

MANAGING SERVER THROUGH POWERSHELL

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WHAT

_____ A server, client, and powershell

DO WE

_____ Enabling PowerShell remoting, configuring Windows Remote Management, and installing Powershell modules **on Server.**

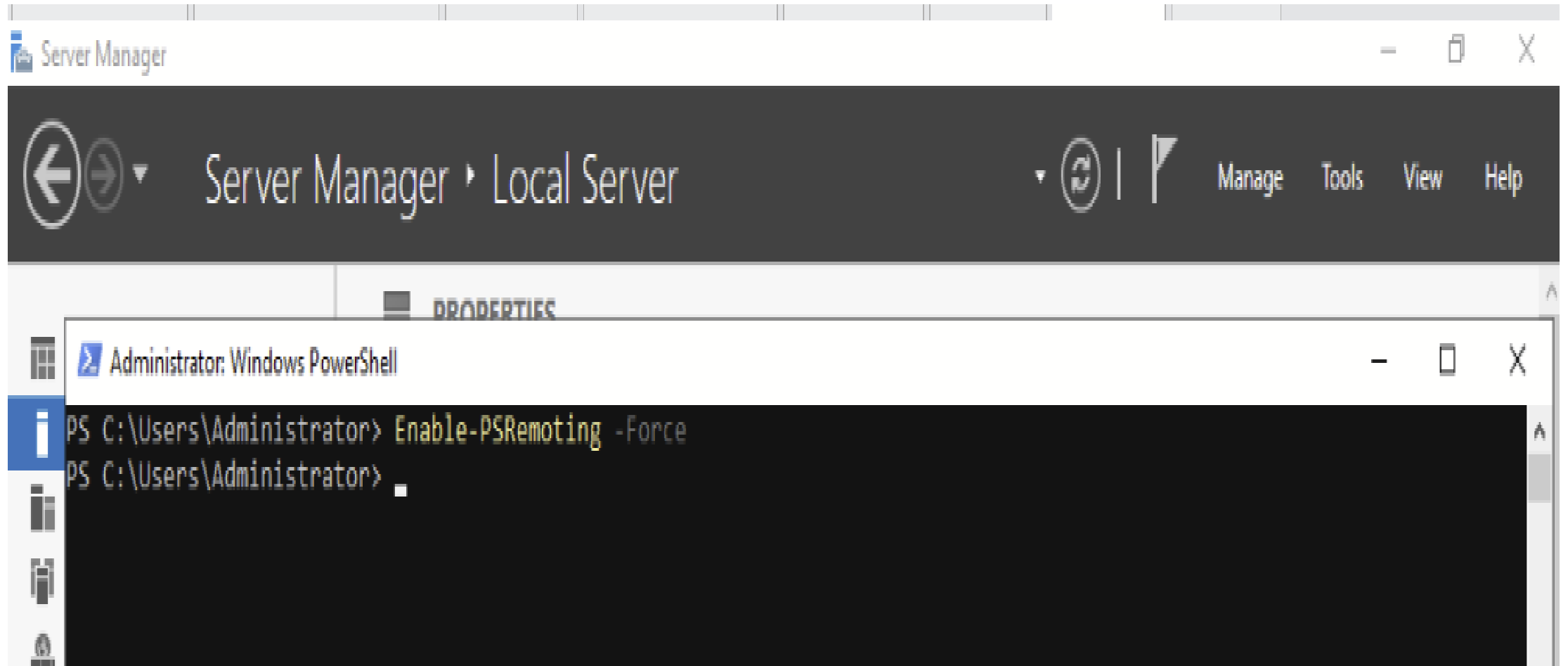
NEED

_____ Installing Remote Server Administration Tools (RSAT), configuring PowerShell remoting, connecting to the server, and manage server **on Client.**

TO DO

_____ Demo of managing Server

ENABLING POWERSHELL REMOTING



CONFIGURE WINRM

```
PS C:\Users\Administrator> winrm quickconfig  
WinRM service is already running on this machine.  
WinRM is already set up for remote management on this computer.  
PS C:\Users\Administrator>
```

```
Administrator: Windows PowerShell
PS C:\Users\Administrator> Install-windowsfeature AD-Domain-Services

Success Restart Needed Exit Code      Feature Result
-----
NoChangeNeeded {}

PS C:\Users\Administrator

> get-windowsfeature

Display Name                                Name                                Install State
-----
[ ] Active Directory Certificate Services    AD-Certificate                      Available
[ ] Certification Authority                  ADCS-Cert-Authority                 Available
[ ] Certificate Enrollment Policy Web Service ADCS-Enroll-Web-Pol                 Available
[ ] Certificate Enrollment Web Service       ADCS-Enroll-Web-Svc                 Available
[ ] Certification Authority Web Enrollment   ADCS-Web-Enrollment                 Available
[ ] Network Device Enrollment Service        ADCS-Device-Enrollment              Available
[ ] Online Responder                        ADCS-Online-Cert                    Available
[X] Active Directory Domain Services         AD-Domain-Services                 Installed
[ ] Active Directory Federation Services     ADFS-Federation                     Available
[ ] Active Directory Lightweight Directory Services ADLDS                               Available
[ ] Active Directory Rights Management Services ADRMS                               Available
[ ] Active Directory Rights Management Server ADRMS-Server                        Available
[ ] Identity Federation Support              ADRMS-Identity                      Available
[ ] Device Health Attestation                DeviceHealthAttestat...             Available
[ ] DHCP Server                             DHCP                                Available
[X] DNS Server                              DNS                                 Installed
[ ] Fax Server                              Fax                                 Available
[X] File and Storage Services                FileAndStorage-Services             Installed
[X] File and iSCSI Services                  File-Services                       Installed
[X] File Server                             FS-FileServer                       Installed
[ ] BranchCache for Network Files            FS-BranchCache                     Available
[ ] Data Deduplication                      FS-Data-Deduplication               Available
[ ] DFS Namespaces                          FS-DFS-Namespaces                   Available
[ ] DFS Replication                         FS-DFS-Replication                  Available
[ ] File Server Resource Manager             FS-Resource-Manager                 Available
[ ] File Server VSS Agent Service            FS-VSS-Agent                        Available
[ ] iSCSI Target Server                     FS-iSCSITarget-Server               Available
[ ] iSCSI Target Storage Provider (VDS and V... iSCSITarget-VSS-VDS                 Available
[ ] Server for NFS                          FS-NFS-Service                      Available
[ ] Work Folders                            FS-SyncShareService                 Available
[X] Storage Services                        Storage-Services                     Installed
[ ] Host Guardian Service                   HostGuardianServiceRole              Available
[ ] Hyper-V                                Hyper-V                              Available
```



Type here to search



9:45 PM
11/26/2023

```
PS C:\Users\Administrator> Install-windowsfeature DHCP -IncludeManagementTools
```

WARNING: The following recommended condition is not met for DHCP: No static IP addresses were found on this computer. If the IP address changes, clients might not be able to contact this server. Please configure a static IP address before installing DHCP Server.

Success	Restart Needed	Exit Code	Feature Result
True	No	Success	{DHCP Server, DHCP Server Tools}

```
PS C:\Users\Administrator> _
```

```
PS C:\Users\Administrator>
```

```
PS C:\Users\Administrator> Install-windowsfeature DNS -IncludeManagementTools
```

Success	Restart Needed	Exit Code	Feature Result
True	No	NoChangeNeeded	{}

```
PS C:\Users\Administrator> Install-WindowsFeature -Name RSAT-AD-Tools
```

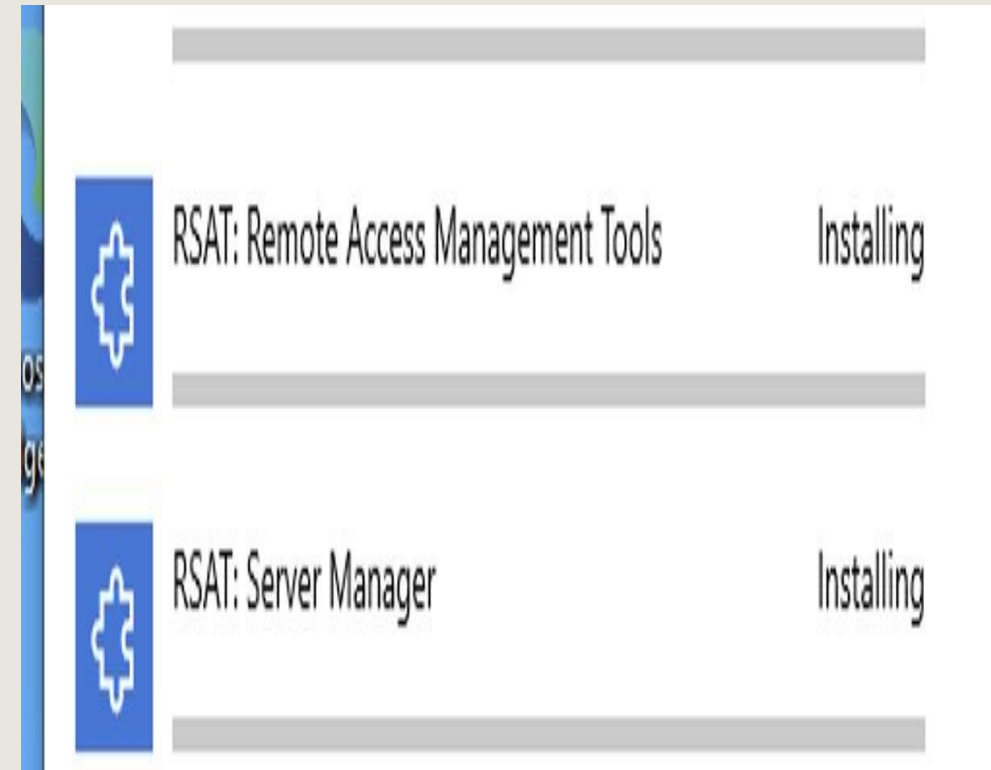
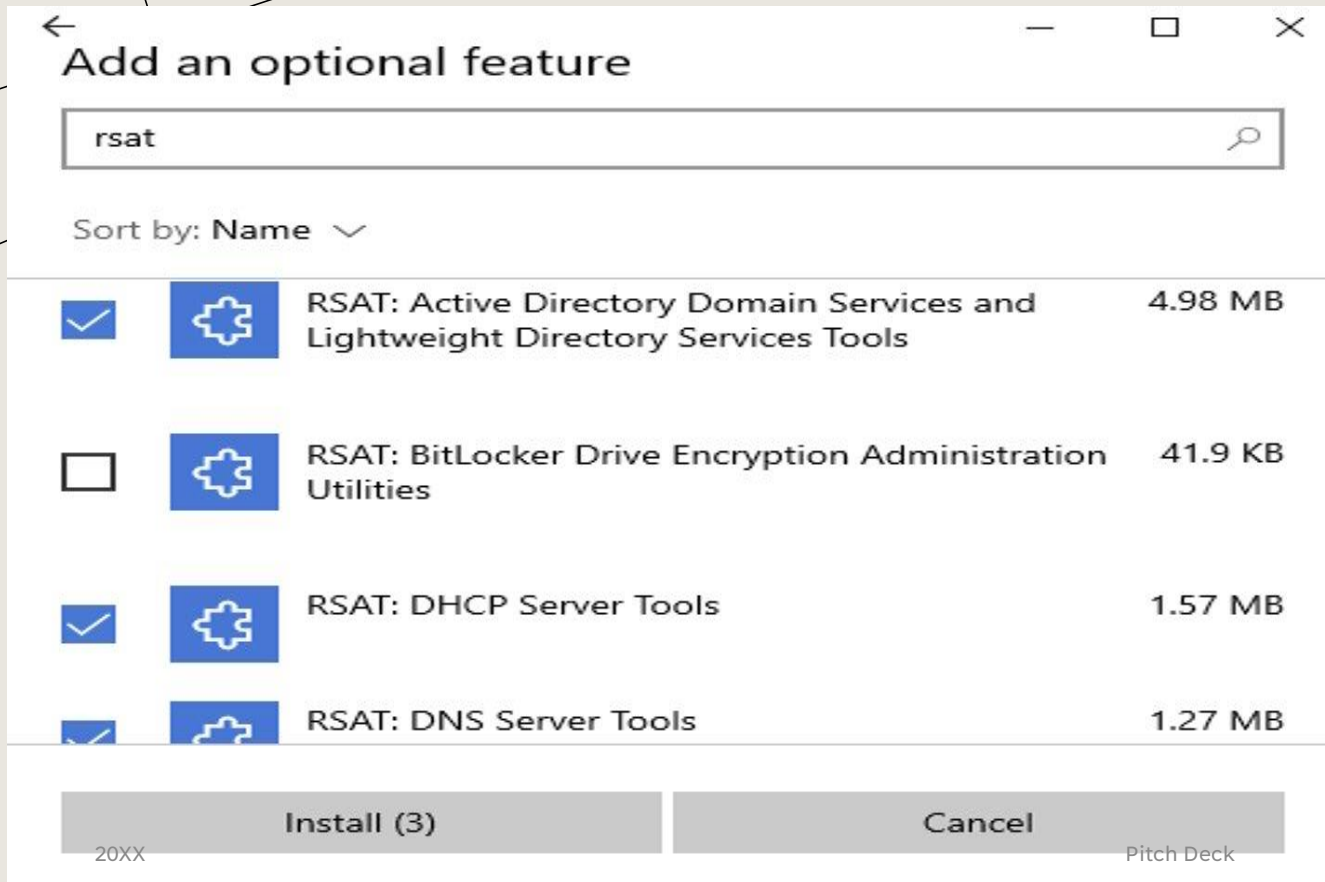
Success	Restart Needed	Exit Code	Feature Result
True	No	Success	{AD LDS Snap-Ins and Command-Line Tools}

```
=====
Welcome to Windows Server 2022 Standard
=====
```

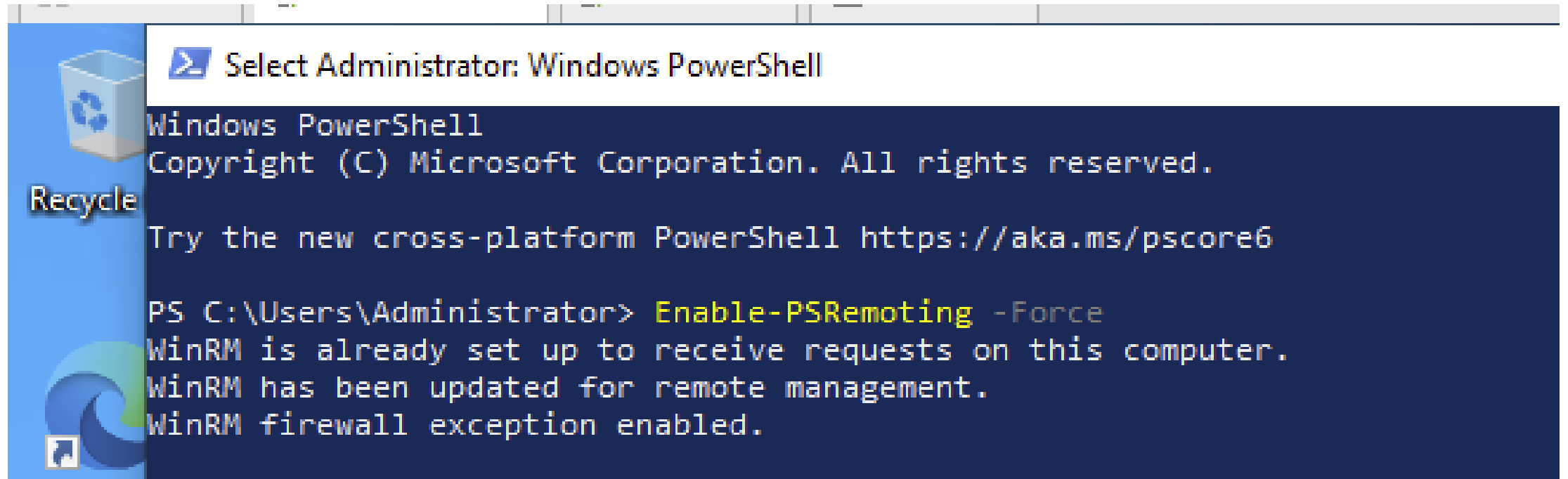
- | | |
|---------------------------------------|--------------------|
| 1) Domain/workgroup: | Domain: adatum.com |
| 2) Computer name: | WIN-SERVER |
| 3) Add local administrator | |
| 4) Remote management: | Enabled |
| 5) Update setting: | Download only |
| 6) Install updates | |
| 7) Remote desktop: | Disabled |
| 8) Network settings | |
| 9) Date and time | |
| 10) Telemetry setting: | Required |
| 11) Windows activation | |
| 12) Log off user | |
| 13) Restart server | |
| 14) Shut down server | |
| 15) Exit to command line (PowerShell) | |

Enter number to select an option:

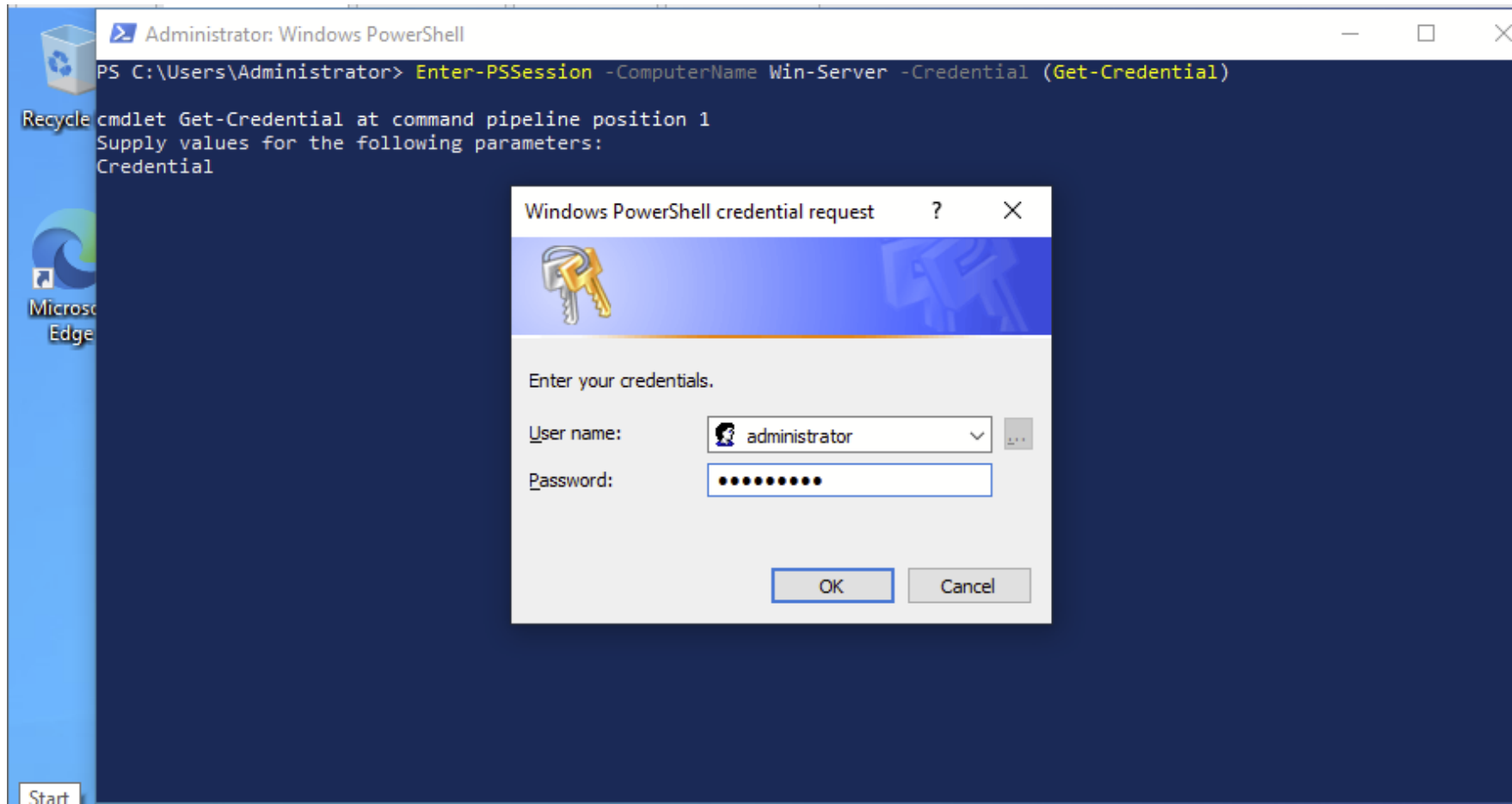
CLIENT SIDE – RSAT INSTALLATION



STARTING A REMOTE SESSION



REMOTE TO SERVER



RETRIEVE EVENT LOG ENTRIES FROM THE SERVER

```
PS C:\Users\Administrator> Get-EventLog -Logname Application -ComputerName 192.168.239.1 -Newest 10_
```

Index	Time	EntryType	Source	InstanceID	Message
-----	----	-----	-----	-----	-----
664	Nov 27 01:55	Information	Software Protecti...	3221241866	Offline downlevel migration succeeded.
663	Nov 27 01:47	Information	Software Protecti...	1073758208	Successfully scheduled Software Protection serv...
662	Nov 27 01:47	Information	Software Protecti...	3221241866	Offline downlevel migration succeeded.
661	Nov 27 01:45	Information	Software Protecti...	1073758208	Successfully scheduled Software Protection serv...
660	Nov 27 01:45	Information	Software Protecti...	3221241866	Offline downlevel migration succeeded.
659	Nov 27 01:43	Information	Software Protecti...	1073758208	Successfully scheduled Software Protection serv...
658	Nov 27 01:43	Information	Software Protecti...	3221241866	Offline downlevel migration succeeded.
657	Nov 27 01:41	Information	Software Protecti...	1073758208	Successfully scheduled Software Protection serv...
656	Nov 27 01:41	Information	Software Protecti...	3221241866	Offline downlevel migration succeeded.
655	Nov 27 01:40	Information	Software Protecti...	1073758208	Successfully scheduled Software Protection serv...

```
PS C:\Users\Administrator> _
```

GET-COMMAND

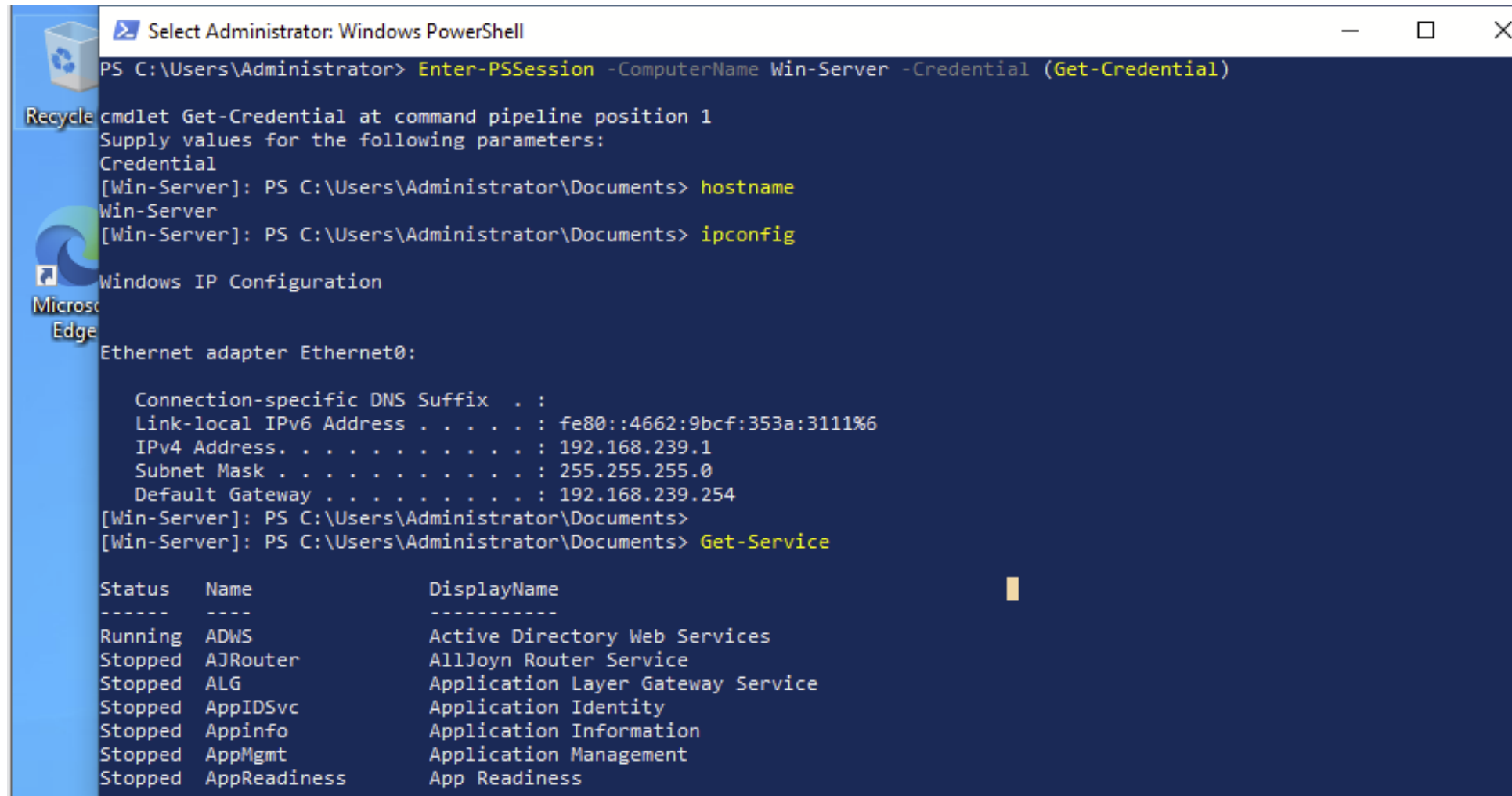
```
PowerShell Copy

Get-Command
[-Verb <String[]>]
[-Noun <String[]>]
[-Module <String[]>]
[-FullyQualifiedModule <ModuleSpecification[]>]
[-TotalCount <Int32>]
[-Syntax]
[-ShowCommandInfo]
[[-ArgumentList] <Object[]>]
[-All]
[-ListImported]
[-ParameterName <String[]>]
[-ParameterType <PSTypeName[]>]
[<CommonParameters>]
```

```
PowerShell Copy

Get-Command
[[-Name] <String[]>]
[-Module <String[]>]
[-FullyQualifiedModule <ModuleSpecification[]>]
[-CommandType <CommandTypes>]
[-TotalCount <Int32>]
[-Syntax]
[-ShowCommandInfo]
[[-ArgumentList] <Object[]>]
[-All]
[-ListImported]
[-ParameterName <String[]>]
[-ParameterType <PSTypeName[]>]
[-UseFuzzyMatching]
[-UseAbbreviationExpansion]
[<CommonParameters>]
```

TADAAAA



```
PS C:\Users\Administrator> Enter-PSSession -ComputerName Win-Server -Credential (Get-Credential)
cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
Credential
[Win-Server]: PS C:\Users\Administrator\Documents> hostname
Win-Server
[Win-Server]: PS C:\Users\Administrator\Documents> ipconfig

Windows IP Configuration

Ethernet adapter Ethernet0:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::4662:9bcf:353a:3111%6
    IPv4 Address. . . . . : 192.168.239.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.239.254
[Win-Server]: PS C:\Users\Administrator\Documents>
[Win-Server]: PS C:\Users\Administrator\Documents> Get-Service

Status      Name                DisplayName
-----
Running     ADWS                Active Directory Web Services
Stopped     AJRouter            AllJoyn Router Service
Stopped     ALG                 Application Layer Gateway Service
Stopped     AppIDSvc            Application Identity
Stopped     AppInfo             Application Information
Stopped     AppMgmt             Application Management
Stopped     AppReadiness        App Readiness
```

TADAAA MORE

```
[Win-Server]: PS C:\Users\Administrator\Documents> exit
PS C:\Users\Administrator> Enter-PSSession Win-Server
[Win-Server]: PS C:\Users\Administrator\Documents> Exit-PSSession
PS C:\Users\Administrator>
```

REFERENCES

- JasonGerend. (n.d.). *Remote Server Administration Tools*. Microsoft Learn. <https://learn.microsoft.com/en-us/windows-server/remote/remote-server-administration-tools>
- Sdwheeler. (2022, December 9). *PowerShell remoting - PowerShell*. Microsoft Learn. <https://learn.microsoft.com/en-us/powershell/scripting/learn/ps101/08-powershell-remoting?view=powershell-7.4>
- Sdwheeler. (2023, July 5). *about Remote - PowerShell*. Microsoft Learn. https://learn.microsoft.com/en-us/powershell/module/microsoft.powershell.core/about/about_remote?view=powershell-7.4

A series of white, overlapping geometric lines and polygons on a black background, located on the left side of the slide.

THANK YOU

Questions?