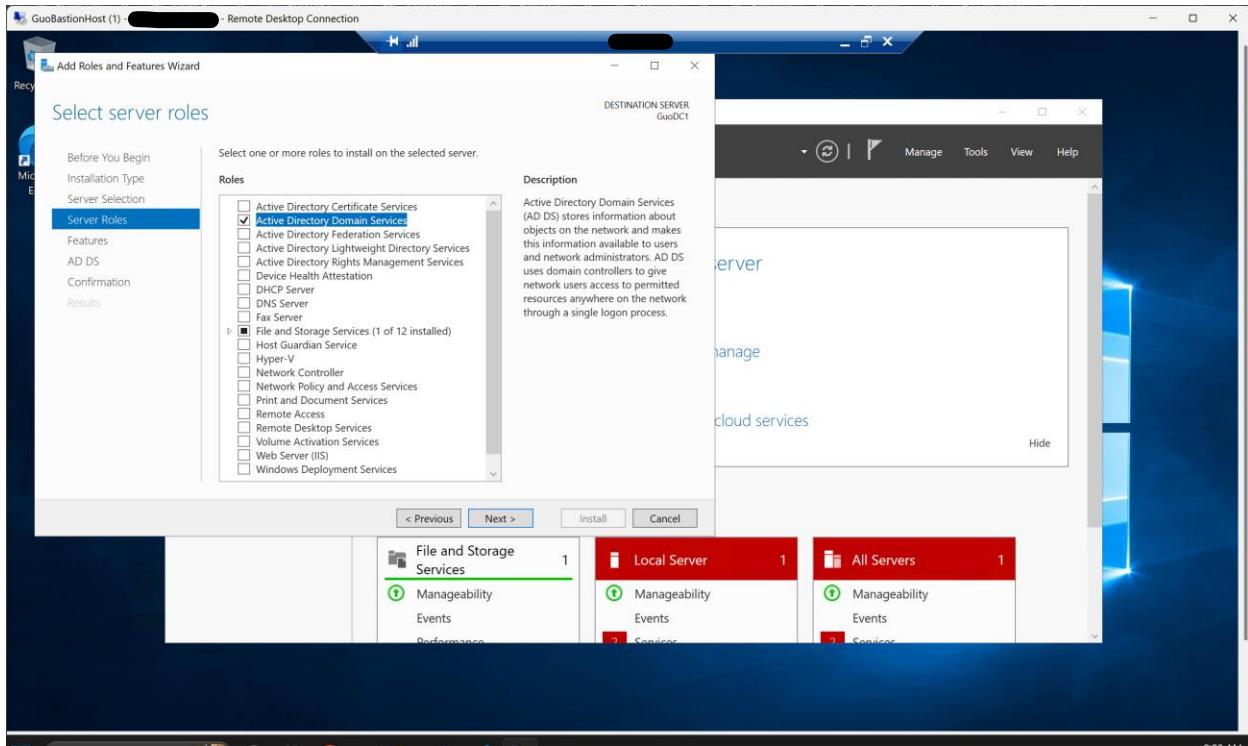
Step 1: Installation Type



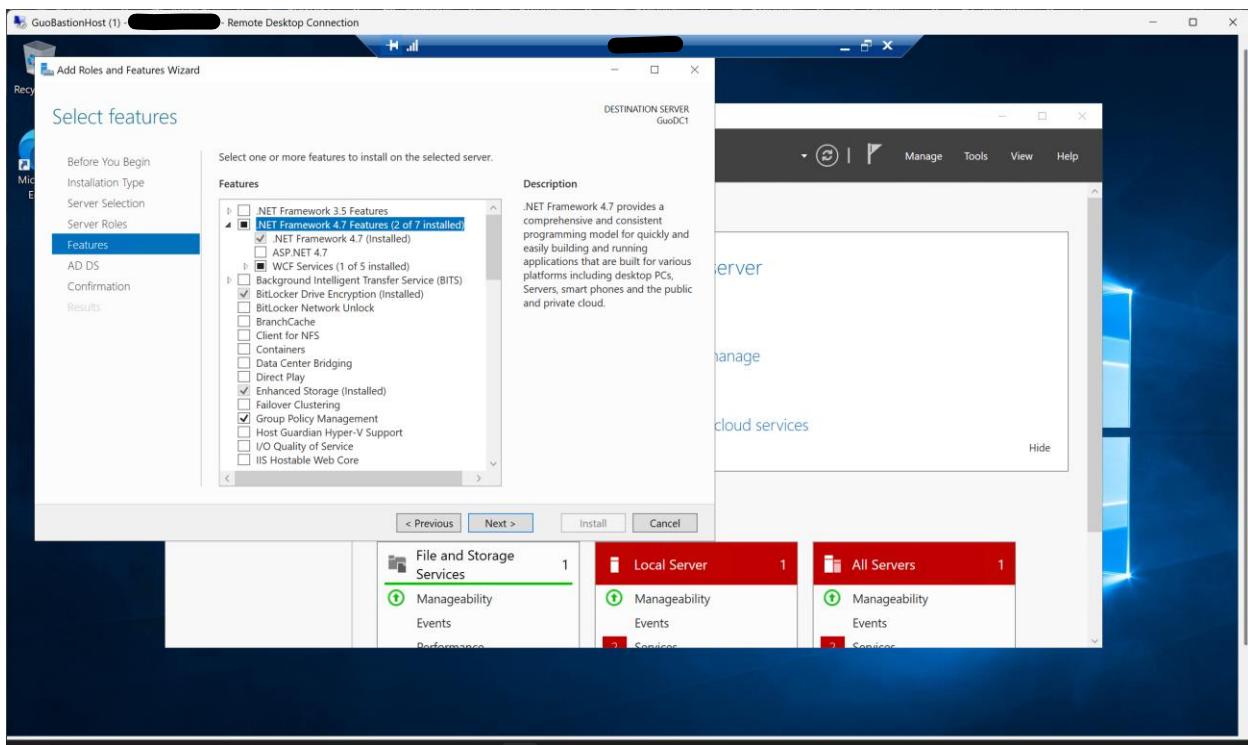
Step 2: Server Selection



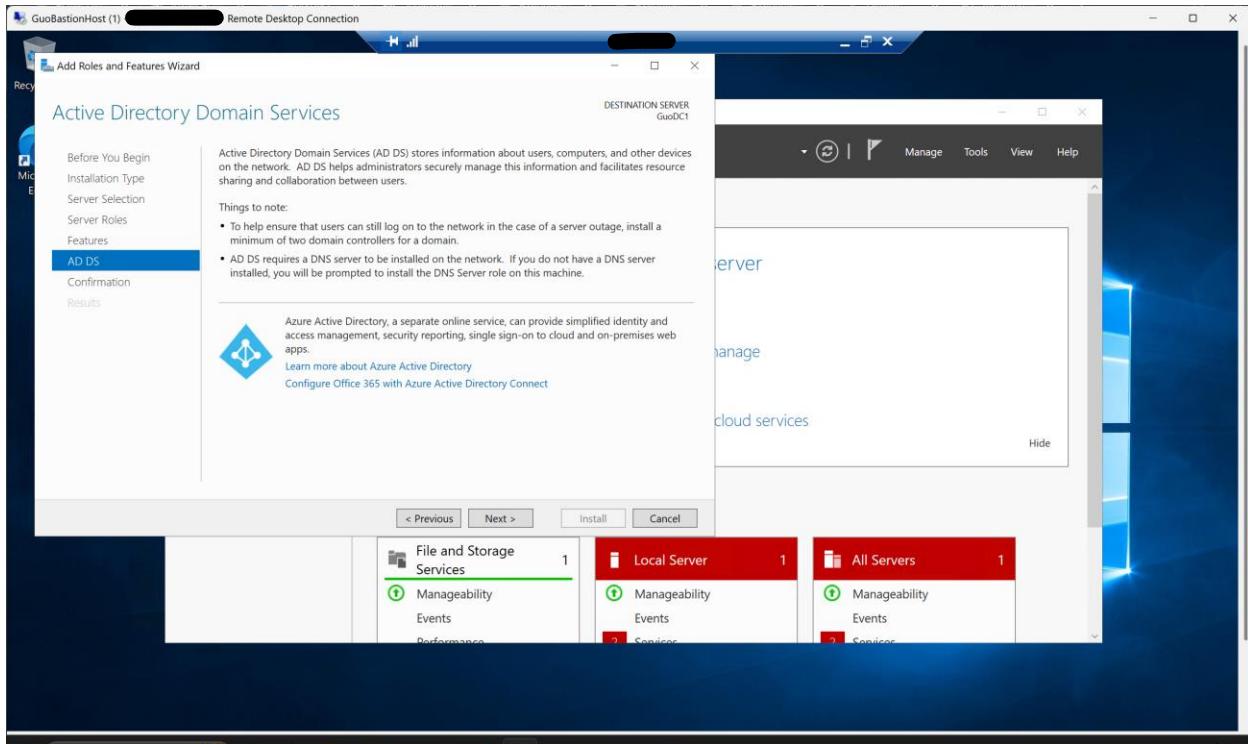
Step 3: Server Roles



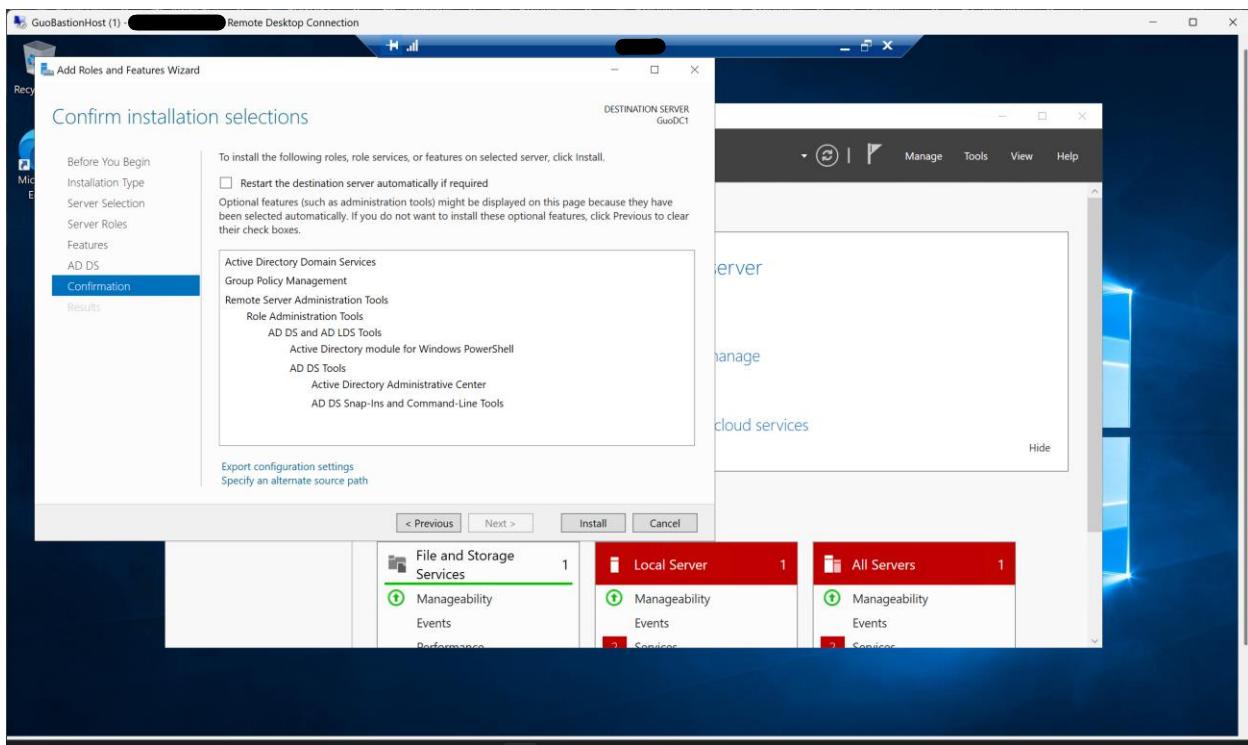
Step 4: Features



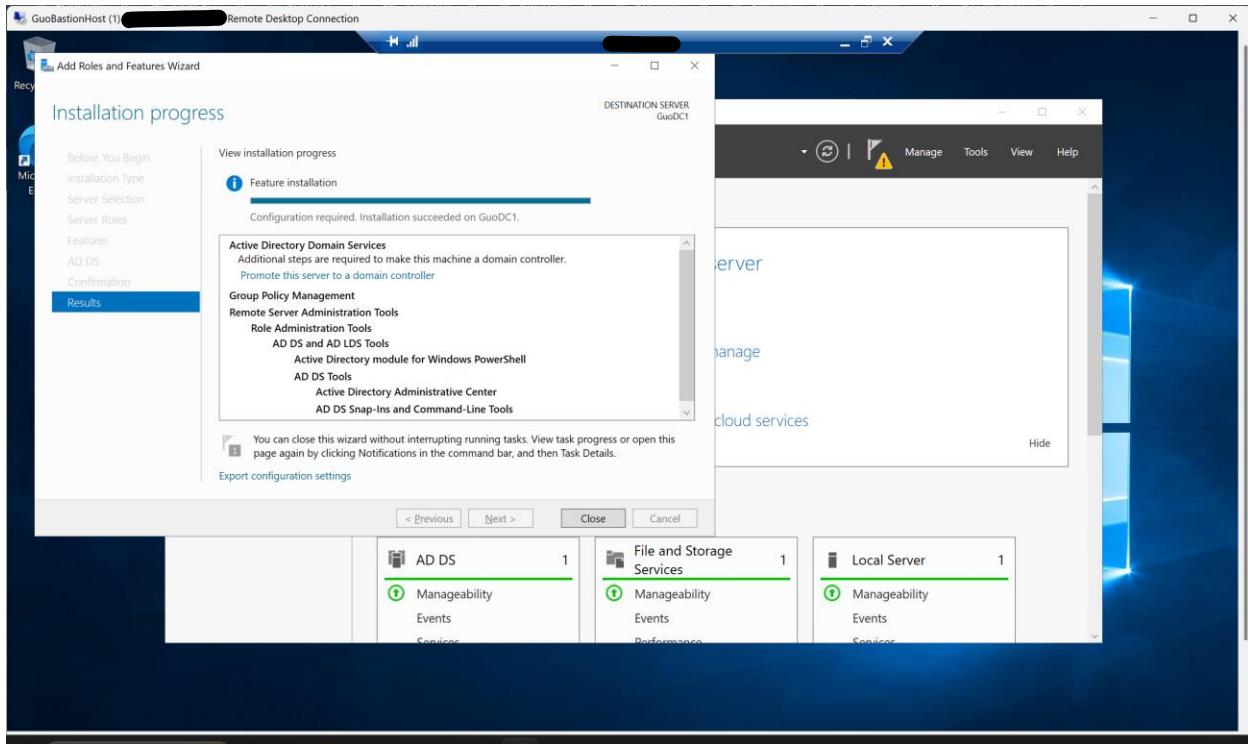
Step 5: AD DS



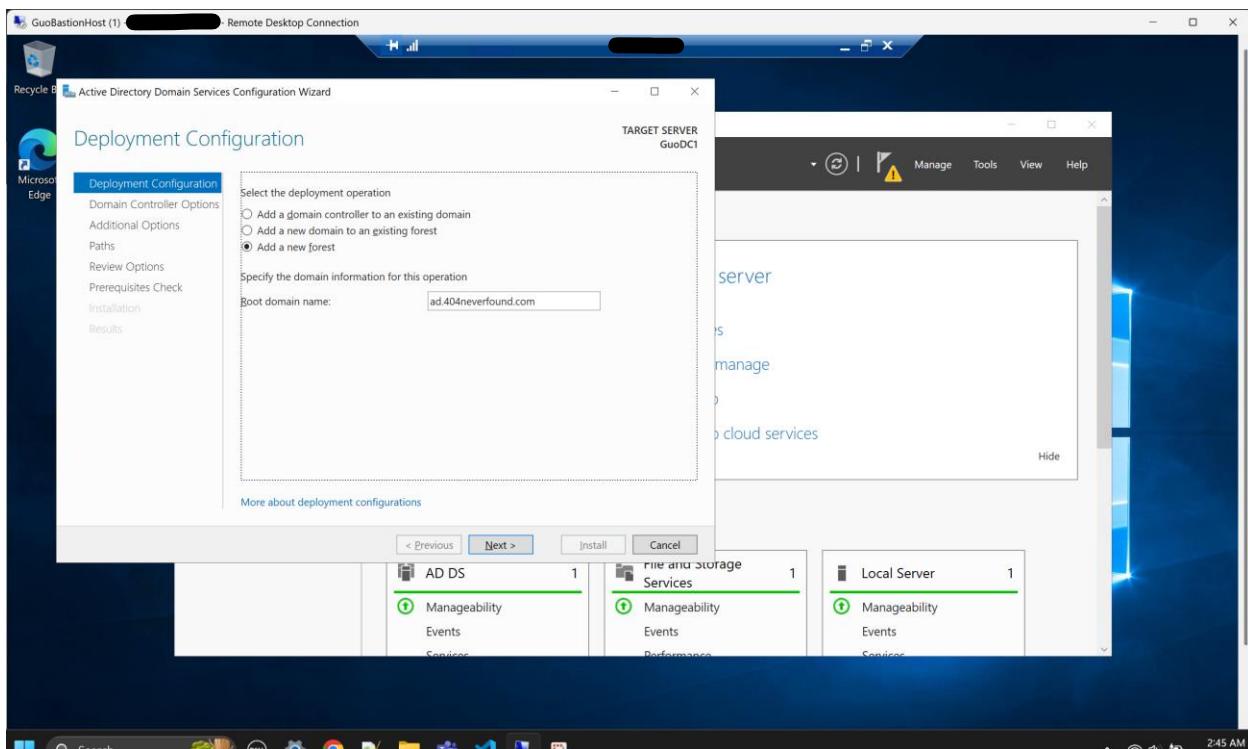
Step 6: Confirmation



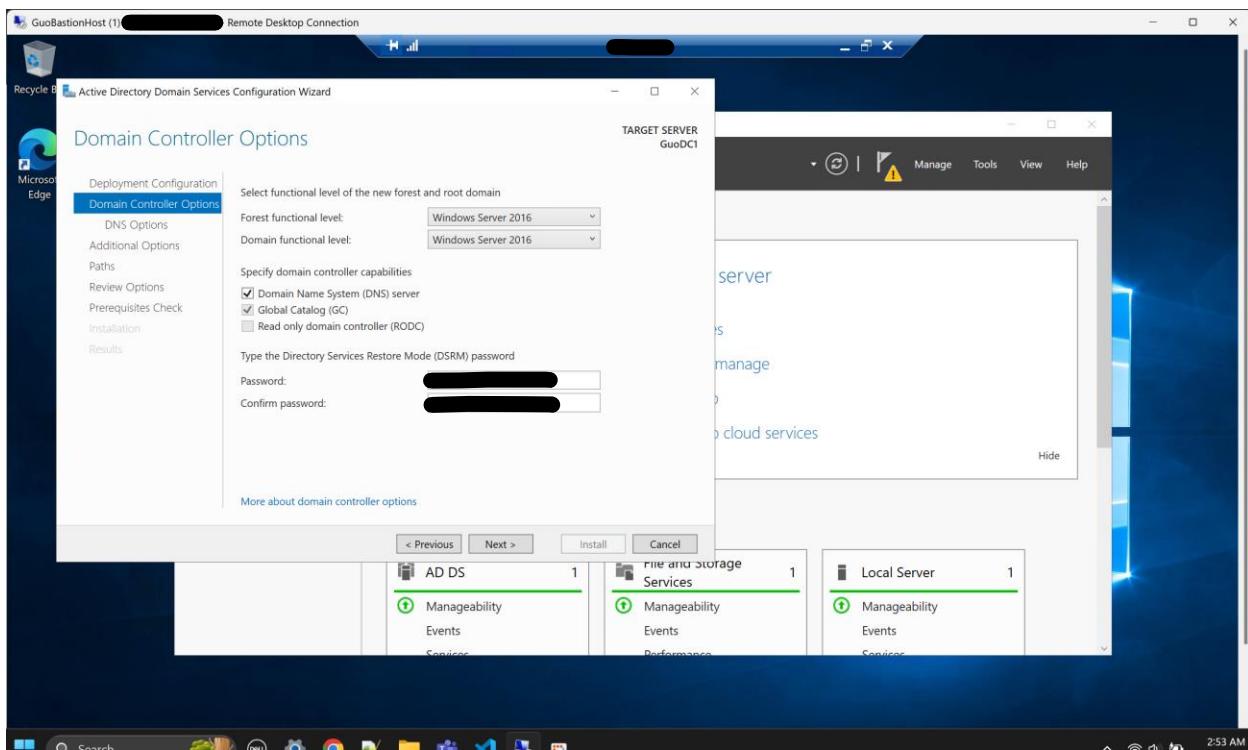
Step 7: Installation successful...



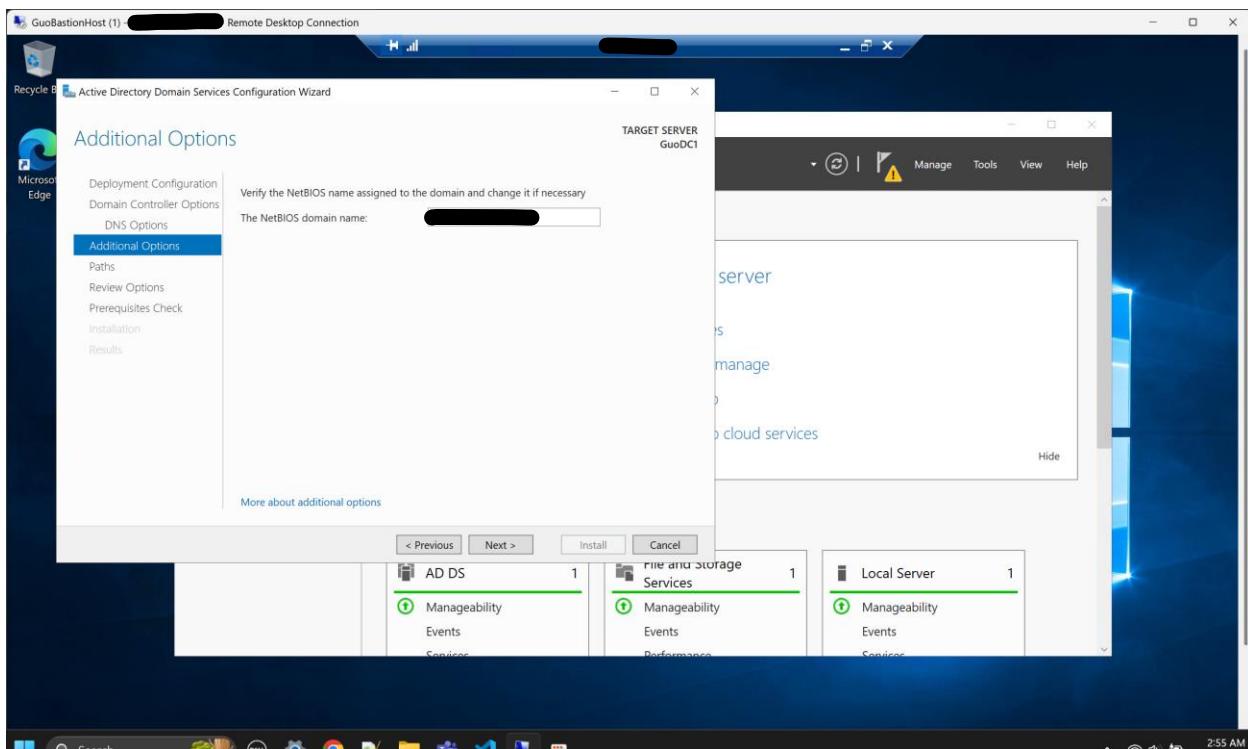
Step 8: Promotion to Domain Controller...



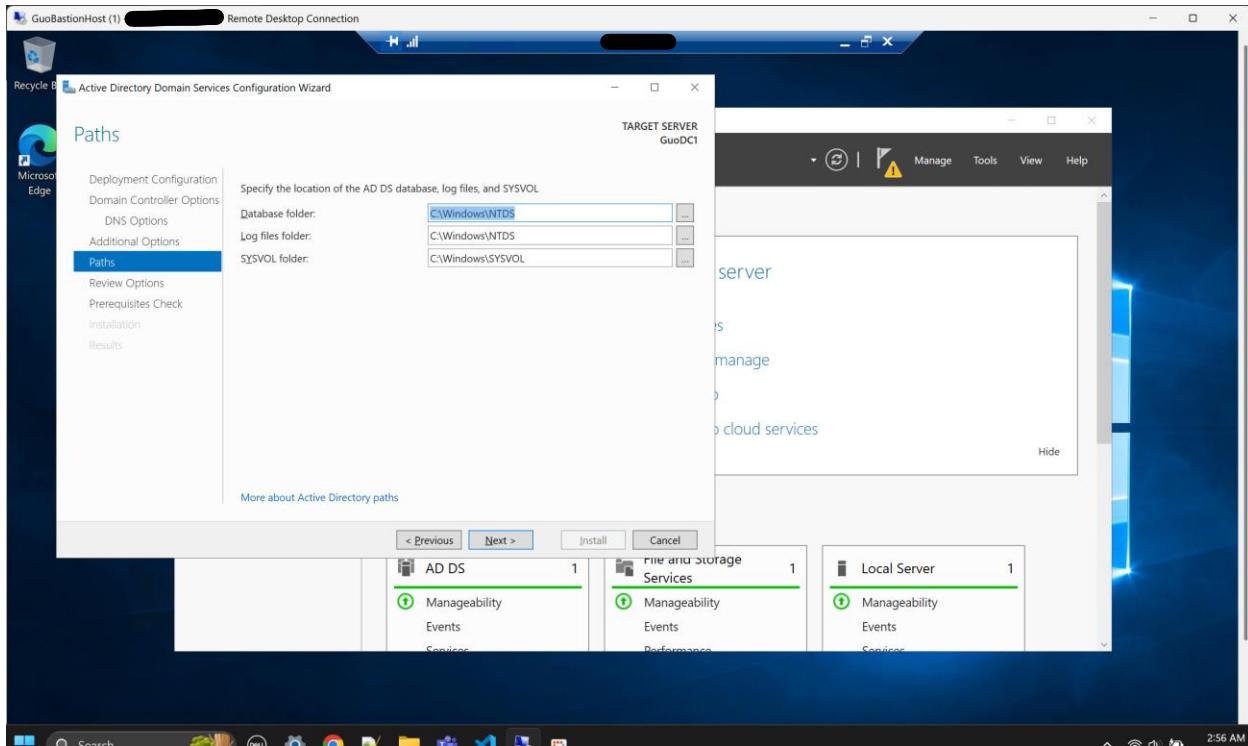
Step 9: Domain Controller Option...



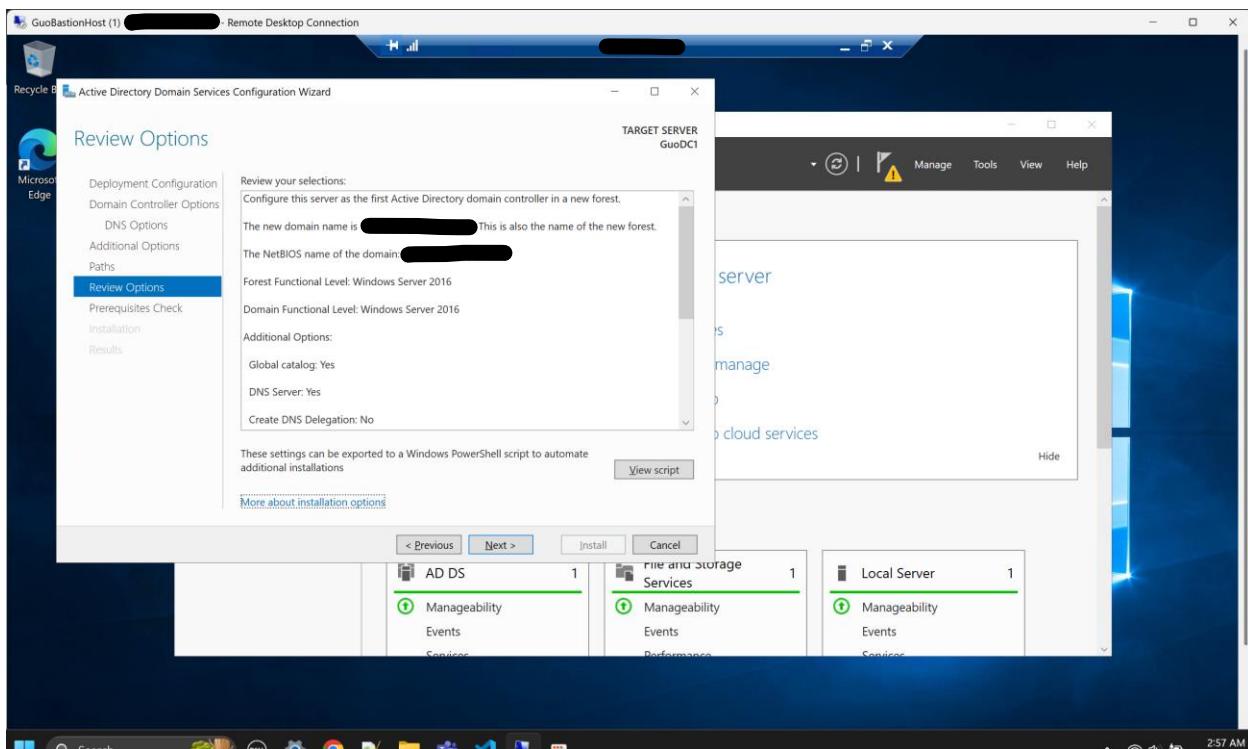
Step 10: Additional Option...



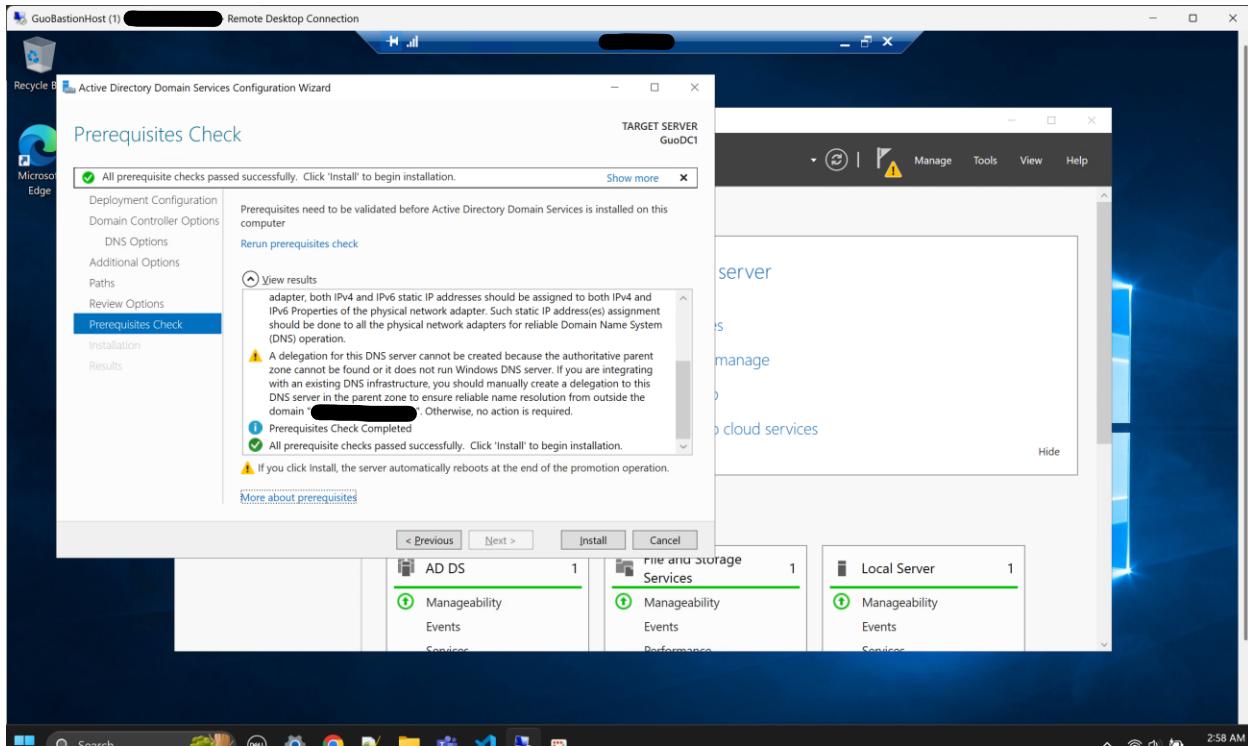
Step 11: Path...



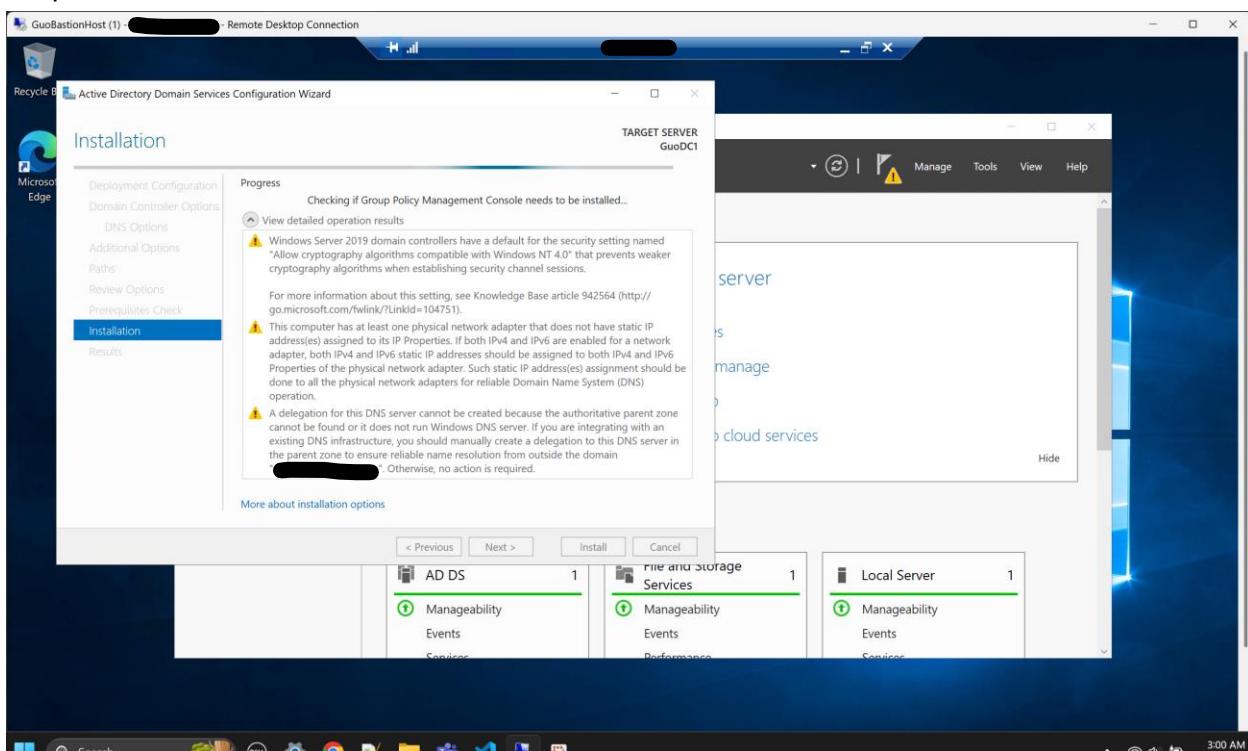
Step 12: Review...



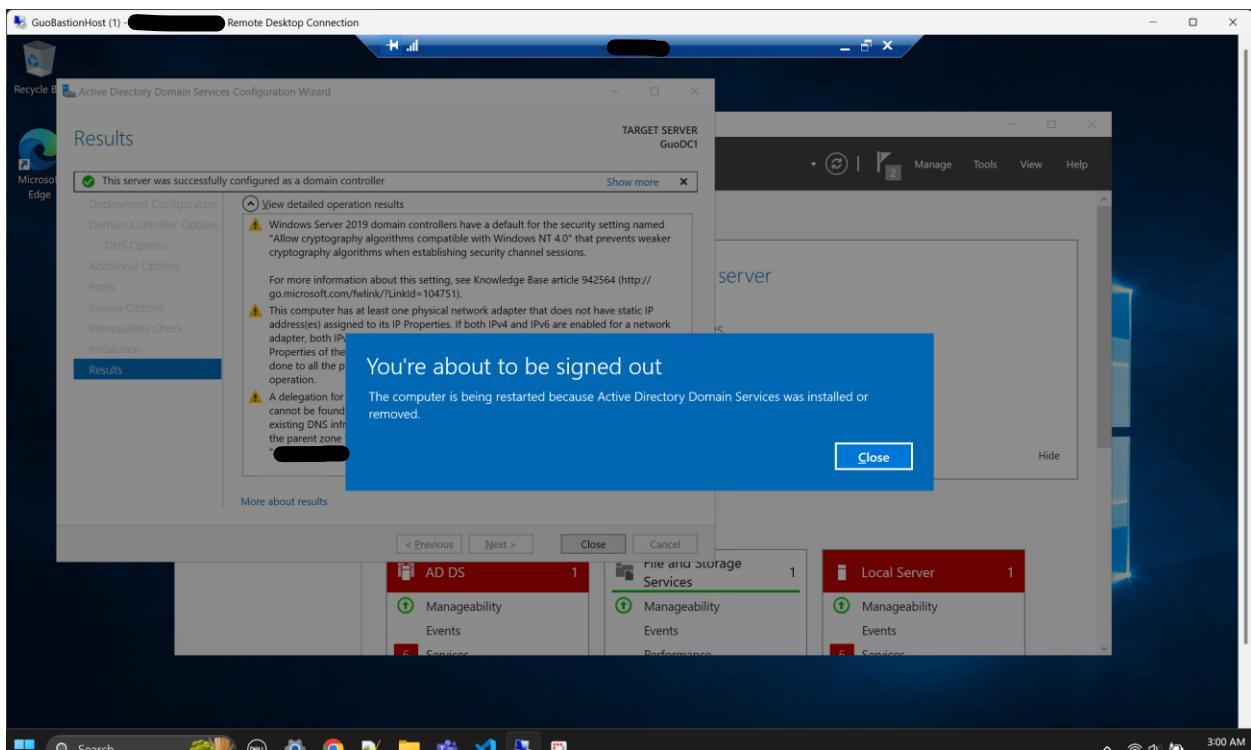
Step 13: Prerequisite check...



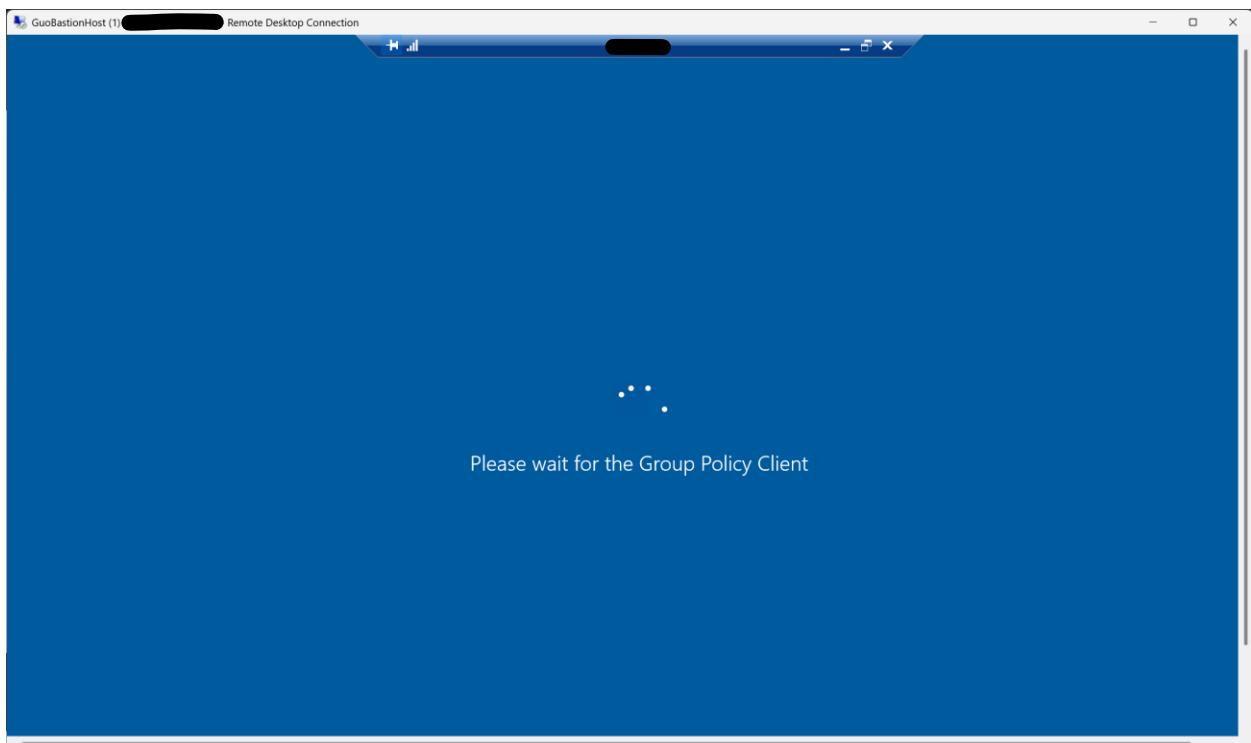
Step 14: Installation...



Installation complete, getting ready to reboot...



Rebooting...



Successful...

The screenshot shows the Windows Server Manager interface for a server named 'GuoBastionHost (1)'. The left sidebar shows navigation links: Dashboard, Local Server (selected), All Servers, AD DS, DNS, File and Storage Services, and File and Storage Services (with a dropdown arrow). The main content area has two main sections: 'PROPERTIES' and 'EVENTS'.

PROPERTIES section:

For GuoDC1	
Computer name	[REDACTED]
Domain	[REDACTED]
Windows Defender Firewall	Private: On
Remote management	Enabled
Remote Desktop	Enabled
NIC Teaming	Disabled
Ethernet	IPv4 address assigned by DHCP, IPv6 enabled
Operating system version	Microsoft Windows Server 2019 Datacenter
Hardware information	Microsoft Corporation Virtual Machine
Last installed updates	Today at 6:00 AM
Windows Update	Install updates automatically using Windows Update
Last checked for updates	Today at 5:59 AM
Windows Defender Antivirus	Real-Time Protection: On
Feedback & Diagnostics	Settings
IE Enhanced Security Configuration	On
Time zone	(UTC) Coordinated Universal Time
Product ID	[REDACTED]
Processors	Intel(R) Xeon(R) Platinum 8272CL CPU @ 2.60GHz
Installed memory (RAM)	7.95 GB
Total disk space	142.45 GB

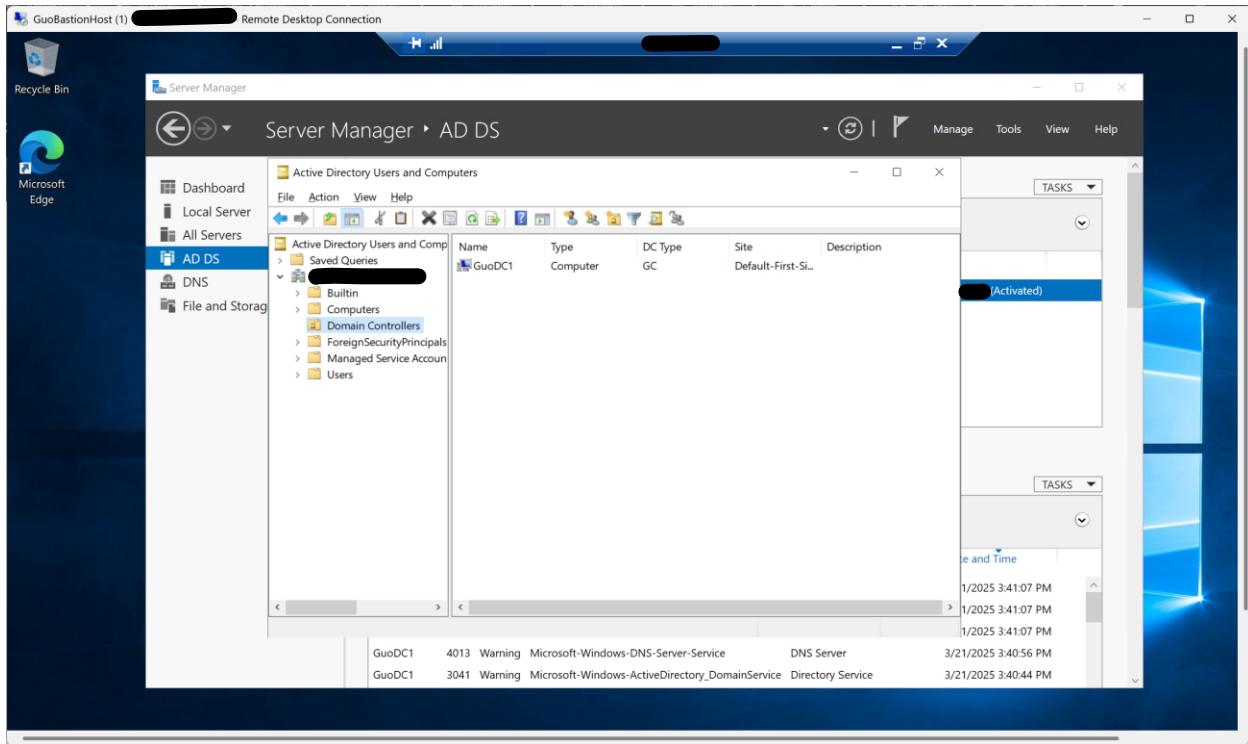
EVENTS section:

All events 30 total			
Server Name	ID	Severity	Source
GuoDC1	6006	Warning	Microsoft-Windows-Winlogon
GuoDC1	6008	Warning	Microsoft-Windows-Winlogon
GuoDC1	6005	Warning	Microsoft-Windows-Winlogon
GuoDC1	1067	Warning	Microsoft-Windows-TerminalServices-RemoteConnectionManager
GuoDC1	6038	Warning	Microsoft-Windows-LSA
GuoDC1	6005	Warning	Microsoft-Windows-Winlogon
GuoDC1	144	Warning	Microsoft-Windows-Time-Service
			Log
			Date and Time

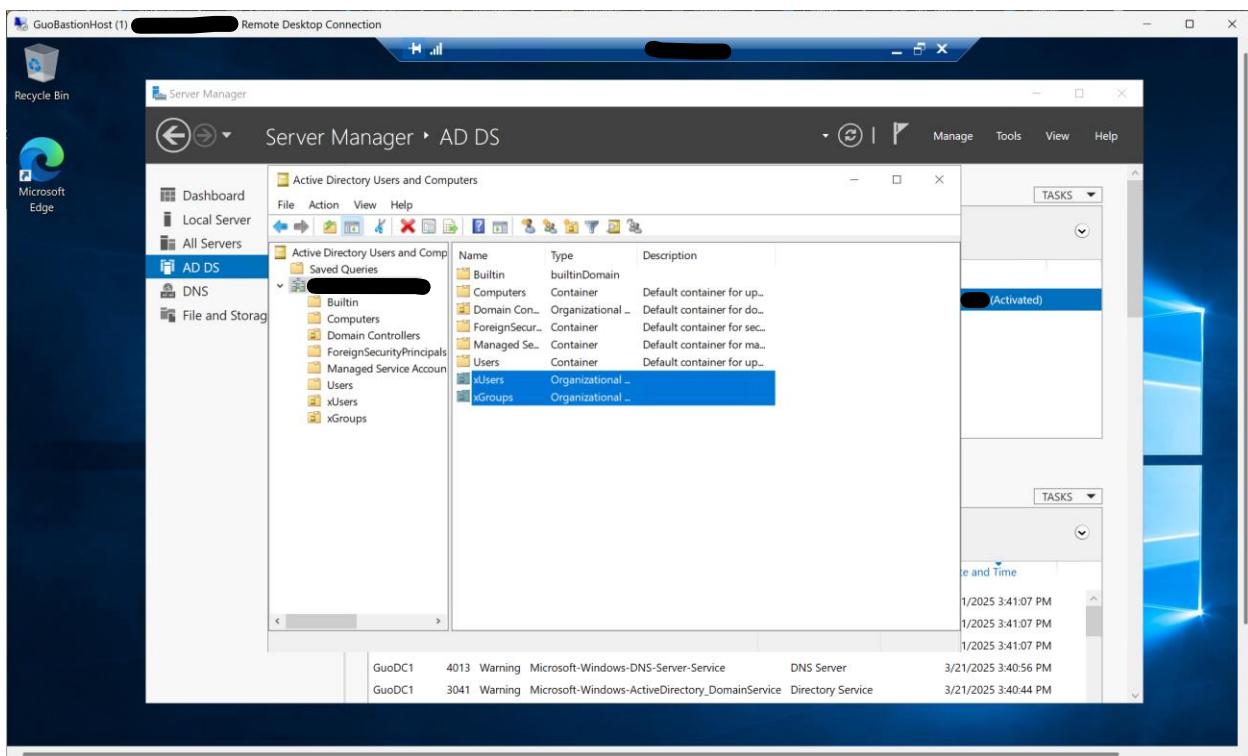
“Why is Microsoft DNS required for the Active Directory Domain Services role?”

Microsoft DNS is required for AD DS because AD DS relies on DNS to locate DCs and for those DCs to communicate with each other. Essentially, DNS translates computer names into IP addresses, which is crucial for AD DS to function properly within a network.

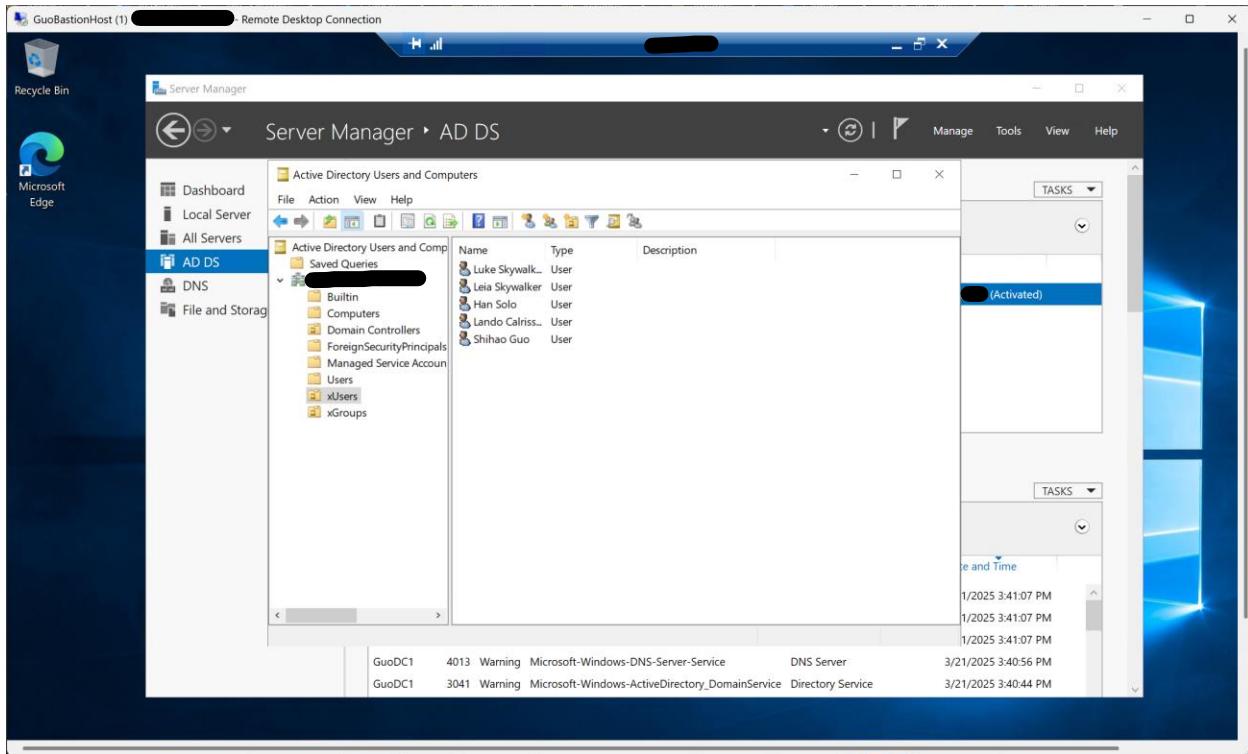
AD Users and Computers..



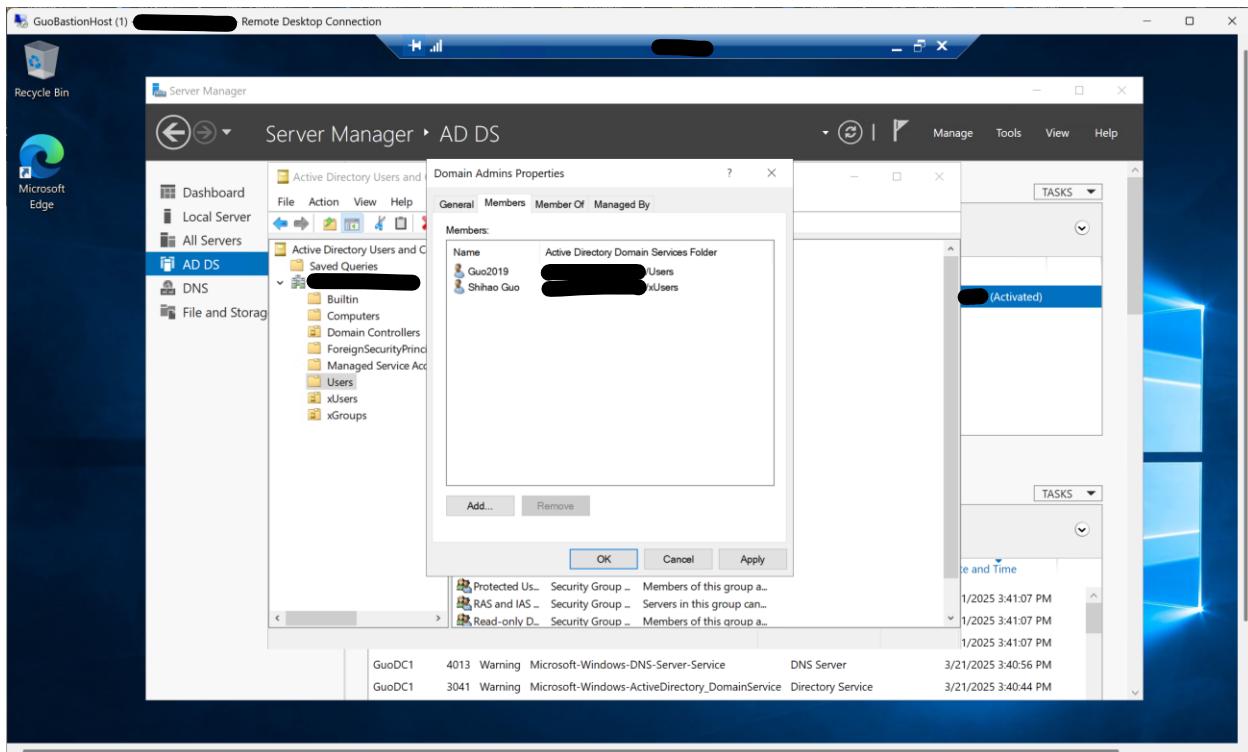
Added two OUs...



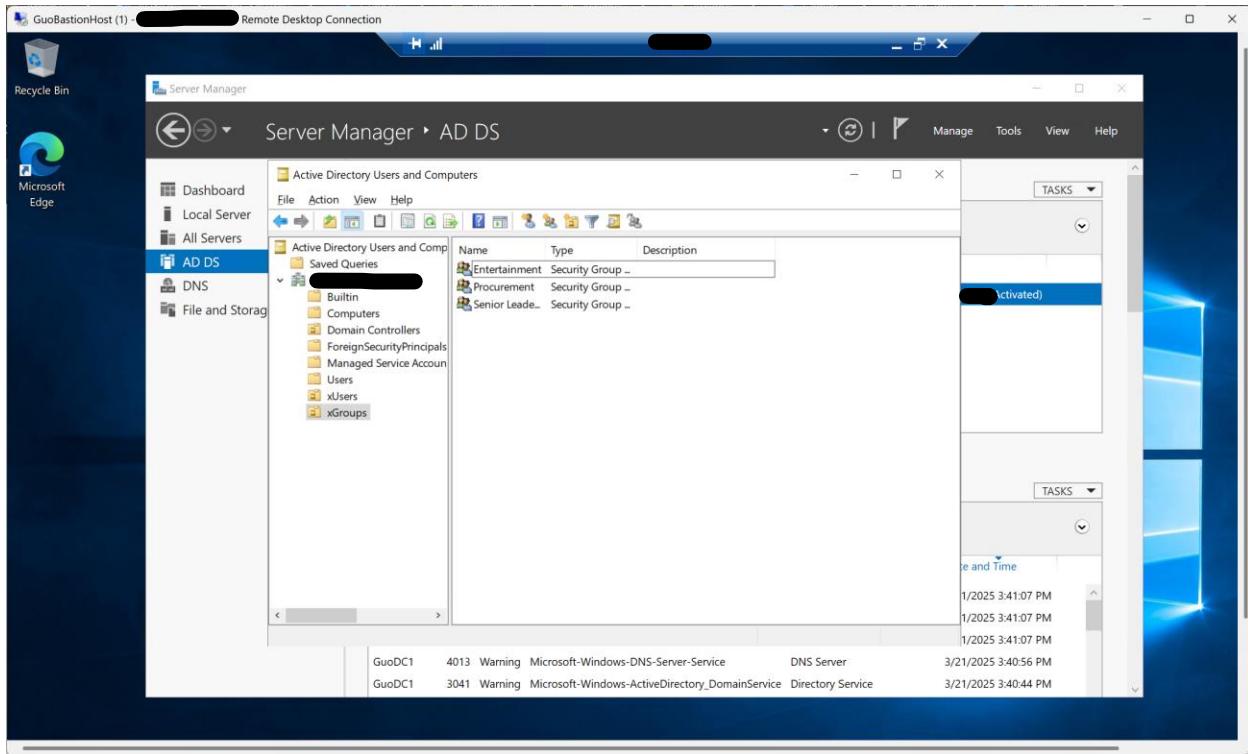
Added Users... (I can't believe I work with these people, I'm out of my mind)



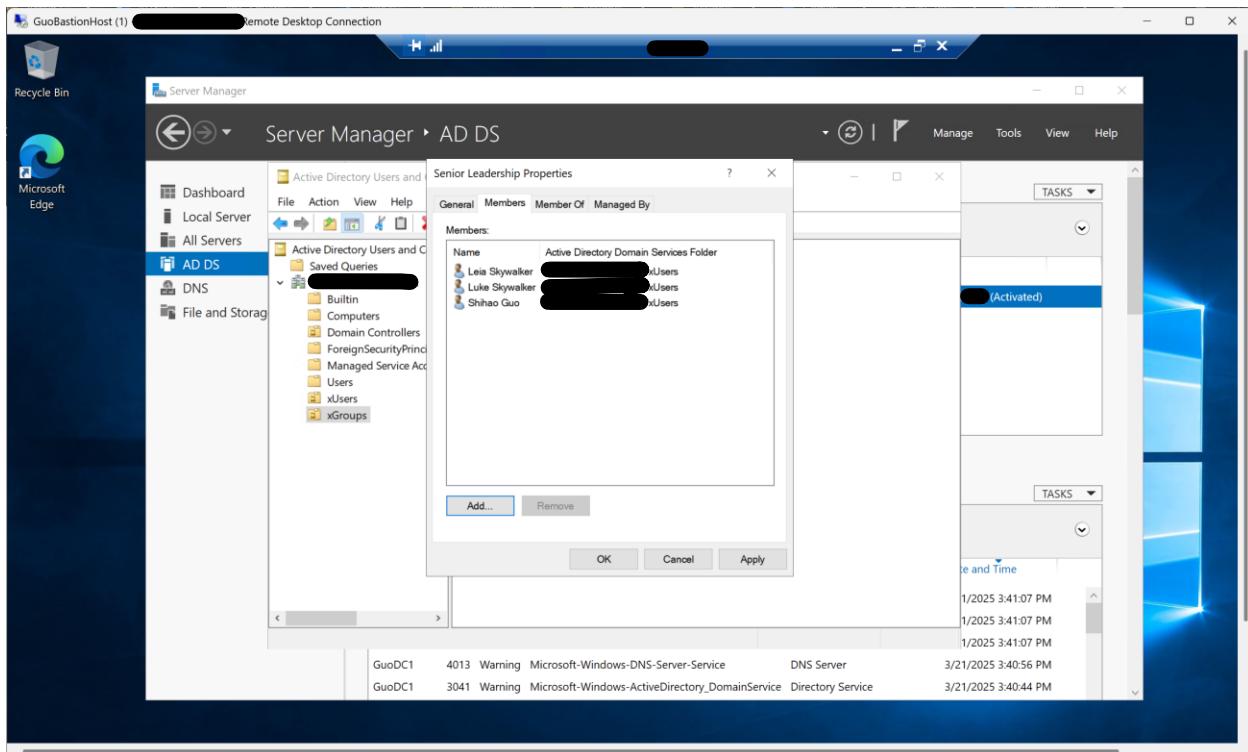
Assigning myself to the Domain Admins group...



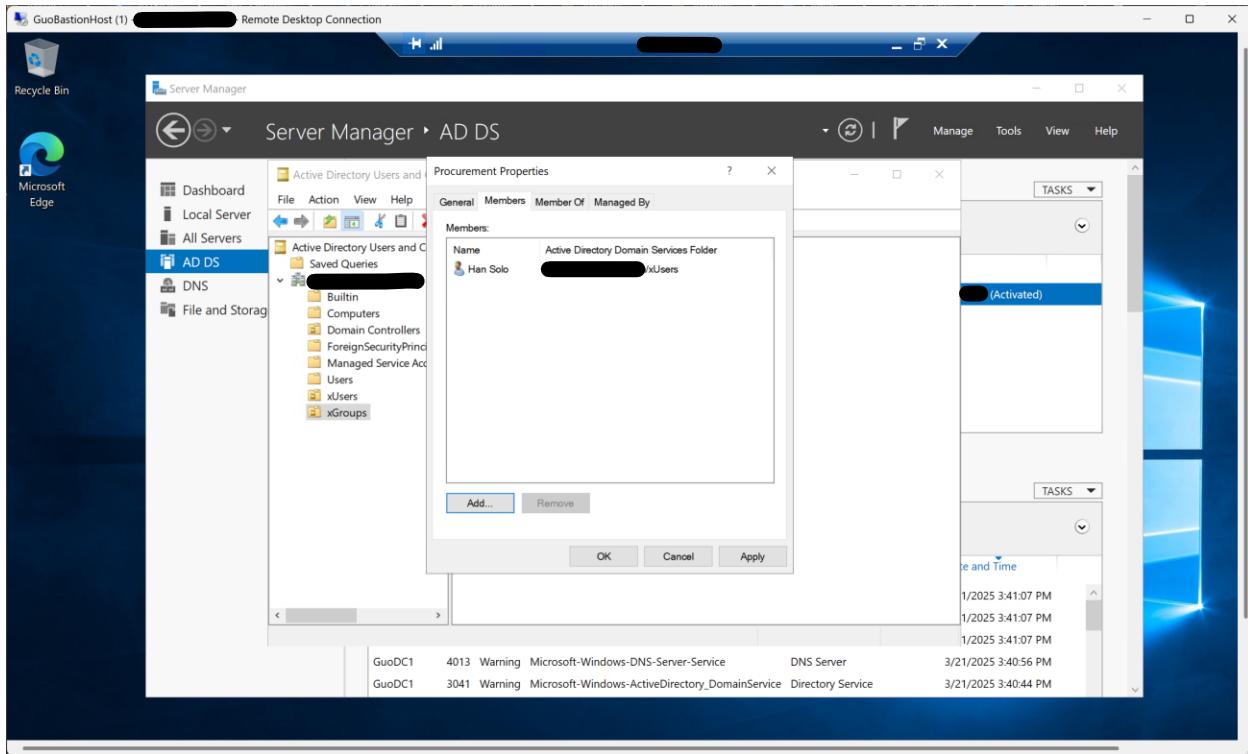
Added Groups...



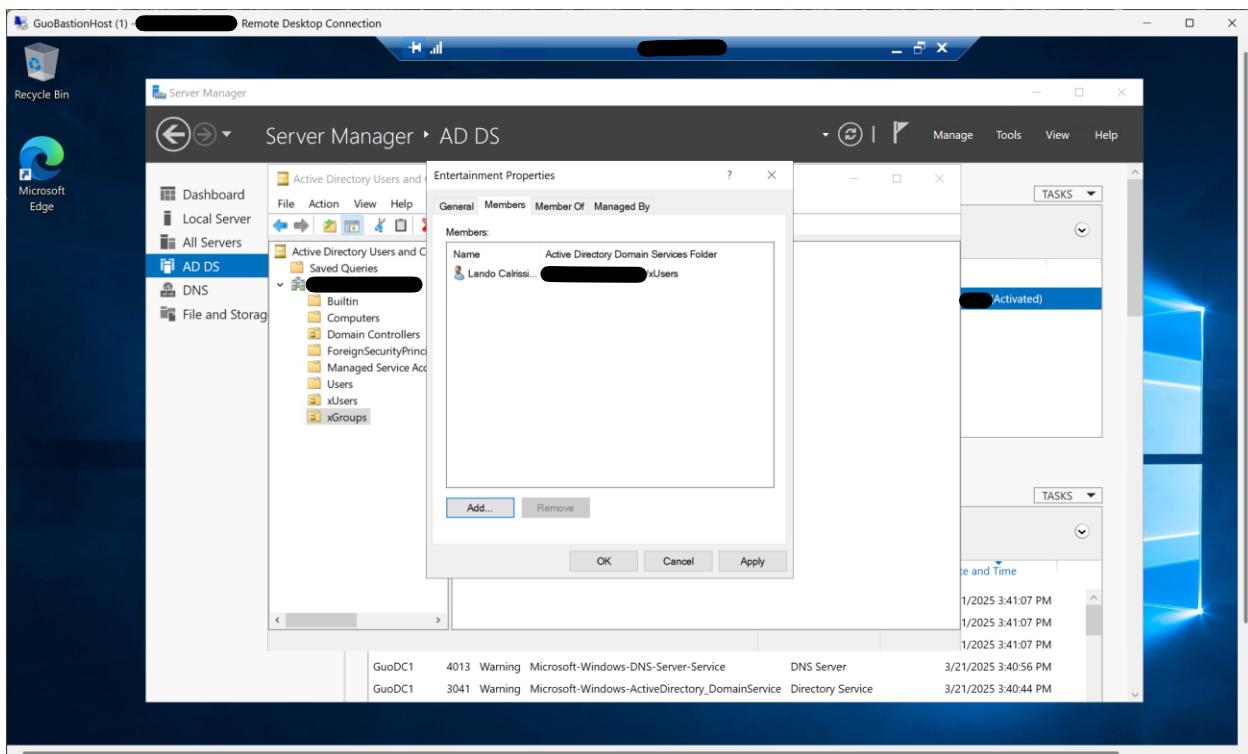
Added Users to the Senior group...



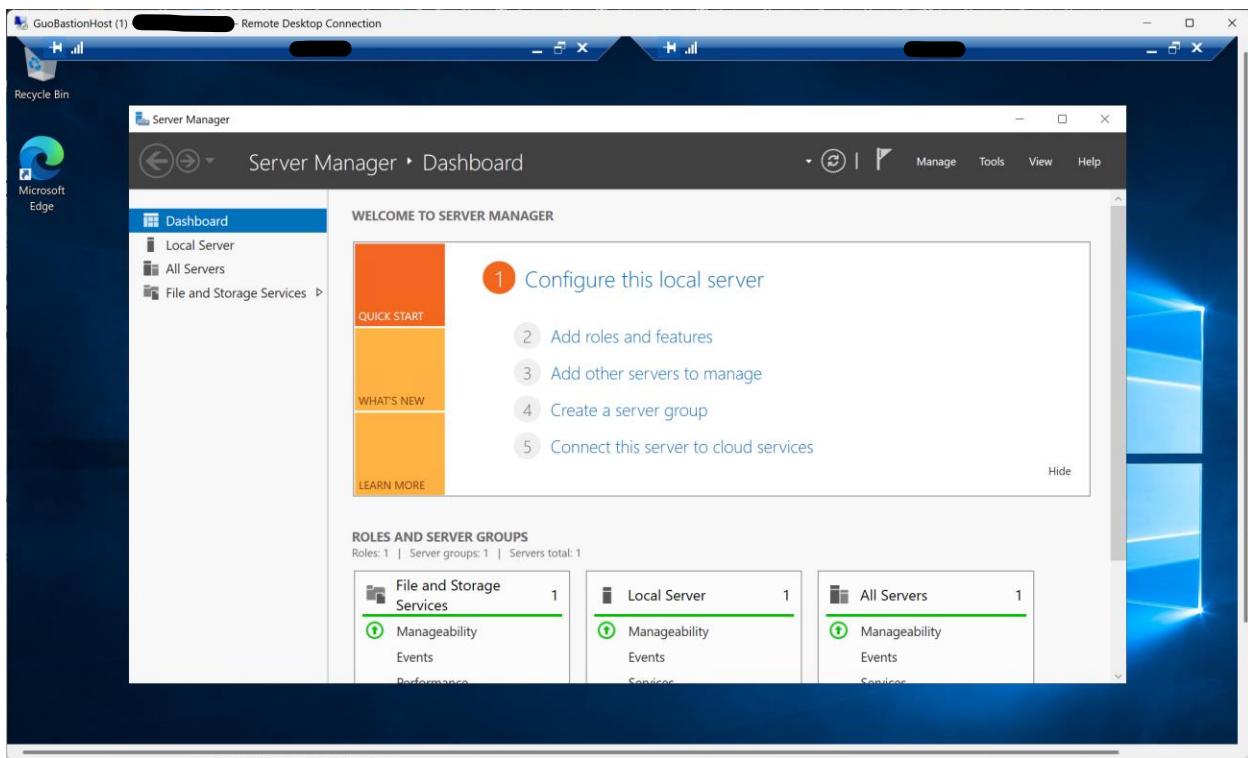
Added User to the Procurement group...



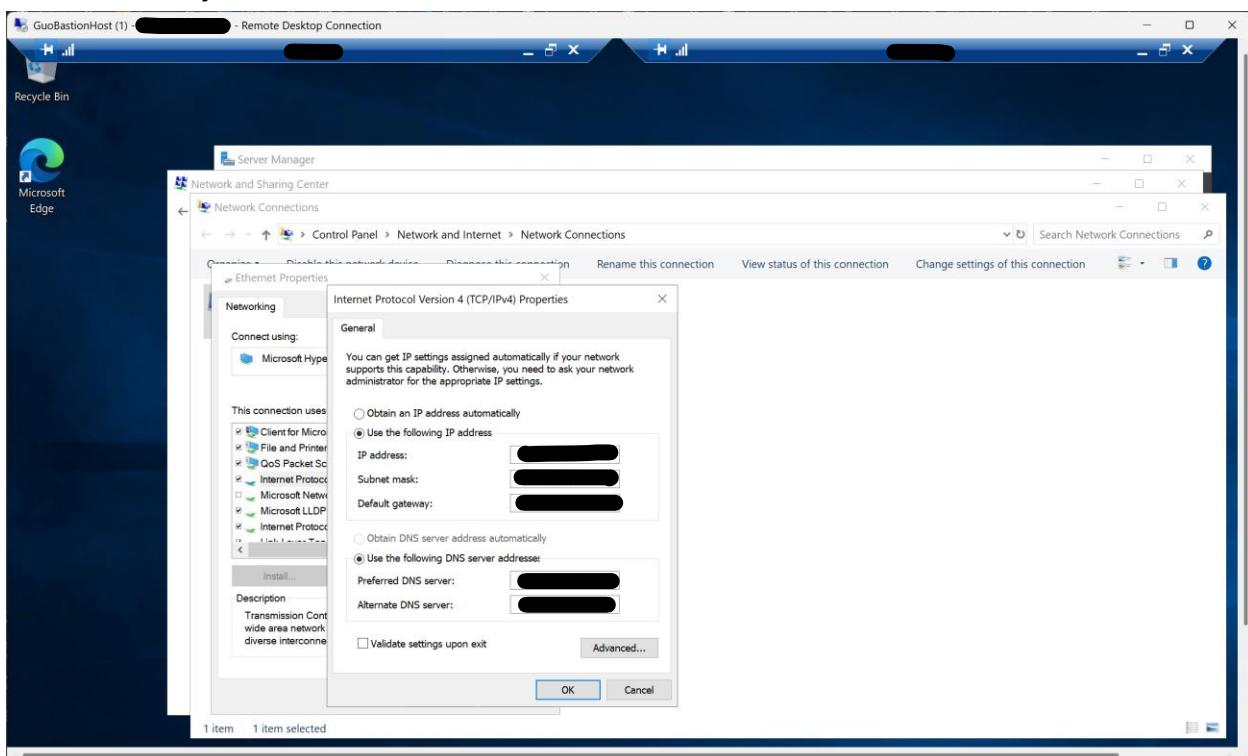
Added User to the Entertainment group...



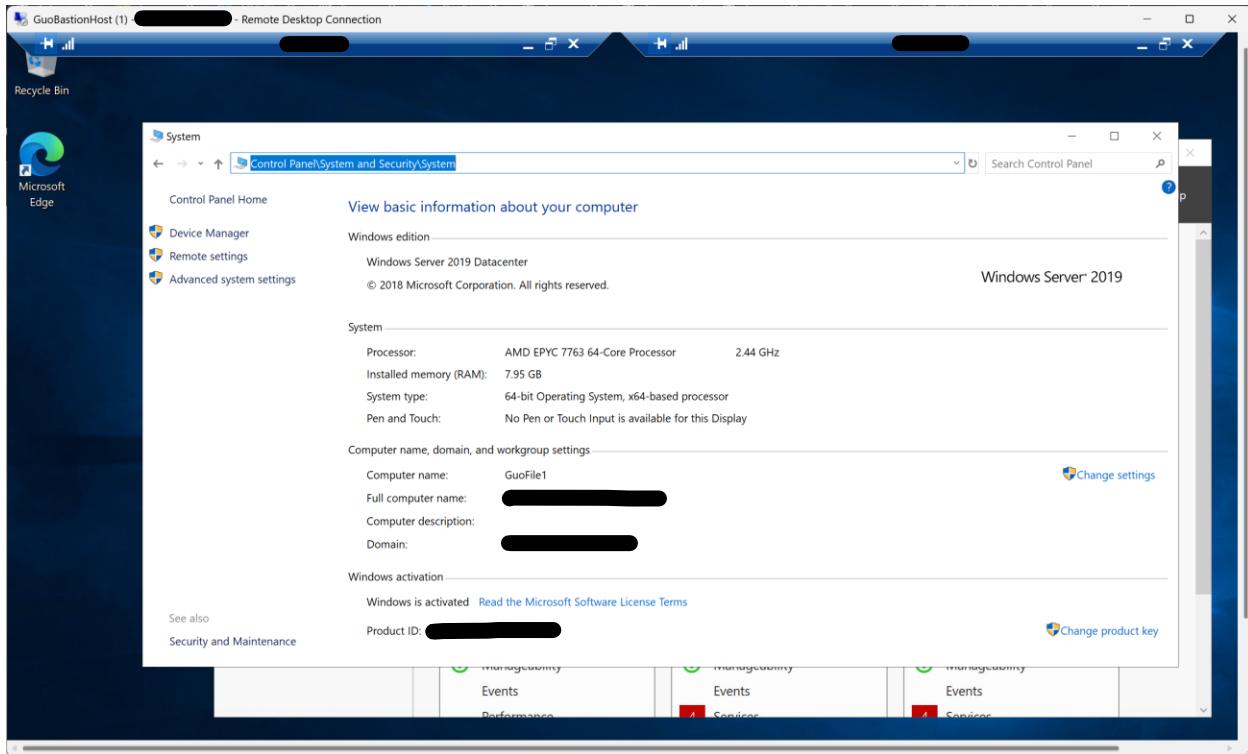
Connected to the Fileserver VM within the DC1 VM...



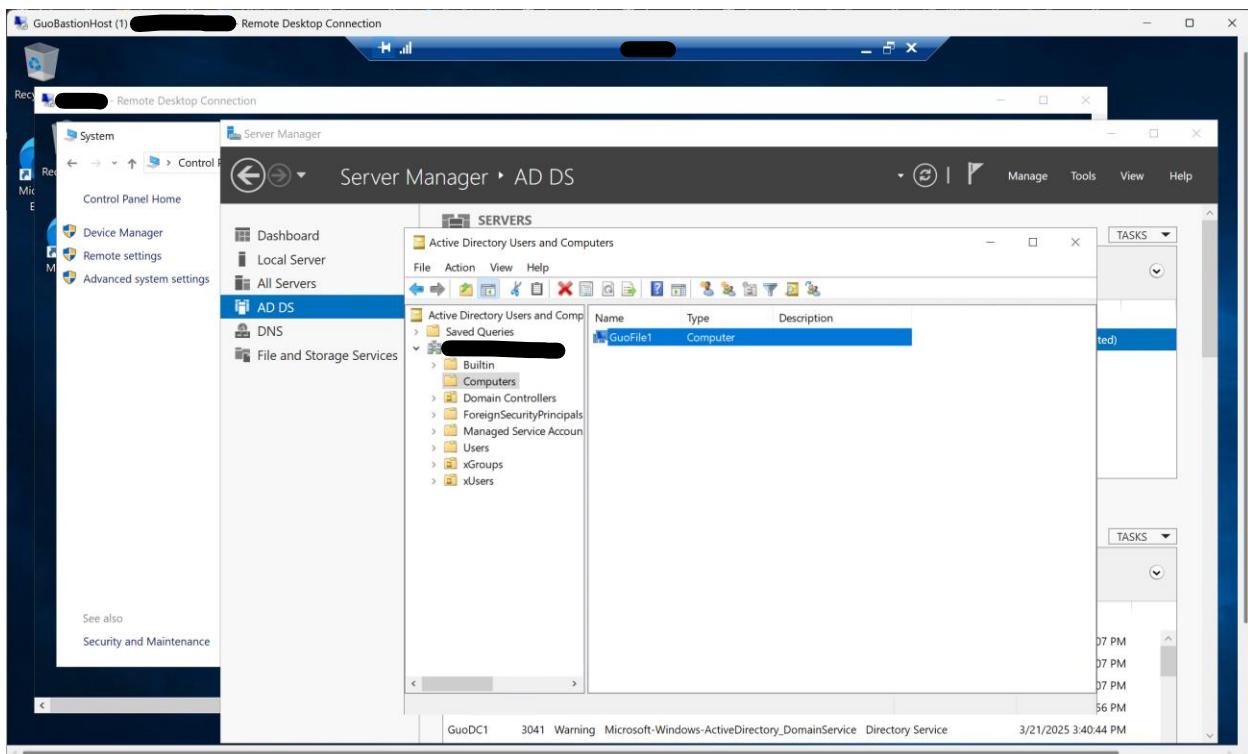
Set the Primary DNS server to the IP...



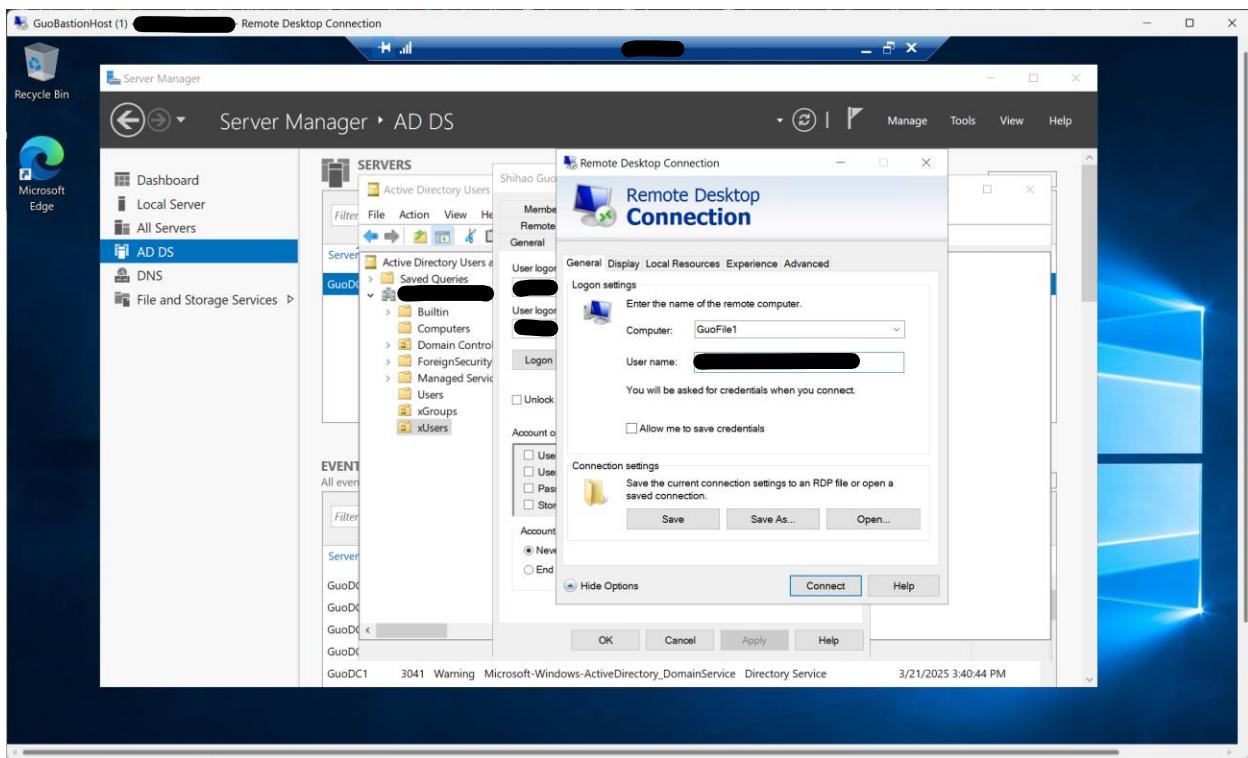
Successfully connected the Fileserver to [REDACTED]...



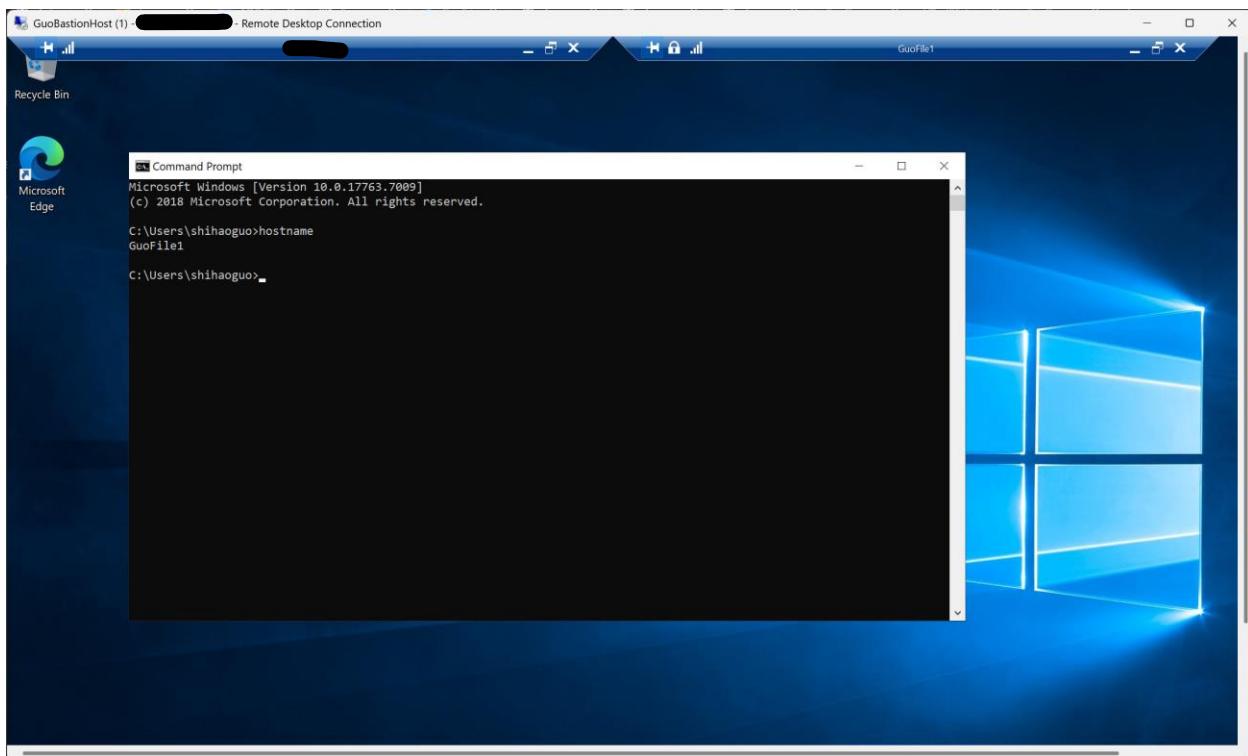
Fileserver in AD Users & Computers...



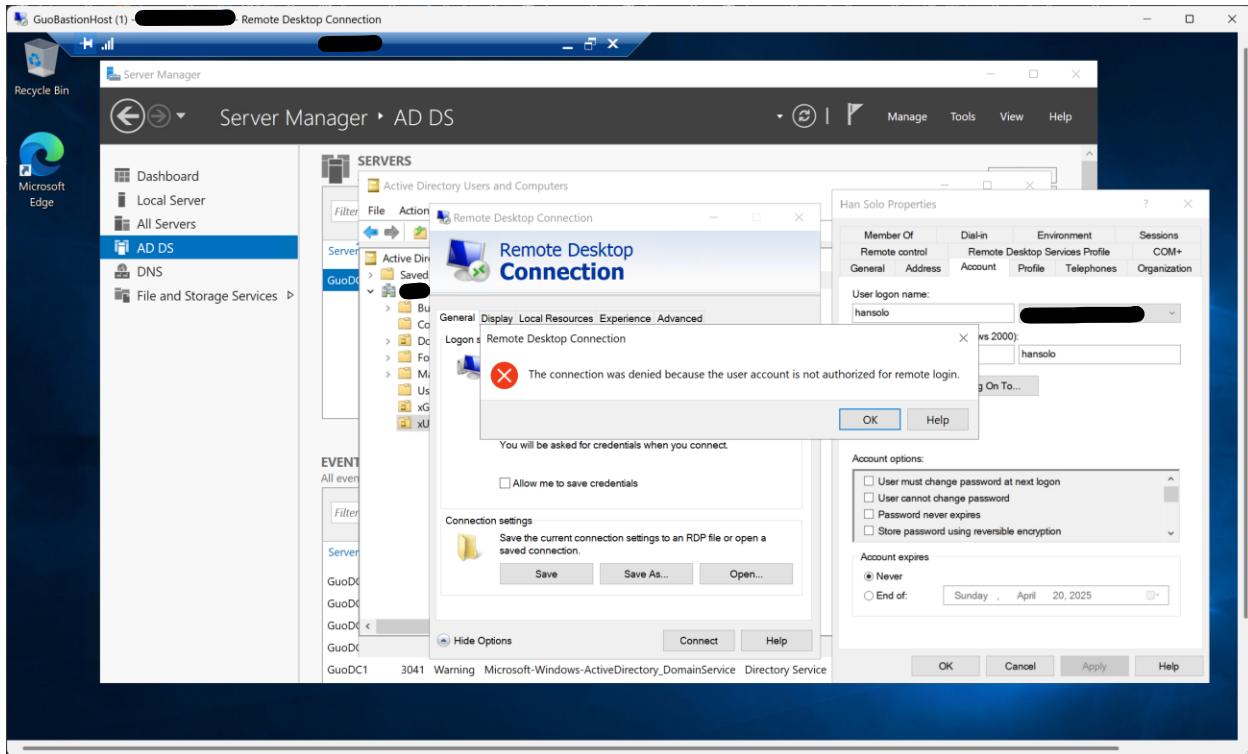
Using my AD User to connect to GuoFile1...



“Were you able to successfully RDP?” Yes.



“Were you able to successfully RDP?” No.



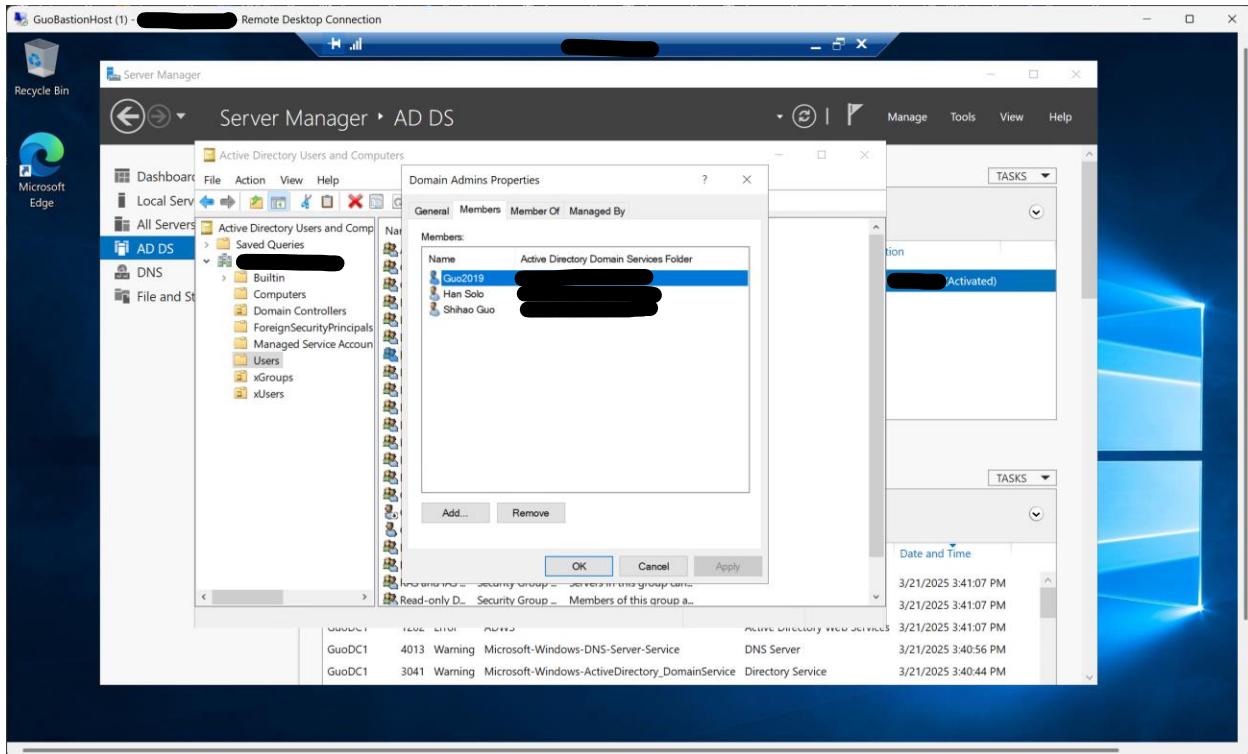
“Why can you not successfully RDP with the user Han Solo?”

Because the user's account, Han Solo, is not an authorized user for RDP.

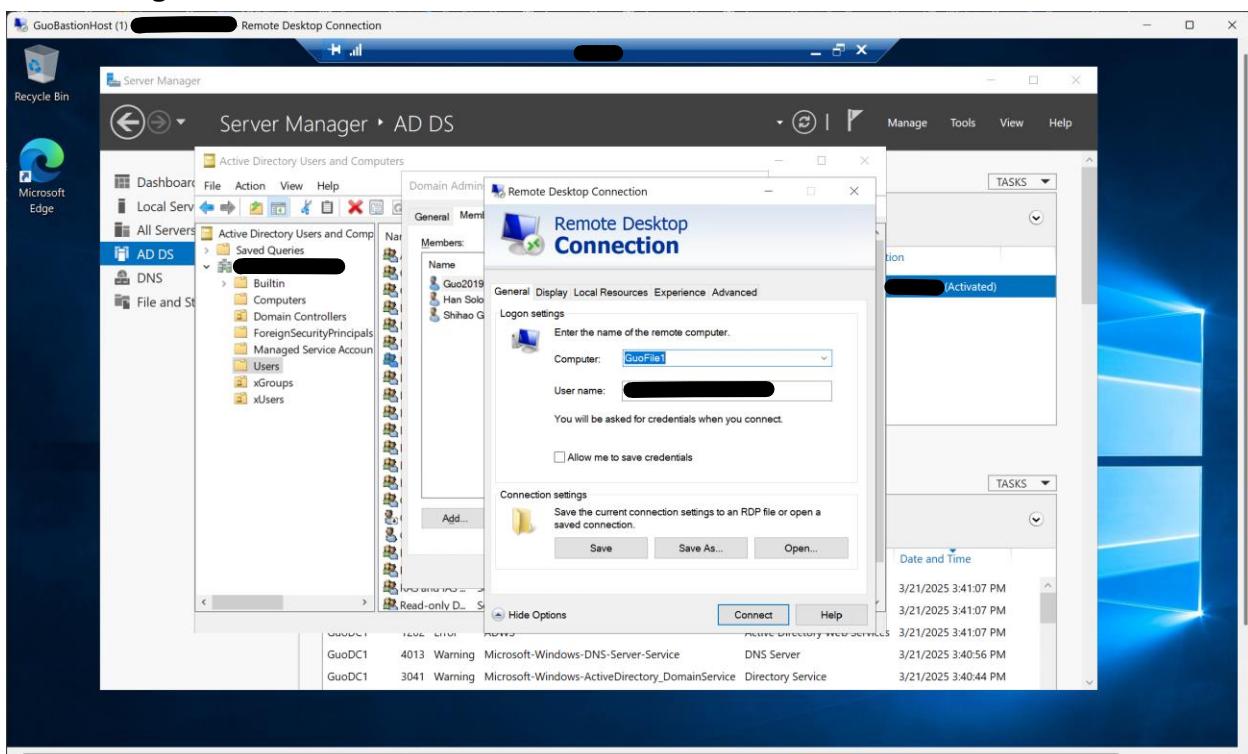
“How do you grant Han Solo to the ability to RDP to any server joined to the domain?”

By giving Han Solo authorization to RDP.

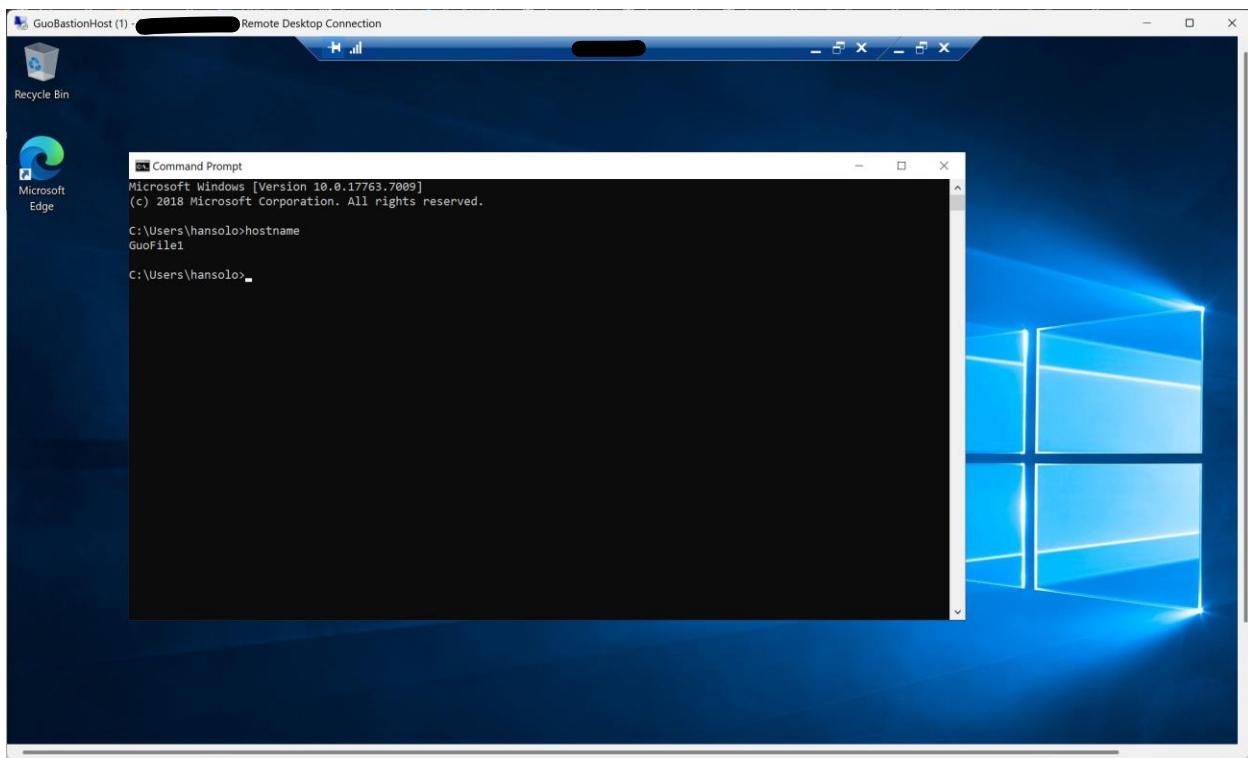
For the purpose of this project, adding AD User, Han Solo, to the Domain Admins group is the easiest way to grant the ability to RDP.



Connecting...



Successfully connected...



All VMs turned off...

The screenshot shows the Microsoft Azure Compute Infrastructure Virtual Machines page. On the left, a sidebar lists navigation options like Overview, All resources, Infrastructure, and Virtual machines. The Virtual machines section is selected, showing a list of VMs: GuoBastionHost, GuoDC1, and GuoFile1. The main content area displays the details for 'GuoBastionHost'. At the top right, a message box indicates 'Successfully stopped virtual machine' for 'GuoBastionHost'. Below the message, an Advisor suggests migrating workload to D-series or better virtual machine. The VM details page includes sections for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect (with options to Connect, Bastion, Windows Admin Center), Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, and Automation. The 'Essentials' section provides key information: Resource group (move) [REDACTED], Status: Stopped (deallocated), Location: East US 2 (Zone 1), Subscription (move) [REDACTED] (Azure for Students), Subscription ID [REDACTED], Availability zone: 1, Operating system: Windows, Size: Standard B2ms (2 vcpus, 8 GiB mem...), Public IP address [REDACTED], Virtual network/subnet [REDACTED], DNS name [REDACTED], Health state: [REDACTED], Time created: [REDACTED], and Tags (edit) [REDACTED]. A 'JSON View' link is also present.

Microsoft Azure

Search resources, services, and docs (G+/-)

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SHG182@pitt.edu UNIVERSITY OF PITTSBURGH

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Compute infrastructure | Virtual machines

Virtual machines Get started

Search Filter for any field... Name ↑

- GuoBastionHost
- GuoDC1
- GuoFile1

Virtual Machine Scale Set (VMSS) Compute Fleet (preview) Disks + images Capacity + placement Related services Help

Page 1 of 1

GuoDC1 Virtual machine

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Resource visualizer Connect Bastion Windows Admin Center Networking Settings Availability + scale Security Backup + disaster recovery Operations Monitoring Automation

Help me copy this VM in any region

Connect Start Restart Stop Hibernate Capture

Essentials

Resource group (move)	
Status	: Stopped (deallocated)
Location	: East US 2 (Zone 1)
Subscription (move)	: Azure for Students
Subscription ID	[REDACTED]
Availability zone	: 1
Operating system	: Windows
Size	: Standard B2ms (2 vcpus, 8 GiB me...)
Public IP address	[REDACTED]
Virtual network/subnet	[REDACTED]
DNS name	[REDACTED]
Health state	[REDACTED]
Time created	[REDACTED]
Tags (edit)	: Add tags

JSON View

Successfully stopped virtual machine Successfully stopped the virtual machine 'GuoDC1'.

Microsoft Azure

Search resources, services, and docs (G+/-)

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Home > Compute infrastructure | Virtual machines >

Compute infrastructure | Virtual machines

Virtual machines Get started

Search Filter for any field... Name ↑

- GuoBastionHost
- GuoDC1
- GuoFile1

Virtual Machine Scale Set (VMSS) Compute Fleet (preview) Disks + images Capacity + placement Related services Help

Page 1 of 1

GuoFile1 Virtual machine

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Resource visualizer Connect Bastion Windows Admin Center Networking Settings Availability + scale Security Backup + disaster recovery Operations Monitoring Automation

Help me copy this VM in any region

Connect Start Restart Stop Hibernate Capture

Essentials

Resource group (move)	
Status	: Stopped (deallocated)
Location	: East US 2 (Zone 1)
Subscription (move)	: Azure for Students
Subscription ID	[REDACTED]
Availability zone	: 1
Operating system	: Windows
Size	: Standard B2as v2 (2 vcpus, 8 GiB ...)
Public IP address	[REDACTED]
Virtual network/subnet	[REDACTED]
DNS name	[REDACTED]
Health state	[REDACTED]
Time created	[REDACTED]
Tags (edit)	: Add tags

JSON View

Successfully stopped virtual machine Successfully stopped the virtual machine 'GuoFile1'.