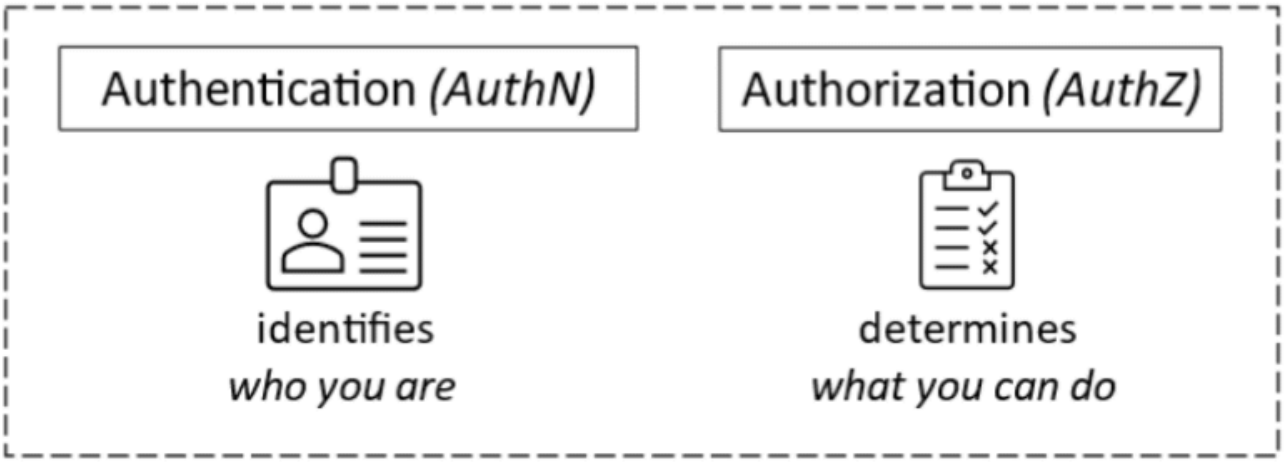
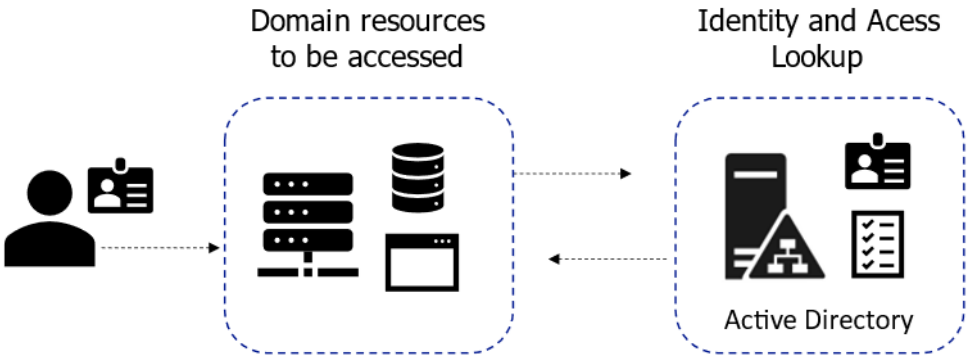
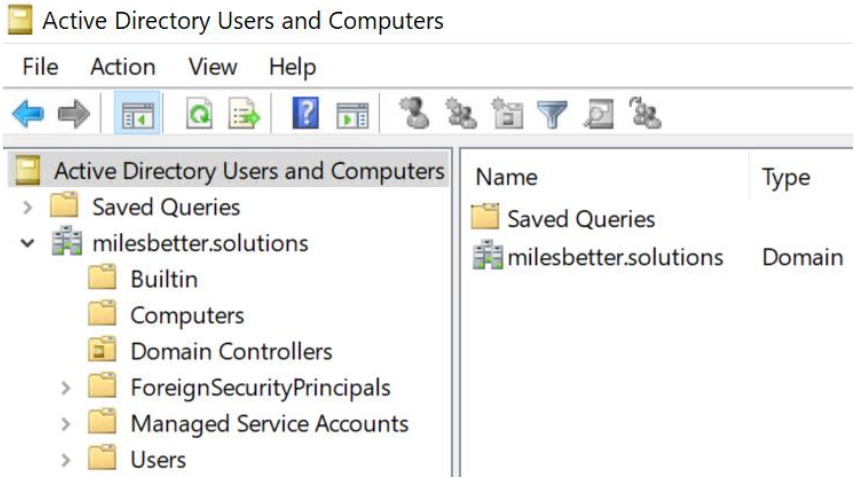
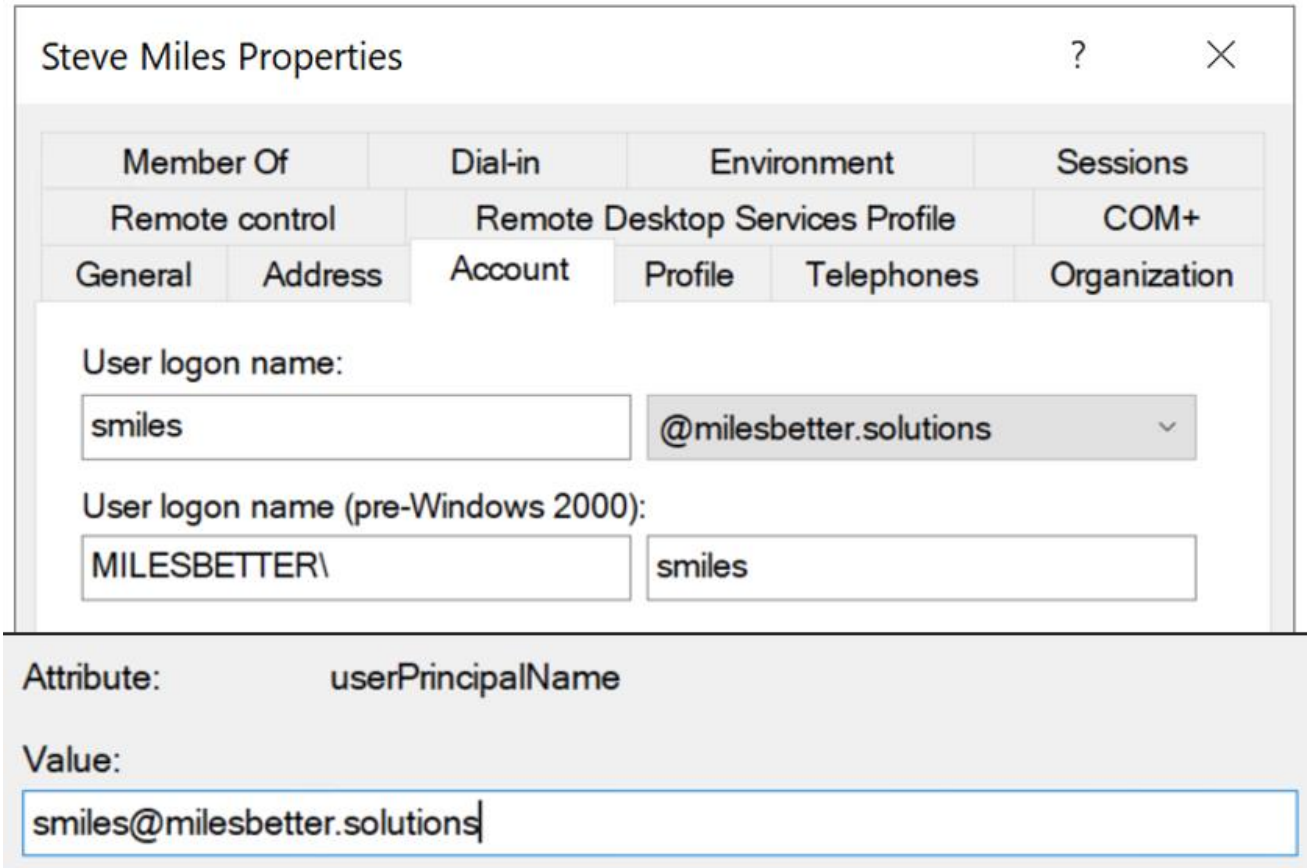
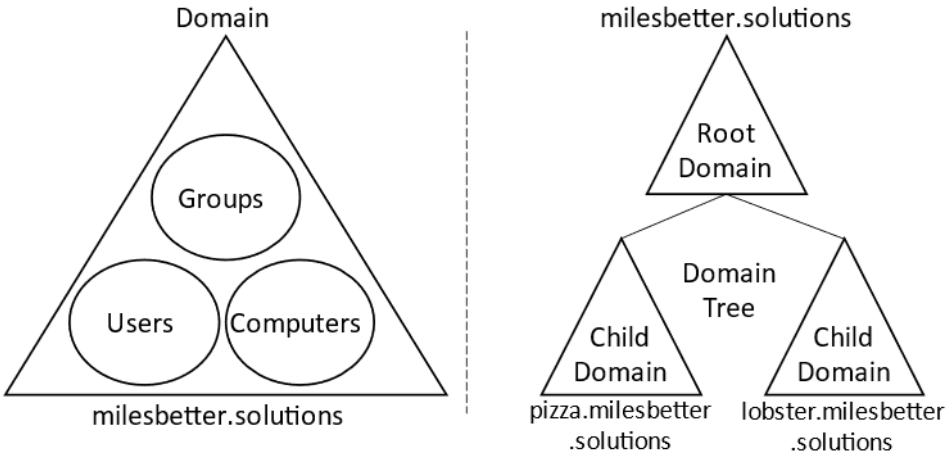
Chapter 1: Implementing and Managing Active Directory Domain Services

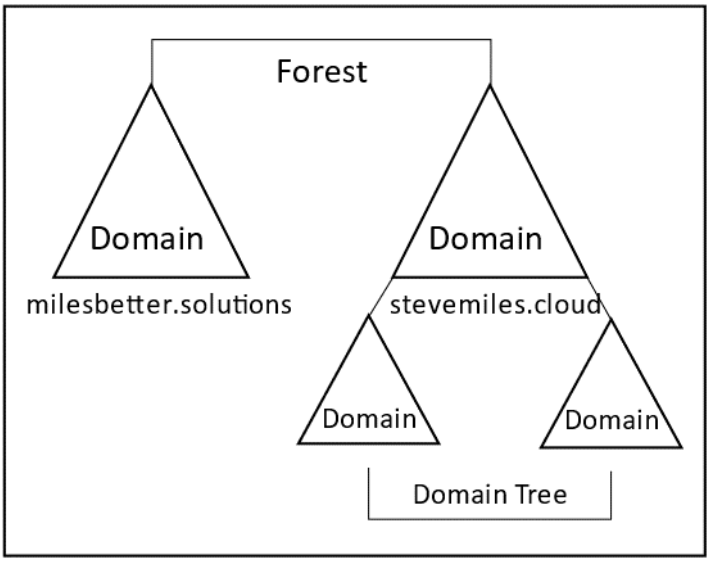


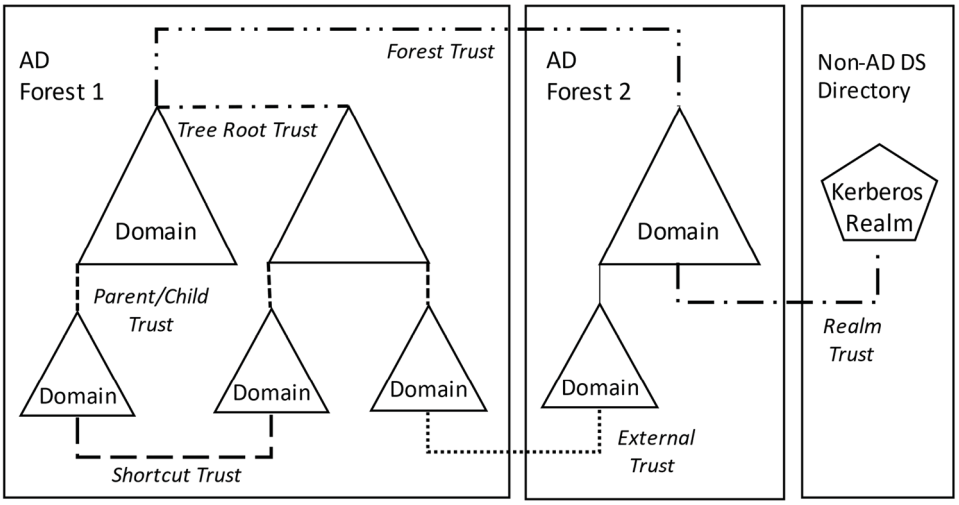


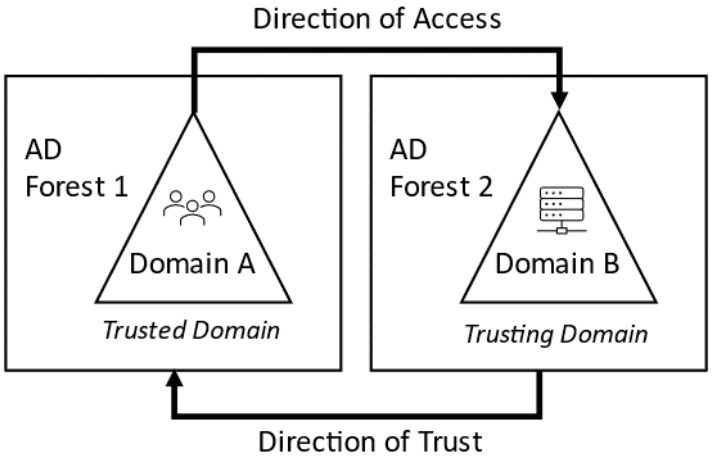


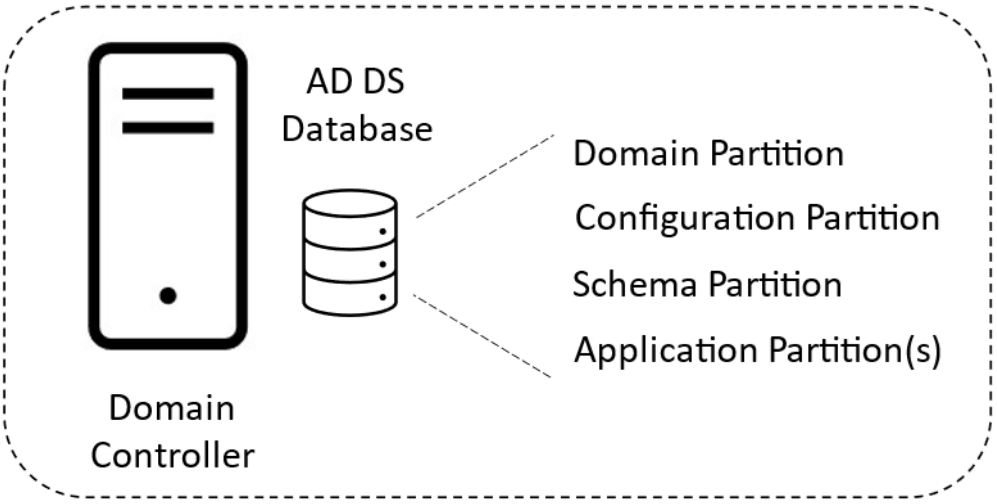

Steve Miles Properties
Member Of
Dial-in
Environment
Sessions
Remote control
Remote Desktop Services Profile
COM+
General
Address
Account
Profile
Telephones
Organization
User logon name:
smiles
@milesbetter.solutions
User logon name (pre-Windows 2000):
MILESBETTER\
smiles
Attribute:
userPrincipalName
Value:
smiles@milesbetter.solutions

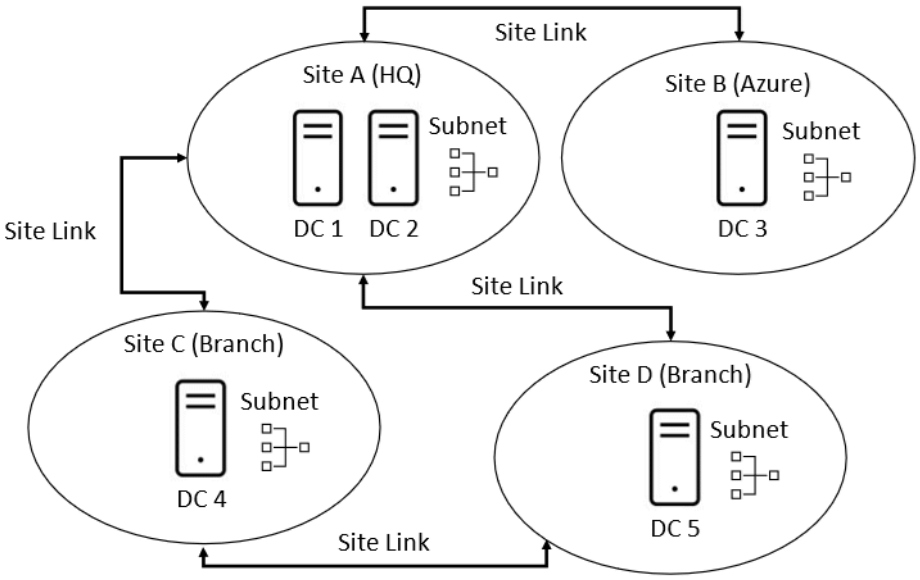

Domain
Groups
Users
Computers
milesbetter.solutions
milesbetter.solutions
Root Domain
Domain Tree
Child Domain
Child Domain
pizza.milesbetter .solutions
lobster.milesbetter .solutions


Forest
Domain
milesbetter.solutions
Domain
stevemiles.cloud
Domain
Domain
Domain Tree


AD
Forest 1
Forest Trust
Tree Root Trust
Domain
Parent/Child
Trust
Domain
Domain
Domain
Shortcut Trust
AD
Forest 2
Domain
Domain
External
Trust
Non-AD DS
Directory
Kerberos
Realm
Realm
Trust


Direction of Access
AD
Forest 1
Domain A
Trusted Domain
AD
Forest 2
Domain B
Trusting Domain
Direction of Trust


AD DS
Database
Domain Partition
Configuration Partition
Schema Partition
Application Partition(s)
Domain
Controller


Site Link
Site A (HQ)
Subnet
DC 1
DC 2
Site B (Azure)
Subnet
DC 3
Site Link
Site Link
Site C (Branch)
Subnet
DC 4
Site D (Branch)
Subnet
DC 5
Site Link

Active Directory Domain Services Configuration Wizard

Deployment Configuration

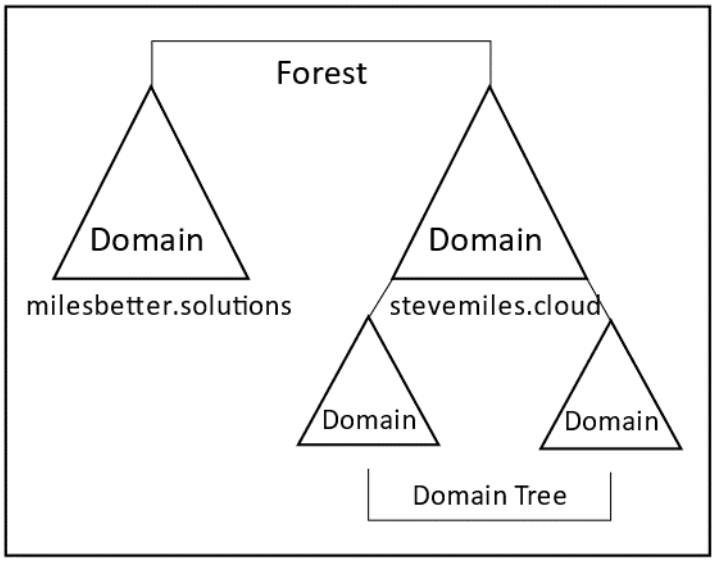
- Deployment Configuration
- Domain Controller Options
- Additional Options
- Paths
- Review Options
- Prerequisites Check
- Installation
- Results

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: milesbetter.solutions



Active Directory Domain Services Configuration Wizard

Domain Controller Options

TARGET SERVER

- Deployment Configuration
- Domain Controller Options
- DNS Options
- Additional Options
- Paths
- Review Options
- Prerequisites Check
- Installation
- Results

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

- [x] Domain Name System (DNS) server
- [x] Global Catalog (GC)
- [ ] Read only domain controller (RODC)

Type the Directory Services Restore Mode (DSRM) password

Password: *

Confirm password: *

More about domain controller options

< Previous | Next > | Install | Cancel

Active Directory Domain Services Configuration Wizard

Paths

TARGET SERVER

- Deployment Configuration
- Domain Controller Options
- DNS Options
- Additional Options
- Paths
- Review Options
- Prerequisites Check
- Installation
- Results

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

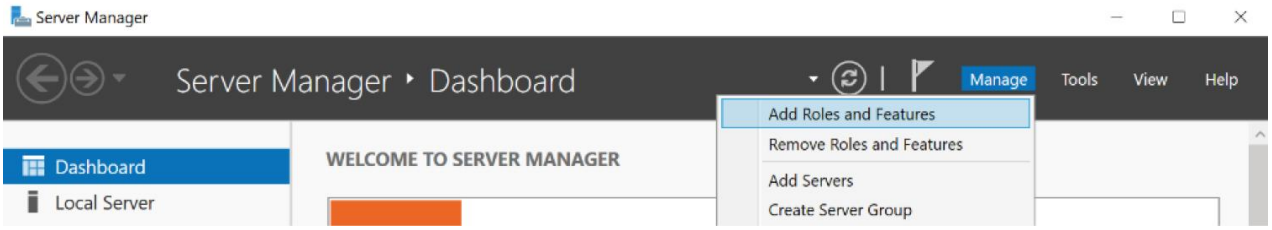
Database folder: C:\Windows\NTDS ...

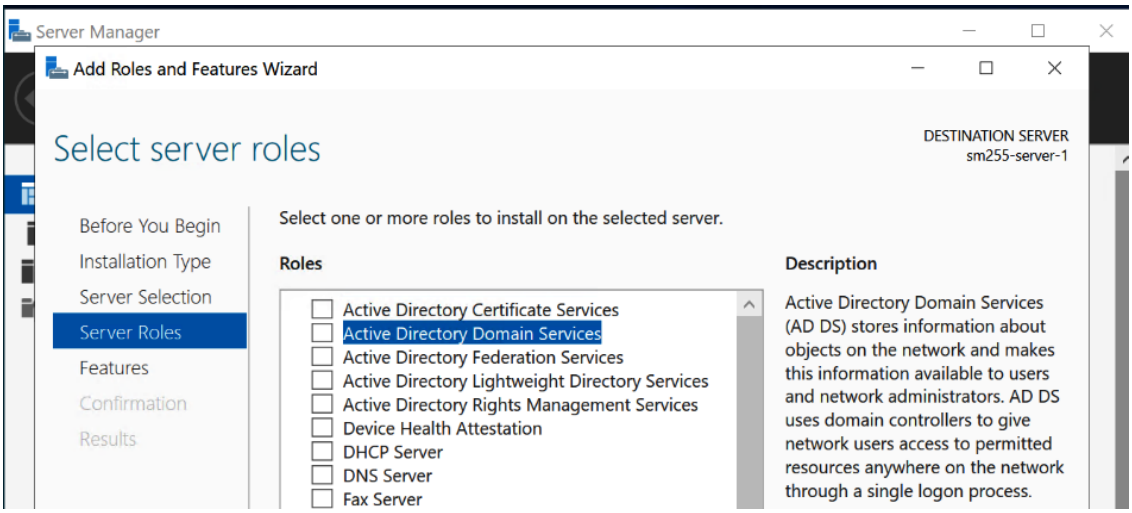
Log files folder: C:\Windows\NTDS ...

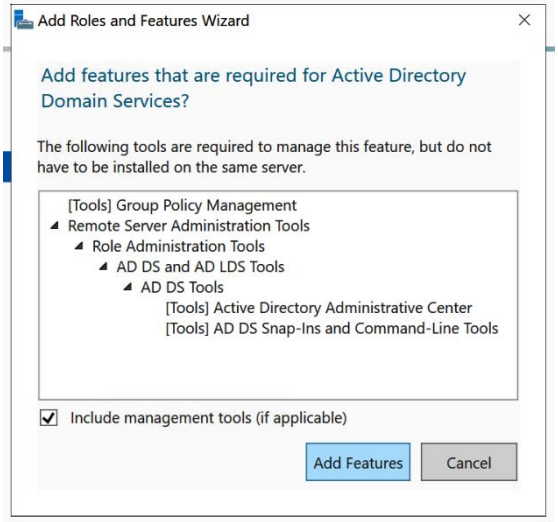
SYSVOL folder: C:\Windows\SYSVOL ...

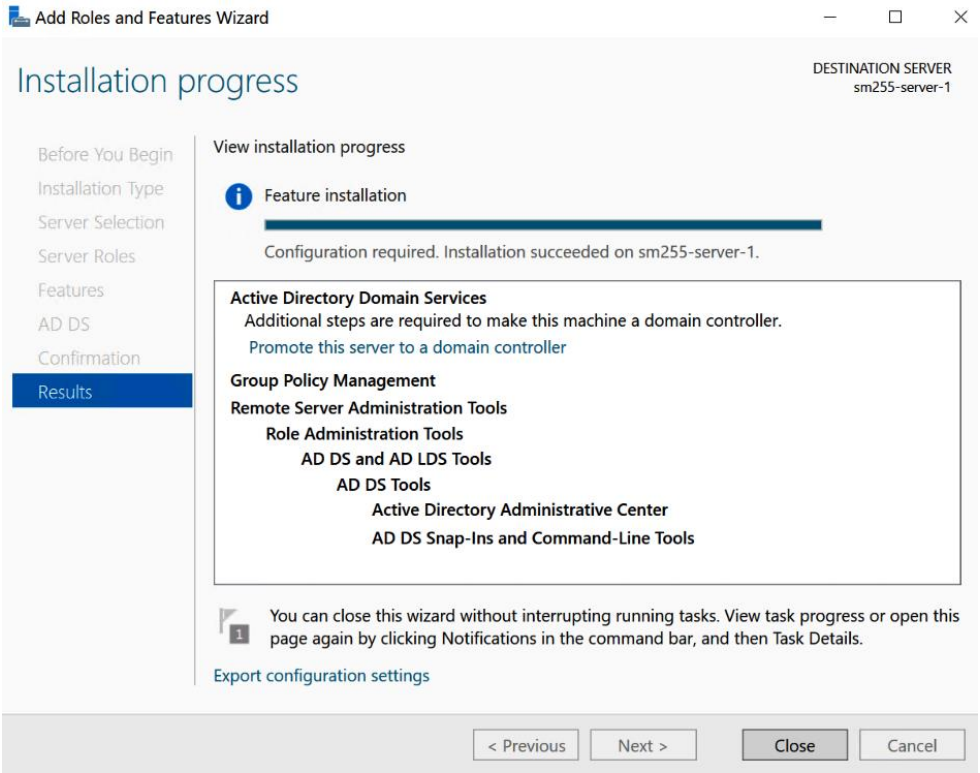
More about Active Directory paths

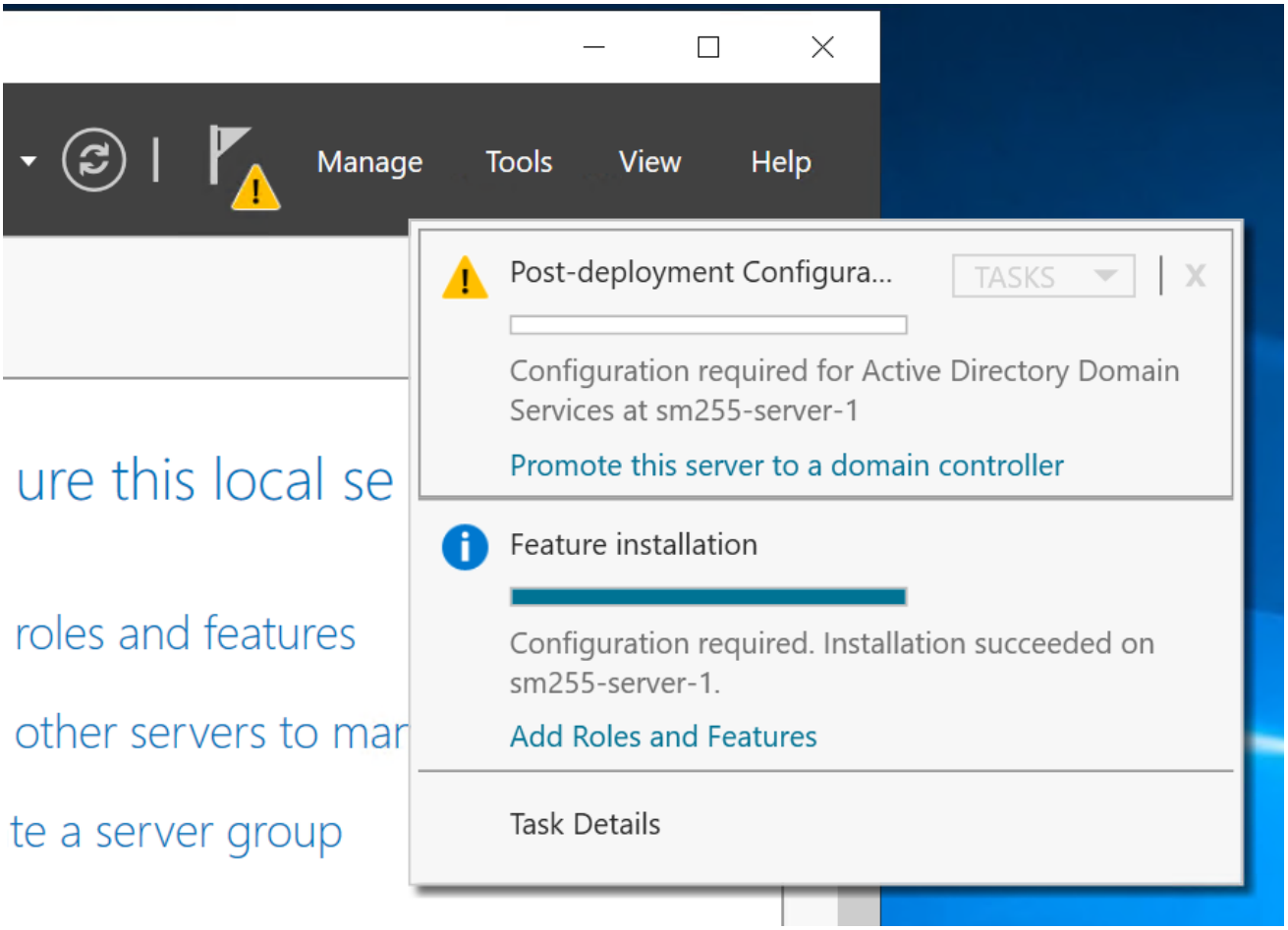
< Previous | Next > | Install | Cancel

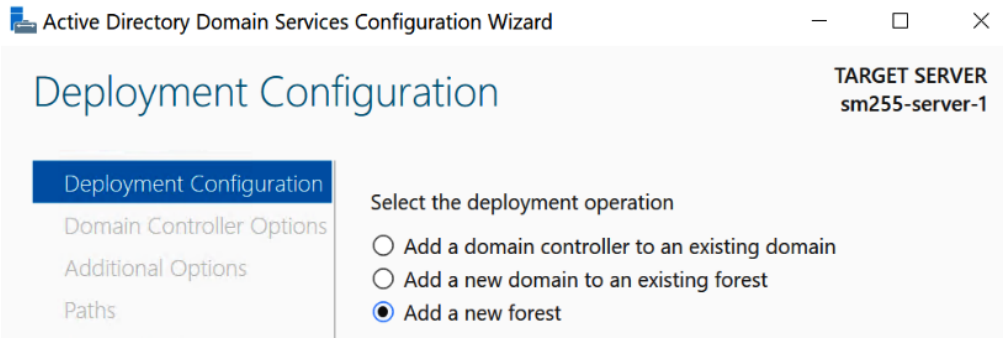

Server Manager
Server Manager ‣ Dashboard
Manage
Tools
View
Help
Add Roles and Features
Remove Roles and Features
Add Servers
Create Server Group
Dashboard
Local Server
WELCOME TO SERVER MANAGER

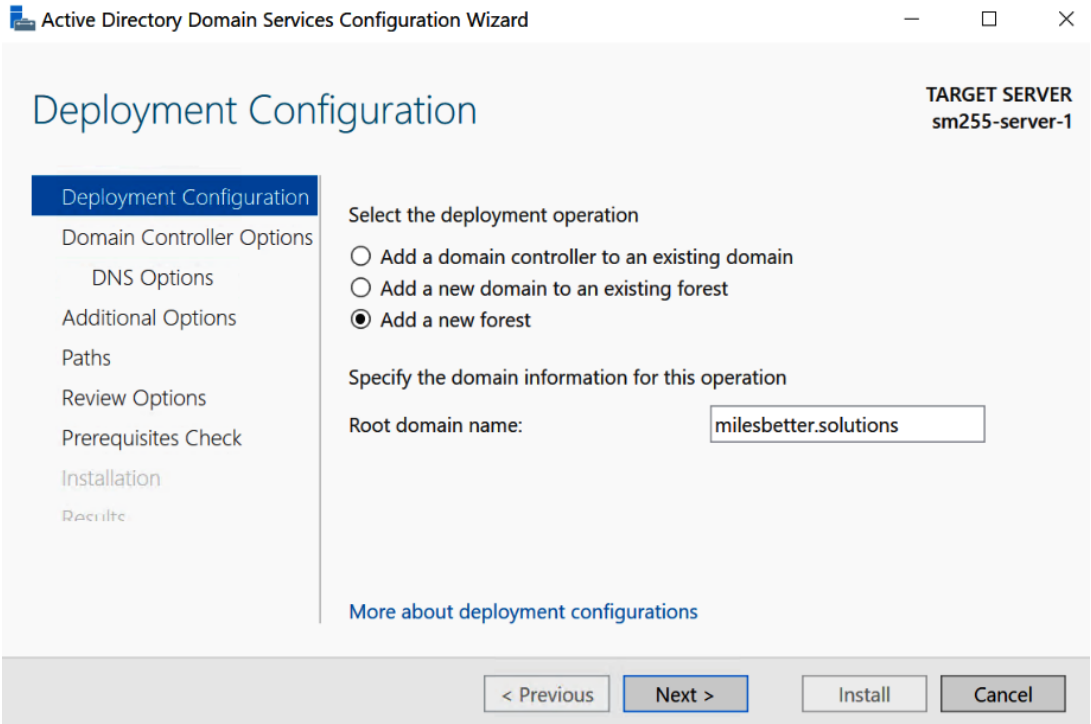

Server Manager
Add Roles and Features Wizard
Select server roles
DESTINATION SERVER
sm255-server-1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more roles to install on the selected server.
Roles
Active Directory Certificate Services
Active 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
Description
Active Directory Domain Services (AD DS) stores information about objects on the network and makes this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.

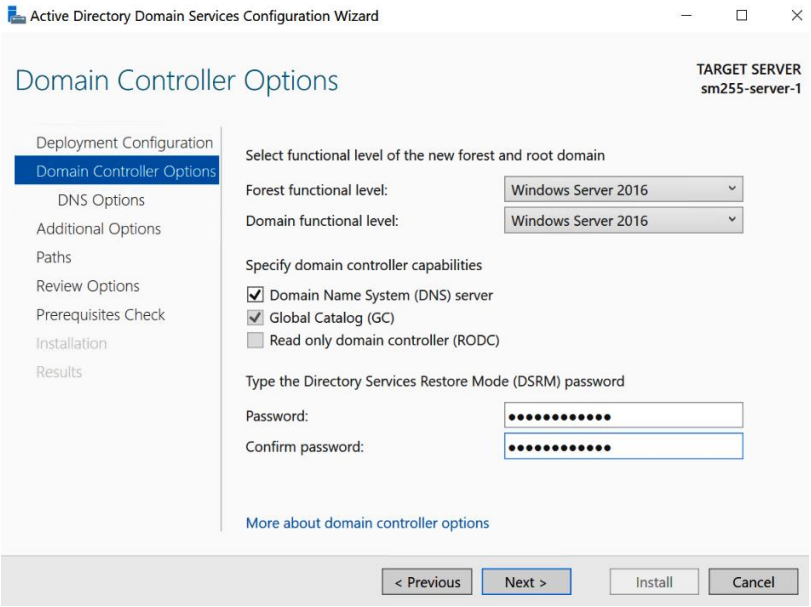

Add Roles and Features Wizard
Add features that are required for Active Directory Domain Services?
The following tools are required to manage this feature, but do not have to be installed on the same server.
[Tools] Group Policy Management
Remote Server Administration Tools
Role Administration Tools
AD DS and AD LDS Tools
AD DS Tools
[Tools] Active Directory Administrative Center
[Tools] AD DS Snap-Ins and Command-Line Tools
Include management tools (if applicable)
Add Features
Cancel

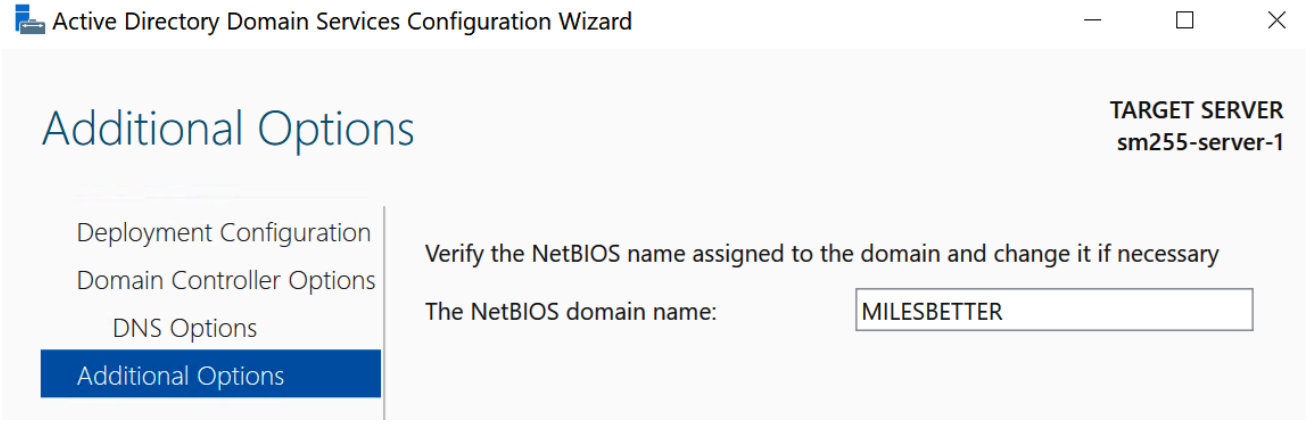

Add Roles and Features Wizard
Installation progress
DESTINATION SERVER
sm255-server-1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
AD DS
Confirmation
Results
View installation progress
Feature installation
Configuration required. Installation succeeded on sm255-server-1.
Active Directory Domain Services
Additional steps are required to make this machine a domain controller.
Promote this server to a domain controller
Group Policy Management
Remote Server Administration Tools
Role Administration Tools
AD DS and AD LDS Tools
AD DS Tools
Active Directory Administrative Center
AD DS Snap-Ins and Command-Line 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
< Previous
Next >
Close
Cancel

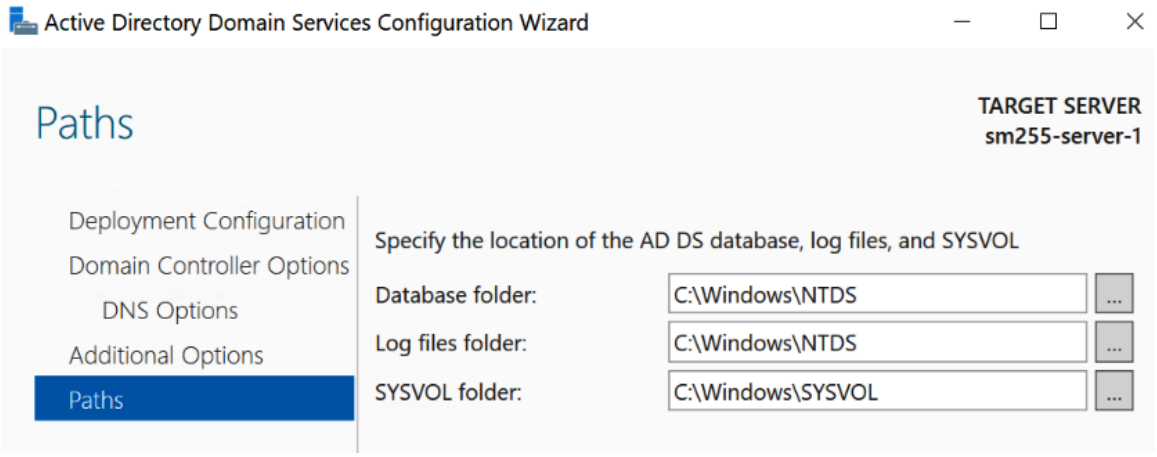

Manage
Tools
View
Help
Post-deployment Configura...
TASKS
Configuration required for Active Directory Domain Services at sm255-server-1
Promote this server to a domain controller
Feature installation
Configuration required. Installation succeeded on sm255-server-1.
Add Roles and Features
Task Details
ure this local se
roles and features
other servers to mar
te a server group


Active Directory Domain Services Configuration Wizard
Deployment Configuration
TARGET SERVER
sm255-server-1
Deployment Configuration
Domain Controller Options
Additional Options
Paths
Select the deployment operation
Add a domain controller to an existing domain
Add a new domain to an existing forest
Add a new forest


Active Directory Domain Services Configuration Wizard
Deployment Configuration
TARGET SERVER
sm255-server-1
Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Review Options
Prerequisites Check
Installation
Results
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:
milesbetter.solutions
More about deployment configurations
< Previous
Next >
Install
Cancel


Active Directory Domain Services Configuration Wizard
Domain Controller Options
TARGET SERVER
sm255-server-1
Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
Review Options
Prerequisites Check
Installation
Results
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:
More about domain controller options
< Previous
Next >
Install
Cancel


Active Directory Domain Services Configuration Wizard
Additional Options
TARGET SERVER
sm255-server-1
Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Verify the NetBIOS name assigned to the domain and change it if necessary
The NetBIOS domain name:
MILESBETTER


Active Directory Domain Services Configuration Wizard
Paths
TARGET SERVER
sm255-server-1
Deployment Configuration
Domain Controller Options
DNS Options
Additional Options
Paths
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

Active Directory Domain Services Configuration Wizard

Prerequisites Check

TARGET SERVER
sm255-server-1

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

- Deployment Configuration
- Domain Controller Options
  - DNS Options
- Additional Options
- Paths
- Review Options
- Prerequisites Check
- Installation
- Results

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

Rerun prerequisites check

View results

adapter, both IPv4 and IPv6 static IP addresses should be assigned to both IPv4 and IPv6 Properties of the physical network adapter. Such static IP address(es) assignment should be done to all the physical network adapters for reliable Domain Name System (DNS) operation.

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 "milesbetter.solutions". Otherwise, no action is required.

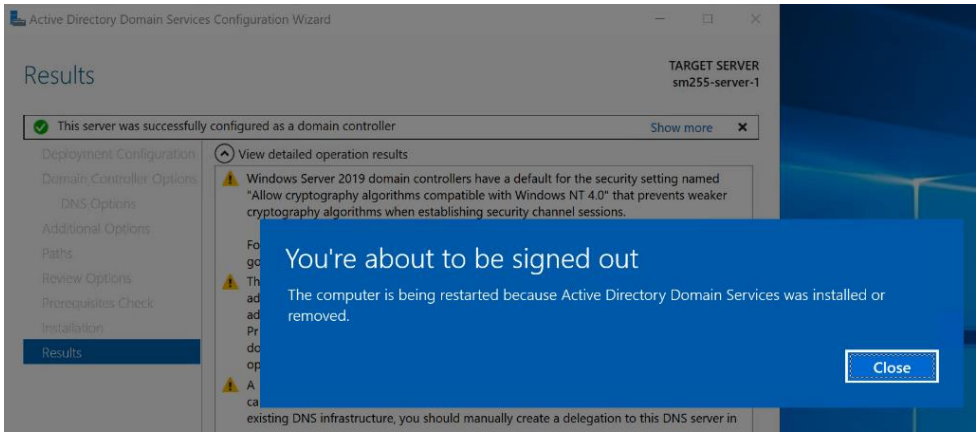
Prerequisites Check Completed

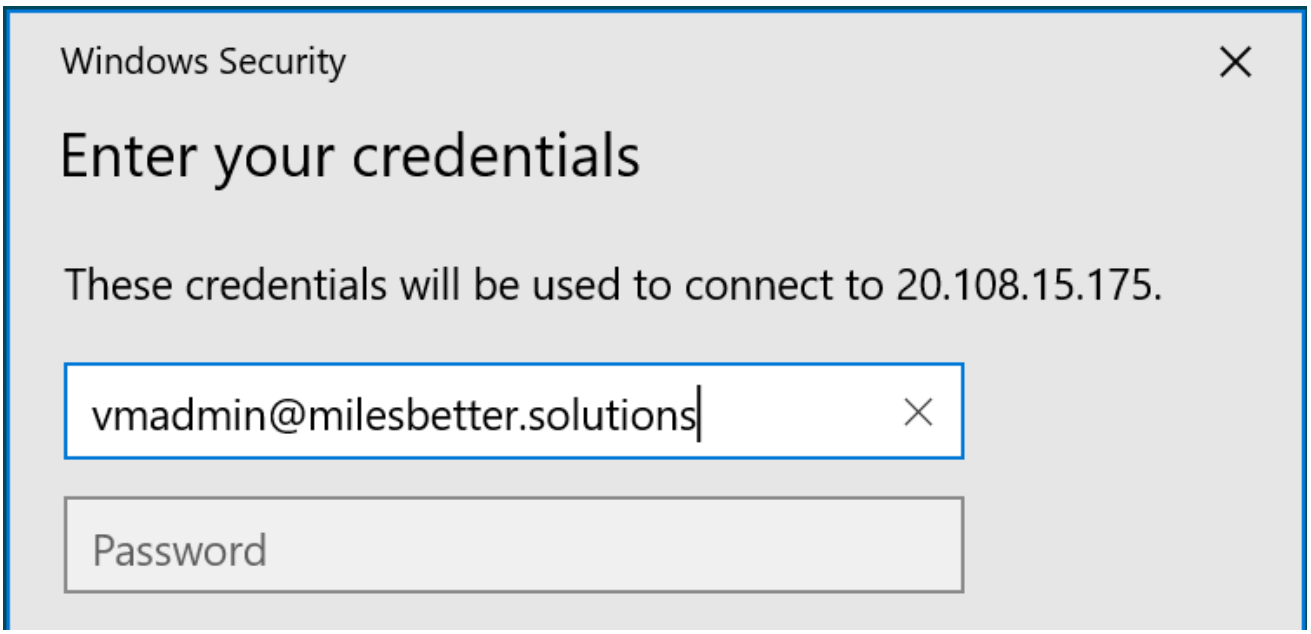
All prerequisite checks passed successfully. Click 'Install' to begin installation.

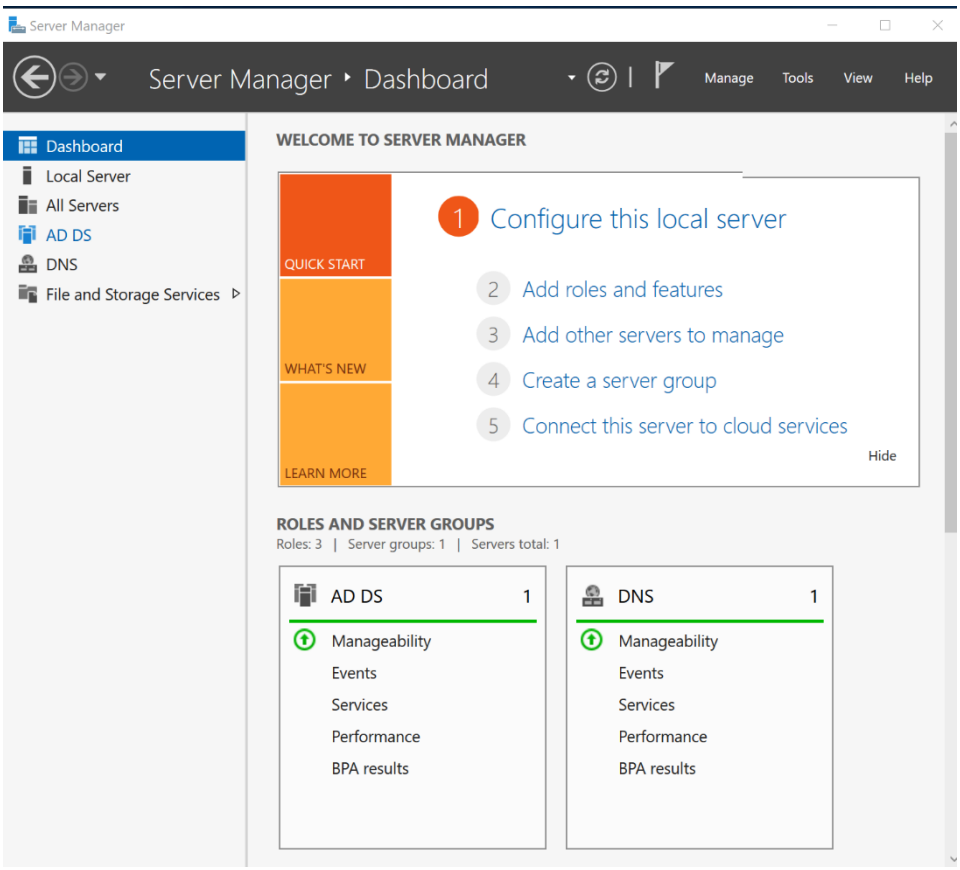
If you click Install, the server automatically reboots at the end of the promotion operation.

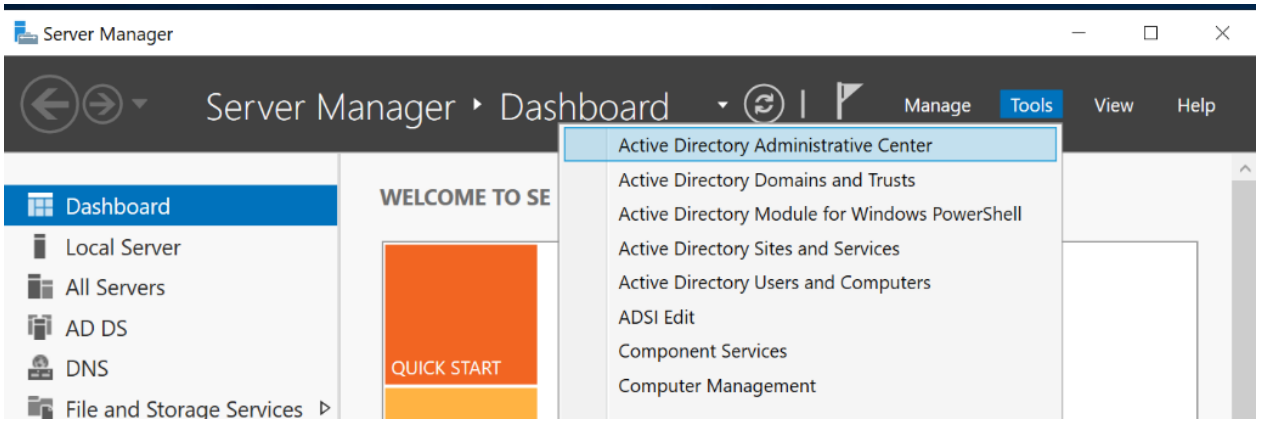
More about prerequisites

< Previous | Next > | Install | Cancel

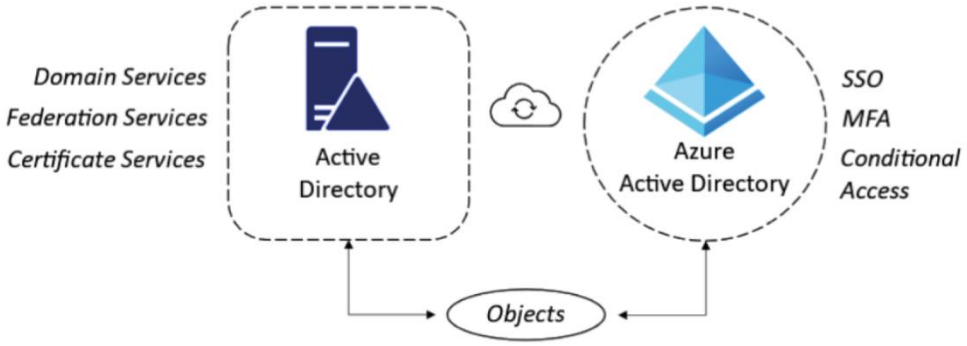


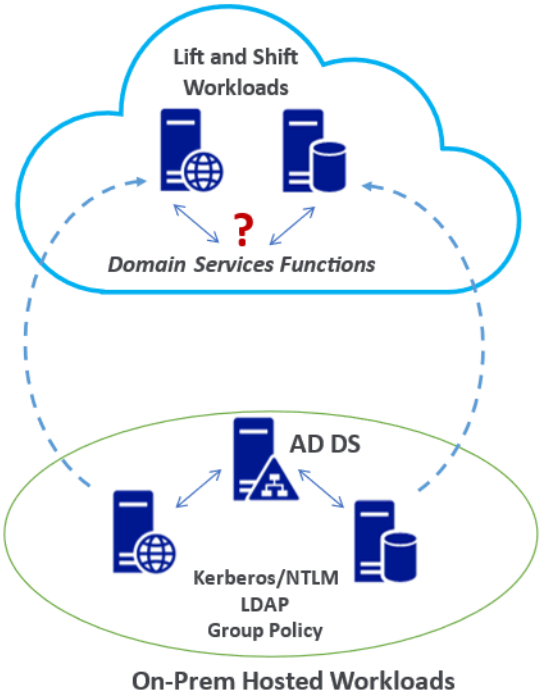

Windows Security
Enter your credentials
These credentials will be used to connect to 20.108.15.175.
vmadmin@milesbetter.solutions
Password

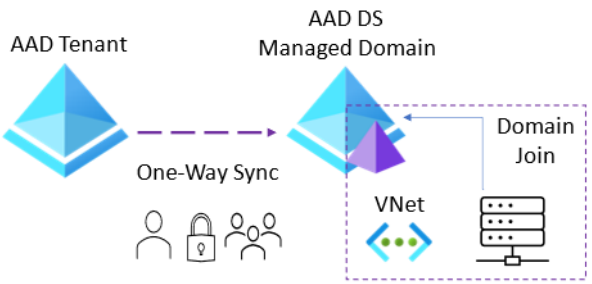

Server Manager
Server Manager ‣ Dashboard
Manage
Tools
View
Help
Dashboard
Local Server
All Servers
AD DS
DNS
File and Storage Services
WELCOME TO SERVER MANAGER
QUICK START
WHAT'S NEW
LEARN MORE
1 Configure this local server
2 Add roles and features
3 Add other servers to manage
4 Create a server group
5 Connect this server to cloud services
Hide
ROLES AND SERVER GROUPS
Roles: 3 | Server groups: 1 | Servers total: 1
AD DS 1
Manageability
Events
Services
Performance
BPA results
DNS 1
Manageability
Events
Services
Performance
BPA results

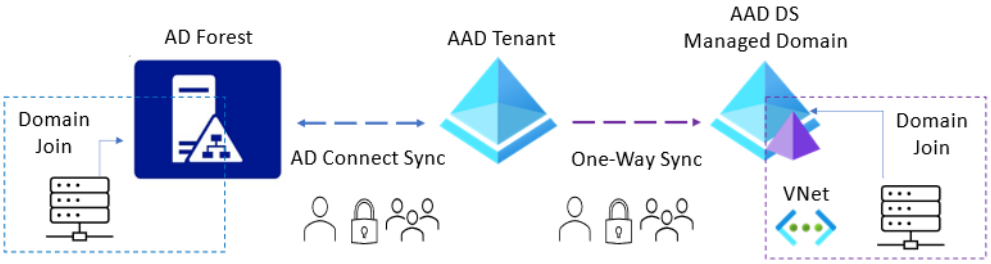

Server Manager
Server Manager ▸ Dashboard
Manage
Tools
View
Help
Active Directory Administrative Center
Active Directory Domains and Trusts
Active Directory Module for Windows PowerShell
Active Directory Sites and Services
Active Directory Users and Computers
ADSI Edit
Component Services
Computer Management
Dashboard
Local Server
All Servers
AD DS
DNS
File and Storage Services
WELCOME TO SE
QUICK START

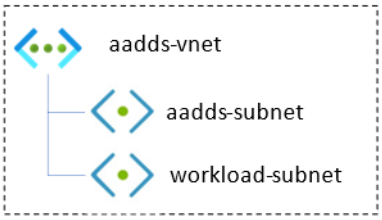
Chapter 2: Implementing and Managing Azure Active Directory Domain Services

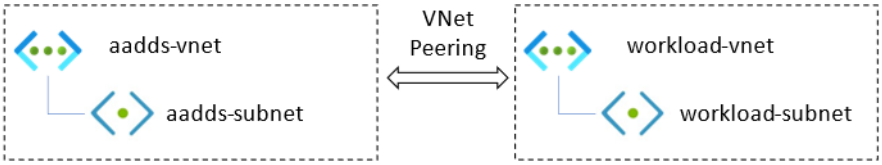


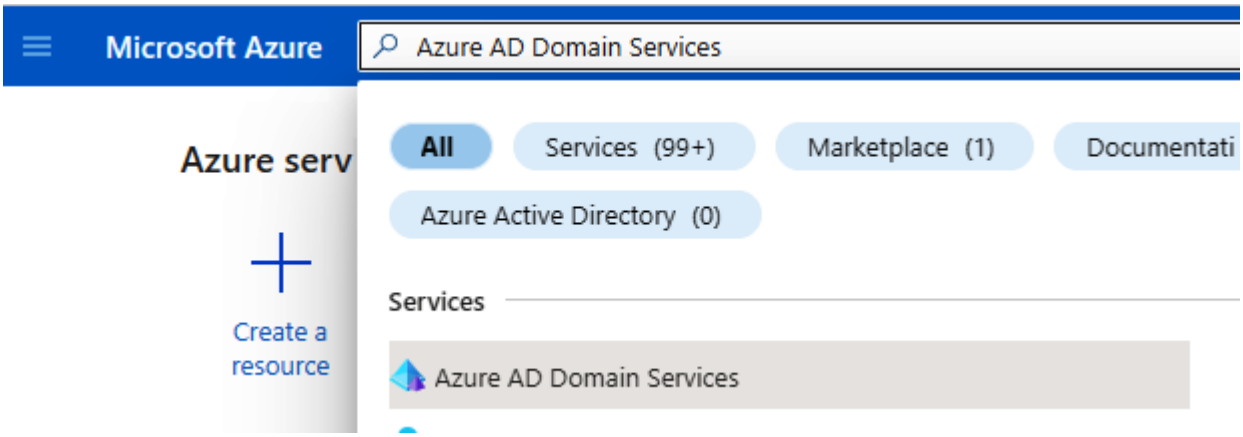


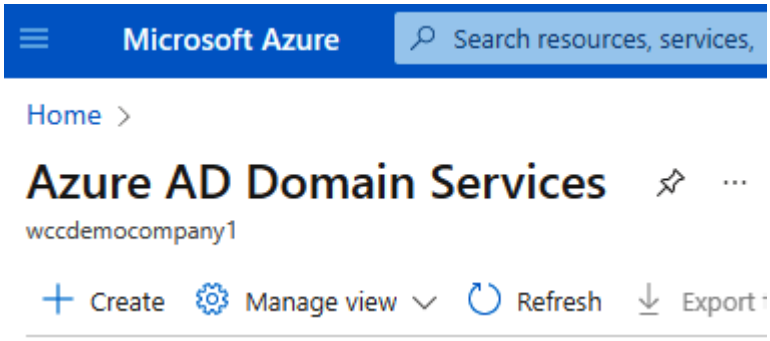



AD Forest
AAD Tenant
AAD DS
Managed Domain
Domain
Join
AD Connect Sync
One-Way Sync
Domain
Join
VNet


aadds-vnet
aadds-subnet
workload-subnet


aadds-vnet
aadds-subnet
VNet
Peering
workload-vnet
workload-subnet


Microsoft Azure
Azure AD Domain Services
Azure serv
All
Services (99+)
Marketplace (1)
Documentati
Azure Active Directory (0)
Create a
resource
Services
Azure AD Domain Services


Microsoft Azure
Search resources, services,
Home
Azure AD Domain Services
wccdemocompany1
Create
Manage view
Refresh
Export

Home > Azure AD Domain Services >

Create Azure AD Domain Services ...

Kerberos/NTLM authentication. You can use Azure AD Domain Services without needing to manage, patch, or service domain controllers in the cloud. For ease and simplicity, defaults have been specified to provide a one-click deployment. Learn more

Project details

When choosing the basic information needed for Azure AD Domain Services, keep in mind that the subscription, resource group, DNS domain name, and location cannot be changed after creation.

Subscription * wccdemocompany1

Resource group *

Create new

Help me choose the subscription and resource group

DNS domain name * aadds.milesbettersolutions.onmicrosoft.com

Help me choose the DNS name

Region * East US

SKU * Enterprise

Help me choose a SKU

- Standard
- Enterprise
- Premium

Forest type *

Forest type * User Resource

Help me choose a forest type

* Basics * **Networking** Administration Synchronization Security Settings Tags Review + create

Azure AD Domain Services uses a dedicated subnet within a virtual network to hold all of its resources. If using an existing network, ensure that the network configuration does not block the ports required for Azure AD Domain Services to run. Learn more

Virtual network * (new) aadds-vnet

Create new

Help me choose the virtual network and address

Subnet * (new) aadds-subnet (10.0.0.0/24)

Help me choose the subnet and NSG

* Basics * Networking **Administration** Synchronization Security Settings Tags Review + create

Use these settings to specify which users should have administrative privileges and be notified of problems on your managed domain. Learn more

AAD DC Administrators Manage group membership

Help me choose AAD DC Admins

Notifications

These groups will be notified when you have an alert of warning or critical severity

- [x] All Global Administrators of the Azure AD directory.
- [x] Members of the AAD DC Administrators group.

Additional email recipients:

Add another email to be contacted at

Help me choose who gets notifications

* Basics * Networking Administration **Synchronization** Security Settings Tags Review + create

Azure AD Domain Services provides a one-way synchronization from Azure Active Directory to the managed domain. In addition, only certain attributes are synchronized down to the managed domain, along with groups, group memberships, and passwords. Learn more

Synchronization type [All] Scoped

Help me choose the synchronization type

Scoped synchronization can be modified with different group selections or converted to synchronize all users and groups. Changes to synchronization settings are not immediate. Please allow time for changes to complete. More information

* Basics * Networking Administration Synchronization **Security Settings** Tags Review + create

Azure AD Domain Services has multiple security settings that can be used to harden the domain service. When choosing to enable or disable a security setting, it is important to first understand the impact on the workloads using the domain service. Learn more

TLS 1.2 Only Mode [Disable] Enable

NTLM v1 Authentication [Disable] Enable

Help me choose strong ciphers

NTLM Password Synchronization Disable [Enable]

Password Synchronization from On-Premises Disable [Enable]

Help me choose password synchronization settings

Kerberos RC4 Encryption Disable [Enable]

Kerberos Armoring [Disable] Enable

Help me choose kerberos RC4 encryption and armoring

*Basics *Networking Administration Synchronization Security Settings **Tags** Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. Learn more

Name	Value	Resource
	:	Azure AD Domain Services

Review + create | Previous | Next

Create Azure AD Domain Services ...

*Basics *Networking Administration Synchronization Security Settings Tags **Review + create**

Basics

Name	aadds.milesbettersolutions.onmicrosoft.com
Subscription	wccdemocompany1
Resource group	sm4621
Region	East US
SKU	Enterprise
Forest type	User

Network

Virtual network	(new) aadds-vnet
Subnet	(new) aadds-subnet

Create | Previous | Next | Download a template for automation

You should know...

The following choices are final and won't be able to be changed after creation.

- DNS name
- Subscription
- Resource group
- Virtual network
- Subnet
- Forest type

Click OK to continue to create Azure AD Domain Services.

OK Cancel

Home >

Microsoft.DomainServices.NSG.VNET.Subnet-20220604075937Z | Overview

Deployment

Search (Ctrl+/)

- Overview
- Inputs
- Outputs
- Template

Delete Cancel Redeploy Refresh

We'd love your feedback! →

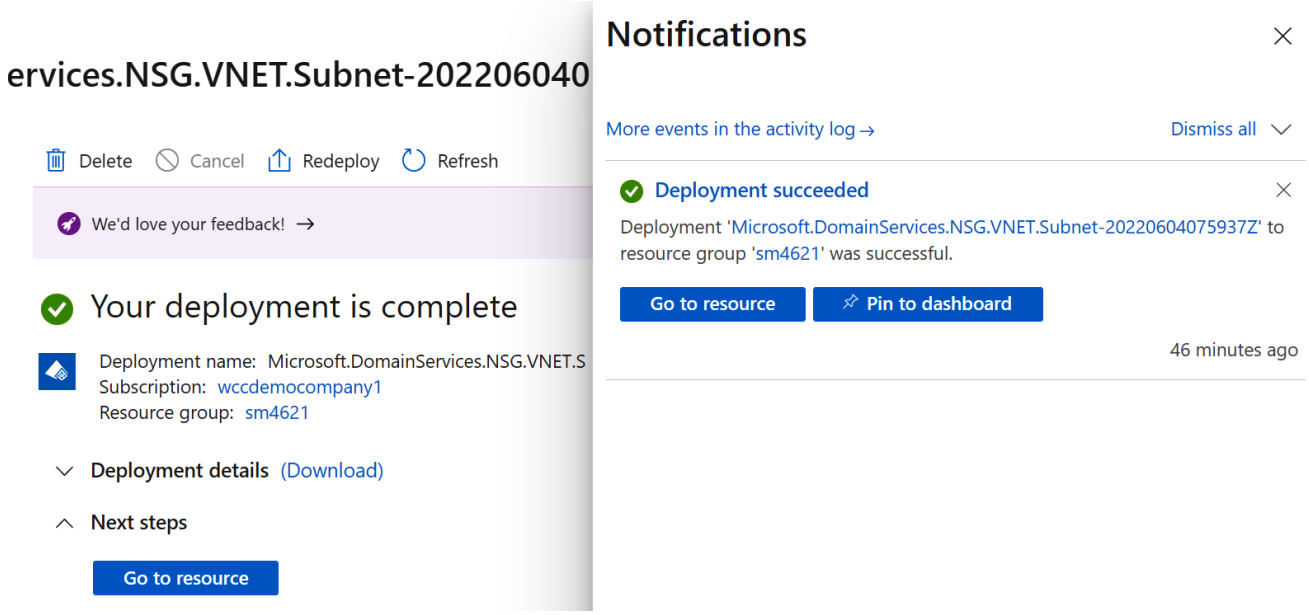
Deployment is in progress

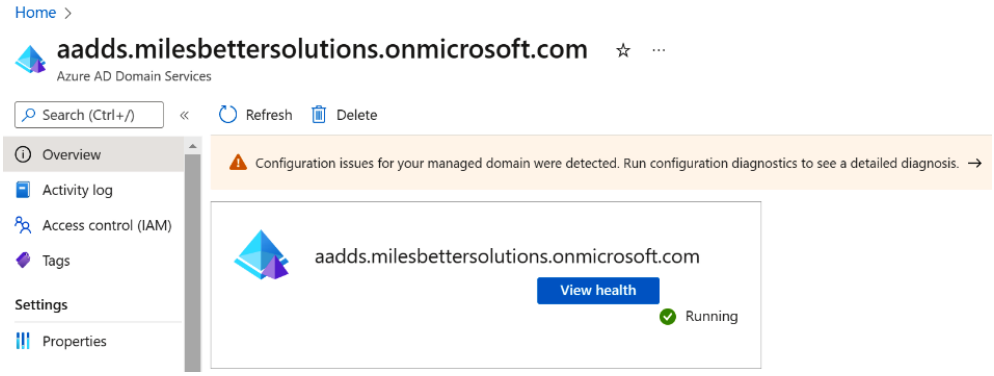
Deployment name: Microsoft.DomainServices.NSG.VNET.Subnet-20...
Subscription: wccdemocompany1
Resource group: sm4621

Start time: 6/4/2022, 8:59:43 AM
Correlation ID: 9082490b-5f36-412b-beb9-eacc3e823eeb

Deployment details (Download)

Resource	Type	Status	Operation details
aadds.milesbettersolutions.o...	Microsoft.AAD/DomainServic...	Created	Operation details
aadds-vnet	Microsoft.Network/virtualNe...	OK	Operation details
aadds-nsg	Microsoft.Network/NetworkS...	OK	Operation details


ervices.NSG.VNET.Subnet-202206040
Delete
Cancel
Redeploy
Refresh
We'd love your feedback! →
Your deployment is complete
Deployment name: Microsoft.DomainServices.NSG.VNET.S
Subscription: wccdemocompany1
Resource group: sm4621
Deployment details (Download)
Next steps
Go to resource
Notifications
More events in the activity log →
Dismiss all
Deployment succeeded
Deployment 'Microsoft.DomainServices.NSG.VNET.Subnet-20220604075937Z' to resource group 'sm4621' was successful.
Go to resource
Pin to dashboard
46 minutes ago


Home >
aadds.milesbettersolutions.onmicrosoft.com
Azure AD Domain Services
Search (Ctrl+/)
Refresh
Delete
Overview
Activity log
Access control (IAM)
Tags
Settings
Properties
Configuration issues for your managed domain were detected. Run configuration diagnostics to see a detailed diagnosis. →
aadds.milesbettersolutions.onmicrosoft.com
View health
Running

aadds.milesbettersolutions.onmicrosoft.com

Azure AD Domain Services

Search (Ctrl+/)

Refresh Delete

- Overview
- Activity log
- Access control (IAM)
- Tags

Settings

- Properties
- Secure LDAP
- Synchronization
- Replica sets
- Trusts
- Health
- Notification settings
- SKU
- Security settings
- Locks

Monitoring

Configuration issues for your managed domain were detected. Run configuration diagnostics to

Azure AD Domain Services is available in multiple service tiers, known as SKUs. These SKUs provide predictable pricing, varying performance levels, and selectable enterprise and premium features.
More information

Choose SKU

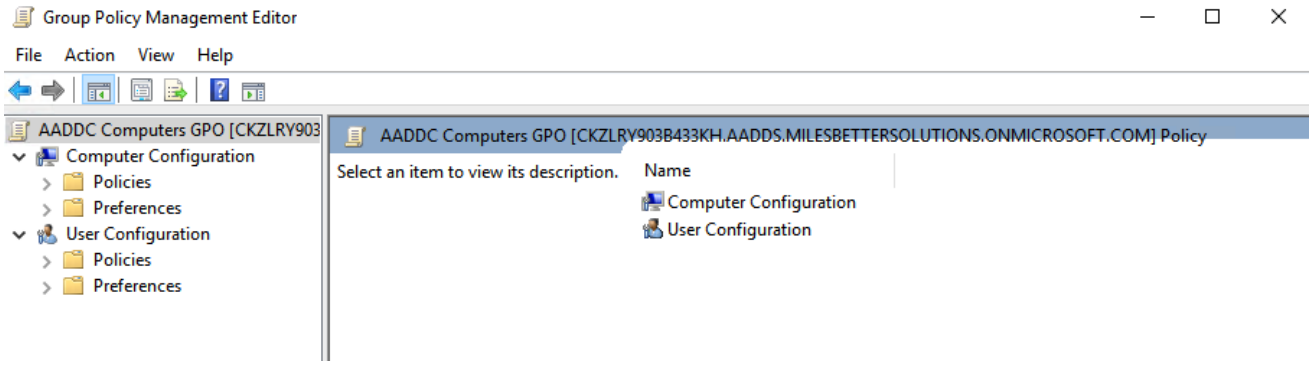
Required configuration steps

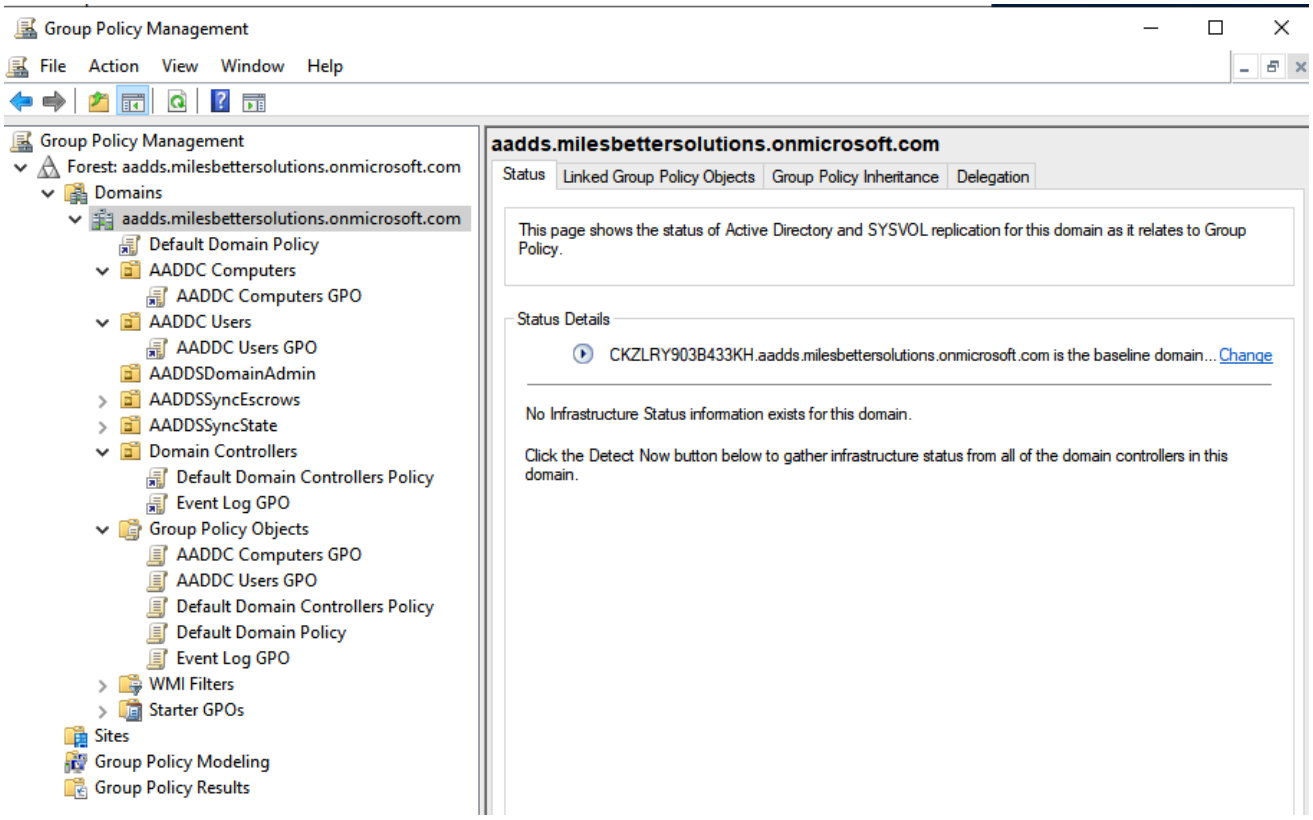
Enable Azure AD Domain Services password hash synchronization

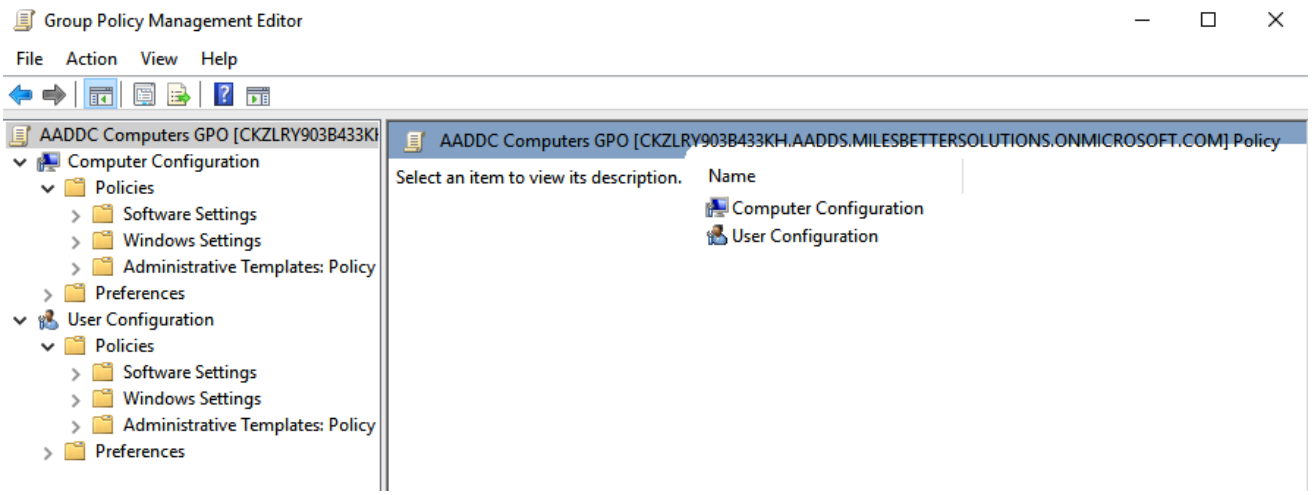
Users cannot bind using secure LDAP or sign in to the managed domain, until you enable password hash synchronization to Azure AD Domain Services. Follow the instructions below, depending on the type of users in your Azure AD directory. Complete both sets of instructions if you have a mix of cloud-only and synced user accounts in your Azure AD directory.

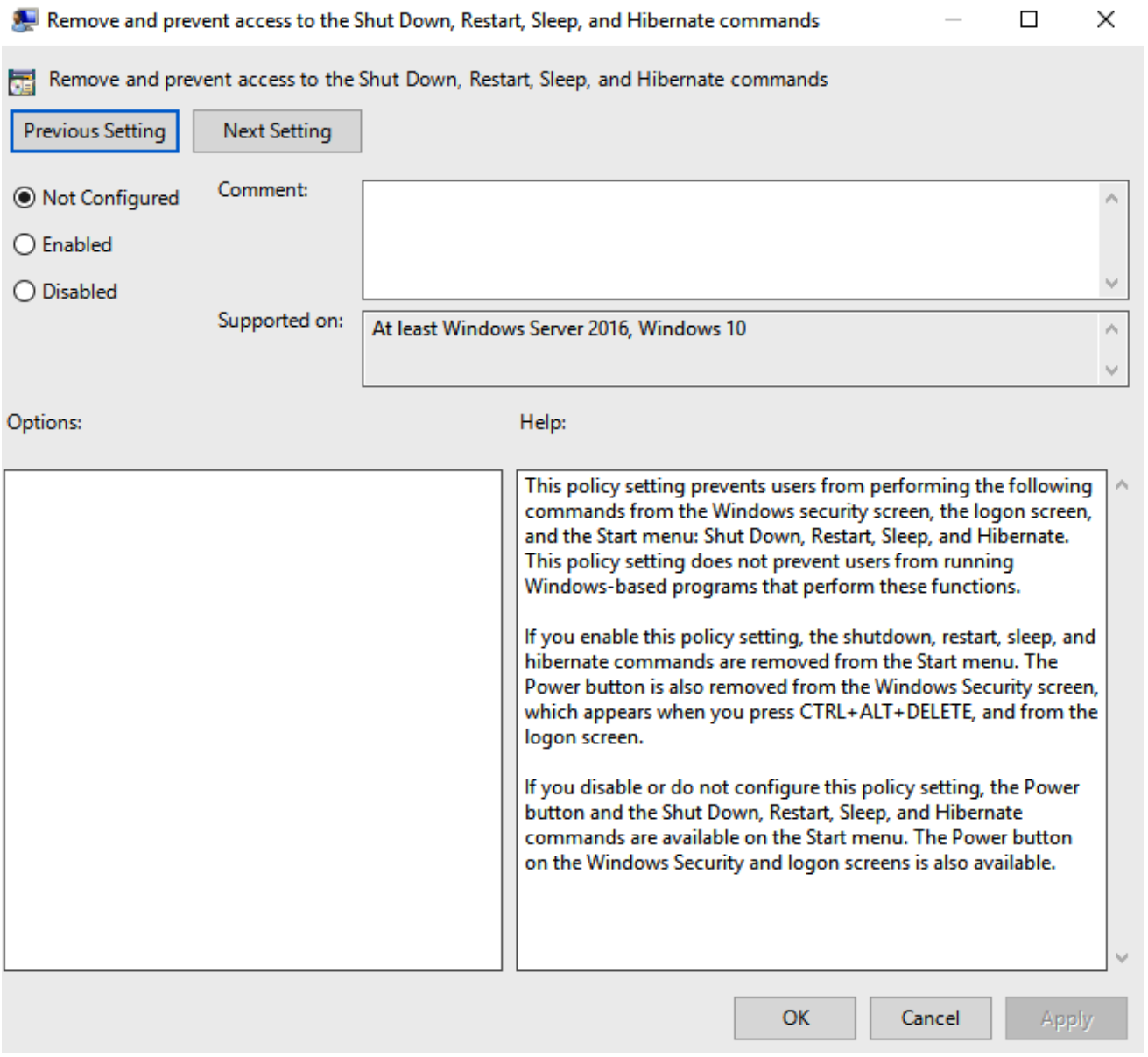
- Instructions for cloud-only user accounts
- Instructions for synced user accounts

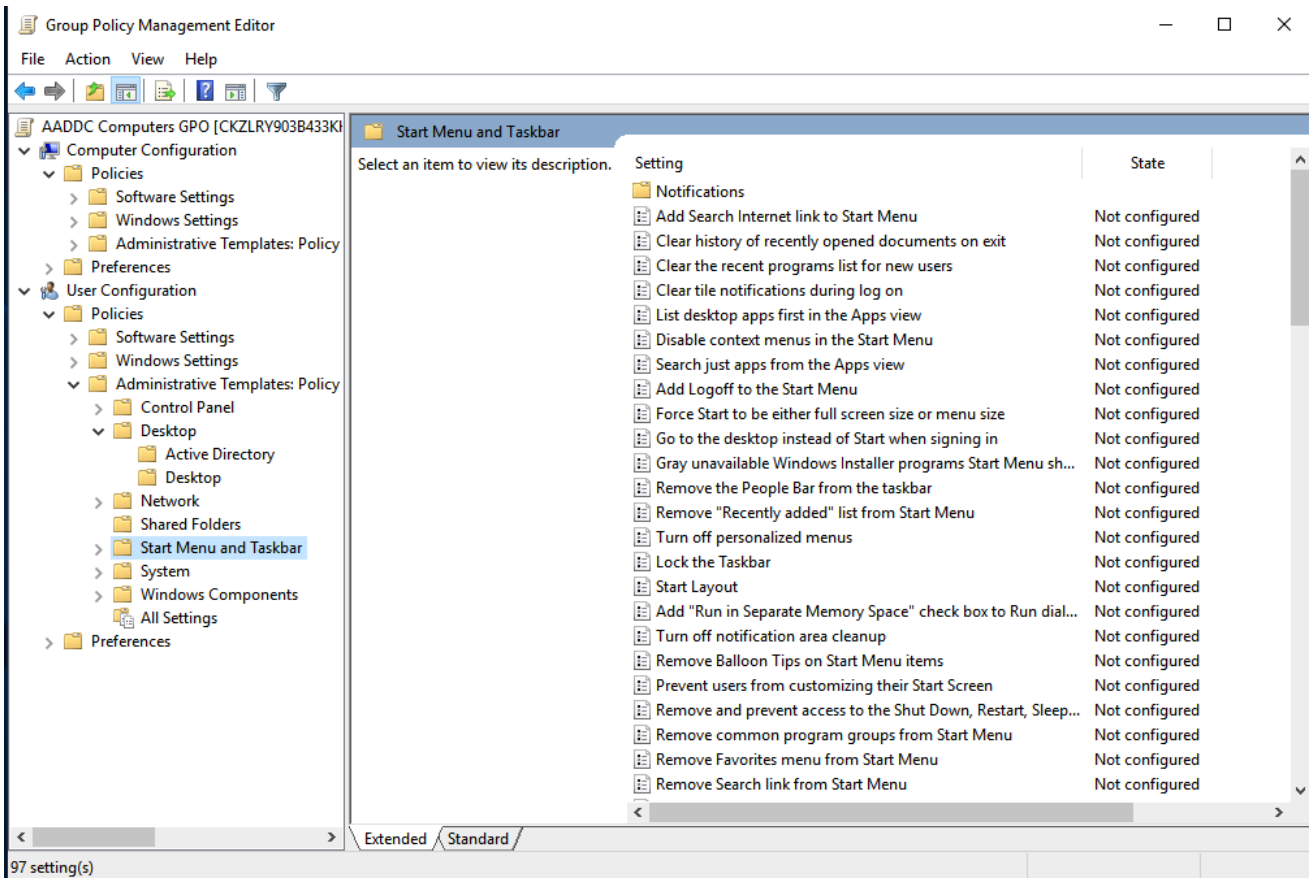
Chapter 3: Manage Users and Computers with Group Policy

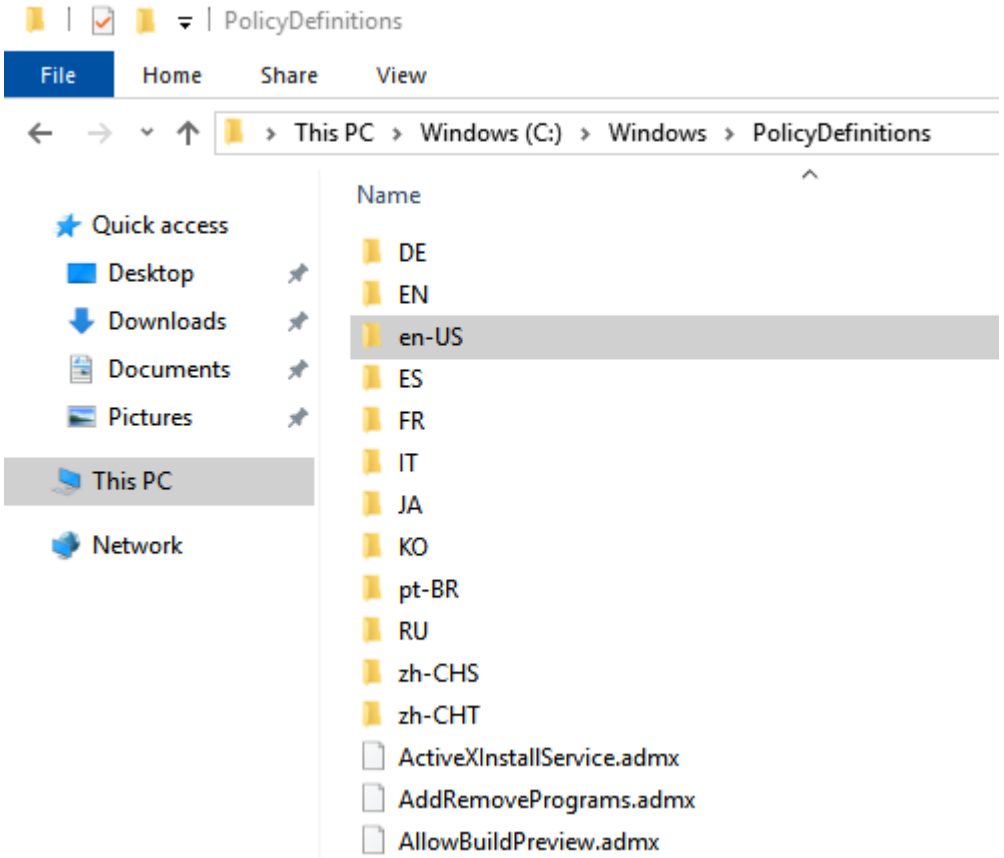


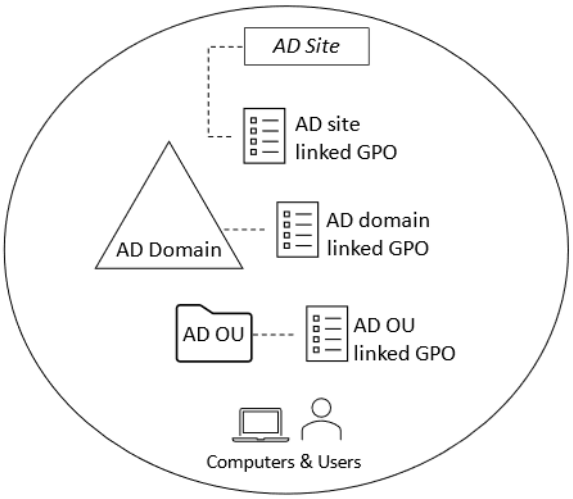


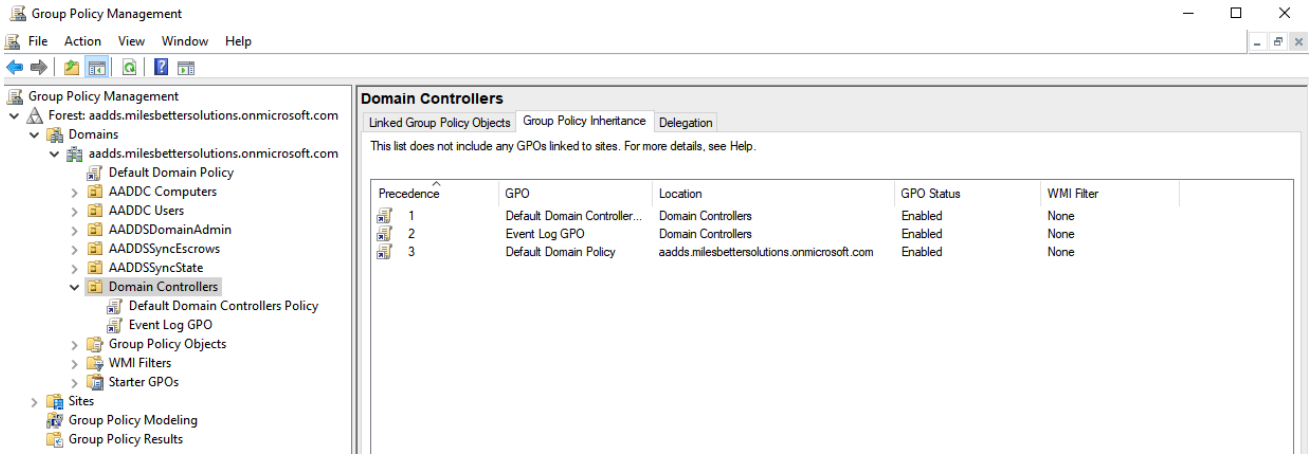

Group Policy Management Editor
File Action View Help
AADDC Computers GPO [CKZLRY903B433KH
Computer Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy
Preferences
User Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy
Preferences
AADDC Computers GPO [CKZLRY903B433KH.AADDS.MILESBETTERSOLUTIONS.ONMICROSOFT.COM] Policy
Select an item to view its description.
Name
Computer Configuration
User Configuration

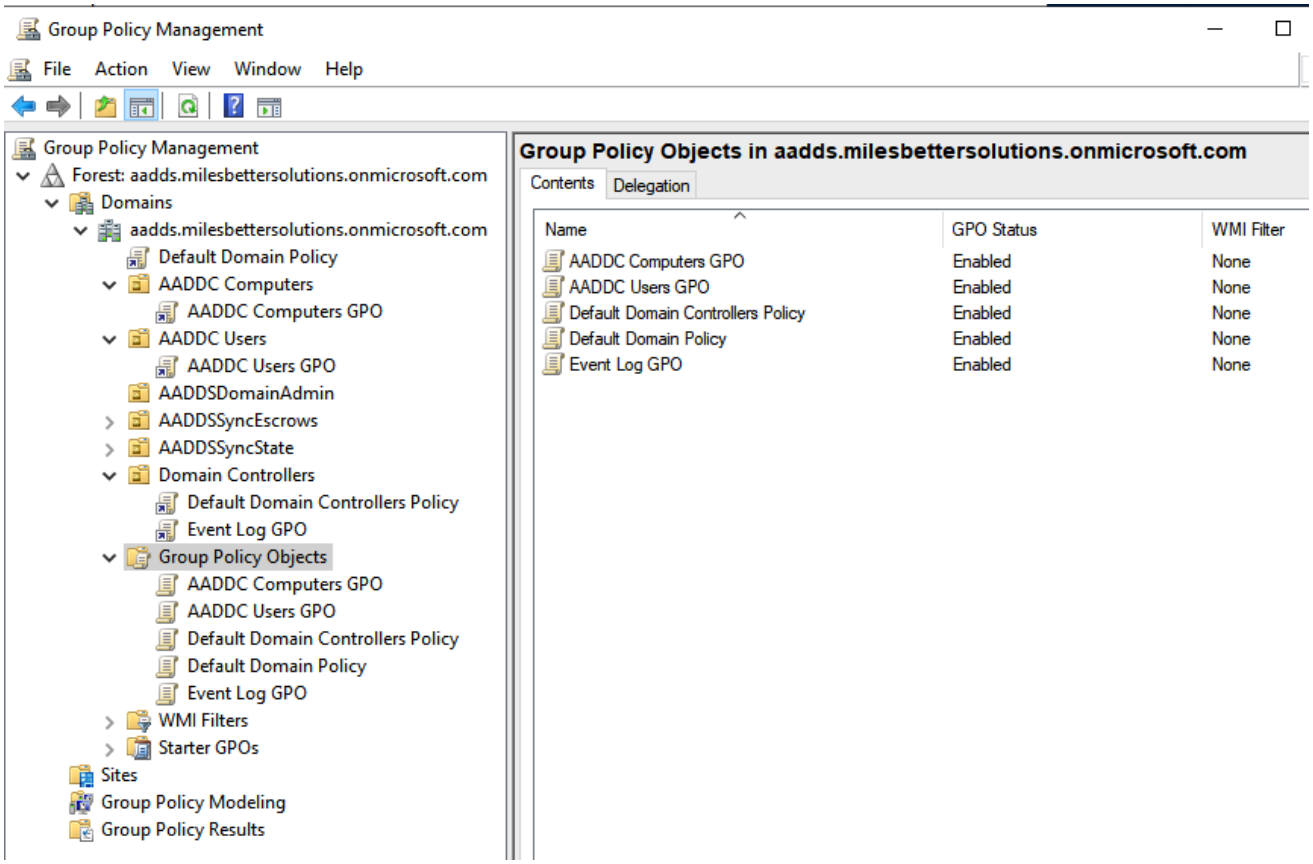

Remove and prevent access to the Shut Down, Restart, Sleep, and Hibernate commands
Remove and prevent access to the Shut Down, Restart, Sleep, and Hibernate commands
Previous Setting
Next Setting
Not Configured
Enabled
Disabled
Comment:
Supported on:
At least Windows Server 2016, Windows 10
Options:
Help:
This policy setting prevents users from performing the following commands from the Windows security screen, the logon screen, and the Start menu: Shut Down, Restart, Sleep, and Hibernate. This policy setting does not prevent users from running Windows-based programs that perform these functions.
If you enable this policy setting, the shutdown, restart, sleep, and hibernate commands are removed from the Start menu. The Power button is also removed from the Windows Security screen, which appears when you press CTRL+ALT+DELETE, and from the logon screen.
If you disable or do not configure this policy setting, the Power button and the Shut Down, Restart, Sleep, and Hibernate commands are available on the Start menu. The Power button on the Windows Security and logon screens is also available.
OK
Cancel
Apply


Group Policy Management Editor
File Action View Help
AADDC Computers GPO [CKZLRY903B433K
Computer Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy
Preferences
User Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy
Control Panel
Desktop
Active Directory
Desktop
Network
Shared Folders
Start Menu and Taskbar
System
Windows Components
All Settings
Preferences
Start Menu and Taskbar
Select an item to view its description.
Setting
State
Notifications
Add Search Internet link to Start Menu Not configured
Clear history of recently opened documents on exit Not configured
Clear the recent programs list for new users Not configured
Clear tile notifications during log on Not configured
List desktop apps first in the Apps view Not configured
Disable context menus in the Start Menu Not configured
Search just apps from the Apps view Not configured
Add Logoff to the Start Menu Not configured
Force Start to be either full screen size or menu size Not configured
Go to the desktop instead of Start when signing in Not configured
Gray unavailable Windows Installer programs Start Menu sh... Not configured
Remove the People Bar from the taskbar Not configured
Remove "Recently added" list from Start Menu Not configured
Turn off personalized menus Not configured
Lock the Taskbar Not configured
Start Layout Not configured
Add "Run in Separate Memory Space" check box to Run dial... Not configured
Turn off notification area cleanup Not configured
Remove Balloon Tips on Start Menu items Not configured
Prevent users from customizing their Start Screen Not configured
Remove and prevent access to the Shut Down, Restart, Sleep... Not configured
Remove common program groups from Start Menu Not configured
Remove Favorites menu from Start Menu Not configured
Remove Search link from Start Menu Not configured
Extended
Standard
97 setting(s)


PolicyDefinitions
File
Home
Share
View
This PC › Windows (C:) › Windows › PolicyDefinitions
Quick access
Desktop
Downloads
Documents
Pictures
This PC
Network
Name
DE
EN
en-US
ES
FR
IT
JA
KO
pt-BR
RU
zh-CHS
zh-CHT
ActiveXInstallService.admx
AddRemovePrograms.admx
AllowBuildPreview.admx


AD Site
AD site
linked GPO
AD Domain
AD domain
linked GPO
AD OU
AD OU
linked GPO
Computers & Users


Group Policy Management
File Action View Window Help
Group Policy Management
Forest: aadds.milesbettersolutions.onmicrosoft.com
Domains
aadds.milesbettersolutions.onmicrosoft.com
Default Domain Policy
AADDC Computers
AADDC Users
AADDSDomainAdmin
AADDSSyncEscrows
AADDSSyncState
Domain Controllers
Default Domain Controllers Policy
Event Log GPO
Group Policy Objects
WMI Filters
Starter GPOs
Sites
Group Policy Modeling
Group Policy Results
Domain Controllers
Linked Group Policy Objects
Group Policy Inheritance
Delegation
This list does not include any GPOs linked to sites. For more details, see Help.
Precedence
GPO
Location
GPO Status
WMI Filter
1
Default Domain Controller...
Domain Controllers
Enabled
None
2
Event Log GPO
Domain Controllers
Enabled
None
3
Default Domain Policy
aadds.milesbettersolutions.onmicrosoft.com
Enabled
None


Group Policy Management
File Action View Window Help
Group Policy Management
Forest: aadds.milesbettersolutions.onmicrosoft.com
Domains
aadds.milesbettersolutions.onmicrosoft.com
Default Domain Policy
AADDC Computers
AADDC Computers GPO
AADDC Users
AADDC Users GPO
AADDSDomainAdmin
AADDSSyncEscrows
AADDSSyncState
Domain Controllers
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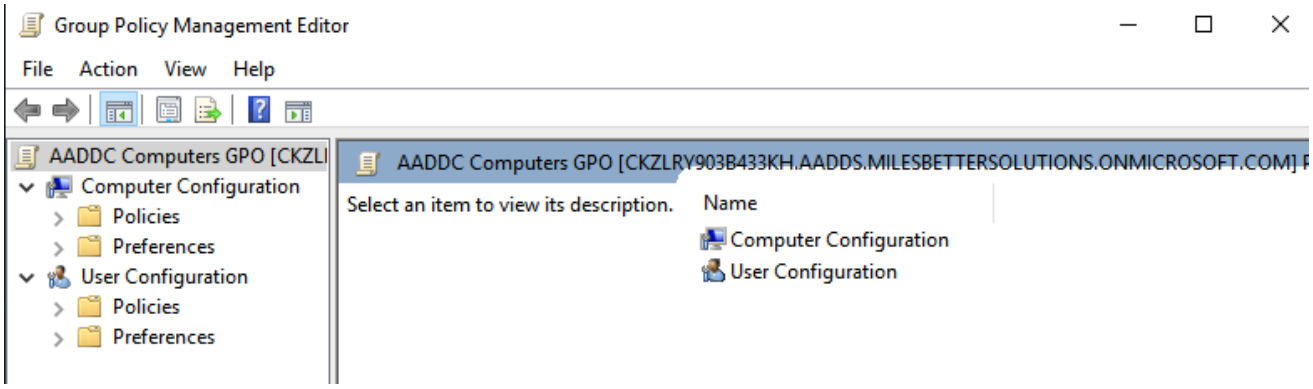
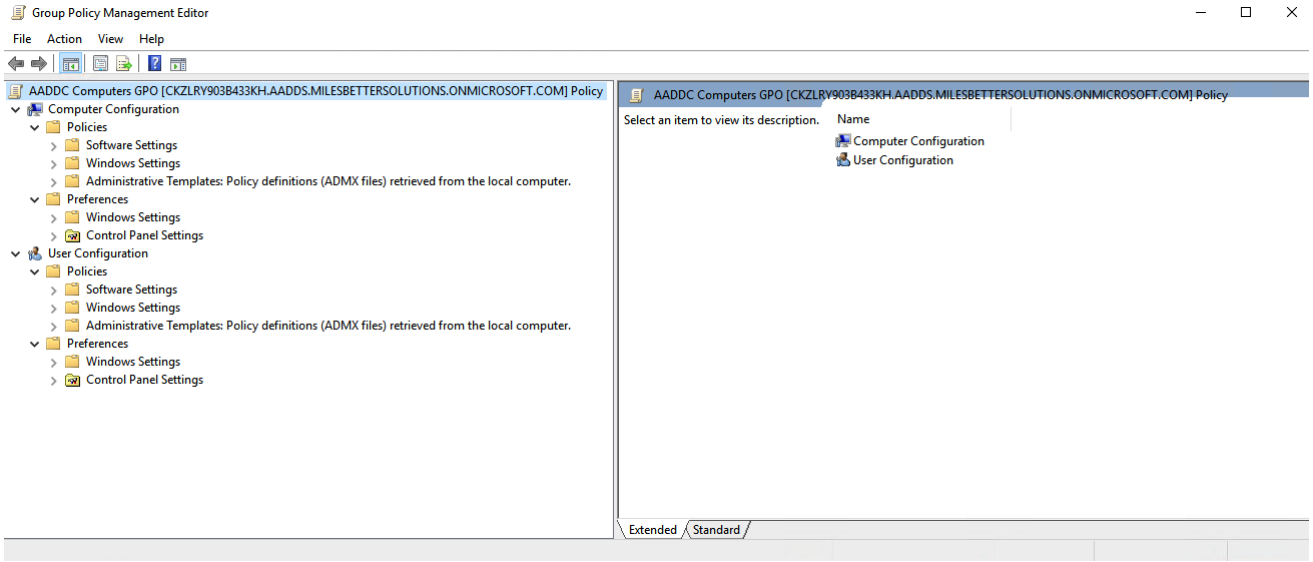
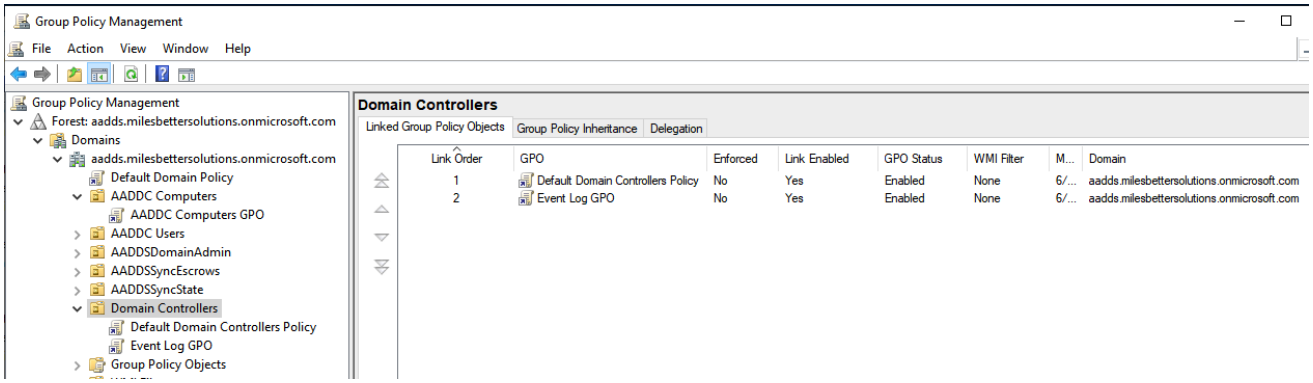
AADDC Computers GPO
AADDC Users GPO
Default Domain Controllers Policy
Default Domain Policy
Event Log GPO
WMI Filters
Starter GPOs
Sites
Group Policy Modeling
Group Policy Results
Group Policy Objects in aadds.milesbettersolutions.onmicrosoft.com
Contents
Delegation
Name
GPO Status
WMI Filter
AADDC Computers GPO Enabled None
AADDC Users GPO Enabled None
Default Domain Controllers Policy Enabled None
Default Domain Policy Enabled None
Event Log GPO Enabled None


Group Policy Management Editor
File Action View Help
AADDC Computers GPO [CKZLI
Computer Configuration
Policies
Preferences
User Configuration
Policies
Preferences
AADDC Computers GPO [CKZLRY903B433KH.AADDS.MILESBETTERSOLUTIONS.ONMICROSOFT.COM] P
Select an item to view its description.
Name
Computer Configuration
User Configuration


Group Policy Management Editor
File Action View Help
AADDC Computers GPO [CKZLRY903B433KH.AADDS.MILESBETTERSOLUTIONS.ONMICROSOFT.COM] Policy
Computer Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy definitions (ADMX files) retrieved from the local computer.
Preferences
Windows Settings
Control Panel Settings
User Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy definitions (ADMX files) retrieved from the local computer.
Preferences
Windows Settings
Control Panel Settings
AADDC Computers GPO [CKZLRY903B433KH.AADDS.MILESBETTERSOLUTIONS.ONMICROSOFT.COM] Policy
Select an item to view its description.
Name
Computer Configuration
User Configuration
Extended
Standard


Group Policy Management
File Action View Window Help
Group Policy Management
Forest: aadds.milesbettersolutions.onmicrosoft.com
Domains
aadds.milesbettersolutions.onmicrosoft.com
Default Domain Policy
AADDC Computers
AADDC Computers GPO
AADDC Users
AADDSDomainAdmin
AADDSSyncEscrows
AADDSSyncState
Domain Controllers
Default Domain Controllers Policy
Event Log GPO
Group Policy Objects
Domain Controllers
Linked Group Policy Objects
Group Policy Inheritance
Delegation
Link Order
GPO
Enforced
Link Enabled
GPO Status
WMI Filter
M...
Domain
1
Default Domain Controllers Policy
No
Yes
Enabled
None
6/...
aadds.milesbettersolutions.onmicrosoft.com
2
Event Log GPO
No
Yes
Enabled
None
6/...
aadds.milesbettersolutions.onmicrosoft.com

Prevent users from customizing their Start Screen

Prevent users from customizing their Start Screen

Previous Setting | Next Setting

- (●) Not Configured
- ( ) Enabled
- ( ) Disabled

Comment:

Supported on: At least Windows 2000

Options:

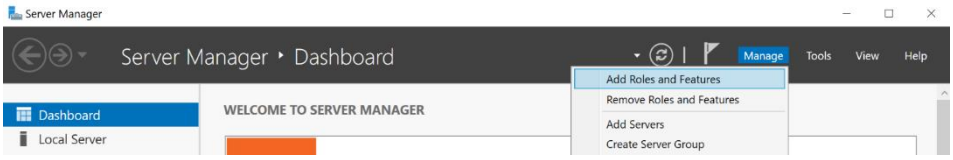
Help:

This policy setting allows you to prevent users from changing their Start screen layout.

If you enable this setting, you will prevent a user from selecting an app, resizing a tile, pinning/unpinning a tile or a secondary tile, entering the customize mode and rearranging tiles within Start and Apps.

If you disable or do not configure this setting, you will allow a user to select an app, resize a tile, pin/unpin a tile or a secondary tile, enter the customize mode and rearrange tiles within Start and Apps.

OK | Cancel | Apply



Add Roles and Features Wizard

Before you begin

DESTINATION SERVER
sm4621-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Confirmation
- Results

This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.

To remove roles, role services, or features:
Start the Remove Roles and Features Wizard

Before you continue, verify that the following tasks have been completed:

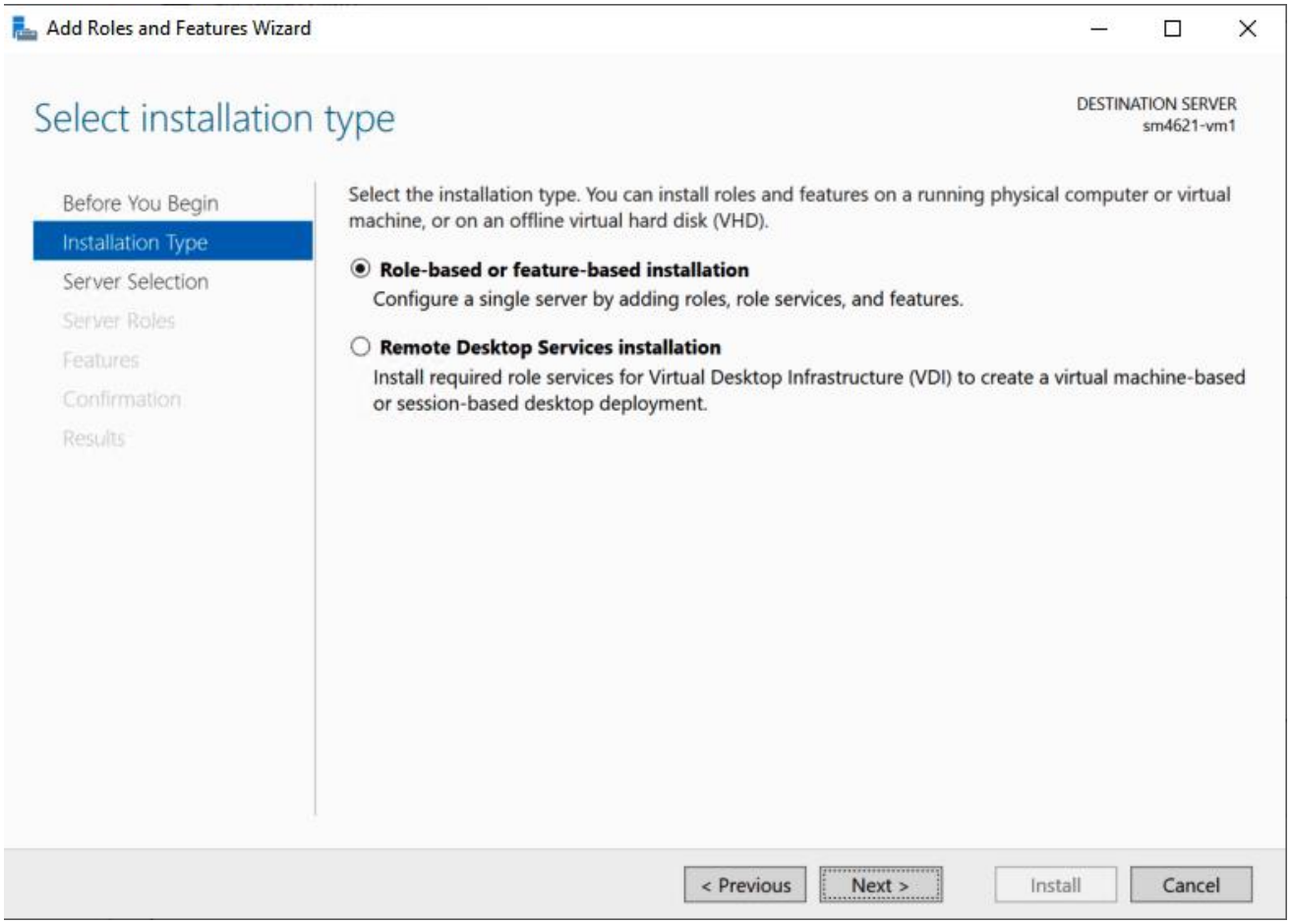
- The Administrator account has a strong password
- Network settings, such as static IP addresses, are configured
- The most current security updates from Windows Update are installed

If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.

To continue, click Next.

☐ Skip this page by default

< Previous | Next > | Install | Cancel


Add Roles and Features Wizard
Select installation type
DESTINATION SERVER
sm4621-vm1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
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.
< Previous
Next >
Install
Cancel

Add Roles and Features Wizard

Select destination server

DESTINATION SERVER
sm4621-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Confirmation
- Results

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
sm4621-vm1	10.1.0.4	Microsoft Windows Server 2019 Datacenter

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.

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
sm4621-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Confirmation
- Results

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
- [ ] Network Controller
- [ ] Network Policy and Access Services
- [ ] Print and Document Services
- [ ] Remote Access
- [ ] Remote Desktop Services
- [ ] Volume Activation Services
- [ ] Web Server (IIS)
- [ ] Windows Deployment Services

Description

Active Directory Certificate Services (AD CS) is used to create certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Select features

DESTINATION SERVER
sm4621-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Confirmation
- Results

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

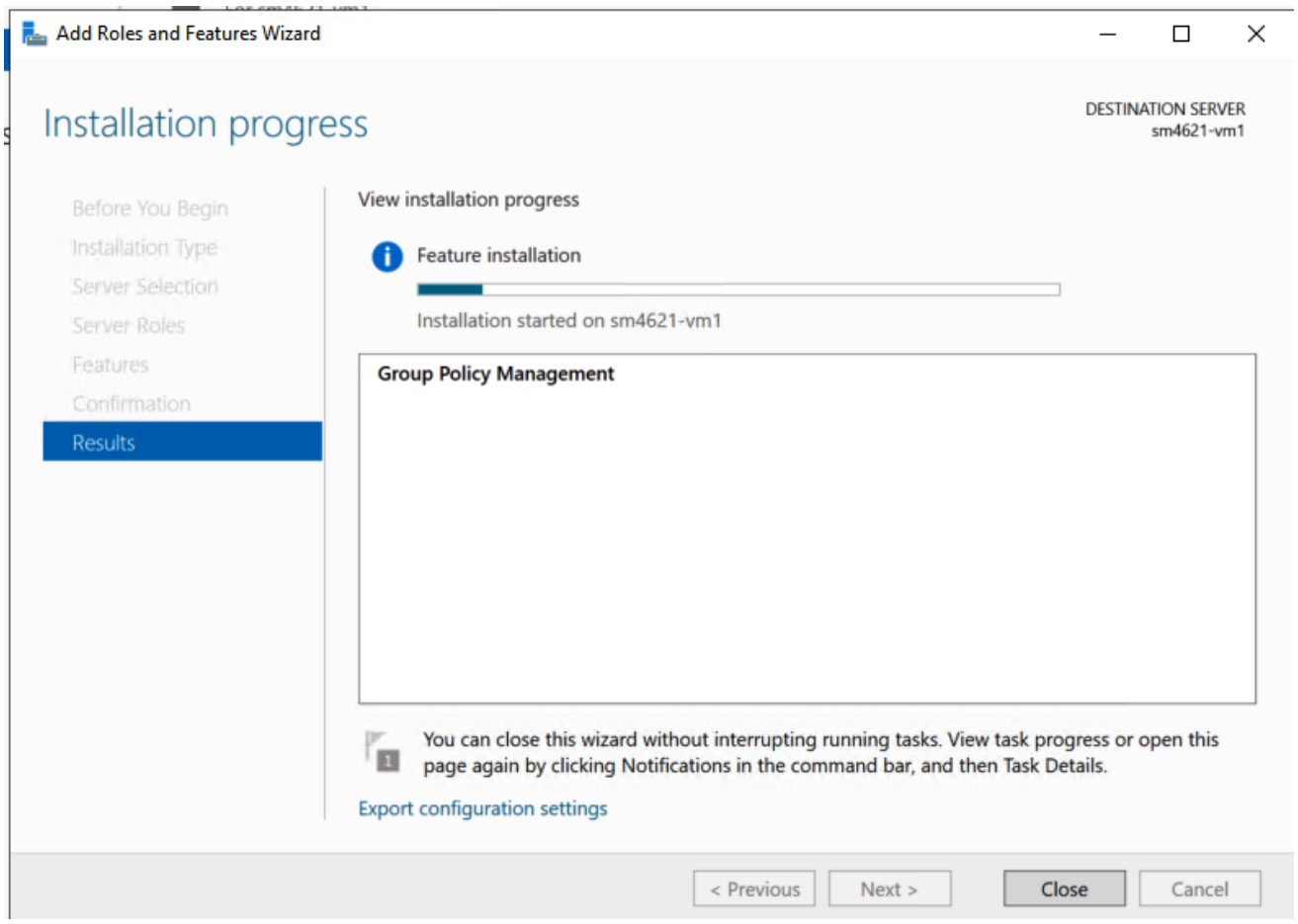
Features

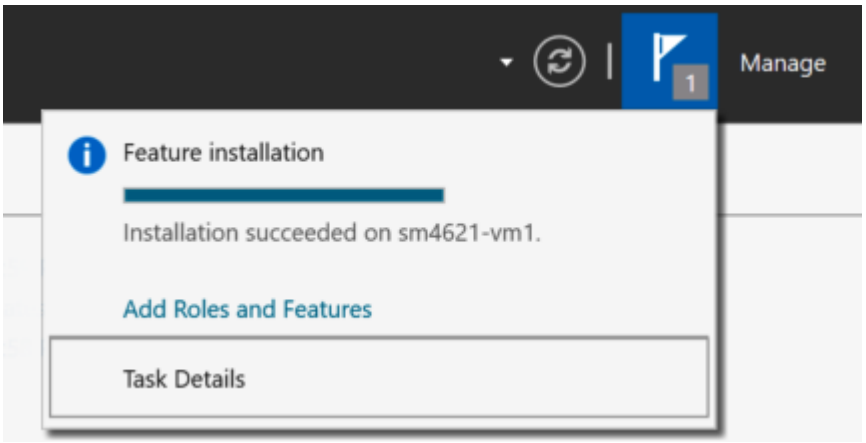
- [ ] .NET Framework 3.5 Features
- [■] .NET Framework 4.7 Features (2 of 7 installed)
- [ ] Background Intelligent Transfer Service (BITS)
- [x] BitLocker Drive Encryption (Installed)
- [ ] BitLocker Network Unlock
- [ ] BranchCache
- [ ] Client for NFS
- [ ] Containers
- [ ] Data Center Bridging
- [ ] Direct Play
- [x] Enhanced Storage (Installed)
- [ ] Failover Clustering
- [x] Group Policy Management
- [ ] Host Guardian Hyper-V Support
- [ ] I/O Quality of Service
- [ ] IIS Hostable Web Core
- [ ] Internet Printing Client
- [ ] IP Address Management (IPAM) Server
- [ ] iSNS Server service

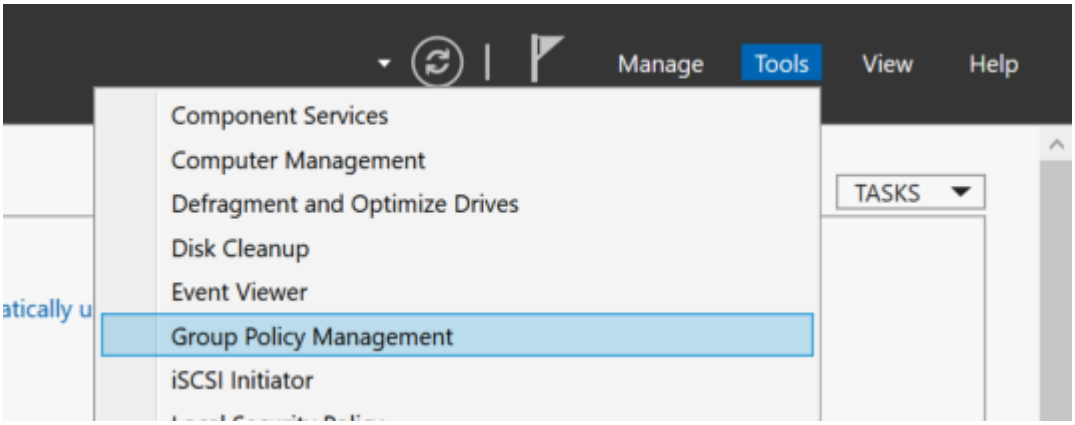
Description

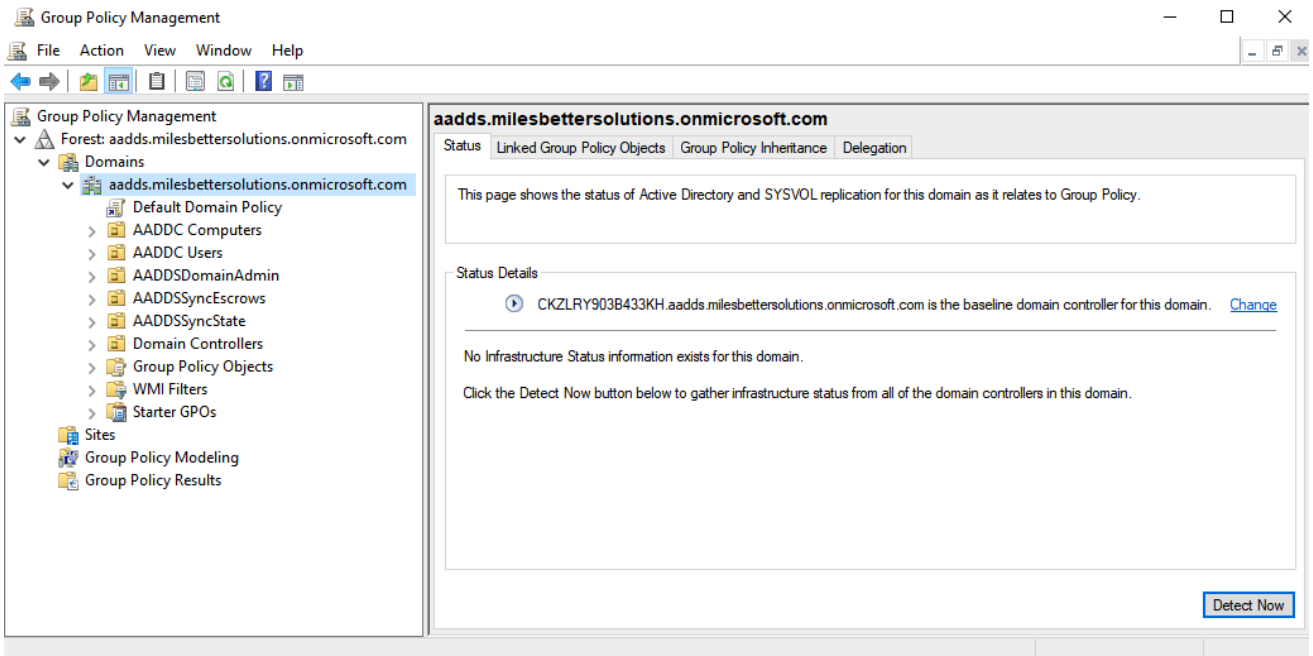
Group Policy Management is a scriptable Microsoft Management Console (MMC) snap-in, providing a single administrative tool for managing Group Policy across the enterprise. Group Policy Management is the standard tool for managing Group Policy.

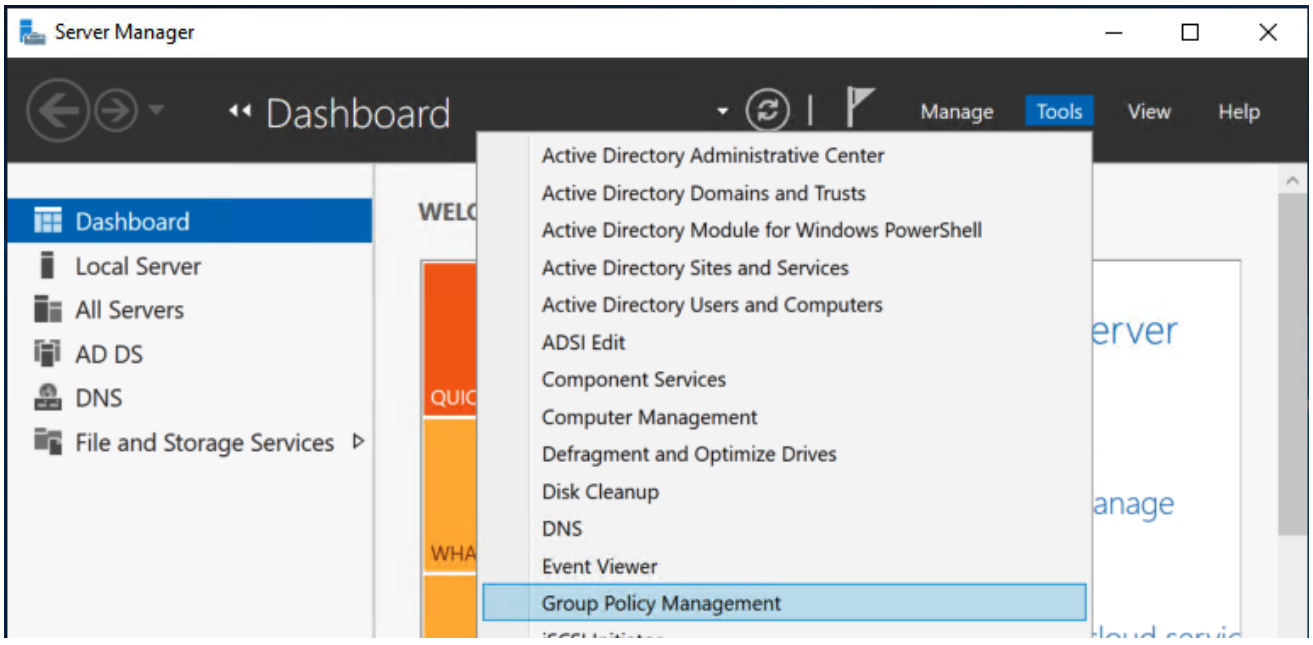
< Previous | Next > | Install | Cancel

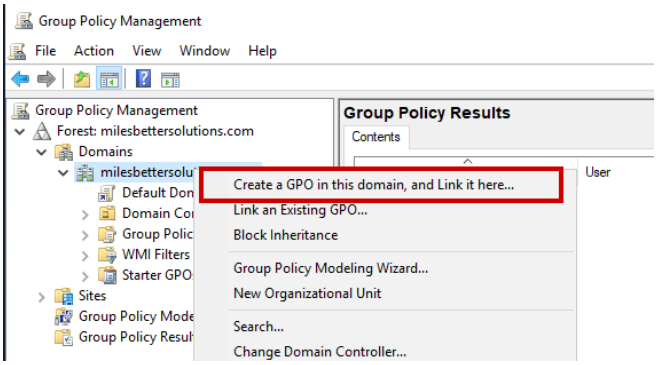

Add Roles and Features Wizard
Installation progress
DESTINATION SERVER
sm4621-vm1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
View installation progress
Feature installation
Installation started on sm4621-vm1
Group Policy Management
You can close this 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
< Previous
Next >
Close
Cancel

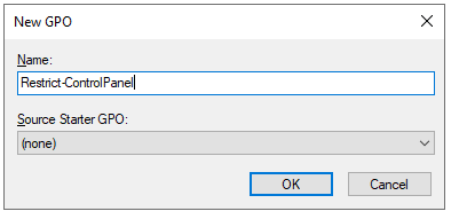

Manage
Feature installation
Installation succeeded on sm4621-vm1.
Add Roles and Features
Task Details


Manage
Tools
View
Help
Component Services
Computer Management
Defragment and Optimize Drives
Disk Cleanup
Event Viewer
Group Policy Management
iSCSI Initiator
TASKS

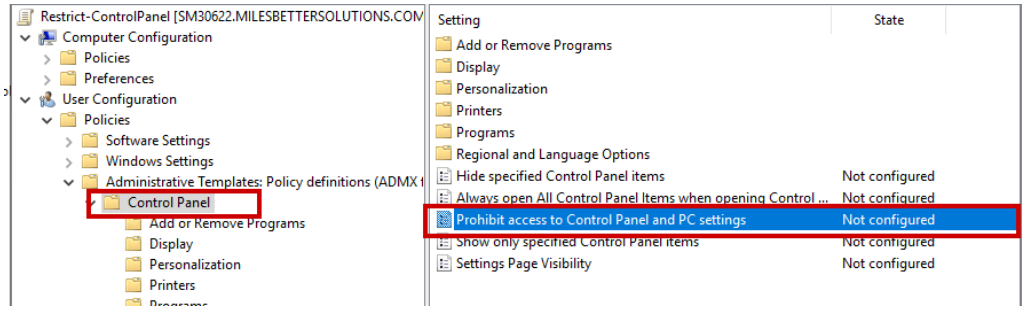

Group Policy Management
File Action View Window Help
Group Policy Management
Forest: aadds.milesbettersolutions.onmicrosoft.com
Domains
aadds.milesbettersolutions.onmicrosoft.com
Default Domain Policy
AADDC Computers
AADDC Users
AADDSDomainAdmin
AADDSSyncEscrows
AADDSSyncState
Domain Controllers
Group Policy Objects
WMI Filters
Starter GPOs
Sites
Group Policy Modeling
Group Policy Results
aadds.milesbettersolutions.onmicrosoft.com
Status
Linked Group Policy Objects
Group Policy Inheritance
Delegation
This page shows the status of Active Directory and SYSVOL replication for this domain as it relates to Group Policy.
Status Details
CKZLRY903B433KH.aadds.milesbettersolutions.onmicrosoft.com is the baseline domain controller for this domain.
Change
No Infrastructure Status information exists for this domain.
Click the Detect Now button below to gather infrastructure status from all of the domain controllers in this domain.
Detect Now

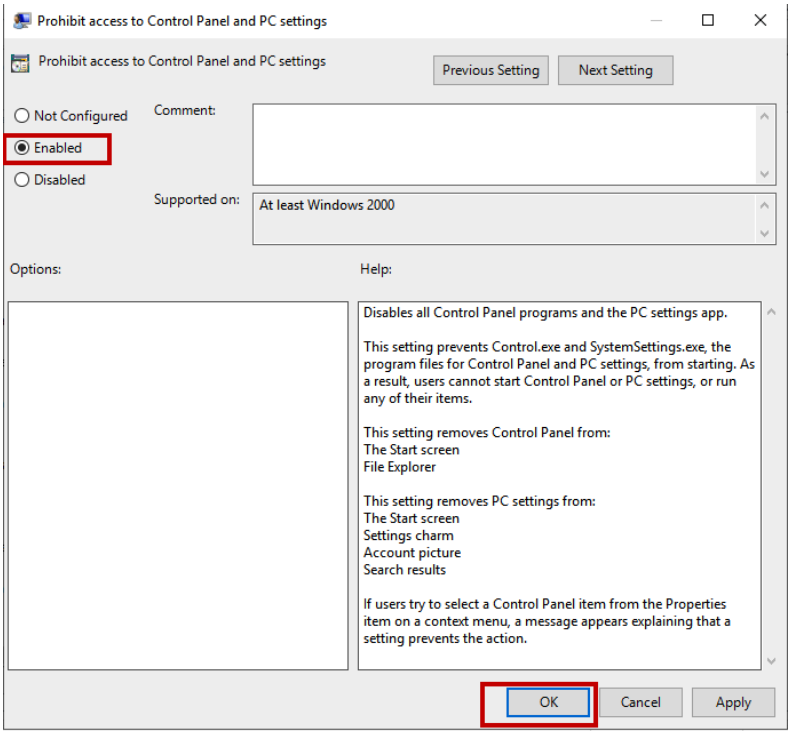

Server Manager
Dashboard
Manage
Tools
View
Help
Dashboard
Local Server
All Servers
AD DS
DNS
File and Storage Services
Active Directory Administrative Center
Active Directory Domains and Trusts
Active Directory Module for Windows PowerShell
Active Directory Sites and Services
Active Directory Users and Computers
ADSI Edit
Component Services
Computer Management
Defragment and Optimize Drives
Disk Cleanup
DNS
Event Viewer
Group Policy Management

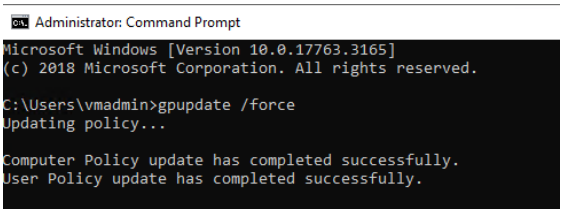

Group Policy Management
File Action View Window Help
Group Policy Management
Forest: milesbettersolutions.com
Domains
Default Don
Domain Co
Group Polic
WMI Filters
Starter GPO
Sites
Group Policy Mode
Group Policy Resul
Group Policy Results
Contents
User
Create a GPO in this domain, and Link it here...
Link an Existing GPO...
Block Inheritance
Group Policy Modeling Wizard...
New Organizational Unit
Search...
Change Domain Controller...

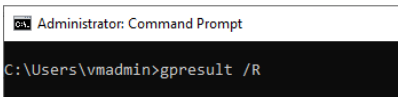

New GPO
Name:
Restrict-ControlPanel
Source Starter GPO:
(none)
OK
Cancel

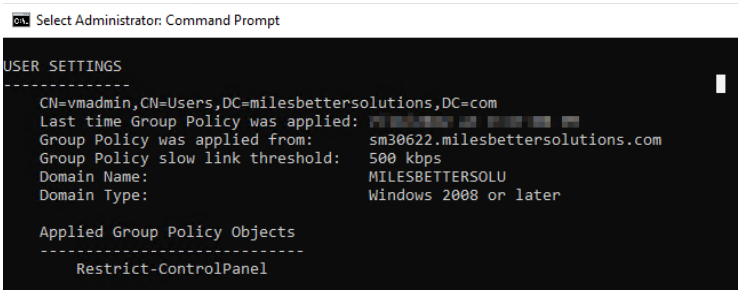
Group Policy Management
Forest: milesbettersolutions.com
Domains
milesbettersolutions.com
Default Domain Policy
Restrict-ControlPanel
Domain Controllers
Group Policy Objects
Default Domain Controllers Policy
Default Domain Policy
Restrict-ControlPanel
WMI Filters
Edit...
milesbettersolutions.com
Status
Linked Group Policy Objects
Group Policy Inheritance
Delegation
Link Order
GPO
Enforced
Link Enabled
GPO Status
WMI Filter
1
Default Domain Policy
No
Yes
Enabled
None
2
Restrict-ControlPanel
No
Yes
Enabled
None


Restrict-ControlPanel [SM30622.MILESBETTERSOLUTIONS.COM
Computer Configuration
Policies
Preferences
User Configuration
Policies
Software Settings
Windows Settings
Administrative Templates: Policy definitions (ADMX
Control Panel
Add or Remove Programs
Display
Personalization
Printers
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 ...
Not configured
Prohibit access to Control Panel and PC settings
Not configured
Show only specified Control Panel items
Not configured
Settings Page Visibility
Not configured


Prohibit access to Control Panel and PC settings
Prohibit access to Control Panel and PC settings
Previous Setting
Next Setting
Not Configured
Enabled
Disabled
Comment:
Supported on:
At least Windows 2000
Options:
Help:
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:
The Start screen
Settings charm
Account picture
Search results
If users try to select a Control Panel item from the Properties item on a context menu, a message appears explaining that a setting prevents the action.
OK
Cancel
Apply

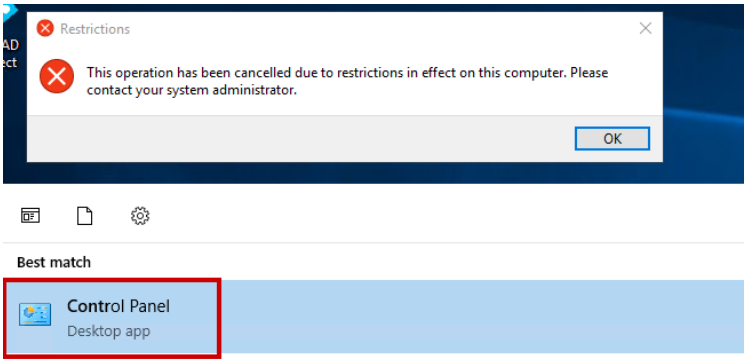

Administrator: Command Prompt
Microsoft Windows [Version 10.0.17763.3165]
(c) 2018 Microsoft Corporation. All rights reserved.
C:\Users\vmadmin>gpupdate /force
Updating policy...
Computer Policy update has completed successfully.
User Policy update has completed successfully.


Administrator: Command Prompt
C:\Users\vmadmin>gpresult /R

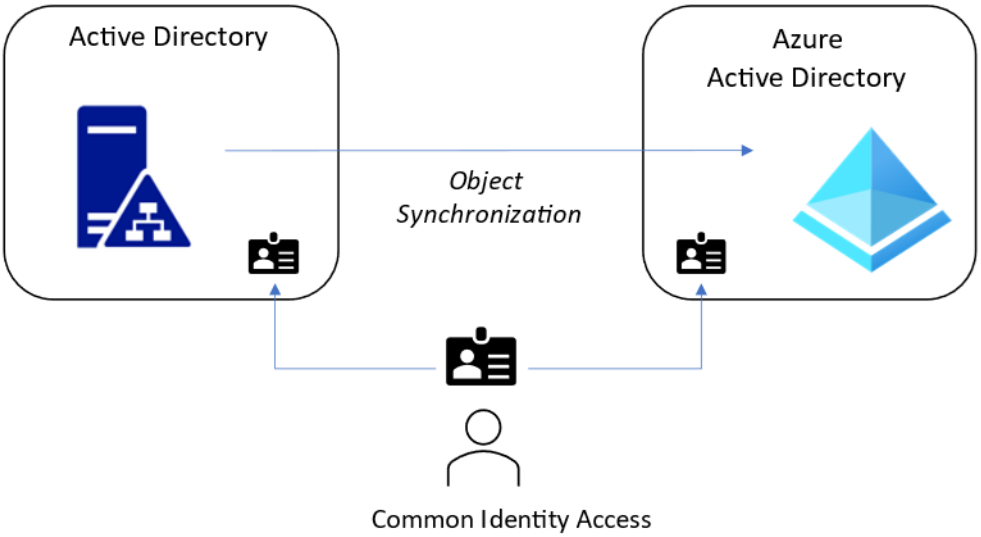

Select Administrator: Command Prompt
USER SETTINGS

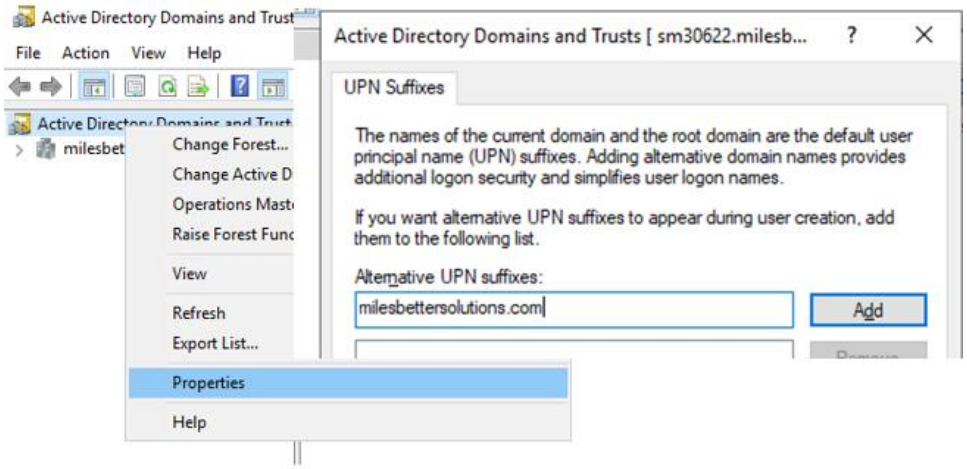
CN=vmadmin,CN=Users,DC=milesbettersolutions,DC=com
Last time Group Policy was applied:
Group Policy was applied from: sm30622.milesbettersolutions.com
Group Policy slow link threshold: 500 kbps
Domain Name: MILESBETTERSOLU
Domain Type: Windows 2008 or later
Applied Group Policy Objects

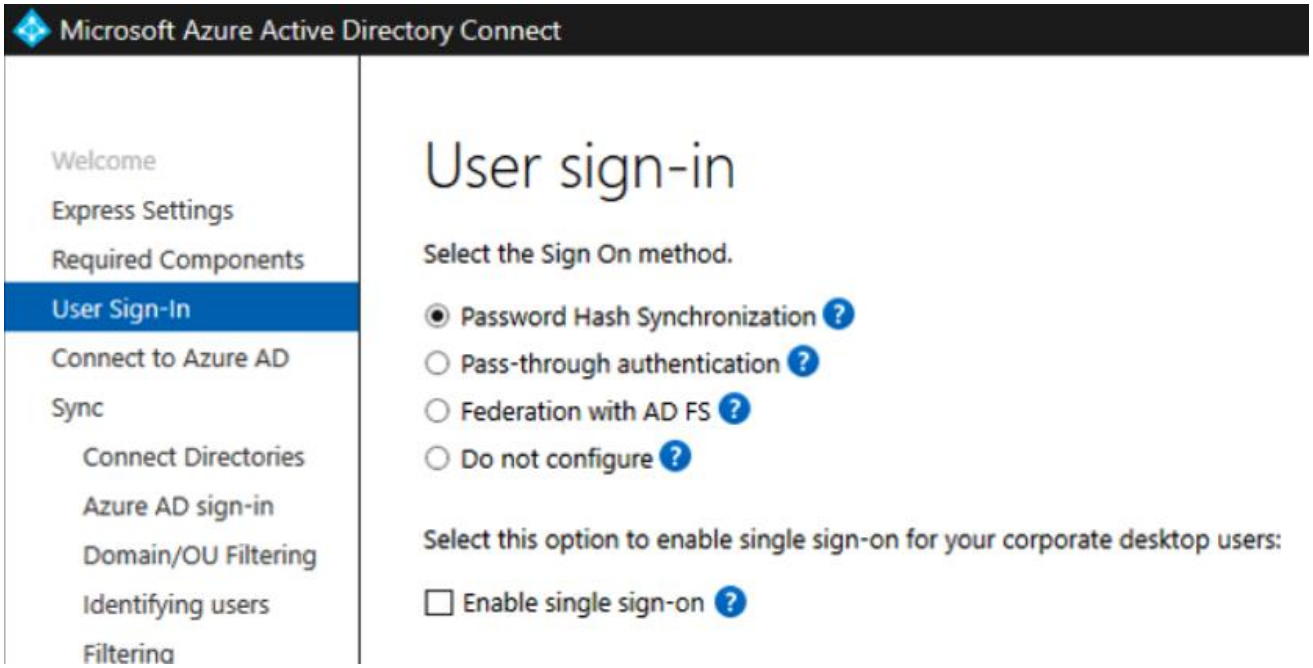
Restrict-ControlPanel

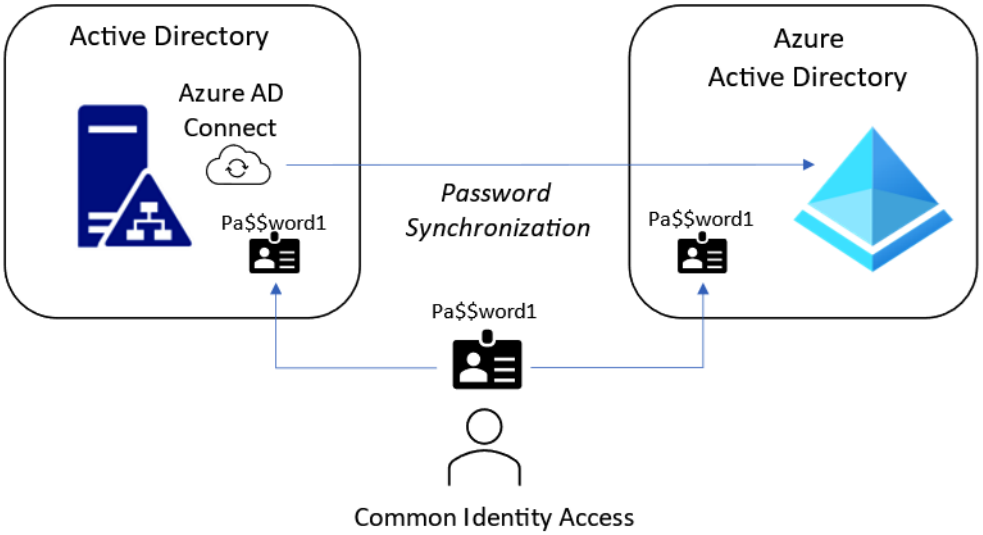

Restrictions
This operation has been cancelled due to restrictions in effect on this computer. Please contact your system administrator.
OK
Best match
Control Panel
Desktop app

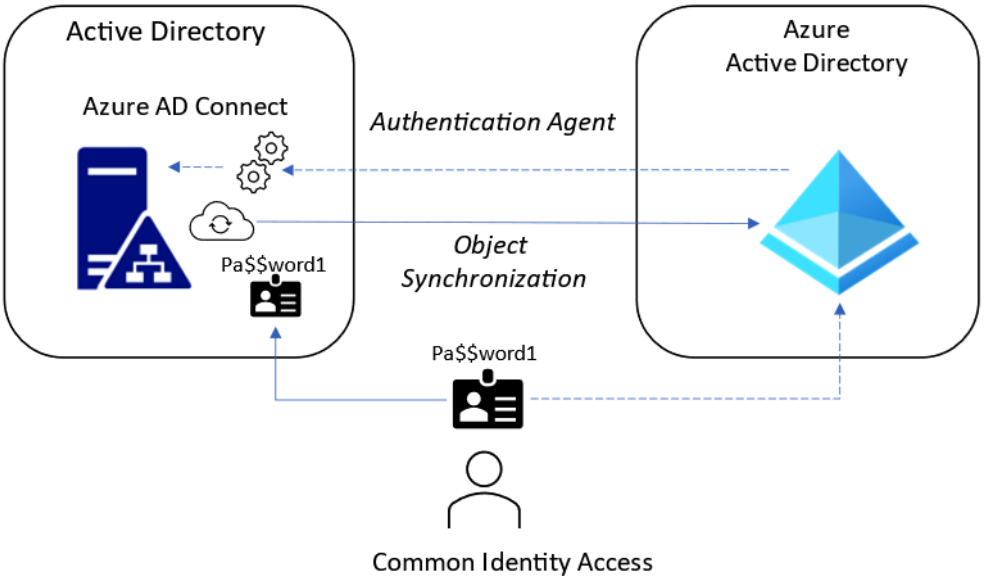
Chapter 4: Implementing and Managing Hybrid Identities

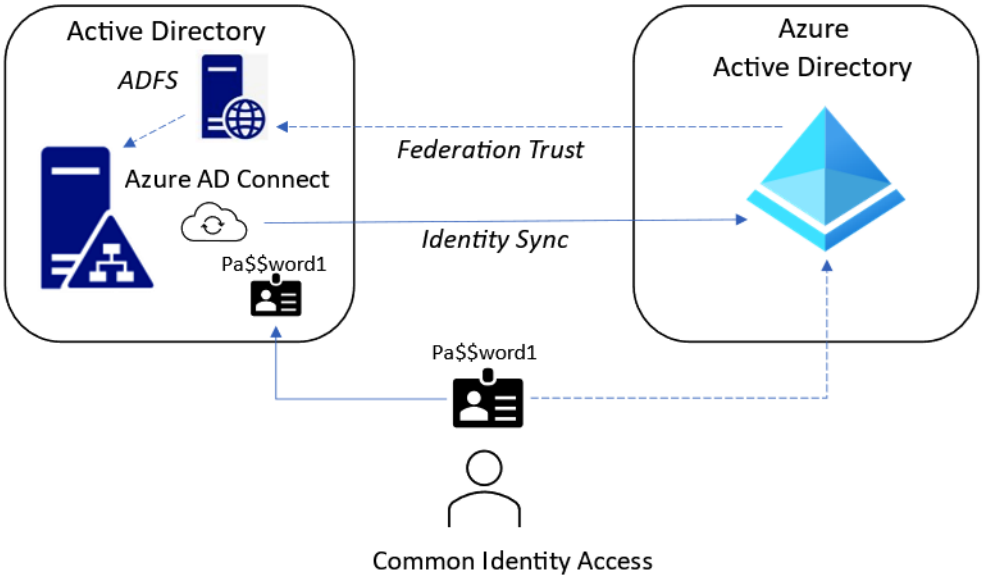


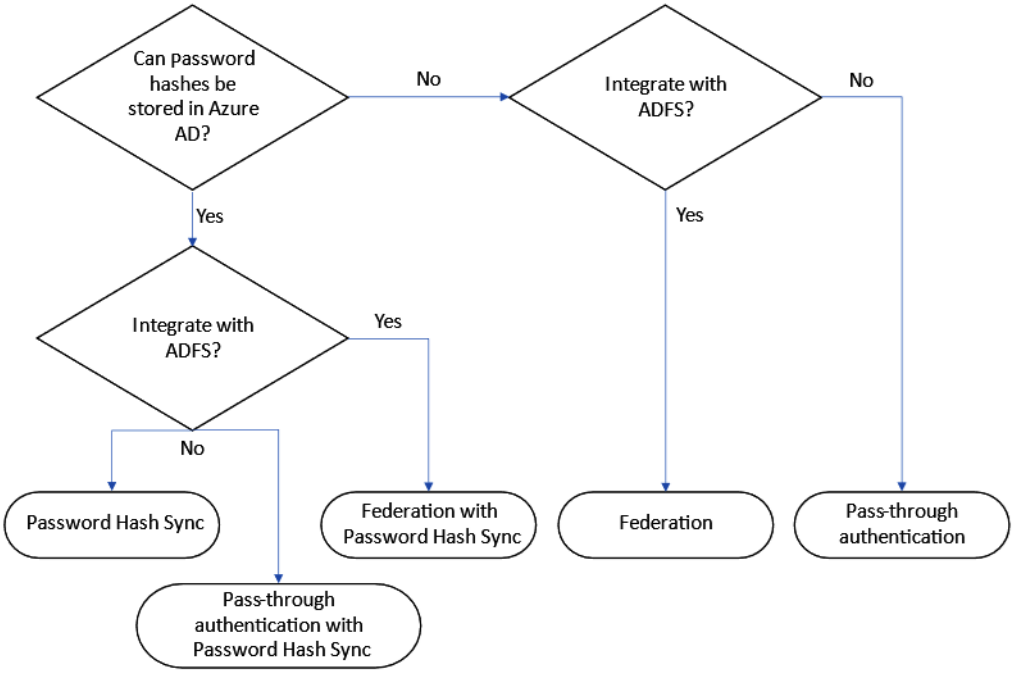


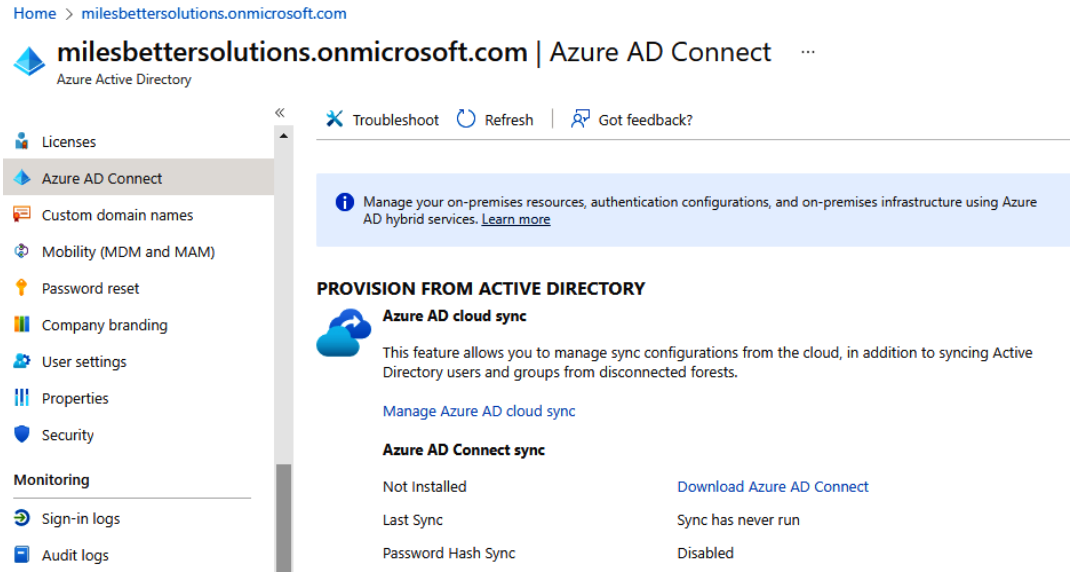

Microsoft Azure Active Directory Connect
Welcome
Express Settings
Required Components
User Sign-In
Connect to Azure AD
Sync
Connect Directories
Azure AD sign-in
Domain/OU Filtering
Identifying users
Filtering
User sign-in
Select the Sign On method.
Password Hash Synchronization
Pass-through authentication
Federation with AD FS
Do not configure
Select this option to enable single sign-on for your corporate desktop users:
Enable single sign-on

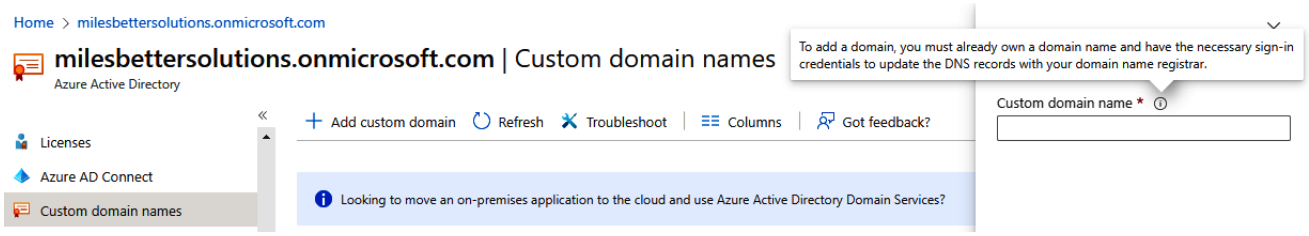

Active Directory
Azure AD
Connect
Pa$$word1
Password
Synchronization
Azure
Active Directory
Pa$$word1
Pa$$word1
Common Identity Access

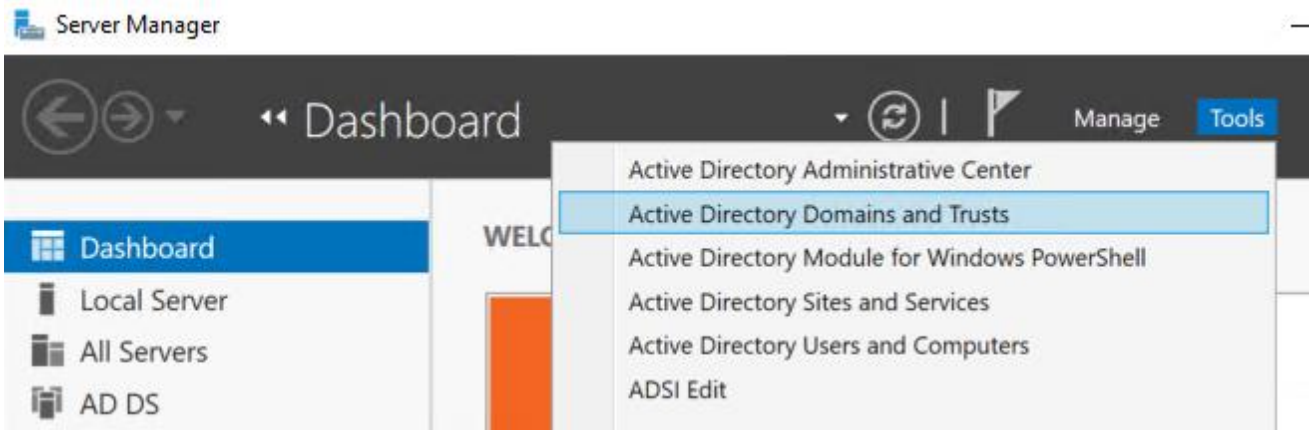

Active Directory
Azure AD Connect
Pa$$word1
Authentication Agent
Object
Synchronization
Azure
Active Directory
Pa$$word1
Common Identity Access

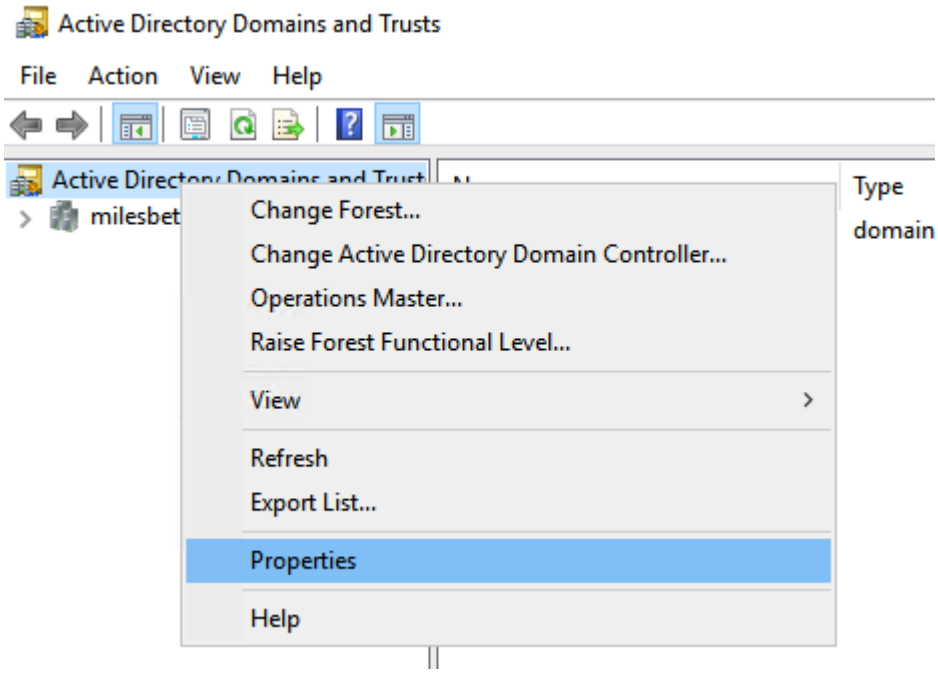

Active Directory
ADFS
Azure AD Connect
Pa$$word1
Federation Trust
Identity Sync
Azure
Active Directory
Pa$$word1
Common Identity Access

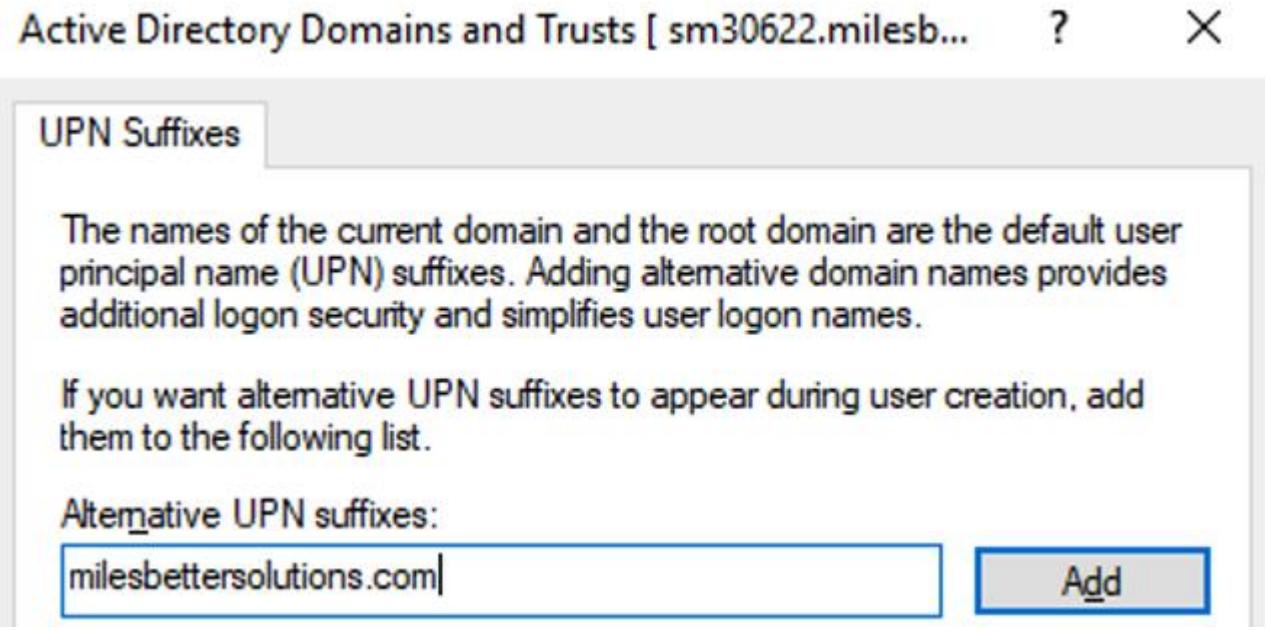

Can password hashes be stored in Azure AD?
No
Integrate with ADFS?
No
Yes
Yes
Integrate with ADFS?
Yes
No
Password Hash Sync
Federation with Password Hash Sync
Federation
Pass-through authentication
Pass-through authentication with Password Hash Sync

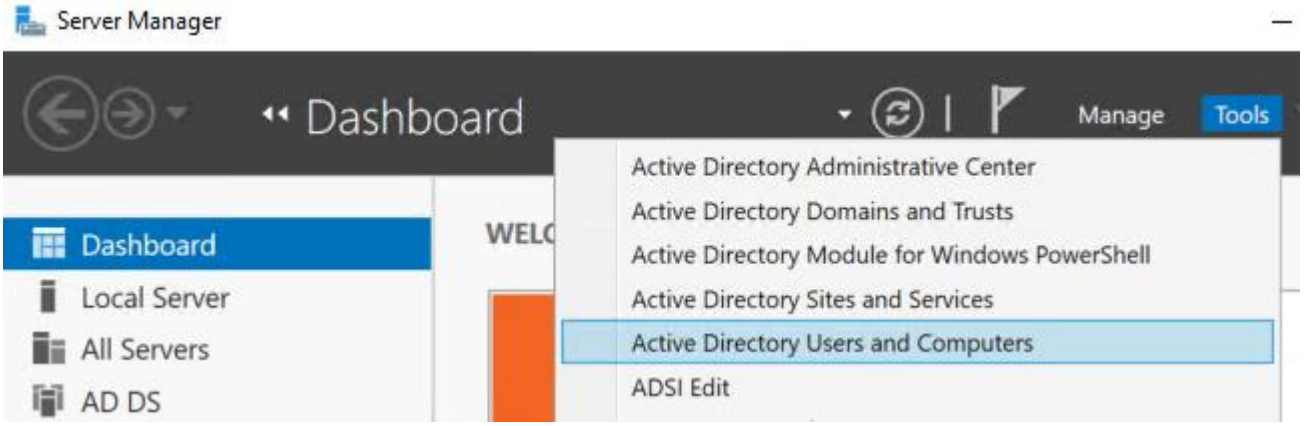

Home > milesbettersolutions.onmicrosoft.com
milesbettersolutions.onmicrosoft.com | Azure AD Connect
Azure Active Directory
Licenses
Azure AD Connect
Custom domain names
Mobility (MDM and MAM)
Password reset
Company branding
User settings
Properties
Security
Monitoring
Sign-in logs
Audit logs
Troubleshoot
Refresh
Got feedback?
Manage your on-premises resources, authentication configurations, and on-premises infrastructure using Azure AD hybrid services. Learn more
PROVISION FROM ACTIVE DIRECTORY
Azure AD cloud sync
This feature allows you to manage sync configurations from the cloud, in addition to syncing Active Directory users and groups from disconnected forests.
Manage Azure AD cloud sync
Azure AD Connect sync
Not Installed
Download Azure AD Connect
Last Sync
Sync has never run
Password Hash Sync
Disabled

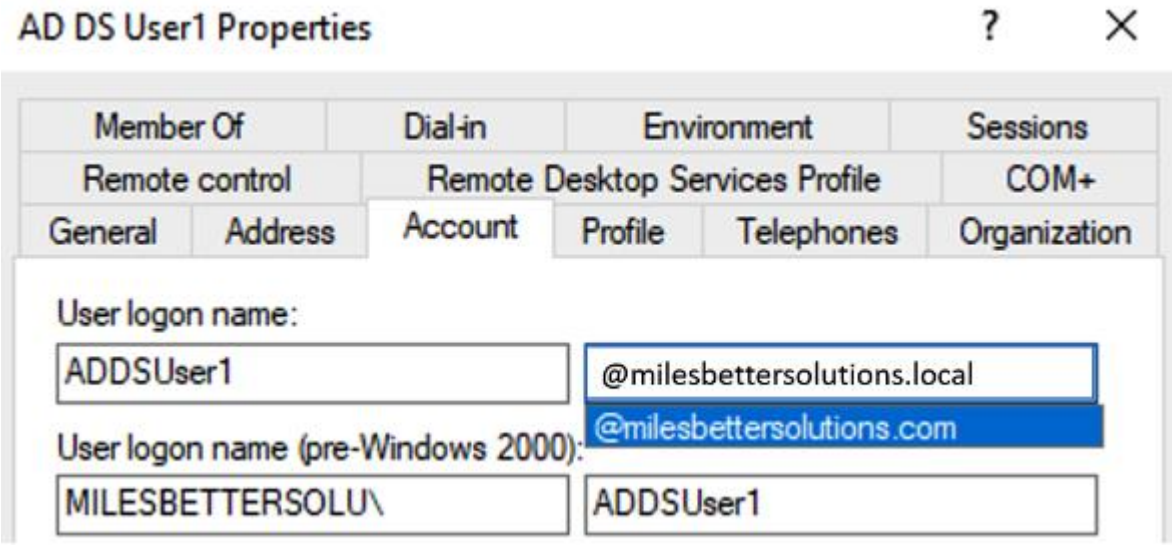

Home > milesbettersolutions.onmicrosoft.com
milesbettersolutions.onmicrosoft.com | Custom domain names
Azure Active Directory
To add a domain, you must already own a domain name and have the necessary sign-in credentials to update the DNS records with your domain name registrar.
Custom domain name *
Licenses
Azure AD Connect
Custom domain names
Add custom domain
Refresh
Troubleshoot
Columns
Got feedback?
Looking to move an on-premises application to the cloud and use Azure Active Directory Domain Services?

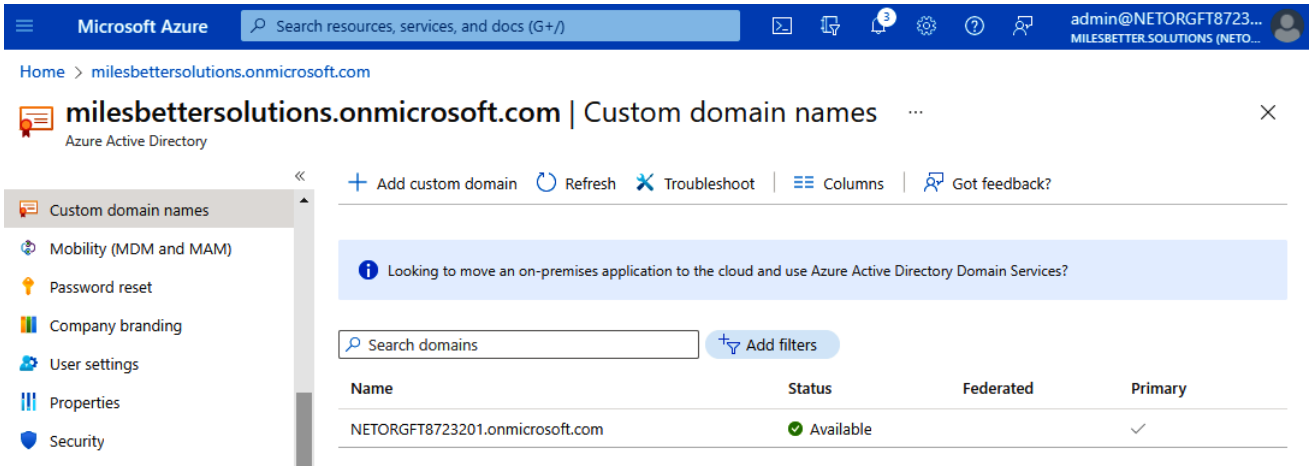

Server Manager
Dashboard
Manage
Tools
Dashboard
Local Server
All Servers
AD DS
Active Directory Administrative Center
Active Directory Domains and Trusts
Active Directory Module for Windows PowerShell
Active Directory Sites and Services
Active Directory Users and Computers
ADSI Edit

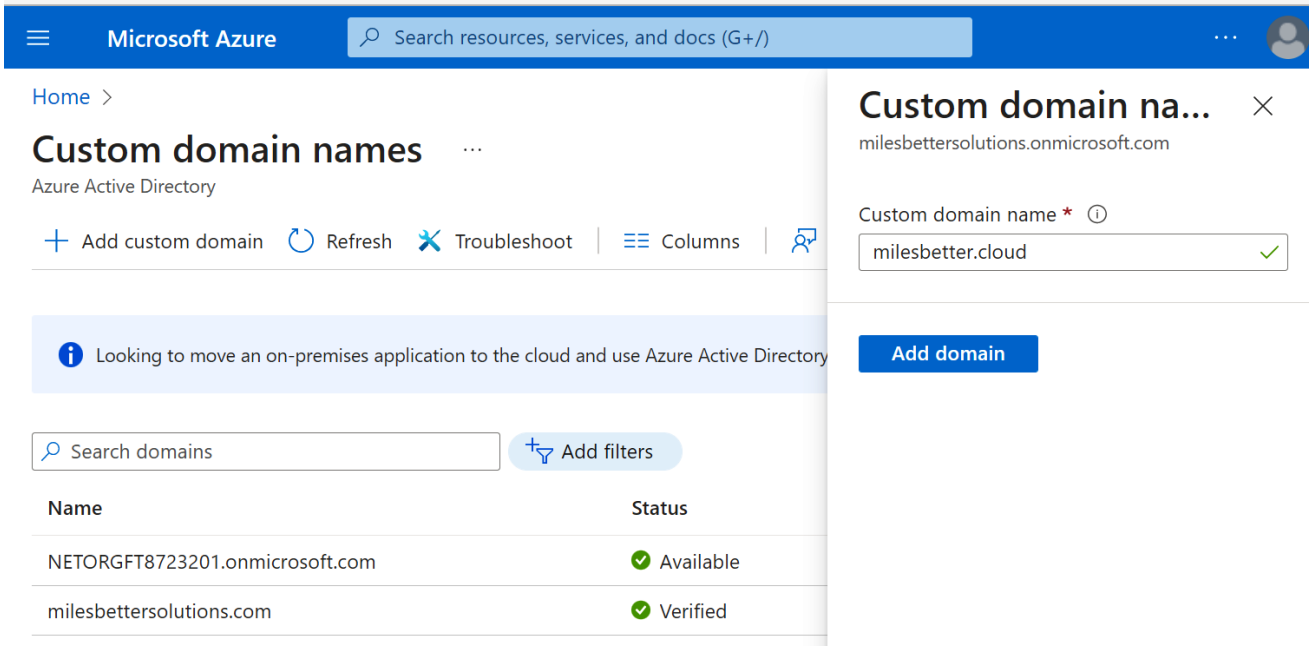

Active Directory Domains and Trusts
File
Action
View
Help
Type
domain
Change Forest...
Change Active Directory Domain Controller...
Operations Master...
Raise Forest Functional Level...
View
Refresh
Export List...
Properties
Help


Active Directory Domains and Trusts [sm30622.milesb...
UPN Suffixes
The names of the current domain and the root domain are the default user principal name (UPN) suffixes. Adding alternative domain names provides additional logon security and simplifies user logon names.
If you want alternative UPN suffixes to appear during user creation, add them to the following list.
Alternative UPN suffixes:
milesbettersolutions.com
Add


Server Manager
Dashboard
Manage
Tools
Dashboard
Local Server
All Servers
AD DS
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


AD DS User1 Properties
Member Of
Dial-in
Environment
Sessions
Remote control
Remote Desktop Services Profile
COM+
General
Address
Account
Profile
Telephones
Organization
User logon name:
ADDSUser1
@milesbettersolutions.local
@milesbettersolutions.com
User logon name (pre-Windows 2000):
MILESBETTERSOLU\
ADDSUser1


Microsoft Azure
Search resources, services, and docs (G+/)
admin@NETORGFT8723...
MILESBETTER.SOLUTIONS (NETO...
Home > milesbettersolutions.onmicrosoft.com
milesbettersolutions.onmicrosoft.com | Custom domain names
Azure Active Directory
Custom domain names
Mobility (MDM and MAM)
Password reset
Company branding
User settings
Properties
Security
Add custom domain
Refresh
Troubleshoot
Columns
Got feedback?
Looking to move an on-premises application to the cloud and use Azure Active Directory Domain Services?
Search domains
Add filters
Name
Status
Federated
Primary
NETORGFT8723201.onmicrosoft.com
Available


Microsoft Azure
Search resources, services, and docs (G+/)
Home >
Custom domain names
Azure Active Directory
Add custom domain
Refresh
Troubleshoot
Columns
Looking to move an on-premises application to the cloud and use Azure Active Directory
Search domains
Add filters
Name
Status
NETORGFT8723201.onmicrosoft.com
Available
milesbettersolutions.com
Verified
Custom domain na...
milesbettersolutions.onmicrosoft.com
Custom domain name *
milesbetter.cloud
Add domain

To use milesbettersolutions.com with your Azure AD, create a new TXT record with your domain name registrar using the info below.

Record type	TXT MX
Alias or host name	@
Destination or points to address	MS=ms22605109
TTL	3600

Share these settings via email

Verification will not succeed until you have configured your domain with your registrar as described above.

Verify

milesbettersolutions.com

Select a different domain

DNS Records

DNS Records define how your domain behaves, like showing your website content and delivering your email.

Delete Copy Filter Add ...

TXT records are most commonly used to verify domain ownership, SSL verification, and email sender policies.

Type	Name	Value	TTL
TXT	@	MS=ms22605109	1 Hour

Add record Clear

☐	TXT	@	MS=ms22605109	1 Hour	Delete	Edit

« ‹ 1 › » 50

Share these settings via email

Verification will not succeed until you have configured your domain with your registrar as described above.

Verify

Microsoft Azure | Search resources, services, and docs (G+/) | admin@NETORGFT8723... MILESBETTER.SOLUTIONS (NETO...

Home > milesbettersolutions.onmicrosoft.com >

milesbettersolutions.com

Custom domain name

Make primary | Delete

Verify domain name

Successfully verified domain name milesbettersolutions.com for use within milesbetter.solutions

Verification succeeded!

Type	Custom
Status	Verified
Federated	No
	To configure milesbettersolutions.com for federated sign-on to your Azure Active Directory, run Azure AD Connect on your local network.
	Download Azure AD Connect
Primary domain	No
In use	No

milesbettersolutions.com

Custom domain name

Make primary | Delete

Do you want to make milesbettersolutions.com your primary domain?

Yes | No

Domain name made primary

Domain name 'milesbettersolutions.com' has been made primary of milesbettersolutions.onmicrosoft.com.

a few seconds ago

Home > milesbettersolutions.onmicrosoft.com

milesbettersolutions.onmicrosoft.com | Custom domain names

Azure Active Directory

- Azure AD Connect
- Custom domain names
- Mobility (MDM and MAM)
- Password reset
- Company branding
- User settings
- Properties
- Security

Add custom domain | Refresh | Troubleshoot | Columns | Got feedback?

Looking to move an on-premises application to the cloud and use Azure Active Directory Domain Services?

Search domains | Add filters

Name	Status	Federated	Primary
NETORGFT8723201.onmicrosoft.com	Available		
milesbettersolutions.com	Verified		✓

milesbettersolutions.onmicrosoft.com | Azure AD Connect

Azure Active Directory

- Azure AD Connect
- Custom domain names
- Mobility (MDM and MAM)
- Password reset
- Company branding
- User settings
- Properties
- Security

Monitoring

- Sign-in logs

Troubleshoot | Refresh | Got feedback?

Manage your on-premises resources, authentication configurations, and on-premises infrastructure using Azure AD hybrid services. Learn more

PROVISION FROM ACTIVE DIRECTORY

Azure AD cloud sync

This feature allows you to manage sync configurations from the cloud, in addition to syncing Active Directory users and groups from disconnected forests.

Manage Azure AD cloud sync

Azure AD Connect sync

Not Installed

Download Azure AD Connect

Download Microsoft Azure Active

microsoft.com/en-us/download/details.aspx?id=47594

Microsoft Azure Active Directory Connect

Important! Selecting a language below will dynamically change the complete page content to that language.

Language: **English**

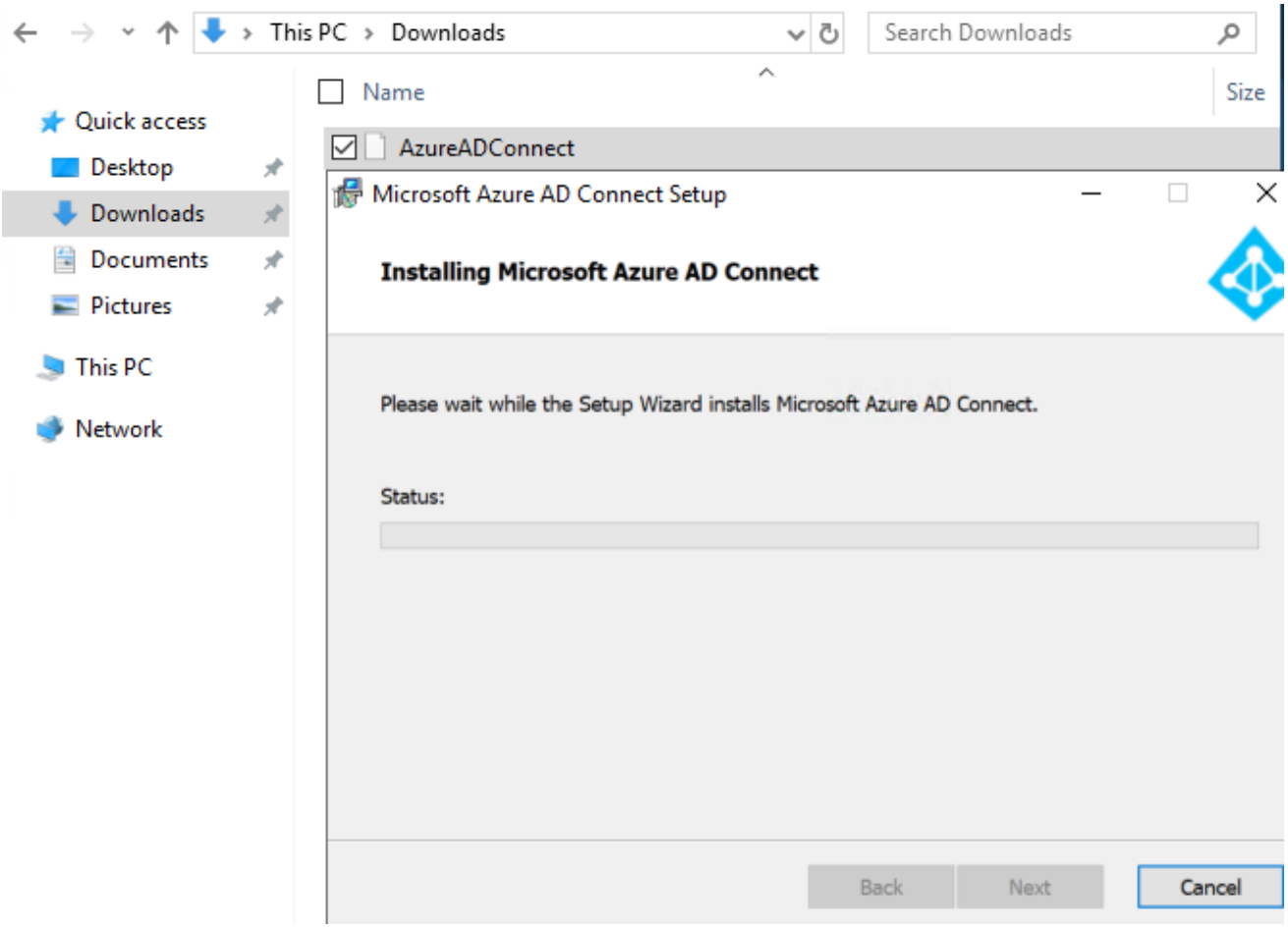
Download

Azure AD Connect allows you to quickly onboard to Azure AD and Office 365

Details

System Requirements

Install Instructions


This PC
Downloads
Search Downloads
Quick access
Desktop
Downloads
Documents
Pictures
This PC
Network
Name
Size
AzureADConnect
Microsoft Azure AD Connect Setup
Installing Microsoft Azure AD Connect
Please wait while the Setup Wizard installs Microsoft Azure AD Connect.
Status:
Back
Next
Cancel

Microsoft Azure Active Directory Connect

Welcome
Express Settings

Welcome to Azure AD Connect

Run this installation tool on the server where the synchronization service component will be installed.

Azure Active Directory Connect integrates your on-premises and online directories.

This installation tool will:

- Guide you in selecting a solution (for example, password hash synchronization or federation with AD FS)
- Install identity synchronization and other Microsoft software components required for deployment
- Enable application telemetry and component health data by default. You can change what data is shared with Microsoft by updating your privacy settings.

Learn more about hybrid identity

☑ I agree to the license terms and privacy notice.

Continue

Microsoft Azure Active Directory Connect

Welcome
Express Settings
Required Components
User Sign-In

Express Settings

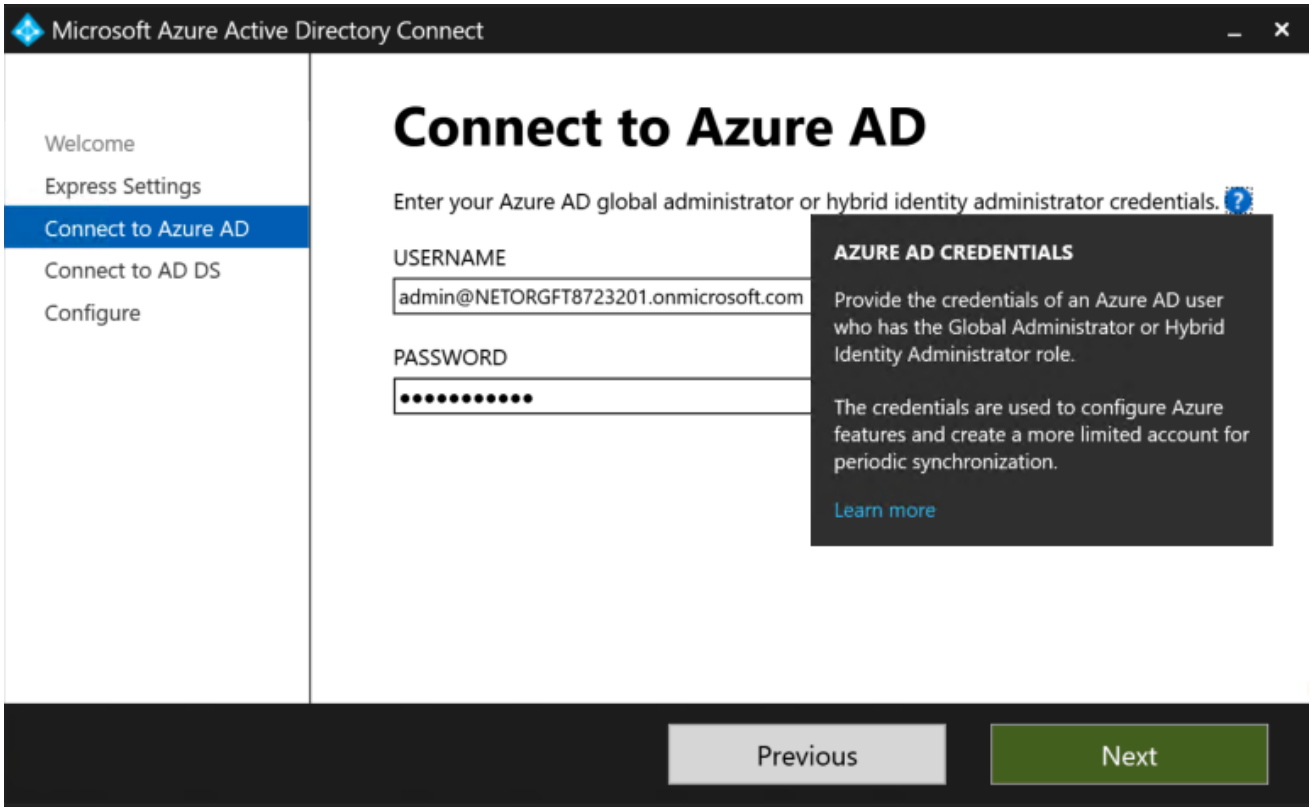
If you have a **single** Windows Server Active Directory forest, we will do the following:

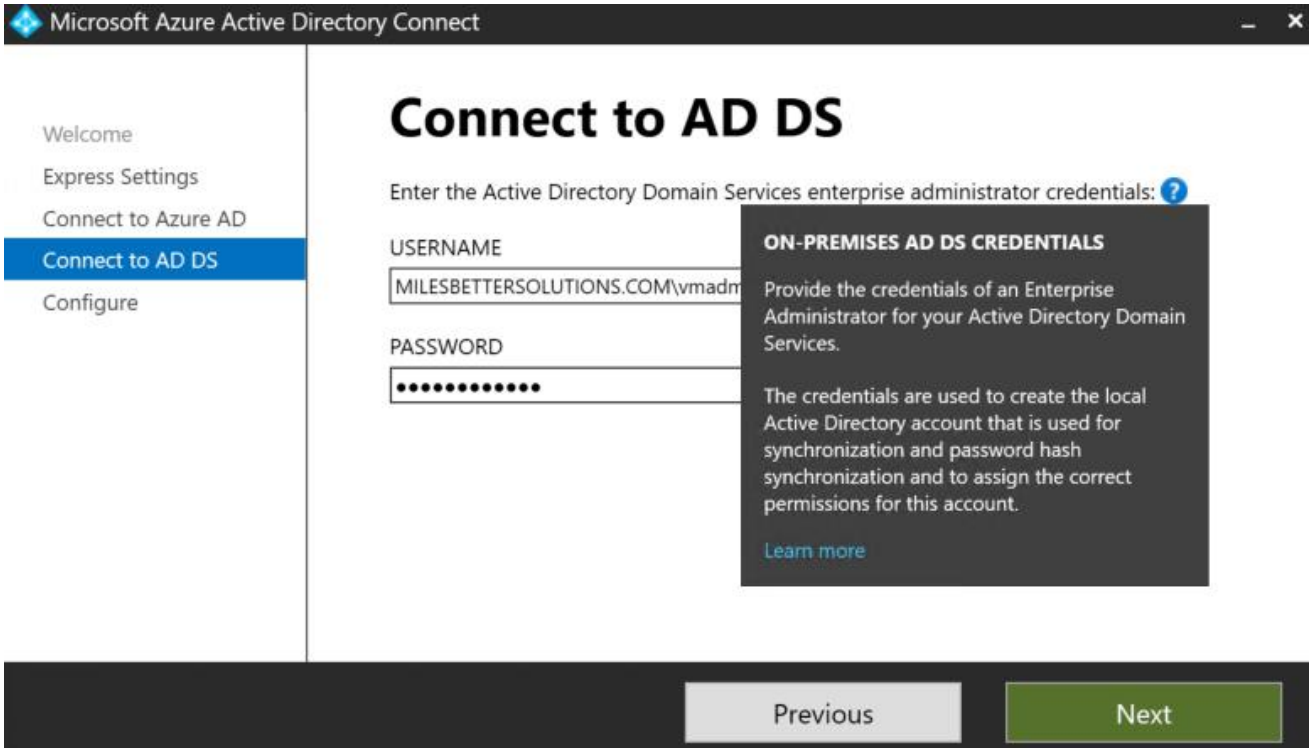
- Configure synchronization of identities in the current AD forest of MILESBETTERSOLU
- Configure password hash synchronization from on-premises AD to Azure AD
- Start an initial synchronization
- Synchronize all attributes
- Enable Auto Upgrade

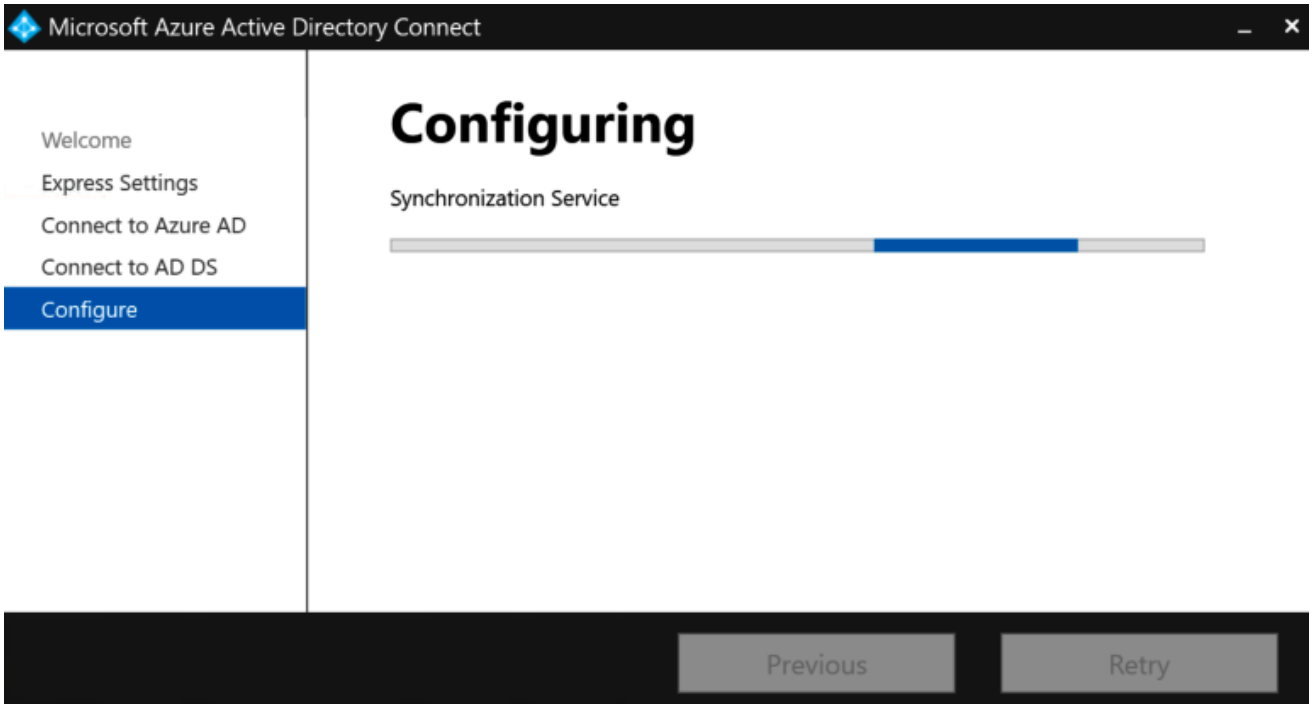
Learn more about express settings

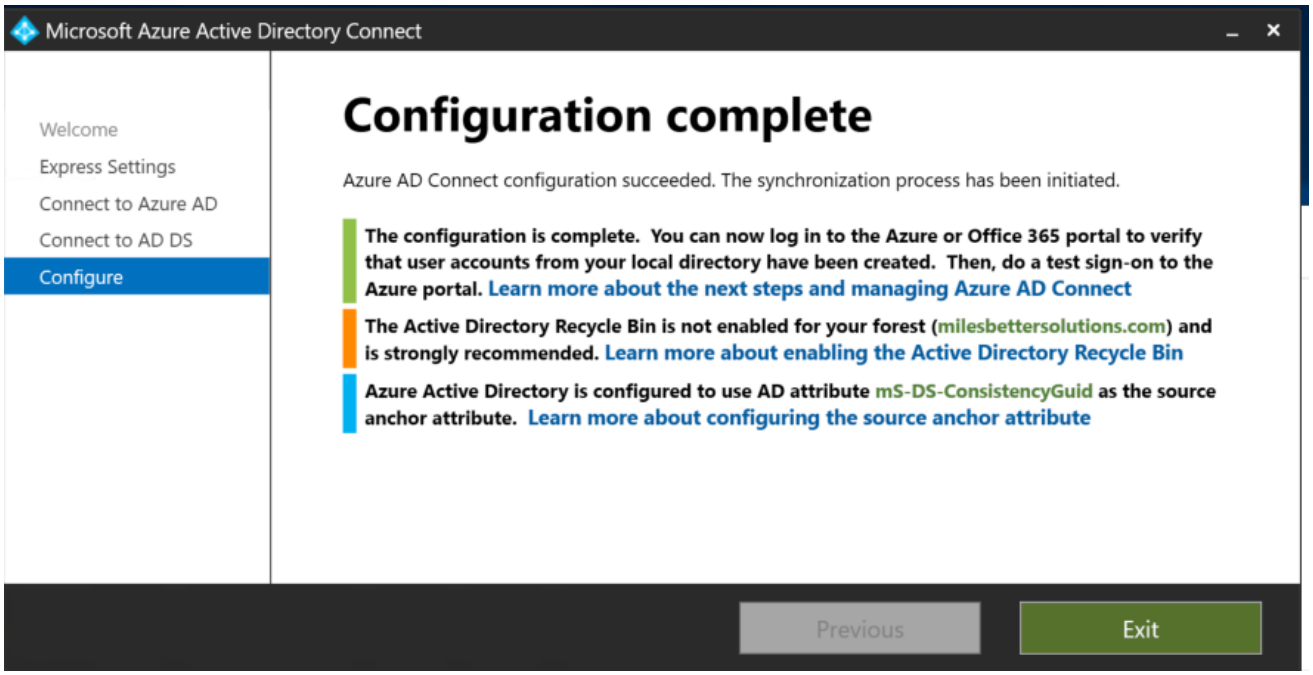
Select Customize to choose advanced deployment options or import settings from an existing server.

Customize | Use express settings


Microsoft Azure Active Directory Connect
Welcome
Express Settings
Connect to Azure AD
Connect to AD DS
Configure
Connect to Azure AD
Enter your Azure AD global administrator or hybrid identity administrator credentials.
USERNAME
admin@NETORGFT8723201.onmicrosoft.com
PASSWORD
AZURE AD CREDENTIALS
Provide the credentials of an Azure AD user who has the Global Administrator or Hybrid Identity Administrator role.
The credentials are used to configure Azure features and create a more limited account for periodic synchronization.
Learn more
Previous
Next


Microsoft Azure Active Directory Connect
Welcome
Express Settings
Connect to Azure AD
Connect to AD DS
Configure
Connect to AD DS
Enter the Active Directory Domain Services enterprise administrator credentials:
USERNAME
MILESBETTERSOLUTIONS.COM\vmadm
PASSWORD
ON-PREMISES AD DS CREDENTIALS
Provide the credentials of an Enterprise Administrator for your Active Directory Domain Services.
The credentials are used to create the local Active Directory account that is used for synchronization and password hash synchronization and to assign the correct permissions for this account.
Learn more
Previous
Next


Microsoft Azure Active Directory Connect
Welcome
Express Settings
Connect to Azure AD
Connect to AD DS
Configure
Configuring
Synchronization Service
Previous
Retry


Microsoft Azure Active Directory Connect
Welcome
Express Settings
Connect to Azure AD
Connect to AD DS
Configure
Configuration complete
Azure AD Connect configuration succeeded. The synchronization process has been initiated.
The configuration is complete. You can now log in to the Azure or Office 365 portal to verify that user accounts from your local directory have been created. Then, do a test sign-on to the Azure portal. Learn more about the next steps and managing Azure AD Connect
The Active Directory Recycle Bin is not enabled for your forest (milesbettersolutions.com) and is strongly recommended. Learn more about enabling the Active Directory Recycle Bin
Azure Active Directory is configured to use AD attribute mS-DS-ConsistencyGuid as the source anchor attribute. Learn more about configuring the source anchor attribute
Previous
Exit

Home > milesbettersolutions.onmicrosoft.com

milesbettersolutions.onmicrosoft.com | Azure AD Connect

Azure Active Directory

- Licenses
- Azure AD Connect
- Custom domain names
- Mobility (MDM and MAM)
- Password reset
- Company branding
- User settings
- Properties
- Security

Monitoring

- Sign-in logs
- Audit logs

Troubleshoot | Refresh | Got feedback?

Manage your on-premises resources, authentication configurations, and on-premises infrastructure using Azure AD hybrid services. Learn more

PROVISION FROM ACTIVE DIRECTORY

Azure AD cloud sync

This feature allows you to manage sync configurations from the cloud, in addition to syncing Active Directory users and groups from disconnected forests.

Manage Azure AD cloud sync

Azure AD Connect sync

Sync Status	Enabled
Last Sync	Less than 1 hour ago
Password Hash Sync	Enabled

Operations | Connectors | Metaverse Designer | Metaverse Search

Connector Operations

Name	Profile Name	Status	Start Time	End Time
	Export	success		
	Export	success		
	Delta Synchronization	success		
	Delta Synchronization	completed-sync-errors		
	Delta Import	completed-warnings		
	Delta Import	success		
	Export	success		
	Export	success		

Profile Name: Delta Import User Name:

Step 2
Step 1

Step Type: Delta Import (Stage Only)
Start Time:
Partition:
End Time:
Status: success

Synchronization Statistics

Staging

Unchanged	0
Adds	15
Updates	71
Renames	0
Deletes	29

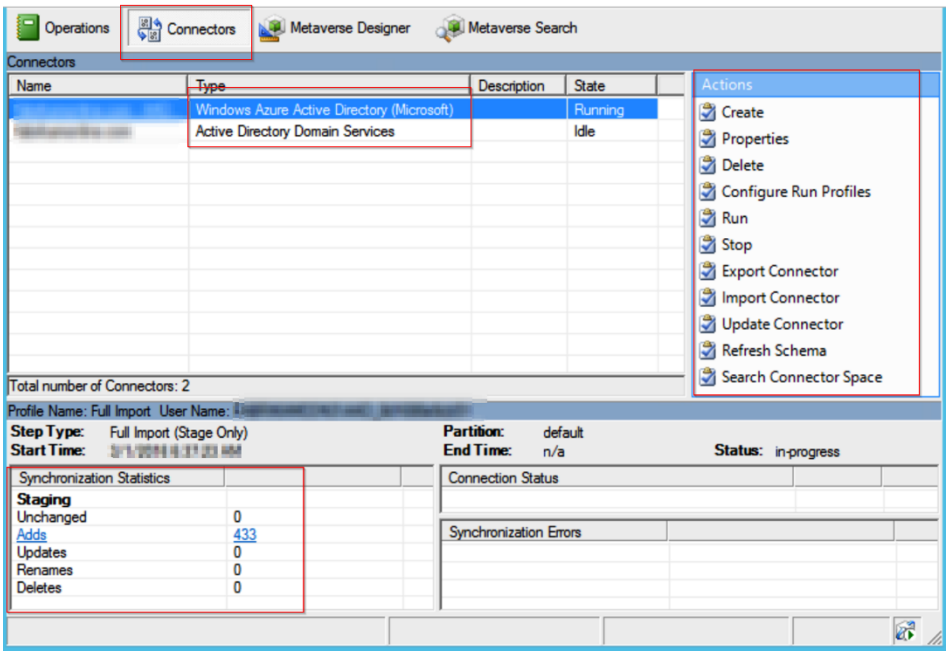
Discovery

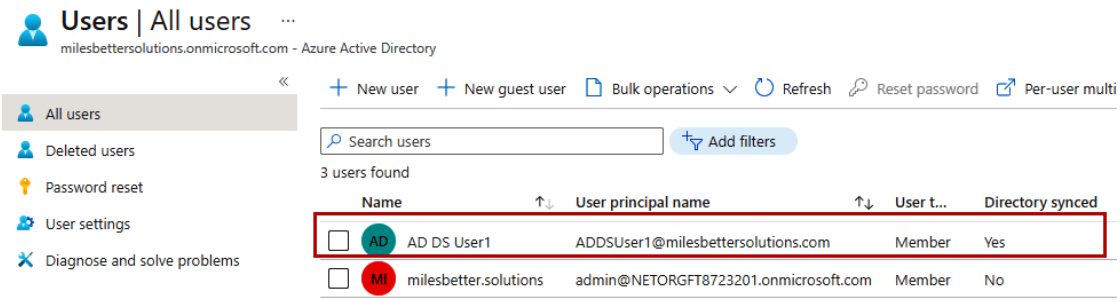
Filtered Objects	0

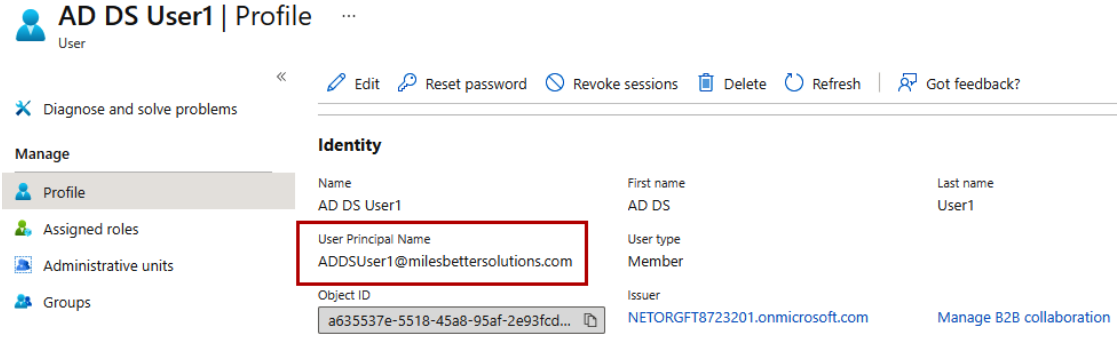
Connection Status

success

Synchronization Errors


Operations
Connectors
Metaverse Designer
Metaverse Search
Connectors
Name
Type
Description
State
Windows Azure Active Directory (Microsoft)
Running
Active Directory Domain Services
Idle
Actions
Create
Properties
Delete
Configure Run Profiles
Run
Stop
Export Connector
Import Connector
Update Connector
Refresh Schema
Search Connector Space
Total number of Connectors: 2
Profile Name: Full Import User Name:
Step Type: Full Import (Stage Only)
Start Time:
Partition: default
End Time: n/a
Status: in-progress
Synchronization Statistics
Staging
Unchanged 0
Adds 433
Updates 0
Renames 0
Deletes 0
Connection Status
Synchronization Errors


Users | All users
milesbettersolutions.onmicrosoft.com - Azure Active Directory
All users
Deleted users
Password reset
User settings
Diagnose and solve problems
New user
New guest user
Bulk operations
Refresh
Reset password
Per-user multi
Search users
Add filters
3 users found
Name
User principal name
User t...
Directory synced
AD DS User1
ADDSUser1@milesbettersolutions.com
Member
Yes
milesbetter.solutions
admin@NETORGFT8723201.onmicrosoft.com
Member
No


AD DS User1 | Profile
User
Diagnose and solve problems
Manage
Profile
Assigned roles
Administrative units
Groups
Edit
Reset password
Revoke sessions
Delete
Refresh
Got feedback?
Identity
Name
AD DS User1
First name
AD DS
Last name
User1
User Principal Name
ADDSUser1@milesbettersolutions.com
User type
Member
Object ID
a635537e-5518-45a8-95af-2e93fcd...
Issuer
NETORGFT8723201.onmicrosoft.com
Manage B2B collaboration

Identity

Name: AD DS User1
First name: AD DS
Last name: User1
User Principal Name: ADDSUser1@milesbettersolutions.com
User type: Member
Object ID: a635537e-5518-45a8-95af-2e93fcd4...
Issuer: NETORGFT8723201.onmicrosoft.com
Manage B2B collaboration

View more

Job info

Job title
Department
Manager — Remove Change
Company name
Employee ID

Settings

Block sign in: Yes / No
Usage location

Contact info

Street address
State or province
Country or region
Office

Home > Users > AD DS User1

AD DS User1 | Profile
User

Diagnose and solve problems

Manage
- Profile
- Assigned roles

Edit | Reset password

Identity
Name
AD DS User1
Last name

Reset password
AD DS User1

Unfortunately, the current licensing does not allow you to reset this user's password.
Learn more about licensing requirements for password writeback.

Home > AD DS User1

AD DS User1 | Licenses
User

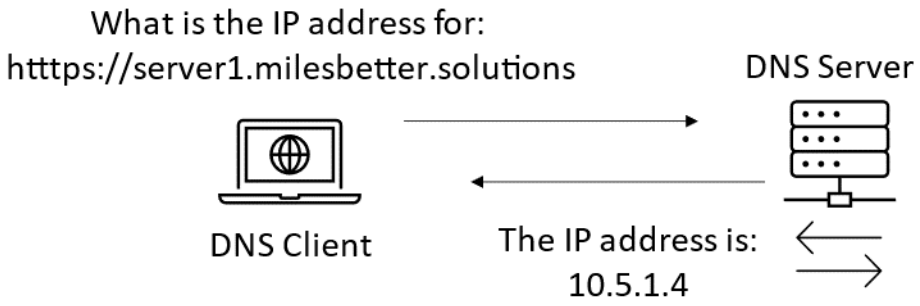
Diagnose and solve problems

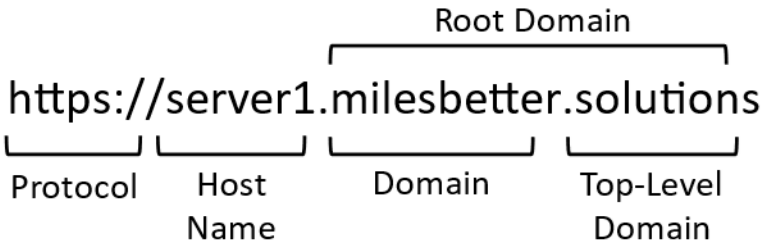
Manage
- Profile
- Assigned roles
- Administrative units
- Groups
- Applications
- Licenses
- Devices
- Azure role assignments
- Authentication methods

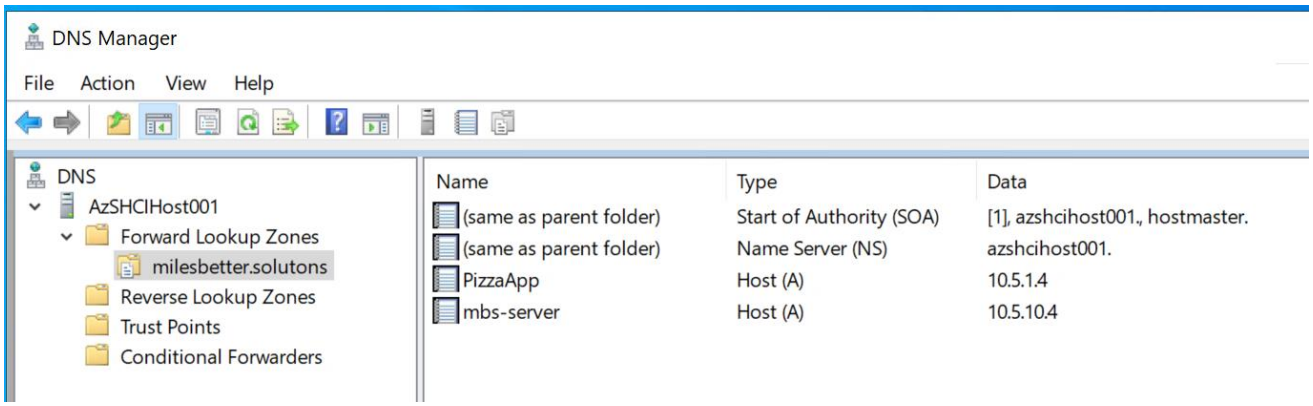
+ Assignments | Reprocess | Refresh | Columns | Got feedback?

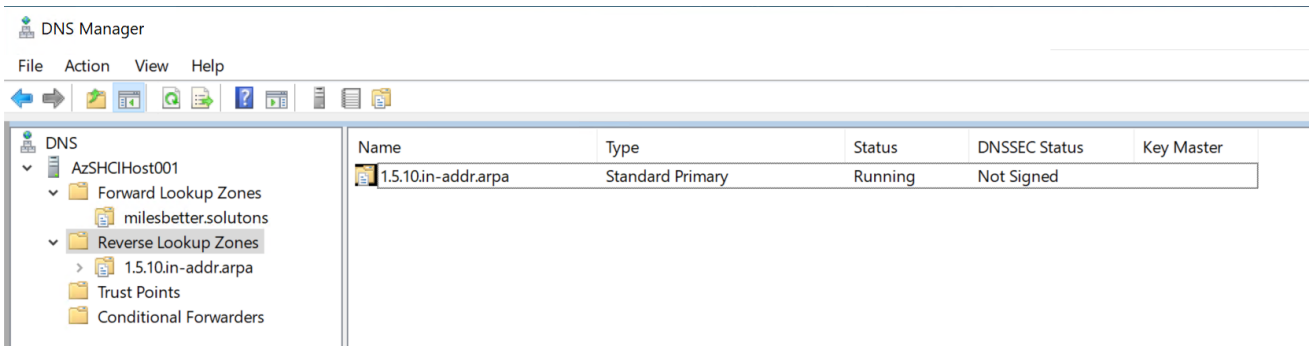
Products	State	Enabled Services
No license assignments found.		

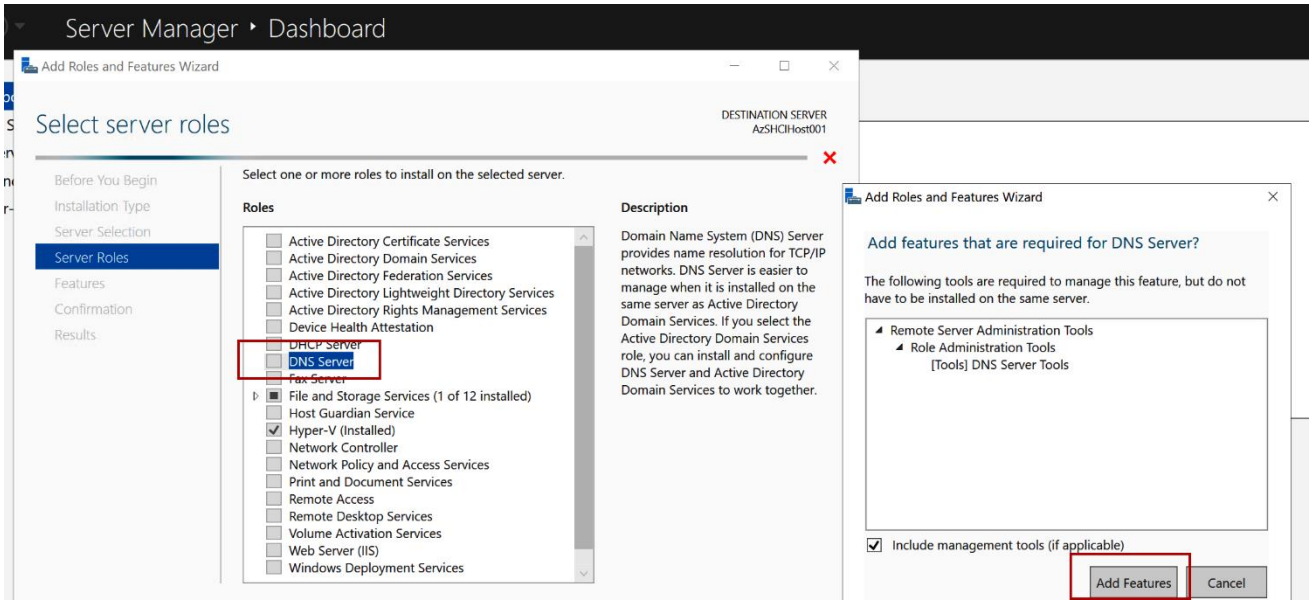
Chapter 5: Implementing and Managing On-Premises Network Infrastructure

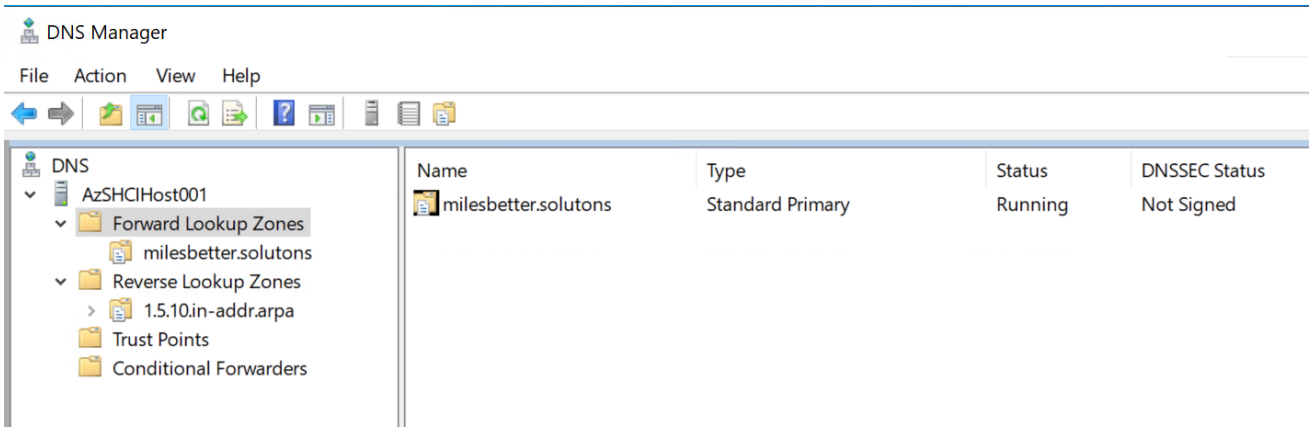




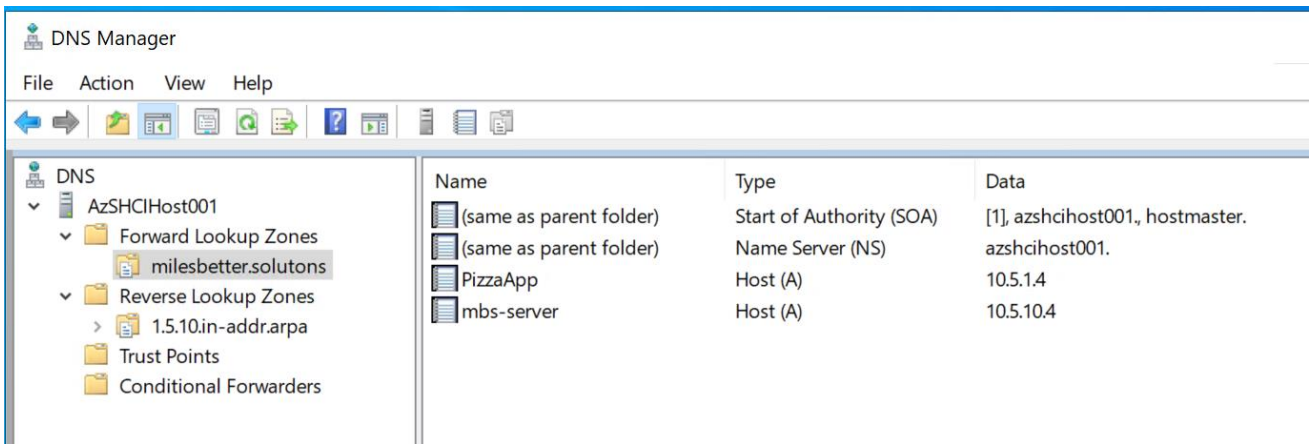


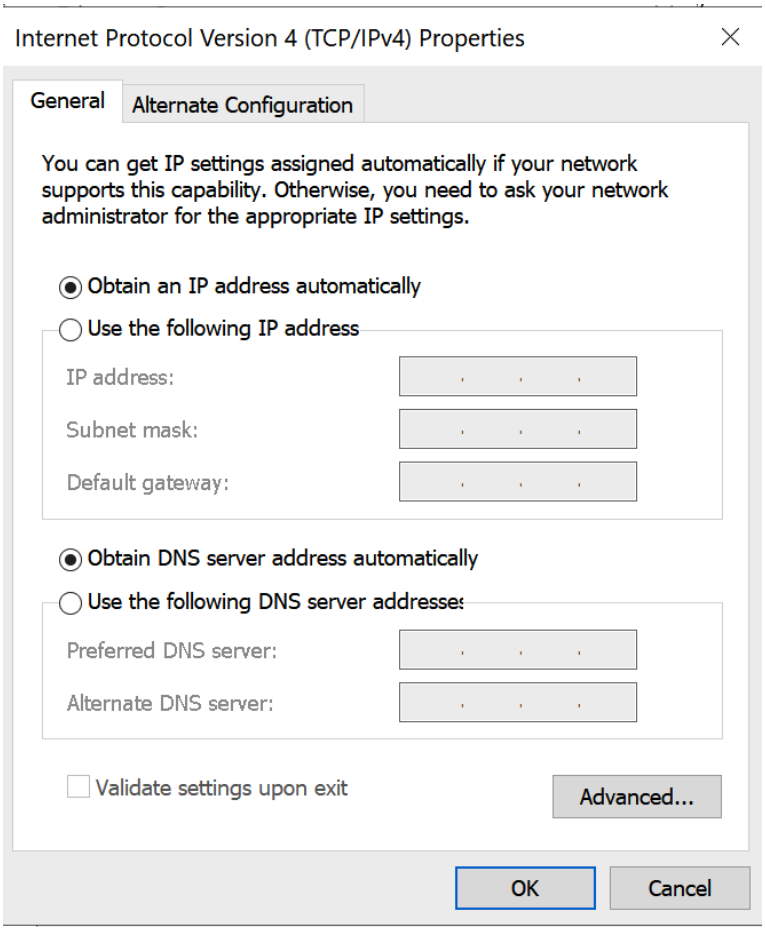


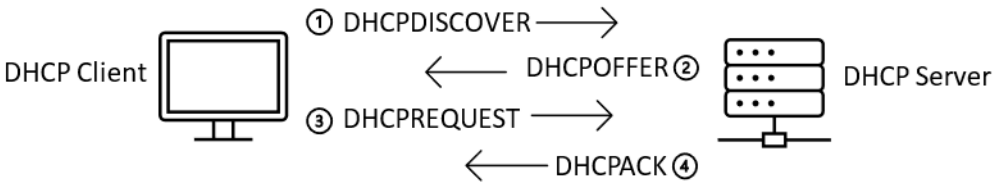

Server Manager ‣ Dashboard
Add Roles and Features Wizard
Select server roles
DESTINATION SERVER
AzSHCIHost001
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more roles to install on the selected server.
Roles
Active Directory Certificate Services
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 (Installed)
Network Controller
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.
Add Roles and Features Wizard
Add features that are required for DNS Server?
The following tools are required to manage this feature, but do not have to be installed on the same server.
Remote Server Administration Tools
Role Administration Tools
[Tools] DNS Server Tools
Include management tools (if applicable)
Add Features
Cancel

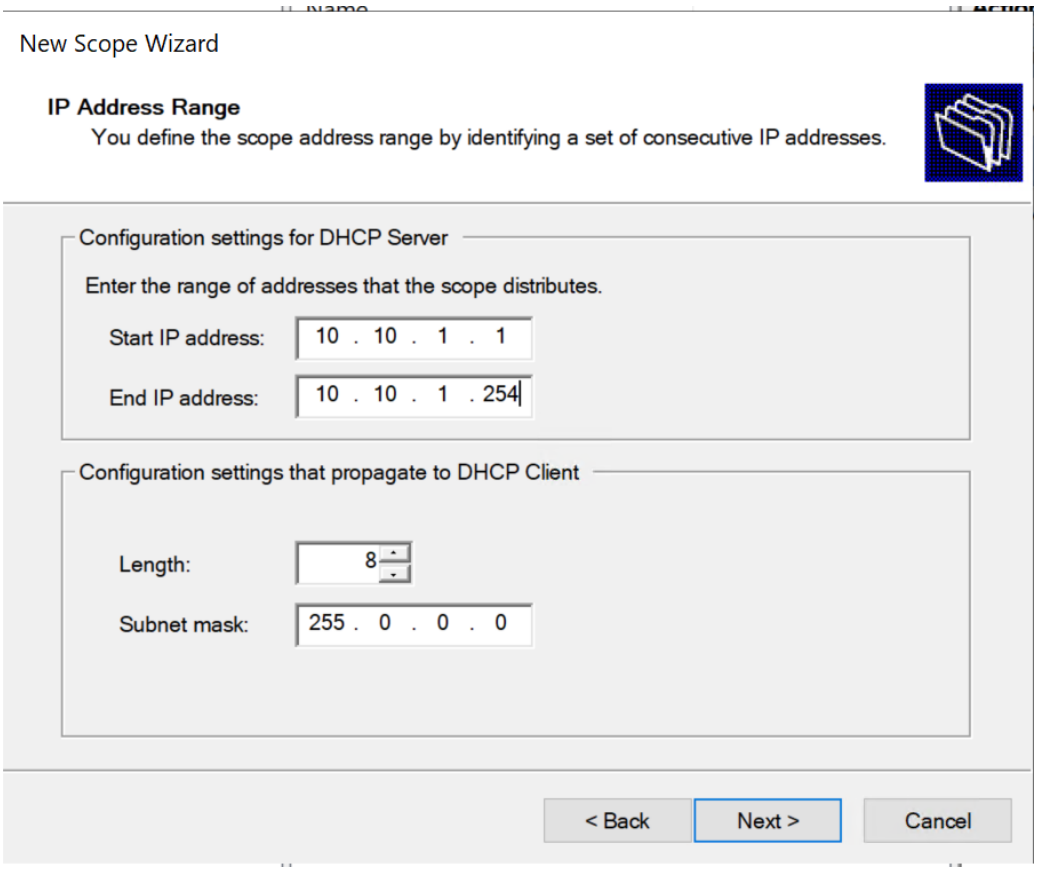

DNS Manager
File
Action
View
Help
DNS
AzSHCIHost001
Forward Lookup Zones
milesbetter.solutons
Reverse Lookup Zones
1.5.10.in-addr.arpa
Trust Points
Conditional Forwarders
Name
Type
Status
DNSSEC Status
milesbetter.solutons
Standard Primary
Running
Not Signed

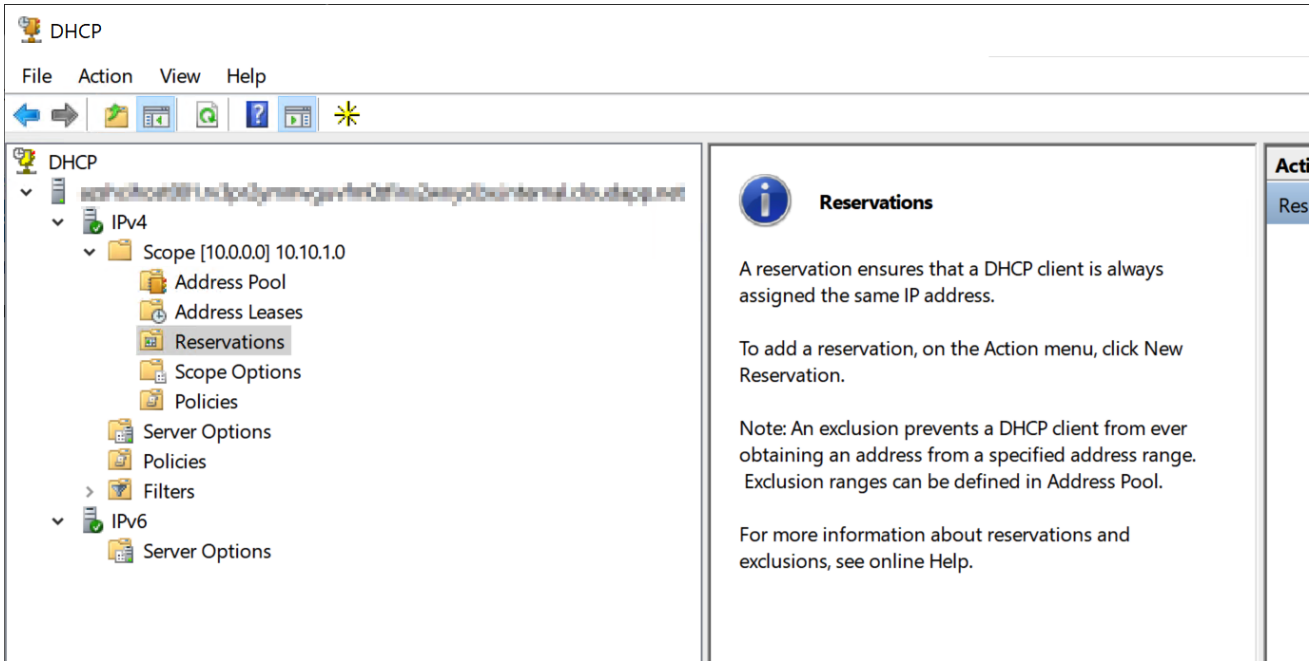
General
Start of Authority (SOA)
Name Servers
WINS
Zone Transfers
Security
A zone transfer sends a copy of the zone to the servers that request a copy.
Allow zone transfers:
To any server
Only to servers listed on the Name Servers tab
Only to the following servers
IP Address
Server FQDN

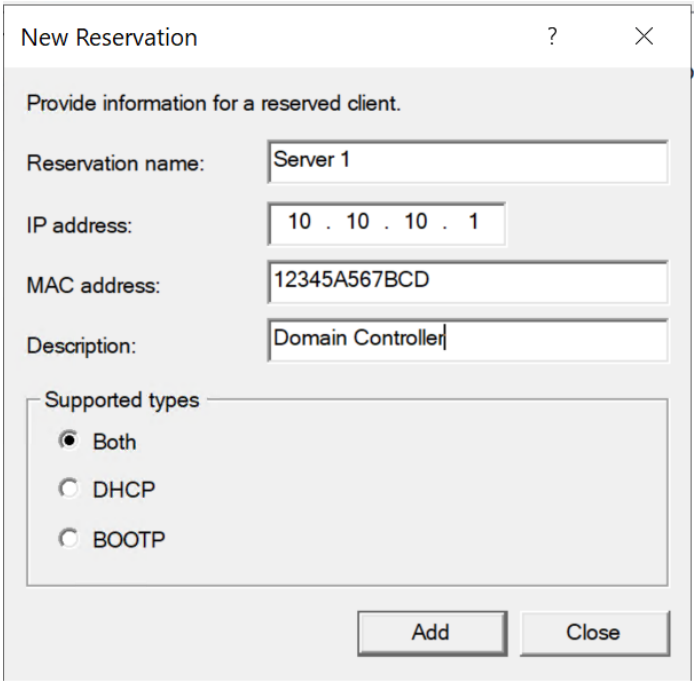

DNS Manager
File Action View Help
DNS
AzSHCIHost001
Forward Lookup Zones
milesbetter.solutons
Reverse Lookup Zones
1.5.10.in-addr.arpa
Trust Points
Conditional Forwarders
Name
Type
Data
(same as parent folder)
Start of Authority (SOA)
[1], azshcihost001., hostmaster.
(same as parent folder)
Name Server (NS)
azshcihost001.
PizzaApp
Host (A)
10.5.1.4
mbs-server
Host (A)
10.5.10.4

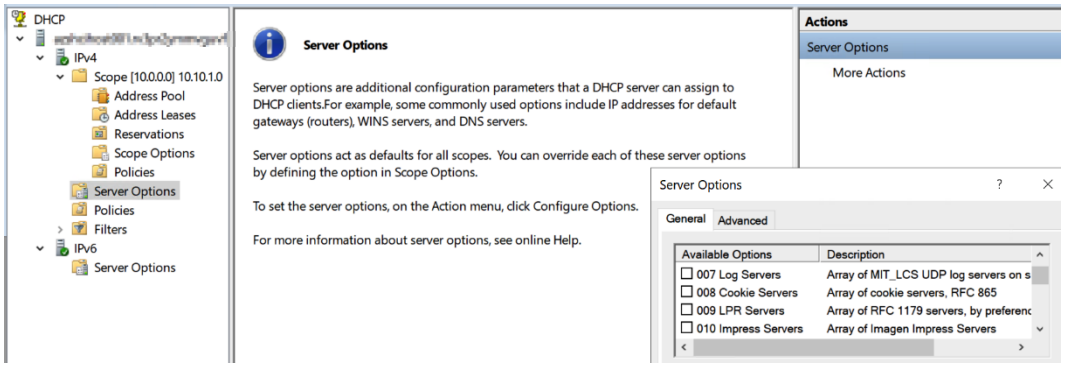

Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the 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
Advanced...
OK
Cancel

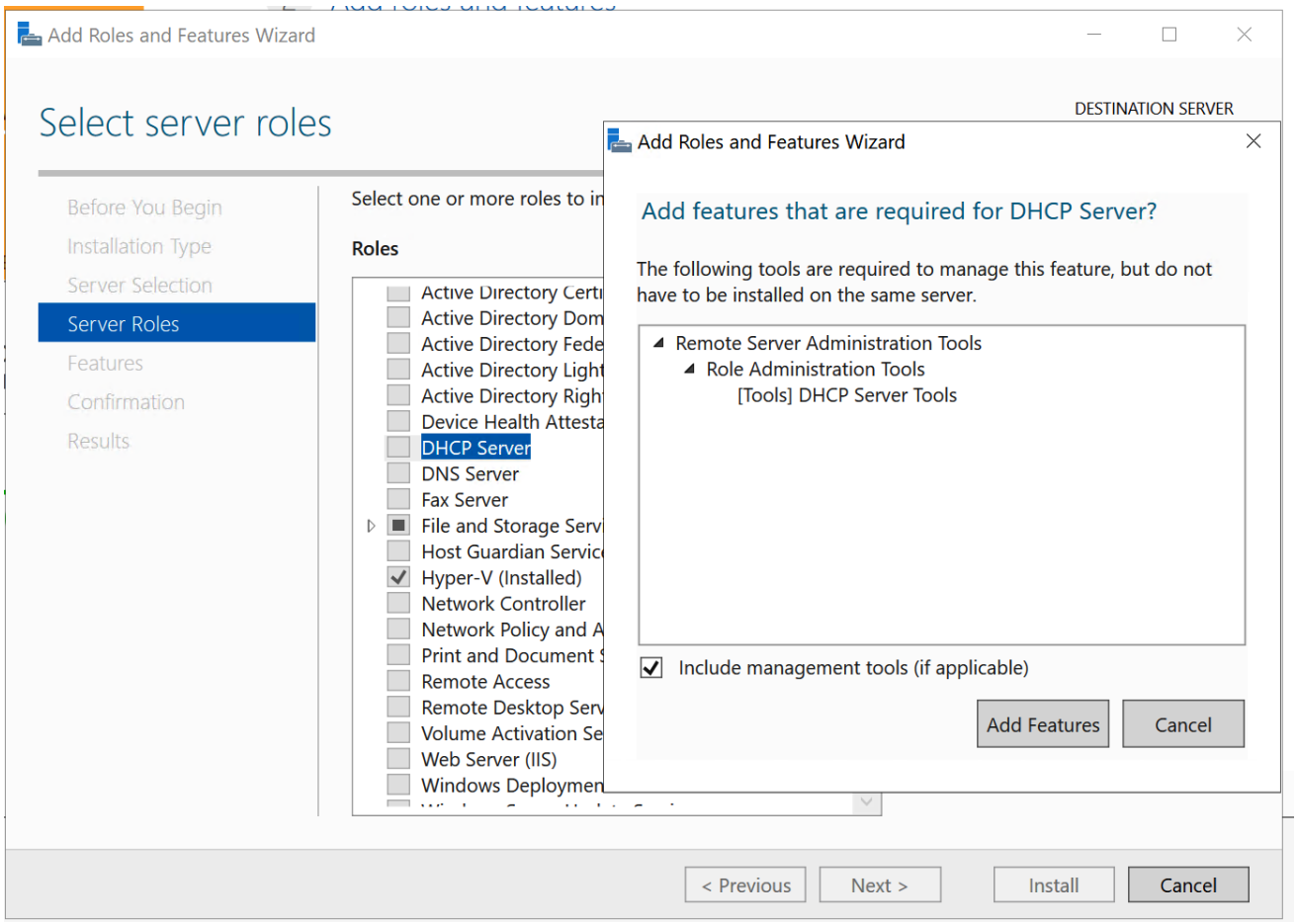

DHCP Client
① DHCPDISCOVER
DHCPOFFER ②
③ DHCPREQUEST
DHCPACK ④
DHCP Server

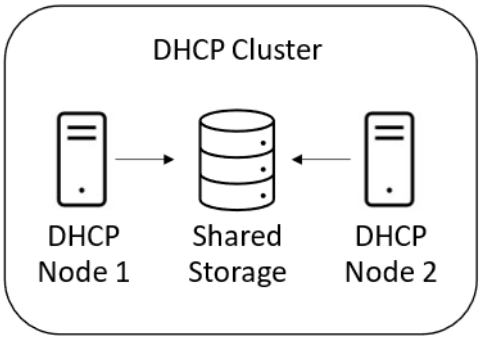

New Scope Wizard
IP Address Range
You define the scope address range by identifying a set of consecutive IP addresses.
Configuration settings for DHCP Server
Enter the range of addresses that the scope distributes.
Start IP address: 10 . 10 . 1 . 1
End IP address: 10 . 10 . 1 . 254
Configuration settings that propagate to DHCP Client
Length: 8
Subnet mask: 255 . 0 . 0 . 0
< Back
Next >
Cancel

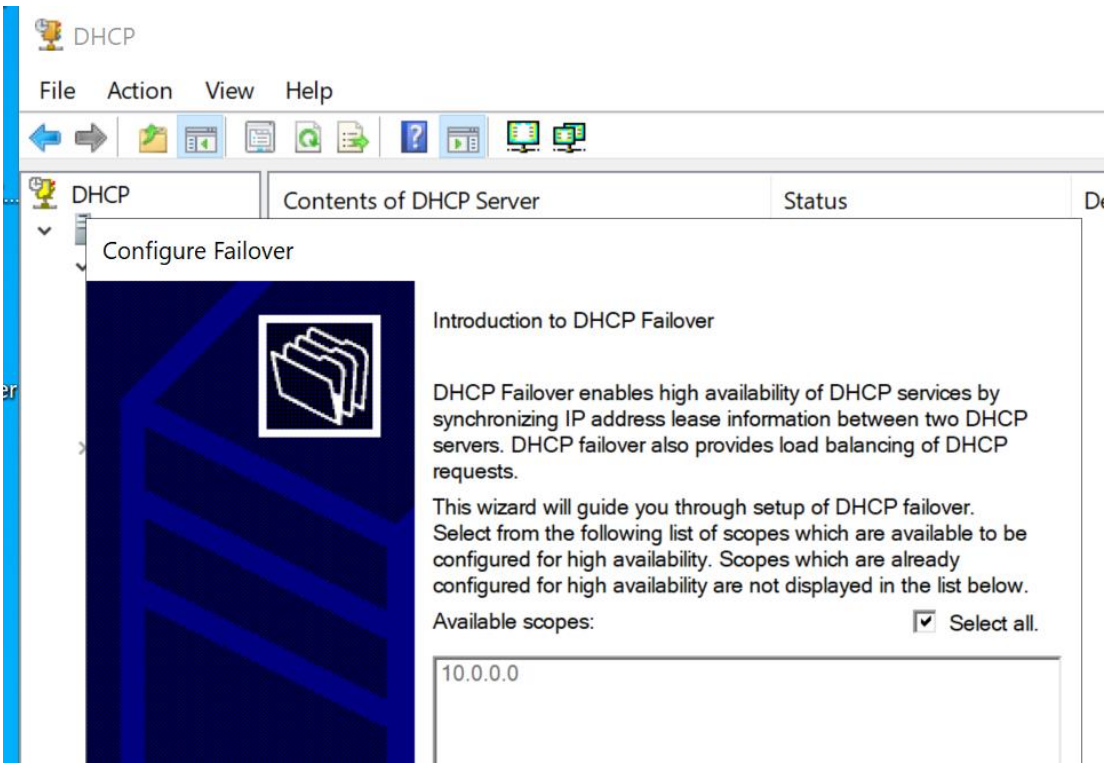

DHCP
File Action View Help
DHCP
IPv4
Scope [10.0.0.0] 10.10.1.0
Address Pool
Address Leases
Reservations
Scope Options
Policies
Server Options
Policies
Filters
IPv6
Server Options
Reservations
A reservation ensures that a DHCP client is always assigned the same IP address.
To add a reservation, on the Action menu, click New Reservation.
Note: An exclusion prevents a DHCP client from ever obtaining an address from a specified address range. Exclusion ranges can be defined in Address Pool.
For more information about reservations and exclusions, see online Help.


New Reservation
Provide information for a reserved client.
Reservation name:
Server 1
IP address:
10 . 10 . 10 . 1
MAC address:
12345A567BCD
Description:
Domain Controller
Supported types
Both
DHCP
BOOTP
Add
Close


DHCP
IPv4
Scope [10.0.0.0] 10.10.1.0
Address Pool
Address Leases
Reservations
Scope Options
Policies
Server Options
Policies
Filters
IPv6
Server Options
Server Options
Server options are additional configuration parameters that a DHCP server can assign to DHCP clients.For example, some commonly used options include IP addresses for default gateways (routers), WINS servers, and DNS servers.
Server options act as defaults for all scopes. You can override each of these server options by defining the option in Scope Options.
To set the server options, on the Action menu, click Configure Options.
For more information about server options, see online Help.
Actions
Server Options
More Actions
Server Options
General
Advanced
Available Options
Description
007 Log Servers
Array of MIT_LCS UDP log servers on s
008 Cookie Servers
Array of cookie servers, RFC 865
009 LPR Servers
Array of RFC 1179 servers, by preferenc
010 Impress Servers
Array of Imagen Impress Servers

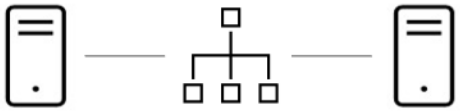

Add Roles and Features Wizard
Select server roles
DESTINATION SERVER
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more roles to in
Roles
Active Directory Certi
Active Directory Dom
Active Directory Fede
Active Directory Light
Active Directory Righ
Device Health Attesta
DHCP Server
DNS Server
Fax Server
File and Storage Serv
Host Guardian Servic
Hyper-V (Installed)
Network Controller
Network Policy and A
Print and Document S
Remote Access
Remote Desktop Serv
Volume Activation Se
Web Server (IIS)
Windows Deploymen
Add Roles and Features Wizard
Add features that are required for DHCP Server?
The following tools are required to manage this feature, but do not have to be installed on the same server.
Remote Server Administration Tools
Role Administration Tools
[Tools] DHCP Server Tools
Include management tools (if applicable)
Add Features
Cancel
< Previous
Next >
Install
Cancel


DHCP Cluster
DHCP Node 1
Shared Storage
DHCP Node 2



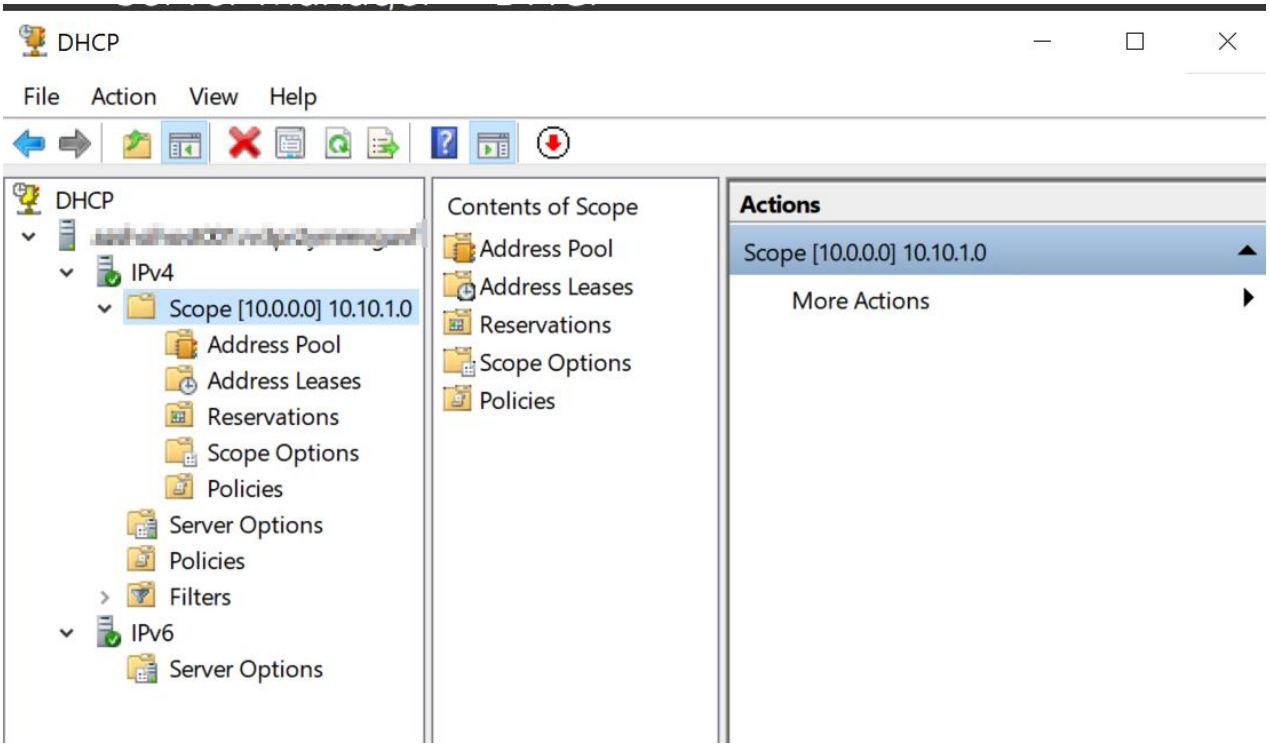
IPs Available on DHCP Server 1: 10.1.5.1 – 10.1.5.150

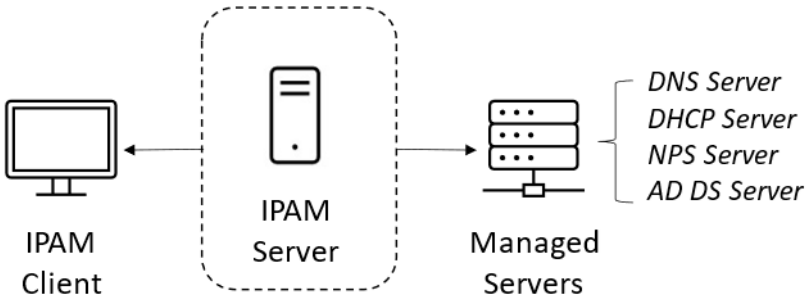
IPs Available on DHCP Server 2: 10.1.5.151 – 10.1.5.254

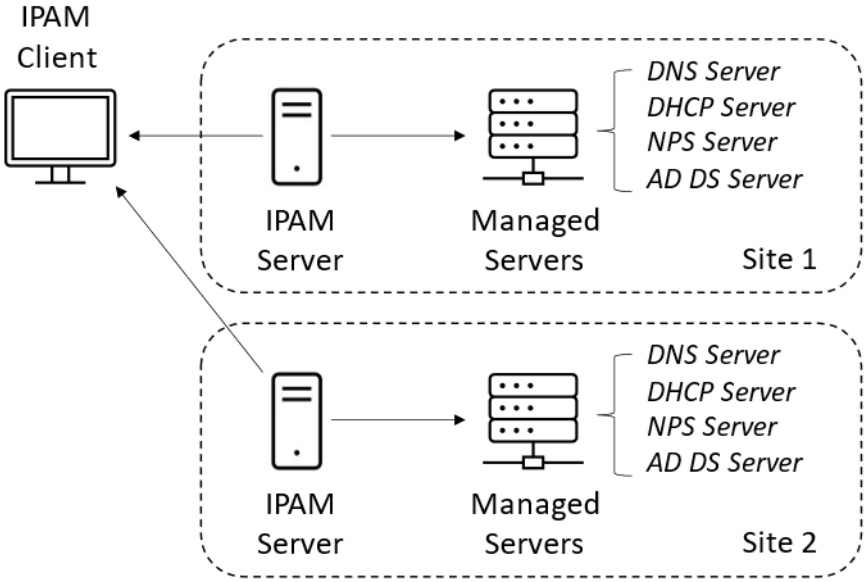


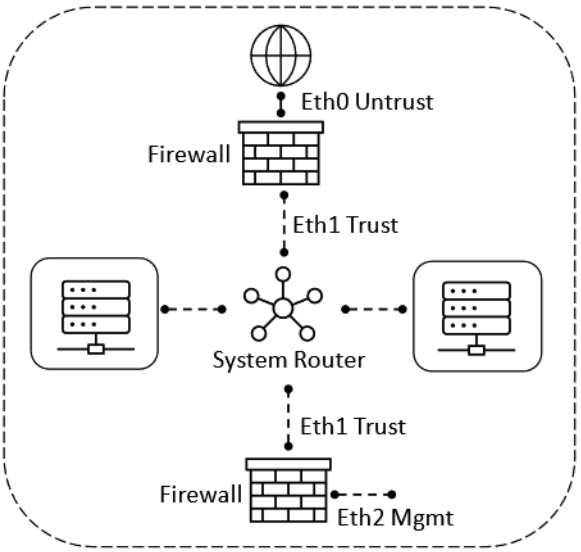
DHCP Server 1

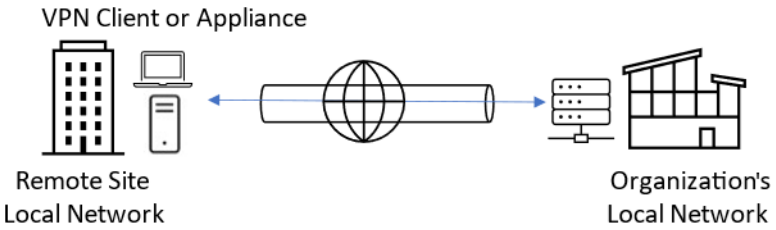
DHCP Server 2

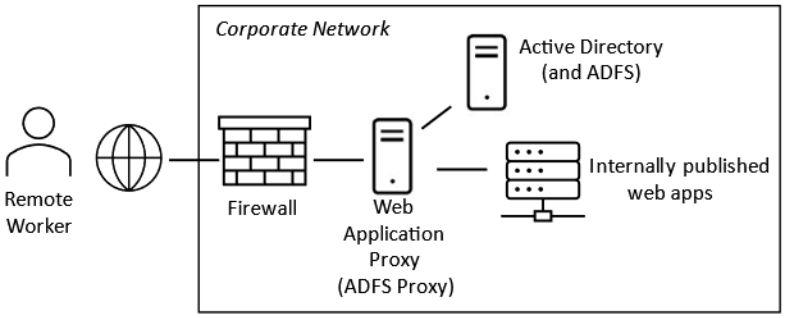

DHCP
File
Action
View
Help
DHCP
IPv4
Scope [10.0.0.0] 10.10.1.0
Address Pool
Address Leases
Reservations
Scope Options
Policies
Server Options
Policies
Filters
IPv6
Server Options
Contents of Scope
Address Pool
Address Leases
Reservations
Scope Options
Policies
Actions
Scope [10.0.0.0] 10.10.1.0
More Actions

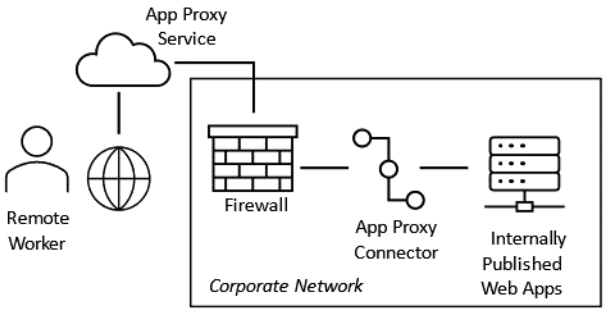

IPAM
Client
IPAM
Server
Managed
Servers
DNS Server
DHCP Server
NPS Server
AD DS Server

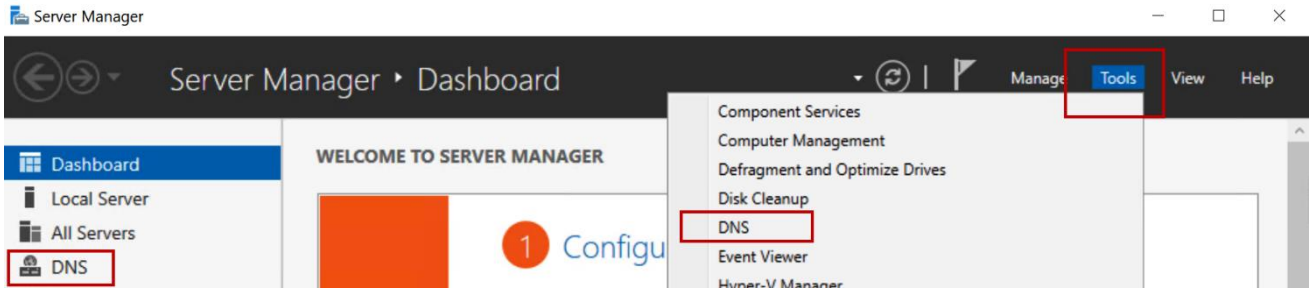

IPAM
Client
DNS Server
DHCP Server
NPS Server
AD DS Server
IPAM
Server
Managed
Servers
Site 1
DNS Server
DHCP Server
NPS Server
AD DS Server
IPAM
Server
Managed
Servers
Site 2

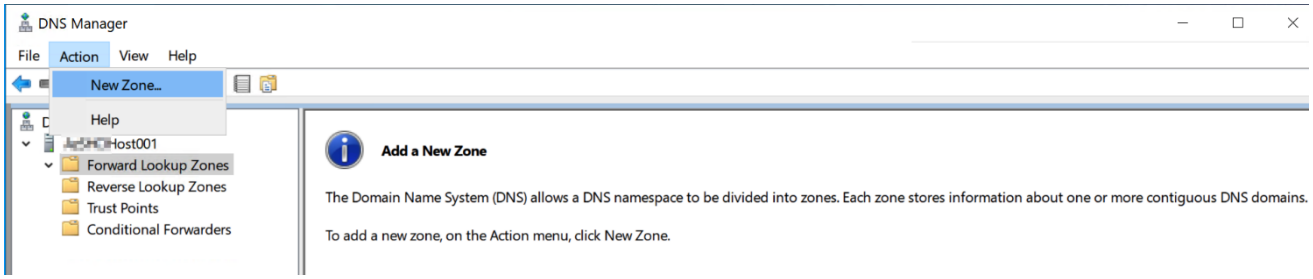

Eth0 Untrust
Firewall
Eth1 Trust
System Router
Eth1 Trust
Firewall
Eth2 Mgmt

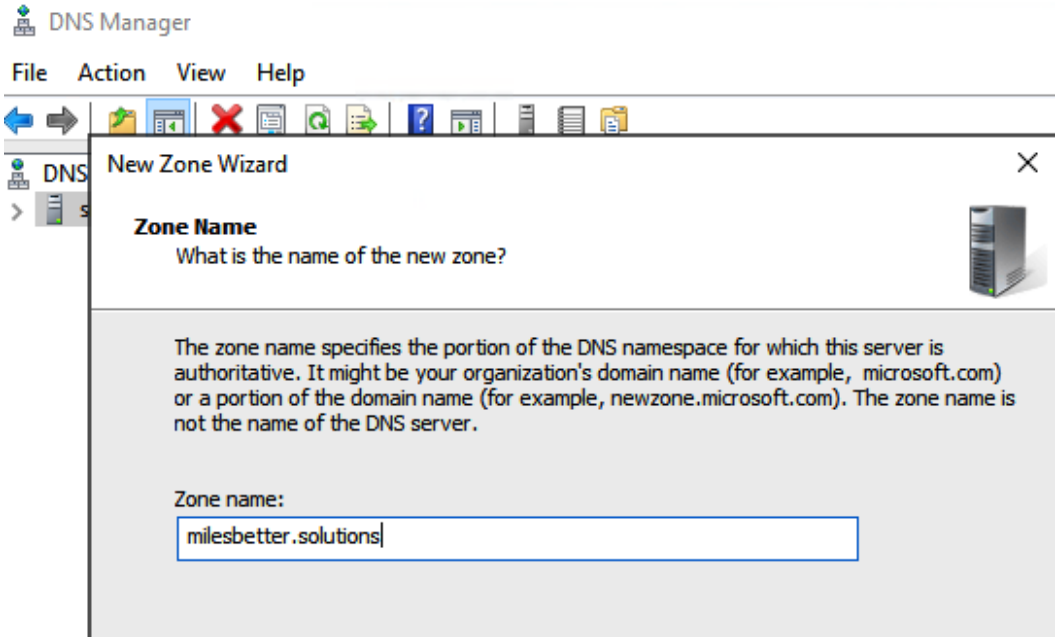

VPN Client or Appliance
Remote Site
Local Network
Organization's
Local Network

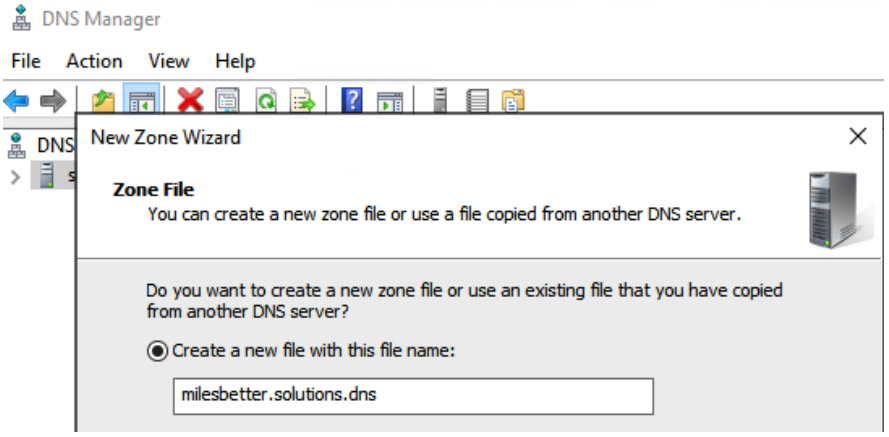

Corporate Network
Active Directory
(and ADFS)
Remote
Worker
Firewall
Web
Application
Proxy
(ADFS Proxy)
Internally published
web apps

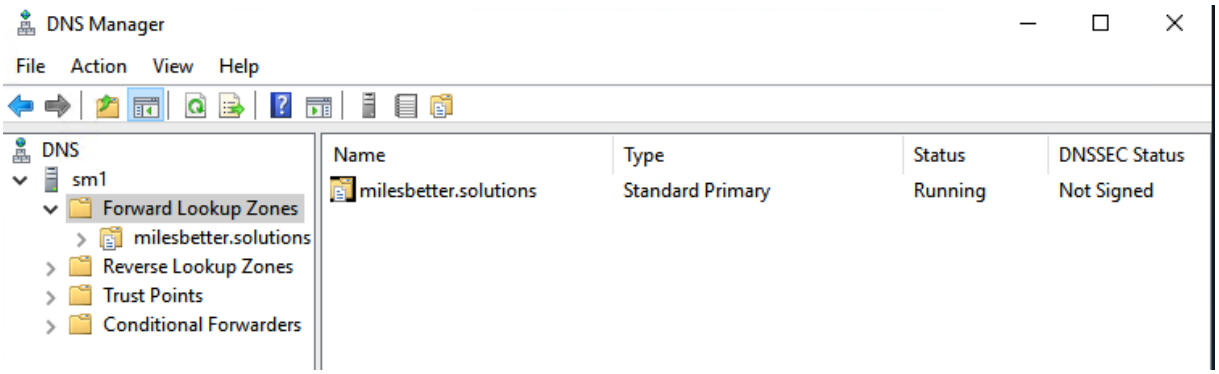

App Proxy
Service
Remote
Worker
Firewall
App Proxy
Connector
Internally
Published
Web Apps
Corporate Network

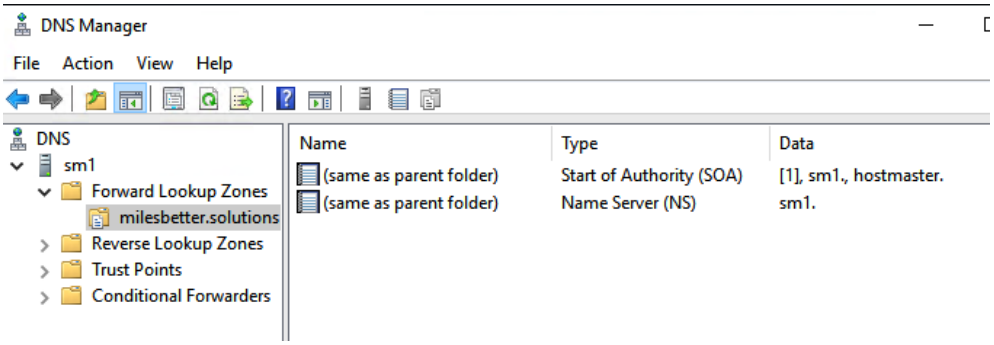

Server Manager
Server Manager ‣ Dashboard
Manage
Tools
View
Help
Dashboard
Local Server
All Servers
DNS
WELCOME TO SERVER MANAGER
Configu
Component Services
Computer Management
Defragment and Optimize Drives
Disk Cleanup
DNS
Event Viewer

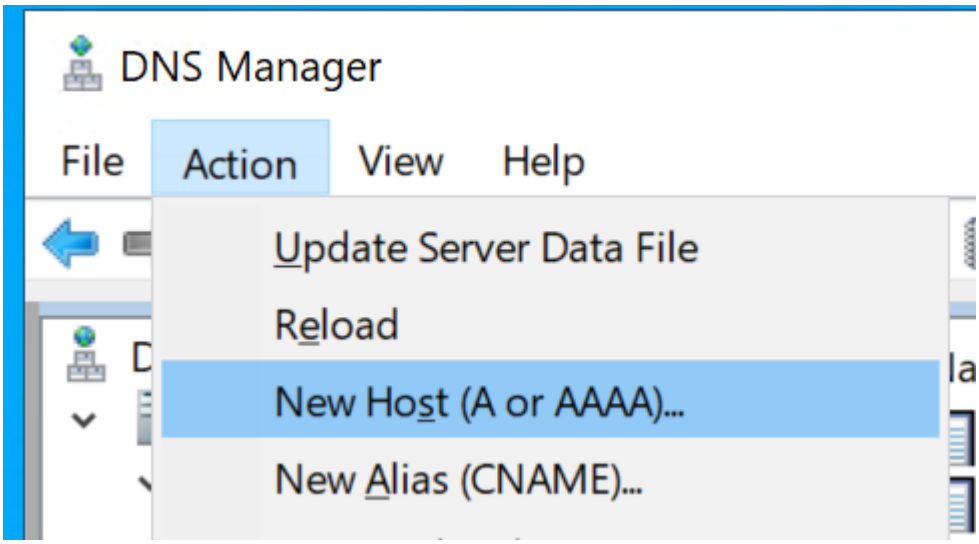

DNS Manager
File
Action
View
Help
New Zone...
Help
Host001
Forward Lookup Zones
Reverse Lookup Zones
Trust Points
Conditional Forwarders
Add a New Zone
The Domain Name System (DNS) allows a DNS namespace to be divided into zones. Each zone stores information about one or more contiguous DNS domains.
To add a new zone, on the Action menu, click New Zone.

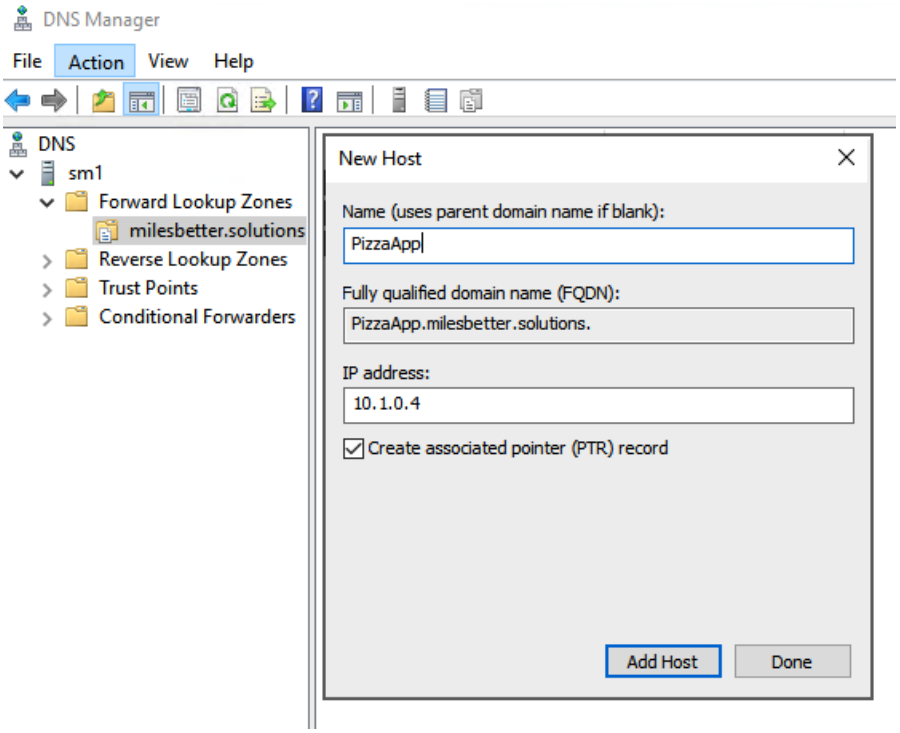

DNS Manager
File Action View Help
New Zone Wizard
Zone Name
What is the name of the new zone?
The zone name specifies the portion of the DNS namespace for which this server is authoritative. It might be your organization's domain name (for example, microsoft.com) or a portion of the domain name (for example, newzone.microsoft.com). The zone name is not the name of the DNS server.
Zone name:
milesbetter.solutions

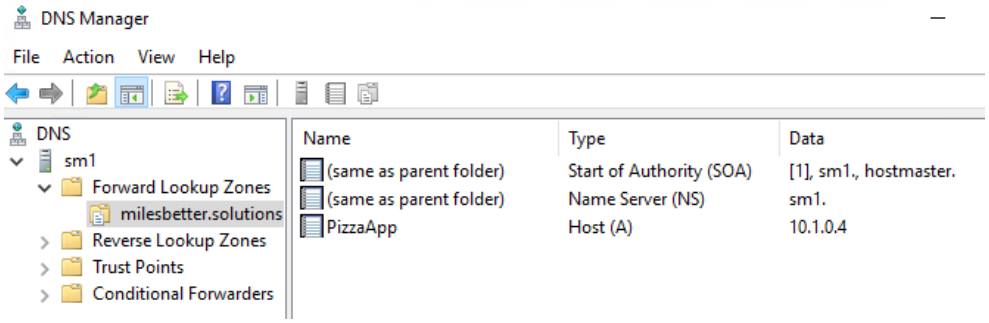

DNS Manager
File Action View Help
New Zone Wizard
Zone File
You can create a new zone file or use a file copied from another DNS server.
Do you want to create a new zone file or use an existing file that you have copied from another DNS server?
Create a new file with this file name:
milesbetter.solutions.dns

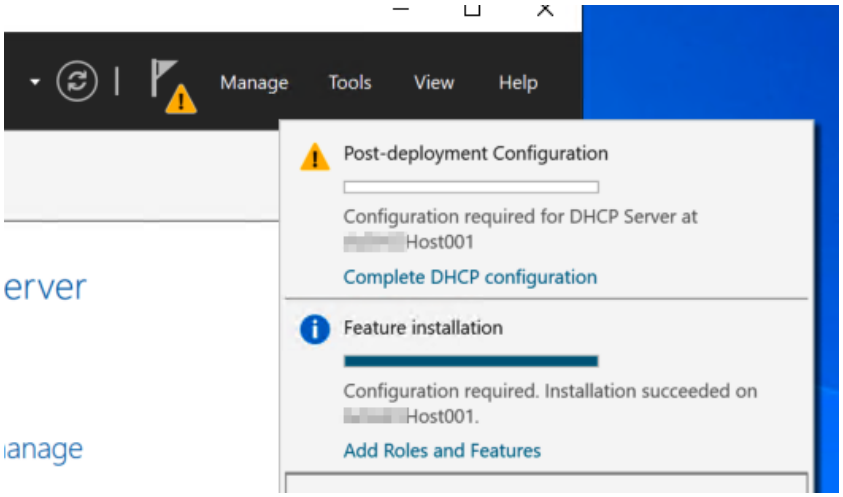

DNS Manager
File Action View Help
DNS
sm1
Forward Lookup Zones
milesbetter.solutions
Reverse Lookup Zones
Trust Points
Conditional Forwarders
Name
Type
Status
DNSSEC Status
milesbetter.solutions
Standard Primary
Running
Not Signed

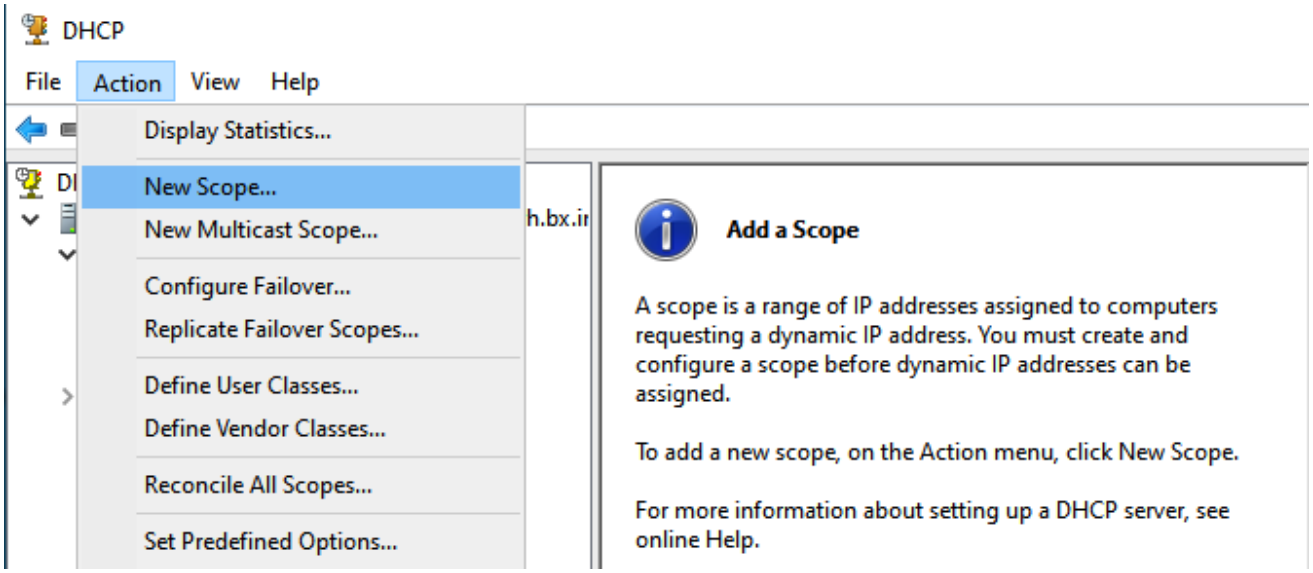

DNS Manager
File
Action
View
Help
DNS
sm1
Forward Lookup Zones
milesbetter.solutions
Reverse Lookup Zones
Trust Points
Conditional Forwarders
Name
Type
Data
(same as parent folder)
Start of Authority (SOA)
[1], sm1., hostmaster.
(same as parent folder)
Name Server (NS)
sm1.

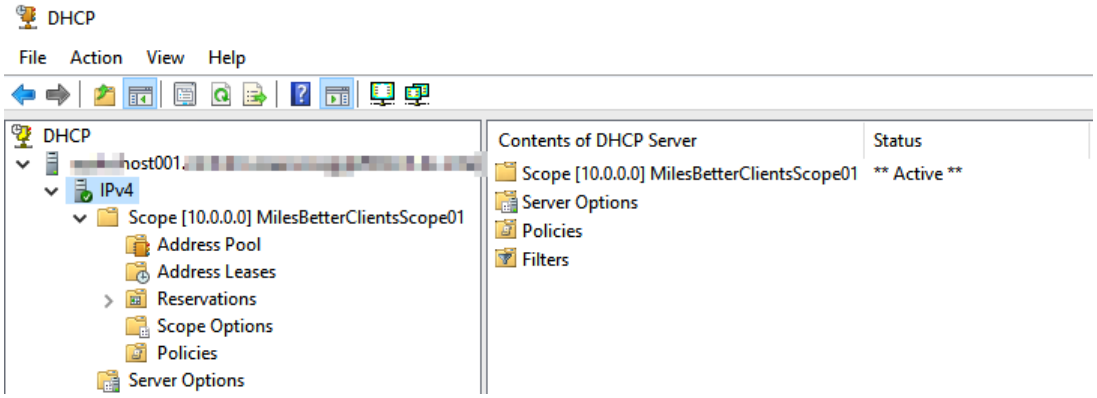

DNS Manager
File
Action
View
Help
Update Server Data File
Reload
New Host (A or AAAA)...
New Alias (CNAME)...


DNS Manager
File
Action
View
Help
DNS
sm1
Forward Lookup Zones
milesbetter.solutions
Reverse Lookup Zones
Trust Points
Conditional Forwarders
New Host
Name (uses parent domain name if blank):
PizzaApp
Fully qualified domain name (FQDN):
PizzaApp.milesbetter.solutions.
IP address:
10.1.0.4
Create associated pointer (PTR) record
Add Host
Done

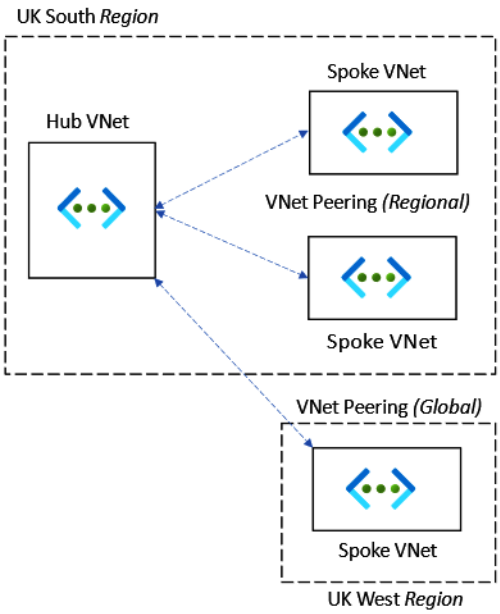

DNS Manager
File
Action
View
Help
DNS
sm1
Forward Lookup Zones
milesbetter.solutions
Reverse Lookup Zones
Trust Points
Conditional Forwarders
Name
Type
Data
(same as parent folder)
Start of Authority (SOA)
[1], sm1., hostmaster.
(same as parent folder)
Name Server (NS)
sm1.
PizzaApp
Host (A)
10.1.0.4

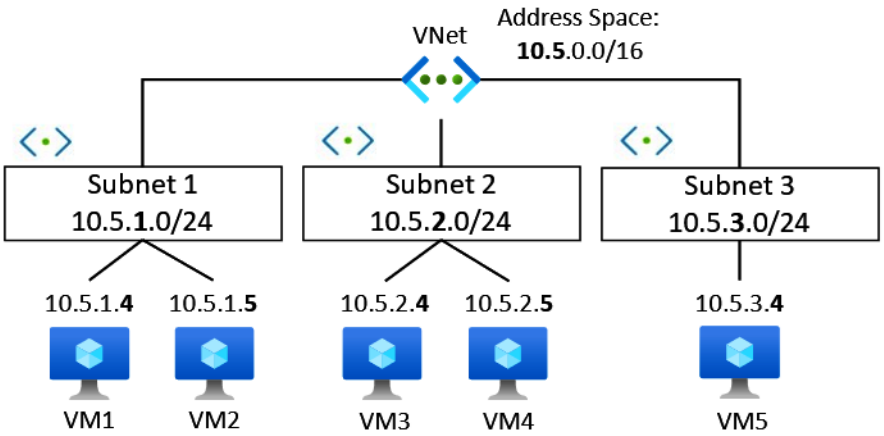

Manage
Tools
View
Help
Post-deployment Configuration
Configuration required for DHCP Server at
Host001
Complete DHCP configuration
Feature installation
Configuration required. Installation succeeded on
Host001.
Add Roles and Features

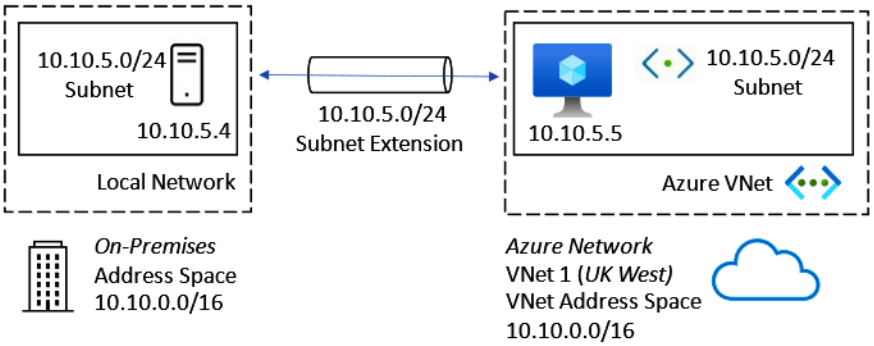

DHCP
File
Action
View
Help
Display Statistics...
New Scope...
New Multicast Scope...
Configure Failover...
Replicate Failover Scopes...
Define User Classes...
Define Vendor Classes...
Reconcile All Scopes...
Set Predefined Options...
Add a Scope
A scope is a range of IP addresses assigned to computers requesting a dynamic IP address. You must create and configure a scope before dynamic IP addresses can be assigned.
To add a new scope, on the Action menu, click New Scope.
For more information about setting up a DHCP server, see online Help.

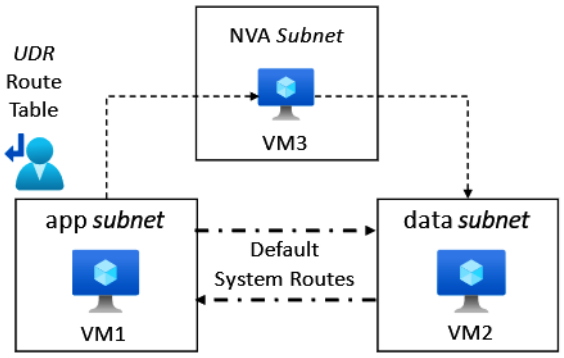

DHCP
File
Action
View
Help
DHCP
host001.
IPv4
Scope [10.0.0.0] MilesBetterClientsScope01
Address Pool
Address Leases
Reservations
Scope Options
Policies
Server Options
Contents of DHCP Server
Status
Scope [10.0.0.0] MilesBetterClientsScope01
** Active **
Server Options
Policies
Filters

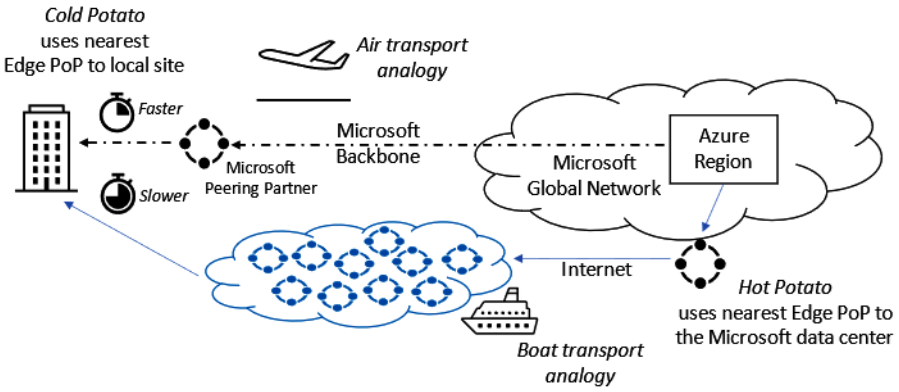
Chapter 6: Implementing and Managing Azure Network Infrastructure

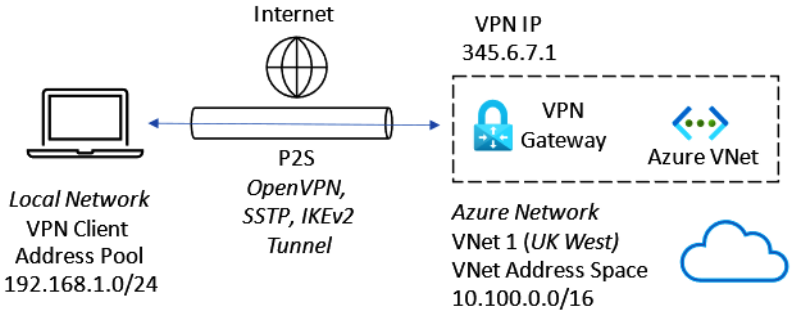


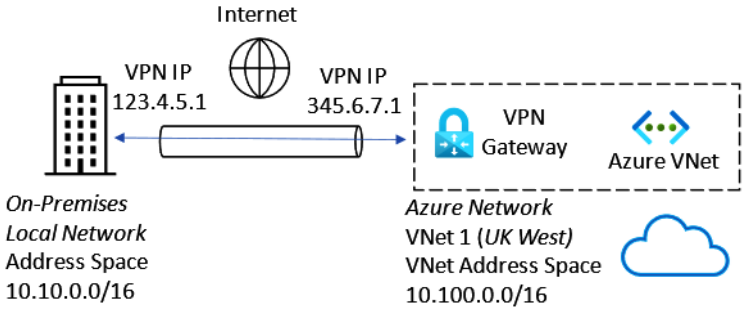


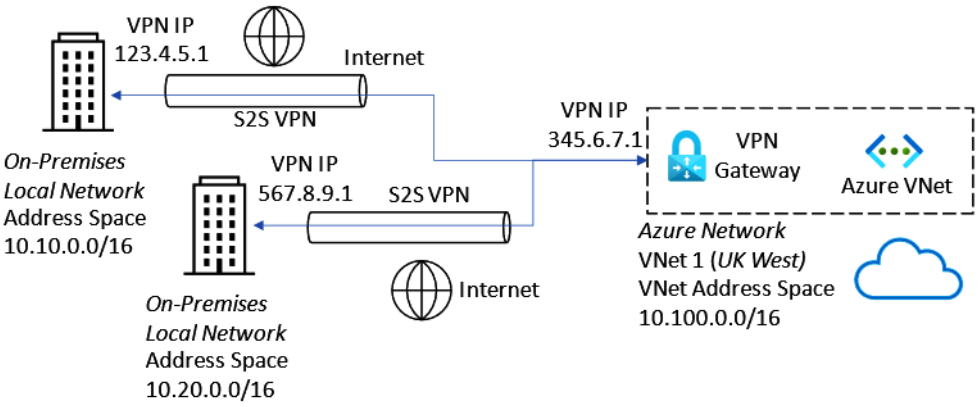


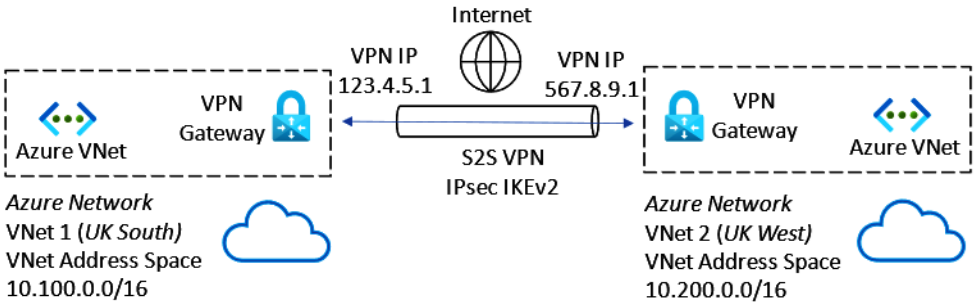

UDR
Route
Table
NVA Subnet
VM3
app subnet
VM1
Default
System Routes
data subnet
VM2

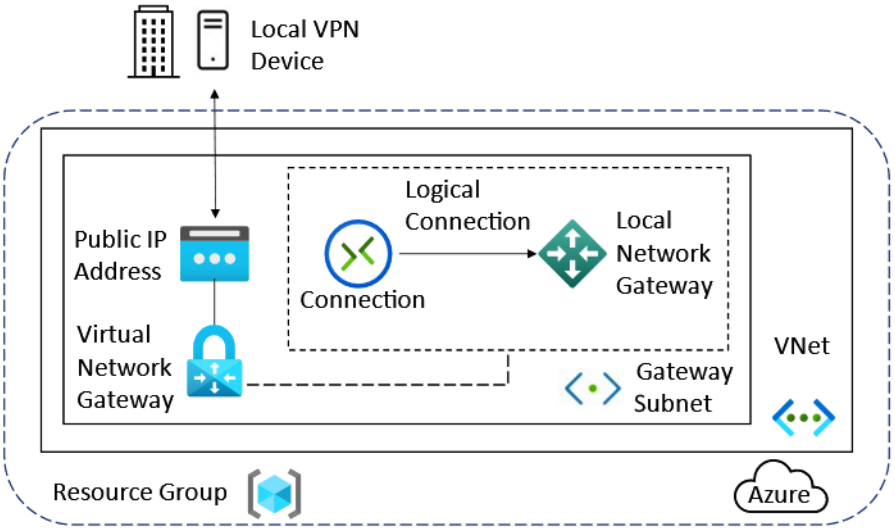

Cold Potato
uses nearest
Edge PoP to local site
Air transport
analogy
Faster
Slower
Microsoft
Peering Partner
Microsoft
Backbone
Microsoft
Global Network
Azure
Region
Internet
Hot Potato
uses nearest Edge PoP to
the Microsoft data center
Boat transport
analogy

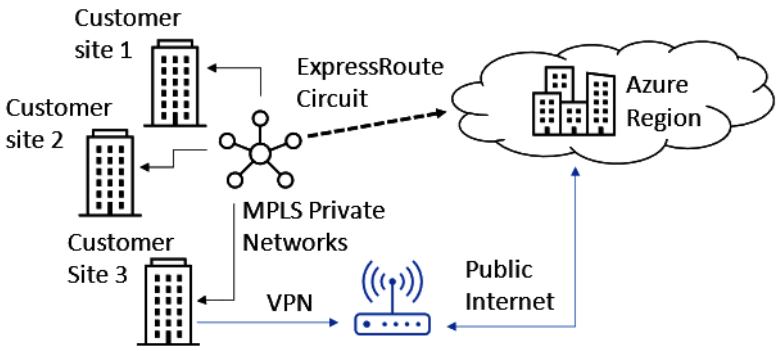

Internet
VPN IP
345.6.7.1
VPN
Gateway
Azure VNet
P2S
OpenVPN,
SSTP, IKEv2
Tunnel
Local Network
VPN Client
Address Pool
192.168.1.0/24
Azure Network
VNet 1 (UK West)
VNet Address Space
10.100.0.0/16

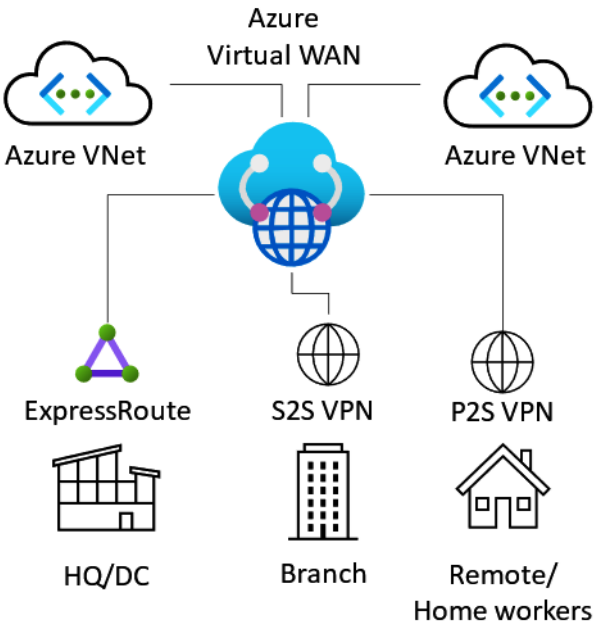

Internet
VPN IP
123.4.5.1
VPN IP
345.6.7.1
VPN
Gateway
Azure VNet
On-Premises
Local Network
Address Space
10.10.0.0/16
Azure Network
VNet 1 (UK West)
VNet Address Space
10.100.0.0/16

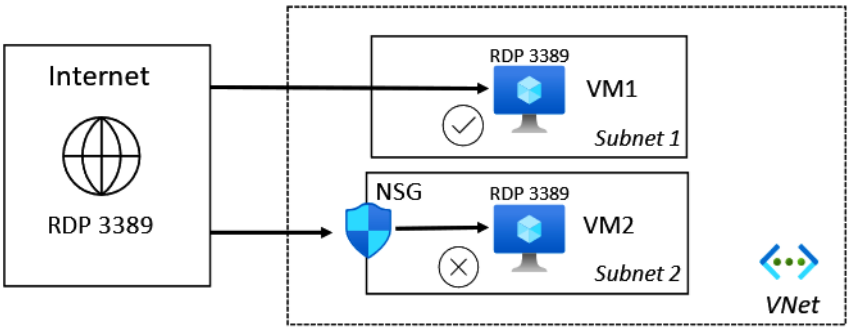

VPN IP
123.4.5.1
Internet
S2S VPN
On-Premises
Local Network
Address Space
10.10.0.0/16
VPN IP
567.8.9.1
S2S VPN
On-Premises
Local Network
Address Space
10.20.0.0/16
Internet
VPN IP
345.6.7.1
VPN
Gateway
Azure VNet
Azure Network
VNet 1 (UK West)
VNet Address Space
10.100.0.0/16

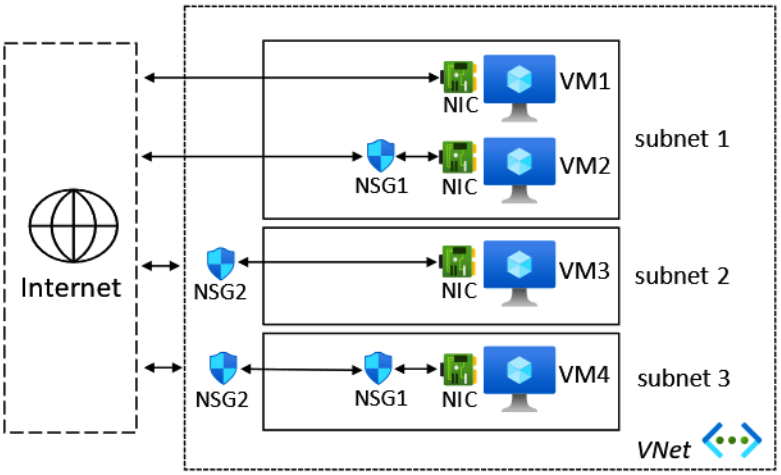

Internet
VPN IP
123.4.5.1
VPN IP
567.8.9.1
Azure VNet
VPN
Gateway
S2S VPN
IPsec IKEv2
VPN
Gateway
Azure VNet
Azure Network
VNet 1 (UK South)
VNet Address Space
10.100.0.0/16
Azure Network
VNet 2 (UK West)
VNet Address Space
10.200.0.0/16

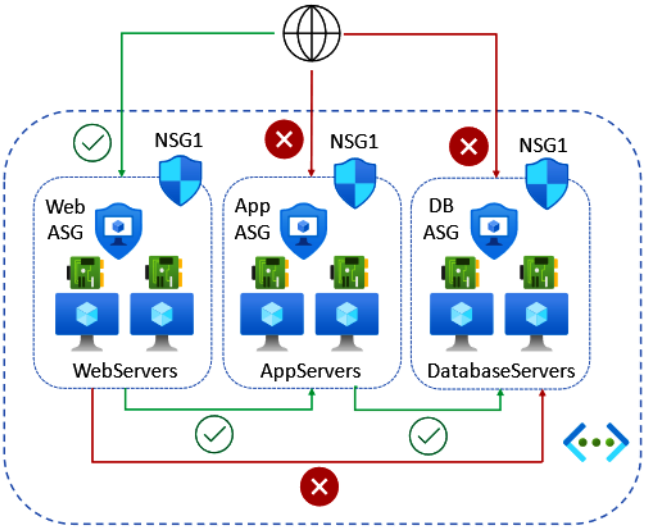

Local VPN
Device
Public IP
Address
Logical
Connection
Connection
Local
Network
Gateway
Virtual
Network
Gateway
Gateway
Subnet
VNet
Resource Group
Azure


Customer
site 1
Customer
site 2
Customer
Site 3
ExpressRoute
Circuit
Azure
Region
MPLS Private
Networks
VPN
Public
Internet


Azure
Virtual WAN
Azure VNet
Azure VNet
ExpressRoute
S2S VPN
P2S VPN
HQ/DC
Branch
Remote/
Home workers


Internet
RDP 3389
RDP 3389
VM1
Subnet 1
NSG
RDP 3389
VM2
Subnet 2
VNet



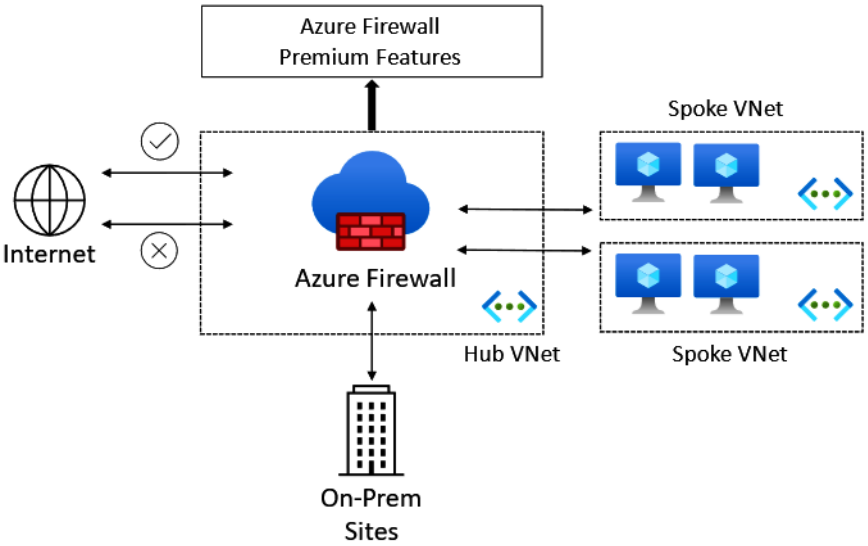


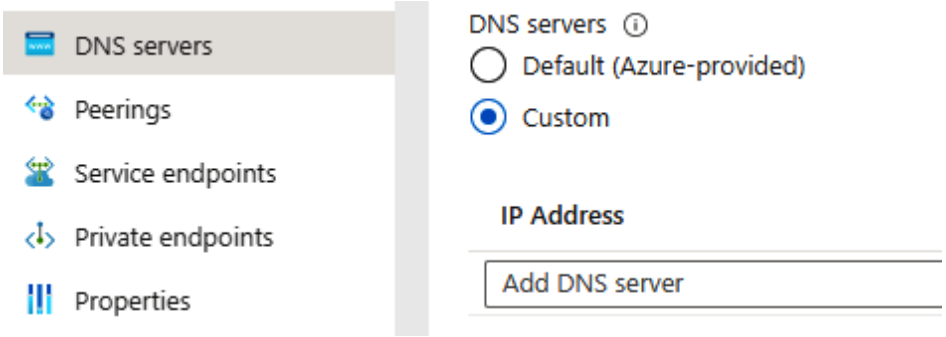
NSG 'IP' Rules Example

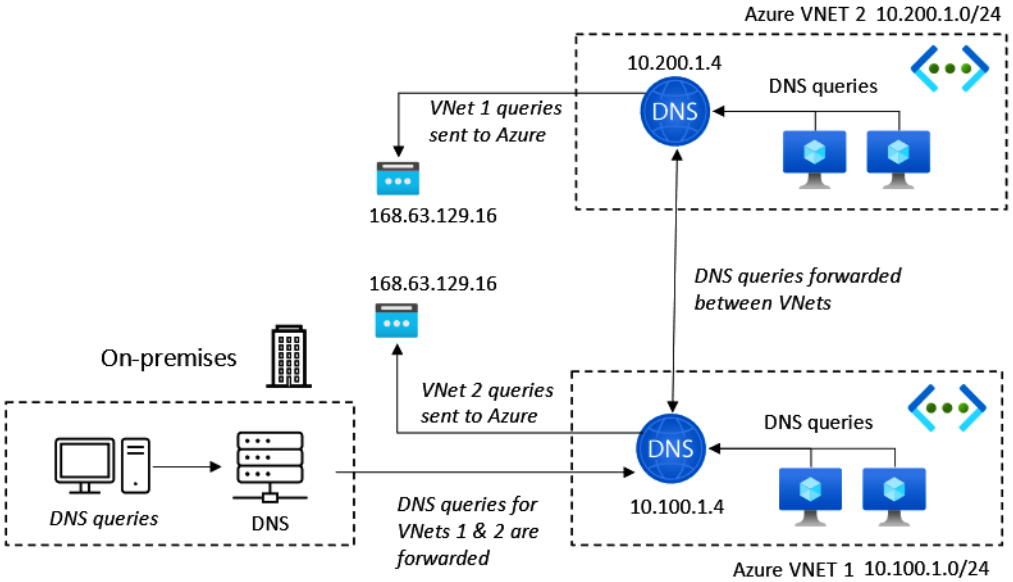
Action	Source	Destination
Allow	Internet	10.1.1.0/24
Allow	10.1.1.0/24	10.1.2.0/24
Allow	10.1.2.0/24	10.1.3.0/24
Deny	Any	Any

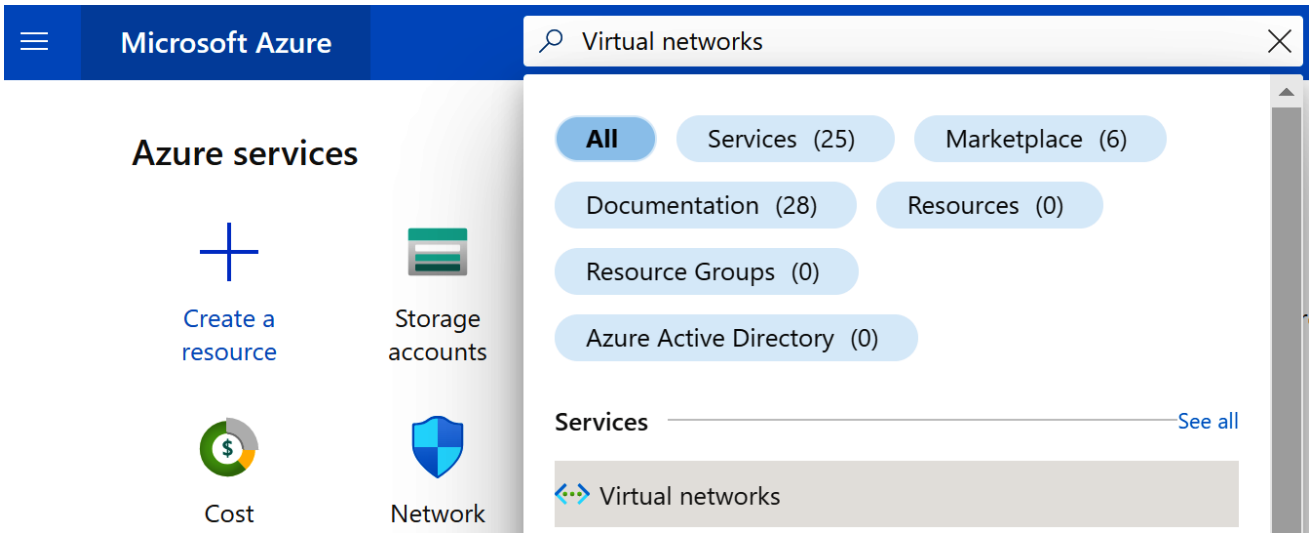
ASG 'Name' Rules Example

Action	Source	Destination
Allow	Internet	WebServers
Allow	WebServers	AppServers
Allow	AppServers	DatabaseServers
Deny	Any	Any




DNS servers
Peerings
Service endpoints
Private endpoints
Properties
DNS servers
Default (Azure-provided)
Custom
IP Address
Add DNS server


Azure VNET 2 10.200.1.0/24
10.200.1.4
DNS
DNS queries
VNet 1 queries sent to Azure
168.63.129.16
168.63.129.16
DNS queries forwarded between VNets
On-premises
VNet 2 queries sent to Azure
DNS queries
DNS
DNS queries
DNS
10.100.1.4
DNS queries for VNets 1 & 2 are forwarded
Azure VNET 1 10.100.1.0/24


Microsoft Azure
Virtual networks
Azure services
Create a resource
Storage accounts
Cost
Network
All
Services (25)
Marketplace (6)
Documentation (28)
Resources (0)
Resource Groups (0)
Azure Active Directory (0)
Services
See all
Virtual networks

Home >

Virtual networks

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

Create | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals **all** | Resource group equals **all** | Location equals **all** | Add filter

No grouping | List view

Name	Resource group	Location	Subscription

No virtual networks to display

Create a virtual network to securely connect your Azure resources to each other. Connect your virtual network to your on-premises network using an Azure VPN Gateway or ExpressRoute.

Create virtual network

Learn more

Home > Virtual networks >

Create virtual network

Basics | IP Addresses | Security | Tags | Review + create

Azure Virtual Network (VNet) is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks. VNet is similar to a traditional network that you'd operate in your own data center, but brings with it additional benefits of Azure's infrastructure such as scale, availability, and isolation. Learn more about virtual network

Project details

Subscription * : Azure subscription 1

Resource group * : (New) sm-az800-2408-rg

Create new

Instance details

Name * : sm-az800-2408-vnet

Region * : East US

Review + create | < Previous | Next : IP Addresses > | Download a template for automation

Home > Virtual networks >

Create virtual network

Basics | IP Addresses | Security | Tags | Review + create

The virtual network's address space, specified as one or more address prefixes in CIDR notation (e.g. 192.168.1.0/24).

IPv4 address space	
10.0.0.0/16	10.0.0.0 - 10.0.255.255 (65536 addresses)

Add IPv6 address space

The subnet's address range in CIDR notation (e.g. 192.168.1.0/24). It must be contained by the address space of the virtual network.

Add subnet | Remove subnet

Subnet name	Subnet address range	NAT gateway
default	10.0.0.0/24	-

Use of a NAT gateway is recommended for outbound internet access from a subnet. You can deploy a NAT gateway and assign it to a subnet after you create the virtual network. Learn more

Review + create | < Previous | Next : Security > | Download a template for automation

Microsoft Azure | Search resources, services, and docs (G+/)

Home > Virtual networks >

Create virtual network

Basics | IP Addresses | Security | Tags | Review + create

BastionHost
- Disable
- Enable

DDoS Protection Standard
- Disable
- Enable

Firewall
- Disable
- Enable

Review + create | < Previous | Next : Tags > | Download a template for automation

Home > Virtual networks >

Create virtual network

Basics | IP Addresses | Security | Tags | Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. Learn more about tags

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value

Review + create | < Previous | Next : Review + create > | Download a template for

Home > Virtual networks >

Create virtual network

Validation passed

Basics | IP Addresses | Security | Tags | **Review + create**

Basics

Subscription	Azure subscription 1
Resource group	(new) sm-az800-2408-rg
Name	sm-az800-2408-vnet
Region	East US

IP addresses

Address space	10.0.0.0/16
Subnet	default (10.0.0.0/24)

Tags

None

Security

BastionHost	Disabled
DDoS protection plan	Basic
Firewall	Disabled

Create | < Previous | Next > | Download a template for automation

admin@NETORGFT8723...
MILESBETTERSOLUTIONS.ONMIC...

Deployment succeeded

Deployment 'Microsoft.VirtualNetwork-20220824111426' to resource group 'sm-az800-2408-rg' was successful.

Go to resource | Pin to dashboard

Home >

Virtual networks

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

Create | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals **Azure subscription 1** | Resource group equals **all** | Location equals **all** | Add filter

No grouping | List view

Name	Resource group	Location	Subscription
sm-az800-2408-vnet	sm-az800-2408-rg	East US	Azure subscription 1

Microsoft Azure | virtual machines

Azure services

Create a resource

All | Services (23) | Marketplace (20) | Documentation (28) | Azure Active Directory (0)

Services

Virtual machines | Virtual mach

Home >

Virtual machines

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

Create | Switch to classic | Reservations | Manage view | Refresh | Export to CSV | ...

Filter for any field... | Subscription equals **Azure subscription 1** | Add filter | More (3)

No grouping | List view

Name	Type	Subscription	Resource group	Location	Status

No virtual machines to display

Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.

Learn more about Windows virtual machines

Learn more about Linux virtual machines

Home > Virtual machines >

Create a virtual machine ...

Instance details

Virtual machine name * sm-az800-2408-vm1

Region * (Europe) UK South

Availability options No infrastructure redundancy required

Security type Standard

Image * Windows Server 2022 Datacenter: Azure Edition - Gen2 (free services eligib

See all images | Configure VM generation

Run with Azure Spot discount

You are in the free trial period. Costs associated with this VM can be covered by any remaining credits on your subscription.
Learn more

Size * Standard_B1s - 1 vcpu, 1 GiB memory (US$11.53/month) (free services eligib...

See all sizes

Administrator account

Username * sm8002408

Password * ••••••••••••

Confirm password * ••••••••••••

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granula network access on the Networking tab.

Public inbound ports *
- (●) None
- ( ) Allow selected ports

Select inbound ports Select one or more ports

All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

Home > Virtual machines >

Create a virtual machine

Basics | Disks | Networking | Management | Advanced | Tags | Review + create

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. Learn more

Disk options

OS disk type * : Premium SSD (locally-redundant storage)

Delete with VM : [x]

Enable encryption at host : [ ]

Encryption at host is not registered for the selected subscription. Learn more about enabling this feature

Encryption type * : (Default) Encryption at-rest with a platform-managed key

Enable Ultra Disk compatibility : [ ]
Ultra disk is supported in Availability Zone(s) 1,2,3 for the selected VM size Standard_B1s.

Data disks for sm-az800-2408-vm1

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching	Delete with VM

Create and attach a new disk Attach an existing disk

Advanced

Review + create < Previous Next : Networking > Give feedback

Basics Disks **Networking** Management Advanced Tags Review + create

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network * (new) sm-az800-2408-rg-vnet
Create new

Subnet * (new) default (10.1.0.0/24)

Public IP (new) sm-az800-2408-vm1-ip
Create new

NIC network security group
- None
- Basic
- Advanced

All ports on this virtual machine may be exposed to the public internet. This is a security risk. Use a network security group to limit public access to specific ports. You can also select a subnet that already has network security groups defined or remove the public IP address.

Delete public IP and NIC when VM is deleted

Enable accelerated networking

The selected VM size does not support accelerated networking.

Review + create < Previous Next : Management > Give

Home > Virtual machines >

Create a virtual machine ...

Validation passed

Basics

Subscription	Azure subscription 1
Resource group	sm-az800-2408-rg
Virtual machine name	sm-az800-2408-vm1
Region	UK South
Availability options	No infrastructure redundancy required
Security type	Standard
Image	Windows Server 2022 Datacenter: Azure Edition - Gen2
Size	Standard B1s (1 vcpu, 1 GiB memory)
Username	sm8002408
Already have a Windows license?	No
Azure Spot	No

Disks

OS disk type	Premium SSD LRS
Use managed disks	Yes
Delete OS disk with VM	Enabled
Ephemeral OS disk	No

Networking

Virtual network	(new) sm-az800-2408-rg-vnet
Subnet	(new) default (10.1.0.0/24)
Public IP	(new) sm-az800-2408-vm1-ip
NIC network security group	None
Accelerated networking	Off

Create < Previous Next > Download a template for automation

Deployment succeeded

Deployment 'CreateVm-MicrosoftWindowsServer.WindowsServer-202-20220824125141' to resource group 'sm-az800-2408-rg' was successful.

Go to resource Pin to dashboard

Microsoft Azure network security groups

Home >

Network security

milesbettersolutions.onmicrosoft.c

Create Manage view

Filter for any field...

All Services (29) Marketplace (3) Documentation

Azure Active Directory (0)

Services

Network security groups (classic)

Network security groups

Home >

Network security groups

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

+ Create | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals **Azure subscription 1** | Add filter | More (2)

No grouping | List view

Name	Resource group	Location	Subscription	Flow log

No network security groups to display

Create a network security group with rules to filter inbound traffic to, and outbound traffic from, virtual machines and subnets.

Create network security group

Learn more

Home > Network security groups >

Create network security group

Basics | Tags | Review + create

Project details

Subscription * : Azure subscription 1

Resource group * : sm-az800-2408-rg

Create new

Instance details

Name * : sm-az800-2408-nsg

Region * : East US

Review + create | < Previous | Next : Tags > | Download a template for automation

Home >

sm-az800-2408-nsg

Network security group

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Inbound security rules
- Outbound security rules
- Network interfaces
- Subnets
- Properties

Home > sm-az800-2408-nsg

sm-az800-2408-nsg | Subnets

Network security group

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags

+ Associate

Search subnets

Name	Address range	Virtual network
No results.		

Associate subnet

sm-az800-2408-nsg

Virtual network

sm-az800-2408-vnet

Subnet

Filter subnets

Can be associated to network security group

default

Home > Network security groups >

Network security g...

milesbettersolutions.onmicrosoft.com (milesbetter...

+ Create Manage view ...

Filter for any field...

Name
sm-az800-2408-nsg

sm-az800-2408-ns

Network security group

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Inbound security rules
- Outbound security rules
- Network interfaces

sm-az800-2408-nsg | Inbound security rules

Network security group

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Inbound security rules
- Outbound security rules
- Network interfaces
- Subnets
- Properties

Add | Hide default rules | Refresh | Delete | Give feedback

Network security group security rules are evaluated by priority using the combination of source, source port, destination, destination port, and protocol to allow or deny the traffic. A security rules can't have the same priority and direction as an existing rule. You can't delete default security rules, but you can override them with rules that have a higher priority. Learn more

Filter by name

Port == all | Protocol == all | Source == all | Destination == all | Action == all

Priority	Name	Port	Protocol	Source
65000	AllowVnetInBound	Any	Any	VirtualNet
65001	AllowAzureLoadBalan...	Any	Any	AzureLoad
65500	DenyAllInBound	Any	Any	Any

Add inbound security rule

sm-az800-2408-nsg

Source

IP Addresses

Source IP addresses/CIDR ranges *

90.152.127.205

Source port ranges *

*

Destination

Any

Service

RDP

Destination port ranges

3389

Protocol

- Any
- TCP
- UDP
- ICMP

Action

- Allow
- Deny

Priority *

100

Name *

AllowInbound_RDP_KnownIP

Description

Allows inbound RDP traffic from a Known IP to any Destination

Add | Cancel

Created security rule

Successfully created security rule 'AllowInbound_RDP_KnownIP'.

Home >

sm-az800-2408-vm1

Virtual machine

Search

Connect | Start

- Overview
- Activity log
- Access control (IAM)

- RDP
- SSH
- Bastion

RDP | SSH | Bastion

Connect with RDP

Suggested method for connecting

To connect to your virtual machine via RDP, select an IP address, optionally change the port number, and download the RDP file.

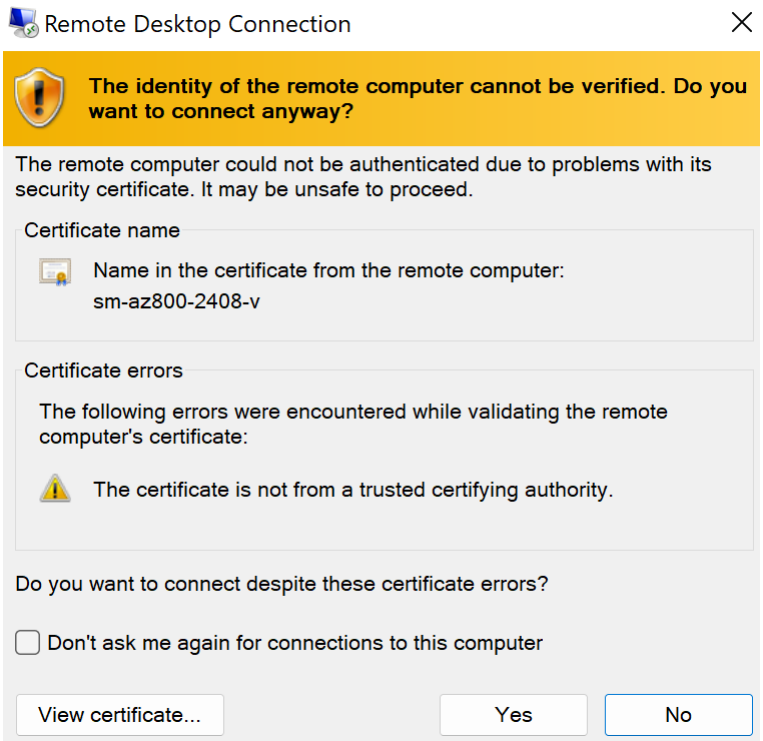
IP address *

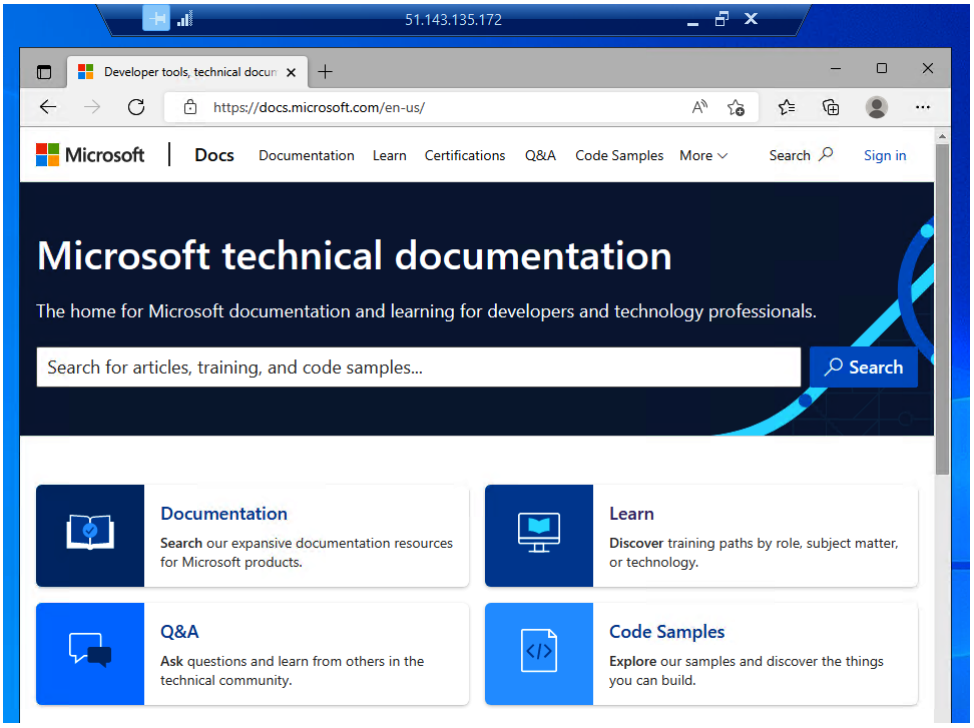
Public IP address (51.142.99.148)

Port number *

3389

Download RDP File


Remote Desktop Connection
The identity of the remote computer cannot be verified. Do you want to connect anyway?
The remote computer could not be authenticated due to problems with its security certificate. It may be unsafe to proceed.
Certificate name
Name in the certificate from the remote computer:
sm-az800-2408-v
Certificate errors
The following errors were encountered while validating the remote computer's certificate:
The certificate is not from a trusted certifying authority.
Do you want to connect despite these certificate errors?
Don't ask me again for connections to this computer
View certificate...
Yes
No


51.143.135.172
Developer tools, technical docum
https://docs.microsoft.com/en-us/
Microsoft
Docs
Documentation
Learn
Certifications
Q&A
Code Samples
More
Search
Sign in
Microsoft technical documentation
The home for Microsoft documentation and learning for developers and technology professionals.
Search for articles, training, and code samples...
Search
Documentation
Search our expansive documentation resources for Microsoft products.
Learn
Discover training paths by role, subject matter, or technology.
Q&A
Ask questions and learn from others in the technical community.
Code Samples
Explore our samples and discover the things you can build.

Add outbound security rule

sm-az800-2408-vm1-nsg

Source

Any

Source port ranges *

*

Destination

Any

Service

Custom

Destination port ranges *

8080

Protocol

- (●) Any
- ( ) TCP
- ( ) UDP
- ( ) ICMP

Action

- (●) Allow
- ( ) Deny

Priority *

100

Name *

AllowAnyCustom8080Outbound

Description

Add | Cancel

Inbound port rules | **Outbound port rules** | Application security groups | Load balancing

Network security group sm-az800-2408-vm1-nsg (attached to network interface: sm-az800-2408-vm1233)
Impacts 0 subnets, 1 network interfaces

Add outbound port rule

Priority	Name	Port	Protocol	Source	Destination	Action
100	DenyAnyCustomAnyOutbound	Any	Any	Any	Internet	Deny
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	Allow
65500	DenyAllOutBound	Any	Any	Any	Any	Deny

docs.microsoft.com

https://docs.microsoft.com/en-us/

Hmmm... can't reach this page

docs.microsoft.com took too long to respond

Try:

- Checking the connection
- Checking the proxy and the firewall
- Running Windows Network Diagnostics

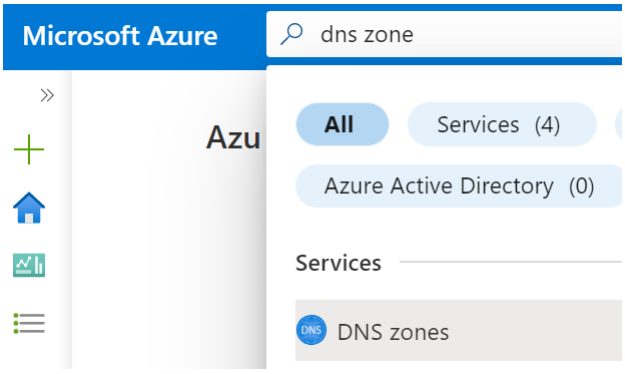
ERR_CONNECTION_TIMED_OUT

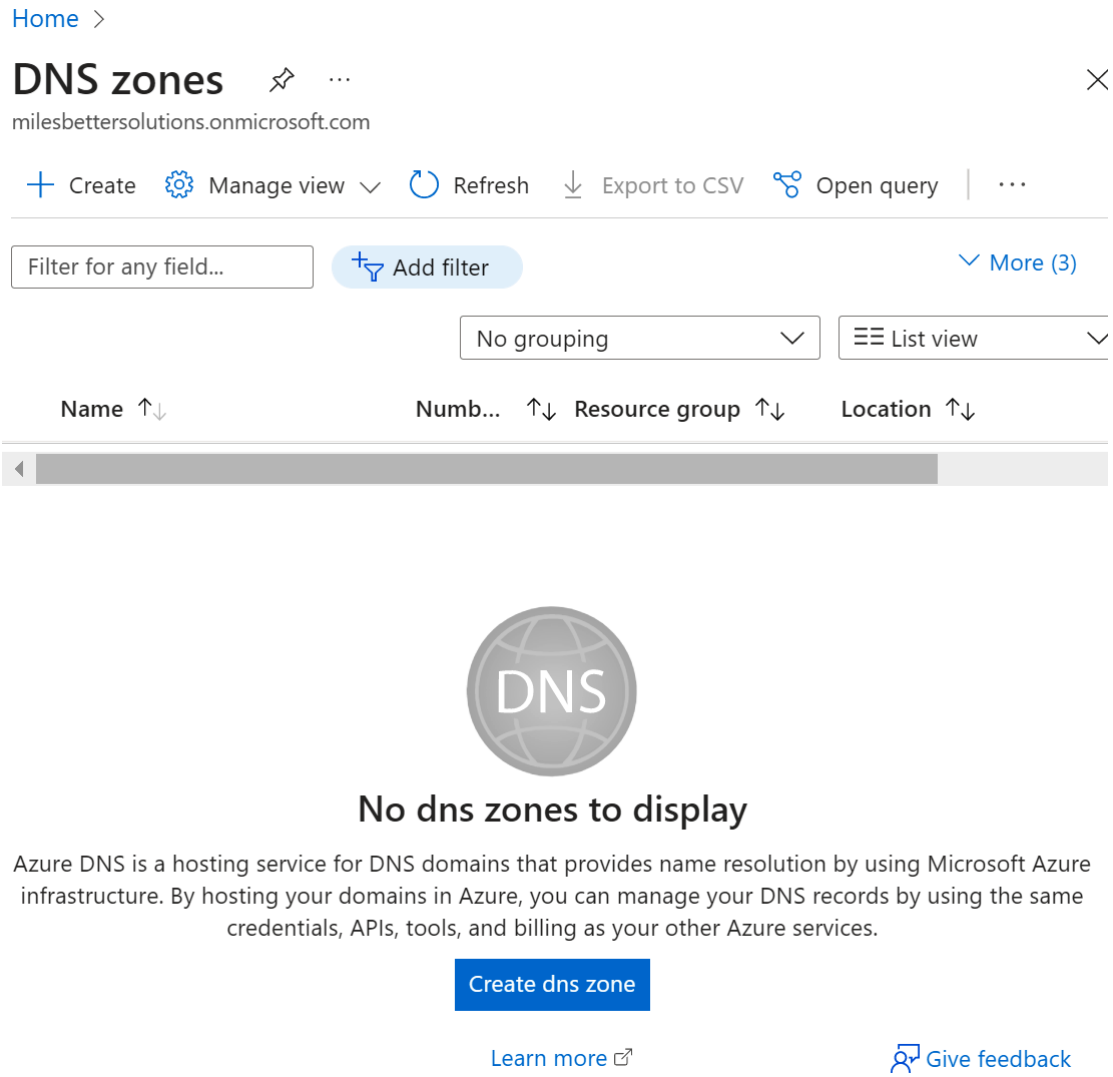
Hide details

Check your Internet connection
Check your network cables, modem, and routers.

Allow Microsoft Edge to access the network in your firewall or antivirus settings.
If it's already listed as a program allowed to access the network, try removing it from the list, and adding it again.

If you use a proxy server:
Check your proxy settings. You might need to ask your organization if the proxy server is working. If you don't think you should be using a proxy server, go to Settings > System > Open your computer's proxy settings


Microsoft Azure
dns zone
Azu
All
Services (4)
Azure Active Directory (0)
Services
DNS zones


Home
DNS zones
milesbettersolutions.onmicrosoft.com
Create
Manage view
Refresh
Export to CSV
Open query
Filter for any field...
Add filter
More (3)
No grouping
List view
Name
Numb...
Resource group
Location
DNS
No dns zones to display
Azure DNS is a hosting service for DNS domains that provides name resolution by using Microsoft Azure infrastructure. By hosting your domains in Azure, you can manage your DNS records by using the same credentials, APIs, tools, and billing as your other Azure services.
Create dns zone
Learn more
Give feedback

Home > Microsoft.DnsZone-20221112195803384 | Overview >

milesbetter.com

DNS zone

Record set | Child zone | Move | Delete zone | Refresh

Resource group (move) : milebetter-rg

Subscription (move) : Microsoft Azure Sponsorship

Subscription ID : 8de2e9e8-de94-4feb-8a95-35b48b593bb1

Tags (edit) : Click here to add tags

Name server 1 : ns1-09.azure-dns.com.

Name server 2 : ns2-09.azure-dns.net.

Name server 3 : ns3-09.azure-dns.org.

Name server 4 : ns4-09.azure-dns.info.

You can search for record sets that have been loaded on this page. If you don't see what you're looking for, you can try scrolling to allo

Search record sets

Name	Type	TTL	Value	Alias resour
@	NS	172800	ns1-09.azure-dns.com. ns2-09.azure-dns.net. ns3-09.azure-dns.org. ns4-09.azure-dns.info.	
@	SOA	3600	Email: azuredns-hostm... Host: ns1-09.azure-dns.... Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1	
az800	A	3600	10.0.0.4	

Command Prompt

```
:\Users\SteveMiles>nslookup az800.milesbetter.com ns1-01.azure-dns.com
erver:  UnKnown
ddress:  40.90.4.1

ame:    az800.milesbetter.com
ddress:  10.0.0.4
```

virtual network gateways

All | Services (29) | Marketplace (1) | Azure Active Directory (0)

Services

Virtual network gateways

Virtual networks

Home >

Virtual network gateways

Default Directory

Create | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals **Visual Studio Enterprise** | Resource group equals **all** | Location equals **all** | Add filter

No grouping

Name	Virtual ...	Gatew...	Resource group	Location

No virtual network gateways to display

Azure VPN Gateway connects your on-premises networks to Azure through Site-to-Site VPNs in a similar way that you set up and connect to a remote branch office. The connectivity is secure and uses the industry-standard protocols Internet Protocol Security (IPsec) and Internet Key Exchange (IKE).

Create virtual network gateway

Learn more about Virtual network gateway

Home > Virtual network gateways >

Create virtual network gateway

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *	Visual Studio Enterprise
Resource group	sm-149-az800-RG (derived from virtual network's resource group)

Instance details

Name *	
Region *	East US
Gateway type *	VPN / ExpressRoute
VPN type *	Route-based / Policy-based
SKU *	VpnGw2AZ
Generation	Generation2
Virtual network *	(New) sm-149-az800-VNetA Create virtual network
	Only virtual networks in the currently selected subscription and region are listed.

Home > Virtual network gateways >

Create virtual network gateway ...

Instance details

Name *	sm-149-az800-VNetA-GW ✓
Region *	UK South
Gateway type *	(•) VPN ( ) ExpressRoute
VPN type *	(•) Route-based ( ) Policy-based
SKU *	VpnGw1
Generation	Generation1
Virtual network *	(New) sm-149-az800-VNetA Create virtual network
	Only virtual networks in the currently selected subscription and region are listed.
Gateway subnet address range *	10.0.1.0/24 ✓ 10.0.1.0 - 10.0.1.255 (256 addresses)
Public IP Address Type *	( ) Basic (•) Standard

Public IP address

Public IP address *	(•) Create new ( ) Use existing
Public IP address name *	sm-149-az800-VNetA-GW-PIP ✓
Public IP address SKU	Standard
Assignment	( ) Dynamic (•) Static
Enable active-active mode *	( ) Enabled (•) Disabled
Configure BGP *	( ) Enabled (•) Disabled

Review + create | Previous | Next : Tags > | Download a template for automation

Home > Virtual network gateways >

Create virtual network gateway

Validation passed

Basics | Tags | Review + create

Basics

Subscription	Visual Studio Enterprise
Resource group	(new) sm-149-az800-RG
Name	sm-149-az800-VNetA-GW
Region	UK South
SKU	VpnGw1
Generation	Generation1
Virtual network	sm-149-az800-VNetA
Subnet	GatewaySubnet (10.0.1.0/24)
Gateway type	Vpn
VPN type	RouteBased
Enable active-active mode	Disabled
Configure BGP	Disabled
Public IP address	sm-149-az800-VNetA-GW-PIP

Home > Virtual networks >

Virtual networks

Default Directory (stevemiles70outlook.onmicroso...

Create | Manage view

Filter for any field...

Name

sm-149-az800-VNetA

sm-149-az800-VNetB

sm-149-az800-VNetA

Virtual network

Search

Bastion

DDoS protection

Firewall

Microsoft Defender for Cloud

Network manager

DNS servers

Peerings

Move | Delete | Refres

Essentials

Resource group (move)
sm-149-az800-RG

Location (move)
UK South

Subscription (move)
Visual Studio Enterprise

Subscription ID

Added virtual network peering

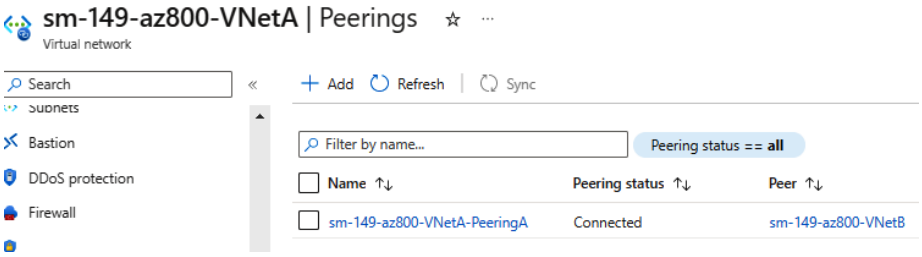
Successfully added virtual network peering 'sm-149-az800-VNetA-PeeringB' to 'sm-149-az800-VNetB'.

a few seconds ago

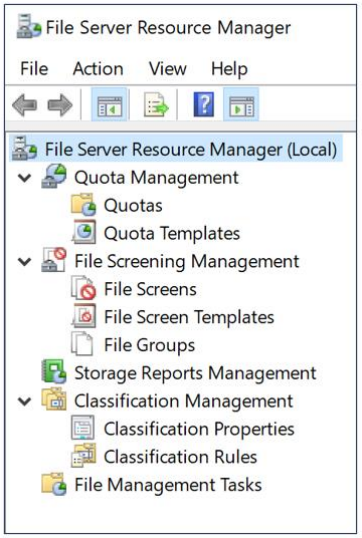
Added virtual network peering

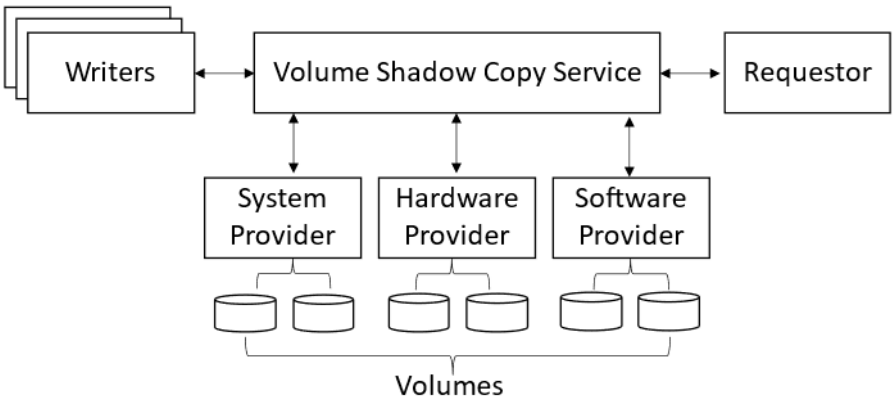
Successfully added virtual network peering 'sm-149-az800-VNetA-PeeringA' to 'sm-149-az800-VNetA'.

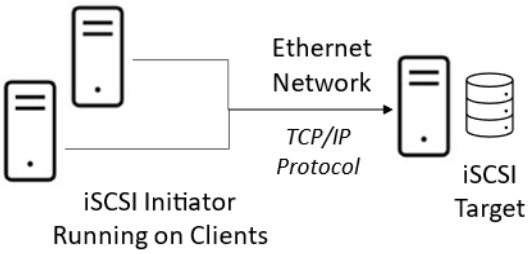
a few seconds ago

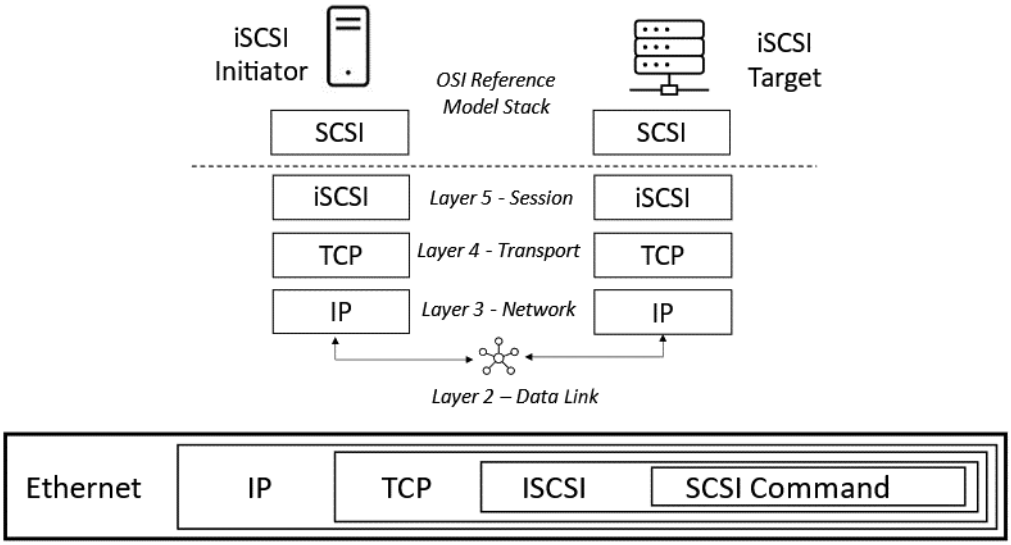

sm-149-az800-VNetA | Peerings
Virtual network
Search
Subnets
Bastion
DDoS protection
Firewall
Add
Refresh
Sync
Filter by name...
Peering status == all
Name
Peering status
Peer
sm-149-az800-VNetA-PeeringA
Connected
sm-149-az800-VNetB

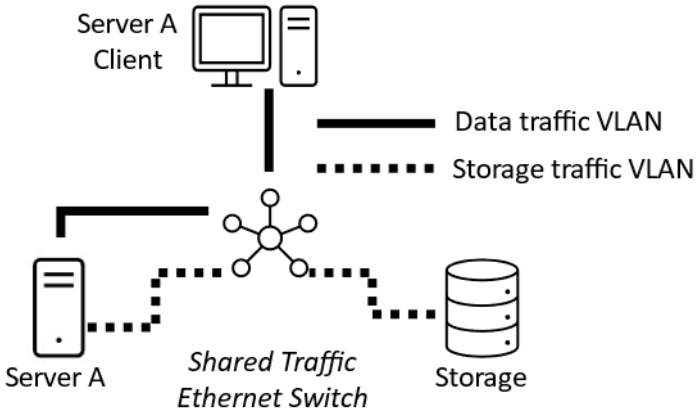
Chapter 7: Implementing Windows Server Storage Services

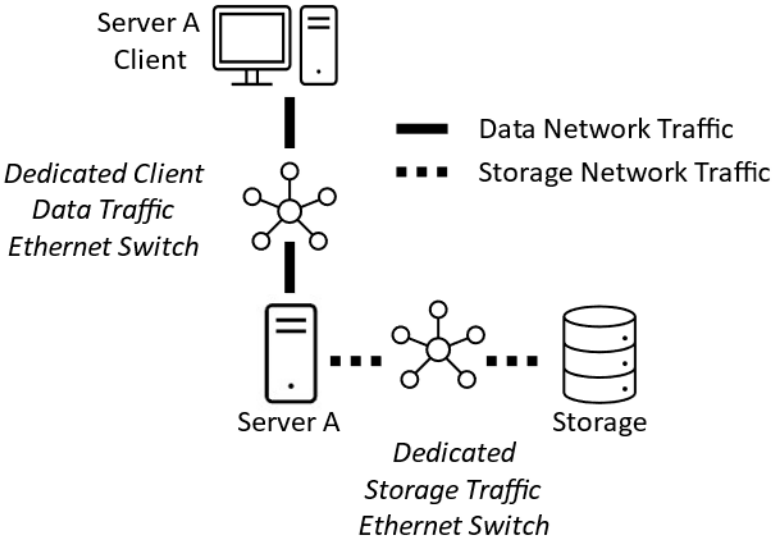


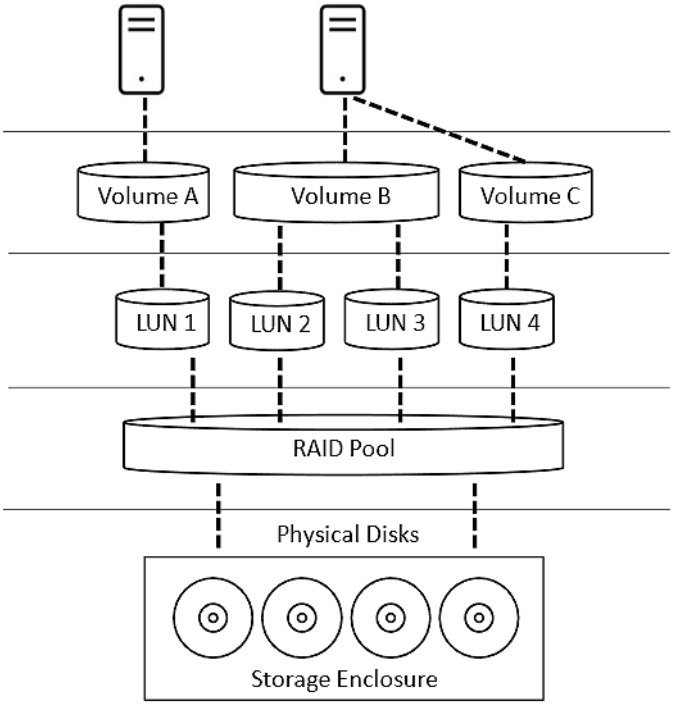


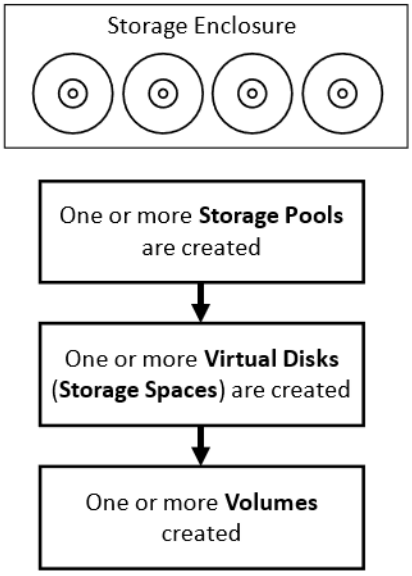


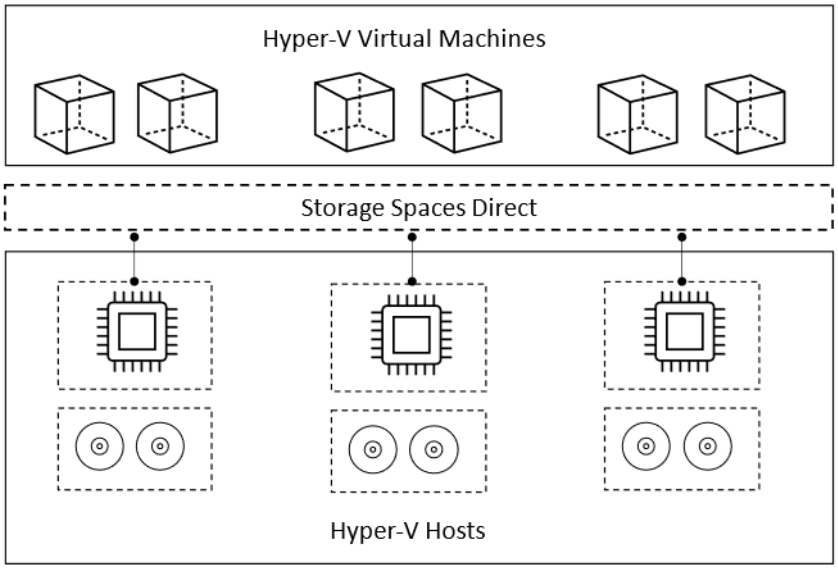

iSCSI
Initiator
OSI Reference
Model Stack
iSCSI
Target
SCSI
SCSI
iSCSI
Layer 5 - Session
iSCSI
TCP
Layer 4 - Transport
TCP
IP
Layer 3 - Network
IP
Layer 2 – Data Link
Ethernet
IP
TCP
ISCSI
SCSI Command

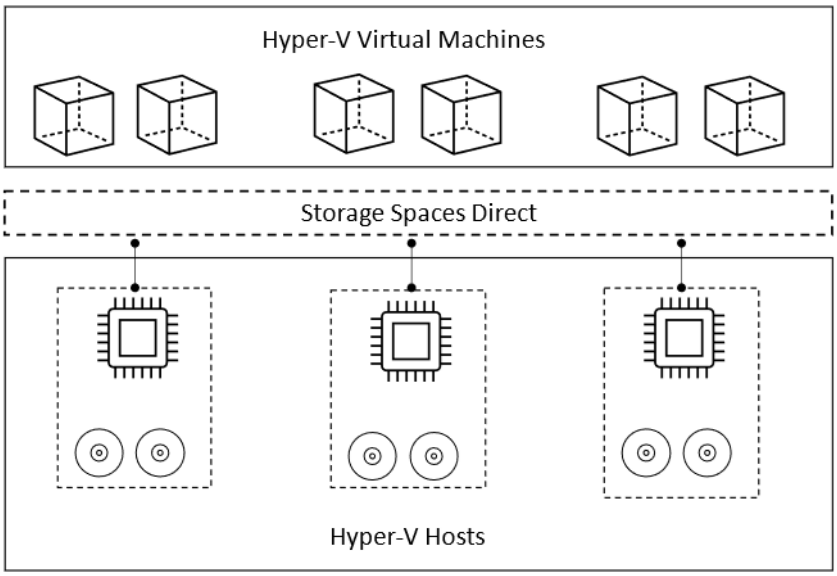

Server A
Client
Data traffic VLAN
Storage traffic VLAN
Server A
Shared Traffic
Ethernet Switch
Storage

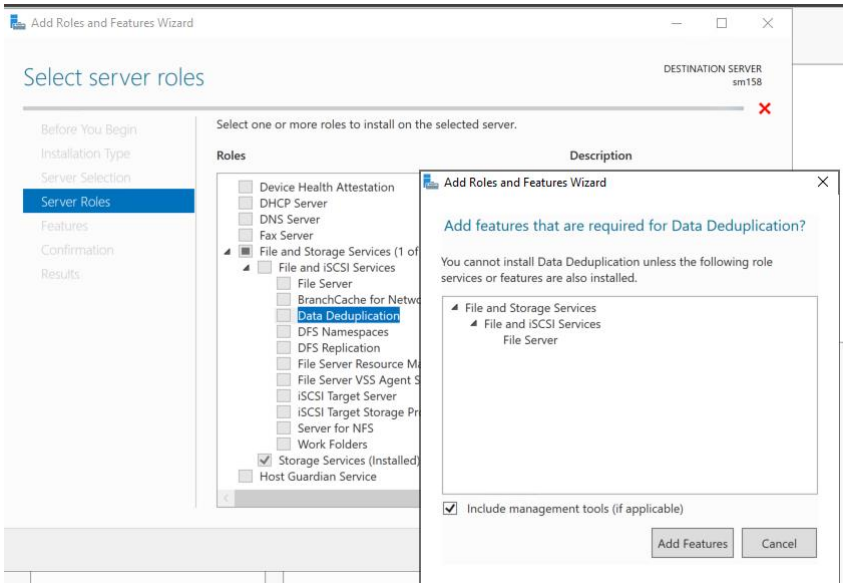

Server A
Client
Data Network Traffic
Storage Network Traffic
Dedicated Client
Data Traffic
Ethernet Switch
Server A
Storage
Dedicated
Storage Traffic
Ethernet Switch

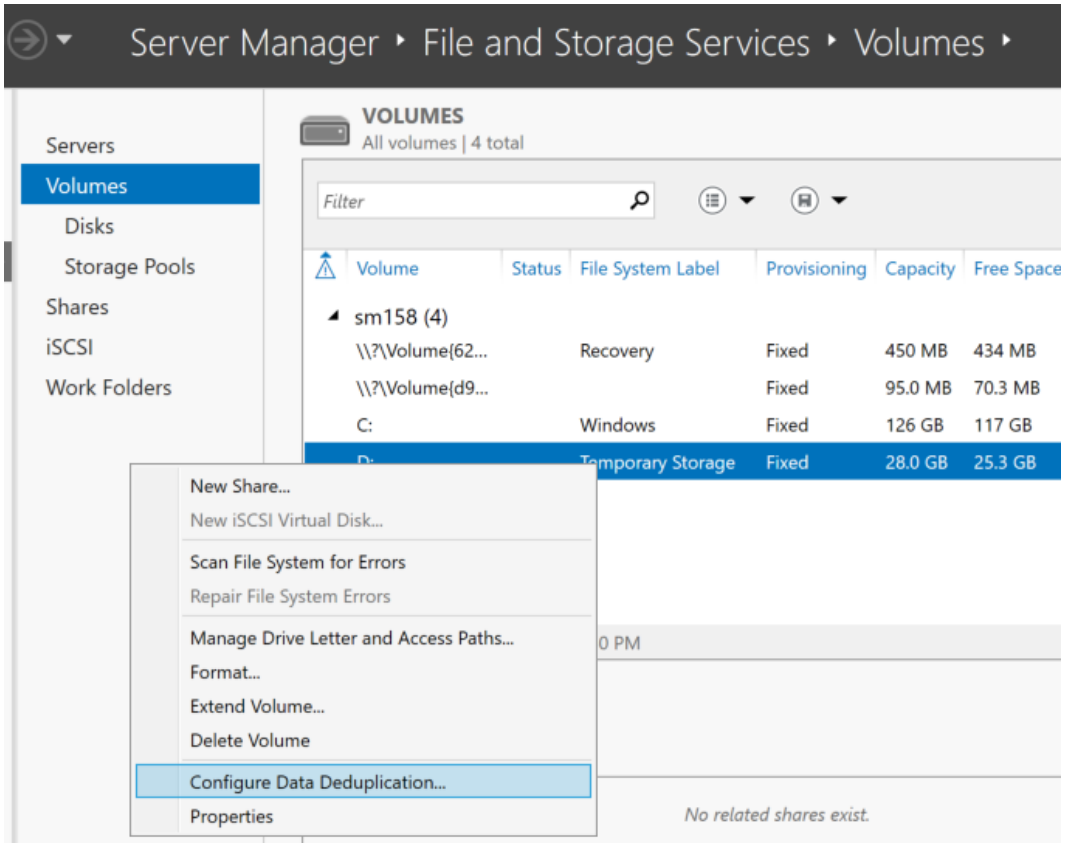

Volume A
Volume B
Volume C
LUN 1
LUN 2
LUN 3
LUN 4
RAID Pool
Physical Disks
Storage Enclosure

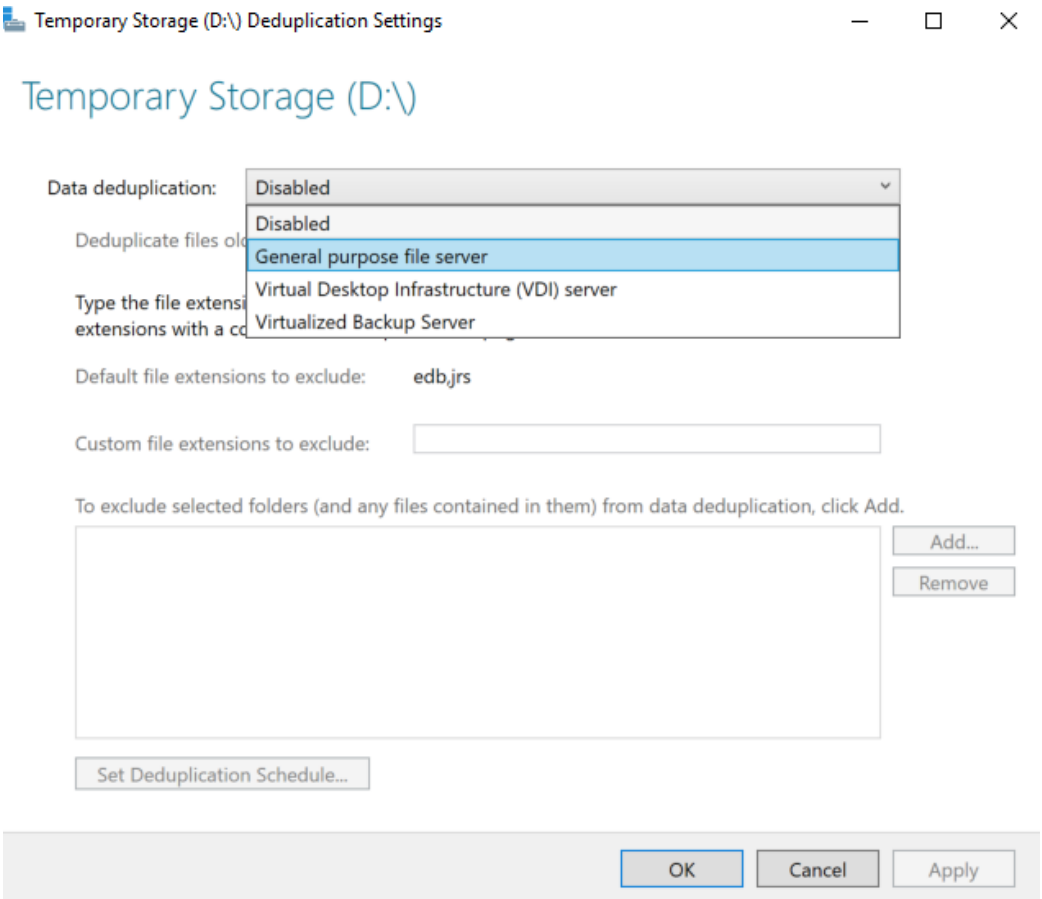

Storage Enclosure
One or more **Storage Pools** are created
One or more **Virtual Disks** (**Storage Spaces**) are created
One or more **Volumes** created


Hyper-V Virtual Machines
Storage Spaces Direct
Hyper-V Hosts

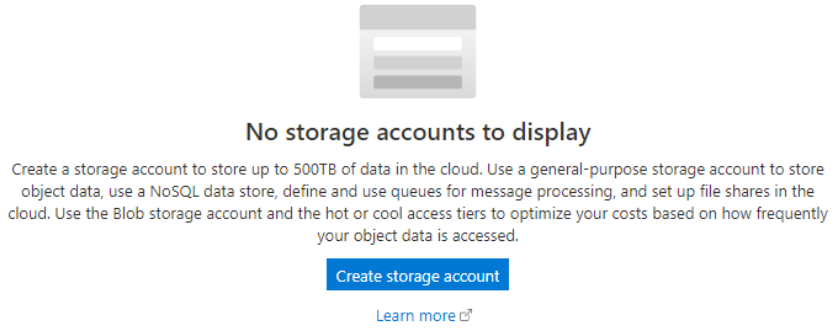

Hyper-V Virtual Machines
Storage Spaces Direct
Hyper-V Hosts

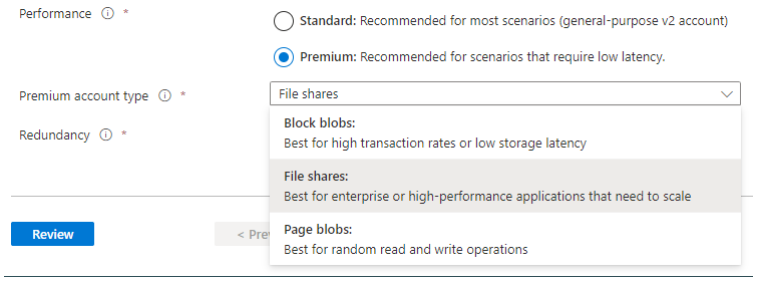

Add Roles and Features Wizard
Select server roles
DESTINATION SERVER
sm158
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more roles to install on the selected server.
Roles
Description
Device Health Attestation
DHCP Server
DNS Server
Fax Server
File and Storage Services (1 of
File and iSCSI Services
File Server
BranchCache for Netwo
Data Deduplication
DFS Namespaces
DFS Replication
File Server Resource Ma
File Server VSS Agent S
iSCSI Target Server
iSCSI Target Storage Pr
Server for NFS
Work Folders
Storage Services (Installed)
Host Guardian Service
Add Roles and Features Wizard
Add features that are required for Data Deduplication?
You cannot install Data Deduplication unless the following role services or features are also installed.
File and Storage Services
File and iSCSI Services
File Server
Include management tools (if applicable)
Add Features
Cancel

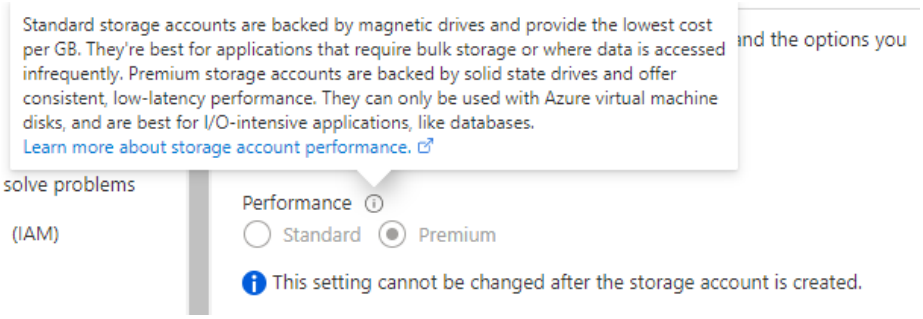

Server Manager ‣ File and Storage Services ‣ Volumes ‣
Servers
Volumes
Disks
Storage Pools
Shares
iSCSI
Work Folders
VOLUMES
All volumes | 4 total
Filter
Volume
Status
File System Label
Provisioning
Capacity
Free Space
sm158 (4)
\\?\Volume{62...
Recovery
Fixed
450 MB
434 MB
\\?\Volume{d9...
Fixed
95.0 MB
70.3 MB
C:
Windows
Fixed
126 GB
117 GB
Temporary Storage
Fixed
28.0 GB
25.3 GB
New Share...
New iSCSI Virtual Disk...
Scan File System for Errors
Repair File System Errors
Manage Drive Letter and Access Paths...
Format...
Extend Volume...
Delete Volume
Configure Data Deduplication...
Properties
No related shares exist.

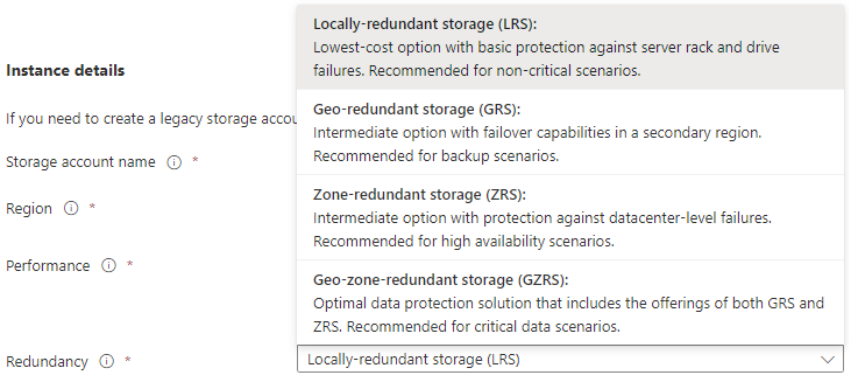

Temporary Storage (D:\) Deduplication Settings
Temporary Storage (D:\)
Data deduplication:
Disabled
Disabled
General purpose file server
Virtual Desktop Infrastructure (VDI) server
Virtualized Backup Server
Deduplicate files ol
Type the file extensi
extensions with a co
Default file extensions to exclude:
edb,jrs
Custom file extensions to exclude:
To exclude selected folders (and any files contained in them) from data deduplication, click Add.
Add...
Remove
Set Deduplication Schedule...
OK
Cancel
Apply

Chapter 8: Implementing a Hybrid File Server Infrastructure









Basics Advanced Networking Data protection **Encryption** Tag

Encryption type *

- (●) Microsoft-managed keys (MMK)
- ( ) Customer-managed keys (CMK)

Your data is encrypted by default using Microsoft-managed keys. For additional control over your data, encrypt using customer-managed keys via the Azure Key Vault. Learn more

The secure transfer option enhances the security of your storage account by only allowing requests to the storage account by secure connection. For example, when calling REST APIs to access your storage accounts, you must connect using HTTPs. Any requests using HTTP will be rejected when 'secure transfer required' is enabled. When you are using the Azure files service, connection without encryption will fail, including scenarios using SMB 2.1, SMB 3.0 without encryption, and some flavors of the Linux SMB client. Because Azure storage doesn't support HTTPs for custom domain names, this option is not applied when using a custom domain name.
Learn more about secure transfer

Secure transfer required

- ( ) Disabled
- (●) Enabled

Basics Advanced Networking **Data protection** Encryption Tags Review

Recovery

Protect your data from accidental or erroneous deletion or modification.

- [ ] Enable point-in-time restore for containers
  Use point-in-time restore to restore one or more containers to an earlier state. If point-in-time restore is enabled, then versioning, change feed, and blob soft delete must also be enabled. Learn more
- [x] Enable soft delete for blobs
  Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten. Learn more
  Days to retain deleted blobs: 7
- [x] Enable soft delete for containers
  Soft delete enables you to recover containers that were previously marked for deletion. Learn more
  Days to retain deleted containers: 7
- [x] Enable soft delete for file shares
  Soft delete enables you to recover file shares that were previously marked for deletion. Learn more
  Days to retain deleted file shares: 7

Network connectivity

You can connect to your storage account either publicly, via public IP addresses or service endpoints, or privately, using a private endpoint.

Network access *

- (●) Enable public access from all networks
- ( ) Enable public access from selected virtual networks and IP addresses
- ( ) Disable public access and use private access

Enabling public access from all networks might make this resource available publicly. Unless public access is required, we recommend using a more restricted access type. Learn more

- (●) Disable public access and use private access

Private endpoint

Create a private endpoint to allow a private connection to this resource. Additional private endpoint connections can be created within the storage account or private link center.

+ Add private endpoint

Name	Subscription	Resource g...	Region	Target sub-...	Subnet	Private DN...	Privat
Click on add to create a private endpoint							

Choose the Active Directory source that contains the user accounts that will access a share in this storage account. You can set up identity-based access control for user accounts located in either one of these three domain services.

- Active Directory domain controller you host on a Windows Server (generally referred to as "on-premises AD" even though you might host these servers in Azure)
- Azure Active Directory Domain Services (Azure AD DS), a platform as a service, hosted directory service and domain controller in Azure
- Azure AD Kerberos allows using Kerberos authentication from Azure AD-joined clients. In order to use Azure AD Kerberos, user accounts must be hybrid identities.

Active Directory	**Azure Active Directory Domain Services**	**Azure AD Kerberos (preview)**
Disabled	Disabled	Disabled
Set up	Set up	Set up

Home > Storage accounts > sm1581

sm1581 | Access keys

Storage account

Search (Ctrl+/)

- Overview
- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Storage browser

Data storage

- File shares

Security + networking

- Networking
- Access keys
- Shared access signature
- Encryption
- Microsoft Defender for Cloud

Settings

- Configuration

Set rotation reminder Refresh

Access keys authenticate your applications' requests to this storage account. Keep your keys in a secure location lik
Azure Key Vault, and replace them often with new keys. The two keys allow you to replace one while still using the other.

Remember to update the keys with any Azure resources and apps that use this storage account.
Learn more about managing storage account access keys

Storage account name

sm1581

key1 Rotate key

Last rotated: 19/08/2022 (0 days ago)

Key

Show

Connection string

Show

key2 Rotate key

Last rotated: 19/08/2022 (0 days ago)

Key

Show

Connection string

Show

Home > Storage accounts > sm1581

sm1581 | Shared access signature

Storage account

Search (Ctrl+/)

- Overview
- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Storage browser

Data storage

- File shares

Security + networking

- Networking
- Access keys
- Shared access signature
- Encryption
- Microsoft Defender for Cloud

Settings

- Configuration
- Resource sharing (CORS)
- Advisor recommendations
- Endpoints

A shared access signature (SAS) is a URI that grants restricted access rights to Azure Storage resources. You can provide a shared access signature to clients who should not be trusted with your storage account key but whom you wish to delegate access to certain storage account resources. By distributing a shared access signature URI to these clients, you grant them access to a resource for a specified period of time.

An account-level SAS can delegate access to multiple storage services (i.e. blob, file, queue, table). Note that stored access policies are currently not supported for an account-level SAS.

Learn more about creating an account SAS

Allowed services

- [x] File

Allowed resource types

- [ ] Service
- [ ] Container
- [ ] Object

Allowed permissions

- [x] Read
- [x] Write
- [x] Delete
- [x] List
- [ ] Add
- [x] Create
- [ ] Update
- [ ] Process
- [ ] Immutable storage
- [ ] Permanent delete

Blob versioning permissions

- [ ] Enables deletion of versions

Start and expiry date/time

Start 08/19/2022 7:03:02 PM

End 08/20/2022 3:03:02 AM

(UTC+00:00) Dublin, Edinburgh, Lisbon, London

Allowed IP addresses

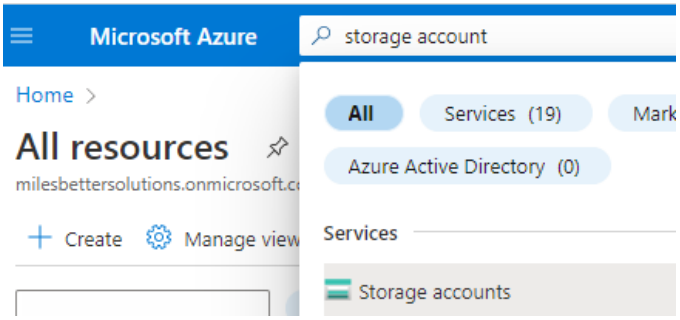
For example, 168.1.5.65 or 168.1.5.65-168.1.5.70

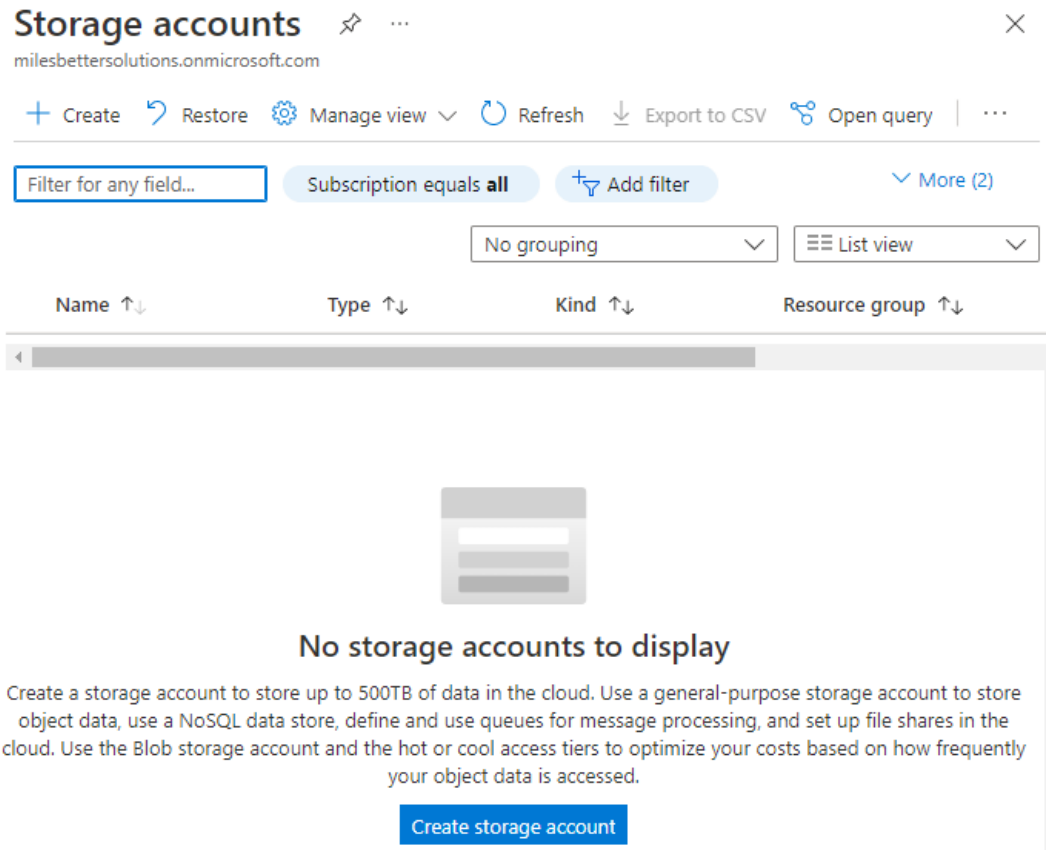
Allowed protocols

- (•) HTTPS only
- ( ) HTTPS and HTTP

Showing 3 of 349 roles

Name	Description
Storage File Data SMB Share Contributor	Allows for read, write, and delete access in Azure Storage file shares over SMB
Storage File Data SMB Share Elevated Cont...	Allows for read, write, delete and modify NTFS permission access in Azure Storage file shares over SMB
Storage File Data SMB Share Reader	Allows for read access to Azure File Share over SMB





Project details

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription *

Microsoft Azure Sponsorship (8de2e9e8-de94-4feb-8a95-35b48b593bb1)

Resource group *

(New) sm-az800-sa01-rg

Create new

Instance details

The name must be unique across all existing storage account names in Azure. It must be 3 to 24 characters long, and can contain only lowercase letters and numbers.

Storage account name *

smaz800sa01

Performance *

- (●) **Standard:** Recommended for most scenarios (general-purpose v2 account)
- ( ) **Premium:** Recommended for scenarios that require low latency.

Performance *

- ( ) **Standard:** Recommended for most scenarios (general-purpose v2 account)
- (●) **Premium:** Recommended for scenarios that require low latency.

Premium account type *

Page blobs

Block blobs:
Best for high transaction rates or low storage latency

File shares:
Best for enterprise or high-performance applications that need to scale

Page blobs:
Best for random read and write operations

Redundancy *

Review

< Pre

Region *

(Europe) UK South

Performance *

Locally-redundant storage (LRS):
Lowest-cost option with basic protection against server rack and drive failures. Recommended for non-critical scenarios.

Zone-redundant storage (ZRS):
Intermediate option with protection against datacenter-level failures. Recommended for high availability scenarios.

Premium account type *

Redundancy *

Locally-redundant storage (LRS)

Home >

smaz800sa01_1665643854347 | Overview

Deployment

Search

Overview
Inputs
Outputs
Template

Delete Cancel Redeploy Down

Deployment succeeded

Deployment 'smaz800sa01_1665643854347' to resource group 'sm-az800-sa01-rg' was successful.

Go to resource | Pin to dashboard

Your deployment is complete

Deployment name: smaz... Start time: 10/13/...
Subscription: Microsoft ... Correlation ID: 839
Resource group: sm-az8...

Deployment details

Next steps

Go to resource

Cost Management

Get notified to stay within your budget and prevent unexpected charges on your bill.

Set up cost alerts >

Microsoft Defender for Cloud

Home >

smaz800sa01

Storage account

Search

Overview
Activity log
Tags
Diagnose and solve problems
Access Control (IAM)
Data migration
Events
Storage browser

Data storage

Containers
File shares
Queues
Tables

Security + networking

Networking
Azure CDN
Access keys
Shared access signature
Encryption
Microsoft Defender for Cloud

Data management

Upload Open in Explorer Delete Move Refresh

Essentials JSON View

Resource group (move)	Performance
sm-az800-sa01-rg	Premium
Location	Replication
UK South	Locally-redundant storage (LRS)
Subscription (move)	Account kind
Microsoft Azure Sponsorship	BlockBlobStorage
Subscription ID	Provisioning state
8de2e9e8-de94-4feb-8a95-35b48...	Succeeded
Disk state	Created
Available	13/10/2022, 07:50:57

Tags (edit)

Click here to add tags

Properties Monitoring Capabilities (7) Recommendations Tutorials

Developer Tools

Blob service

Hierarchical namespace
Disabled

Blob public access
Enabled

Blob soft delete
Enabled (7 days)

Container soft delete
Enabled (7 days)

Versioning
Disabled

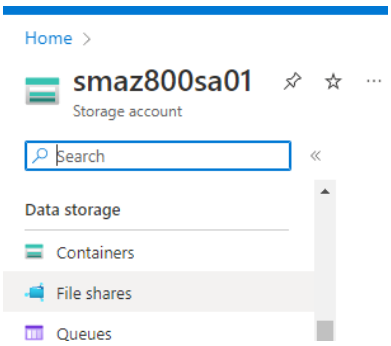
Security

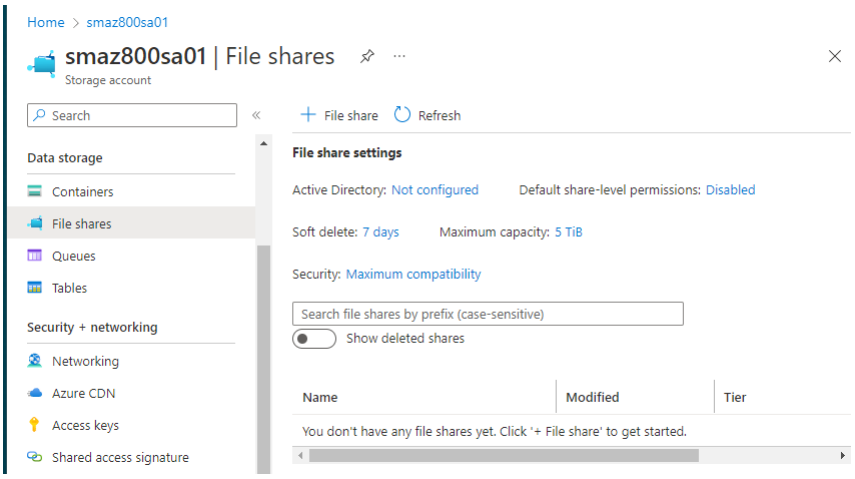
Require secure transfer for REST API operations
Enabled

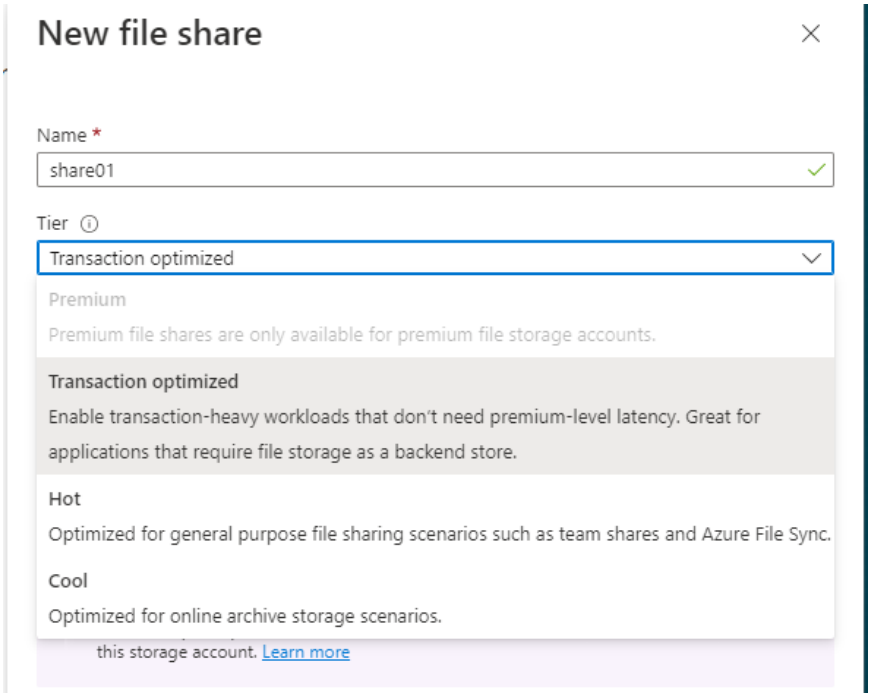
Storage account key access
Enabled

Minimum TLS version
Version 1.2

Infrastructure encryption
Disabled


Home >
smaz800sa01
Storage account
Search
Data storage
Containers
File shares
Queues


Home > smaz800sa01
smaz800sa01 | File shares
Storage account
Search
Data storage
Containers
File shares
Queues
Tables
Security + networking
Networking
Azure CDN
Access keys
Shared access signature
File share
Refresh
File share settings
Active Directory: Not configured
Default share-level permissions: Disabled
Soft delete: 7 days
Maximum capacity: 5 TiB
Security: Maximum compatibility
Search file shares by prefix (case-sensitive)
Show deleted shares
Name
Modified
Tier
You don't have any file shares yet. Click '+ File share' to get started.


New file share
Name *
share01
Tier
Transaction optimized
Premium
Premium file shares are only available for premium file storage accounts.
Transaction optimized
Enable transaction-heavy workloads that don't need premium-level latency. Great for applications that require file storage as a backend store.
Hot
Optimized for general purpose file sharing scenarios such as team shares and Azure File Sync.
Cool
Optimized for online archive storage scenarios.
this storage account. Learn more

Home > smaz800sa01

smaz800sa01 | File shares

Storage account

Search

Data storage

- Containers
- File shares
- Queues
- Tables

Security + networking

- Networking
- Azure CDN

+ File share Refresh

File share settings

Active Directory: Not configured Default share-level permissions: Disabled Soft delete: 7 days

Maximum capacity: 5 TiB Security: Maximum compatibility

Search file shares by prefix (case-sensitive) Show deleted shares

Name	Modified	Tier	Quota
share01	10/13/2022, 8:30:13 AM	Transaction optimized	5 TiB

Home > smaz800sa01 | File shares >

share01

File share

Search

- Overview
- Diagnose and solve problems
- Access Control (IAM)

Settings

- Properties

Operations

- Snapshots
- Backup

Connect Upload Add directory Refresh Delete share Change tier Edit quota

Search files by prefix

Name	Type	Size
No files found.		

Connect Upload Ad

Search files by prefix

Name
No files found.

Connect

share01

'Secure transfer required' is enabled on the storage account. SMB clients connecting to this share must support SMB protocol version 3 or higher in order to handle the encryption requirement. Click here to learn more.

Windows Linux macOS

To connect to this Azure file share from Windows, choose from the following authentication methods and run the PowerShell commands from a normal (not elevated) PowerShell terminal:

Drive letter

Z

Authentication method

- Active Directory
- Storage account key

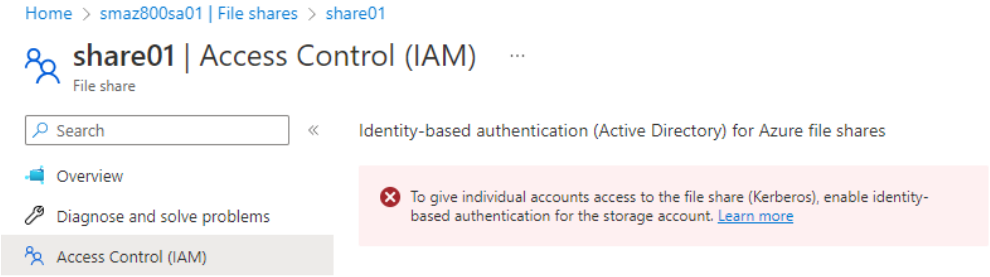
Connecting to a share using the storage account key is only appropriate for admin access. Mounting the Azure file share with the Active Directory identity of the user is preferred.
Learn more

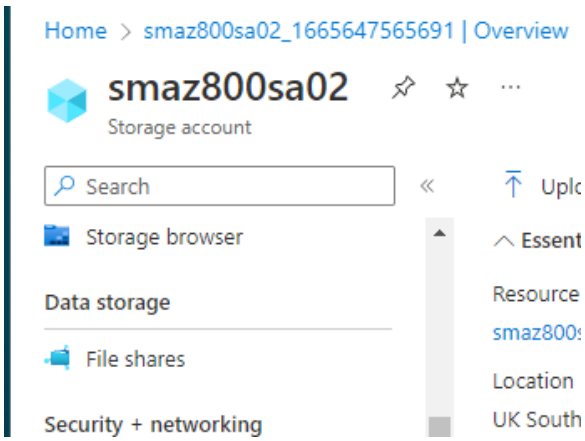
Show Script

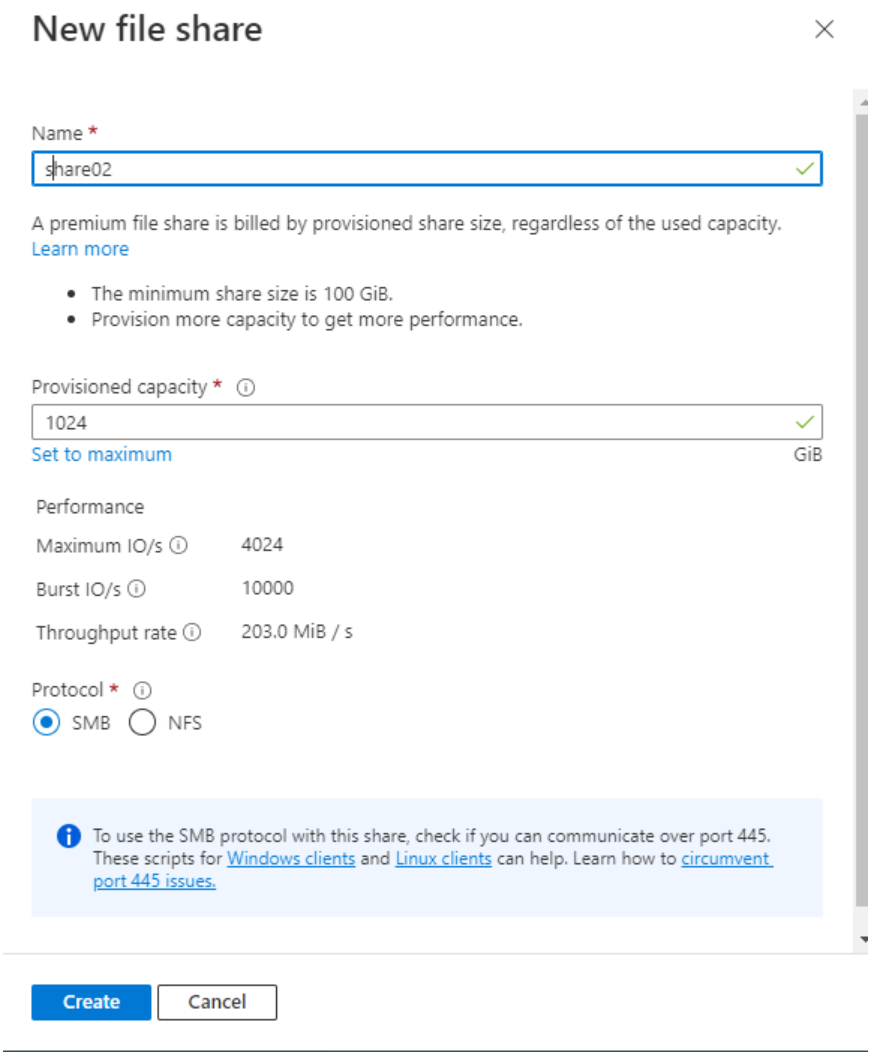
This script will check to see if this storage account is accessible via TCP port 445, which is the port SMB uses. If port 445 is available, your Azure file share will be persistently mounted. Your organization or internet service provider (ISP) may block port 445, however you may use Azure Point-to-Site (P2S) VPN, Azure Site-to-Site (S2S) VPN, or ExpressRoute to tunnel SMB traffic to your Azure file share over a different port.

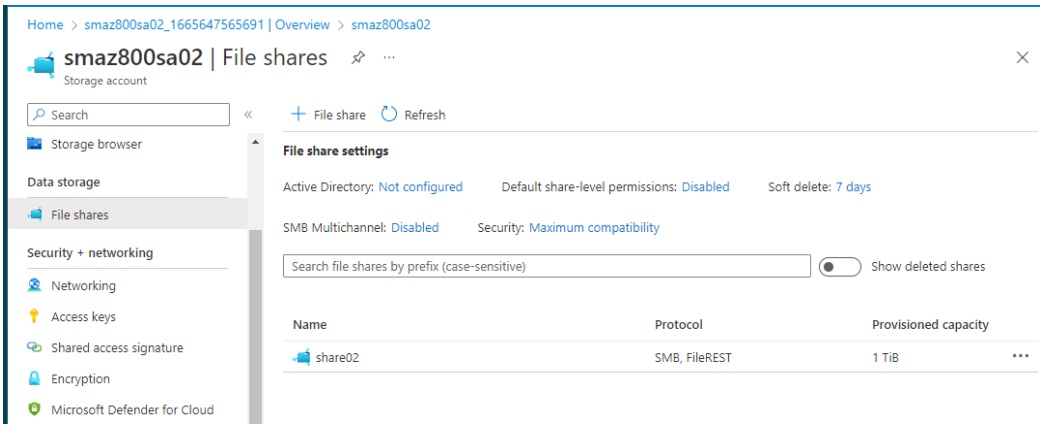
Note: The script will only work on Windows Server 2012 and above.

Learn how to circumvent the port 445 problem (VPN)


Home > smaz800sa01 | File shares > share01
share01 | Access Control (IAM)
File share
Search
Overview
Diagnose and solve problems
Access Control (IAM)
Identity-based authentication (Active Directory) for Azure file shares
To give individual accounts access to the file share (Kerberos), enable identity-based authentication for the storage account. Learn more


Home > smaz800sa02_1665647565691 | Overview
smaz800sa02
Storage account
Search
Storage browser
Data storage
File shares
Security + networking
Uplc
Essent
Resource
smaz800
Location
UK South


New file share
Name *
share02
A premium file share is billed by provisioned share size, regardless of the used capacity.
Learn more
The minimum share size is 100 GiB.
Provision more capacity to get more performance.
Provisioned capacity *
1024
Set to maximum
GiB
Performance
Maximum IO/s
4024
Burst IO/s
10000
Throughput rate
203.0 MiB / s
Protocol *
SMB
NFS
To use the SMB protocol with this share, check if you can communicate over port 445. These scripts for Windows clients and Linux clients can help. Learn how to circumvent port 445 issues.
Create
Cancel


Home > smaz800sa02_1665647565691 | Overview > smaz800sa02
smaz800sa02 | File shares
Storage account
Search
Storage browser
Data storage
File shares
Security + networking
Networking
Access keys
Shared access signature
Encryption
Microsoft Defender for Cloud
File share
Refresh
File share settings
Active Directory: Not configured
Default share-level permissions: Disabled
Soft delete: 7 days
SMB Multichannel: Disabled
Security: Maximum compatibility
Search file shares by prefix (case-sensitive)
Show deleted shares
Name
Protocol
Provisioned capacity
share02
SMB, FileREST
1 TiB

Connect

share02

'Secure transfer required' is enabled on the storage account. SMB clients connecting to this share must support SMB protocol version 3 or higher in order to handle the encryption requirement. Click here to learn more.

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Note: The script will only work on Windows Server 2012 and above.

Learn how to circumvent the port 445 problem (VPN)

Home > smaz800sa02_1665647565691 | Overview > smaz800sa02 | File shares > share02

share02 | Access Control (IAM)

SMB File share

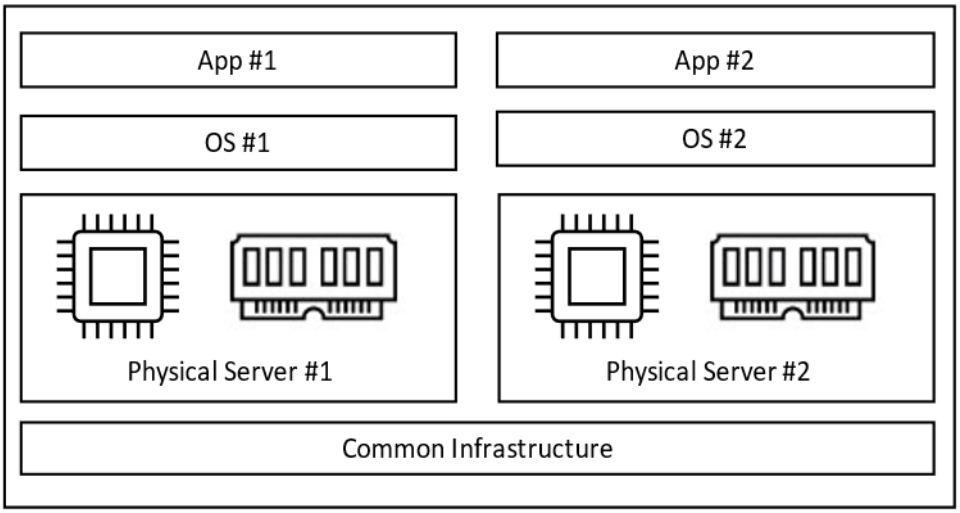
Search

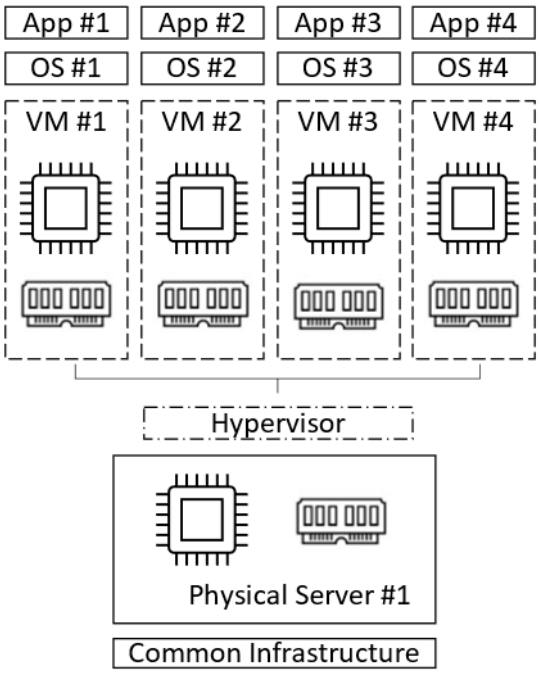
- Overview
- Diagnose and solve problems
- Access Control (IAM)

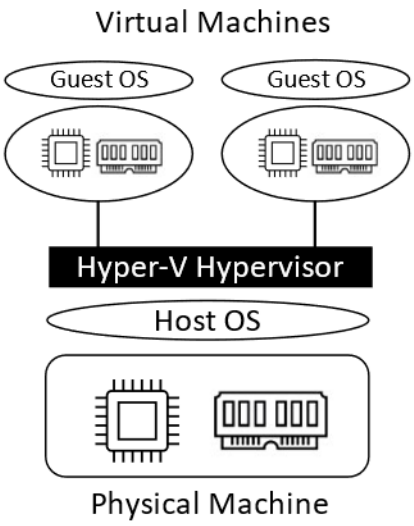
Identity-based authentication (Active Directory) for Azure file shares

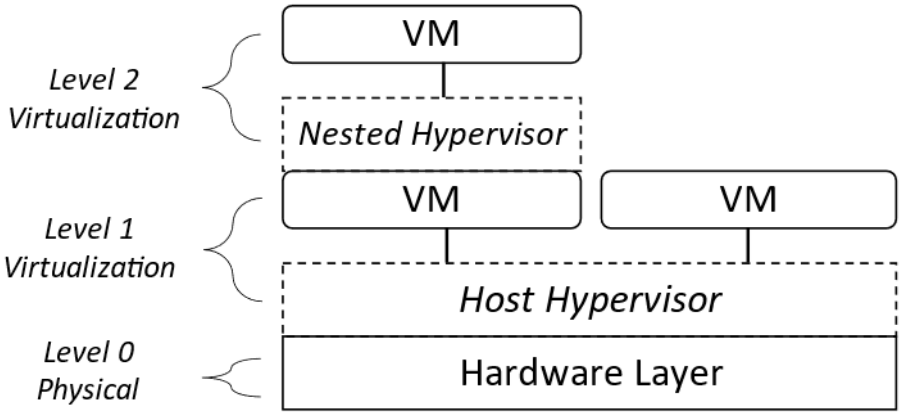
To give individual accounts access to the file share (Kerberos), enable identity-based authentication for the storage account. Learn more

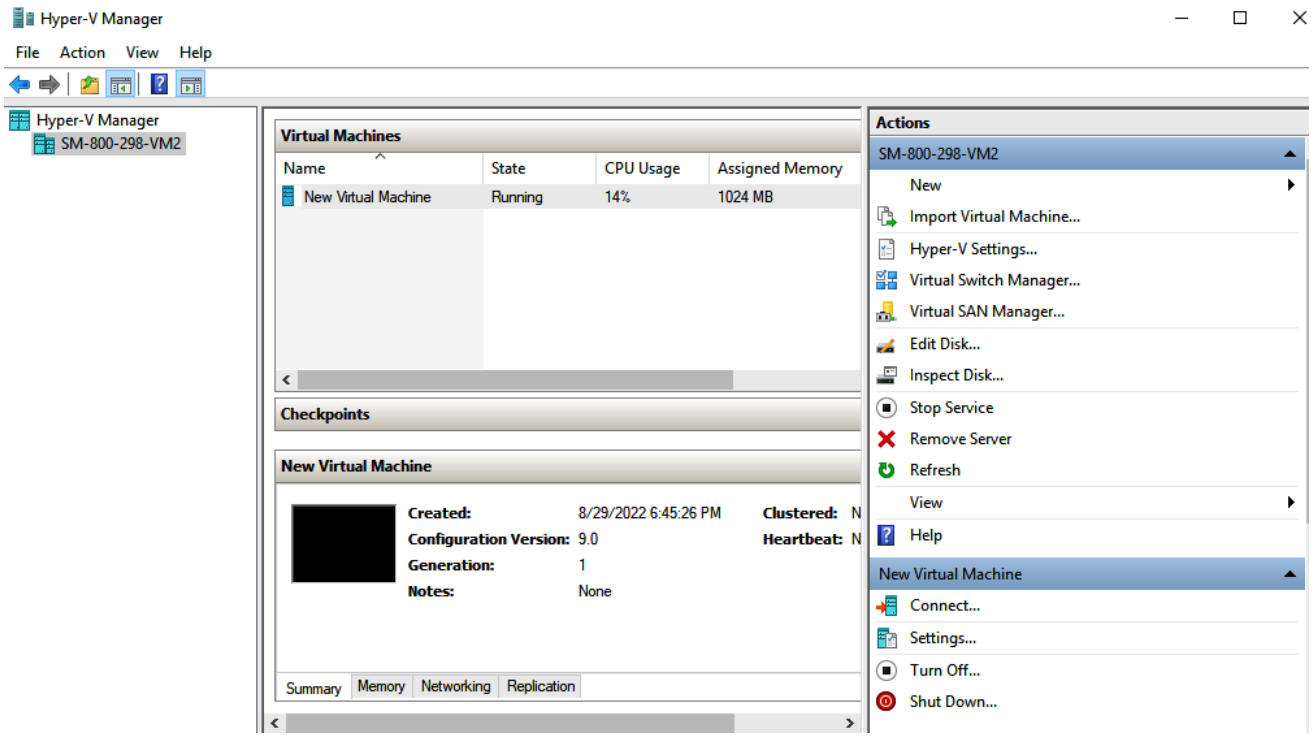
Chapter 9: Implementing and Managing Hyper-V on Windows Server






Virtual Machines
Guest OS
Guest OS
Hyper-V Hypervisor
Host OS
Physical Machine


Level 2
Virtualization
VM
Nested Hypervisor
Level 1
Virtualization
VM
VM
Host Hypervisor
Level 0
Physical
Hardware Layer


Hyper-V Manager
File Action View Help
Hyper-V Manager
SM-800-298-VM2
Virtual Machines
Name State CPU Usage Assigned Memory
New Virtual Machine Running 14% 1024 MB
Checkpoints
New Virtual Machine
Created: 8/29/2022 6:45:26 PM
Configuration Version: 9.0
Generation: 1
Notes: None
Clustered:
Heartbeat:
Summary Memory Networking Replication
Actions
SM-800-298-VM2
New
Import Virtual Machine...
Hyper-V Settings...
Virtual Switch Manager...
Virtual SAN Manager...
Edit Disk...
Inspect Disk...
Stop Service
Remove Server
Refresh
View
Help
New Virtual Machine
Connect...
Settings...
Turn Off...
Shut Down...

Choose the generation of this virtual machine.

○ Generation 1

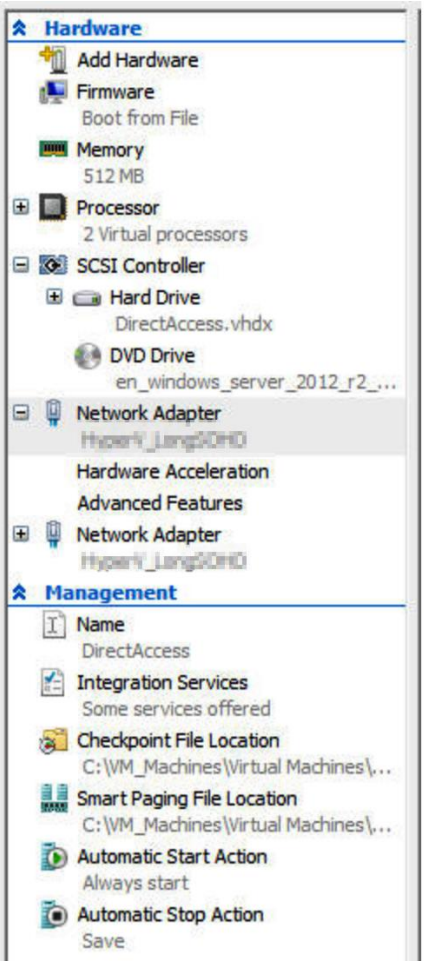
This virtual machine generation supports 32-bit and 64-bit guest operating systems and provides virtual hardware which has been available in all previous versions of Hyper-V.

◉ Generation 2

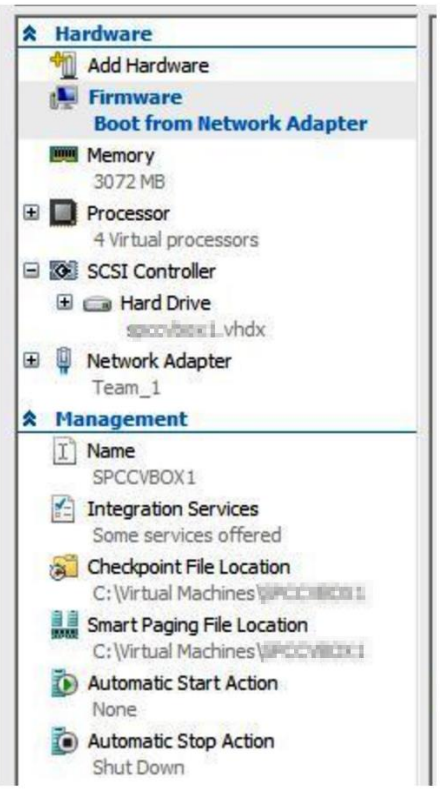
This virtual machine generation provides support for newer virtualization features, has UEFI-based firmware, and requires a supported 64-bit guest operating system.

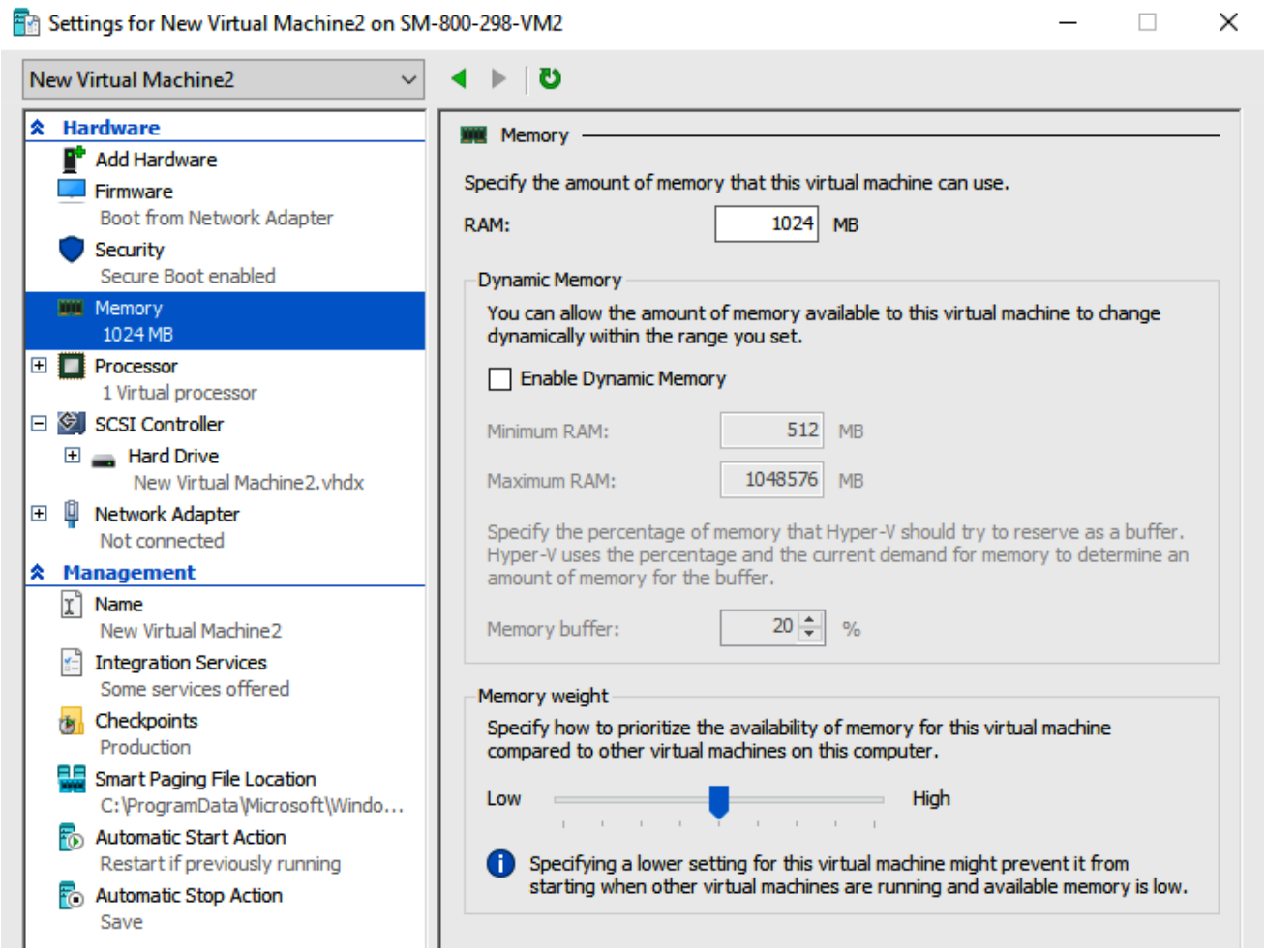
⚠ Once a virtual machine has been created, you cannot change its generation.

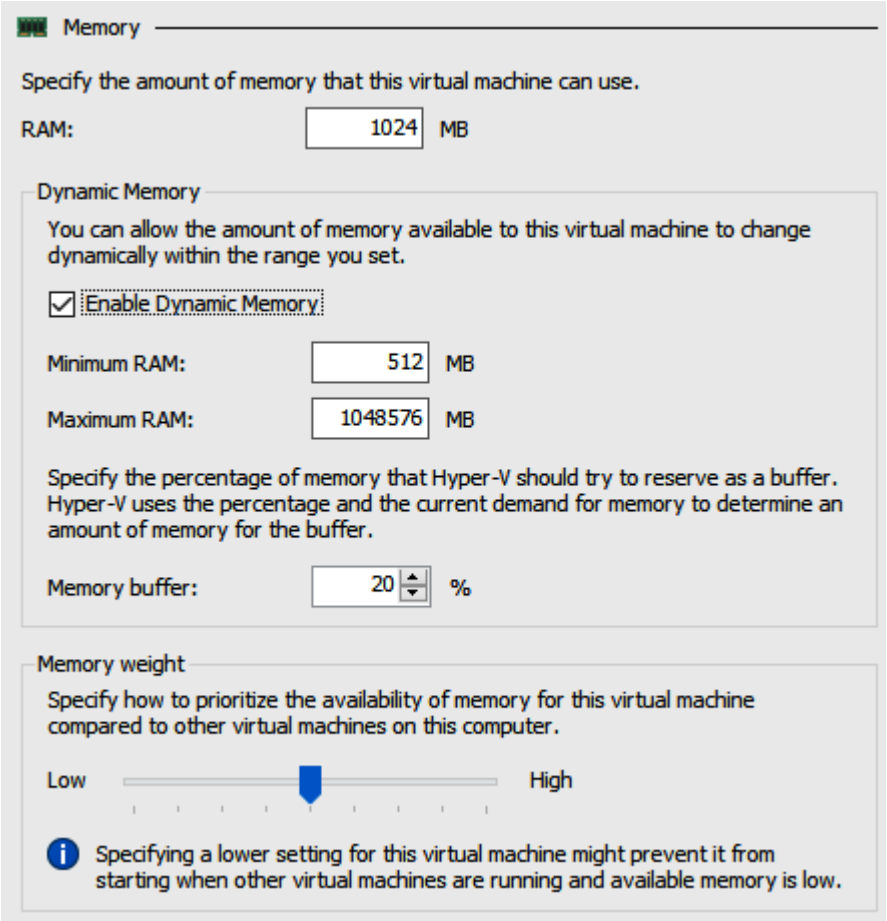
Generation 1 Settings



Generation 2 Settings




Settings for New Virtual Machine2 on SM-800-298-VM2
New Virtual Machine2
Hardware
Add Hardware
Firmware
Boot from Network Adapter
Security
Secure Boot enabled
Memory
1024 MB
Processor
1 Virtual processor
SCSI Controller
Hard Drive
New Virtual Machine2.vhdx
Network Adapter
Not connected
Management
Name
New Virtual Machine2
Integration Services
Some services offered
Checkpoints
Production
Smart Paging File Location
C:\ProgramData\Microsoft\Windo...
Automatic Start Action
Restart if previously running
Automatic Stop Action
Save
Memory
Specify the amount of memory that this virtual machine can use.
RAM:
1024
MB
Dynamic Memory
You can allow the amount of memory available to this virtual machine to change dynamically within the range you set.
Enable Dynamic Memory
Minimum RAM:
512
MB
Maximum RAM:
1048576
MB
Specify the percentage of memory that Hyper-V should try to reserve as a buffer. Hyper-V uses the percentage and the current demand for memory to determine an amount of memory for the buffer.
Memory buffer:
20
%
Memory weight
Specify how to prioritize the availability of memory for this virtual machine compared to other virtual machines on this computer.
Low
High
Specifying a lower setting for this virtual machine might prevent it from starting when other virtual machines are running and available memory is low.


Memory
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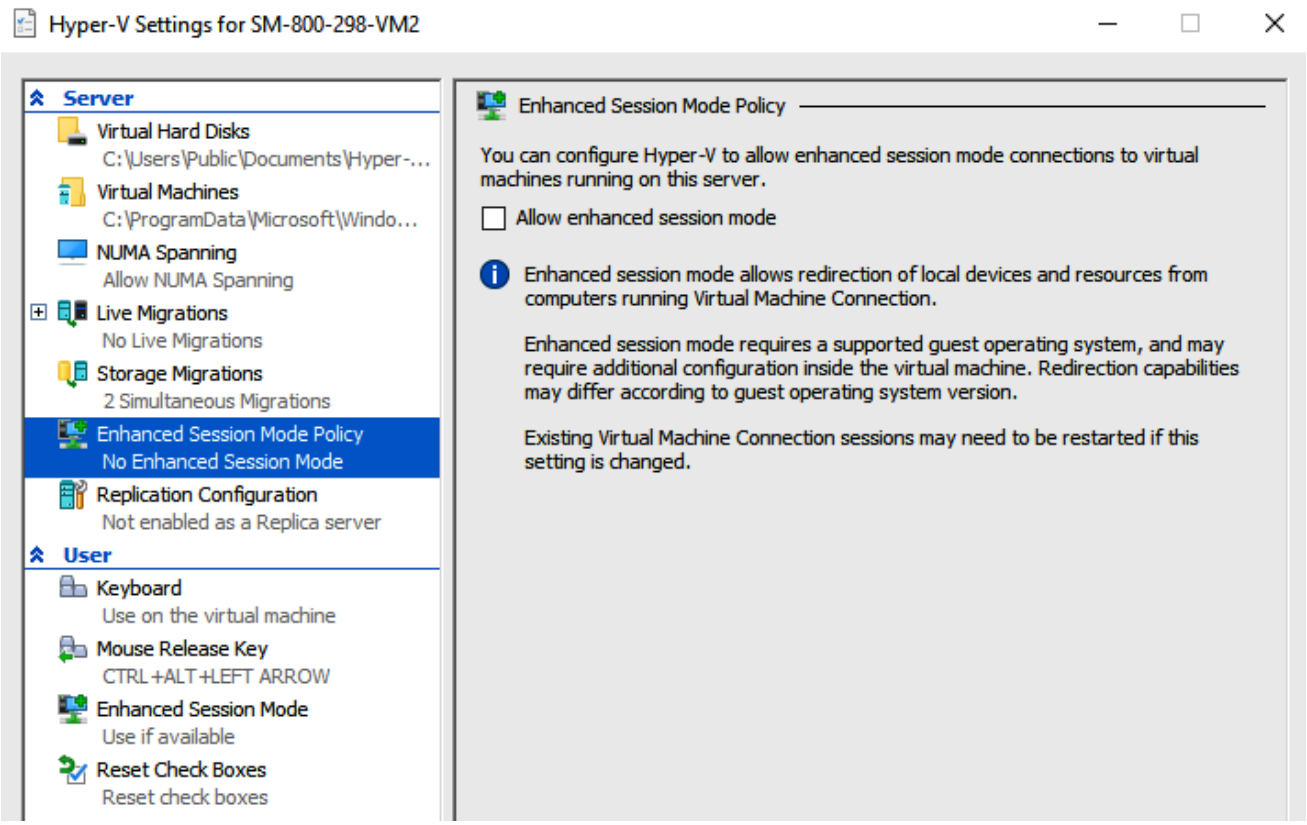
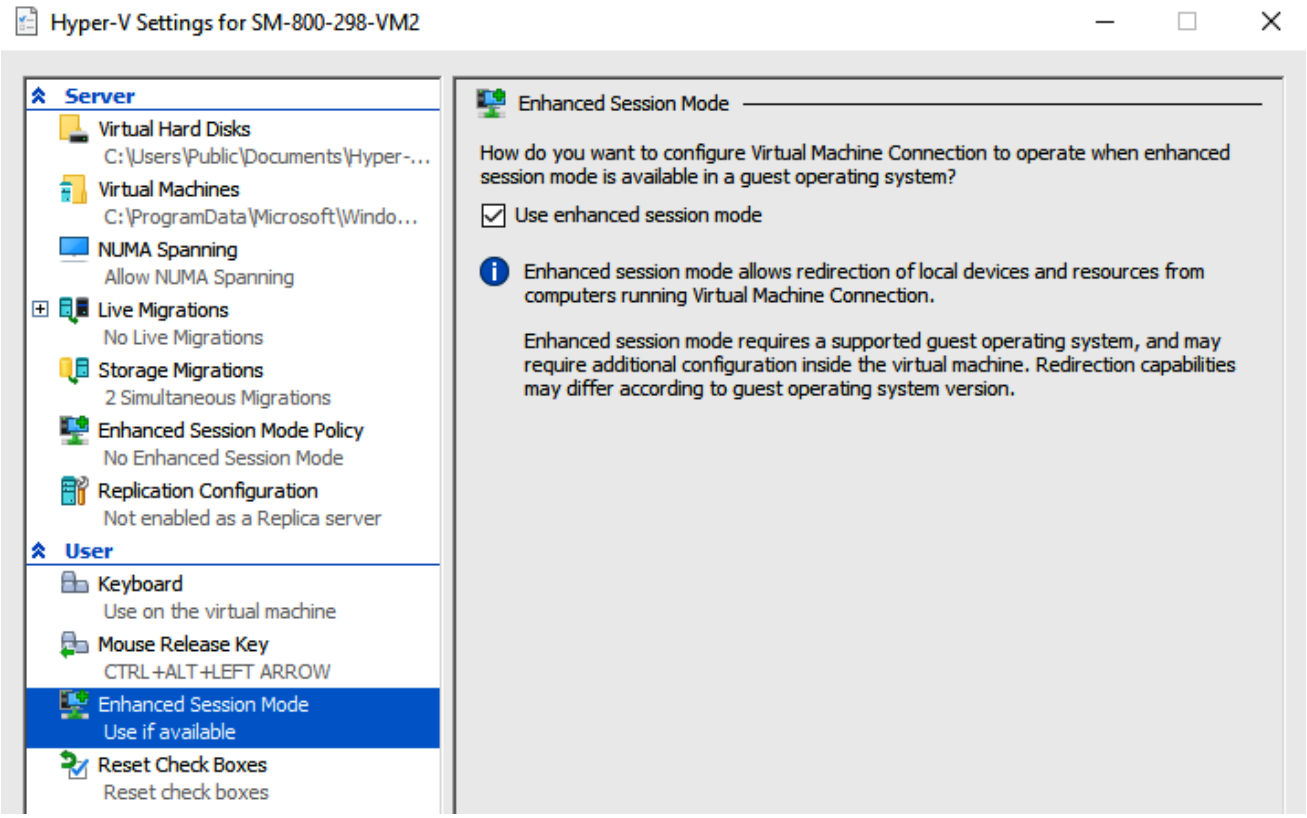
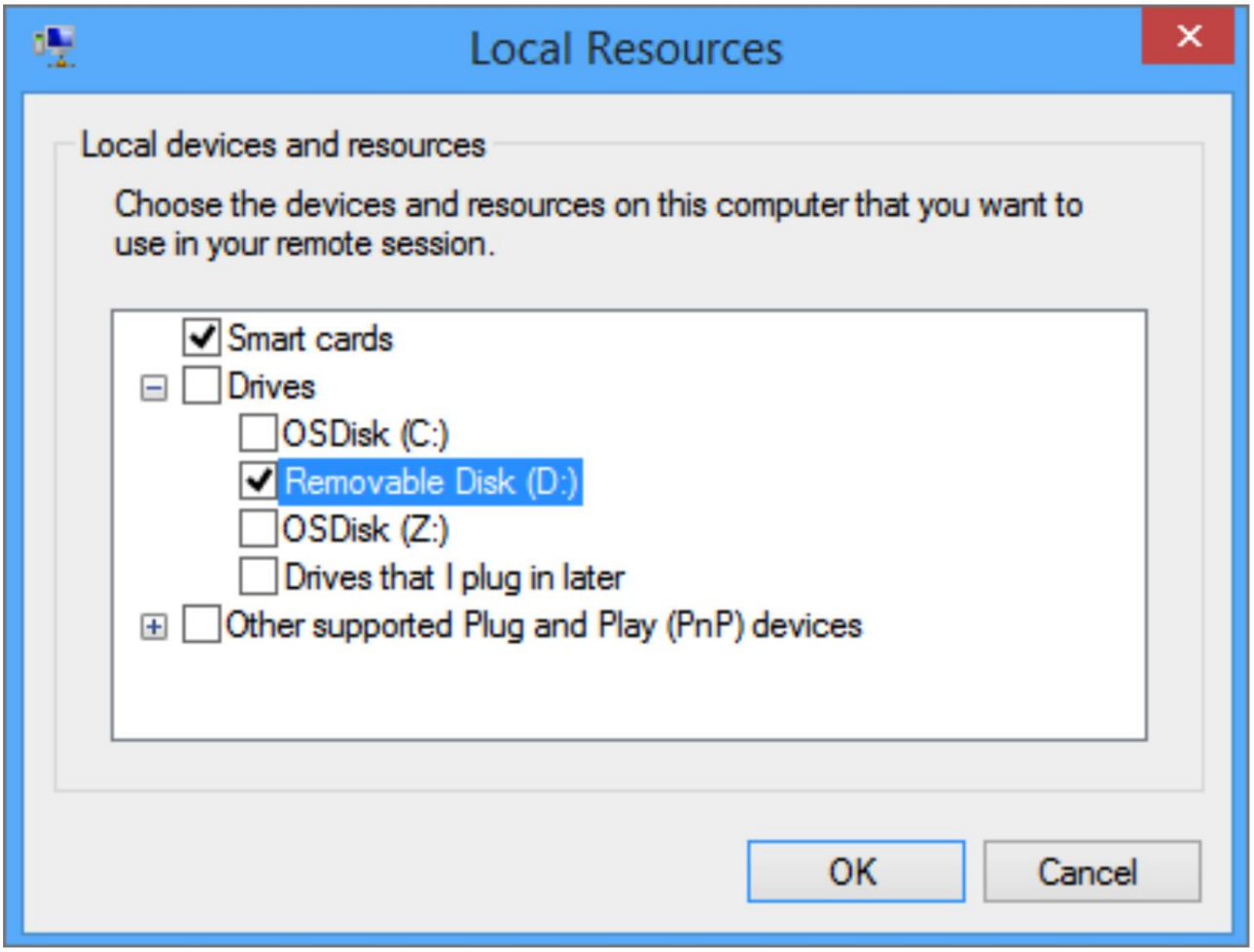
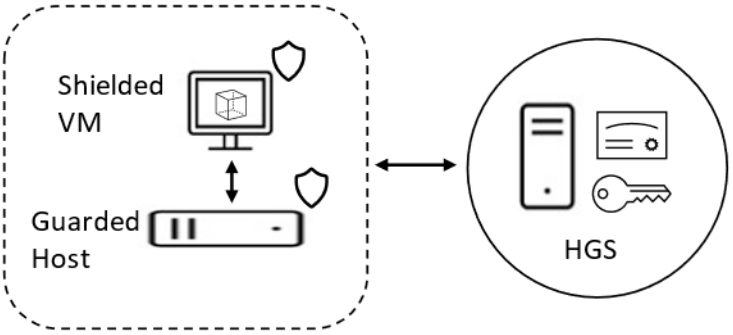
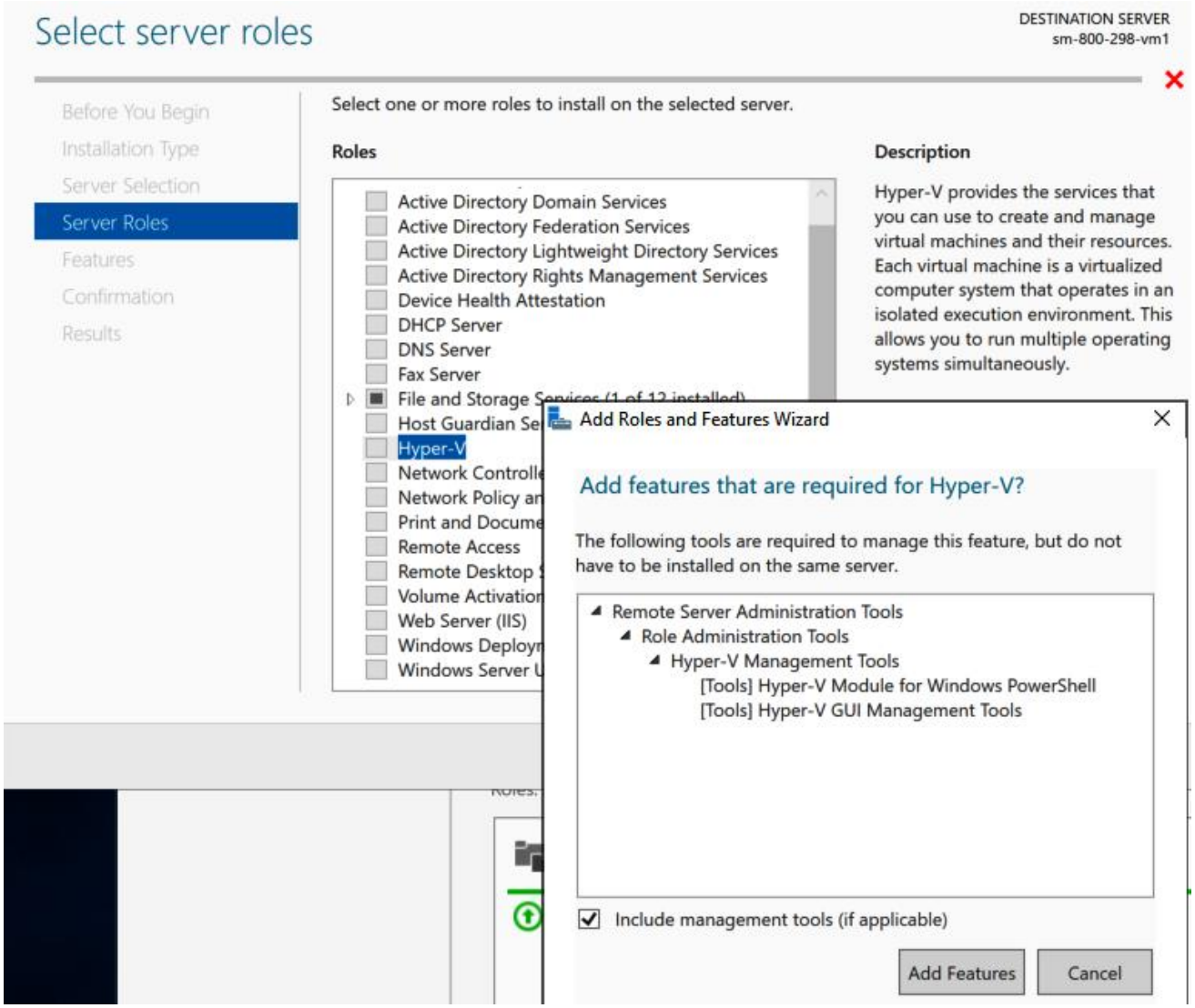
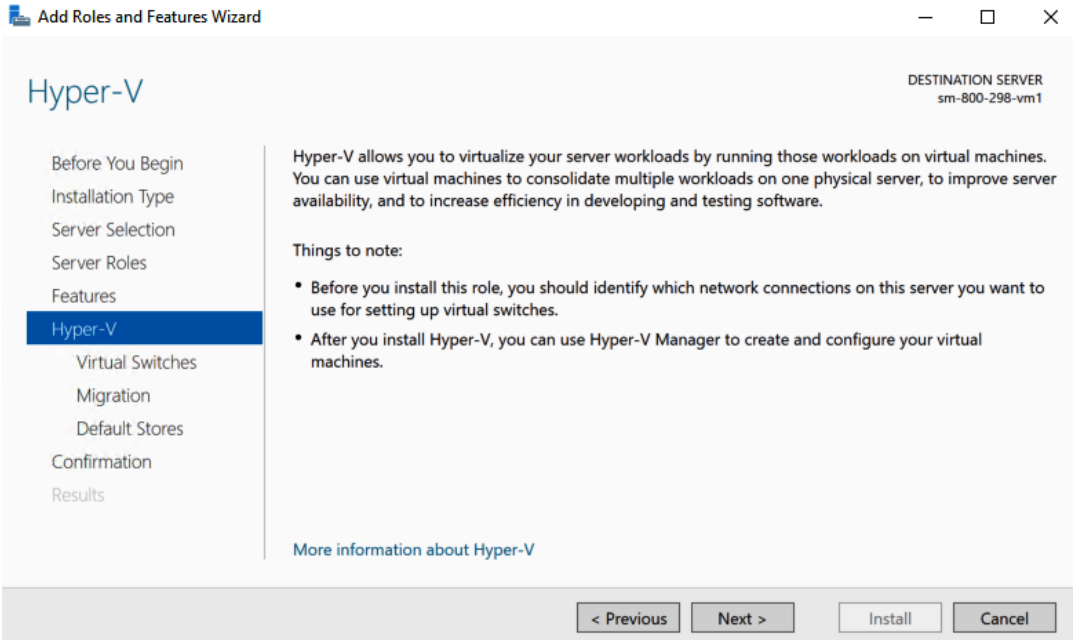

Hyper-V Settings for SM-800-298-VM2
Server
Virtual Hard Disks
C:\Users\Public\Documents\Hyper-...
Virtual Machines
C:\ProgramData\Microsoft\Windo...
NUMA Spanning
Allow NUMA Spanning
Live Migrations
No Live Migrations
Storage Migrations
2 Simultaneous Migrations
Enhanced Session Mode Policy
No Enhanced Session Mode
Replication Configuration
Not enabled as a Replica server
User
Keyboard
Use on the virtual machine
Mouse Release Key
CTRL+ALT+LEFT ARROW
Enhanced Session Mode
Use if available
Reset Check Boxes
Reset check boxes
Enhanced Session Mode Policy
You can configure Hyper-V to allow enhanced session mode connections to virtual machines running on this server.
Allow enhanced session mode
Enhanced session mode allows redirection of local devices and resources from computers running Virtual Machine Connection.
Enhanced session mode requires a supported guest operating system, and may require additional configuration inside the virtual machine. Redirection capabilities may differ according to guest operating system version.
Existing Virtual Machine Connection sessions may need to be restarted if this setting is changed.

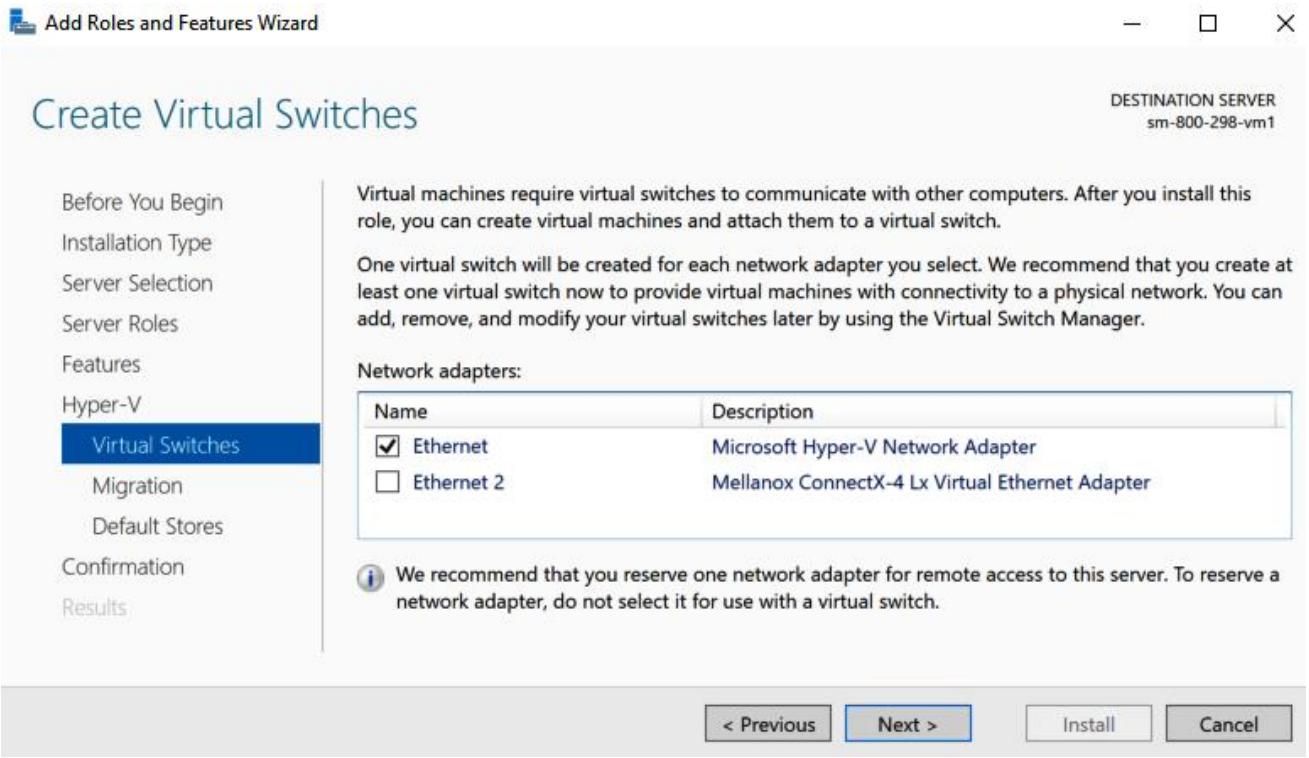

Hyper-V Settings for SM-800-298-VM2
Server
Virtual Hard Disks
C:\Users\Public\Documents\Hyper-...
Virtual Machines
C:\ProgramData\Microsoft\Windo...
NUMA Spanning
Allow NUMA Spanning
Live Migrations
No Live Migrations
Storage Migrations
2 Simultaneous Migrations
Enhanced Session Mode Policy
No Enhanced Session Mode
Replication Configuration
Not enabled as a Replica server
User
Keyboard
Use on the virtual machine
Mouse Release Key
CTRL+ALT+LEFT ARROW
Enhanced Session Mode
Use if available
Reset Check Boxes
Reset check boxes
Enhanced Session Mode
How do you want to configure Virtual Machine Connection to operate when enhanced session mode is available in a guest operating system?
Use enhanced session mode
Enhanced session mode allows redirection of local devices and resources from computers running Virtual Machine Connection.
Enhanced session mode requires a supported guest operating system, and may require additional configuration inside the virtual machine. Redirection capabilities may differ according to guest operating system version.


Local Resources
Local devices and resources
Choose the devices and resources on this computer that you want to use in your remote session.
Smart cards
Drives
OSDisk (C:)
Removable Disk (D:)
OSDisk (Z:)
Drives that I plug in later
Other supported Plug and Play (PnP) devices
OK
Cancel


Shielded
VM
Guarded
Host
HGS


Select server roles
DESTINATION SERVER
sm-800-298-vm1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results
Select one or more roles to install on the selected server.
Roles
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)
Hyper-V
Remote Access
Web Server (IIS)
Description
Hyper-V provides the services that you can use to create and manage virtual machines and their resources. Each virtual machine is a virtualized computer system that operates in an isolated execution environment. This allows you to run multiple operating systems simultaneously.
Add Roles and Features Wizard
Add features that are required for Hyper-V?
The following tools are required to manage this feature, but do not have to be installed on the same server.
Remote Server Administration Tools
Role Administration Tools
Hyper-V Management Tools
[Tools] Hyper-V Module for Windows PowerShell
[Tools] Hyper-V GUI Management Tools
Include management tools (if applicable)
Add Features
Cancel


Add Roles and Features Wizard
Hyper-V
DESTINATION SERVER
sm-800-298-vm1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Hyper-V
Virtual Switches
Migration
Default Stores
Confirmation
Results
Hyper-V allows you to virtualize your server workloads by running those workloads on virtual machines. You can use virtual machines to consolidate multiple workloads on one physical server, to improve server availability, and to increase efficiency in developing and testing software.
Things to note:
Before you install this role, you should identify which network connections on this server you want to use for setting up virtual switches.
After you install Hyper-V, you can use Hyper-V Manager to create and configure your virtual machines.
More information about Hyper-V
< Previous
Next >
Install
Cancel


Add Roles and Features Wizard
Create Virtual Switches
DESTINATION SERVER
sm-800-298-vm1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Hyper-V
Virtual Switches
Migration
Default Stores
Confirmation
Results
Virtual machines require virtual switches to communicate with other computers. After you install this role, you can create virtual machines and attach them to a virtual switch.
One virtual switch will be created for each network adapter you select. We recommend that you create at least one virtual switch now to provide virtual machines with connectivity to a physical network. You can add, remove, and modify your virtual switches later by using the Virtual Switch Manager.
Network adapters:
Name
Description
Ethernet
Microsoft Hyper-V Network Adapter
Ethernet 2
Mellanox ConnectX-4 Lx Virtual Ethernet Adapter
We recommend that you reserve one network adapter for remote access to this server. To reserve a network adapter, do not select it for use with a virtual switch.
< Previous
Next >
Install
Cancel

Add Roles and Features Wizard

Virtual Machine Migration

DESTINATION SERVER
sm-800-298-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Hyper-V
  - Virtual Switches
  - Migration
  - Default Stores
- Confirmation
- Results

Hyper-V can be configured to send and receive live migrations of virtual machines on this server. Configuring Hyper-V now enables any available network on this server to be used for live migrations. If you want to dedicate specific networks for live migration, use Hyper-V settings after you install the role.

☐ Allow this server to send and receive live migrations of virtual machines

Authentication protocol

Select the protocol you want to use to authenticate live migrations.

◉ Use Credential Security Support Provider (CredSSP)
This protocol is less secure than Kerberos, but does not require you to set up constrained delegation. To perform a live migration, you must be logged on to the source server.

○ Use Kerberos
This protocol is more secure but requires you to set up constrained delegation in your environment to perform tasks such as live migration when managing this server remotely.

⚠ If this server will be part of a cluster, do not enable migration now. Instead, you will configure the server for live migration, including specifying networks, when you create the cluster.

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Default Stores

DESTINATION SERVER
sm-800-298-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Hyper-V
  - Virtual Switches
  - Create Virtual Switches
  - Migration
  - Default Stores
- Confirmation
- Results

Hyper-V uses default locations to store virtual hard disk files and virtual machine configuration files, unless you specify different locations when you create the files. You can change these default locations now, or you can change them later by modifying Hyper-V settings.

Default location for virtual hard disk files:

C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks [Browse...]

Default location for virtual machine configuration files:

C:\ProgramData\Microsoft\Windows\Hyper-V [Browse...]

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Confirm installation selections

DESTINATION SERVER
sm-800-298-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Hyper-V
  - Virtual Switches
  - Migration
  - Default Stores
- Confirmation
- Results

To install the following roles, role services, or features on selected server, click Install.

☑ Restart the destination server automatically if required

Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

Hyper-V
Remote Server Administration Tools
Role Administration Tools
Hyper-V Management Tools
Hyper-V Module for Windows PowerShell
Hyper-V GUI Management Tools

Export
Specif

Add Roles and Features Wizard

If a restart is required, this server restarts automatically, without additional notifications. Do you want to allow automatic restarts?

Yes | No

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Installation progress

DESTINATION SERVER
sm-800-298-vm1

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- Hyper-V
  - Virtual Switches
  - Migration
  - Default Stores
- Confirmation
- Results

View installation progress

Feature installation

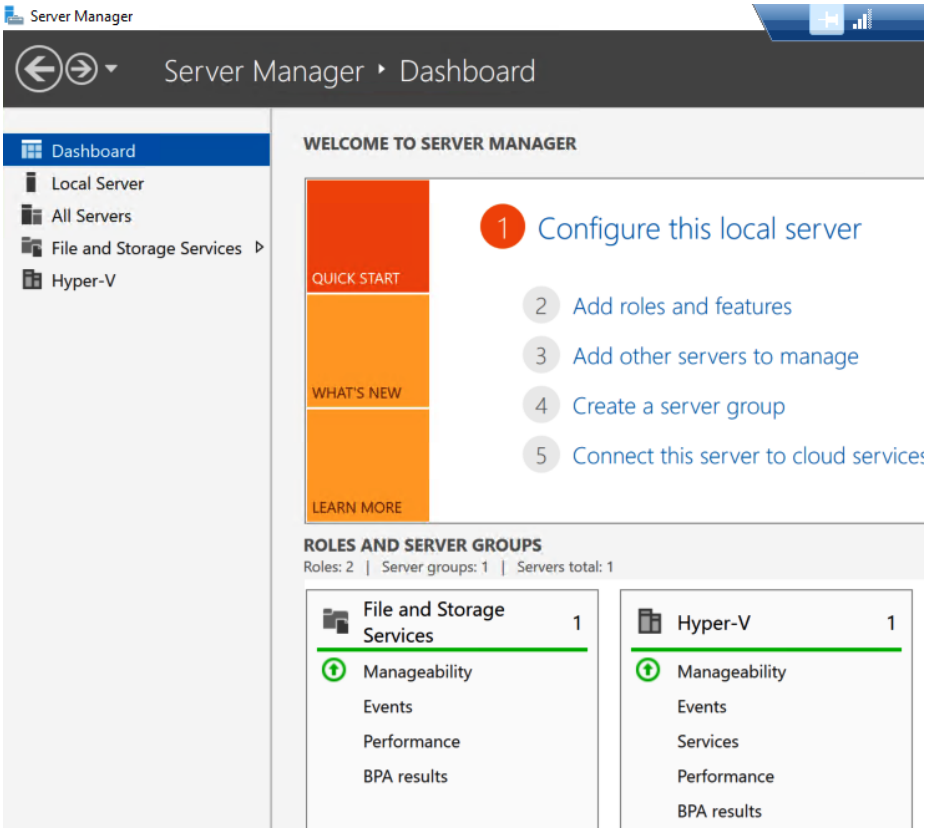
Installation started on sm-800-298-vm1

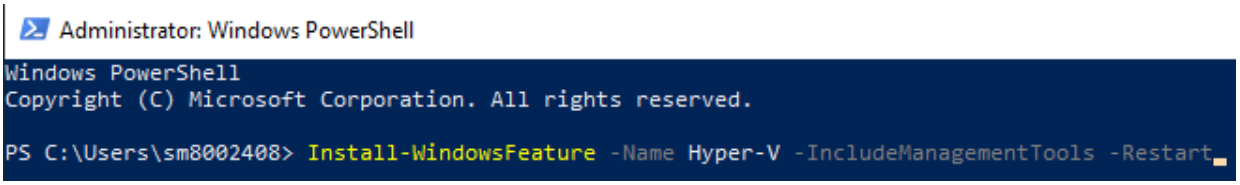
Hyper-V
Remote Server Administration Tools
Role Administration Tools
Hyper-V Management Tools
Hyper-V Module for Windows PowerShell
Hyper-V GUI Management Tools

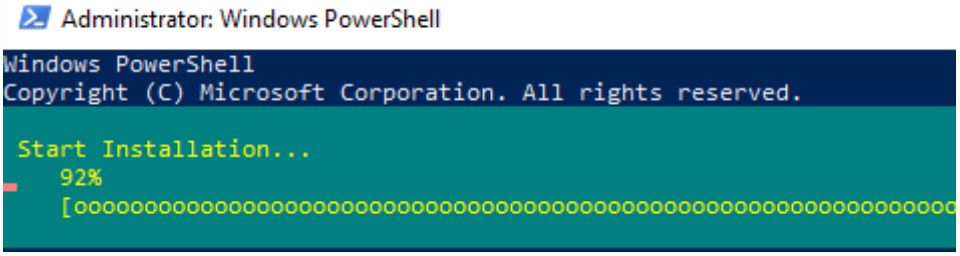
You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

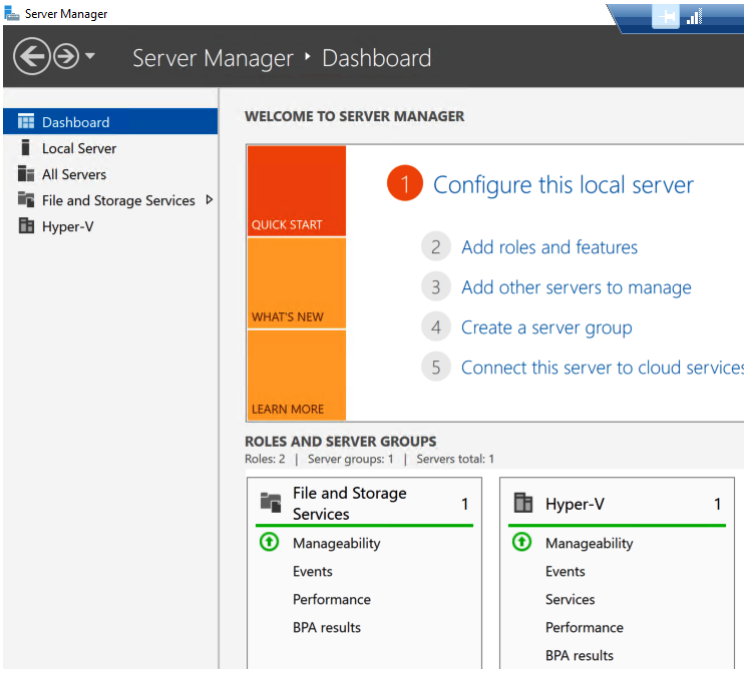
Export configuration settings

< Previous | Next > | Close | Cancel


Server Manager
Server Manager ‣ Dashboard
Dashboard
Local Server
All Servers
File and Storage Services
Hyper-V
WELCOME TO SERVER MANAGER
QUICK START
WHAT'S NEW
LEARN MORE
1 Configure this local server
2 Add roles and features
3 Add other servers to manage
4 Create a server group
5 Connect this server to cloud services
ROLES AND SERVER GROUPS
Roles: 2 | Server groups: 1 | Servers total: 1
File and Storage Services 1
Manageability
Events
Performance
BPA results
Hyper-V 1
Manageability
Events
Services
Performance
BPA results


Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
PS C:\Users\sm8002408> Install-WindowsFeature -Name Hyper-V -IncludeManagementTools -Restart


Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Start Installation...
92%
[oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo


Server Manager
Server Manager ‣ Dashboard
Dashboard
Local Server
All Servers
File and Storage Services
Hyper-V
WELCOME TO SERVER MANAGER
QUICK START
WHAT'S NEW
LEARN MORE
1 Configure this local server
2 Add roles and features
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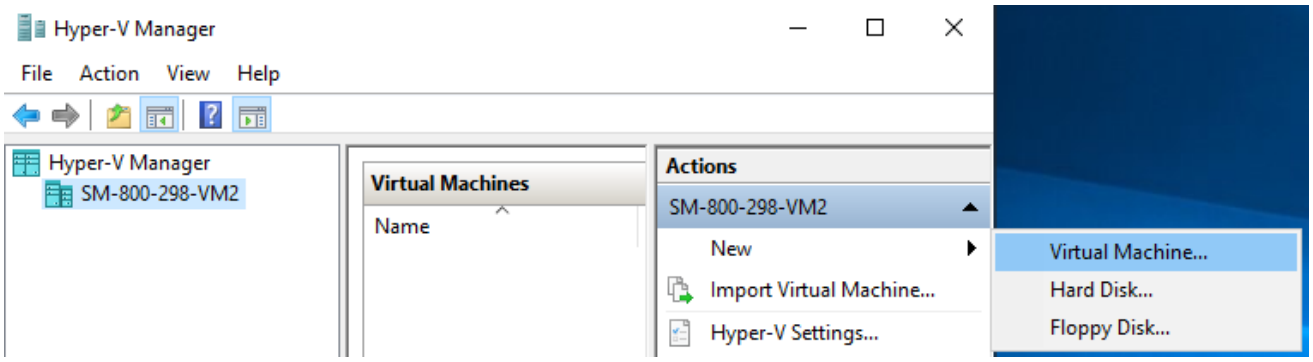
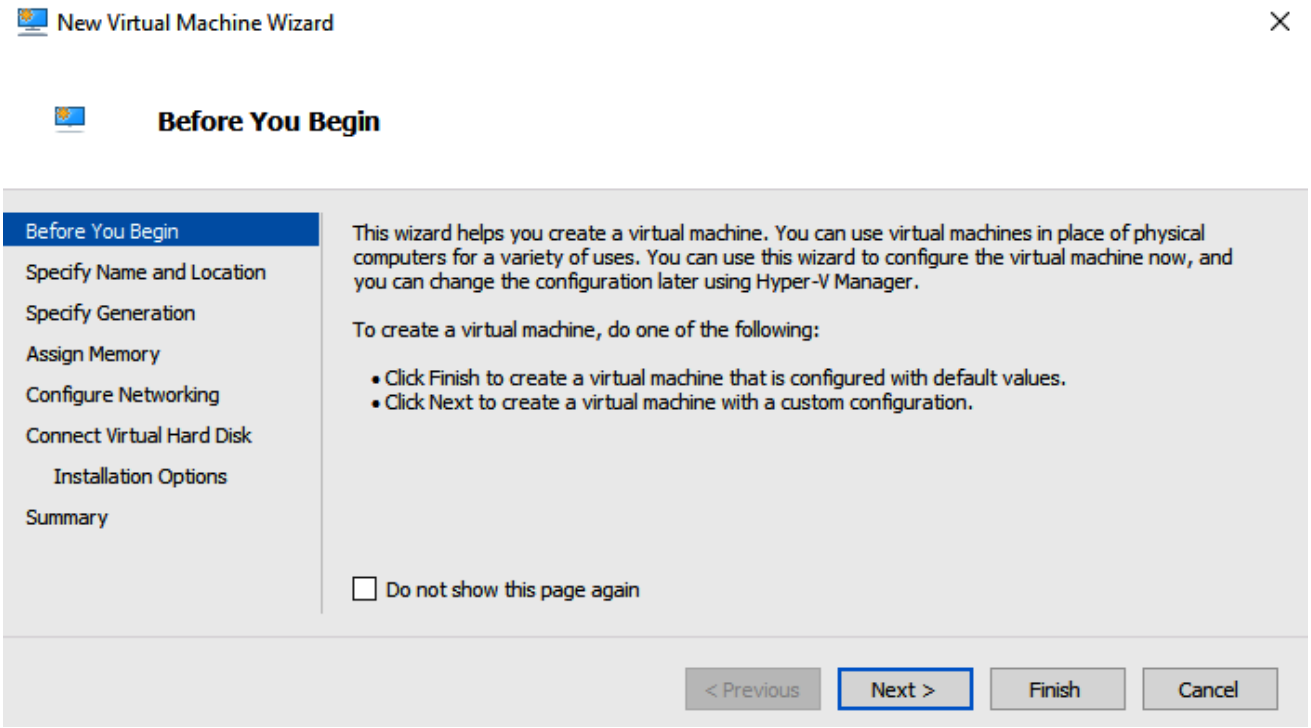
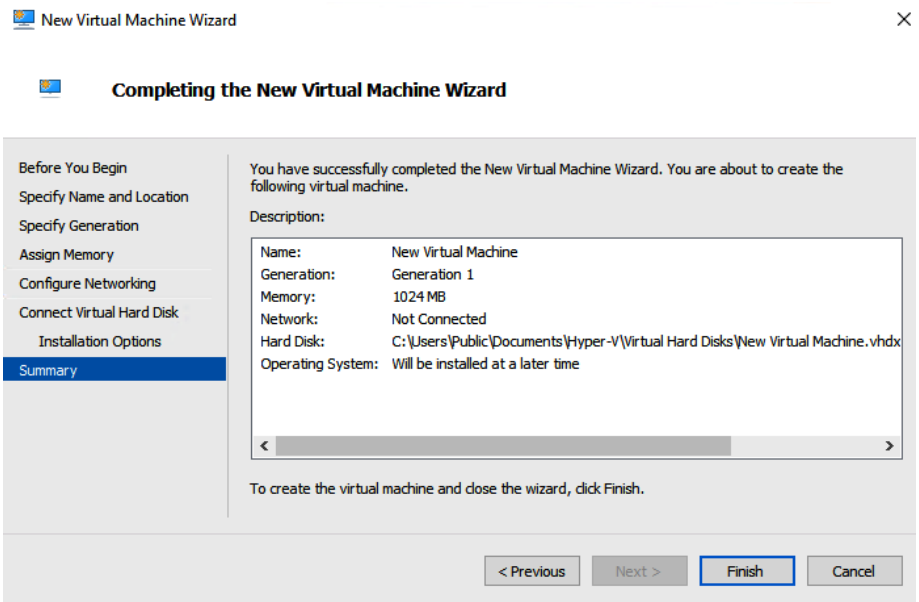
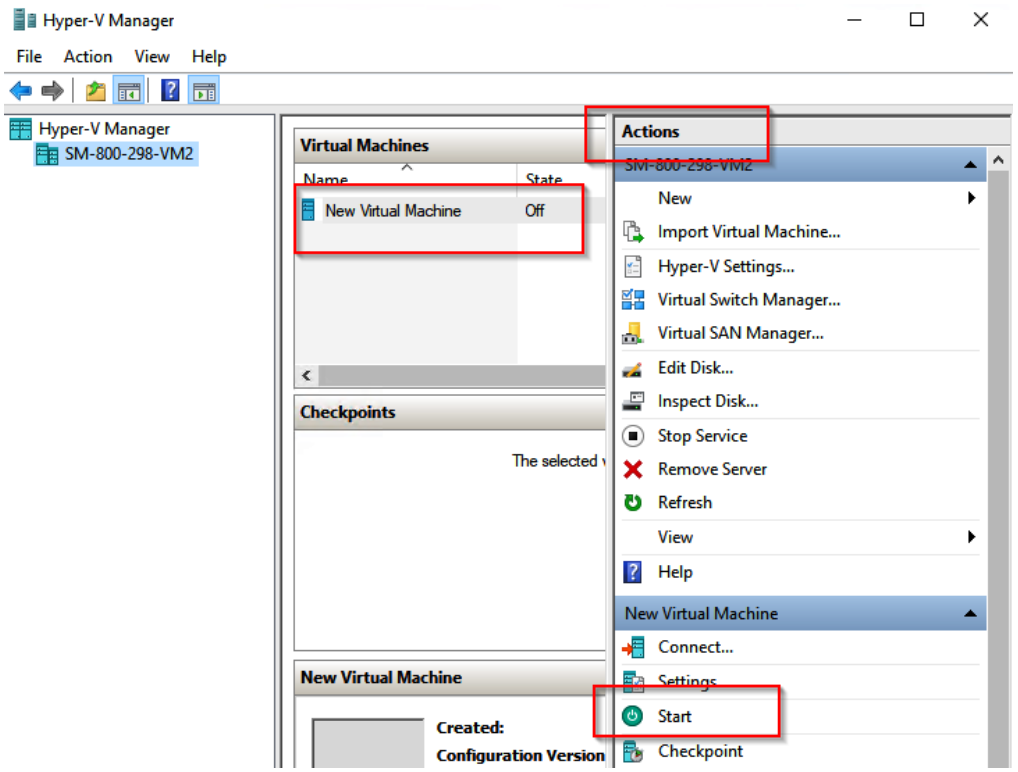
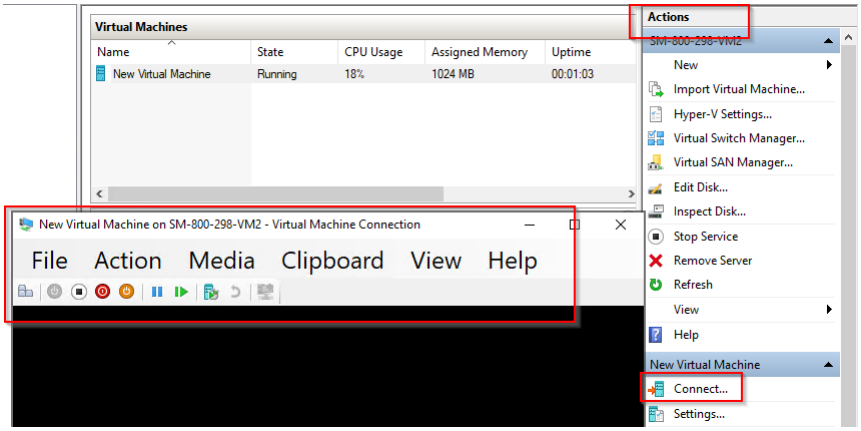
ROLES AND SERVER GROUPS
Roles: 2 | Server groups: 1 | Servers total: 1
File and Storage Services 1
Manageability
Events
Performance
BPA results
Hyper-V 1
Manageability
Events
Services
Performance
BPA results


Hyper-V Manager
File Action View Help
Hyper-V Manager
SM-800-298-VM2
Virtual Machines
Name
Actions
SM-800-298-VM2
New
Import Virtual Machine...
Hyper-V Settings...
Virtual Machine...
Hard Disk...
Floppy Disk...

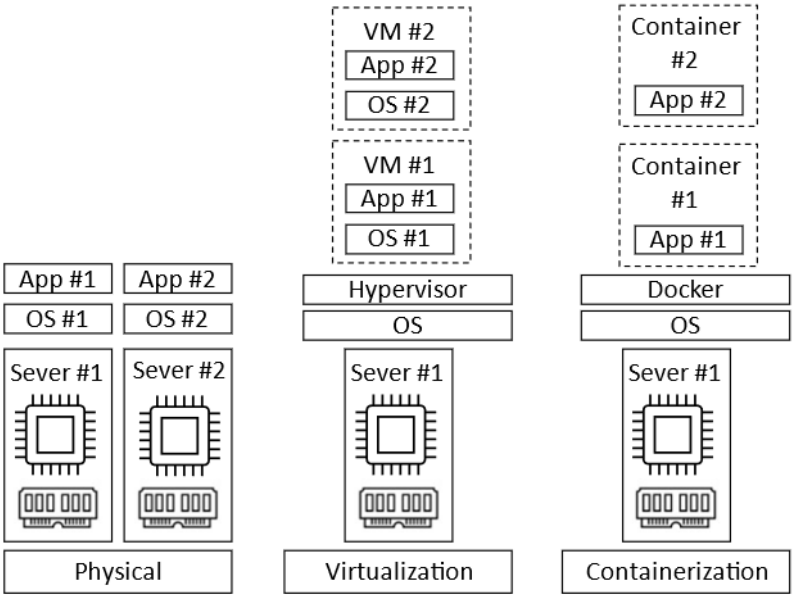

New Virtual Machine Wizard
Before You Begin
Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
Configure Networking
Connect Virtual Hard Disk
Installation Options
Summary
This wizard helps you create a virtual machine. You can use virtual machines in place of physical computers for a variety of uses. You can use this wizard to configure the virtual machine now, and you can change the configuration later using Hyper-V Manager.
To create a virtual machine, do one of the following:
• Click Finish to create a virtual machine that is configured with default values.
• Click Next to create a virtual machine with a custom configuration.
Do not show this page again
< Previous
Next >
Finish
Cancel

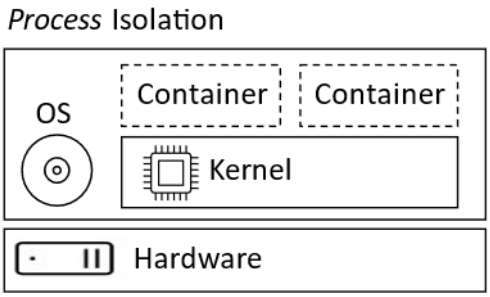

New Virtual Machine Wizard
Completing the New Virtual Machine Wizard
Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
Configure Networking
Connect Virtual Hard Disk
Installation Options
Summary
You have successfully completed the New Virtual Machine Wizard. You are about to create the following virtual machine.
Description:
Name: New Virtual Machine
Generation: Generation 1
Memory: 1024 MB
Network: Not Connected
Hard Disk: C:\Users\Public\Documents\Hyper-V\Virtual Hard Disks\New Virtual Machine.vhdx
Operating System: Will be installed at a later time
To create the virtual machine and close the wizard, click Finish.
< Previous
Next >
Finish
Cancel

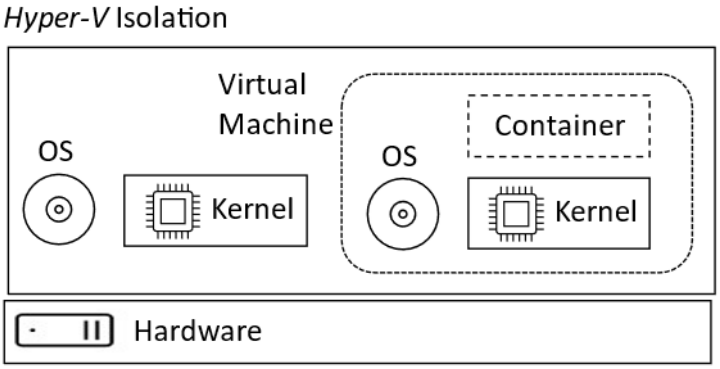

Hyper-V Manager
File Action View Help
Hyper-V Manager
SM-800-298-VM2
Virtual Machines
Name
State
New Virtual Machine
Off
Checkpoints
The selected
New Virtual Machine
Created:
Configuration Version
Actions
SM-800-298-VM2
New
Import Virtual Machine...
Hyper-V Settings...
Virtual Switch Manager...
Virtual SAN Manager...
Edit Disk...
Inspect Disk...
Stop Service
Remove Server
Refresh
View
Help
New Virtual Machine
Connect...
Settings
Start
Checkpoint


Virtual Machines
Name
State
CPU Usage
Assigned Memory
Uptime
New Virtual Machine
Running
18%
1024 MB
00:01:03
New Virtual Machine on SM-800-298-VM2 - Virtual Machine Connection
File Action Media Clipboard View Help
Actions
SM-800-298-VM2
New
Import Virtual Machine...
Hyper-V Settings...
Virtual Switch Manager...
Virtual SAN Manager...
Edit Disk...
Inspect Disk...
Stop Service
Remove Server
Refresh
View
Help
New Virtual Machine
Connect...
Settings...

Chapter 10: Implementing and Managing Windows Server Containers







Windows Admin Center | Settings

Microsoft

Settings

- Language / Region
- Personalization
- Suggestions

Development

- Advanced
- Performance Profile

Gateway

- Access
- Diagnostic & feedback
- Extensions
- General
- Internet Access
- Proxy

Windows Admin Center might restart after installing an extension, temporarily affecting

Automatically update extensions On

Available extensions | Installed extensions | Feeds

Install

Name	Version	Created by
Configuration Manager Client Tool...	1.5.0	Ken Wygant (Microsoft CSA-E)
Containers	1.150.0	Microsoft
DataON MUST Pro	3.0.0	DataON
DataON MUST Visibility, Monitorin...	3.4.0	DataON
Dell EMC PowerPath	1.1.0	Dell EMC
Dell OpenManage Integration	2.3.0	Dell Technologies

Details - Containers

Description

Containers - View containers

Overview - Containers - Containe

admincenter.contoso.com/servermanager/connections/server/admincenter.contoso.com/tools/containers

Windows Admin Center | Server Manager

Microsoft

admincenter.contoso.com

Tools

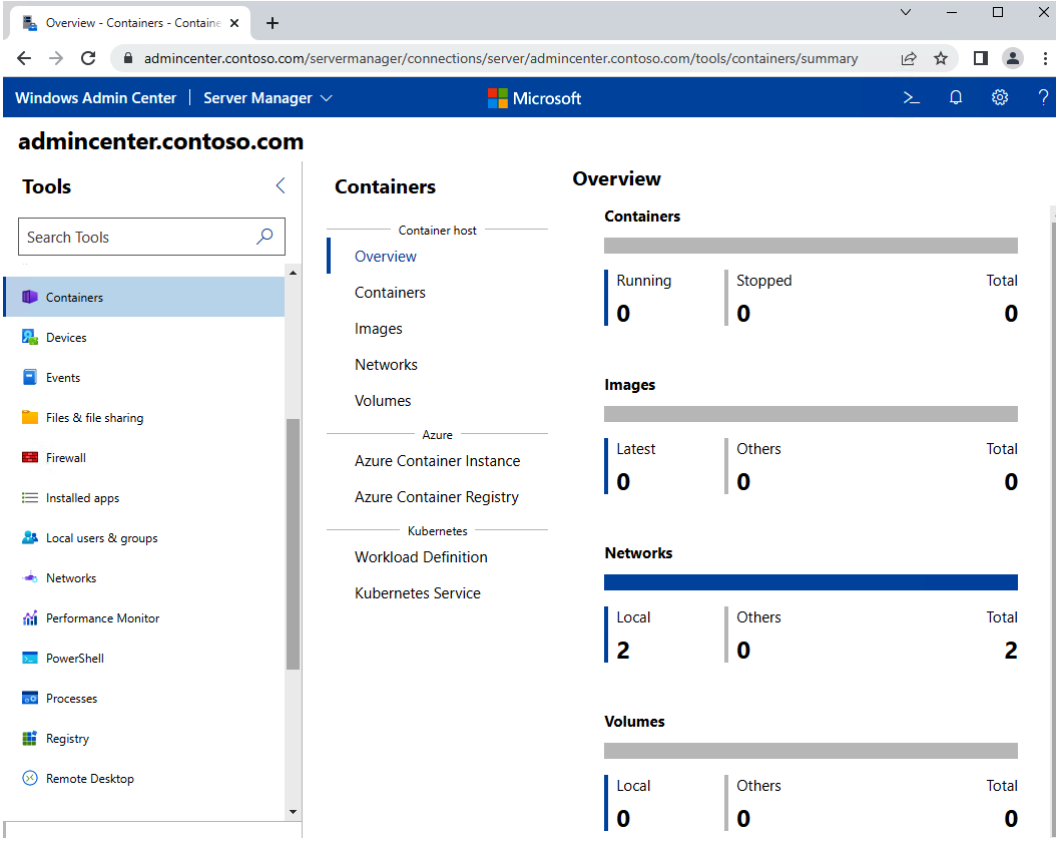
Search Tools

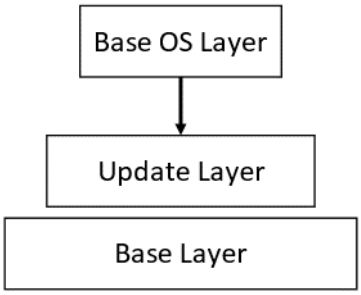
- Containers
- Devices
- Events
- Files & file sharing
- Firewall
- Installed apps
- Local users & groups
- Networks

Containers

To use this tool, we'll also install Docker and restart the computer.

Install

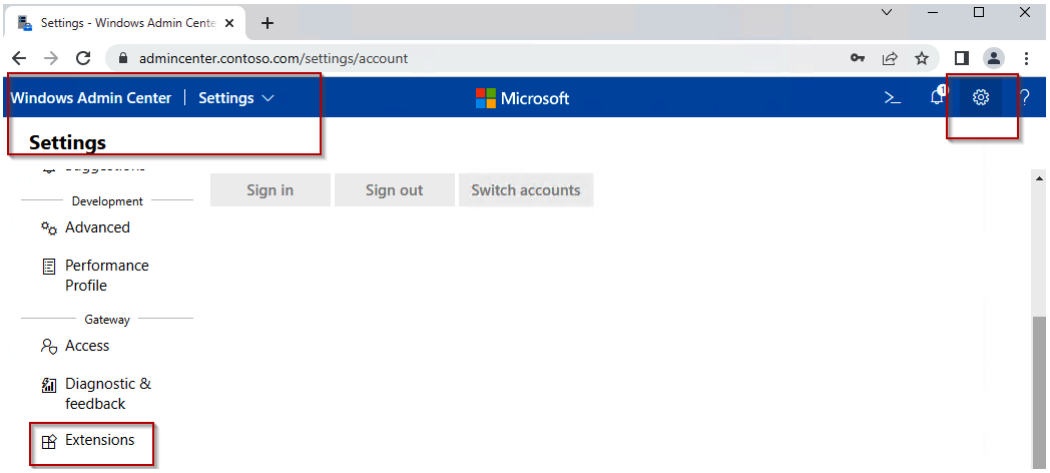


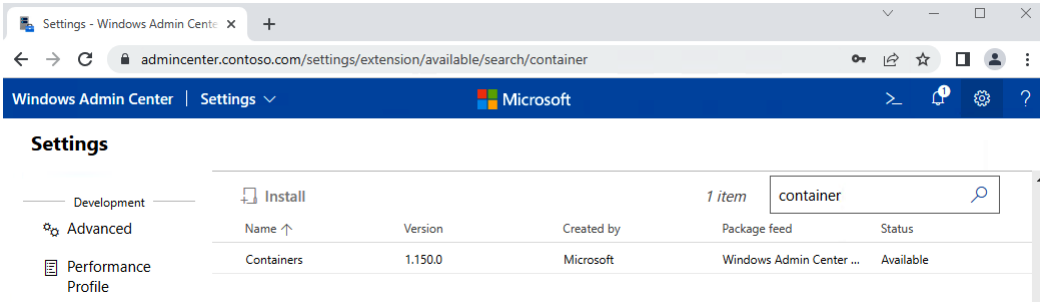


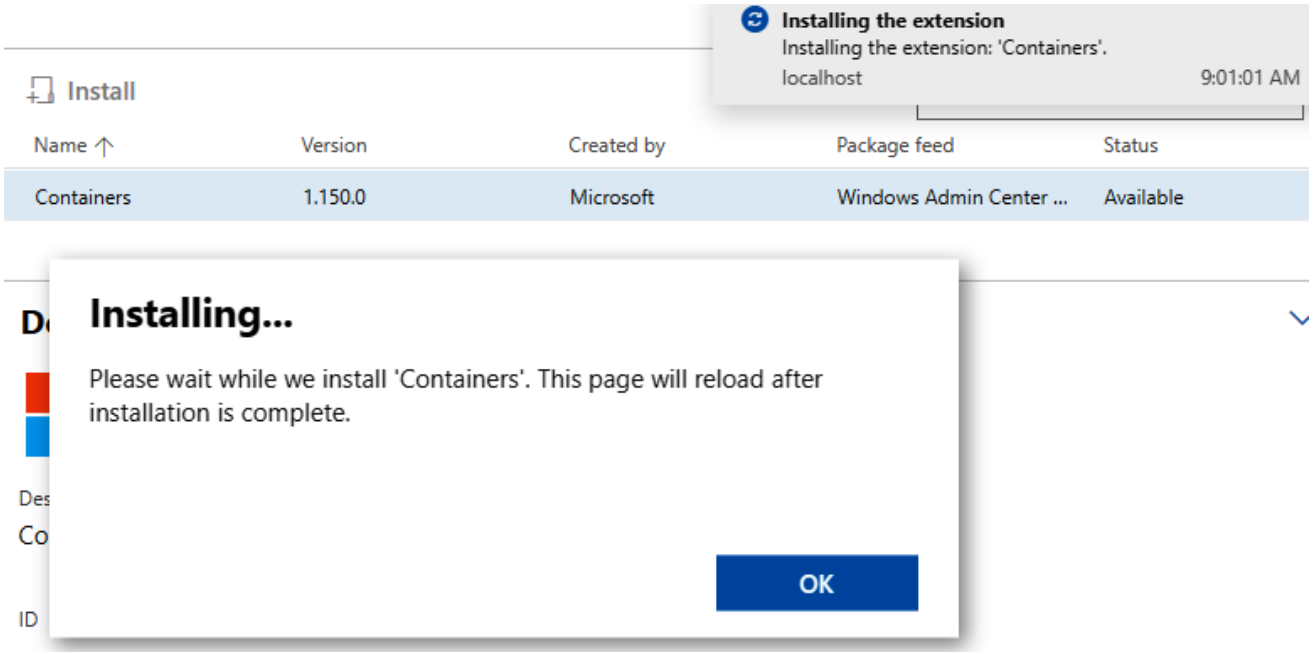

```
PS C:\Users\vmadmin> Install-Package -Name docker -ProviderName DockerMsftProvider
WARNING: A restart is required to enable the containers feature. Please restart your machine.

Name                            Version          Source           Summary
----                            -------          ------           -------
Docker                          20.10.9          DockerDefault    Contains Docker EE for use with Windows Server.
```

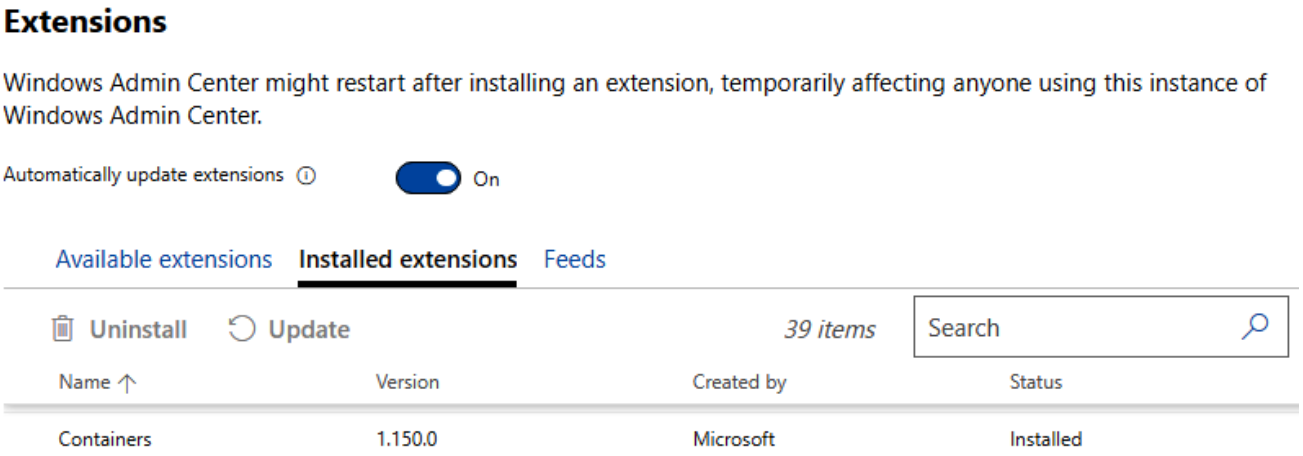
Administrator: Windows PowerShell

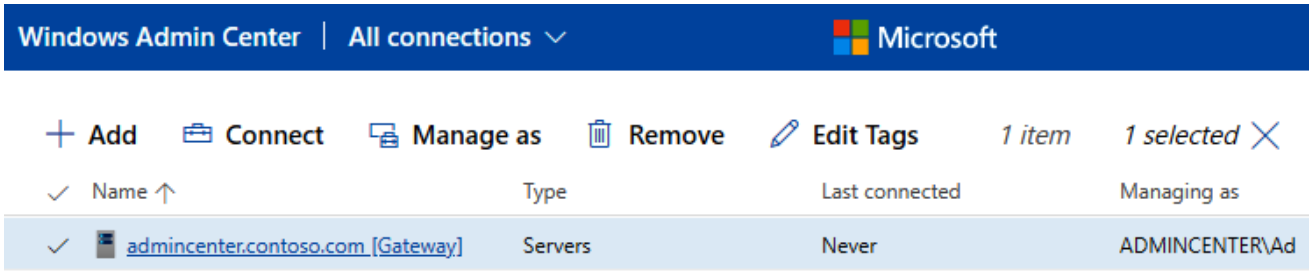
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\vmadmin> Start-Service docker
PS C:\Users\vmadmin> docker version
Client: Mirantis Container Runtime
 Version:           20.10.9
 API version:       1.41
 Go version:        go1.16.12m2
 Git commit:        591094d
 Built:             12/21/2021 21:34:30
 OS/Arch:           windows/amd64
 Context:           default
 Experimental:      true

Server: Mirantis Container Runtime
 Engine:
  Version:          20.10.9
  API version:      1.41 (minimum version 1.24)
  Go version:       go1.16.12m2
  Git commit:       9b96ce992b
  Built:            12/21/2021 21:33:06
  OS/Arch:          windows/amd64
  Experimental:     false
PS C:\Users\vmadmin>
```

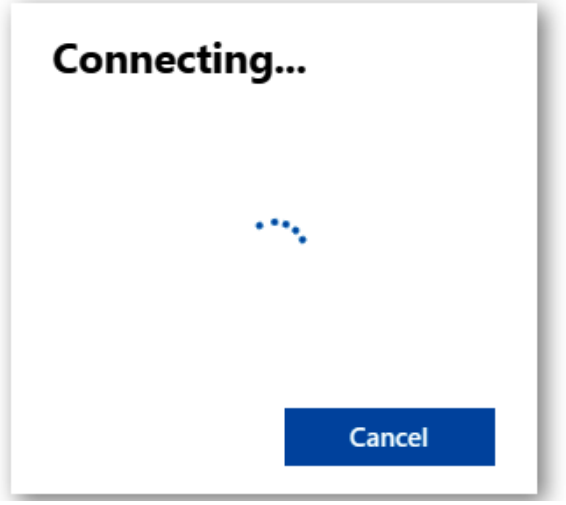


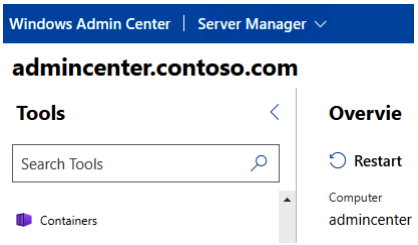


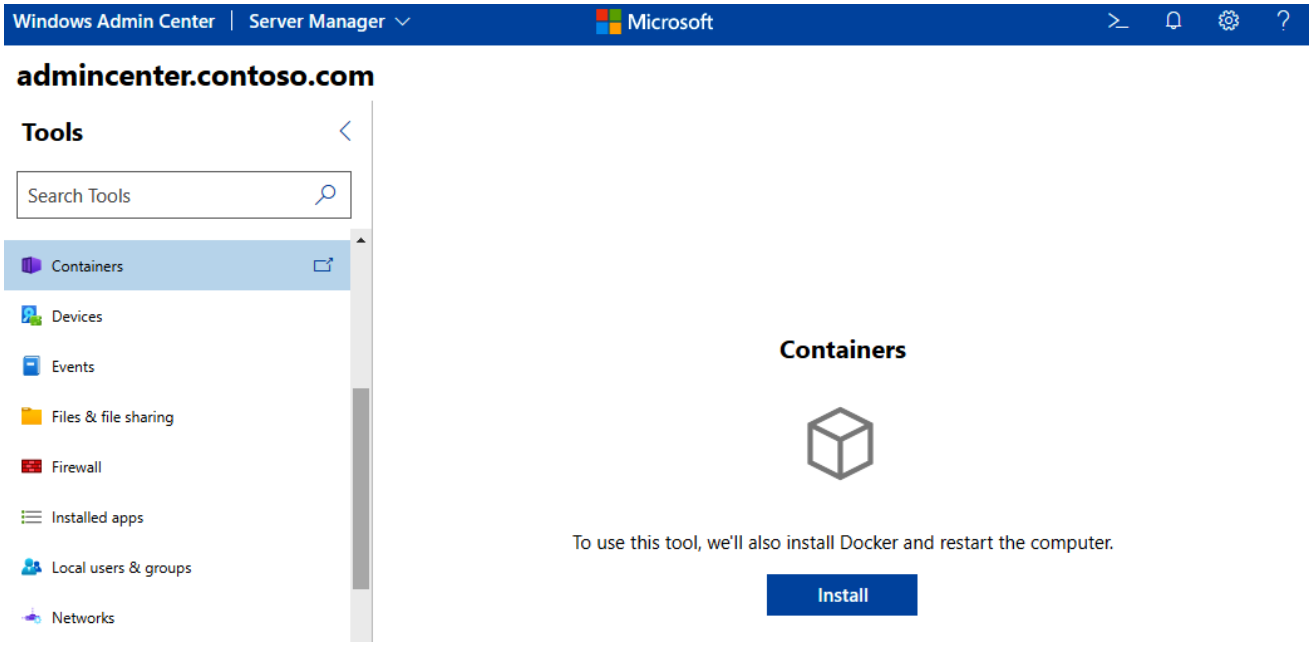

Installing the extension
Installing the extension: 'Containers'.
localhost
9:01:01 AM
Install
Name
Version
Created by
Package feed
Status
Containers
1.150.0
Microsoft
Windows Admin Center ...
Available
Installing...
Please wait while we install 'Containers'. This page will reload after installation is complete.
OK

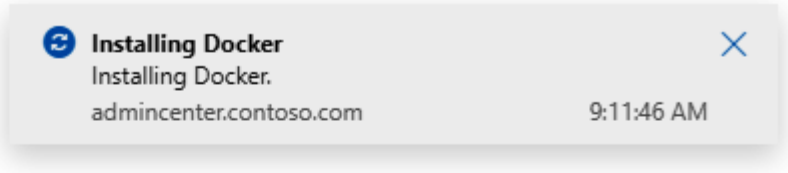

Extensions
Windows Admin Center might restart after installing an extension, temporarily affecting anyone using this instance of Windows Admin Center.
Automatically update extensions
On
Available extensions
Installed extensions
Feeds
Uninstall
Update
39 items
Search
Name
Version
Created by
Status
Containers
1.150.0
Microsoft
Installed


Windows Admin Center
All connections
Microsoft
Add
Connect
Manage as
Remove
Edit Tags
1 item
1 selected
Name
Type
Last connected
Managing as
admincenter.contoso.com [Gateway]
Servers
Never
ADMINCENTER\Ad

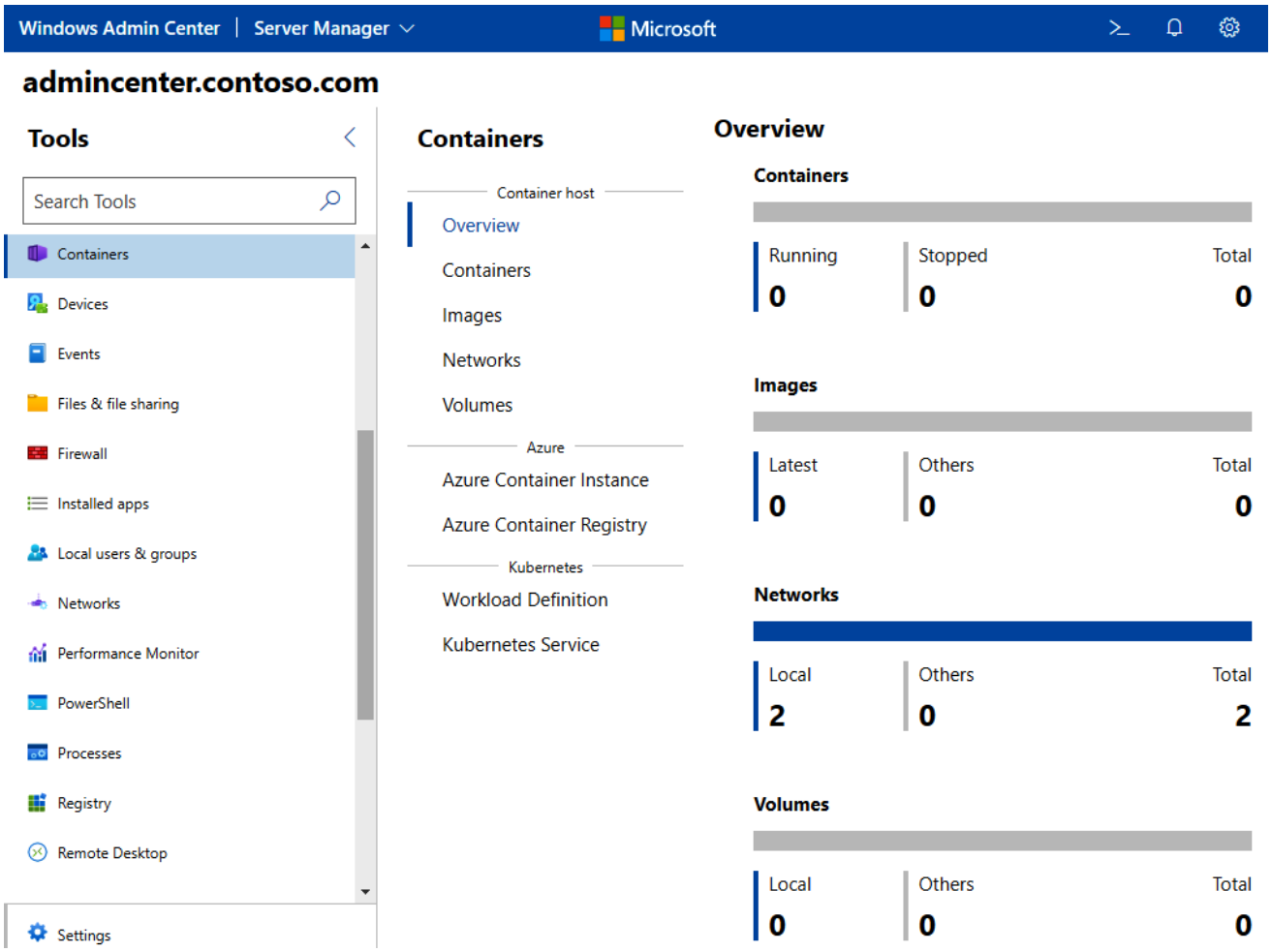

Connecting...
Cancel


Windows Admin Center
Server Manager
admincenter.contoso.com
Tools
Search Tools
Containers
Overvie
Restart
Computer
admincenter

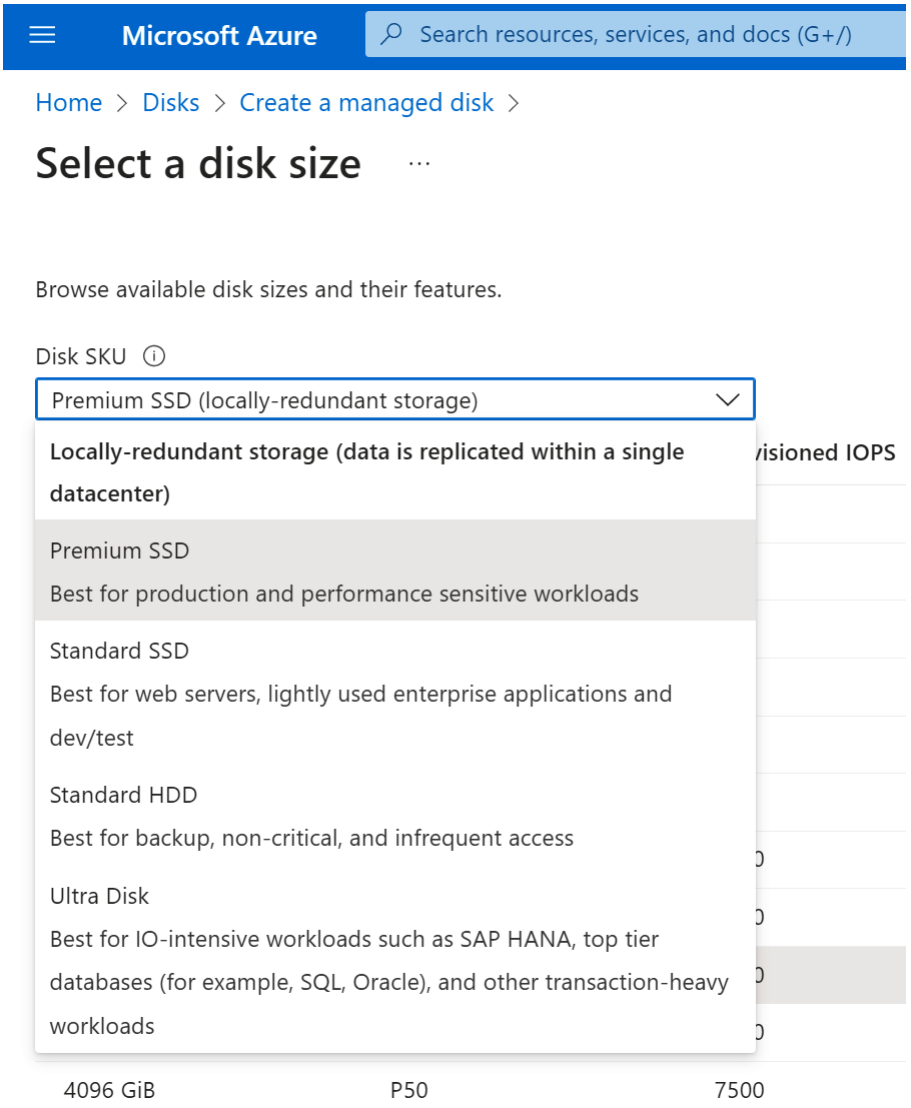

Windows Admin Center
Server Manager
Microsoft
admincenter.contoso.com
Tools
Search Tools
Containers
Devices
Events
Files & file sharing
Firewall
Installed apps
Local users & groups
Networks
Containers
To use this tool, we'll also install Docker and restart the computer.
Install


Installing Docker
Installing Docker.
admincenter.contoso.com
9:11:46 AM

Hang on while we install Docker...


Windows Admin Center
Server Manager
Microsoft
admincenter.contoso.com
Tools
Search Tools
Containers
Devices
Events
Files & file sharing
Firewall
Installed apps
Local users & groups
Networks
Performance Monitor
PowerShell
Processes
Registry
Remote Desktop
Settings
Containers
Container host
Overview
Containers
Images
Networks
Volumes
Azure
Azure Container Instance
Azure Container Registry
Kubernetes
Workload Definition
Kubernetes Service
Overview
Containers
Running 0
Stopped 0
Total 0
Images
Latest 0
Others 0
Total 0
Networks
Local 2
Others 0
Total 2
Volumes
Local 0
Others 0
Total 0

Chapter 11: Managing Windows Server Azure Virtual Machines



Select a VM size

VM Size	Type	vCPUs	RAM (GiB)	Data disks	Max IOPS	Temp storage (GiB)	Premium disk
E-Series v5		The latest generation E family sizes for your high memory needs					
E-Series v4		The 4th generation E family sizes for your high memory needs					
E2as_v4	Memory optimized	2	16	4	3200	32	Supported
E2ds_v4	Memory optimized	2	16	4	3200	75	Supported
E2s_v4	Memory optimized	2	16	4	3200	0	Supported
E-Series v3		The 3rd generation E family sizes for your high memory needs					
D-Series v2		The 2nd generation D family sizes for your general purpose needs					
Non-premium storage VM sizes		Premium storage is recommended for most workloads					
E2_v4	Memory optimized	2	16	4	3200	0	Not supported

Home > Virtual machines > Create a virtual machine >

Select a VM size ...

Search by VM size... | Display cost : **Monthly** | vCPUs : **All** | RAM (GiB) : **All** | Type : **Memory optimized** | Add filter

Showing 293 of 539 VM sizes. | Subscription: wccdemocompany3 | Region: UK South | Current size: Standard_D2ds_v5 | Image: Wind Datacenter

VM Size	Type	vCPUs	RAM (GiB)	Data disks	Max IOPS
E-Series v5	The latest generation E family sizes for your high memory needs				
E-Series v4	The 4th generation E family sizes for your high memory needs				

Add filter

Filter type

- Size
- Generation
- Premium disk

sm158-az800-data | Size ...

Virtual machine

Search (Ctrl+/)

- Size
- Microsoft Defender for Cloud
- Advisor recommendations
- Extensions + applications
- Continuous delivery
- Availability + scaling

If the virtual machine is currently running, changing its size will cause it to be restarted. Stopping the virtual machine may reveal additional sizes.

Search by VM size... | Display cost : **Monthly** | vCPUs : **All** | RAM (GiB) : **All** | Add filter

Showing 325 VM sizes. | Subscription: [redacted] | Region: UK South | Current size: Standard_DS2_v2 | Learn more about VM sizes

Group by series

If the virtual machine is currently running, changing its size will cause it to be restarted. Stopping the virtual machine may reveal additional sizes.

Quotas | My quotas ...

Quotas

Search

- Overview
- My quotas

Request quota increase | Refresh | Download

Search | Compute | wccdemocompany4 | Region : **All**

Usage : **Show all**

Showing 1 to 100 of 4995 records in 3 groups.

Group by usage

Quota name	Region	Subscription	Current Usage ↓	
Usage at or near quota (2)				
Total Regional vCPUs	UK South	[redacted]	100%	4 of 4
Standard DSv2 Family vC...	UK South	[redacted]	100%	4 of 4

Size * ⓘ

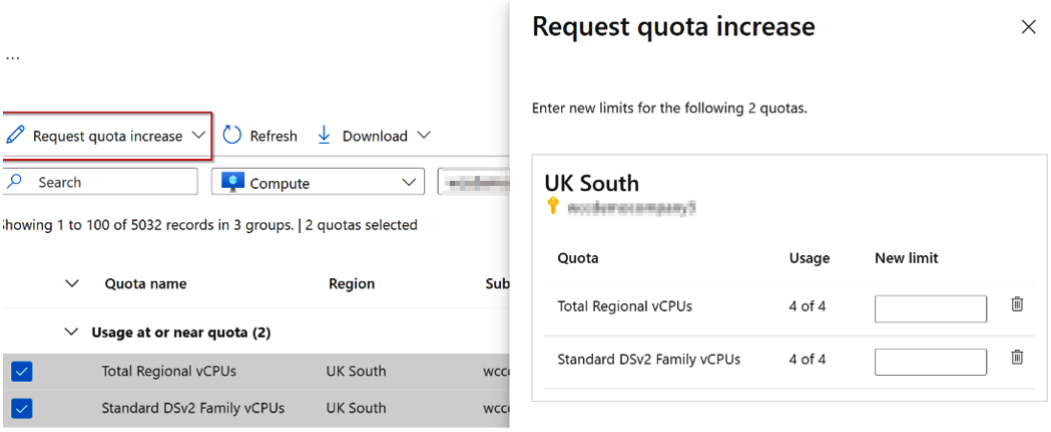
Standard_DS2_v2 - 2 vcpus, 7 GiB memory (Price unavailable) ⓘ

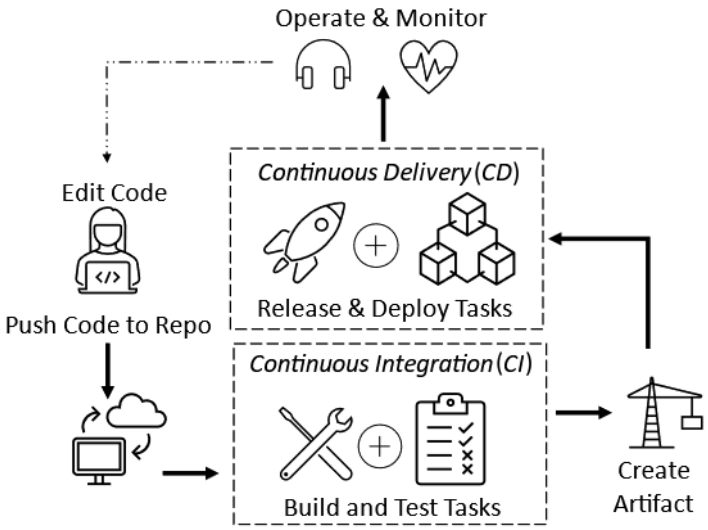
See all sizes

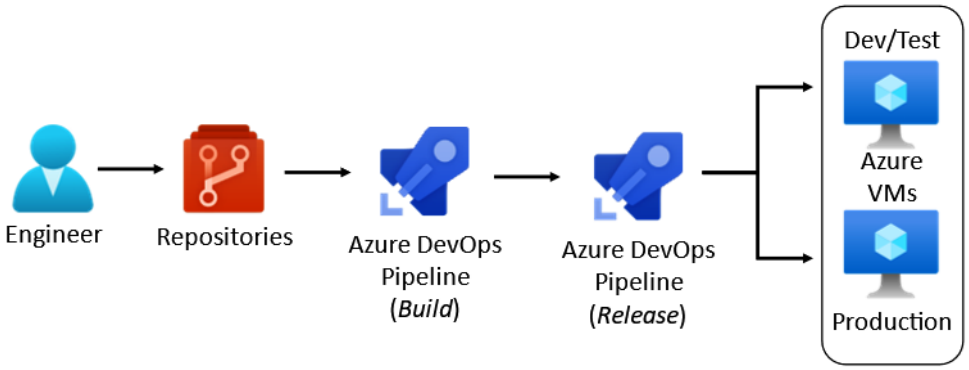
2 vCPUs are needed for this configuration, but only 0 vCPUs (of 4) remain for the Standard DSv2 Family vCPUs.

Request quota

Refresh quota


Request quota increase
Refresh
Download
Search
Compute
showing 1 to 100 of 5032 records in 3 groups. | 2 quotas selected
Quota name
Region
Usage at or near quota (2)
Total Regional vCPUs
UK South
Standard DSv2 Family vCPUs
UK South
Request quota increase
Enter new limits for the following 2 quotas.
UK South
Quota
Usage
New limit
Total Regional vCPUs
4 of 4
Standard DSv2 Family vCPUs
4 of 4


Operate & Monitor
Edit Code
Push Code to Repo
Continuous Delivery (CD)
Release & Deploy Tasks
Continuous Integration (CI)
Build and Test Tasks
Create Artifact


Engineer
Repositories
Azure DevOps Pipeline (Build)
Azure DevOps Pipeline (Release)
Dev/Test
Azure VMs
Production

sm-49-az800-[illegible]-vm | Continuous delivery

Virtual machine

Search

Disconnect Refresh

- Continuous delivery
- Availability + scaling
- Configuration
- Identity
- Properties
- Locks

Operations

- Bastion
- Auto-shutdown
- Backup
- Disaster recovery
- Updates
- Inventory
- Change tracking
- Automanage
- Configuration management

[illegible]

Continuous delivery

Continuous delivery in Azure DevOps simplifies setting up a robust deployment pipeline for your application. By default, this configures a release pipeline to deploy your application updates to this virtual machine. You can extend the deployment pipeline by linking it to a build pipeline.

Do you need to provision additional Azure resources, run scripts, upgrade your application, or run additional validation tests? You can easily customize this deployment automation to handle any other operations your application needs to perform during deployment.

Learn more about deploying to Azure virtual machines by using Azure Pipelines.

Configure

admin@NETORGFT8723...
MILESBETTERSOLUTIONS.ONMIC...

Continuous delivery

Configure a deployment pipeline

Select existing Azure DevOps organization

Azure DevOps Organization *

Please create an Azure DevOps Organization first by navigating here and retry.

Project

Deployment group

Create Use existing

Deployment group name *

Build pipeline

Select pipeline

Deployment strategy *

Home >

Virtual machines

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

Create | Switch to classic | Reservations | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals all | Type equals all | Resource group equals all | Location equals all | Add filt

No grouping

Name	Type	Subscription	Resource group	Location	Status
sm029-az800-vm1	Virtual machine	Azure subscription 1	SM029-RG	UK South	Running

Home > Virtual machines >

sm029-az800-vm1

Virtual machine

Search (Ctrl+/)

Connect | Start

Disks

Size

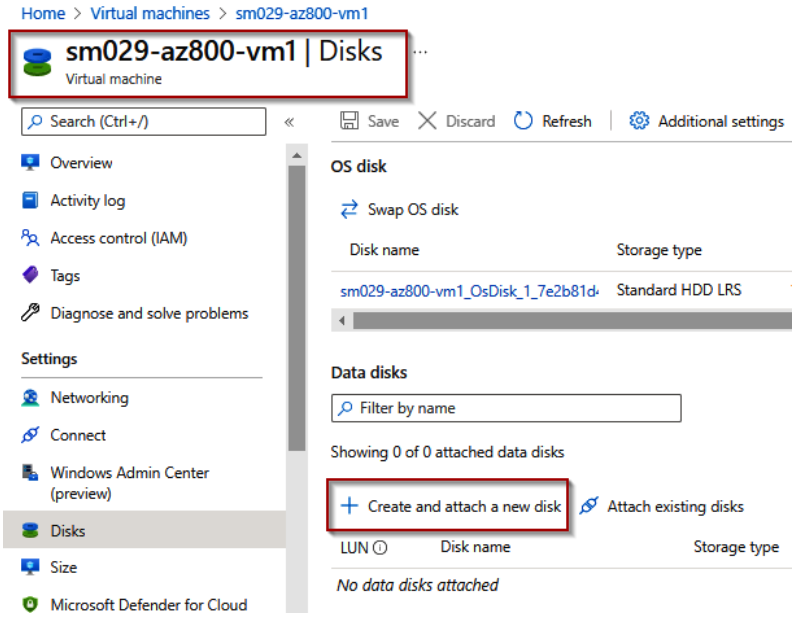
Microsoft Defender for Cloud

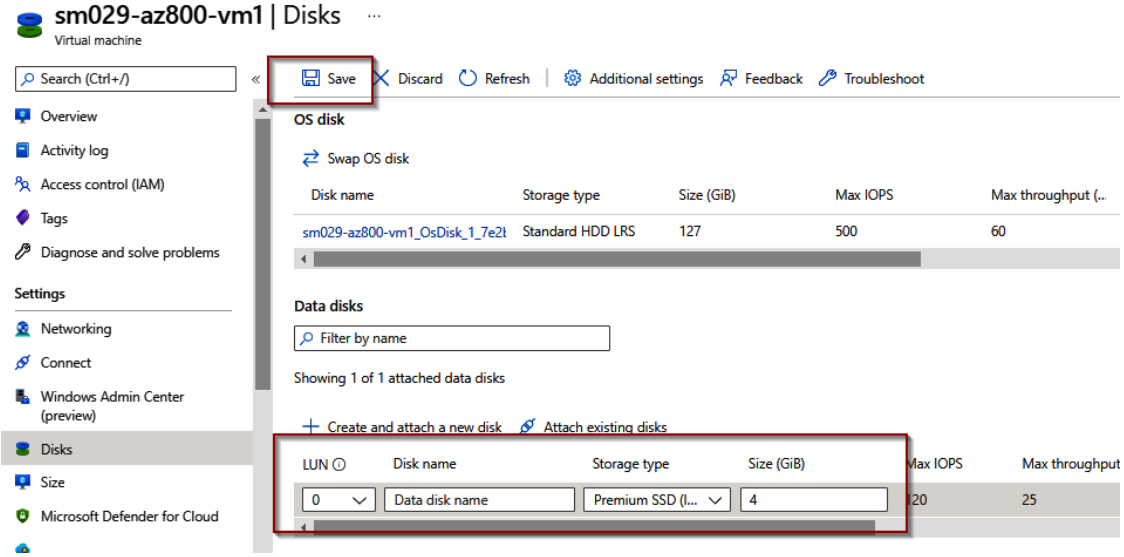
Advisor recommendations

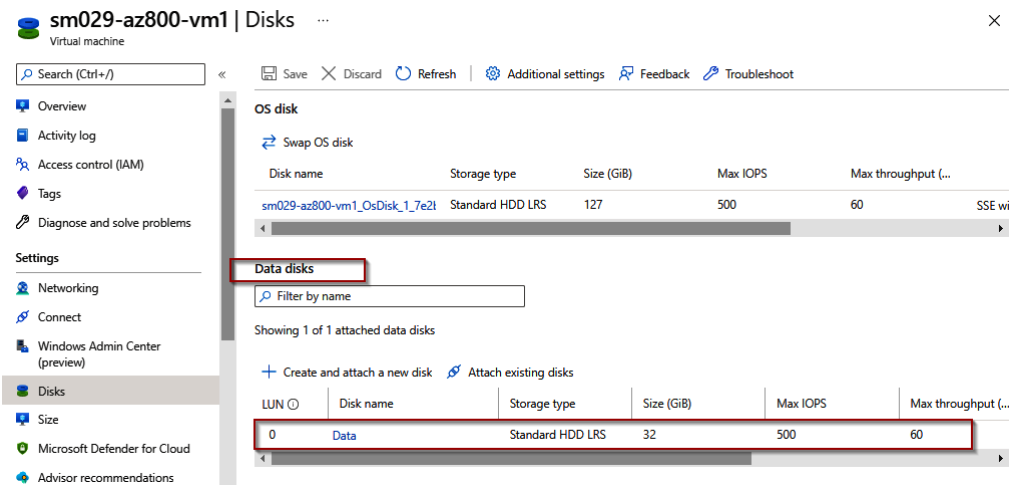
Essentials

Resource group (move)
SM029-RG

Status
Running


Home > Virtual machines > sm029-az800-vm1
sm029-az800-vm1 | Disks
Virtual machine
Search (Ctrl+/)
Save
Discard
Refresh
Additional settings
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Windows Admin Center (preview)
Disks
Size
Microsoft Defender for Cloud
OS disk
Swap OS disk
Disk name
Storage type
sm029-az800-vm1_OsDisk_1_7e2b81d
Standard HDD LRS
Data disks
Filter by name
Showing 0 of 0 attached data disks
Create and attach a new disk
Attach existing disks
LUN
Disk name
Storage type
No data disks attached


sm029-az800-vm1 | Disks
Virtual machine
Search (Ctrl+/)
Save
Discard
Refresh
Additional settings
Feedback
Troubleshoot
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Windows Admin Center (preview)
Disks
Size
Microsoft Defender for Cloud
OS disk
Swap OS disk
Disk name
Storage type
Size (GiB)
Max IOPS
Max throughput (...
sm029-az800-vm1_OsDisk_1_7e2
Standard HDD LRS
127
500
60
Data disks
Filter by name
Showing 1 of 1 attached data disks
Create and attach a new disk
Attach existing disks
LUN
Disk name
Storage type
Size (GiB)
Max IOPS
Max throughput
0
Data disk name
Premium SSD (I...
4
120
25


sm029-az800-vm1 | Disks
Virtual machine
Search (Ctrl+/)
Save
Discard
Refresh
Additional settings
Feedback
Troubleshoot
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Windows Admin Center (preview)
Disks
Size
Microsoft Defender for Cloud
Advisor recommendations
OS disk
Swap OS disk
Disk name
Storage type
Size (GiB)
Max IOPS
Max throughput (...
sm029-az800-vm1_OsDisk_1_7e2
Standard HDD LRS
127
500
60
SSE wi
Data disks
Filter by name
Showing 1 of 1 attached data disks
Create and attach a new disk
Attach existing disks
LUN
Disk name
Storage type
Size (GiB)
Max IOPS
Max throughput (...
0
Data
Standard HDD LRS
32
500
60

Data disks

Filter by name

Showing 2 of 2 attached data disks

Create and attach a new disk | Attach existing disks

LUN	Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...
0	Data	Standard HDD LRS	32	500	60
1	Logs	Premium SSD LRS	4	120	25

Home >

Disks

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

Create | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals all | Resource group equals all | Location equals all | Add filter

Name	Storage account type	Size (G...	Owner
data	Standard HDD LRS	32	sm029-az800-vm1
logs	Premium SSD LRS	4	sm029-az800-vm1
sm029-az800-vm1_OsDisk_1_7e2b81d46abc4ef5a598715b56d8b1c2	Standard HDD LRS	127	sm029-az800-vm1

sm029-az800-vm1

Virtual machine

Search (Ctrl+/)

Connect | Start | Restart | Stop | Capture

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Stop this virtual machine

Do you want to stop 'sm029-az800-vm1'?

Yes | No

Running

Search (Ctrl+/)

Save | Discard | Refresh | Additional settings | Feedback | Troubleshoot

Settings

Networking

Connect

Windows Admin Center (preview)

Disks

Size

Microsoft Defender for Cloud

Advisor recommendations

Extensions + applications

Continuous delivery

Availability + scaling

Configuration

Identity

Properties

OS disk

Swap OS disk

Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...	Encryp
sm029-az800-vm1_OsDisk_1_7e2b	Standard HDD LRS	127	500	60	SSE wi

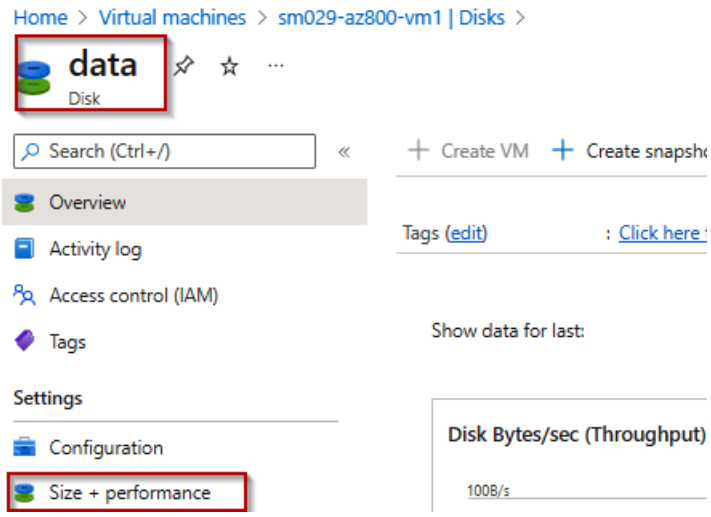
Data disks

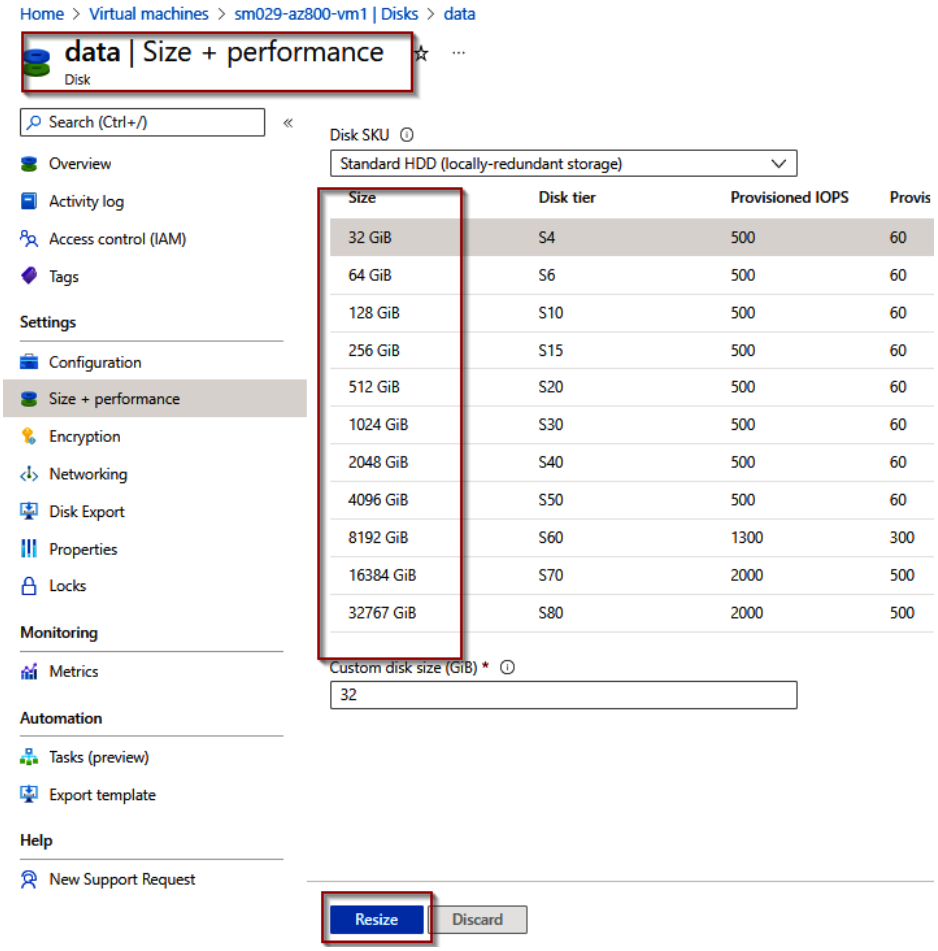
Filter by name

Showing 2 of 2 attached data disks

Create and attach a new disk | Attach existing disks

LUN	Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...
0	Data	Standard HDD LRS	32	500	60
1	Logs	Premium SSD LRS	4	120	25


Home > Virtual machines > sm029-az800-vm1 | Disks >
data
Disk
Search (Ctrl+/)
Create VM
Create snapsho
Overview
Activity log
Access control (IAM)
Tags
Tags (edit)
: Click here
Show data for last:
Settings
Configuration
Size + performance
Disk Bytes/sec (Throughput)
100B/s


Home > Virtual machines > sm029-az800-vm1 | Disks > data
data | Size + performance
Disk
Search (Ctrl+/)
Overview
Activity log
Access control (IAM)
Tags
Settings
Configuration
Size + performance
Encryption
Networking
Disk Export
Properties
Locks
Monitoring
Metrics
Automation
Tasks (preview)
Export template
Help
New Support Request
Disk SKU
Standard HDD (locally-redundant storage)
Size | Disk tier | Provisioned IOPS | Provis
32 GiB | S4 | 500 | 60
64 GiB | S6 | 500 | 60
128 GiB | S10 | 500 | 60
256 GiB | S15 | 500 | 60
512 GiB | S20 | 500 | 60
1024 GiB | S30 | 500 | 60
2048 GiB | S40 | 500 | 60
4096 GiB | S50 | 500 | 60
8192 GiB | S60 | 1300 | 300
16384 GiB | S70 | 2000 | 500
32767 GiB | S80 | 2000 | 500
Custom disk size (GiB) *
32
Resize
Discard

Data disks

Filter by name

Showing 2 of 2 attached data disks

Create and attach a new disk Attach existing disks

LUN	Disk name	Storage type	Size (GiB)
0	Data	Standard HDD LRS	64
1	Logs	Premium SSD LRS	4

Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20220903170253 | Overview >

sm-039-az800-vm1
Virtual machine

Search (Ctrl+/)

Connect Start Restart Stop

Settings

- Networking
- Connect
- Windows Admin Center (preview)
- Disks
- Size
- Microsoft Defender for Cloud
- Advisor recommendations

sm-039-az800-vm1 virtual machine agent status is not

Essentials

Resource group (move)	: sm-039-az800-rg
Status	: Running
Location	: UK South
Subscription (move)	: Azure subscription 1
Subscription ID	: 8123c407-998a-4ace-afed-
Tags (edit)	: Click here to add tags

sm-039-az800-vm1 | Size
Virtual machine

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

If the virtual machine is currently running, changing its size will cause it to be restarted. Stopping the virtual machine may reveal a

Search by VM size... Display cost : **Monthly** vCPUs : **All** RAM (GiB) : **All** Add filte

Showing 305 VM sizes. Subscription: Azure subscription 1 Region: UK South Current size: Standard_D2ds_v5

VM Size	Type	vCPUs	RAM (GiB)	Data disks

If the virtual machine is currently running, changing its size will cause it to be restarted. Stopping the virtual machine may reveal additional sizes. →

D-Series v5			The latest generation D family sizes recommended for your general purpose ne		
D2ads_v5	General purpose	2	8	4	3750
D2ds_v5	General purpose	2	8	4	3750
D4ads_v5	General purpose	4	16	8	6400
D4ds_v5	General purpose	4	16	8	6400
D-Series v4			The 4th generation D family sizes for your general purpose needs		
B-Series			Ideal for workloads that do not need continuous full CPU performance		
E-Series v5			The latest generation E family sizes for your high memory needs		
E-Series v4			The 4th generation E family sizes for your high memory needs		
F-Series v2			Up to 2X performance boost for vector processing workloads		
D-Series v3			The 3rd generation D family sizes for your general purpose needs		
E-Series v3			The 3rd generation E family sizes for your high memory needs		
D-Series v2			The 2nd generation D family sizes for your general purpose needs		
Non-premium storage VM sizes			Premium storage is recommended for most workloads		
Previous generation sizes					
Size not available			See the info bubble next to a size for details on availability		
Insufficient quota - family limit			Family vCPUs are insufficient to deploy these sizes		
Unsupported generation			The VM generation selected is not supported for these sizes		

Resize

Prices presented are estimates in your local currency that include only Azure infrastructure costs and any discounts for the subscri applicable software costs. Final charges will appear in your local currency in cost analysis and billing views. View Azure pricing calc

sm-039-az800-vm1
Virtual machine

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

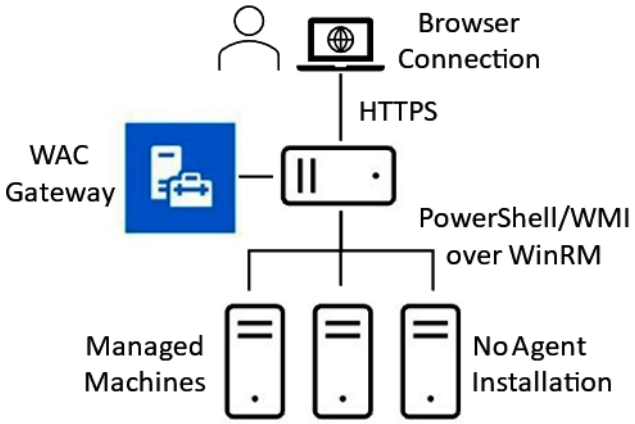
- Networking

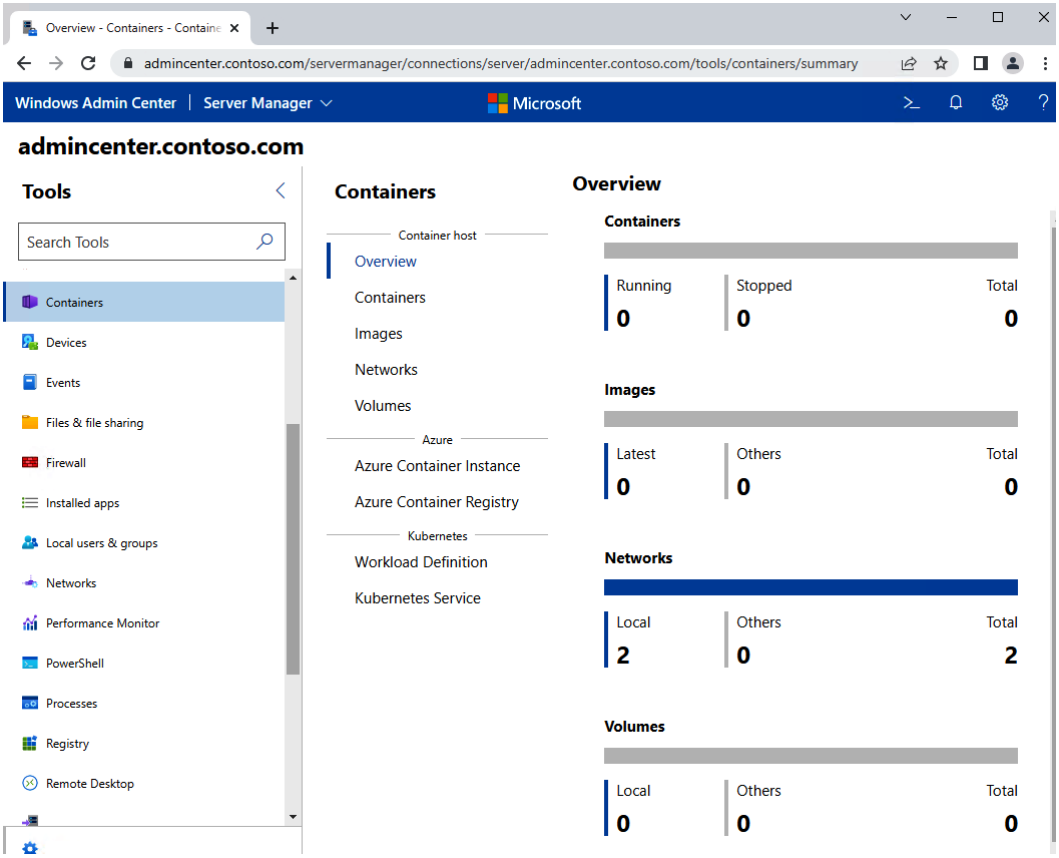
Connect | Start | Restart | Stop | Capture | Delete | Refresh | Open in mobile | CLI / PS

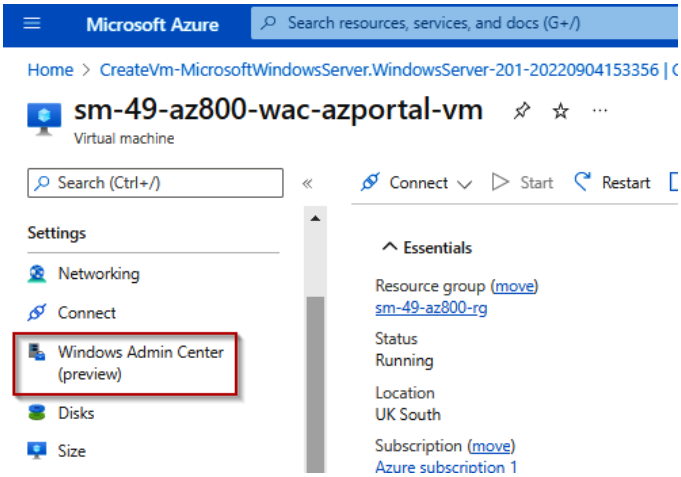
Essentials

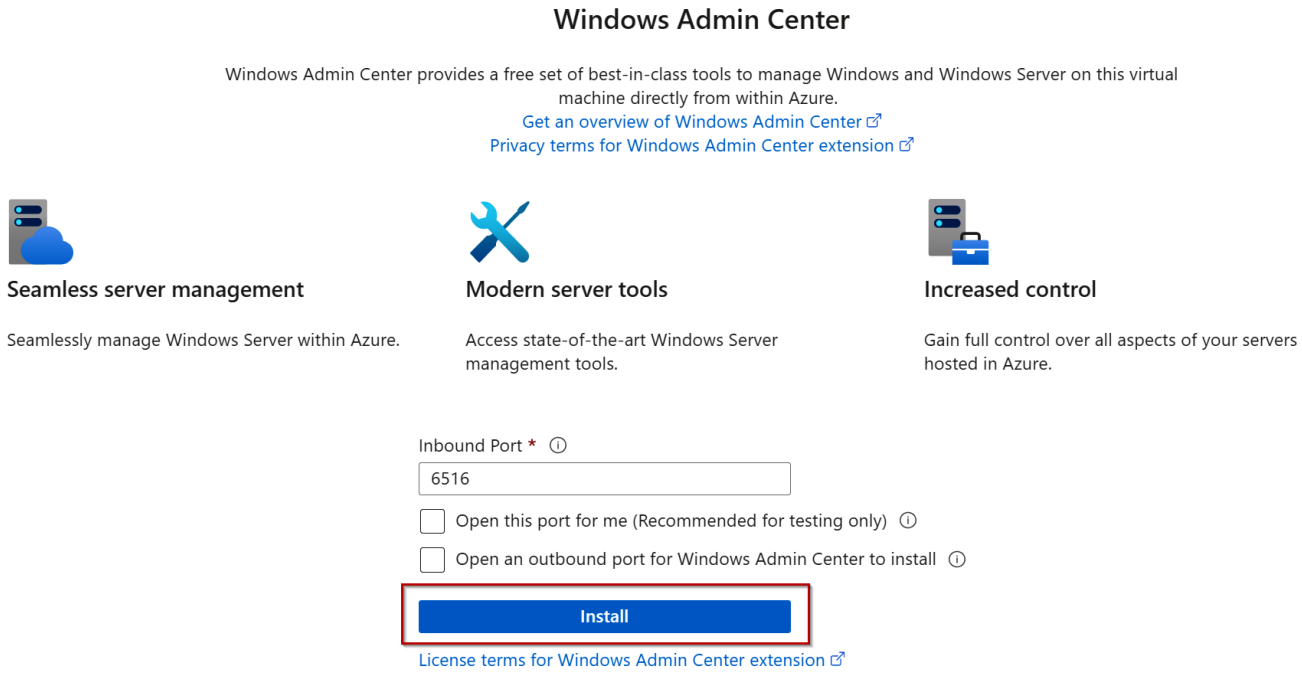
Resource group (move)	: sm-039-az800-rg	Operating system	: Windows (Windows Server 2019 Datacenter)
Status	: Running	Size	: Standard D4ds v5 (4 vcpus, 16 GiB memory)
Location	: UK South	Public IP address	: 20.0.79.101
Subscription (move)	: Azure subscription 1	Virtual network/subnet	: sm-039-az800-rg-vnet/default
Subscription ID	: 8123c407-998a-4ace-afed-360e1839938a	DNS name	: Not configured
Tags (edit)	: Click here to add tags		

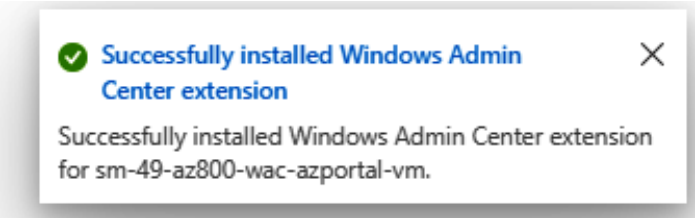
Chapter 12: Managing Windows Server in a Hybrid Environment






Microsoft Azure
Search resources, services, and docs (G+/)
Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20220904153356 | C
sm-49-az800-wac-azportal-vm
Virtual machine
Search (Ctrl+/)
Connect
Start
Restart
Settings
Networking
Connect
Windows Admin Center (preview)
Disks
Size
Essentials
Resource group (move)
sm-49-az800-rg
Status
Running
Location
UK South
Subscription (move)
Azure subscription 1


Windows Admin Center
Windows Admin Center provides a free set of best-in-class tools to manage Windows and Windows Server on this virtual machine directly from within Azure.
Get an overview of Windows Admin Center
Privacy terms for Windows Admin Center extension
Seamless server management
Seamlessly manage Windows Server within Azure.
Modern server tools
Access state-of-the-art Windows Server management tools.
Increased control
Gain full control over all aspects of your servers hosted in Azure.
Inbound Port *
6516
Open this port for me (Recommended for testing only)
Open an outbound port for Windows Admin Center to install
Install
License terms for Windows Admin Center extension


Successfully installed Windows Admin Center extension
Successfully installed Windows Admin Center extension for sm-49-az800-wac-azportal-vm.

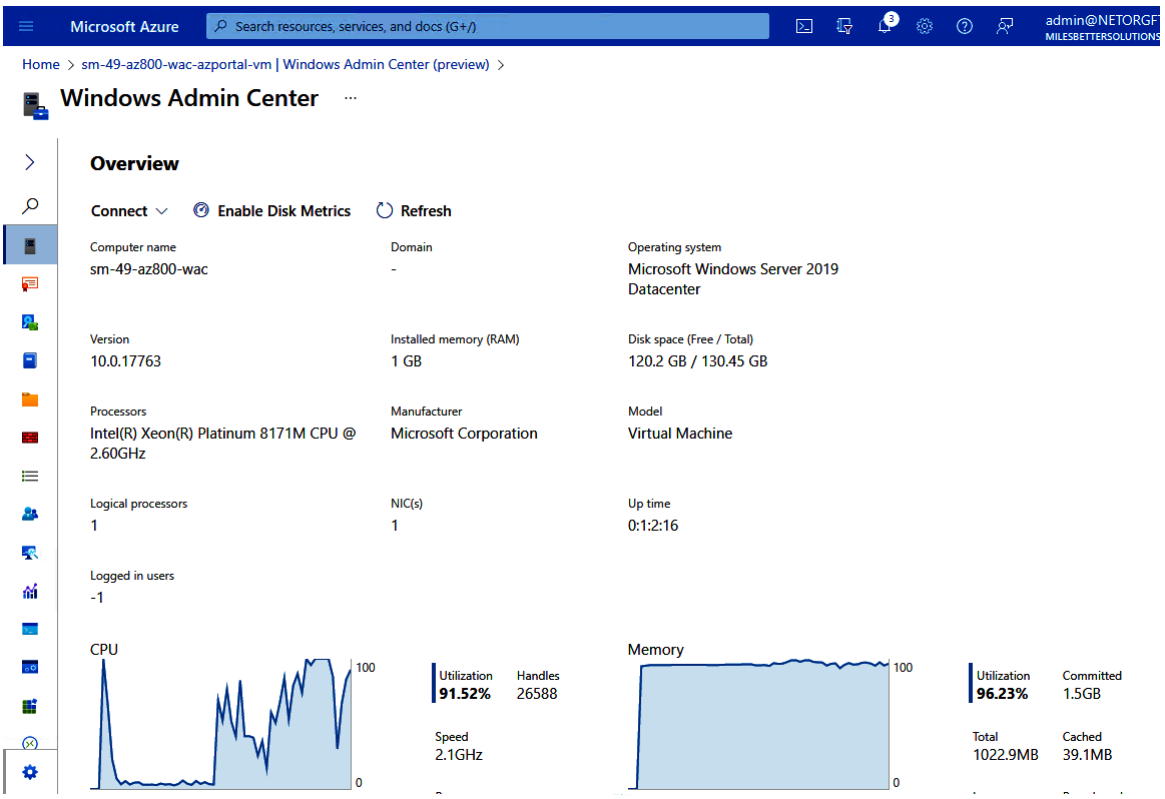
Windows Admin Center

Windows Admin Center provides a free set of best-in-class tools to manage Windows and Windows Server on this virtual machine directly from within Azure.

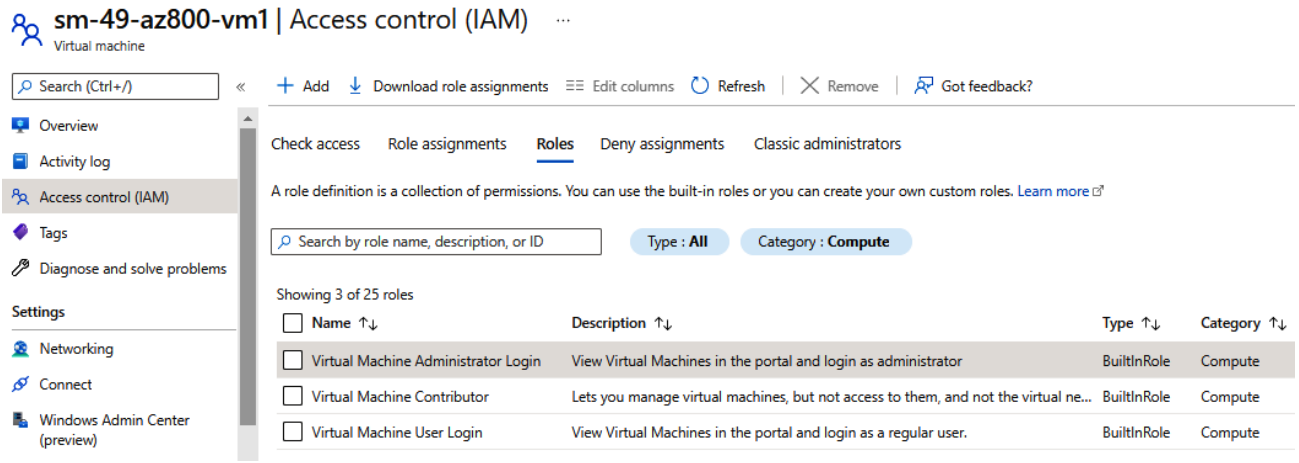
IP Address *

Public IP address (20.108.6.126)

Connect



Chapter 13: Managing Windows Servers Using Azure Services




```
Virtual Machine Administrator Login                View Virtual Machines in the portal and login as administrator
Virtual Machine Contributor                        Lets you manage virtual machines, but not access to them, and not the
Virtual Machine Local User Login                   View Virtual Machines in the portal and login as a local user configu
Virtual Machine User Login                         View Virtual Machines in the portal and login as a regular user.
VM Scanner Operator                                Role that provides access to disk snapshot for security analysis.
Web Plan Contributor                               Lets you manage the web plans for websites, but not access to them.
Web PubSub Service Owner (Preview)                 Full access to Azure Web PubSub Service REST APIs
Web PubSub Service Reader (Preview)                Read-only access to Azure Web PubSub Service REST APIs
Website Contributor                                Lets you manage websites (not web plans), but not access to them.
Windows Admin Center Administrator Login           Let's you manage the OS of your resource via Windows Admin Center as
Workbook Contributor                               Can save shared workbooks.
Workbook Reader                                    Can read workbooks.
WorkloadBuilder Migration Agent Role               WorkloadBuilder Migration Agent Role.
PS /home/admin> Get-AzRoleDefinition | FT Name, Description | sort
```

```
PowerShell
PS /home/admin> Get-AzRoleDefinition "Virtual Machine Administrator Login"

Name             : Virtual Machine Administrator Login
Id               : 1c0163c0-47e6-4577-8991-ea5c82e286e4
IsCustom         : False
Description      : View Virtual Machines in the portal and login as administrator
Actions          : {Microsoft.Network/publicIPAddresses/read, Microsoft.Network/virtualNetworks/read, Microsoft.Network/loadBalancers/re
ad, Microsoft.Network/networkInterfaces/read…}
NotActions       : {}
DataActions      : {Microsoft.Compute/virtualMachines/login/action, Microsoft.Compute/virtualMachines/loginAsAdmin/action, Microsoft.Hyb
ridCompute/machines/login/action,
                   Microsoft.HybridCompute/machines/loginAsAdmin/action}
NotDataActions   : {}
AssignableScopes : {/}
```

ccess control (IAM)

+ Add | Download role assi

Check access | Role assignmen

A role definition is a collection of p

Search by role name, descriptio

Showing 3 of 25 roles

Name ↑↓
Virtual Machine Administrato
Virtual Machine Contributor
Virtual Machine User Login

Virtual Machine Administrator Login

BuiltInRole

Permissions | JSON | Assignments

Description: View Virtual Machines in the portal and login as administrator

Search permissions | Type : All

Actions | DataActions

Showing 23 of 23 permissions

Type	Permissions	Description
Microsoft.Compute		
Read	Get Virtual Machine	Get the properties of a virtual machine
Read	Summarizes latest patch assessment operation results	Retrieves the summary of the latest patch assessment operation
Read	Lists all patches assessed in patch assessment operation	Retrieves list of patches assessed during the last patch assessment operation
Read	Summarizes latest patch installation operation results	Retrieves the summary of the latest patch installation operation
Read	Lists all patches considered in patch installation operation	Retrieves list of patches attempted to be installed during the last patch installation operation
Read	Get Virtual Machine log definitions	Gets the available logs for Virtual Machine.
Read	Read diagnostic setting	Gets the diagnostic setting for the Virtual Machine.
Read	Get Virtual Machine Extension	Get the properties of a virtual machine extension
Read	Get Virtual Machine Instance View	Gets the detailed runtime status of the virtual machine and its resources
Read	Get Virtual Machine Metric Definitions	Reads Virtual Machine Metric Definitions
Read	Get Virtual Machine run command	Get the properties of a virtual machine run command
Read	Lists Available Virtual Machine Sizes	Lists available sizes the virtual machine can be updated to
Microsoft.Network		
Read	Get Load Balancer	Gets a load balancer definition

PowerShell

```
PS /home/admin> (Get-AzRoleDefinition "Virtual Machine Contributor").Actions
Microsoft.Authorization/*/read
Microsoft.Compute/availabilitySets/*
Microsoft.Compute/locations/*
Microsoft.Compute/virtualMachines/*
Microsoft.Compute/virtualMachineScaleSets/*
Microsoft.Compute/cloudServices/*
Microsoft.Compute/disks/write
Microsoft.Compute/disks/read
Microsoft.Compute/disks/delete
Microsoft.DevTestLab/schedules/*
Microsoft.Insights/alertRules/*
Microsoft.Network/applicationGateways/backendAddressPools/join/action
Microsoft.Network/loadBalancers/backendAddressPools/join/action
Microsoft.Network/loadBalancers/inboundNatPools/join/action
Microsoft.Network/loadBalancers/inboundNatRules/join/action
Microsoft.Network/loadBalancers/probes/join/action
Microsoft.Network/loadBalancers/read
Microsoft.Network/locations/*
Microsoft.Network/networkInterfaces/*
Microsoft.Network/networkSecurityGroups/join/action
```

1

sm-49-az8

Virtual machine

Search (Ctrl+/)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve pr

Virtual Machine Administrator Login

BuiltInRole

Permissions | JSON | Assignments

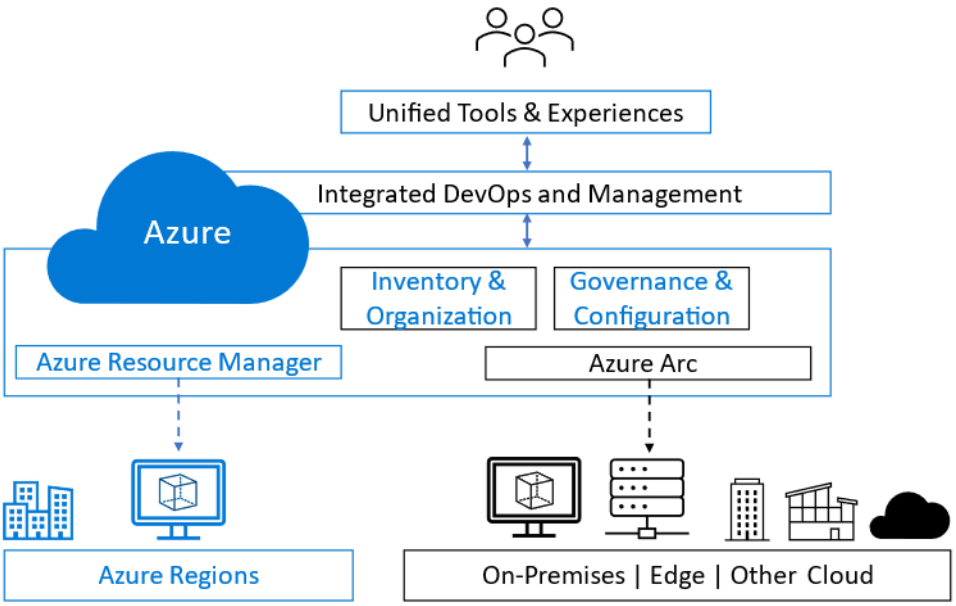
Search assignments by name

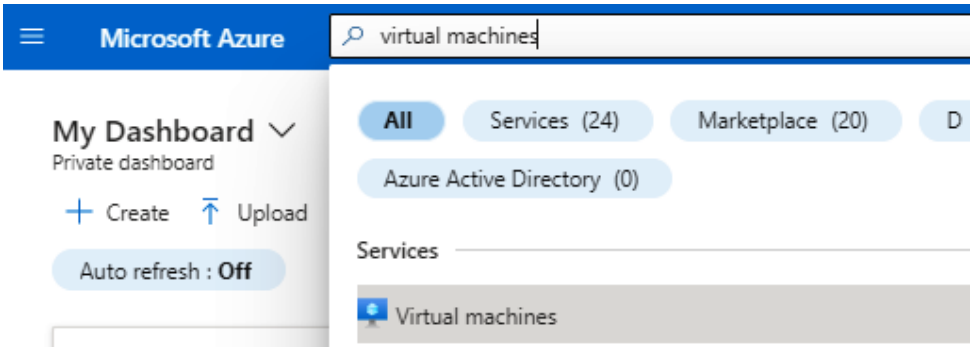
+ Add assignment

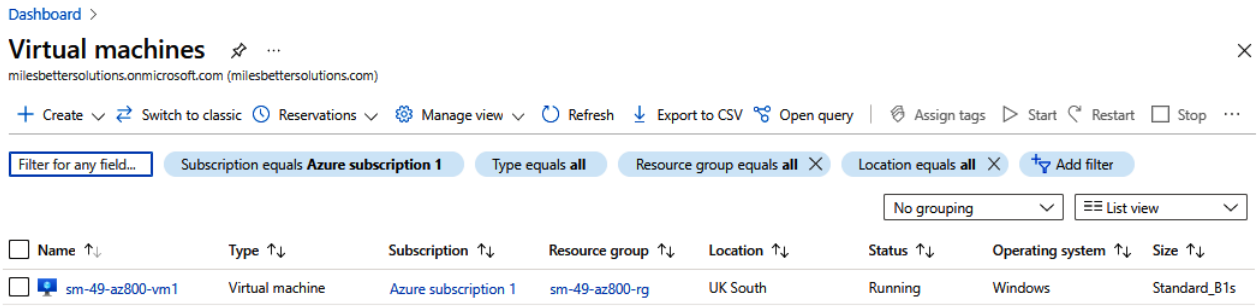
Name	Type	Scope
SM Steve Miles smiles@milesbettersolutions.com	User	This resource

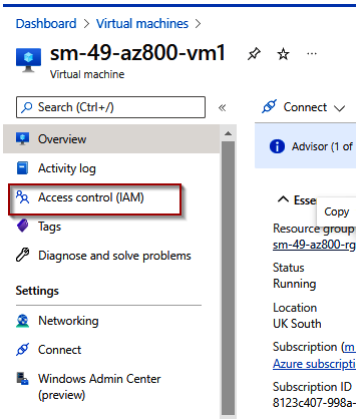
```
PowerShell

RoleAssignmentName : d068d839-710f-4e68-b3c4-2a5a74c773df
RoleAssignmentId   : /subscriptions/8123c407-998a-4ace-afed-360e1839938a/resourceGroups/sm-49-az800-rg/providers/Microsoft.Compute/virtualMachine
s/sm-49-az800-vm1/providers/Microsoft.Authorization/roleAss
                     ignments/d068d839-710f-4e68-b3c4-2a5a74c773df
Scope              : /subscriptions/8123c407-998a-4ace-afed-360e1839938a/resourceGroups/sm-49-az800-rg/providers/Microsoft.Compute/virtualMachine
s/sm-49-az800-vm1
DisplayName        : Steve Miles
SignInName         : smiles@milesbettersolutions.com
RoleDefinitionName : Virtual Machine Administrator Login
RoleDefinitionId   : 1c0163c0-47e6-4577-8991-ea5c82e286e4
ObjectId           : 28d9650e-4596-4983-aebf-c9a0dfe9e678
ObjectType         : User
CanDelegate        : False
Description        :
ConditionVersion   :
Condition          :
```

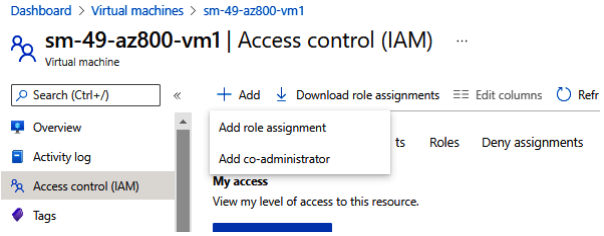
```
PowerShell

PS /home/admin> Get-AzRoleAssignment -Scope /subscriptions/8123c407-998a-4ace-afed-360e1839938a/resourceGroups/sm-49-az800-rg/providers/Microsoft
.Compute/virtualMachines/sm-49-az800-vm1

RoleAssignmentName : d068d839-710f-4e68-b3c4-2a5a74c773df
RoleAssignmentId   : /subscriptions/8123c407-998a-4ace-afed-360e1839938a/resourceGroups/sm-49-az800-rg/providers/Microsoft.Compute/virtualMachin
                     es/sm-49-az800-vm1/providers/Microsoft.Authorization/roleAssignments/d068d839-710f-4e68-b3c4-2a5a74c773df
Scope              : /subscriptions/8123c407-998a-4ace-afed-360e1839938a/resourceGroups/sm-49-az800-rg/providers/Microsoft.Compute/virtualMachin
                     es/sm-49-az800-vm1
DisplayName        : Steve Miles
SignInName         : smiles@milesbettersolutions.com
RoleDefinitionName : Virtual Machine Administrator Login
RoleDefinitionId   : 1c0163c0-47e6-4577-8991-ea5c82e286e4
ObjectId           : 28d9650e-4596-4983-aebf-c9a0dfe9e678
ObjectType         : User
CanDelegate        : False
Description        :
ConditionVersion   :
Condition          :
```




Microsoft Azure
virtual machines
My Dashboard
Private dashboard
Create
Upload
Auto refresh : Off
All
Services (24)
Marketplace (20)
D
Azure Active Directory (0)
Services
Virtual machines


Dashboard >
Virtual machines
milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)
Create
Switch to classic
Reservations
Manage view
Refresh
Export to CSV
Open query
Assign tags
Start
Restart
Stop
Filter for any field...
Subscription equals Azure subscription 1
Type equals all
Resource group equals all
Location equals all
Add filter
No grouping
List view
Name
Type
Subscription
Resource group
Location
Status
Operating system
Size
sm-49-az800-vm1
Virtual machine
Azure subscription 1
sm-49-az800-rg
UK South
Running
Windows
Standard_B1s


Dashboard > Virtual machines >
sm-49-az800-vm1
Virtual machine
Search (Ctrl+/)
Connect
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Windows Admin Center (preview)
Advisor (1 of
Copy
Resource group
sm-49-az800-rg
Status
Running
Location
UK South
Subscription ID
8123c407-998a-


Dashboard > Virtual machines > sm-49-az800-vm1
sm-49-az800-vm1 | Access control (IAM)
Virtual machine
Search (Ctrl+/)
Add
Download role assignments
Edit columns
Overview
Activity log
Access control (IAM)
Tags
Add role assignment
Add co-administrator
Roles
Deny assignments
My access
View my level of access to this resource.

Dashboard > Virtual machines > sm-49-az800-vm1 | Access control (IAM) >

Add role assignment ...

Got feedback?

Role Members Review + assign

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. Learn more

Search by role name, description, or ID

Type : **All**

All

Name	Description
Owner	Grants full access to manage all resources, inc
Contributor	Grants full access to manage all resources, bu
Reader	View all resources, but does not allow you to

All
AI + Machine Learning
Analytics
Compute
Containers

Dashboard > Virtual machines > sm-49-az800-vm1 | Access control (IAM) >

Add role assignment ...

Got feedback?

Role Members Review + assign

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. Learn more

Search by role name, description, or ID

Type : **All** Category : **Compute**

Showing 3 of 26 roles

Name	Description	Type
Virtual Machine Administrator Login	View Virtual Machines in the portal and login as administrator	BuiltInRo
Virtual Machine Contributor	Lets you manage virtual machines, but not access to them, and not the virtual netw...	BuiltInRo
Virtual Machine User Login	View Virtual Machines in the portal and login as a regular user.	BuiltInRo

Review + assign Previous Next

Dashboard > Virtual machines > sm-49-az800-vm1 | Access control (IAM) >

Add role assignment

Got feedback?

Role | Members | Review + assign

Selected role

Virtual Machine Administrator Login

Assign access to

- User, group, or service principal
- Managed identity

Members

+ Select members

Name	Object ID	Type
No members selected		

Description

Optional

Review + assign | Previous | Next

Select members

Select

smiles

SM Steve Miles
smiles@milesbettersolutions.com

Selected members:
No members selected. Search for and add one or more members you want to assign to the role for this resource.

Learn more about RBAC

Select | Close

Review + assign | Previous | Next

1 | Access control (IAM)

Add | Download role assignments | Edit columns | Refresh | Remove | Got feedback?

Check access | Role assignments | Roles | Deny assignments | Classic administrators

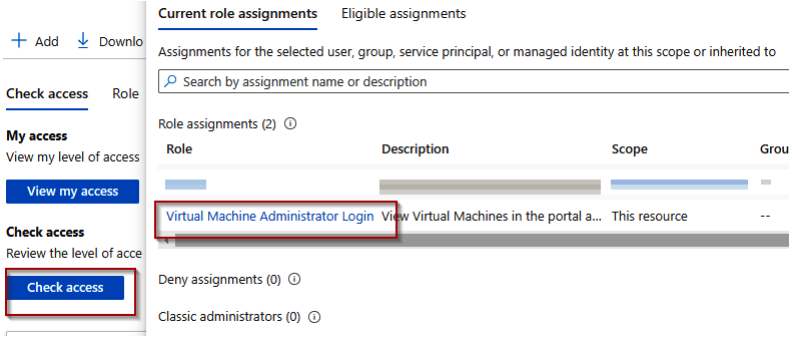
Number of role assignments for this subscription

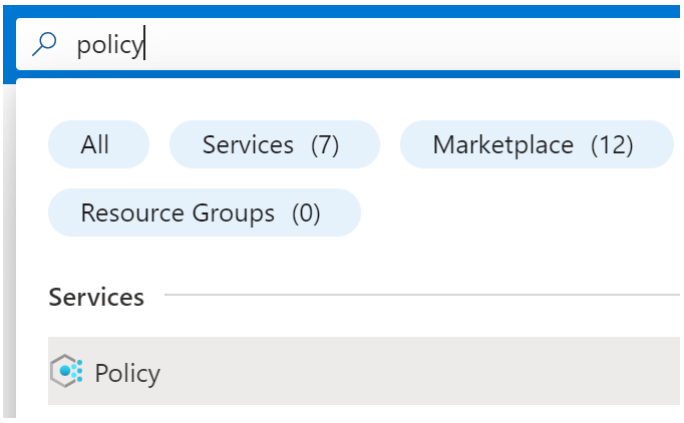
2 4000

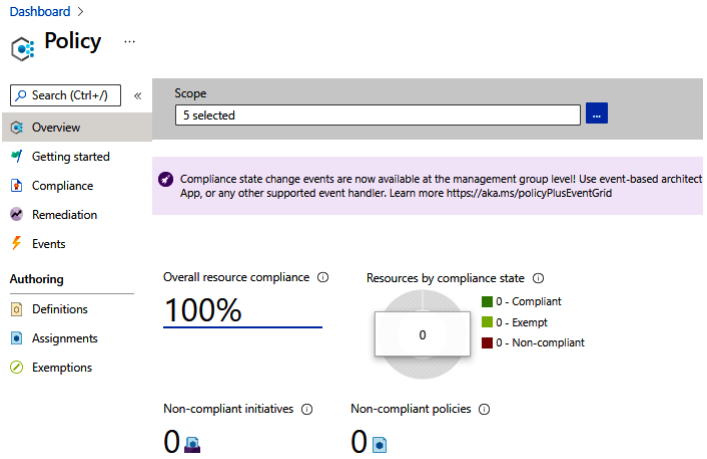
Search by name or email | Type : All | Role : All | Scope : All scopes | Group by : Role

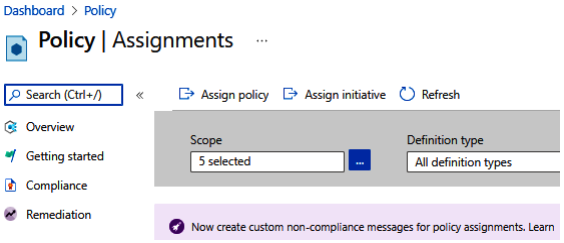
2 items (2 Users)

Name	Type	Role	Scope
Owner			
MI milesbetter.solutions admin@NETORGFT8723201.onmicrosoft.com	User	Owner	Subscription (Inherited)
Virtual Machine Administrator Login			
SM Steve Miles smiles@milesbettersolutions.com	User	Virtual Machine Administrator Login	This resource


Add
Downlo
Check access
Role
My access
View my level of access
View my access
Check access
Review the level of acce
Check access
Current role assignments
Eligible assignments
Assignments for the selected user, group, service principal, or managed identity at this scope or inherited to
Search by assignment name or description
Role assignments (2)
Role
Description
Scope
Grou
Virtual Machine Administrator Login
View Virtual Machines in the portal a...
This resource
--
Deny assignments (0)
Classic administrators (0)


policy
All
Services (7)
Marketplace (12)
Resource Groups (0)
Services
Policy


Dashboard >
Policy
Search (Ctrl+/)
Overview
Getting started
Compliance
Remediation
Events
Authoring
Definitions
Assignments
Exemptions
Scope
5 selected
Compliance state change events are now available at the management group level! Use event-based architect
App, or any other supported event handler. Learn more https://aka.ms/policyPlusEventGrid
Overall resource compliance
100%
Resources by compliance state
0
0 - Compliant
0 - Exempt
0 - Non-compliant
Non-compliant initiatives
0
Non-compliant policies
0


Dashboard > Policy
Policy | Assignments
Search (Ctrl+/)
Assign policy
Assign initiative
Refresh
Overview
Getting started
Compliance
Remediation
Scope
5 selected
Definition type
All definition types
Now create custom non-compliance messages for policy assignments. Learn

Dashboard > Policy | Assignments >

Assign policy

Basics | Parameters | Remediation | Non-compliance messages | Review + create

Scope

Scope Learn more about setting the scope *

Azure subscription 1

Exclusions

Optionally select resources to exclude from the policy assignment.

Basics

Policy definition *

Assignment name *

Description

Policy enforcement

Enabled Disabled

Assigned by

steve miles

Review + create | Cancel | Previous | Next

Dashboard > Policy | Assignments >

Assign policy

Basics | Parameters | Remediation | Non-compliai

Scope

Scope Learn more about setting the scope *

Azure subscription 1

Exclusions

Optionally select resources to exclude from the policy assi

Basics

Policy definition *

Assignment name *

Review + create | Cancel | Previous

Available Definitions

Type: All types

Search: azure arc

Policy Definitions (26)

https://aka.ms/computevm-windowspatchassessmentmode, for Linux: https://aka.ms/computevm-linuxpatchassessmentmode.

[Preview]: Log Analytics extension should be installed on your Windows Azure Arc machines
Built-in
This policy audits Windows Azure Arc machines if the Log Analytics extension is not installed.

Configure Azure Arc Private Link Scopes with private endpoints
Built-in
Private endpoints connect your virtual networks to Azure services without a public IP address at the source or destination. By mapping private endpoints to Azure Arc Private Link Scopes, you can reduce data leakage risks. Learn more about private links at: https://aka.ms/arc/privatelink.

Configure Azure Arc Private Link Scopes to disable public network access

Select | Cancel

Basics

Policy definition *

[Preview]: Log Analytics extension should be installed on your Windows Azure Arc machi...

Assignment name *

[Preview]: Log Analytics extension should be installed on your Windows Azure Arc machines

Dashboard > Policy | Assignments >

Assign policy

Basics | Parameters | Remediation | Non-compliance messages | Review + create

Basics

Scope	Azure subscription 1
Exclusions	--
Policy definition	[Preview]: Log Analytics extension should be installed on your ...
Assignment name	[Preview]: Log Analytics extension should be installed on your ...
Description	--
Policy enforcement	Enabled
Assigned by	steve miles

Parameters

No parameter changes detected.

Remediation

No managed identity associated with this assignment.

Non-compliance messages

No non-compliance messages associated with this assignment.

Create | Cancel | Previous | Next

Dashboard > Policy

Policy | Compliance

Search (Ctrl+/)

Overview
Getting started
Compliance
Remediation
Events

Authoring

Definitions
Assignments
Exemptions

Assign policy | Assign initiative | Refresh

Filter by name or ID...

Overall resource compliance
0%
0 out of 4

Resources by compliance state
4
0 - Compliant
0 - Exempt
4 - Non-compliant

Non-compliant initiatives
1
out of 1

Non-compliant policies
60
out of 204

Name	Scope	Compliance state	Resource compli...	Non-Compliant Re...
ASC Default (subscription: 8123c407-998a-4ace-afe...	Azure subscription 1	Non-compliant	0% (0 out of 4)	4
[Preview]: Log Analytics extension should be install...	Azure subscription 1	Compliant	100% (0 out of 0)	0

Dashboard > Policy | Compliance >

[Preview]: Log Analytics extension should be installed on your Windows Azure Arc machines

Policy compliance

View definition | Edit assignment | Assign to another scope | Delete assignment | Create Remediation Task | Create exemption

Essentials

Name : [Preview]: Log Analytics extension should be installed on your Windows A...
Scope : Azure subscription 1
Description : --
Excluded scopes : 0
Assignment ID : /subscriptions/8123c407-998a-4ace-afed-360e1839938a/providers/micro...
Definition : [Preview]: Log Analytics extension should be installed on your Windows ...

Selected Scopes
1 selected subscription

Compliance state
Not started

Overall resource compliance
100%

Resources by compliance state
0
0 - Compliant
0 - Exempt
0 - Non-compliant

Details
Effect Type **AuditIfNotExists**
Parent Initiative **<<NONE>>**

Resource compliance | Events

Filter by resource name or ID... | Non-compliant | All resource types | All locations

Name	Compliance state	Compliance reas...	Resource Type	Location	Scope	Last evaluated
No results						

Microsoft Azure | log analytics workspaces

Create a resource
Home
Dashboard
All services
FAVORITES

All | Services (19) | Marketplace (1) | Azure Active Directory (0)

Services
Log Analytics workspaces
Activity log

Home >

Log Analytics workspaces

milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)

Create | Open recycle bin | Manage view | Refresh | Export to CSV | Open query | Assign tags

Filter for any field... | Subscription equals **Azure subscription 1** | Resource group equals **all** | Add filter | More (1)

No grouping | List view

Name	Resource group	Location	Subscription

No log analytics workspaces to display

Try changing or clearing your filters

Create log analytics workspace

Learn more

Home > Log Analytics workspaces >

Create Log Analytics workspace

Basics | Tags | Review + Create

A Log Analytics workspace is the basic management unit of Azure Monitor Logs. There are specific considerations you should take when creating a new Log Analytics workspace. Learn more

With Azure Monitor Logs you can easily store, retain, and query data collected from your monitored resources in Azure and other environments for valuable insights. A Log Analytics workspace is the logical storage unit where your log data is collected and stored.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * : Azure subscription 1

Resource group * : (New) sm-079-law-dfc-RG

Create new

Instance details

Name * : sm-079-law-dfc

Region * : UK South

Review + Create | « Previous | Next : Tags >

Home > Log Analytics workspaces >

Create Log Analytics workspace

Validation passed

Basics | Tags | Review + Create

Log Analytics workspace
by Microsoft

Basics

Subscription	Azure subscription 1
Resource group	sm-079-law-dfc-RG
Name	sm-079-law-dfc
Region	UK South

Pricing

Pricing tier	Pay-as-you-go (Per GB 2018)

The cost of your workspace depends on the volume of data ingested and how long it is retained. Regional pricing details are available on the Azure Monitor pricing page. You can change to a different pricing tier after the workspace is created. Learn more about Log Analytics pricing models.

Tags

(none)

Create | « Previous | Download a template for automation

Home >

Microsoft.LogAnalyticsOMS | Overview

Deployment

Search (Ctrl+/)

- Overview
- Inputs
- Outputs
- Template

Delete | Cancel | Redeploy | Download | Refresh

We'd love your feedback! →

Your deployment is complete

Deployment name: Microsoft.LogAnalyticsOMS
Subscription: Azure subscription 1
Resource group: sm-079-law-dfc-RG

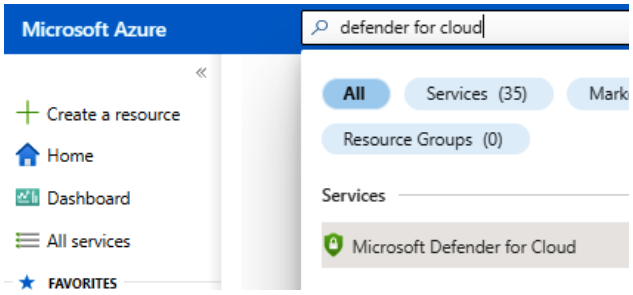
Start time: 07/09/2022, 14:21:20
Correlation ID: 9576b8e9-1460-480b-a0f5-e6544f256ac0

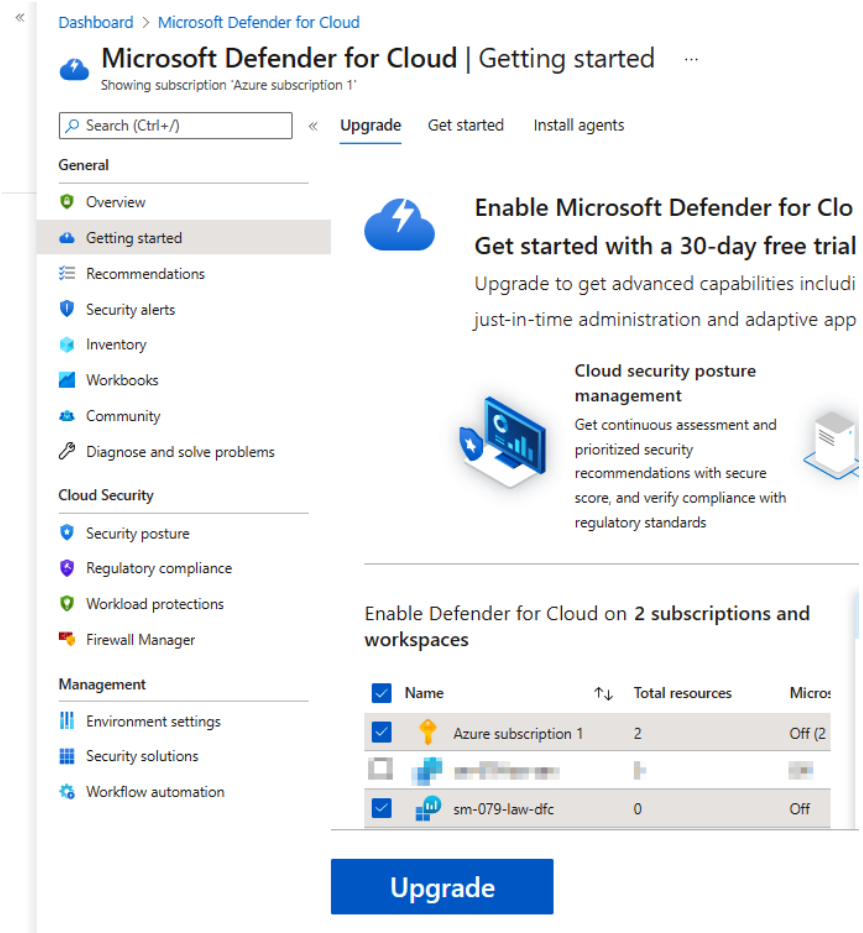
Deployment details

Resource	Type	Status	Operation details
sm-079-law-dfc	Microsoft.OperationalInsig...	OK	Operation details

Next steps

Go to resource


Microsoft Azure
defender for cloud
Create a resource
Home
Dashboard
All services
FAVORITES
All
Services (35)
Resource Groups (0)
Services
Microsoft Defender for Cloud


Dashboard > Microsoft Defender for Cloud
Microsoft Defender for Cloud | Getting started
Showing subscription 'Azure subscription 1'
Search (Ctrl+/)
Upgrade
Get started
Install agents
General
Overview
Getting started
Recommendations
Security alerts
Inventory
Workbooks
Community
Diagnose and solve problems
Cloud Security
Security posture
Regulatory compliance
Workload protections
Firewall Manager
Management
Environment settings
Security solutions
Workflow automation
Enable Microsoft Defender for Clo
Get started with a 30-day free trial
Upgrade to get advanced capabilities includi
just-in-time administration and adaptive app
Cloud security posture management
Get continuous assessment and prioritized security recommendations with secure score, and verify compliance with regulatory standards
Enable Defender for Cloud on 2 subscriptions and workspaces
Name
Total resources
Micros
Azure subscription 1
2
Off (2
sm-079-law-dfc
0
Off
Upgrade

Dashboard > Microsoft Defender for Cloud

Microsoft Defender for Cloud | Getting started

Showing subscription 'Azure subscription 1'

Search (Ctrl+/)

Upgrade | Get started | Install agents

General
- Overview
- Getting started
- Recommendations
- Security alerts
- Inventory
- Workbooks
- Community
- Diagnose and solve problems

Cloud Security
- Security posture
- Regulatory compliance
- Workload protections
- Firewall Manager

Management
- Environment settings
- Security solutions
- Workflow automation

Make the most of Defender for Cloud by enabling data collection agents

To receive security alerts and recommendations, agents must be installed on your virtual machines for data collection.

Learn more >

Install agents automatically

The Log Analytics agent will be automatically installed on all the virtual machines in selected subscription.

Select subscriptions on which agents will be installed 1 Managed resources

Name	Unprotected Re...
Azure subscription 1	1

Install agents

Continue without installing agents

Many important security features won't work if you don't install agents.

Continue without installing agents

Dashboard >

Microsoft Defender for Cloud | Overview

Showing subscription 'Azure subscription 1'

Search (Ctrl+/)

Subscriptions | What's new

General
- Overview
- Getting started
- Recommendations
- Security alerts
- Inventory
- Workbooks
- Community
- Diagnose and solve problems

Cloud Security
- Security posture
- Regulatory compliance
- Workload protections
- Firewall Manager

Management
- Environment settings
- Security solutions
- Workflow automation

You may be viewing limited information. To get tenant-wide visibility, click here →

1 Azure subscriptions | 4 Assessed resources | 5 Active recommendations | -- Security al

Security posture

5/5 Unassigned recommendation

0/0 Overdue recommendations

Secure score

0% SECURE SCORE

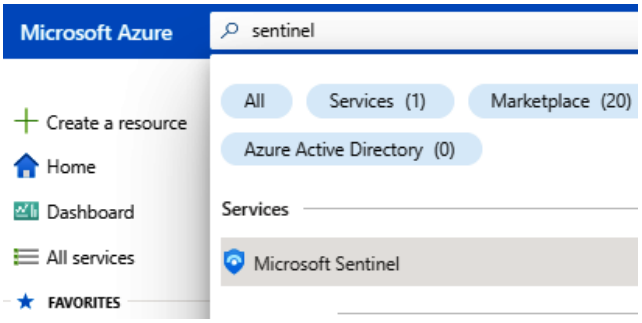
Azure -

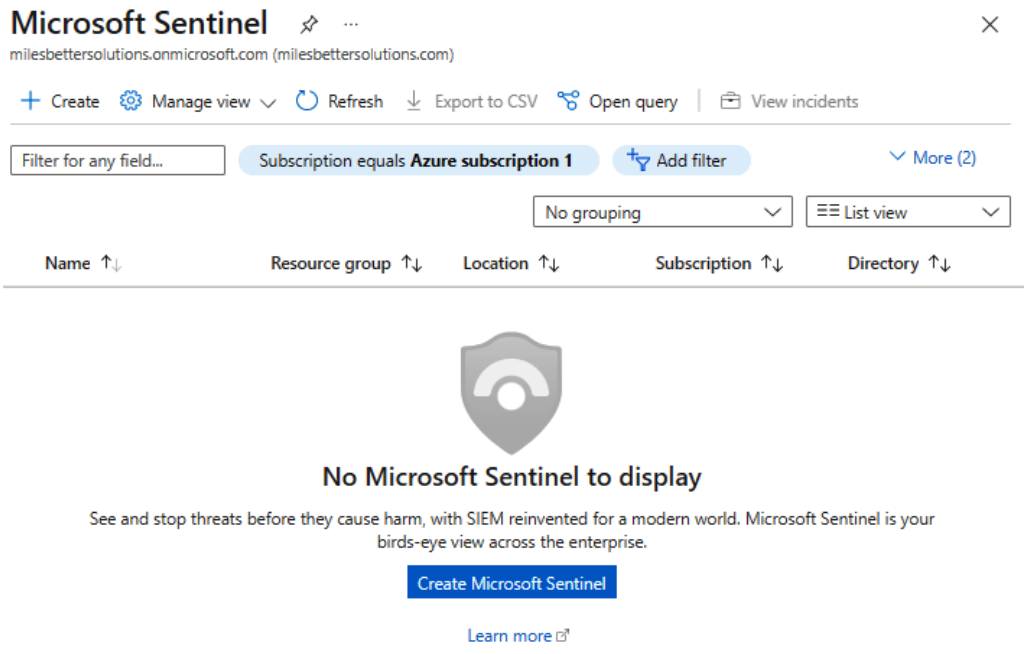
AWS -

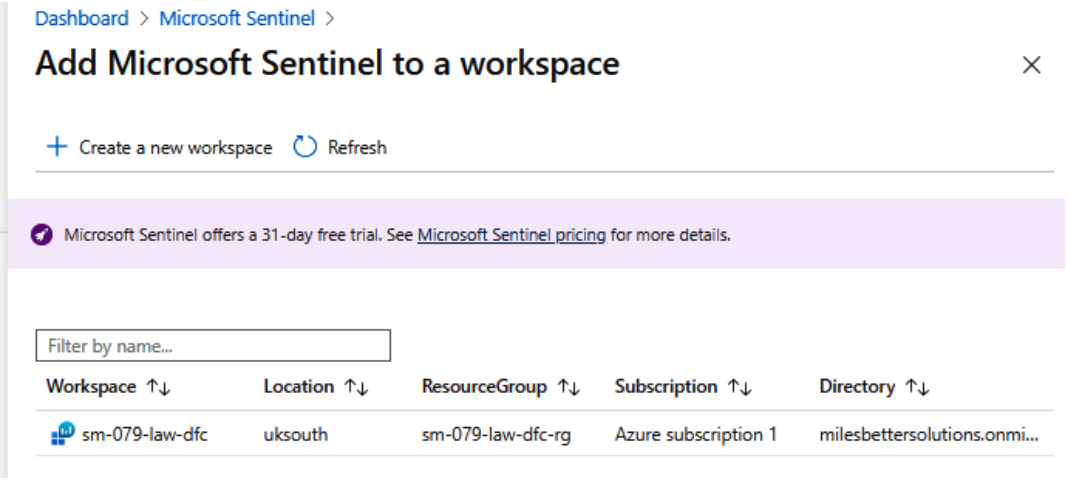
GCP -

Explore your security posture >

Regulatory compliance


Microsoft Azure
sentinel
Create a resource
Home
Dashboard
All services
FAVORITES
All
Services (1)
Marketplace (20)
Azure Active Directory (0)
Services
Microsoft Sentinel


Microsoft Sentinel
milesbettersolutions.onmicrosoft.com (milesbettersolutions.com)
Create
Manage view
Refresh
Export to CSV
Open query
View incidents
Filter for any field...
Subscription equals Azure subscription 1
Add filter
More (2)
No grouping
List view
Name
Resource group
Location
Subscription
Directory
No Microsoft Sentinel to display
See and stop threats before they cause harm, with SIEM reinvented for a modern world. Microsoft Sentinel is your birds-eye view across the enterprise.
Create Microsoft Sentinel
Learn more


Dashboard > Microsoft Sentinel >
Add Microsoft Sentinel to a workspace
Create a new workspace
Refresh
Microsoft Sentinel offers a 31-day free trial. See Microsoft Sentinel pricing for more details.
Filter by name...
Workspace
Location
ResourceGroup
Subscription
Directory
sm-079-law-dfc
uksouth
sm-079-law-dfc-rg
Azure subscription 1
milesbettersolutions.onmi...

Dashboard > Add Microsoft Sentinel to a workspace >

Create Log Analytics workspace ...

Basics Tags Review + Create

A Log Analytics workspace is the basic management unit of Azure Monitor Logs. There are specific considerations you should take when creating a new Log Analytics workspace. Learn more

With Azure Monitor Logs you can easily store, retain, and query data collected from your monitored resources in Azure and other environments for valuable insights. A Log Analytics workspace is the logical storage unit where your log data is collected and stored.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * Azure subscription 1

Resource group * (New) sm-079-law-sen-rg

Create new

Instance details

Name * sm-079-law-sen

Region * UK South

Review + Create « Previous Next : Tags >

Dashboard > Add Microsoft Sentinel to a workspace >

Create Log Analytics workspace ...

Validation passed

Basics Tags Review + Create

Log Analytics workspace
by Microsoft

Basics

Subscription	Azure subscription 1
Resource group	sm-079-law-sen-rg
Name	sm-079-law-sen
Region	UK South

Pricing

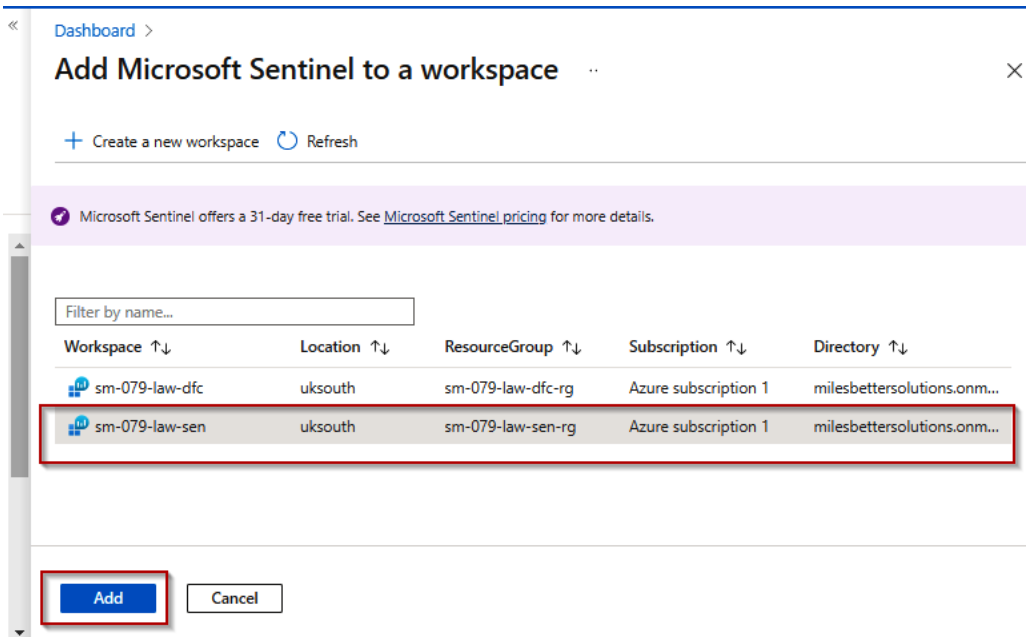
Pricing tier	Pay-as-you-go (Per GB 2018)

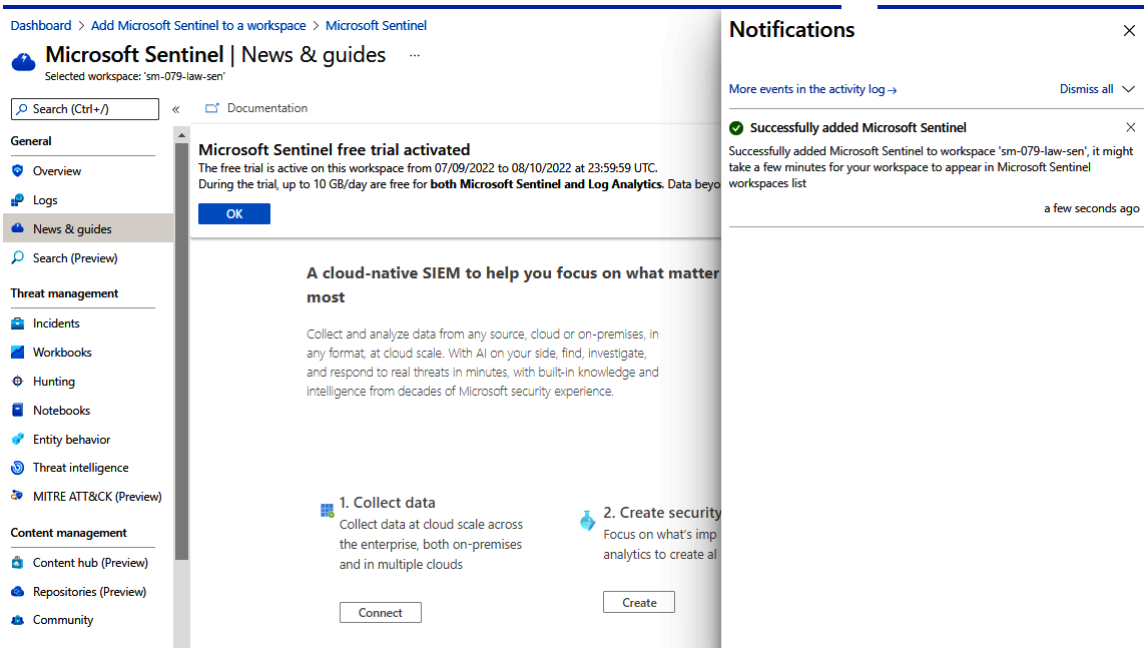
The cost of your workspace depends on the volume of data ingested and how long it is retained. Regional pricing details are available on the Azure Monitor pricing page. You can change to a different pricing tier after the workspace is created. Learn more about Log Analytics pricing models.

Tags

(none)

Create « Previous Download a template for automation


Dashboard >
Add Microsoft Sentinel to a workspace
Create a new workspace
Refresh
Microsoft Sentinel offers a 31-day free trial. See Microsoft Sentinel pricing for more details.
Filter by name...
Workspace
Location
ResourceGroup
Subscription
Directory
sm-079-law-dfc
uksouth
sm-079-law-dfc-rg
Azure subscription 1
milesbettersolutions.onm...
sm-079-law-sen
uksouth
sm-079-law-sen-rg
Azure subscription 1
milesbettersolutions.onm...
Add
Cancel


Dashboard > Add Microsoft Sentinel to a workspace > Microsoft Sentinel
Microsoft Sentinel | News & guides
Selected workspace: 'sm-079-law-sen'
Search (Ctrl+/)
Documentation
General
Overview
Logs
News & guides
Search (Preview)
Threat management
Incidents
Workbooks
Hunting
Notebooks
Entity behavior
Threat intelligence
MITRE ATT&CK (Preview)
Content management
Content hub (Preview)
Repositories (Preview)
Community
Microsoft Sentinel free trial activated
The free trial is active on this workspace from 07/09/2022 to 08/10/2022 at 23:59:59 UTC.
During the trial, up to 10 GB/day are free for both Microsoft Sentinel and Log Analytics. Data beyo
OK
A cloud-native SIEM to help you focus on what matter most
Collect and analyze data from any source, cloud or on-premises, in any format, at cloud scale. With AI on your side, find, investigate, and respond to real threats in minutes, with built-in knowledge and intelligence from decades of Microsoft security experience.
1. Collect data
Collect data at cloud scale across the enterprise, both on-premises and in multiple clouds
Connect
2. Create security
Focus on what's imp
analytics to create al
Create
Notifications
More events in the activity log →
Dismiss all
Successfully added Microsoft Sentinel
Successfully added Microsoft Sentinel to workspace 'sm-079-law-sen', it might take a few minutes for your workspace to appear in Microsoft Sentinel workspaces list
a few seconds ago

Dashboard > Add Microsoft Sentinel to a workspace > Microsoft Sentinel

Microsoft Sentinel | News & guides

Selected workspace: 'sm-079-law-sen'

Search (Ctrl+/)

Documentation

General
- Overview
- Logs
- News & guides
- Search (Preview)

Threat management
- Incidents
- Workbooks
- Hunting
- Notebooks
- Entity behavior
- Threat intelligence
- MITRE ATT&CK (Preview)

Content management
- Content hub (Preview)
- Repositories (Preview)
- Community

What's new | Get started | Free trial

Microsoft Sentinel

A cloud-native SIEM to help you focus on what matters most

Collect and analyze data from any source, cloud or on-premises, in any format, at cloud scale. With AI on your side, find, investigate, and respond to real threats in minutes, with built-in knowledge and intelligence from decades of Microsoft security experience.

1. Collect data
Collect data at cloud scale across the enterprise, both on-premises and in multiple clouds

Connect

2. Create security alerts
Focus on what's important using analytics to create alerts

Create

3. Automate & orchestrate
Use or customize built-in playbooks to automate common tasks

Create

Dashboard > Microsoft Sentinel > Microsoft Sentinel

Microsoft Sentinel | Data connectors

Selected workspace: 'sm-079-law-sen'

Search (Ctrl+/)

Refresh | Guides & Feedback

General
- Overview
- Logs
- News & guides
- Search (Preview)

Threat management
- Incidents
- Workbooks
- Hunting
- Notebooks
- Entity behavior
- Threat intelligence
- MITRE ATT&CK (Preview)

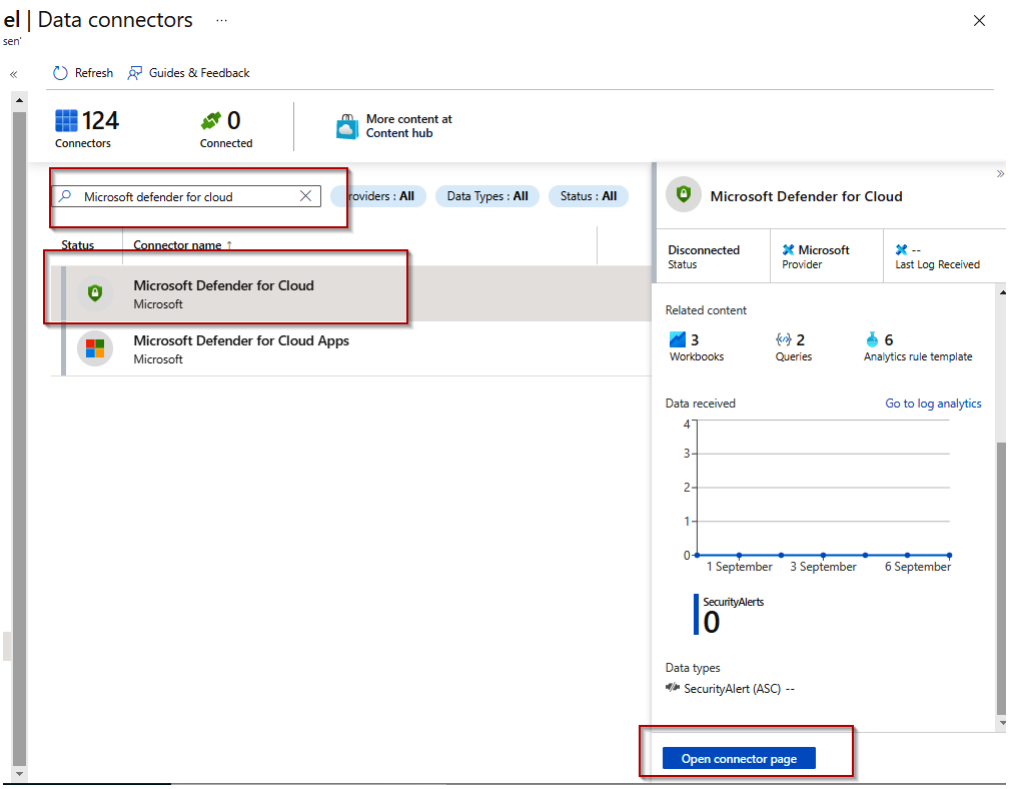
Content management
- Content hub (Preview)
- Repositories (Preview)
- Community

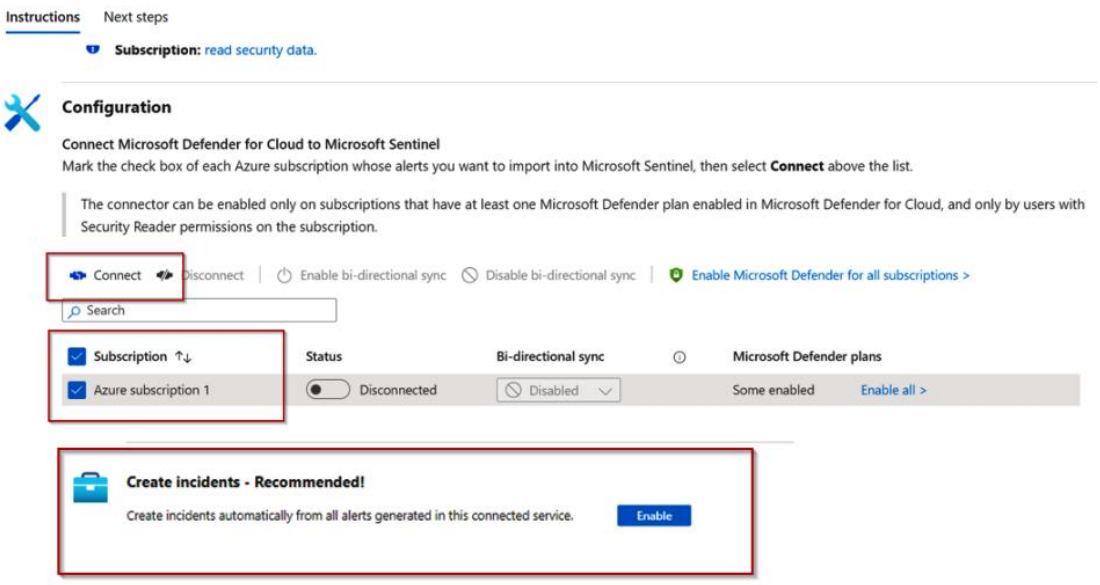
Configuration
- Data connectors
- Analytics
- Watchlist
- Automation
- Settings

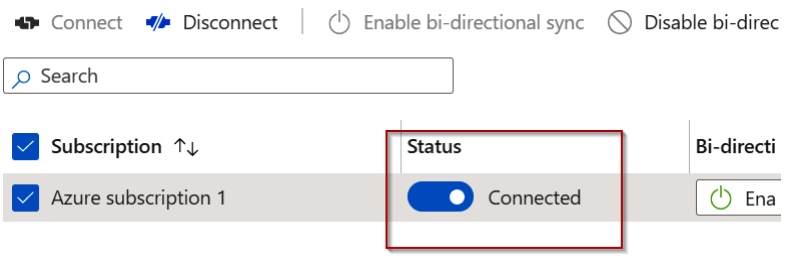
124 Connectors | **0** Connected | More content at Content hub

Search by name or provider | Providers : All | Data Types : All | Status : All

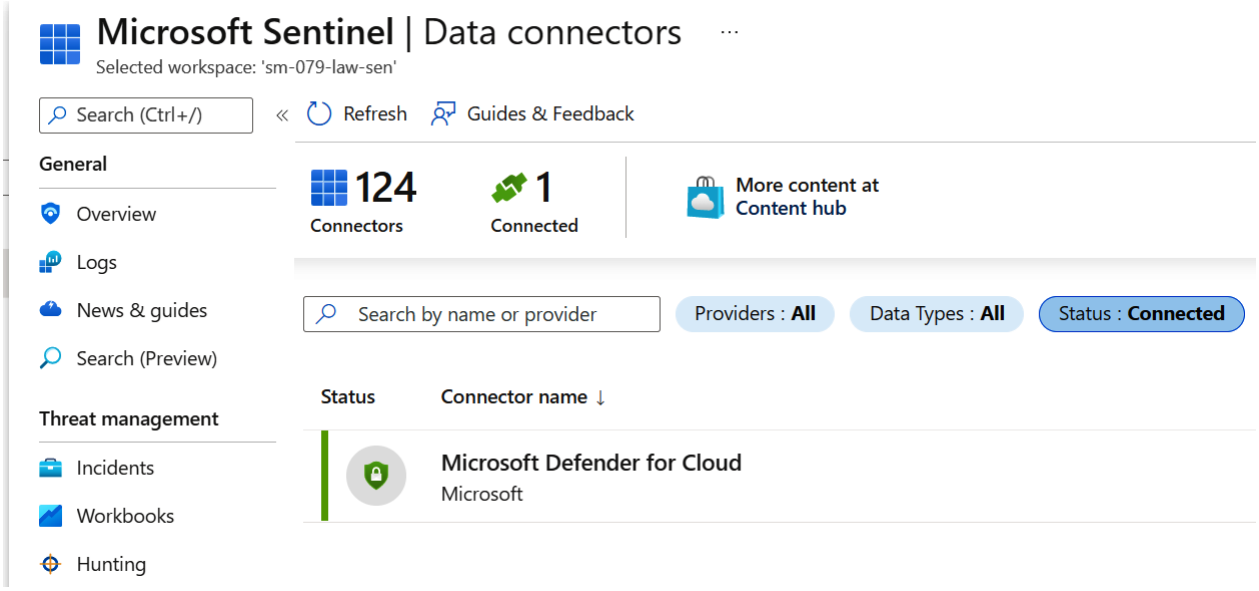
Status	Connector name ↑
	Agari Phishing Defense and Brand Protection (Preview) Agari
	AI Analyst Darktrace (Preview) Darktrace
	AI Vectra Detect (Preview) Vectra AI
	Akamai Security Events (Preview) Akamai
	Alcide kAudit (Preview) Alcide
	Alsid for Active Directory (Preview) Alsid
	Amazon Web Services Amazon
	Amazon Web Services S3 (Preview) Amazon
	Apache HTTP Server (Preview) Apache

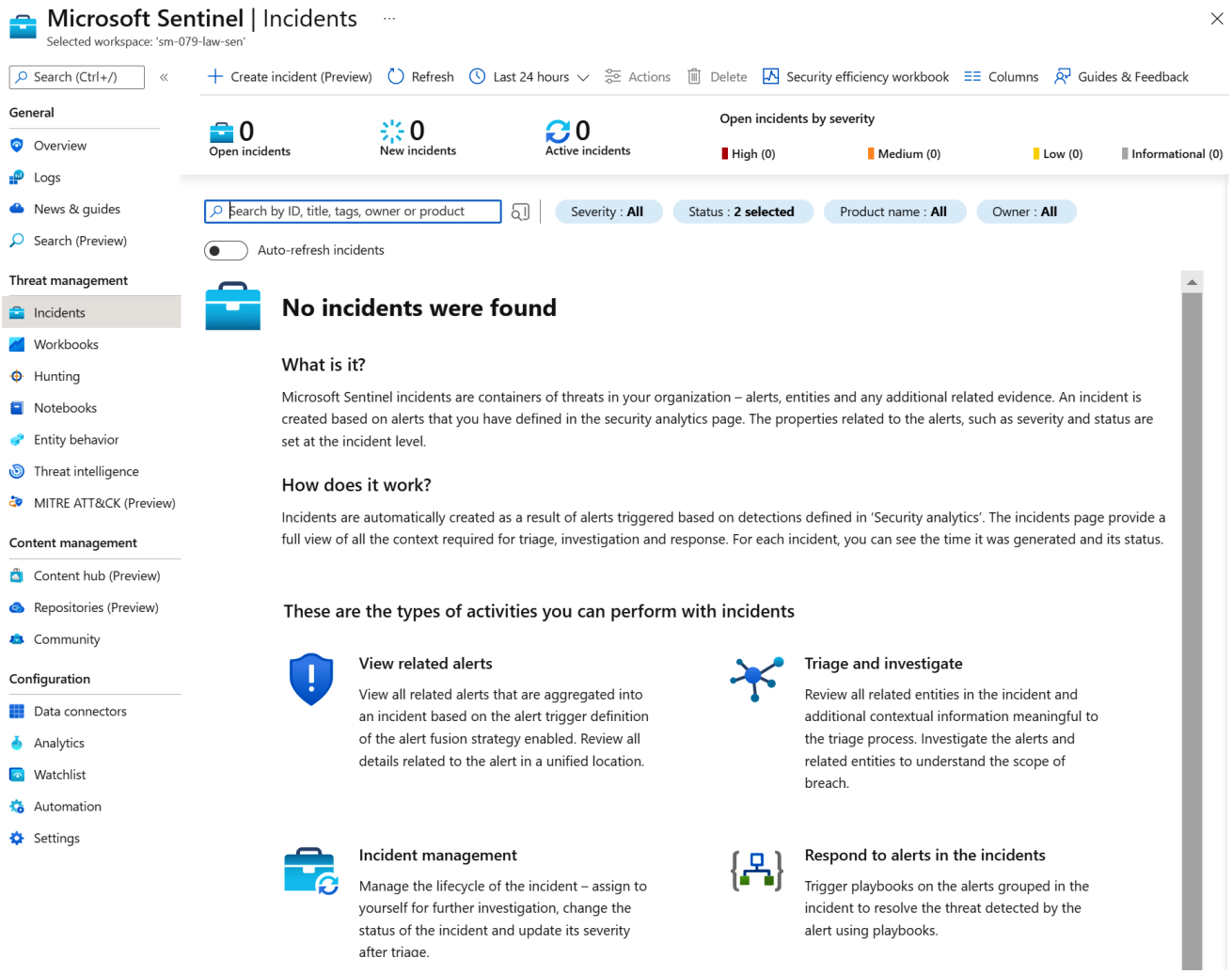

el | Data connectors
Refresh
Guides & Feedback
124
Connectors
0
Connected
More content at
Content hub
Microsoft defender for cloud
Data Types : All
Status : All
Status
Connector name
Microsoft Defender for Cloud
Microsoft
Microsoft Defender for Cloud Apps
Microsoft
Microsoft Defender for Cloud
Disconnected
Status
Microsoft
Provider
--
Last Log Received
Related content
3
Workbooks
2
Queries
6
Analytics rule template
Data received
Go to log analytics
1 September
3 September
6 September
SecurityAlerts
0
Data types
SecurityAlert (ASC) --
Open connector page


Instructions
Next steps
Subscription: read security data.
Configuration
Connect Microsoft Defender for Cloud to Microsoft Sentinel
Mark the check box of each Azure subscription whose alerts you want to import into Microsoft Sentinel, then select Connect above the list.
The connector can be enabled only on subscriptions that have at least one Microsoft Defender plan enabled in Microsoft Defender for Cloud, and only by users with Security Reader permissions on the subscription.
Connect
Disconnect
Enable bi-directional sync
Disable bi-directional sync
Enable Microsoft Defender for all subscriptions >
Search
Subscription
Status
Bi-directional sync
Microsoft Defender plans
Azure subscription 1
Disconnected
Disabled
Some enabled
Enable all >
Create incidents - Recommended!
Create incidents automatically from all alerts generated in this connected service.
Enable


Connect
Disconnect
Enable bi-directional sync
Disable bi-direc
Search
Subscription
Status
Bi-directi
Azure subscription 1
Connected
Ena

entinel


Microsoft Sentinel | Data connectors
Selected workspace: 'sm-079-law-sen'
Search (Ctrl+/)
Refresh
Guides & Feedback
General
Overview
Logs
News & guides
Search (Preview)
Threat management
Incidents
Workbooks
Hunting
124
Connectors
1
Connected
More content at
Content hub
Search by name or provider
Providers : All
Data Types : All
Status : Connected
Status
Connector name
Microsoft Defender for Cloud
Microsoft


Microsoft Sentinel | Incidents
Selected workspace: 'sm-079-law-sen'
Search (Ctrl+/)
Create incident (Preview)
Refresh
Last 24 hours
Actions
Delete
Security efficiency workbook
Columns
Guides & Feedback
General
Overview
Logs
News & guides
Search (Preview)
Threat management
Incidents
Workbooks
Hunting
Notebooks
Entity behavior
Threat intelligence
MITRE ATT&CK (Preview)
Content management
Content hub (Preview)
Repositories (Preview)
Community
Configuration
Data connectors
Analytics
Watchlist
Automation
Settings
0
Open incidents
0
New incidents
0
Active incidents
Open incidents by severity
High (0)
Medium (0)
Low (0)
Informational (0)
Search by ID, title, tags, owner or product
Severity : All
Status : 2 selected
Product name : All
Owner : All
Auto-refresh incidents
No incidents were found
What is it?
Microsoft Sentinel incidents are containers of threats in your organization – alerts, entities and any additional related evidence. An incident is created based on alerts that you have defined in the security analytics page. The properties related to the alerts, such as severity and status are set at the incident level.
How does it work?
Incidents are automatically created as a result of alerts triggered based on detections defined in 'Security analytics'. The incidents page provide a full view of all the context required for triage, investigation and response. For each incident, you can see the time it was generated and its status.
These are the types of activities you can perform with incidents
View related alerts
View all related alerts that are aggregated into an incident based on the alert trigger definition of the alert fusion strategy enabled. Review all details related to the alert in a unified location.
Triage and investigate
Review all related entities in the incident and additional contextual information meaningful to the triage process. Investigate the alerts and related entities to understand the scope of breach.
Incident management
Manage the lifecycle of the incident – assign to yourself for further investigation, change the status of the incident and update its severity after triage.
Respond to alerts in the incidents
Trigger playbooks on the alerts grouped in the incident to resolve the threat detected by the alert using playbooks.

Chapter 14: Exam Preparation Practice Tests

No Images