

# Virtual Machines

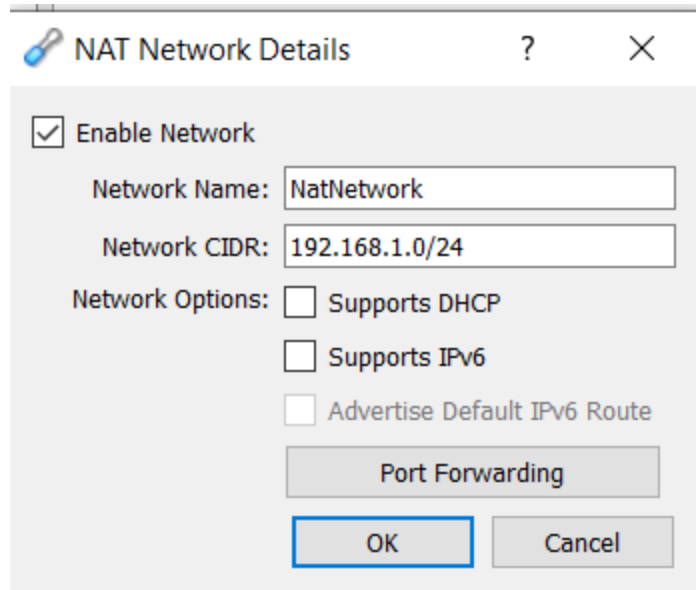
Name	OS	Version	RAM	Storage	IP Address
SADC01	Windows Server	1903	2GB	60GB	192.168.1.10
SASCCM01	Windows Server	1903	4GB	160GB	192.168.1.11
SAWS01	Windows 10 Pro	1903	2GB	60GB	Assigned by DHCP

# Server Roles

- SADC01
  - Active Directory Domain Services
  - DNS
  - DHCP
    - Scope configured for clients .100 - .200

# Active Directory Custom Structure

```
(domain) ServerAcademy.com
  (ou) ServerAcademy
    (ou) Workstations
      (computer) SAWS01
    (ou) Groups
    (ou) Users
      (user) Paul Hill
      (user) Robert Hill
      (user) Test User
    (ou) Admins
      (user / domain admin) Paul Hill (Admin)
      (user / domain admin) Robert Hill (Admin)
      (user / domain admin) Test User (Admin)
    (ou) Member Servers
      (computer) SASCCM01
    (ou) Service Accounts
```



**NAT Network Details**

☒ Enable Network

Network Name:

Network CIDR:

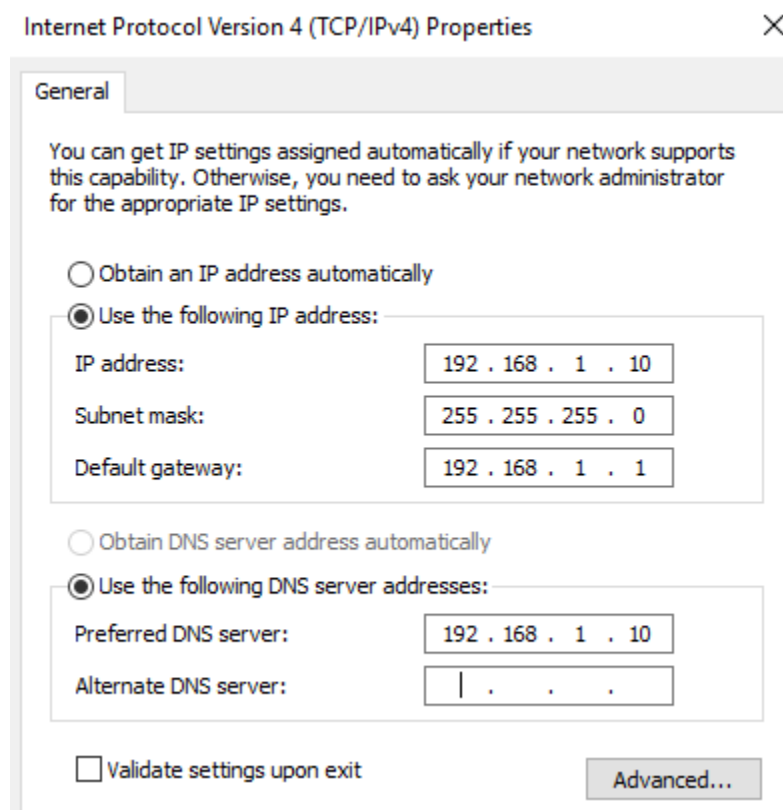
Network Options: ☐ Supports DHCP  
☐ Supports IPv6  
☐ Advertise Default IPv6 Route

E:\Users\Tanner

C:\Users\Tanner\VirtualBox VMs

E:\Users\Tanner\VirtualBox VMs

## SADC01 Server Configuration (Domain Controller)



**Internet Protocol Version 4 (TCP/IPv4) Properties**

**General**

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



PROPERTIES For SADC01	
Computer name	SADC01
Workgroup	WORKGROUP
Windows Defender Firewall	Public: On
Remote management	Enabled
Remote Desktop	Disabled
NIC Teaming	Disabled
Ethernet	192.168.1.10

## Pinging the Gateway

```
C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

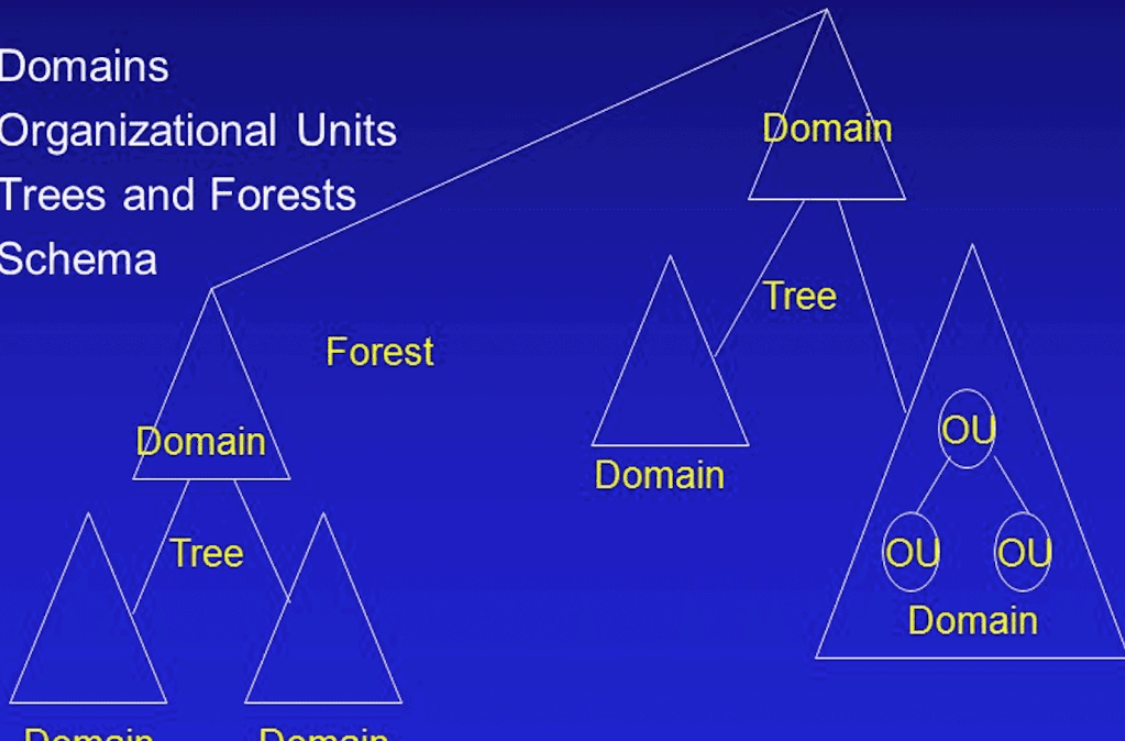
    Connection-specific DNS Suffix  . : 
    IPv4 Address. . . . . : 192.168.1.10
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

C:\Users\Administrator>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

- Domains
- Organizational Units
- Trees and Forests
- Schema



Active Directory Users and Computers

File Action View Help

Active Directory Users and Com

Name	Type
Workstation	Organizational Unit
Groups	Organizational Unit
Users	Organizational Unit
Admins	Organizational Unit
Members Servers	Organizational Unit
Service Accounts	Organizational Unit

Active Directory Users and Computers

File Action View Help

Active Directory Users and Computers

- Saved Queries
- ServerAcademy.com
  - Builtin
  - Computers
  - Domain Controllers
  - ForeignSecurityPrincipal:
  - Managed Service Accounts
  - Users
  - ServerAcademy
    - Workstation
    - Groups
    - Users
    - Admins
    - Members Servers
    - Service Accounts

Name	Type
Tanner Jones	User
Troy Taysom	User
Test User	User

Active Directory Users and Computers

File Action View Help

Active Directory Users and Computers

- Saved Queries
- ServerAcademy.com
  - Builtin
  - Computers
  - Domain Controllers
  - ForeignSecurityPrincipal:
  - Managed Service Accounts
  - Users
  - ServerAcademy
    - Workstation
    - Groups
    - Users
    - Admins
    - Members Servers
    - Service Accounts

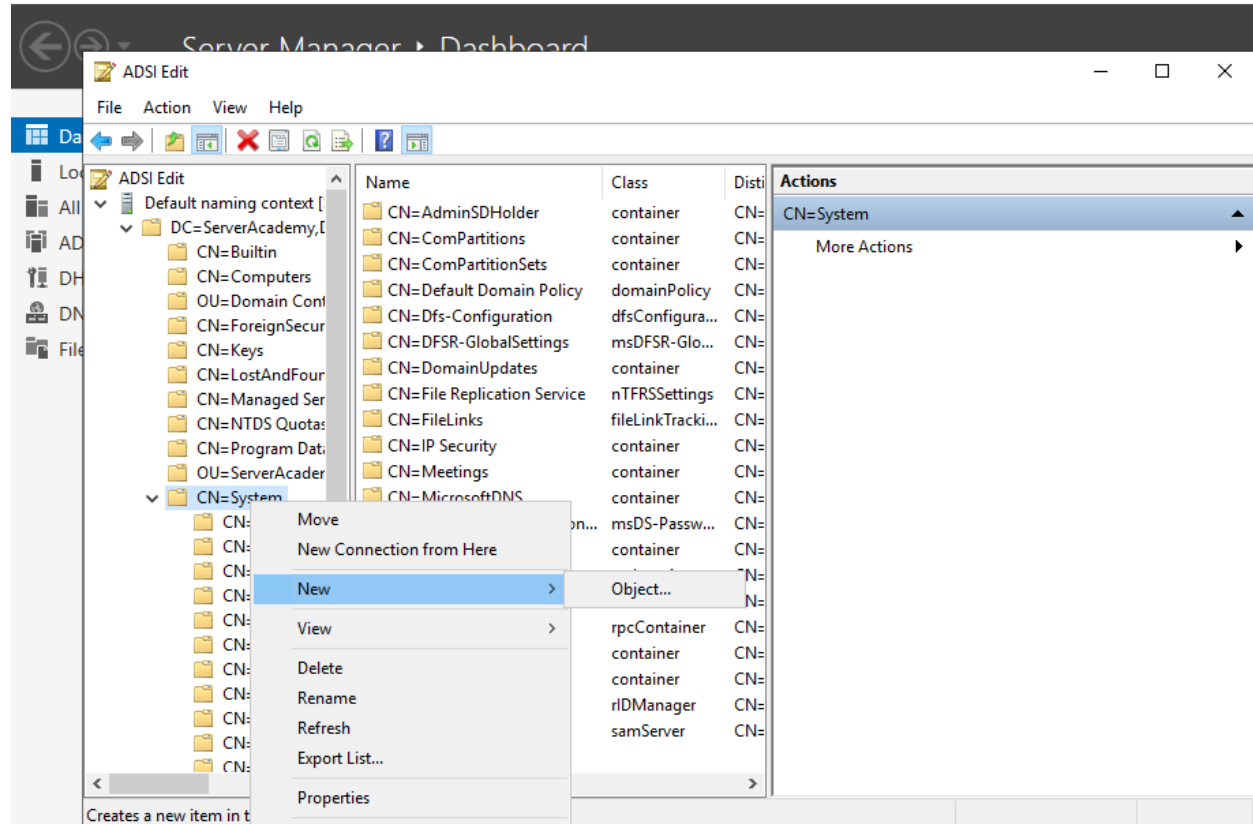
Name	Type
Tanner Jones (Admin)	User
Troy Taysom (Admin)	User
Test User (Admin)	User

# Container Creation within Domain Controller

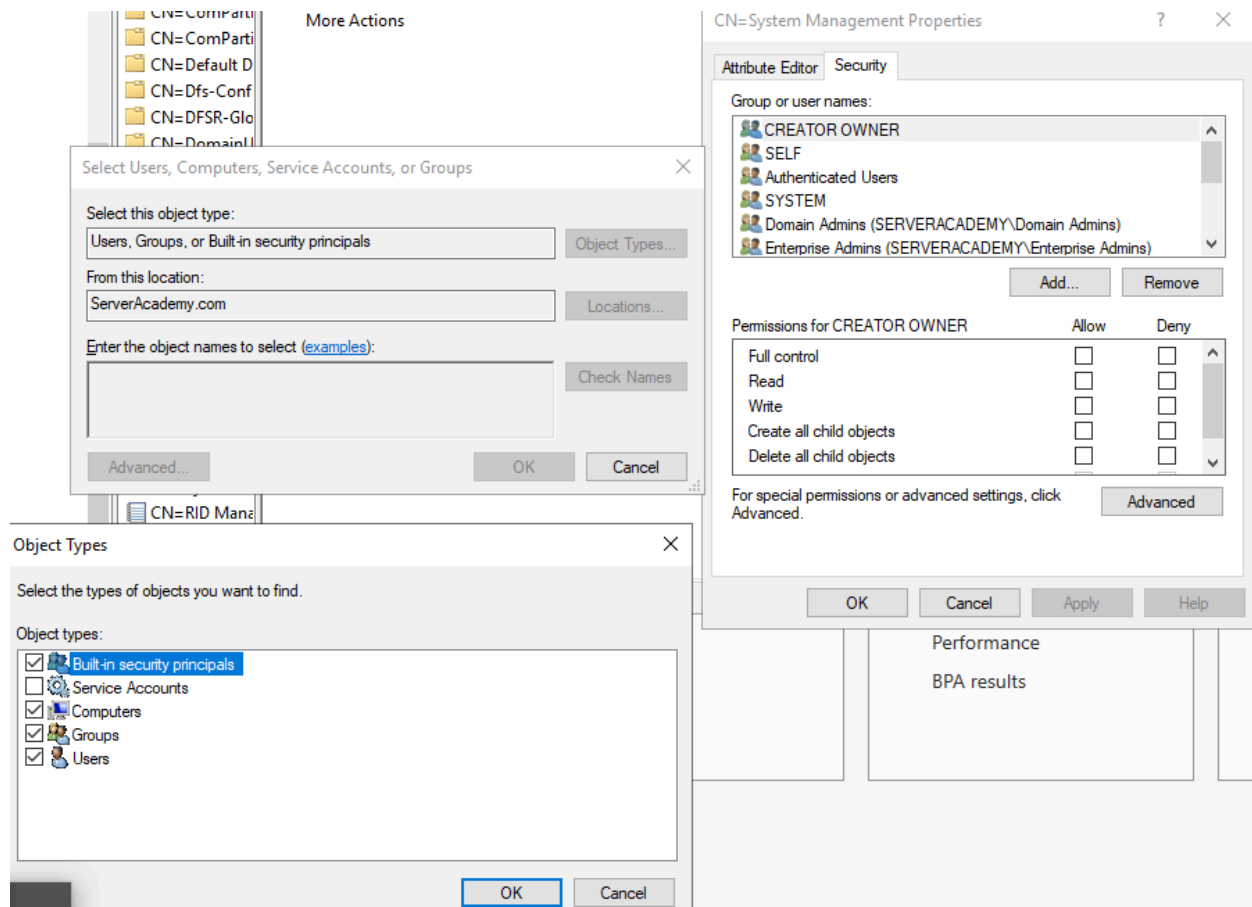
SADC01 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

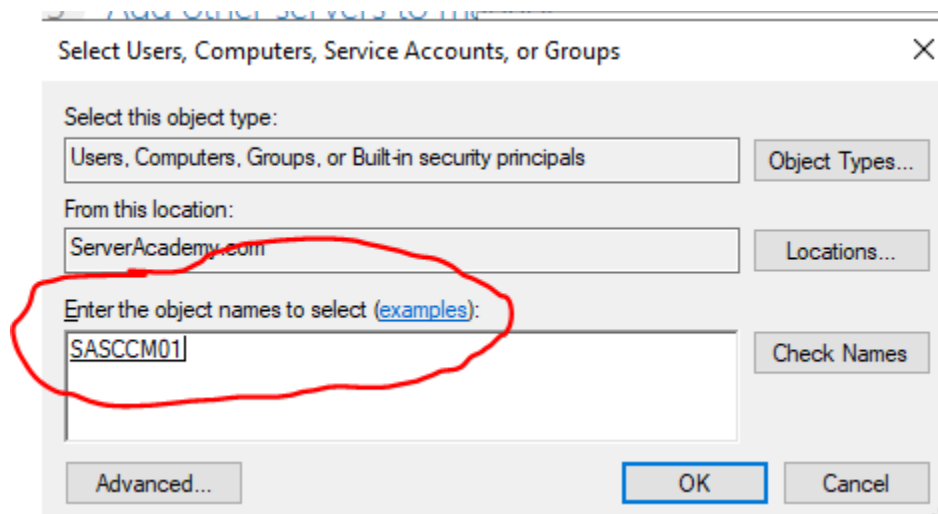
Server Manager



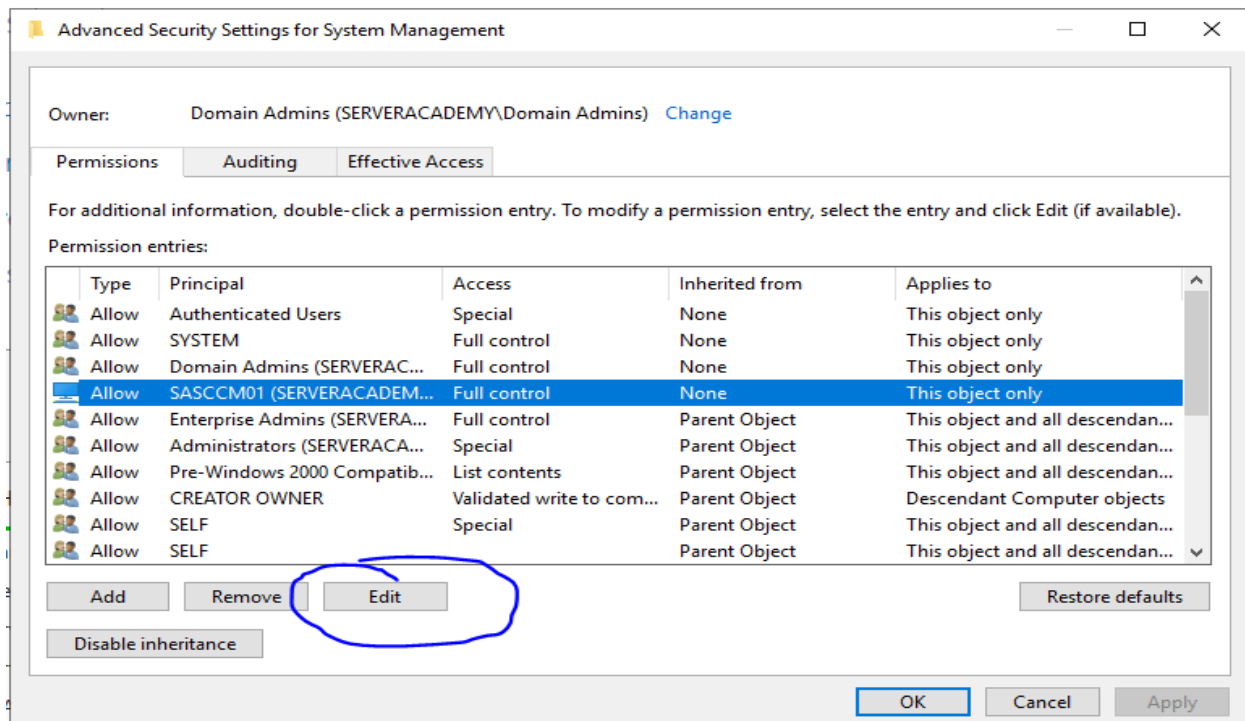
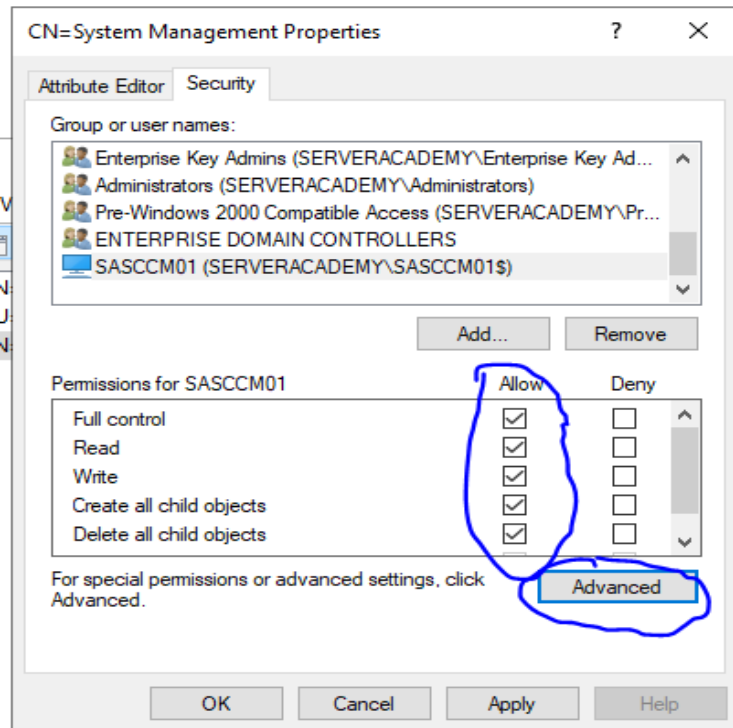
## Security Configuration of New Container (DC)



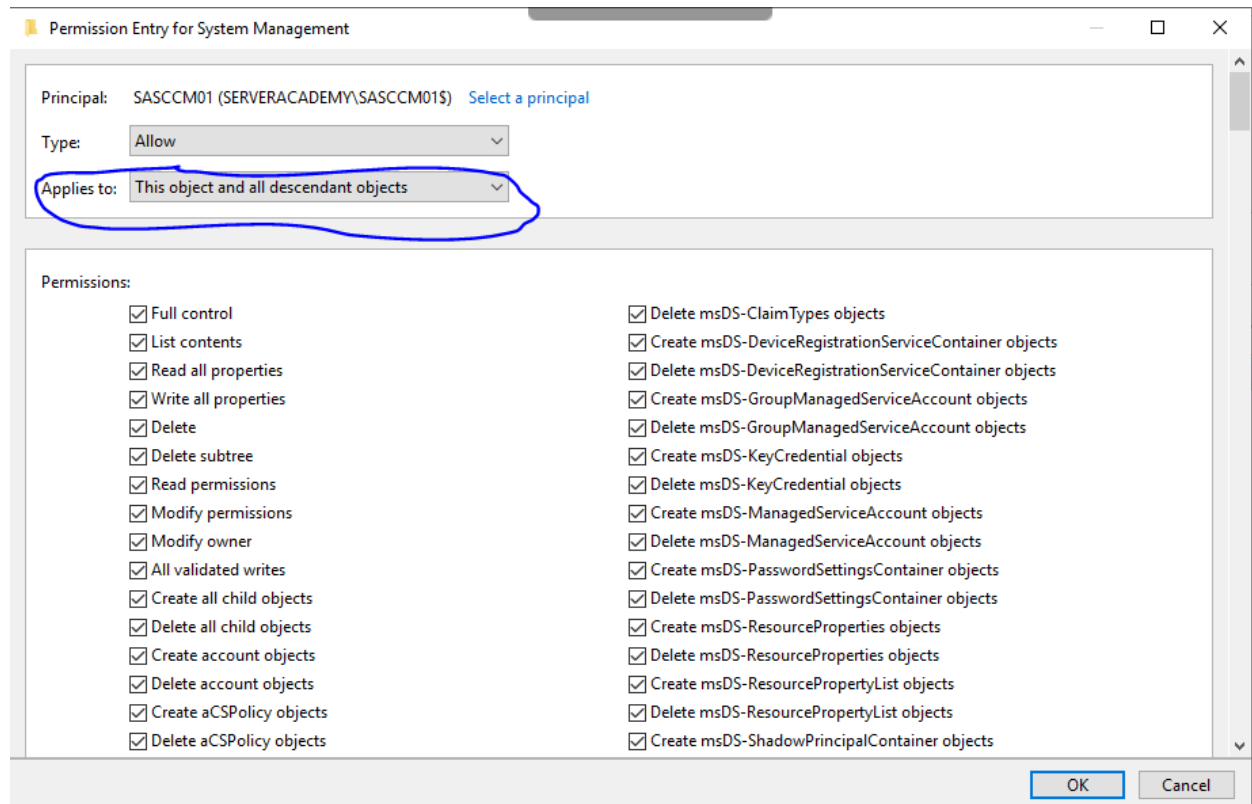
## Adding SASCCM Server to groups within container



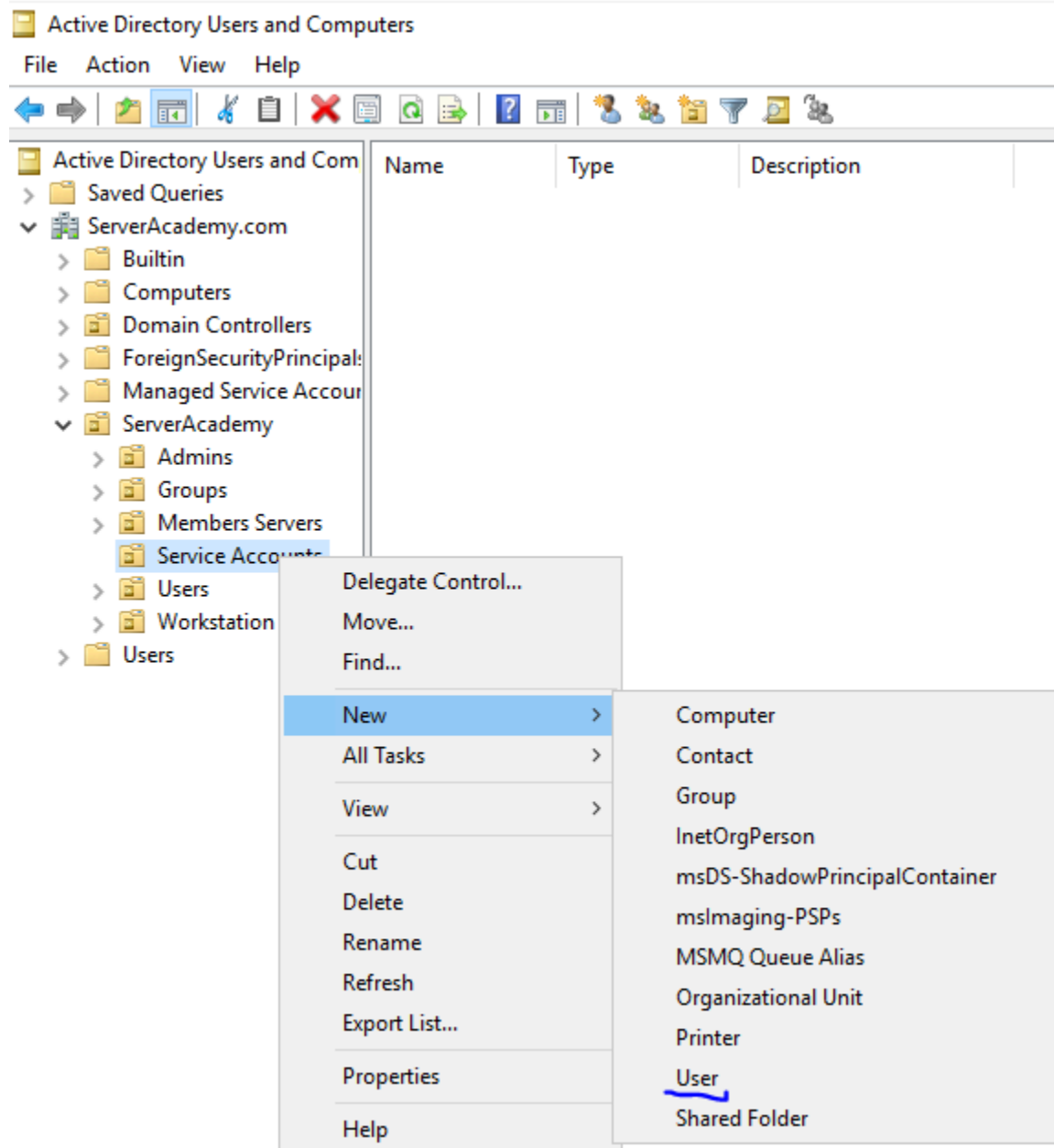
# Granting full permissions to SASCCM



# Granting permissions to descendant objects of SASCCM



# Creating SQL Service within Service Accounts





New Object - User

Create in: rAcademy.com/ServerAcademy/Service Accounts

First name: SQL Initials:

Last name: Service

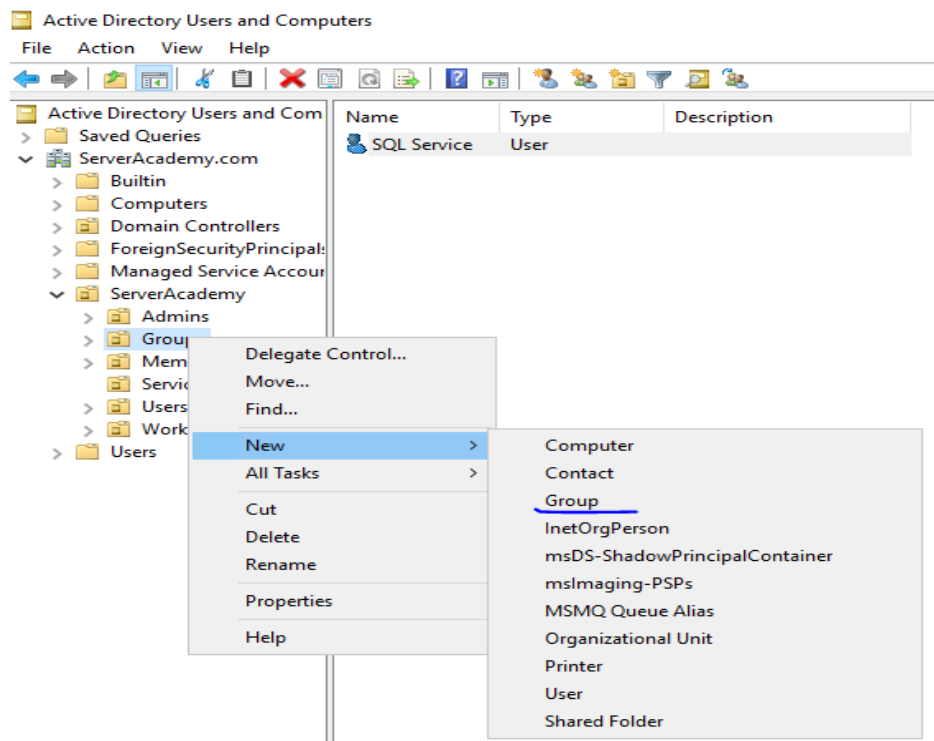
Full name: SQL Service

User logon name: SQLService @ServerAcademy.com


User logon name (pre-Windows 2000): SERVERACADEMY\ SQLService

< Back Next > Cancel

## Creating Admin Groups within ServerAcademy



New Object - Group ✕

 Create in: ServerAcademy.com/ServerAcademy/Groups

---

Group name:

Group name (pre-Windows 2000):

Group scope

☐ Domain local

☒ Global

☐ Universal


Group type

☒ Security

☐ Distribution

---

New Object - Group

 Create in: ServerAcademy.com/ServerAcademy/Groups

---

Group name:

Group name (pre-Windows 2000):

Group scope

☐ Domain local

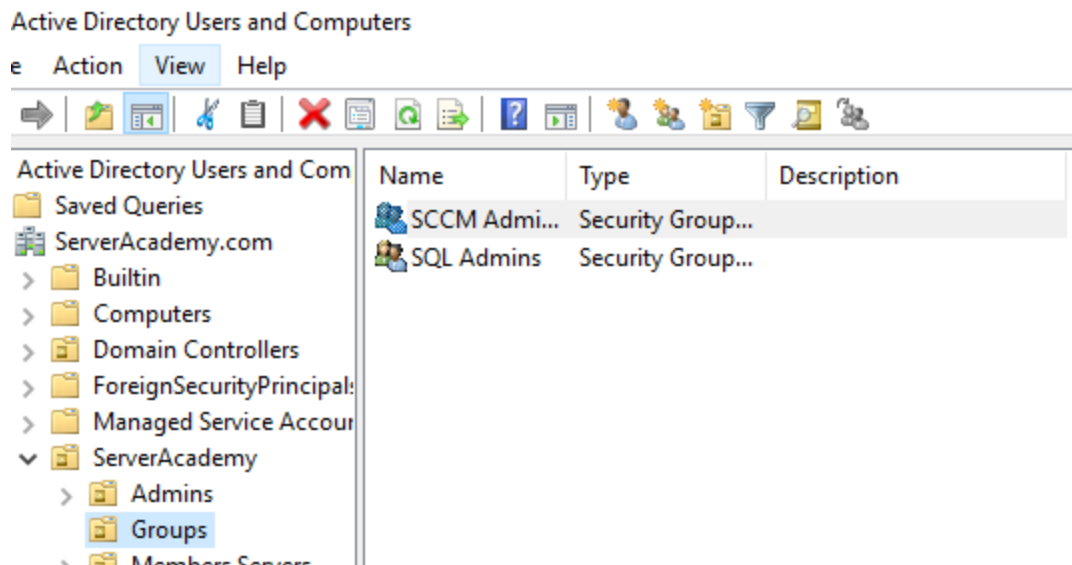
☒ Global

☐ Universal

Group type

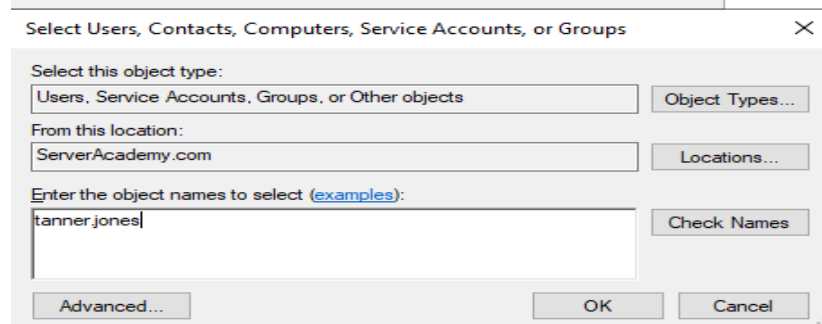
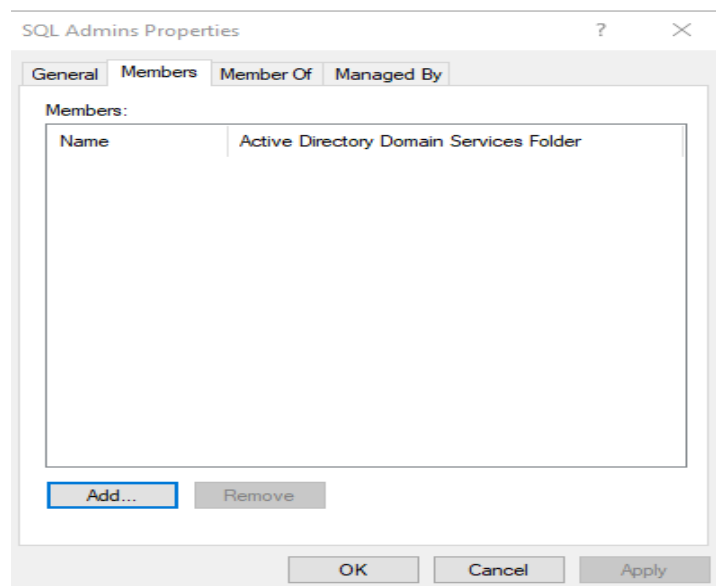
☒ Security

☐ Distribution



## Adding Users to the Created Groups

Name	Type	Description
SQL Admins	Security Group...	
SCCM Admins	Security Group...	



## Multiple Names Found



More than one object matched the name "tanner.jones". Select one or more names from this list, or, reenter the name.

Matching names:

Name	Logon Name (pr...	E-Mail Address	Description	In Folder
Tanner Jones	tanner.jones			ServerAcademy....
Tanner Jones ...	tanner.jones-admin			ServerAcademy....

## Multiple Names Found



More than one object matched the name "troy taysom". Select one or more names from this list, or, reenter the name.

Matching names:

Name	Logon Name (pr...	E-Mail Address	Description	In Folder
Troy Taysom	troy.taysom			ServerAcademy....
Troy Taysom (...)	troy.taysom-admin			ServerAcademy....

## SQL Admins Properties



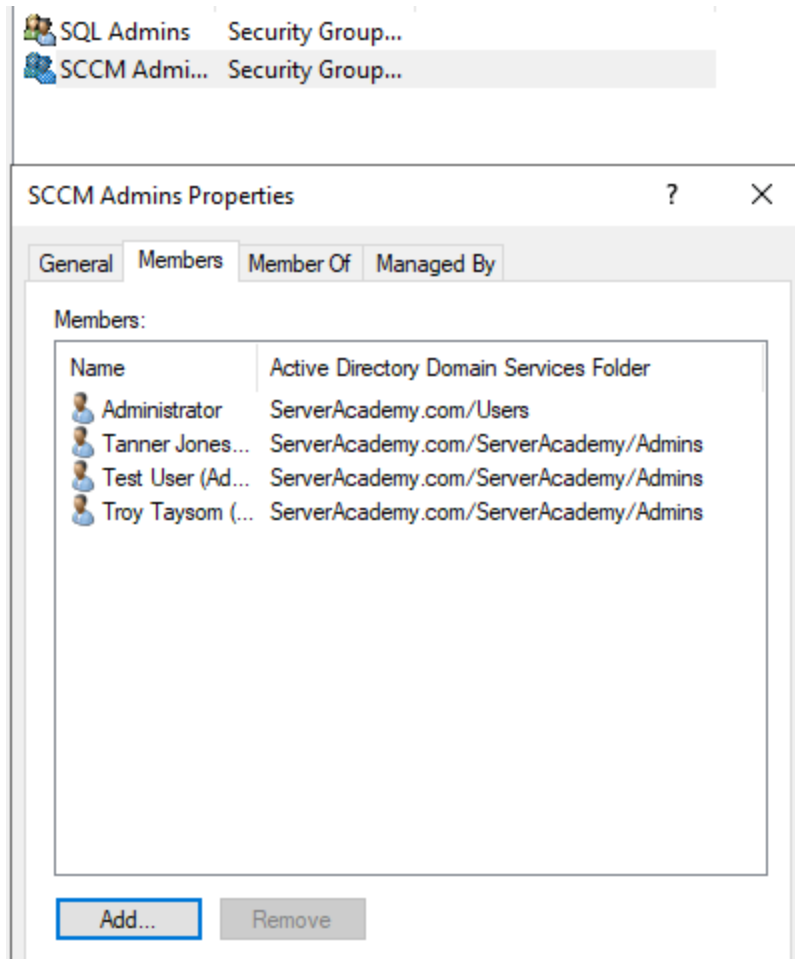
General Members Member Of Managed By

Members:

Name	Active Directory Domain Services Folder
Administrator	ServerAcademy.com/Users
Tanner Jones...	ServerAcademy.com/ServerAcademy/Admins
Test User (Ad...	ServerAcademy.com/ServerAcademy/Admins
Troy Taysom (...)	ServerAcademy.com/ServerAcademy/Admins

Add...

Remove

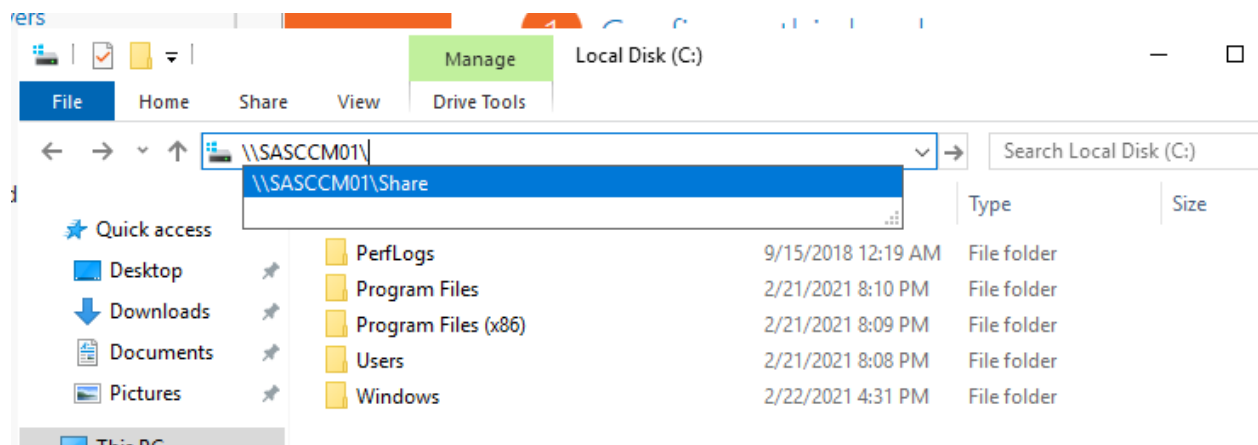


## Extending the Active Directory Schema (DC)

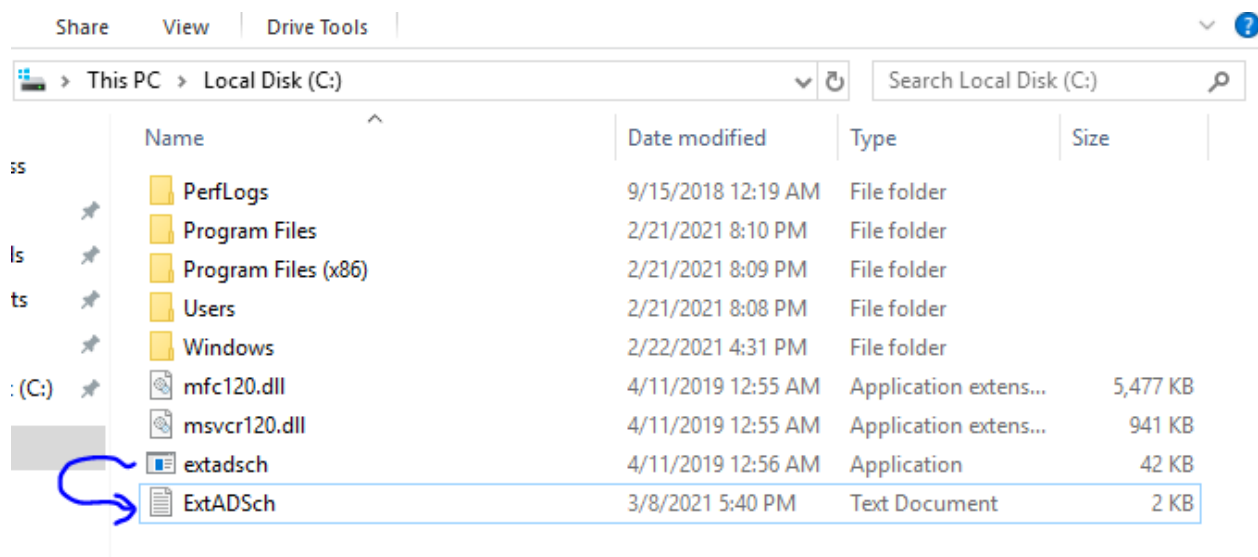
```
The command completed successfully.

PS C:\Users\Administrator> netdom query fsmo
Schema master           SADC01.ServerAcademy.com
Domain naming master    SADC01.ServerAcademy.com
PDC                     SADC01.ServerAcademy.com
RID pool manager        SADC01.ServerAcademy.com
Infrastructure master    SADC01.ServerAcademy.com
The command completed successfully.
```

## Accessing the shared file from SADC01



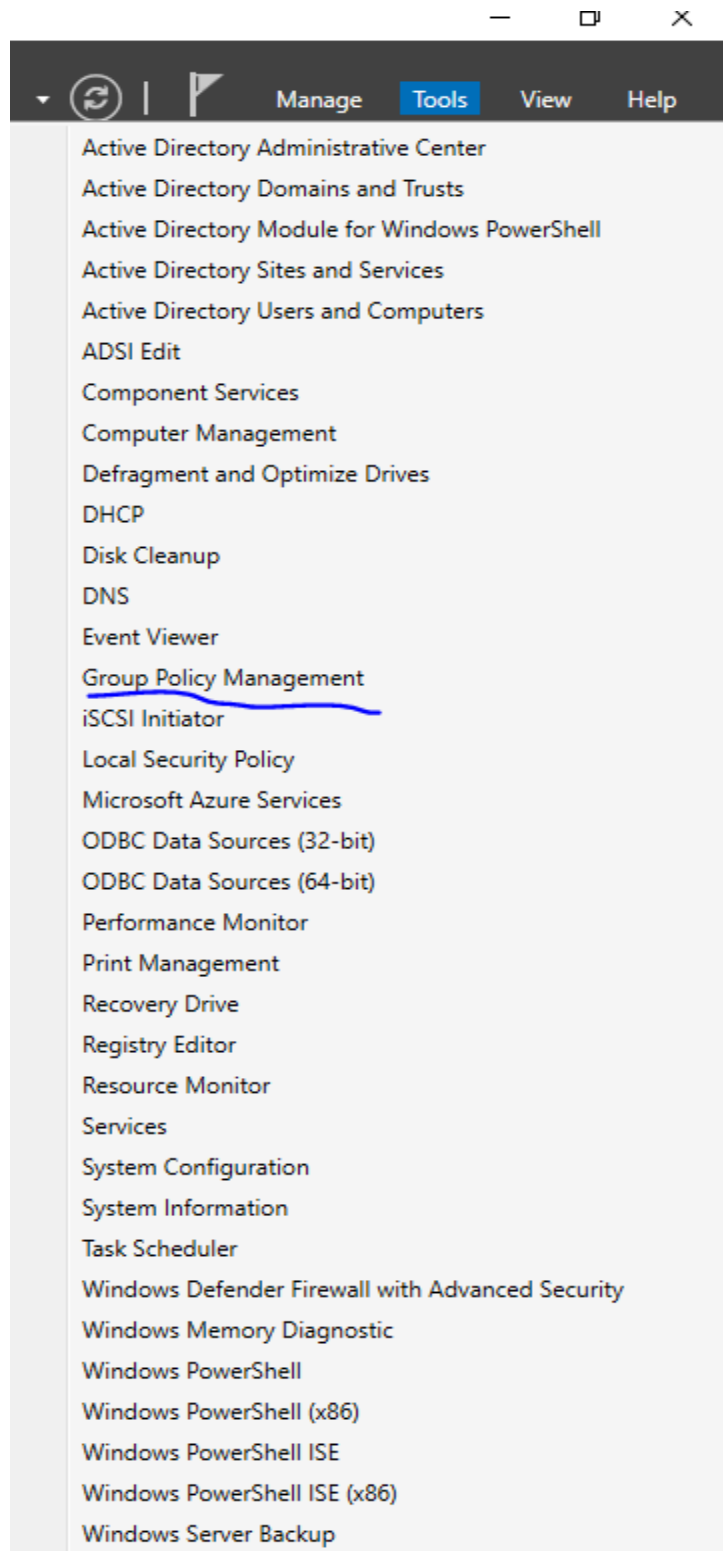
Ran extadsch as admin to create text document



```
<03-08-2021 17:40:32> Modifying Active Directory Schema - with SMS extensions.
<03-08-2021 17:40:32> DS Root:CN=Schema,CN=Configuration,DC=ServerAcademy,DC=com
<03-08-2021 17:40:32> Defined attribute cn=MS-SMS-Site-Code.
<03-08-2021 17:40:32> Defined attribute cn=mS-SMS-Assignment-Site-Code.
<03-08-2021 17:40:32> Defined attribute cn=MS-SMS-Site-Boundaries.
<03-08-2021 17:40:32> Defined attribute cn=MS-SMS-Roaming-Boundaries.
<03-08-2021 17:40:32> Defined attribute cn=MS-SMS-Default-MP.
<03-08-2021 17:40:32> Defined attribute cn=mS-SMS-Device-Management-Point.
<03-08-2021 17:40:32> Defined attribute cn=MS-SMS-MP-Name.
<03-08-2021 17:40:32> Defined attribute cn=MS-SMS-MP-Address.
<03-08-2021 17:40:32> Defined attribute cn=mS-SMS-Health-State.
<03-08-2021 17:40:33> Defined attribute cn=mS-SMS-Source-Forest.
<03-08-2021 17:40:33> Defined attribute cn=MS-SMS-Ranged-IP-Low.
<03-08-2021 17:40:33> Defined attribute cn=MS-SMS-Ranged-IP-High.
<03-08-2021 17:40:33> Defined attribute cn=mS-SMS-Version.
<03-08-2021 17:40:33> Defined attribute cn=mS-SMS-Capabilities.
<03-08-2021 17:40:33> Defined class cn=MS-SMS-Management-Point.
<03-08-2021 17:40:33> Defined class cn=MS-SMS-Server-Locator-Point.
<03-08-2021 17:40:34> Defined class cn=MS-SMS-Site.
<03-08-2021 17:40:34> Defined class cn=MS-SMS-Roaming-Boundary-Range.
<03-08-2021 17:40:34> Successfully extended the Active Directory schema.

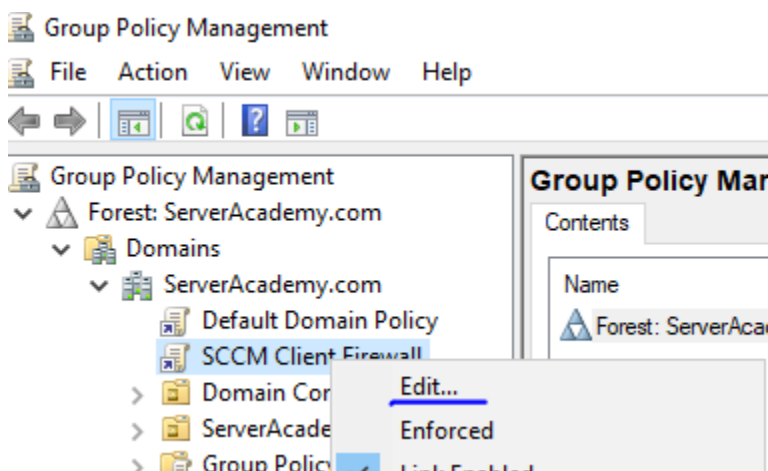
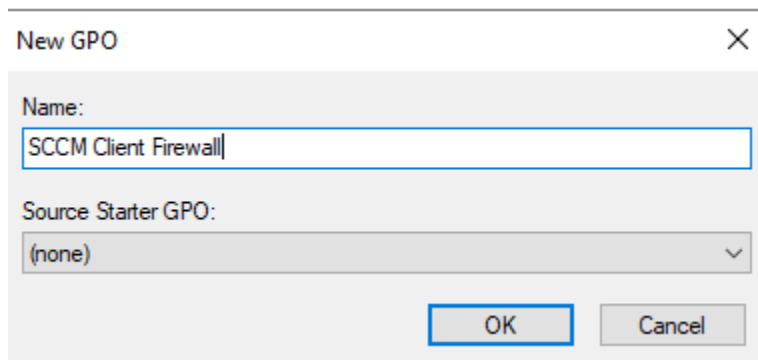
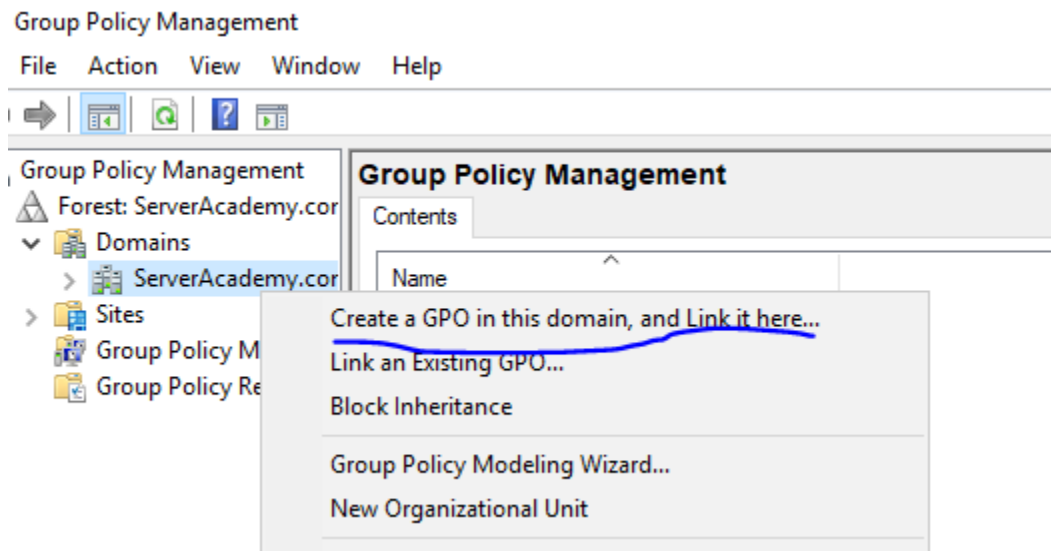
<03-08-2021 17:40:34> Please refer to the ConfigMgr documentation for instructions on the manu
<03-08-2021 17:40:34> configuration of access rights in active directory which may still
<03-08-2021 17:40:34> need to be performed. (Although the AD schema has now be extended,
<03-08-2021 17:40:34> AD must be configured to allow each ConfigMgr Site security rights to
<03-08-2021 17:40:34> publish in each of their domains.)
```

# Configuring Firewall with Group Policy





# Applying Firewall rules to every computer in domain



Group Policy Management Editor

File Action View Help



SCCM Client Firewall [SADC01.SERVERACADEMY.COM] Policy

- Computer Configuration
  - Policies
    - Software Settings
    - Windows Settings
      - Name Resolution Policy
      - Scripts (Startup/Shutdown)
      - Deployed Printers
      - Security Settings
        - Account Policies
        - Local Policies
        - Event Log
        - Restricted Groups
        - System Services
        - Registry
        - File System
        - Wired Network (IEEE 802.3) Policies
        - Windows Defender Firewall with Advanced Security
        - Network List Manager Policies
        - Wireless Network (IEEE 802.11) Policies
        - Public Key Policies
        - Software Restriction Policies

- Wired Network (IEEE 802.3) Policies
- Windows Defender Firewall with Advanced Security
  - Windows Defender Firewall with Advanced Security - LDAP;
    - Inbound Rules
    - Outbound Rules
    - Connection Security Rules

- Windows Defender Firewall with Advanced Security
  - Windows Defender Firewall with Advanced Security - LDAP;

- Inbound Rules
  - Outbound Rules
  - Connection Security Rules
  - Network List Manager Policies
  - Wireless Network (IEEE 802.11) Policies
- New Rule...
  - Filter by Profile >
  - Filter by State >
  - Filter by Group >

## Rule Type

Select the type of firewall rule to create.

### Steps:

- Rule Type
- Predefined Rules
- Action

What type of rule would you like to create?

- ☐ **Program**  
Rule that controls connections for a program.
- ☐ **Port**  
Rule that controls connections for a TCP or UDP port.
- ☒ **Predefined:**

- ☐ **Predefined:**
  - File and Printer Sharing
  - Active Directory Domain Services
  - Active Directory Web Services
  - AllJoyn Router
  - BranchCache - Content Retrieval (Uses HTTP)
  - BranchCache - Hosted Cache Server (Uses HTTPS)
  - BranchCache - Peer Discovery (Uses WSD)
  - Cast to Device functionality
  - COM+ Network Access
  - COM+ Remote Administration
  - Core Networking
  - Delivery Optimization
  - DFS Management
  - DFS Replication
  - DHCP Server
  - DHCP Server Management
  - DIAL protocol server
  - Distributed Transaction Coordinator
  - DNS Service
  - File and Printer Sharing
  - File and Printer Sharing over SMBDirect
  - File Replication
  - File Server Remote Management

## Predefined Rules

Select the rules to be created for this experience.

### Steps:

- Rule Type
- Predefined Rules
- Action

Which rules would you like to create?

The following rules define network connectivity requirements for the selected predefined group. Rules that are checked will be created. If a rule already exists and is checked, the contents of the existing rule will be overwritten.

Rules:

Name	Rule Exists	Profile	Desc
<input checked="" type="checkbox"/> File and Printer Sharing (LLMNR-UDP-In)	No	All	Inbou
<input checked="" type="checkbox"/> File and Printer Sharing (Echo Request - ICM...	No	All	Echo
<input checked="" type="checkbox"/> File and Printer Sharing (Echo Request - ICM...	No	All	Echo
<input checked="" type="checkbox"/> File and Printer Sharing (Spooler Service - RP...	No	All	Inbou
<input checked="" type="checkbox"/> File and Printer Sharing (Spooler Service - RPC)	No	All	Inbou
<input checked="" type="checkbox"/> File and Printer Sharing (NB-Datagram-In)	No	All	Inbou
<input checked="" type="checkbox"/> File and Printer Sharing (NB-Name-In)	No	All	Inbou
<input checked="" type="checkbox"/> File and Printer Sharing (SMB-In)	No	All	Inbou
<input checked="" type="checkbox"/> File and Printer Sharing (NB-Session-In)	No	All	Inbou

< Back

Next >

Cancel

**Action**

Specify the action to be taken when a connection matches the conditions specified in the rule.

**Steps:**

- Rule Type
- Predefined Rules
- Action

What action should be taken when a connection matches the specified conditions?

☒ **Allow the connection**

This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**

This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

Customize...

☐ **Block the connection**

< Back

Finish

Cancel

File Action View Help



SCCM Client Firewall [SADC01.SERVERAC ^

- ▼ Computer Configuration
  - ▼ Policies
    - > Software Settings
    - ▼ Windows Settings
      - > Name Resolution Policy
      - Scripts (Startup/Shutdown)
      - > Deployed Printers
      - ▼ Security Settings
        - > Account Policies
        - > Local Policies
        - > Event Log
        - > Restricted Groups
        - > System Services
        - > Registry
        - > File System
        - > Wired Network (IEEE 802.3)
        - ▼ Windows Defender Firewall
          - ▼ Windows Defender Firewall
            - Inbound Rules
            - Outbound Rules

Name	Group	Profile	Enabled
File and Printer Sharing (LLMNR-UDP-In)	File and Printer Sharing	All	Yes
File and Printer Sharing (Echo Request - I...)	File and Printer Sharing	All	Yes
File and Printer Sharing (Echo Request - I...)	File and Printer Sharing	All	Yes
File and Printer Sharing (Spooler Service -...	File and Printer Sharing	All	Yes
File and Printer Sharing (Spooler Service -...	File and Printer Sharing	All	Yes
File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	All	Yes
File and Printer Sharing (NB-Name-In)	File and Printer Sharing	All	Yes
File and Printer Sharing (SMB-In)	File and Printer Sharing	All	Yes
File and Printer Sharing (NB-Session-In)	File and Printer Sharing	All	Yes

▼ Windows Defender Firewall

▼ Windows Defender Firewall

- ▼ Windows Defender Firewall
    - ▼ Windows Defender Firewall
      - Inbound Rules
      - Outbound Rules
- > Network Connections
  - > Wireless Network (IEEE 802.11)
  - > Public Key Infrastructure
  - > Software Protection

New Rule...

Filter by Profile &gt;

Filter by State &gt;

Filter by Group &gt;

View &gt;

## New Inbound Rule Wizard

### Rule Type

Select the type of firewall rule to create.

**Steps:**

- Rule Type
- Predefined Rules
- Action

What type of rule would you like to create?

☐ **Program**  
Rule that controls connections for a program.

☐ **Port**  
Rule that controls connections for a TCP or UDP port.

☒ **Predefined:**

Windows Defender Firewall Remote Management

DNS Service

File and Printer Sharing

File and Printer Sharing over SMBDirect

File Replication

File Server Remote Management

iSCSI Service

Kerberos Key Distribution Center

Key Management Service

mDNS

Microsoft Key Distribution Service

Netlogon Service

Network Discovery

Performance Logs and Alerts

Remote Desktop

Remote Desktop (WebSocket)

Remote Event Log Management

Remote Event Monitor

Remote Scheduled Tasks Management

Remote Service Management

Remote Shutdown

Remote Volume Management

Routing and Remote Access

Secure Socket Tunneling Protocol

SNMP Trap

Software Load Balancer

TPM Virtual Smart Card Management

Windows Defender Firewall Remote Management

Windows Management Instrumentation (WMI)

Windows Media Player

rules.

Name	Rule Exists	Profile	Desc
<input checked="" type="checkbox"/> Windows Management Instrumentation (ASyn...	No	All	Inbol
<input checked="" type="checkbox"/> Windows Management Instrumentation (WMI-...	No	All	Inbol
<input checked="" type="checkbox"/> Windows Management Instrumentation (DCO...	No	All	Inbol

<

>

< Back

Next >

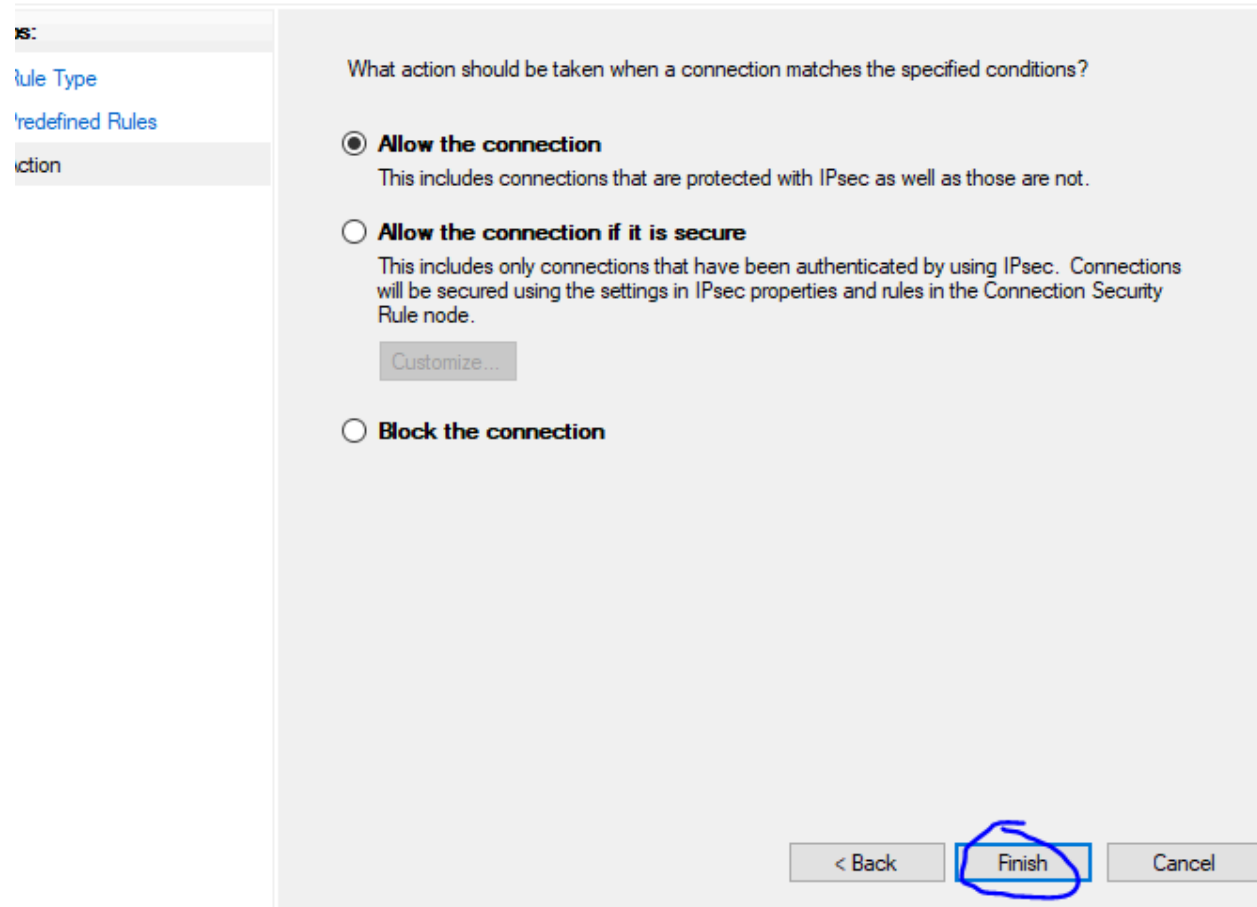
Cancel



## New Inbound Rule Wizard

### tion

Specify the action to be taken when a connection matches the conditions specified in the rule.



The screenshot shows the 'Action' step of the 'New Inbound Rule Wizard'. On the left is a tree view with 'Action' selected. The main area contains the question 'What action should be taken when a connection matches the specified conditions?'. There are three radio button options: 'Allow the connection' (selected), 'Allow the connection if it is secure', and 'Block the connection'. Each option has a descriptive text block below it. A 'Customize...' button is located below the 'Allow the connection if it is secure' option. At the bottom right are three buttons: '< Back', 'Finish' (circled in blue), and 'Cancel'.

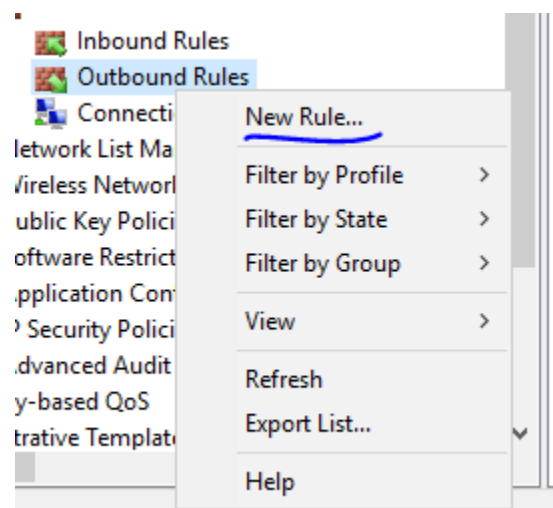
What action should be taken when a connection matches the specified conditions?

☒ **Allow the connection**  
This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**  
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.  
[Customize...](#)

☐ **Block the connection**

< Back **Finish** Cancel



What type of rule would you like to create?

☐ **Program**

Rule that controls connections for a program.

☐ **Port**

Rule that controls connections for a TCP or UDP port.

☒ **Predefined:**

- File and Printer Sharing
- Active Directory Domain Services
  - Active Directory Web Services
  - AllJoyn Router
  - BranchCache - Content Retrieval (Uses HTTP)
  - BranchCache - Hosted Cache Client (Uses HTTPS)
  - BranchCache - Hosted Cache Server (Uses HTTPS)
  - BranchCache - Peer Discovery (Uses WSD)
  - Cast to Device functionality
  - Core Networking
  - DHCP Server Management
  - DiagTrack
  - Distributed Transaction Coordinator
  - DNS Service
  - File and Printer Sharing
  - iSCSI Service
  - mDNS
  - Network Discovery
  - Routing and Remote Access
  - TPM Virtual Smart Card Management

Rules:

Name	Rule Exists	Profile	Desc
<input checked="" type="checkbox"/> File and Printer Sharing (LLMNR-UDP-Out)	No	All	Outb...
<input checked="" type="checkbox"/> File and Printer Sharing (Echo Request - ICM...	No	All	Echo...
<input checked="" type="checkbox"/> File and Printer Sharing (Echo Request - ICM...	No	All	Echo...
<input checked="" type="checkbox"/> File and Printer Sharing (NB-Datagram-Out)	No	All	Outb...
<input checked="" type="checkbox"/> File and Printer Sharing (NB-Name-Out)	No	All	Outb...
<input checked="" type="checkbox"/> File and Printer Sharing (SMB-Out)	No	All	Outb...
<input checked="" type="checkbox"/> File and Printer Sharing (NB-Session-Out)	No	All	Outb...

< Back

Next >

Cancel

**Action**

Specify the action to be taken when a connection matches the conditions specified in the rule.

**Steps:**

- Rule Type
- Predefined Rules
- Action**

What action should be taken when a connection matches the specified conditions?

☒ **Allow the connection**

This includes connections that are protected with IPsec as well as those that are not.

☐ **Allow the connection if it is secure**

This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

Customize...

☐ **Block the connection**

< Back

Finish

Cancel

Group Policy Management Editor

File Action View Help

SCCM Client Firewall [SADC01.SERVERACADEMY.COM] Policy

- Computer Configuration
  - Policies
    - Software Settings
    - Windows Settings
      - Name Resolution Policy
      - Scripts (Startup/Shutdown)
      - Deployed Printers
      - Security Settings
        - Account Policies
        - Local Policies
        - Event Log
        - Restricted Groups
        - System Services
        - Registry
        - File System
        - Wired Network (IEEE 802.3) Policies
        - Windows Defender Firewall with Advanced Security
          - Windows Defender Firewall with Advanced Security
            - Inbound Rules
            - Outbound Rules
            - Connection Security Rules

Name	Group
File and Printer Sharing (LLMNR-UDP-Out)	File and Printer Sharing
File and Printer Sharing (Echo Request - I...)	File and Printer Sharing
File and Printer Sharing (Echo Request - I...	File and Printer Sharing
File and Printer Sharing (NB-Datagram-O...	File and Printer Sharing
File and Printer Sharing (NB-Name-Out)	File and Printer Sharing
File and Printer Sharing (SMB-Out)	File and Printer Sharing
File and Printer Sharing (NB-Session-Out)	File and Printer Sharing

## New Outbound Rule Wizard

### Rule Type

Select the type of firewall rule to create.

#### Steps:

- Rule Type
- Predefined Rules
- Action

What type of rule would you like to create?

- ☐ **Program**  
Rule that controls connections for a program.
- ☐ **Port**  
Rule that controls connections for a TCP or UDP port.
- ☒ **Predefined:**  
Windows Management Instrumentation (WMI)  
Rule that controls connections for a Windows experience.
- ☐ **Custom**  
Custom rule.

## Action

Specify the action to be taken when a connection matches the conditions specified in the rule.

### Steps:

- Rule Type
- Predefined Rules
- Action

What action should be taken when a connection matches the specified conditions?

#### ☒ Allow the connection

This includes connections that are protected with IPsec as well as those are not.

## SCCM Client Group Policy Settings

The screenshot displays the Group Policy Management console for the 'Forest: ServerAcademy.com' domain. The left-hand tree view shows the hierarchy: Group Policy Management > Forest: ServerAcademy.com > Domains > ServerAcademy.com > SCCM Client. The right-hand pane is titled 'SCCM Client' and contains several sections:

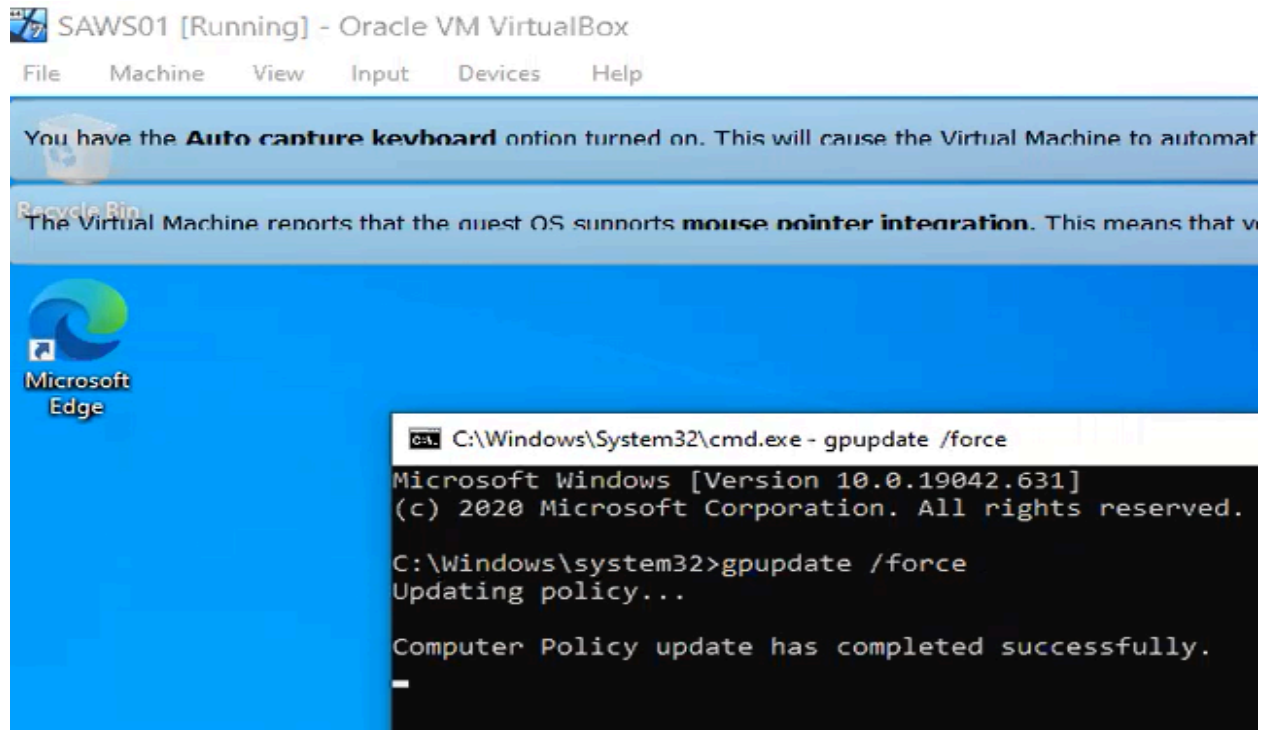
- Link Status:** A table showing the status of the GPO link.
- Security Filtering:** A section indicating that settings apply only to specific groups, users, and computers.
- Delegation:** A table showing the permissions granted to various groups and users.
- Computer Configuration (Enabled):** A section for configuring the client's computer settings.
- Policies:** A section for configuring various policies.

Location	Enforced	Link Status	Path
Workstation	No	Enabled	ServerAcademy.com/ServerAcademy/Workstation

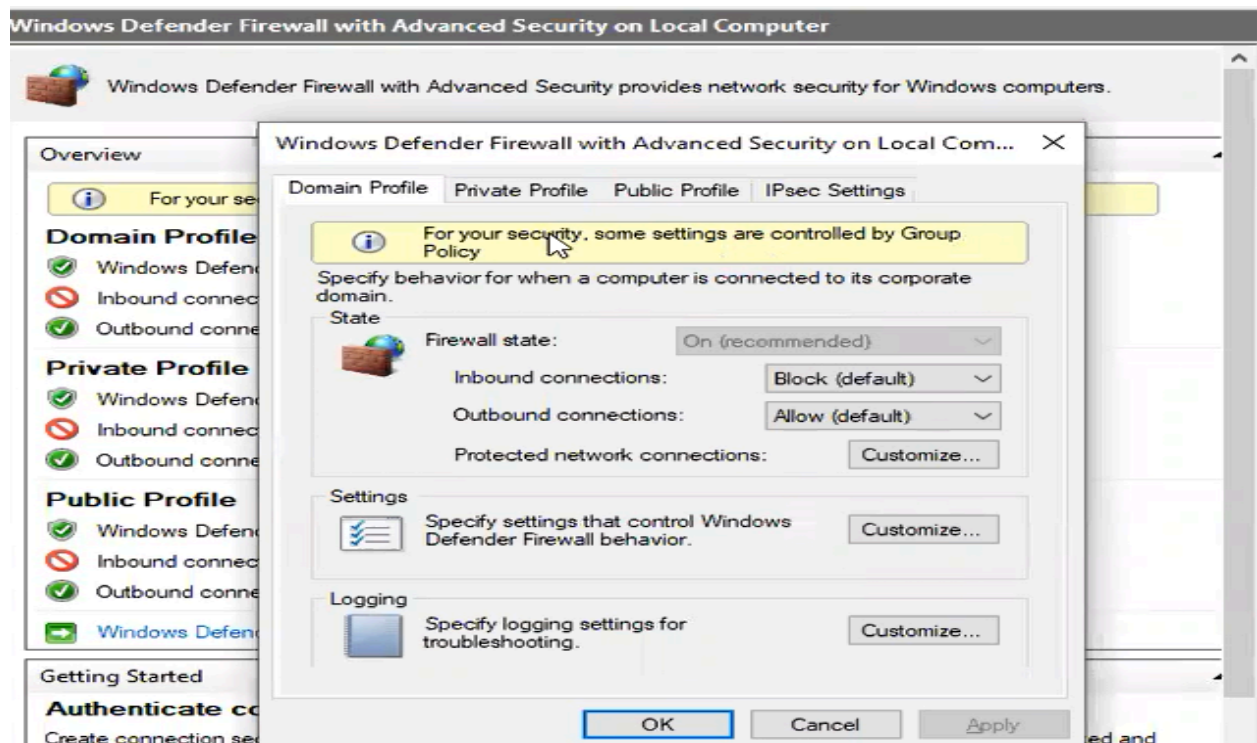
This list only includes links in the domain of the GPO.

Name	Allowed Permissions	Inherited
NT AUTHORITY\Authenticated Users	Read (from Security Filtering)	No
NT AUTHORITY\ENTERPRISE DOMAIN CONTROLLERS	Read	No
NT AUTHORITY\SYSTEM	Edit settings, delete, modify security	No
SERVERACADEMY\Domain Admins	Edit settings, delete, modify security	No
SERVERACADEMY\Enterprise Admins	Edit settings, delete, modify security	No

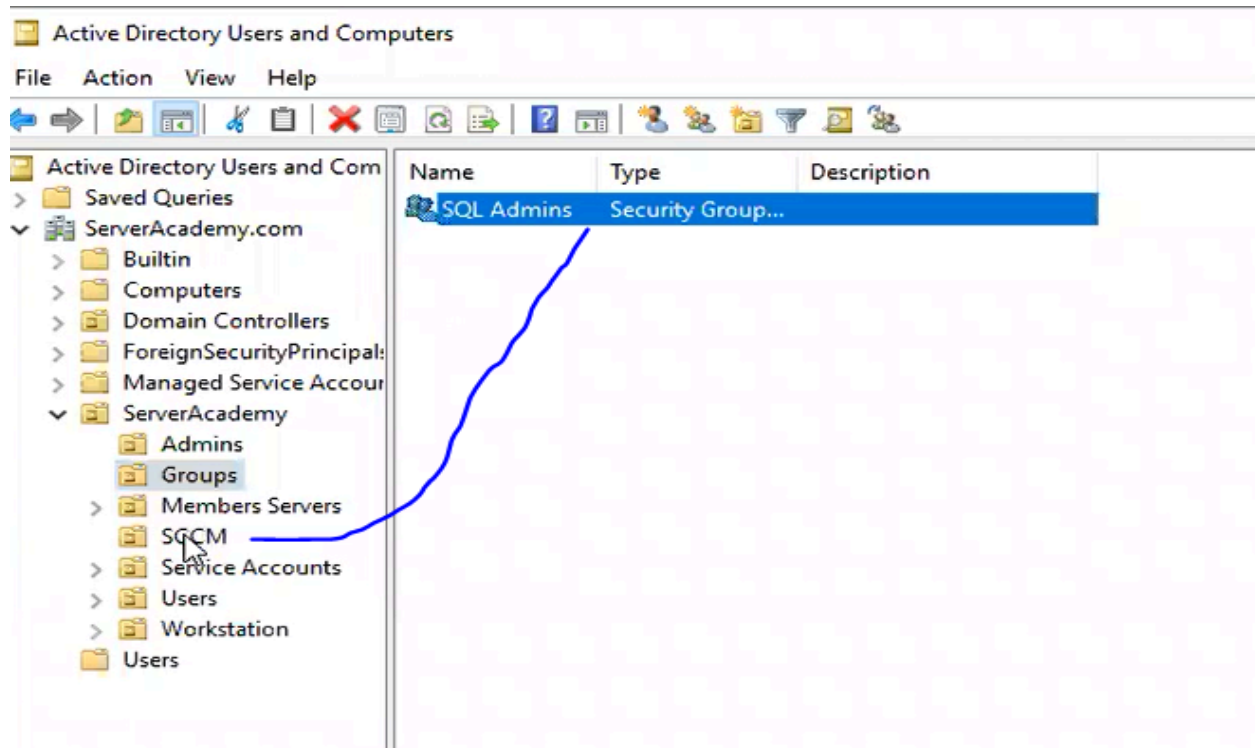
## Running gpupdate /force to update client



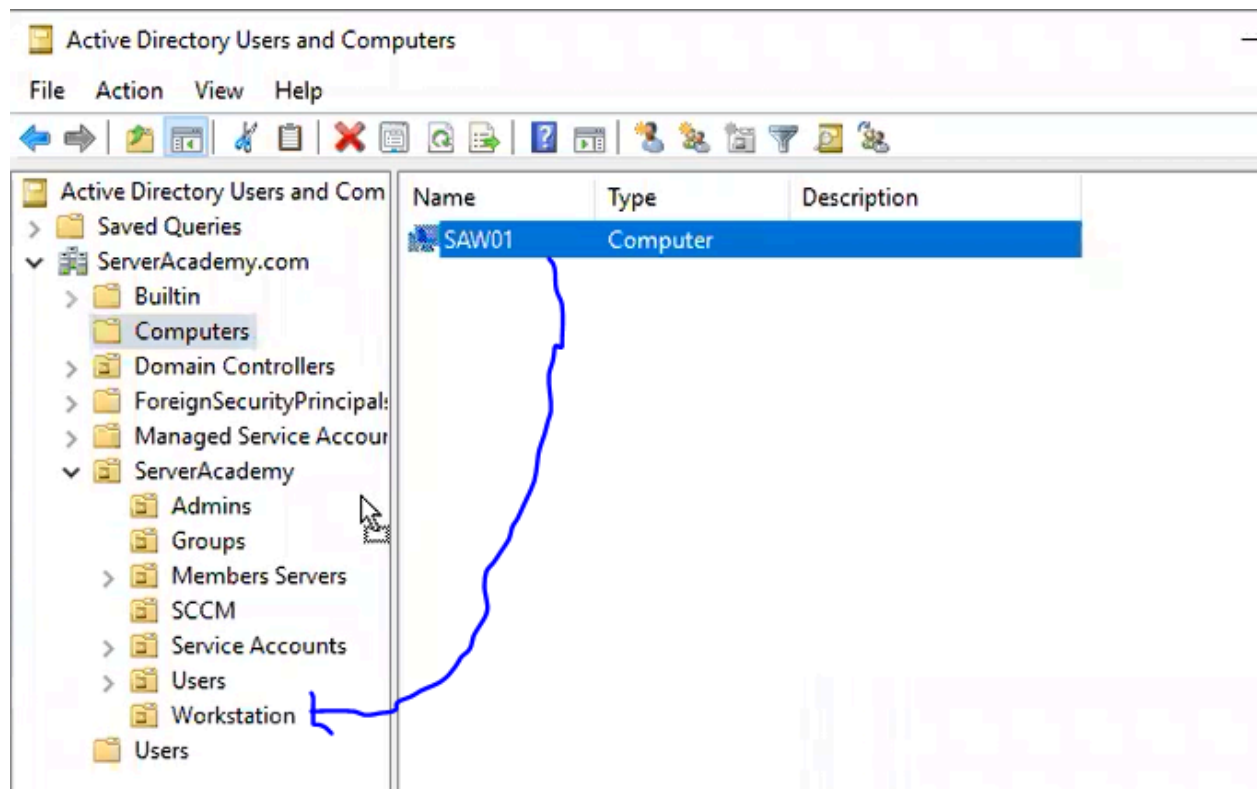
## Checking Firewall Changes on Client Machine



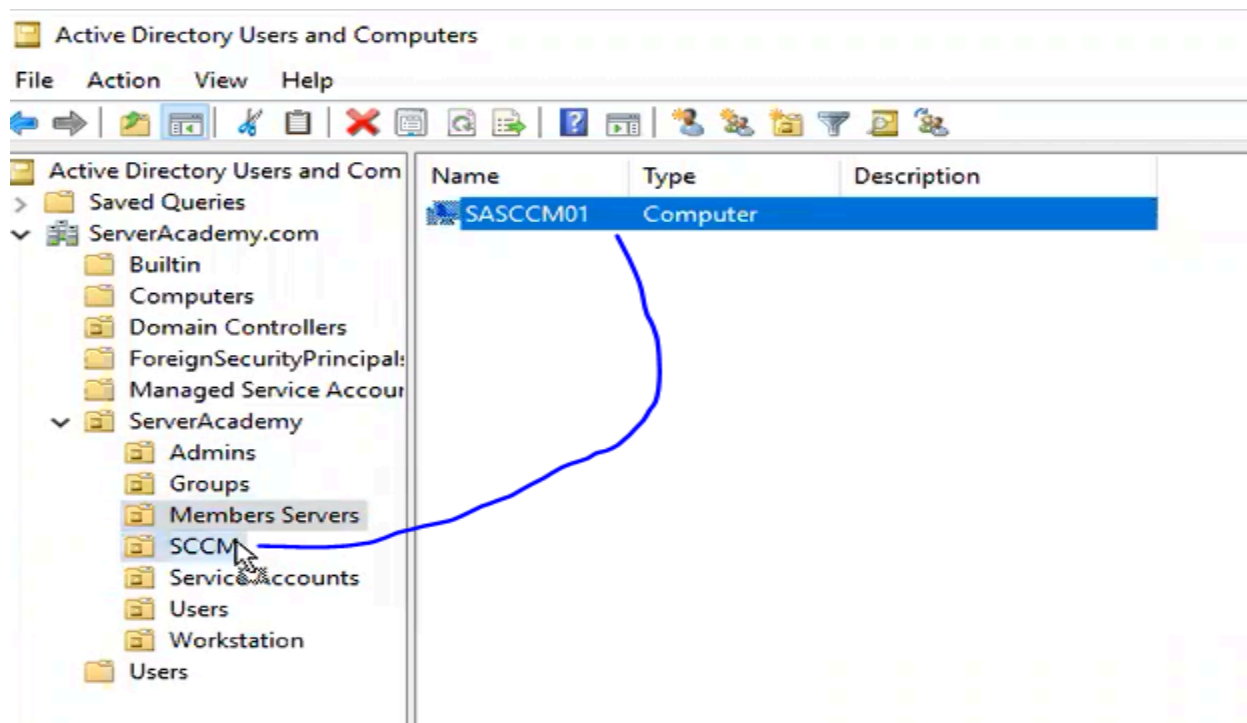
## Moving SQL Admins to SCCM OU



## Moving SAW01 Client to Workstation OU

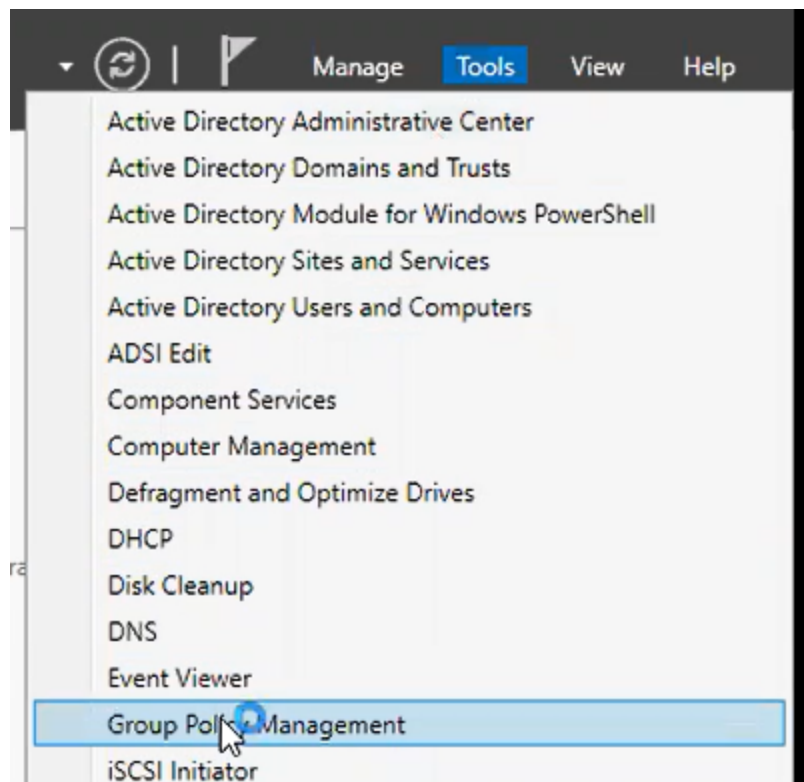


Moving SASCCM01 Server to SCCM OU

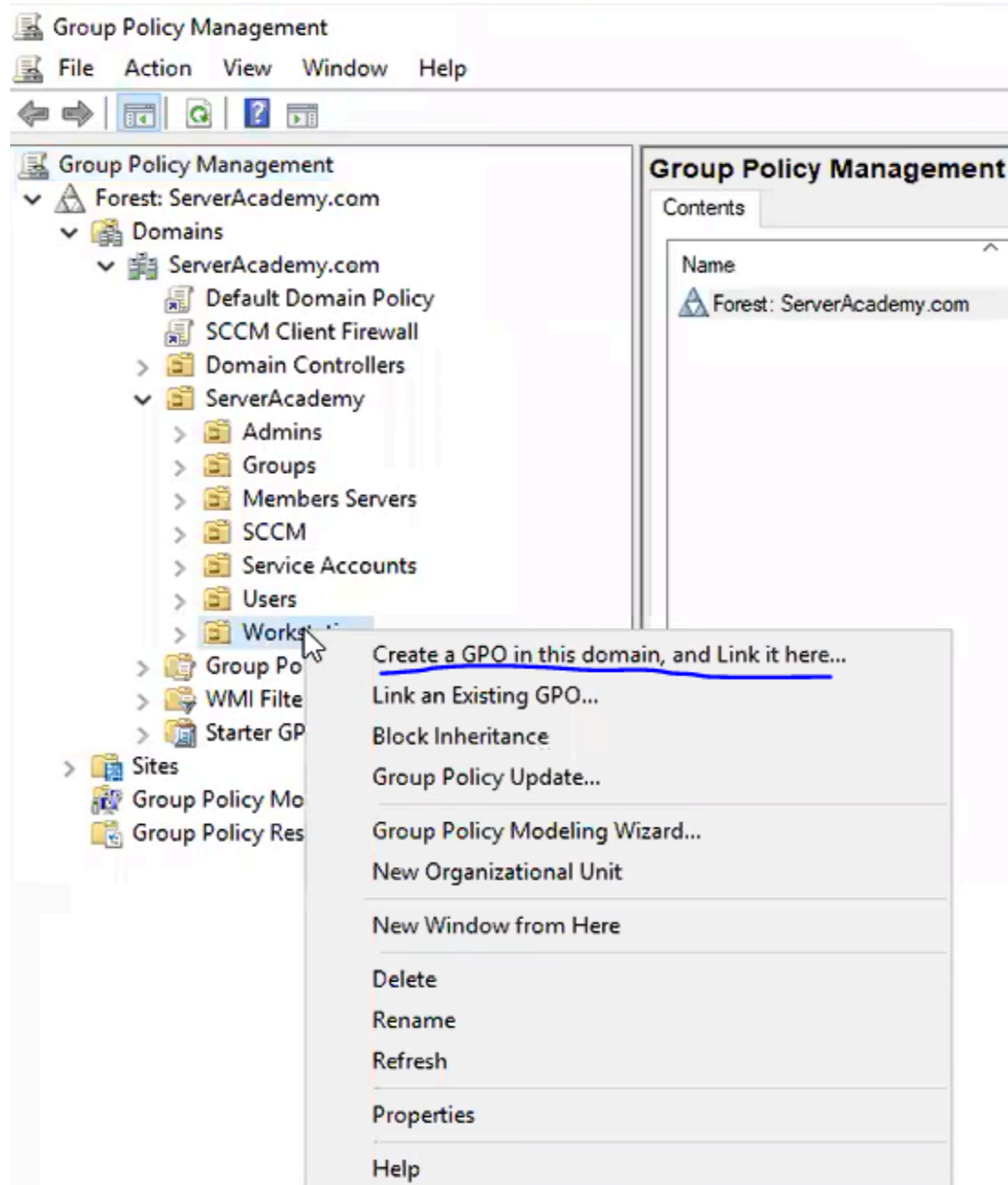


Group Policy Management





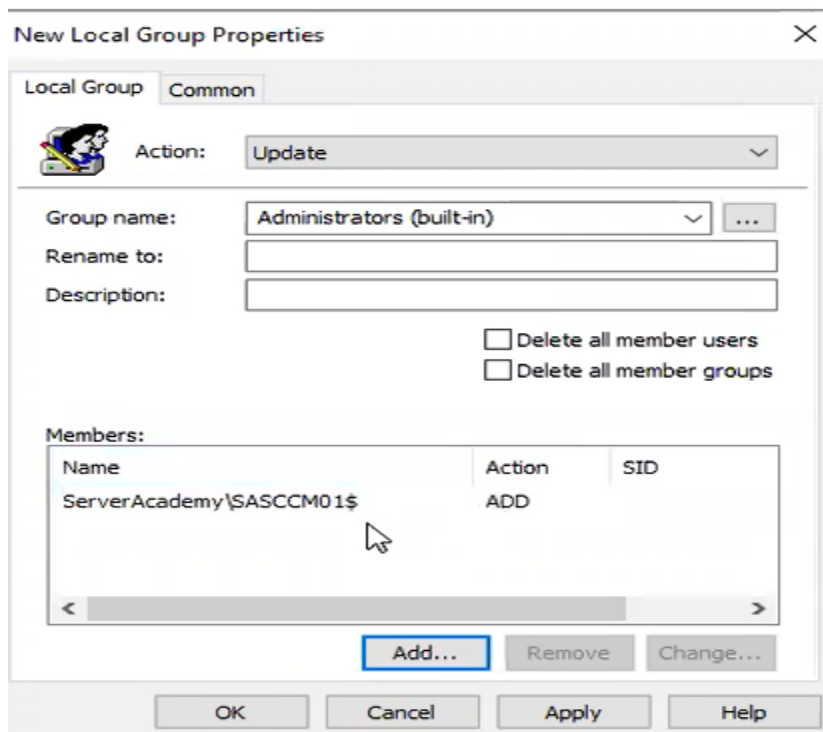
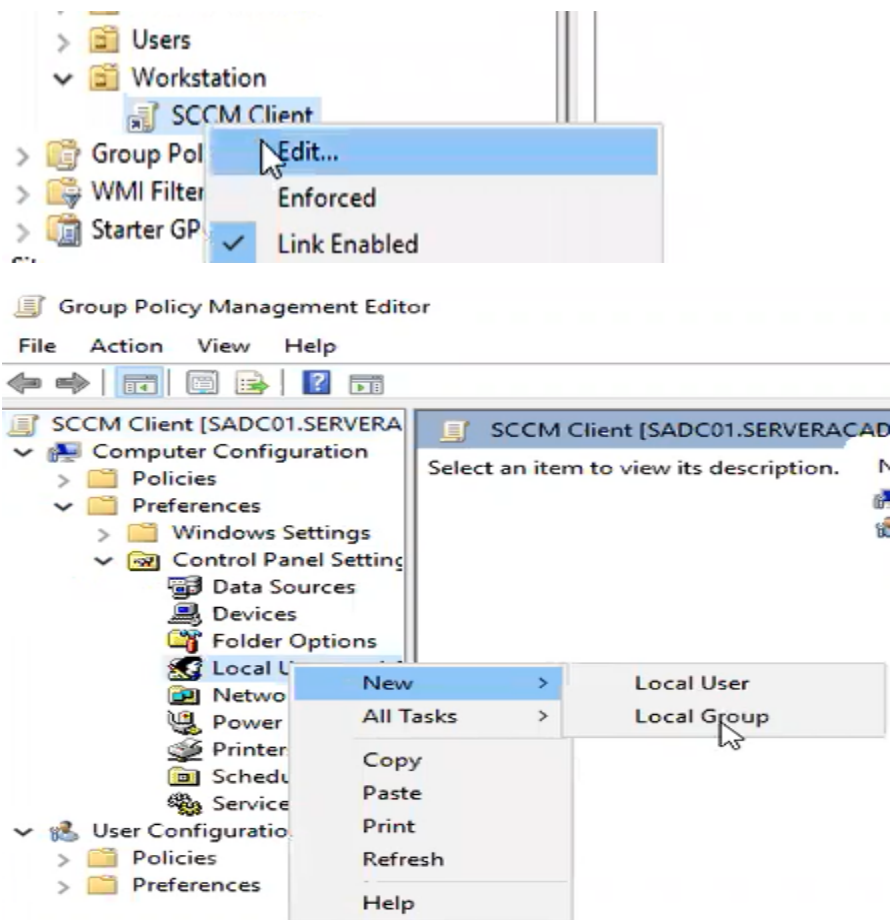
Creating a Group Policy Object for Workstations

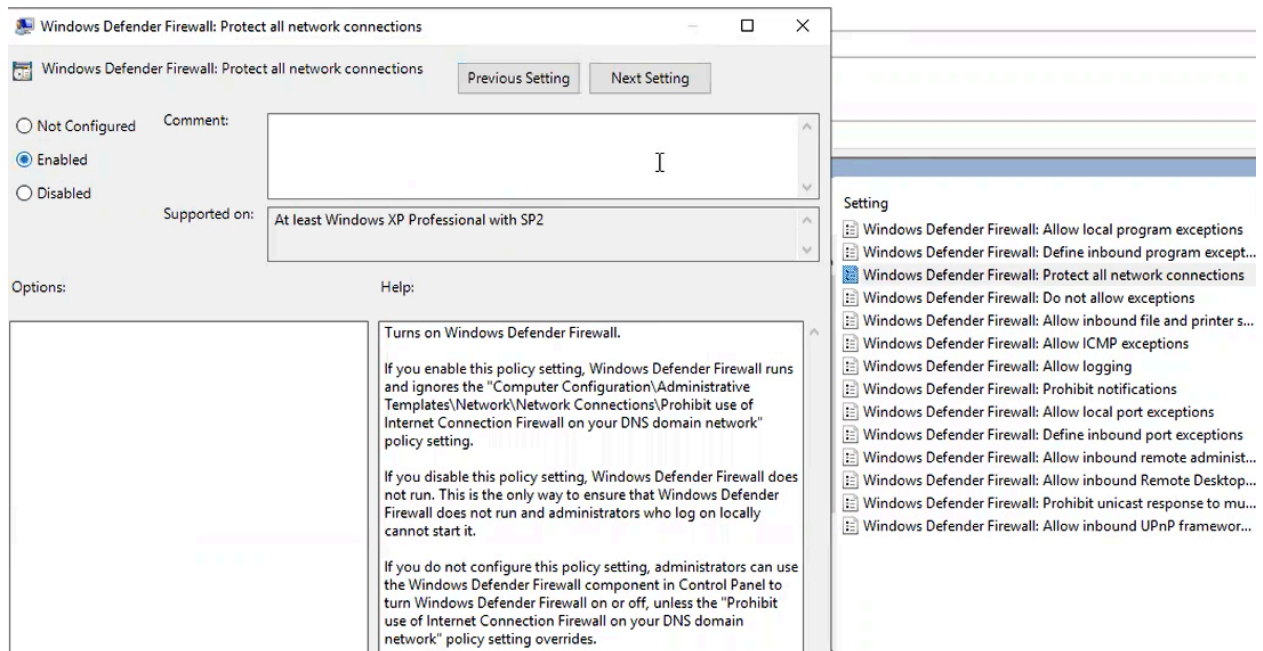
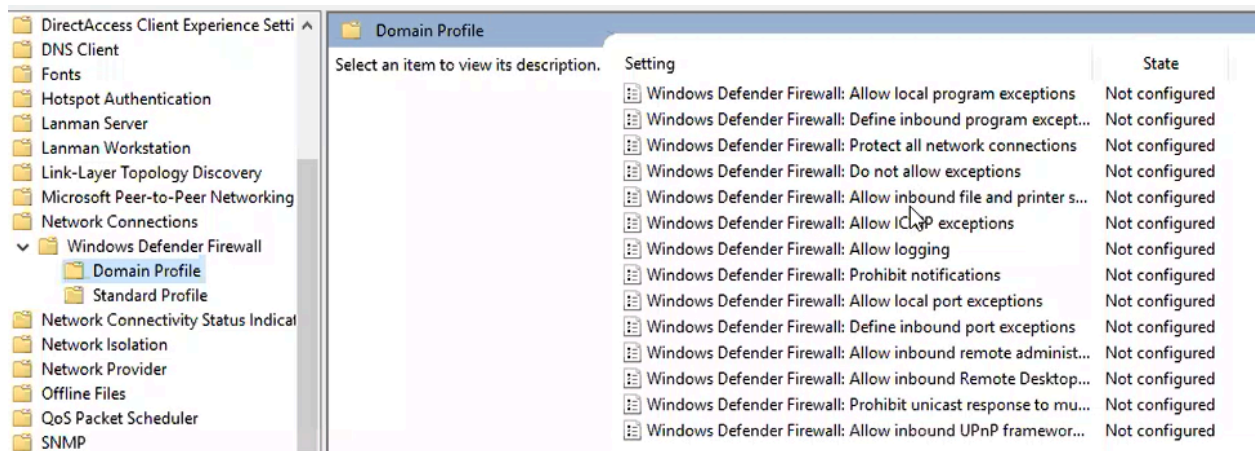
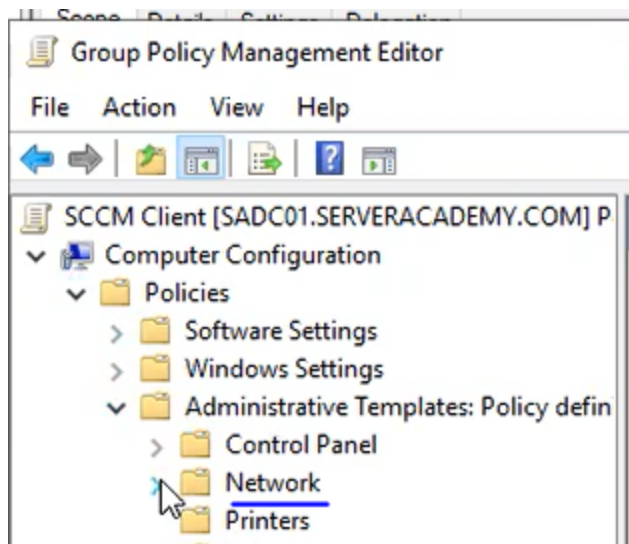


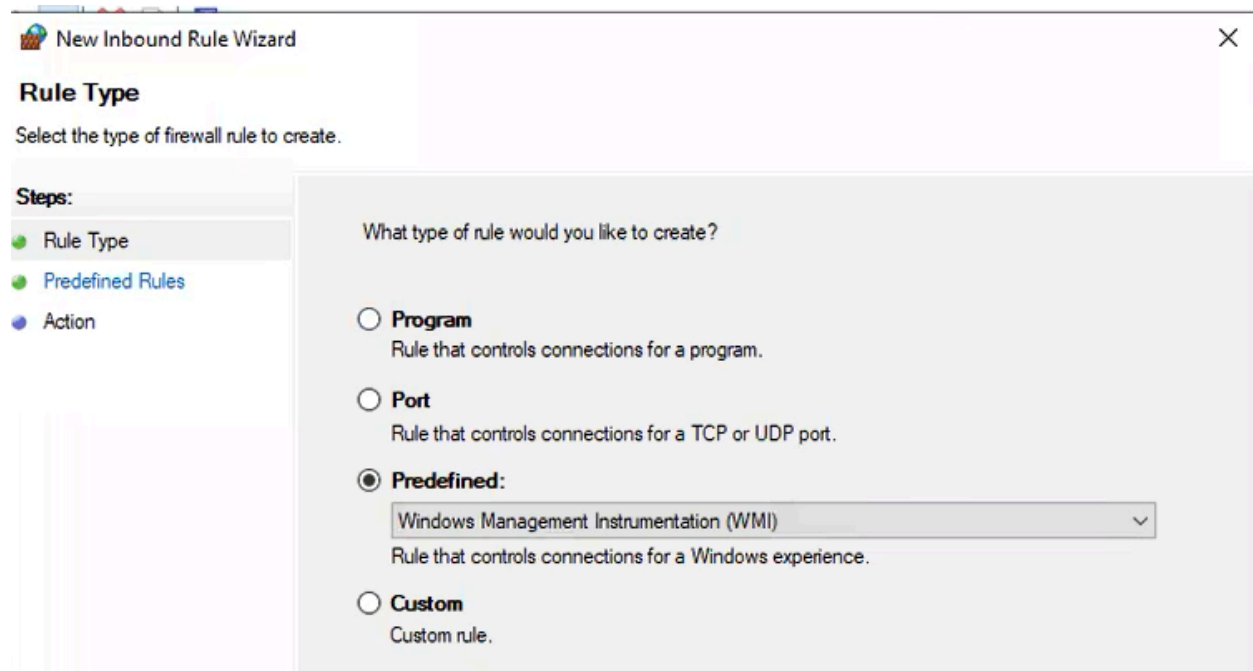
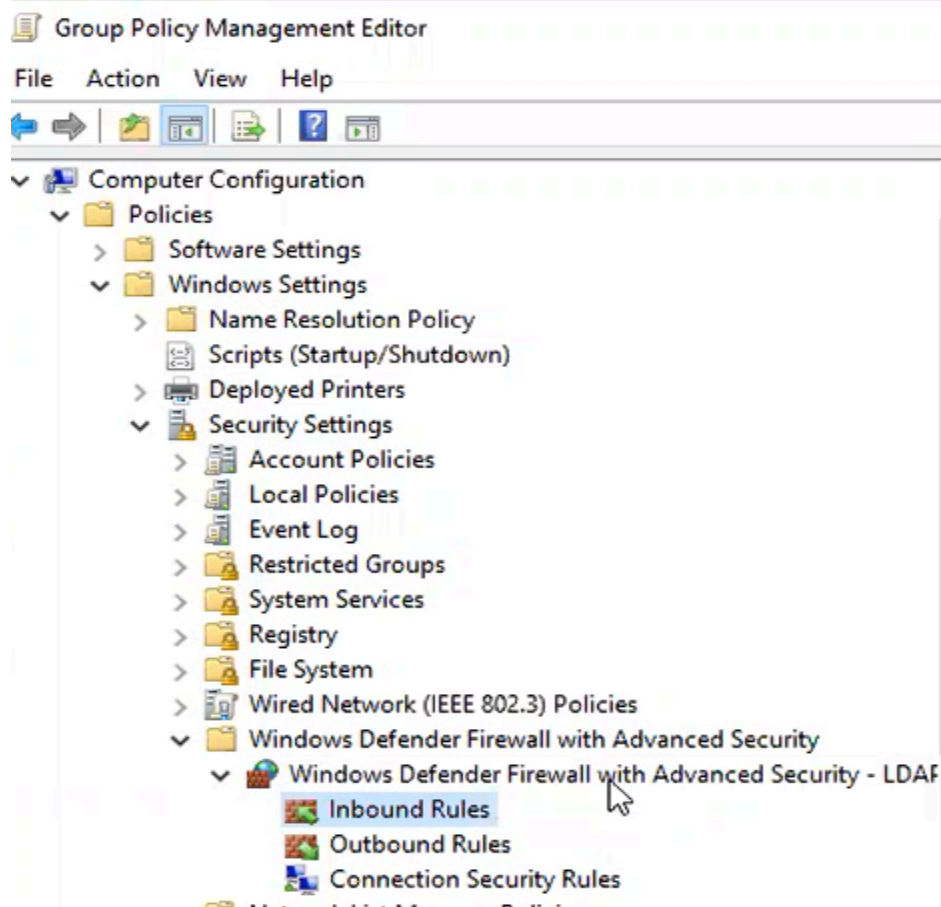
New GPO

Name:

SCCM Client







Which rules would you like to create?

The following rules define network connectivity requirements for the selected predefined group. Rules that are checked will be created. If a rule already exists and is checked, the contents of the existing rule will be overwritten.

Rules:

Name	Rule Exists	Profile	Desc
<input checked="" type="checkbox"/> Windows Management Instrumentation (ASyn...	No	All	Inbou
<input checked="" type="checkbox"/> Windows Management Instrumentation (WMI-...	No	All	Inbou
<input checked="" type="checkbox"/> Windows Management Instrumentation (DCO...	No	All	Inbou

< Back

Next >

Cancel

☒ **Allow the connection**

This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**

This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

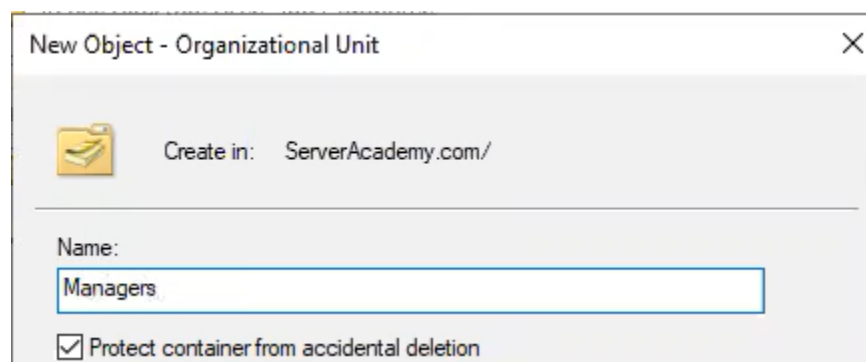
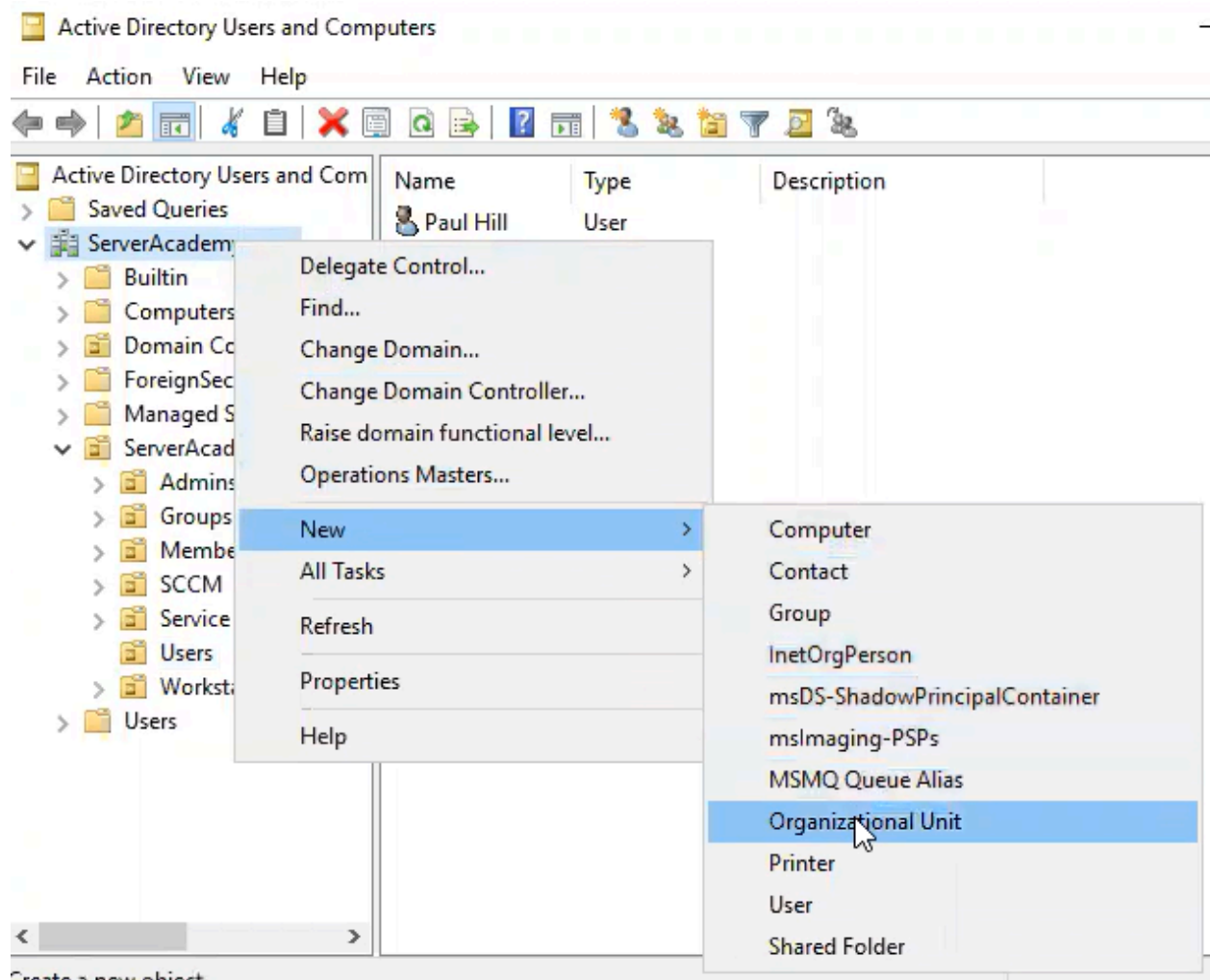
Customize...

☐ **Block the connection**


Computer Configuration	Name	Group	Profile	Enabl
Policies	Windows Management Instrumentation ...	Windows Management Instr...	All	Yes
Software Settings	Windows Management Instrumentation ...	Windows Management Instr...	All	Yes
Windows Settings	Windows Management Instrumentation ...	Windows Management Instr...	All	Yes
Name Resolution Policy	Windows Management Instrumentation ...	Windows Management Instr...	All	Yes
Scripts (Startup/Shutdown)				



# Creating a Managers OU



## New Object - User

 Create in: ServerAcademy.com/Managers

First name:  Initials:

Last name:

Full name:

User logon name:

User logon name (pre-Windows 2000):

## Active Directory Users and Computers

File Action View Help




Active Directory Users and Com		Name	Type	Description
>	Saved Queries			
▼	ServerAcademy.com			
>	BuiltIn			
>	Computers			
>	Domain Controllers			
>	ForeignSecurityPrincipal:			
>	Managed Service Accoun			
▼	ServerAcademy			
>	Admins			
>	Groups			
>	Members Servers			
>	SCCM			
>	Service Accounts			
>	Users			
>	Workstation			
>	Users			
>	Managers			

Name	Type
Aaron Case	User
Andrew Gee	User
Joe Grey	User



New Object - User



Create in: ServerAcademy.com/Users

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

Full name: Andrew Pish

User logon name: APish@ServerAcademy.com

The password never expires.

Andrew Pish Properties

?

×

Member Of	Dial-in	Environment	Sessions
Remote control	Remote Desktop Services Profile	COM+	
General	Address	Account	Profile
Telephones	Organization		

Job Title:

Engineer

Department:

Engineering

Company:

Server Academy

Manager

Name:

Change...

Properties

Clear

Direct reports:

# Creating a Group Object

New Object - Group

Create in: ServerAcademy.com/Users

Group name:  
SCCM Admin Users

Group name (pre-Windows 2000):  
SCCM Admin Users

Group scope

☐ Domain local

☒ Global

☐ Universal

Group type

☒ Security

☐ Distribution

SCCM Admin Users Properties

General Members Member Of Managed By

Members:

Name	Active Directory Domain Services Folder
Aaron Case	ServerAcademy.com/Managers
Andrew Pish	ServerAcademy.com/Users
Clay Roundtree	ServerAcademy.com/Users

Add... Remove

OK Cancel Apply

# Installing SCCM Dependent Roles

## Select server roles

DESTINATION SERVER  
SASCCM01.ServerAcademy.com

Before You Begin

Installation Type

Server Selection

**Server Roles**

Features

WSUS

Role Services

Content

Web Server Role (IIS)

Role Services

Confirmation

Results

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

Roles	Description
<input type="checkbox"/> Active Directory Domain Services	<p>Windows Server Update Services allows network administrators to specify the Microsoft updates that should be installed, create separate groups of computers for different sets of updates, and get reports on the compliance levels of the computers and the updates that must be installed.</p>
<input type="checkbox"/> Active Directory Federation Services	
<input type="checkbox"/> Active Directory Lightweight Directory Services	
<input type="checkbox"/> Active Directory Rights Management Services	
<input type="checkbox"/> Device Health Attestation	
<input type="checkbox"/> DHCP Server	
<input type="checkbox"/> DNS Server	
<input type="checkbox"/> Fax Server	
<input checked="" type="checkbox"/> File and Storage Services (2 of 12 installed)	
<input type="checkbox"/> Host Guardian Service	
<input type="checkbox"/> Hyper-V	
<input type="checkbox"/> Network Controller	
<input type="checkbox"/> Network Policy and Access Services	
<input type="checkbox"/> Print and Document Services	
<input type="checkbox"/> Remote Access	
<input type="checkbox"/> Remote Desktop Services	
<input type="checkbox"/> Volume Activation Services	
<input checked="" type="checkbox"/> Web Server (IIS)	
<input type="checkbox"/> Windows Deployment Services	
<input checked="" type="checkbox"/> Windows Server Update Services	

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

Features
<input type="checkbox"/> .NET Framework 3.5 Features
<input checked="" type="checkbox"/> .NET Framework 4.7 Features (2 of 7 installed)
<input checked="" type="checkbox"/> .NET Framework 4.7 (Installed)
<input checked="" type="checkbox"/> ASP.NET 4.7
<input checked="" type="checkbox"/> WCF Services (1 of 5 installed)
<input checked="" type="checkbox"/> Background Intelligent Transfer Service (BITS)
<input checked="" type="checkbox"/> IIS Server Extension
<input type="checkbox"/> Compact Server
<input type="checkbox"/> Remote Differential Compression
<input checked="" type="checkbox"/> Remote Server Administration Tools
<input type="checkbox"/> RPC over HTTP Proxy
<input type="checkbox"/> Setup and Boot Event Collection

Select the role services to install for Windows Server Update Services

Role services

- ☐ WID Connectivity
- ☒ WSUS Services
- ☒ SQL Server Connectivity

Description

Installs the feature that enables WSUS to connect to a Microsoft SQL Server database.

If you have a drive formatted with NTFS and at least 6 GB of free disk space, you can use it to store updates for client computers to download quickly.

If you need to save disk space, clear the check box to store updates on Microsoft Update; downloads will be slower.

If you choose to store updates locally, updates are not downloaded to your WSUS server until you approve them. By default, when updates are approved, they are downloaded for all languages.

- ☒ Store updates in the following location (choose a valid local path on SASCCM01.ServerAcademy.com, or a remote path) :

C:\wsus\_content

Specify an existing database server (Machine name\Instance name) to install the WSUS database:

localhost

Check connection

Successfully connected to server

## Role services

- ☐ IIS Client Certificate Mapping Authentication
- ☐ IP and Domain Restrictions
- ☐ URL Authorization
- ☒ Windows Authentication
- ☒ Application Development
  - ☒ .NET Extensibility 3.5
  - ☒ .NET Extensibility 4.7
  - ☐ Application Initialization
  - ☐ ASP
  - ☒ ASP.NET 3.5
  - ☒ ASP.NET 4.7
  - ☐ CGI
  - ☒ ISAPI Extensions
  - ☒ ISAPI Filters
  - ☐ Server Side Includes
  - ☐ WebSocket Protocol
- ☐ FTP Extensibility
- ☒ Management Tools
  - ☒ IIS Management Console
  - ☒ IIS 6 Management Compatibility
    - ☒ IIS 6 Metabase Compatibility
    - ☒ IIS 6 Management Console
    - ☒ IIS 6 Scripting Tools
    - ☒ IIS 6 WMI Compatibility

## View installation progress



### Feature installation

The request to add or remove features on the specified server failed.  
Installation of one or more roles, role services, or features failed. Error: 0x8024402c

server failed.

s failed. Error: 0x8024402c

.NE

# Needed to mount an Preconfigured Windows ISO image to Hypervisor to Complete Install (E:)

Share View

E:\sources\sxs

Name	Date modified	Type	Size
microsoft-windows-internetexplorer-opti...	9/6/2019 6:14 PM	Cabinet File	299 KB
Microsoft-Windows-InternetExplorer-Op...	9/6/2019 6:14 PM	Cabinet File	31 KB
microsoft-windows-netfx3-ondemand-p...	9/6/2019 6:16 PM	Cabinet File	71,025 KB
Microsoft-Windows-NetFx3-OnDemand-...	9/6/2019 6:14 PM	Cabinet File	117 KB

Installation progress

DESTINATION: SASCCM01.ServerAcadem...

Before You Begin  
Installation Type  
Server Selection  
Server Roles  
Features  
Task Details

View installation progress

**Feature installation**

Configuration required. Installation succeeded on SASCCM01.ServerAcademy.com.

**Windows Server Update Services**  
Additional configuration must be performed before continuing

Post-deployment Configuration

Configuration required for Windows Server Update Services at SASCCM01

**Feature installation**

Configuration required. Installation succeeded on SASCCM01.ServerAcademy.com.

[Add Roles and Features](#)

Task Details

[illegible]

# !!!!!!-- SASCCM01 Server Configuration --!!!!!!!

```
C:\> Administrator: Command Prompt

Microsoft Windows [Version 10.0.17763.737]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ipconfig

Windows IP Configuration

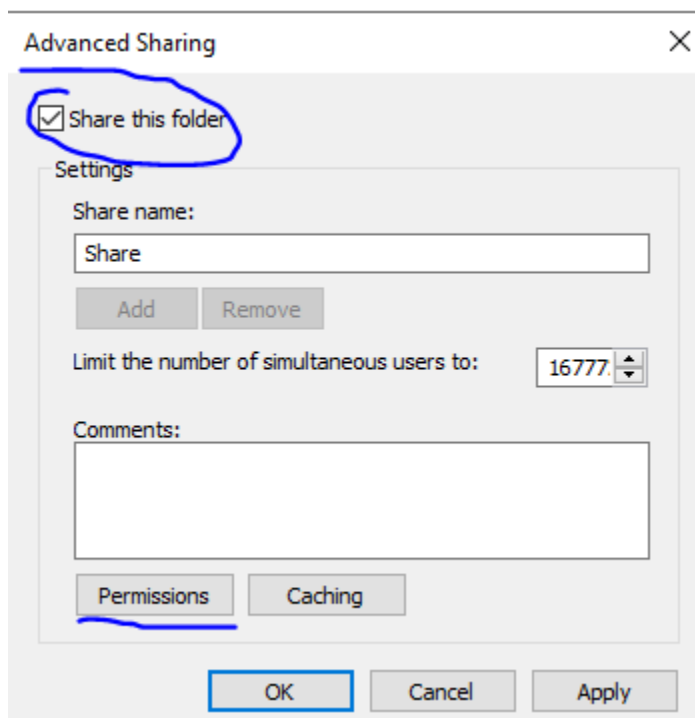
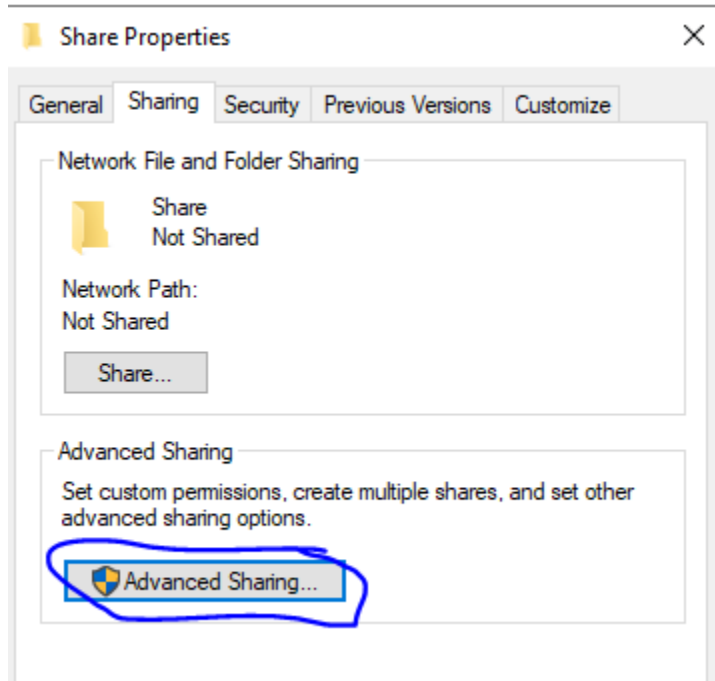
Ethernet adapter Ethernet:

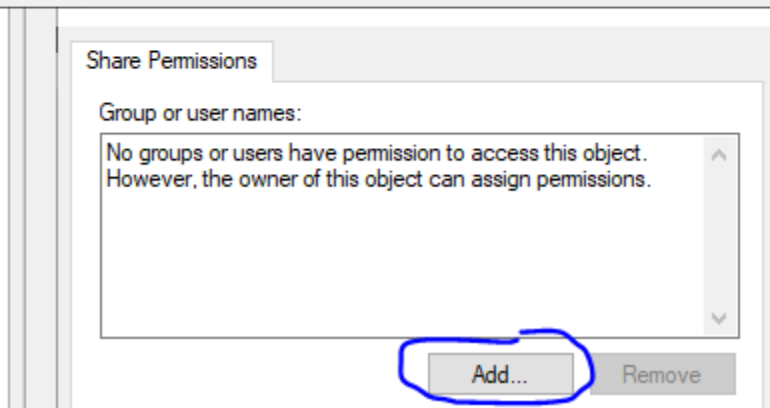
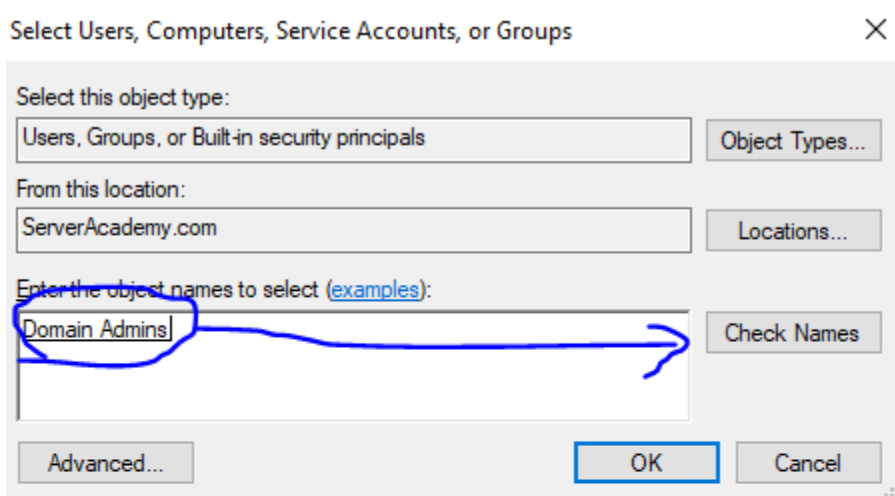
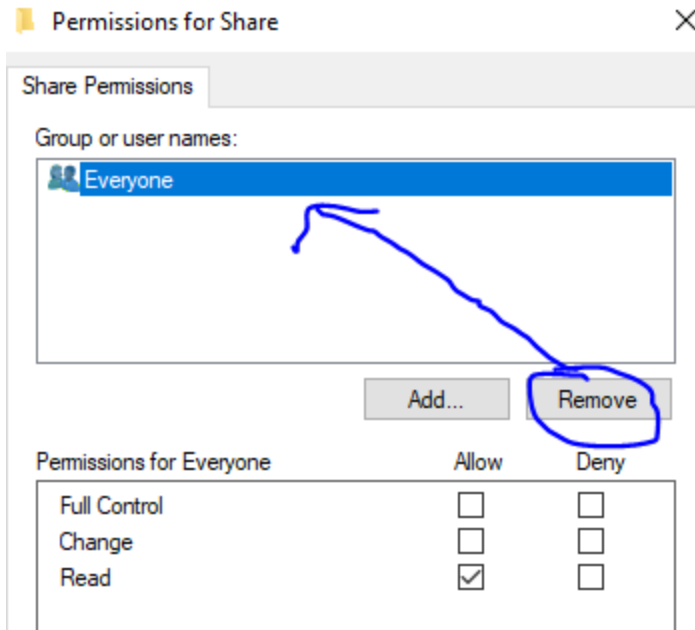
Connection-specific DNS Suffix . . :
IPv4 Address. . . . . : 192.168.1.11
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
```

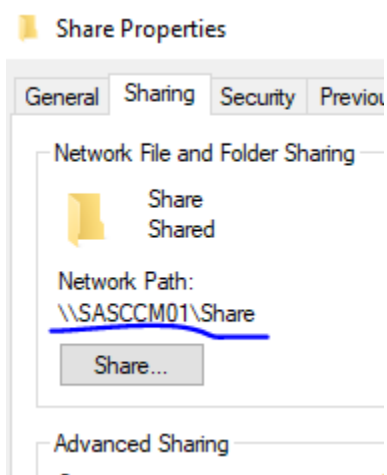
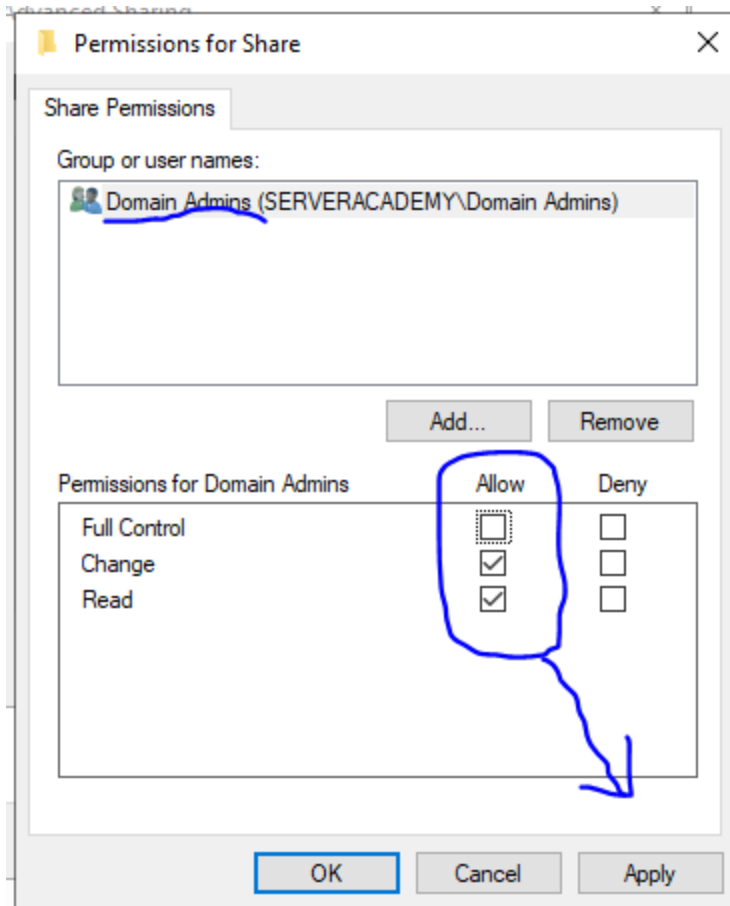
<b>PROPERTIES</b> For SASCCM01	
Computer name	SASCCM01
Domain	ServerAcademy.com
<hr/>	
Windows Defender Firewall	Domain: On
Remote management	Enabled
Remote Desktop	Disabled
NIC Teaming	Disabled
Ethernet	192.168.1.11






## Create a shared folder in SASCCM C: Disk







## Shared files

This PC > Local Disk (C:) > Share				
Name	Date modified	Type	Size	
 extadsch	4/11/2019 12:56 AM	Application	42 KB	
 mfc120.dll	4/11/2019 12:55 AM	Application extens...	5,477 KB	
 msvcr120.dll	4/11/2019 12:55 AM	Application extens...	941 KB	

## Installing SQLServer on SASCCM

PROPERTIES  
For SASCCM01

Extract

SQLServer2017-x64-ENU

Share View Compressed Folder Tools


<< SQLServer2017-x64-ENU > SQLServer2017-x64-ENU


Search SQLServer2017-x64-ENU

Name	Type	Compressed size	Password ...	Si
1033_ENU_LP	File folder			
redist	File folder			
resources	File folder			
Tools	File folder			
x64	File folder			
AUTORUN	Setup Information	1 KB	No	
MEDIAINFO	XML Document	1 KB	No	
Packageld.dat	DAT File	1 KB	No	
SETUP	Application	51 KB	No	
SETUP.EXE.CONFIG	CONFIG File	1 KB	No	

SQL Server Installation Center

Planning  
**Installation**  
Maintenance  
Tools

 [New SQL Server stand-alone installation or add features to an existing installation](#)  
Launch a wizard to install SQL Server 2017 in a non-clustered environment or to add features to an existing SQL Server 2017 instance.

 [Install SQL Server Reporting Services](#)  
Launch a download page that provides a link to install SQL Server Reporting Service

## Product Key

Specify the edition of SQL Server 2017 to install.

Product Key  
License Terms  
Global Rules  
Microsoft Update  
Product Updates  
Install Setup Files  
Install Rules  
Feature Selection  
Feature Rules  
Feature Configuration Rules  
Ready to Install

Validate this instance of SQL Server 2017 by entering the 25-character key of authenticity or product packaging. You can also specify a free edition: Evaluation, or Express. Evaluation has the largest set of SQL Server features, Books Online, and is activated with a 180-day expiration. Developer edition has the same set of features found in Evaluation, but is licensed for non-development only. To upgrade from one installed edition to another, run the Setup program again.

☒ Specify a free edition:

Evaluation

☐ Enter the product key:

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

## Microsoft Update

Use Microsoft Update to check for important updates

Product Key  
License Terms  
Global Rules  
Microsoft Update  
Product Updates  
Install Setup Files  
Install Rules  
Feature Selection

Microsoft Update offers security and other important updates for Windows software, including SQL Server 2017. Updates are delivered using Automatic Updates from the Microsoft Update website.

☒ Use Microsoft Update to check for updates (recommended)


[Microsoft Update FAQ](#)

[Microsoft Update Privacy Statement](#)

## Feature Selection

Select the Evaluation features to install.

Product Key  
License Terms  
Global Rules  
Microsoft Update  
Install Setup Files  
Install Rules  
**Feature Selection**  
Feature Rules  
Instance Configuration  
Server Configuration  
Database Engine Configuration  
Feature Configuration Rules  
Ready to Install

 Looking for Reporting Services? [Download it from the web](#)

Features:

- Instance Features
- ☒ Database Engine Services
    - ☐ SQL Server Replication
    - ☐ Machine Learning Services (In-Database)
      - ☐ R
      - ☐ Python
    - ☐ Full-Text and Semantic Extractions for Search
    - ☐ Data Quality Services
    - ☐ PolyBase Query Service for External Data
    - ☐ Analysis Services
  - Shared Features

Feature description:

The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL

Prerequisites for selected features:

Already installed:

Windows PowerShell 3.0 or higher  
Microsoft .NET Framework 4.6

Disk Space Requirements

Drive C: 1001 MB required, 142945 MB available

 SQL Server 2017 Setup

## Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Product Key  
License Terms  
Global Rules  
Microsoft Update  
Install Setup Files  
Install Rules  
Feature Selection  
Feature Rules  
**Instance Configuration**  
Server Configuration  
Database Engine Configuration  
Feature Configuration Rules  
Ready to Install  
Installation Progress  
Complete

☒ Default instance

☐ Named instance: MSSQLSERVER

Instance ID: MSSQLSERVER

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL14.MSSQLSERVER

Installed instances:

Instance Name	Instance ID	Features	Edition	Version

< Back

Next >

Cancel

## Server Configuration

Specify the service accounts and collation configuration.

Product Key

License Terms

Global Rules

Microsoft Update

Install Setup Files

Install Rules

Feature Selection

Feature Rules

Service Accounts Collation

Microsoft recommends that you use a separate account for each SQL Server service.

Service	Account Name	Password	Startup Type
SQL Server Agent	NT AUTHORITY\SYSTEM		Manual
SQL Server Database Engine	NT Service\SQLSERVERAGENT		Automatic
SQL Server Browser	<<Browse...>>		Disabled

### Select User, Computer, Service Account, or Group

Select this object type:

User, Service Account, Group, or Built-in security principal

Object Types...

From this location:

Entire Directory

Locations...

Enter the object name to select (examples):

SQL Service\

Check Names

Advanced...

OK

Cancel

Service Accounts Collation

Microsoft recommends that you use a separate account for each SQL Server service.

Service	Account Name	Password	Startup Type
SQL Server Agent	SERVERACADEMY\SQLS...	.....	Manual
SQL Server Database Engine	SERVERACADEMY\SQLS...	.....	Automatic
SQL Server Browser	NT AUTHORITY\LOCAL ...		Disabled

Service Accounts Collation

Database Engine:

SQL\_Latin1\_General\_CP1\_CI\_AS

Customize...

Latin1-General, case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data

SQL Server 2017 Setup

## Database Engine Configuration

Specify Database Engine authentication security mode, administrators, data directories and TempDB settings.

Product Key  
License Terms  
Global Rules  
Microsoft Update  
Install Setup Files  
Install Rules  
Feature Selection  
Feature Rules  
Instance Configuration  
Server Configuration  
**Database Engine Configuration**  
Feature Configuration Rules  
Ready to Install  
Installation Progress  
Complete

Server Configuration Data Directories TempDB FILESTREAM

Specify the authentication mode and administrators for the Database Engine.

Authentication Mode

☒ Windows authentication mode

☐ Mixed Mode (SQL Server authentication and Windows authentication)

Specify the password for the SQL Server system administrator (sa) account.

Enter password:

Confirm password:

Specify SQL Server administrators

Add Current User Add... Remove

SQL  
hav  
to t



Specify SQL Server administrators

SERVERACADEMY\Administrator (Administrator)

Add Current User Add... Remove

Select Users, Computers, Service Accounts, or Groups

Select this object type:  
Users, Service Accounts, Groups, or Built-in security principals

From this location:  
Entire Directory

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

Check Names

Advanced... OK Cancel

Select Users, Computers, Service Accounts, or Groups

Select this object type:  
Users, Service Accounts, Groups, or Built-in security principals

From this location:  
Entire Directory

Enter the object names to select (examples):  
SASCCM01\Administrator

Check Names

Advanced... OK Cancel

Specify SQL Server administrators

SERVERACADEMY\Administrator (Administrator)	SQL Server administrators have unrestricted access to the Database Engine.
SERVERACADEMY\SQL Admins (SQL Admins)	
SASCCM01\Administrator (Administrator)	

Add Current User   Add...   Remove

### Ready to Install

Verify the SQL Server 2017 features to be installed.

- Product Key
- License Terms
- Global Rules
- Microsoft Update
- Install Setup Files
- Install Rules
- Feature Selection
- Feature Rules
- Instance Configuration
- Server Configuration
- Database Engine Configuration
- Feature Configuration Rules
- Ready to Install**
- Installation Progress
- Complete

Ready to install SQL Server 2017:

- User database log directory: C:\Program
- Backup directory: C:\Program Files\Mic
- TempDB
  - Number of data files: 2
  - Initial size of data file: 8 MB
  - Autogrowth of data file: 64 MB
  - Initial size of log file: 8 MB
  - Autogrowth of log file: 64 MB
- TempDB data directories:
  - C:\Program Files\Microsoft SQL Sen
- TempDB log directory: C:\Program Files
- Collation: SQL\_Latin1\_General\_CP1\_CI\_AS
- Security Mode: Windows authentication
- Administrators:
  - SERVERACADEMY\Administrator
  - SERVERACADEMY\SQL Admins
  - SASCCM01\Administrator

SADC01 Server Configuration (Domain Controller)

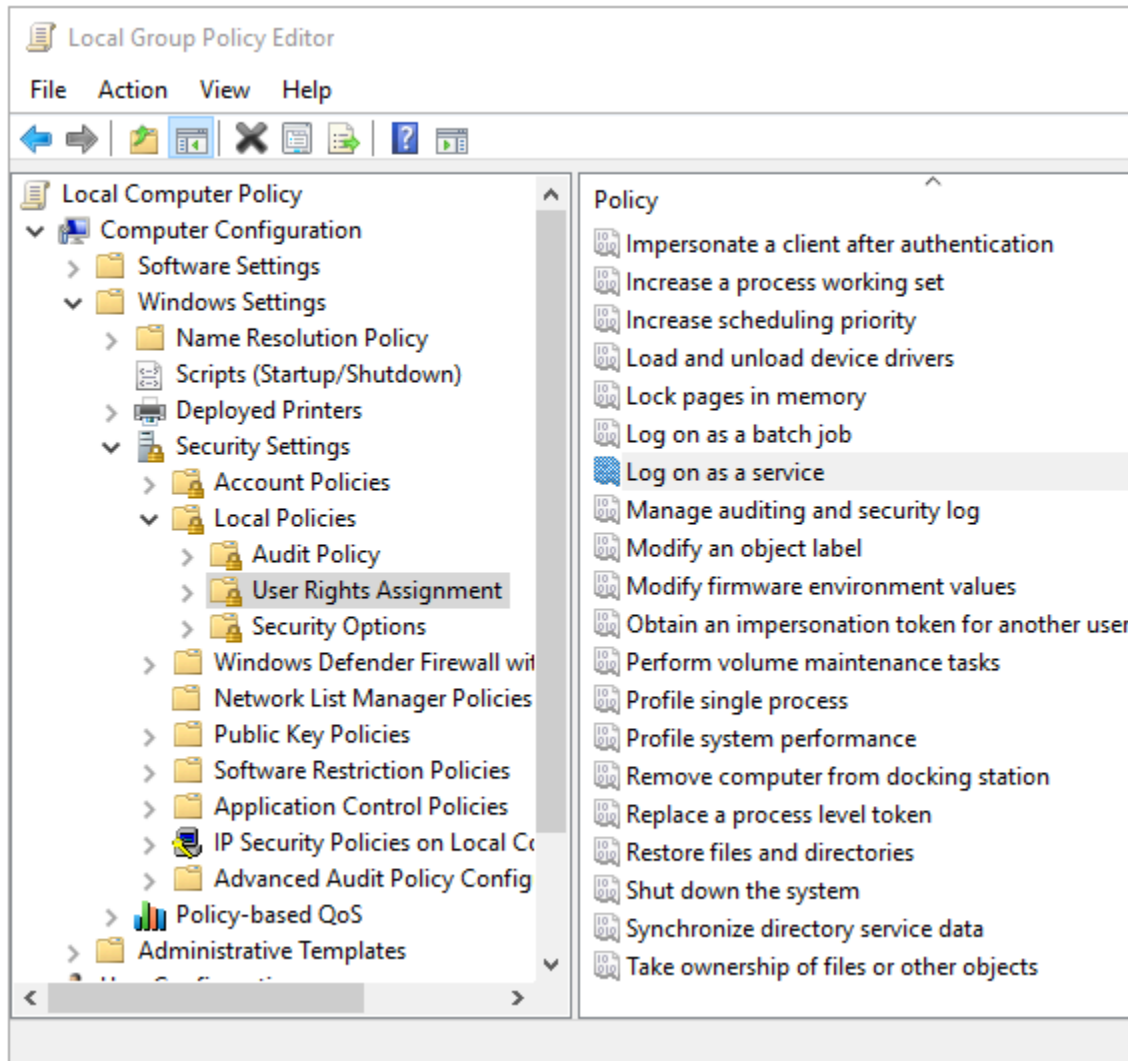
Active Directory Users and Computers

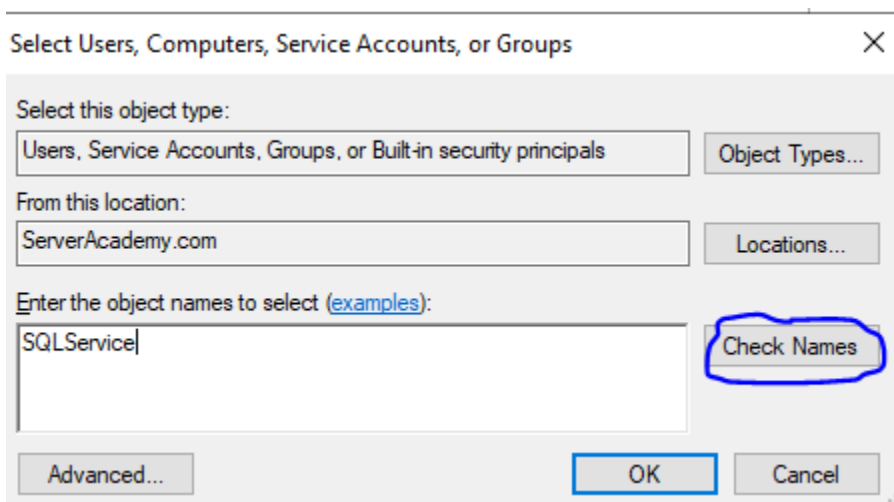
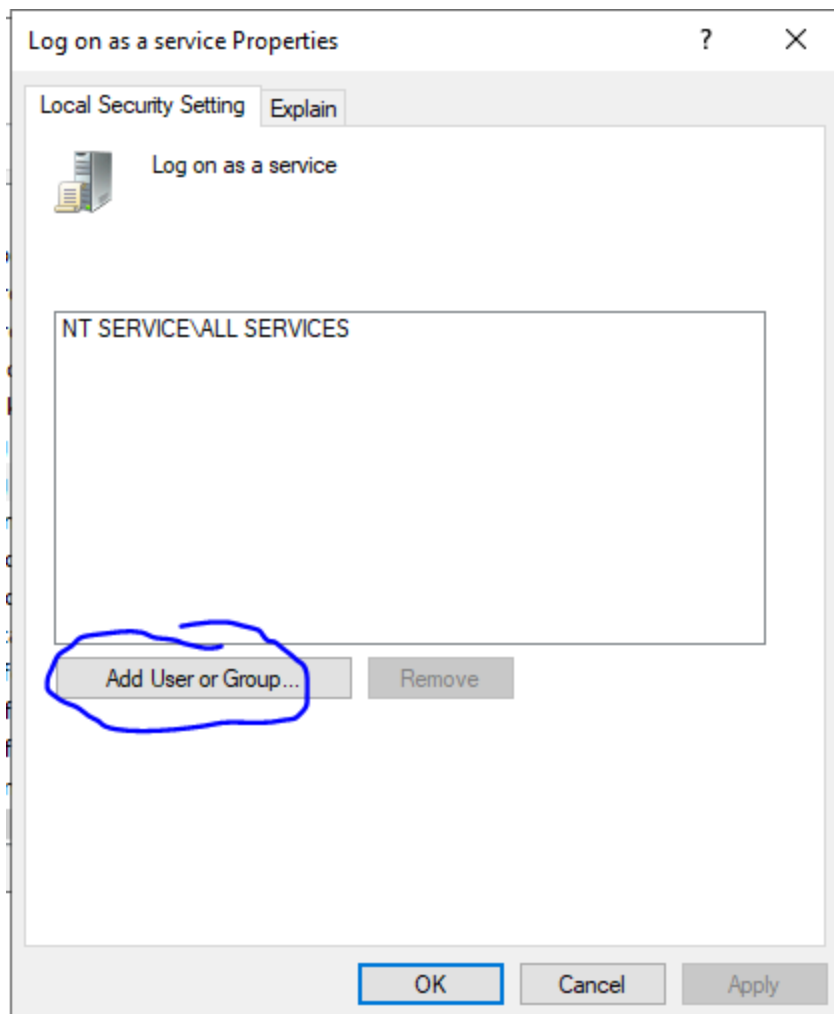
File Action View Help



	Name	Type	Description
> Saved Queries			
▼ ServerAcademy.com			
> Built-in			
> Computers			
> Domain Controllers			
> ForeignSecurityPrincipals			
> Managed Service Accounts			
▼ ServerAcademy			
> Admins			
> Groups			
> Members Servers			
> Service Accounts			
> Users			
> Workstation			
> Users			
	SASCCM01	Computer	

# SASCCM01 Creating Domain User Accounts





## Enter network credentials

For example user, user@example.microsoft.com, or domain\user name

.....

Enter the object names to select (examples):

SQL Service (SQLService@ServerAcademy.com)

Check M

Advanced...

OK

Ca

Log on as a service Properties



Local Security Setting

Explain



Log on as a service

NT SERVICE\ALL SERVICES  
SERVERACADEMY\SQLService

Add User or Group...

Remove

OK

Cancel

Apply

# Other user

Administrator@ServerAcademy.com

.....|



Sign in to: ServerAcademy.com

[How do I sign in to another domain?](#)



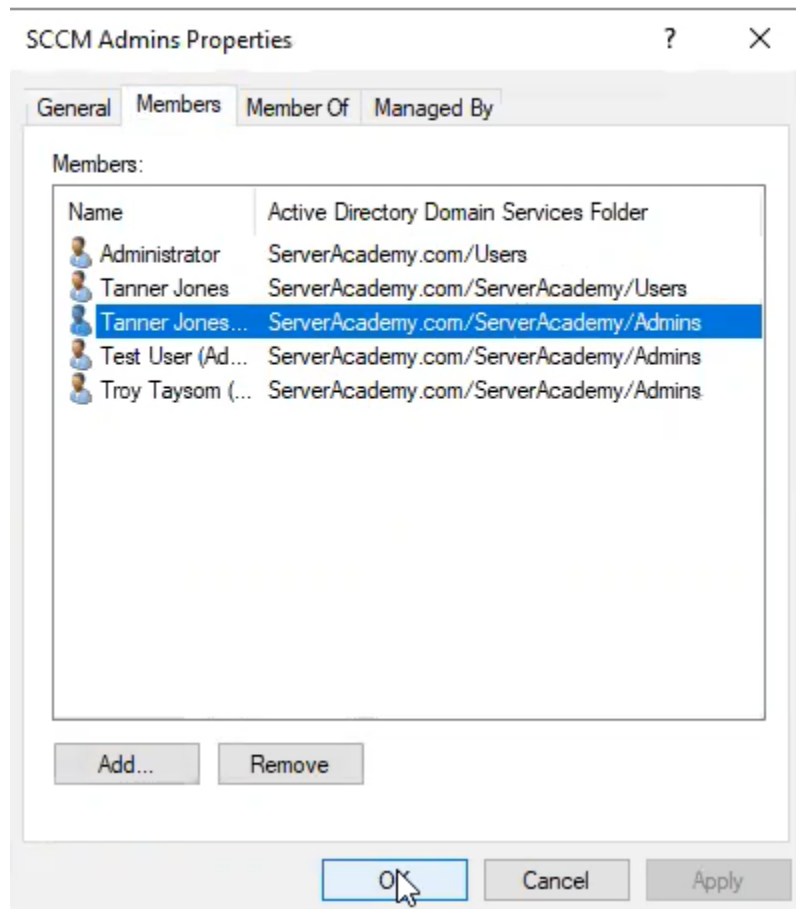
Administrator



Other user



# SCCM Admins Group in ServerAcademy OU

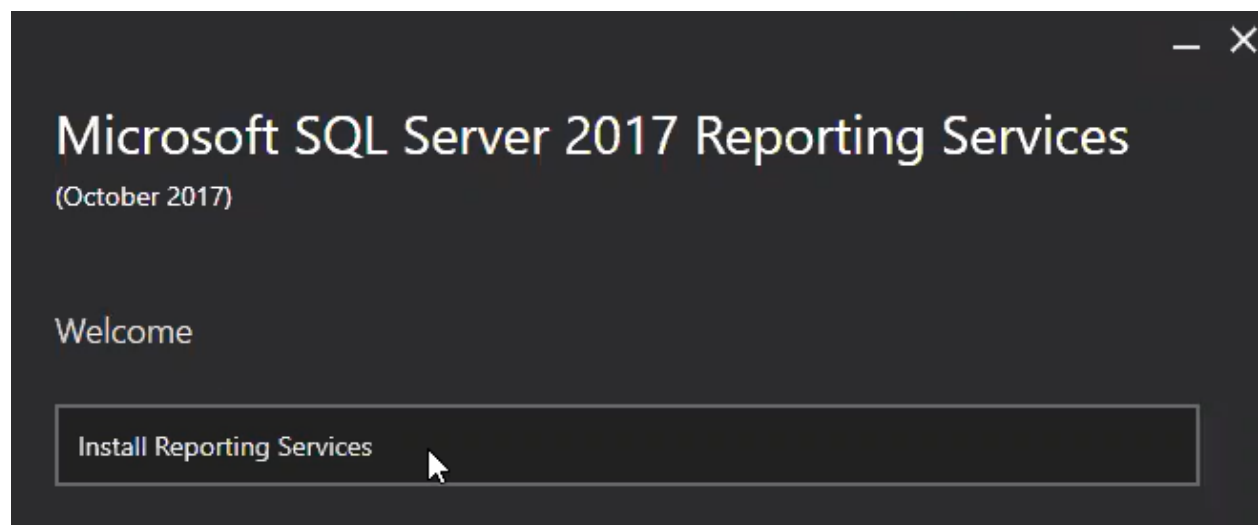


# Installing SQL Server 2017

are View Manage Application Tools ServerAcademyDownloads (\\VBoxSvr) (Y:)





This PC > ServerAcademyDownloads (\\VBoxSvr) (Y:)

Name	Date modified	Type	Size
SC_Configmgr_SCEP_1902	3/8/2021 5:14 PM	Application	950,811 KB
SQLServer2017-x64-ENU	3/3/2021 9:55 PM	Compressed (zipp...	1,573,657 KB
SQLServerReportingServices	3/8/2021 5:13 PM	Application	95,445 KB
SSMS-Setup-ENU	3/8/2021 5:06 PM	Application	551,535 KB



Share View Application Tools

This PC > ServerAcademyDownloads (\\VBoxSvr) (Y:) >

Name	Date modified	Type	Size
 SC_Configmgr_SCEP_1902	3/8/2021 5:14 PM	Application	950,811 KB
 SQLServer2017-x64-ENU	3/3/2021 9:55 PM	Compressed (zipp...	1,573,657 KB
 SQLServerReportingServices	3/8/2021 5:13 PM	Application	95,445 KB
 SSMS-Setup-ENU	3/8/2021 5:06 PM	Application	551,535 KB



RELEASE 18.4

## Microsoft SQL Server Management Studio

Welcome. Click "Install" to begin.

Location:

C:\Program Files (x86)\Microsoft SQL Server Management Studio 18

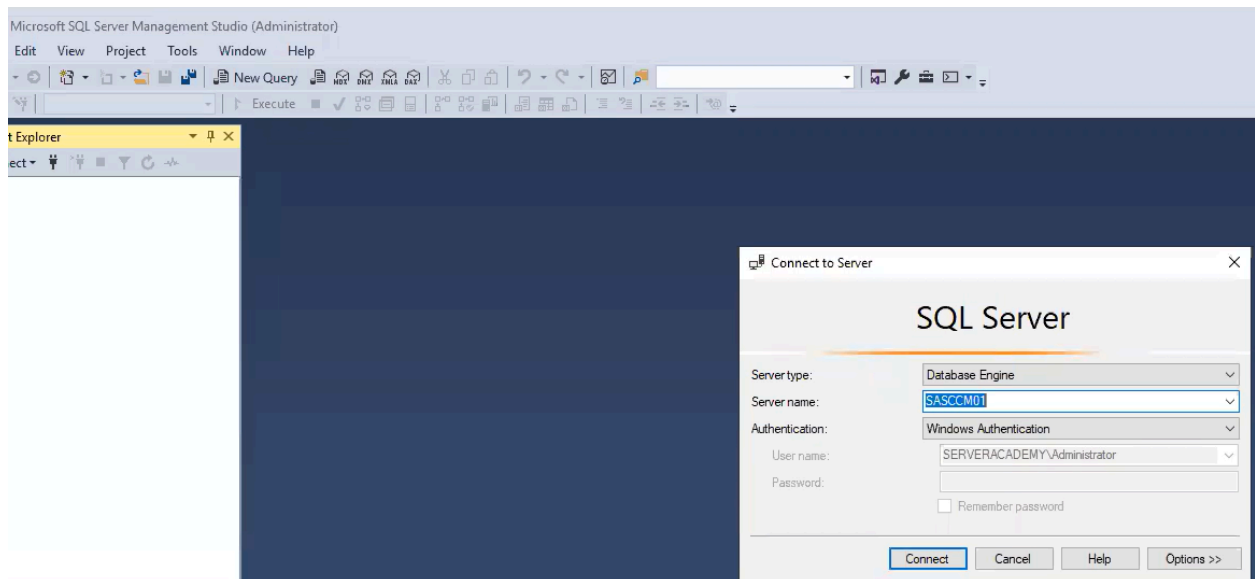
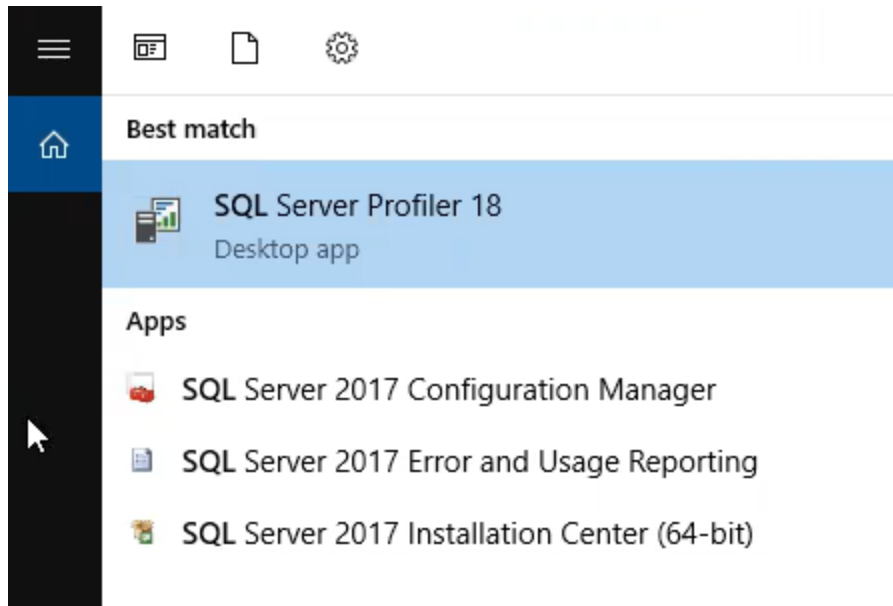
Change

By clicking the "Install" button, I acknowledge that I accept the [License Terms](#) and [Privacy Statement](#).

SQL Server Management Studio transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the [documentation](#).

Install

Close



Server Properties - SASCCM01

Select a page

General

Memory

Processors

Security

Connections

Database Settings

Advanced

Permissions

Connection

Server:  
SASCCM01

Connection:  
SERVERACADEMY\Administrator

View connection properties

Progress

Ready

Script

Help

Server memory options

Minimum server memory (in MB):  
0

Maximum server memory (in MB):  
2048

Other memory options

Index creation memory (in KB, 0 = dynamic memory):  
0

Minimum memory per query (in KB):  
1024

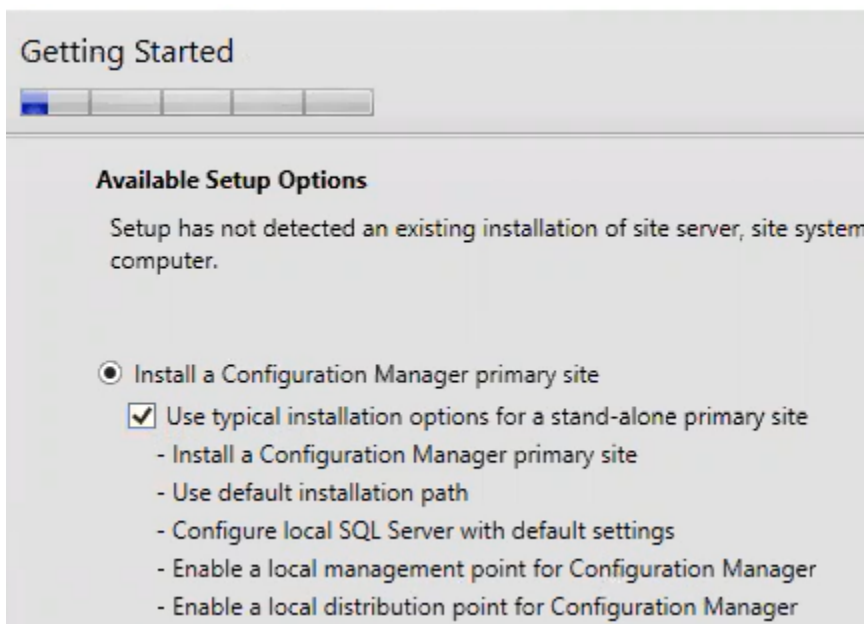
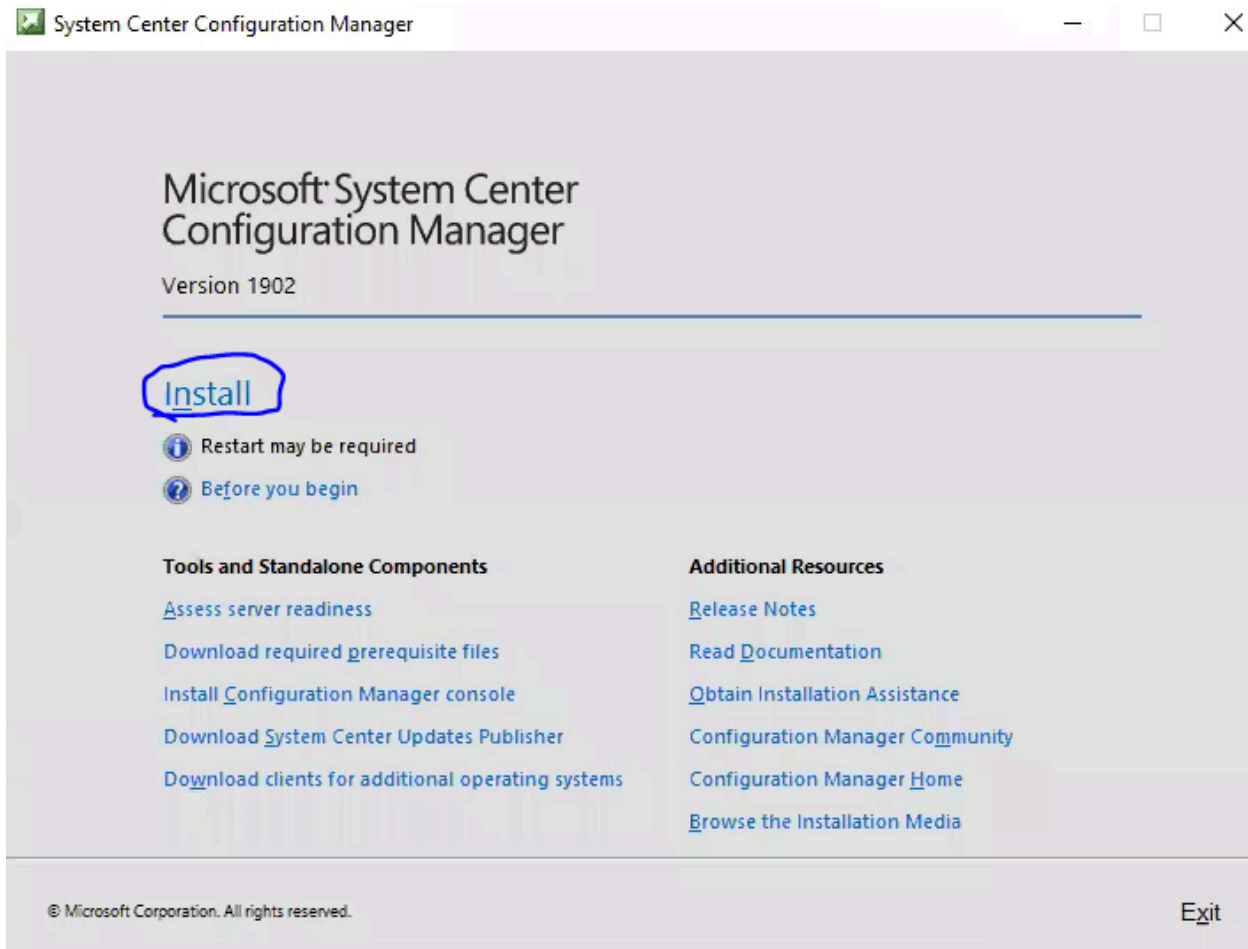
☒ Configured values

☐ Running values

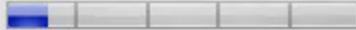
OK

Cancel

# Installing Configuration Manager on SCCM01



## Product Key



- ☒ Install the evaluation edition of this product

When you install the Current Branch evaluation edition of this product, it is fully functional for 180 days.

- ☐ Use previously downloaded files

Example: \\ServerName\ShareName or C:\Downloads

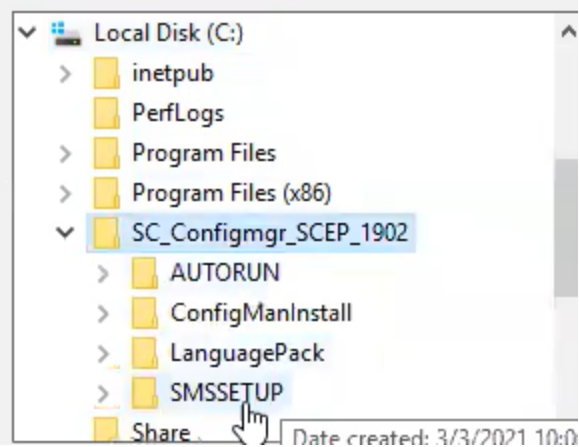
Path:



Browse...

## Browse For Folder

Select a folder containing updated Configuration Manager prerequisite components.



Example: \\ServerName\ShareName or C:\Downloads

Path:

C:\SC\_Configmgr\_SCEP\_1902\SMSSETUP

## Site and Installation Settings

Specify a site code that uniquely identifies this Configuration Manager site in your hierarchy.

Site code:

Specify a site name that helps to identify the site. Example: Contoso Headquarters Site

Site name:

Note: The site code must be unique in the Configuration Manager hierarchy and cannot be changed after you install site.

Installation folder:

Specify whether to install the Configuration Manager console to manage the Configuration Manager site from this computer. You can remotely manage the site when you do not install the Configuration Manager console.

☒ Install the Configuration Manager console

< Previous

Next >

## Service Connection Point Setup

Keep Configuration Manager up-to-date by connecting to the Configuration Manager cloud service. Core service enables your deployment to download updates and new features.

☒ Yes, let's get connected (recommended)


Select a server to use as the service connection point (requires internet access):

☐ Use a proxy server when synchronizing information from the Internet

Address:  Port:

☐ Skip this for now

To connect to the service after setup completes, install a service connection point site system role.

 To use features like Conditional Access, Microsoft Store for Business or on-premises mobile device management (MDM), add your Microsoft Intune subscription to Configuration Manager after setup completes.

< Previous

Next >



## Prerequisite Check



Setup is checking for potential installation problems. If problems are found, Setup will display details about how to resolve them.

Details:

Prerequisite	Status	System
Verify site server permissions to publish to Active Dire	Warning	SASCCM01.ServerAcademy.com
SQL Server process memory allocation	Warning	SASCCM01.ServerAcademy.com

Prerequisite checking has completed.

administration site and primary site and a minimum of 4 gigabytes (GB) for the secondary site. This memory is reserved by using the Minimum server memory setting under Server Memory Options and is configured by using SQL Server Management Studio. For more information about how to set a fixed amount of memory, see <https://go.microsoft.com/fwlink/?LinkId=233759>.

Run Check

< Previous

Begin Install

Cancel

## Install



Core setup has completed

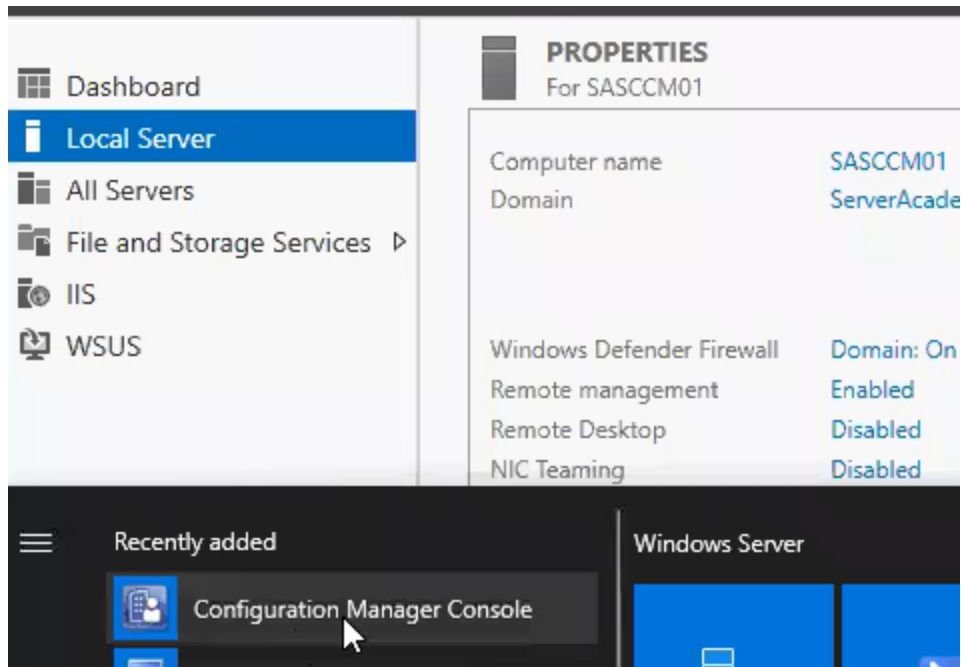


Elapsed time: 00:01:44:35

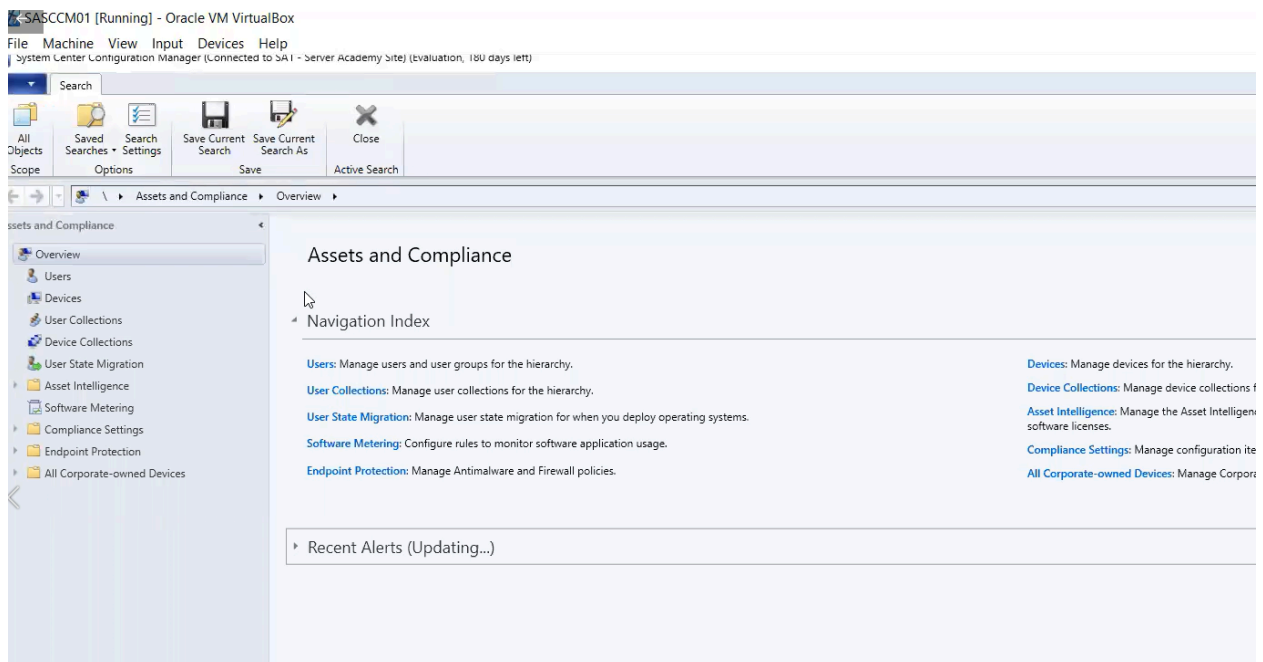
- ✓ Installing Inbox Manager
- ✓ Installing policy provider
- ✓ Installing management point control manager
- ✓ Setting up management point
- ✓ Installing boot image package
- ✓ Configuring data replication service
- ✓ Installing Configuration Manager console
- ✓ Creating program group

You can close the wizard now. For a list of tasks to help you configure your site, see [Post-Setup Configuration Tasks](#) in the Configuration Manager Documentation Library.

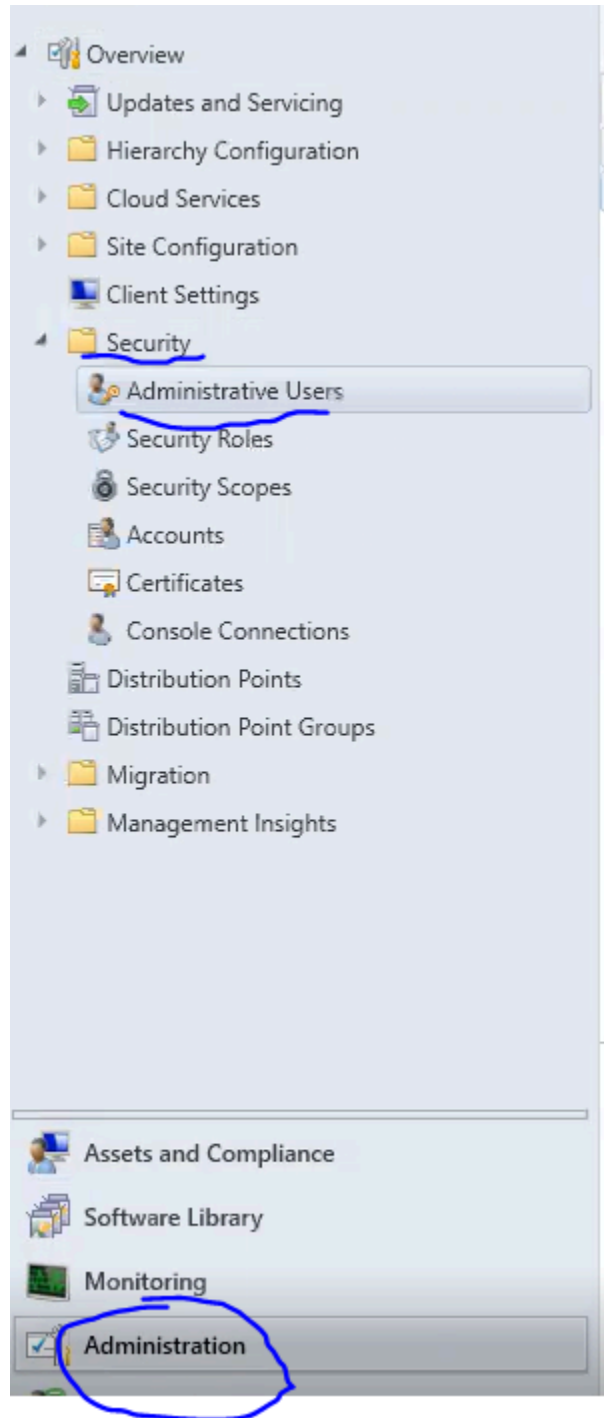
View Log

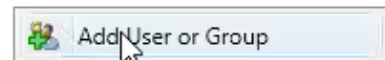
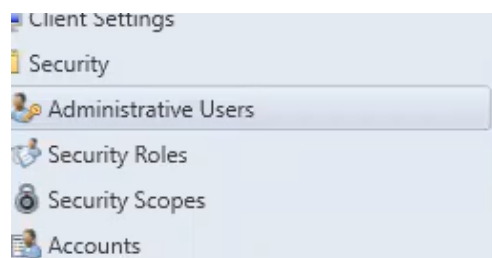


## Installed Successfully



# Creating/Adding Security Groups In SCCM





Add User or Group

### Specify a user or group to add as a Configuration Manager administrative user

To control the type of objects that administrative users can manage, assign one or more security roles to the administrative user, and then assign security scopes to limit the instances of objects that the administrative user can manage.

User or group name:

Browse...

Assigned security roles:

Name	Description

Assigned security scopes and collections:

☐ All instances of the objects that are related to the assigned security roles

☒ Only the instances of objects that are assigned to the specified security scopes or collections

Security scopes and collections:

Name	Type
All Systems	Collection
All Users and User Groups	Collection
Default	Security Scope

Add

Remove

OK

Cancel

Select User, Computer, or Group

✕

Select this object type:

User or Group

Object Types...

From this location:

ServerAcademy.com

Locations...




Enter the object name to select (examples):

Check Names

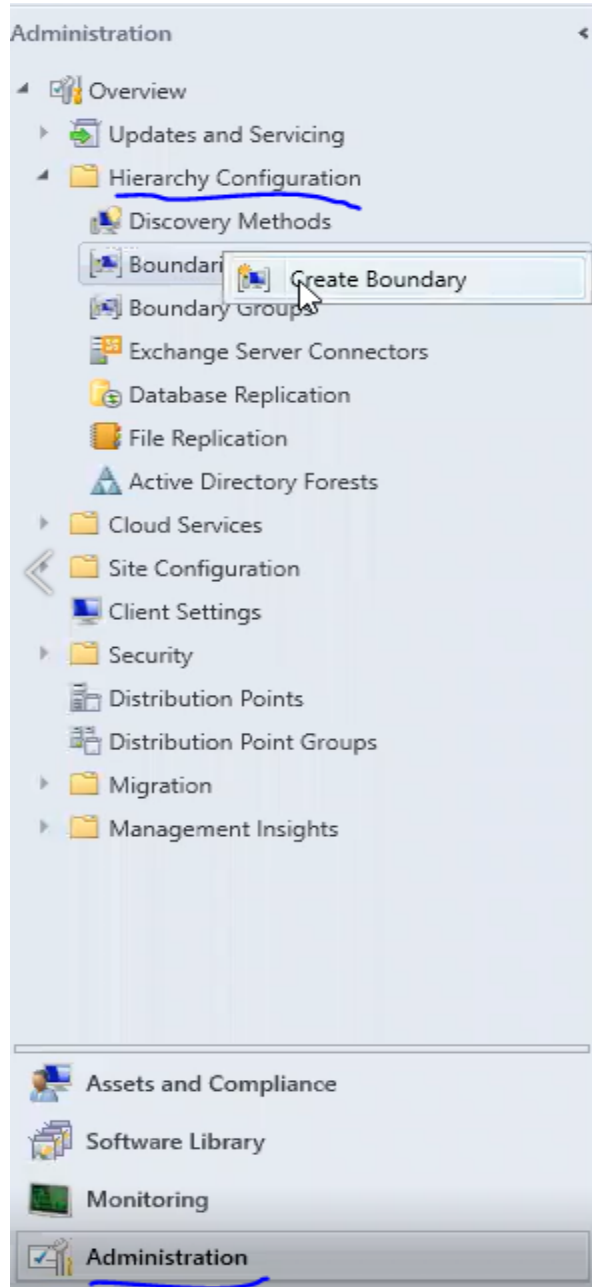
Advanced...

OK

Cancel

Search			
Icon	Account Name	Account Display Name	Security Roles
	SERVERACADEMY\Administrator		"Full Administrator"
	SERVERACADEMY\SCCM Admins		"Full Administrator"
	SERVERACADEMY\troy.taysom	Troy Taysom	"Full Administrator"


# Creating Boundary Groups in SCCM



Create Boundary

General

Boundary Groups



Configure settings for this boundary

Description:

ServerAcademy Boundary

Type:

Active Directory site

Active Directory site name:


Default-First-Site-Name

Browse...

Administration

Boundaries | Items

Search

Icon	Boundary	Type	Description	Group Count	Date Created
	Default-First-Site-Name	Active Directory site	ServerAcademy Boundary	0	3/28/2021 2:40 PM

Administration

Overview

Updates and Servicing

Hierarchy Configuration

- Discovery Methods
- Boundaries
- Boundary Groups
- Exc...

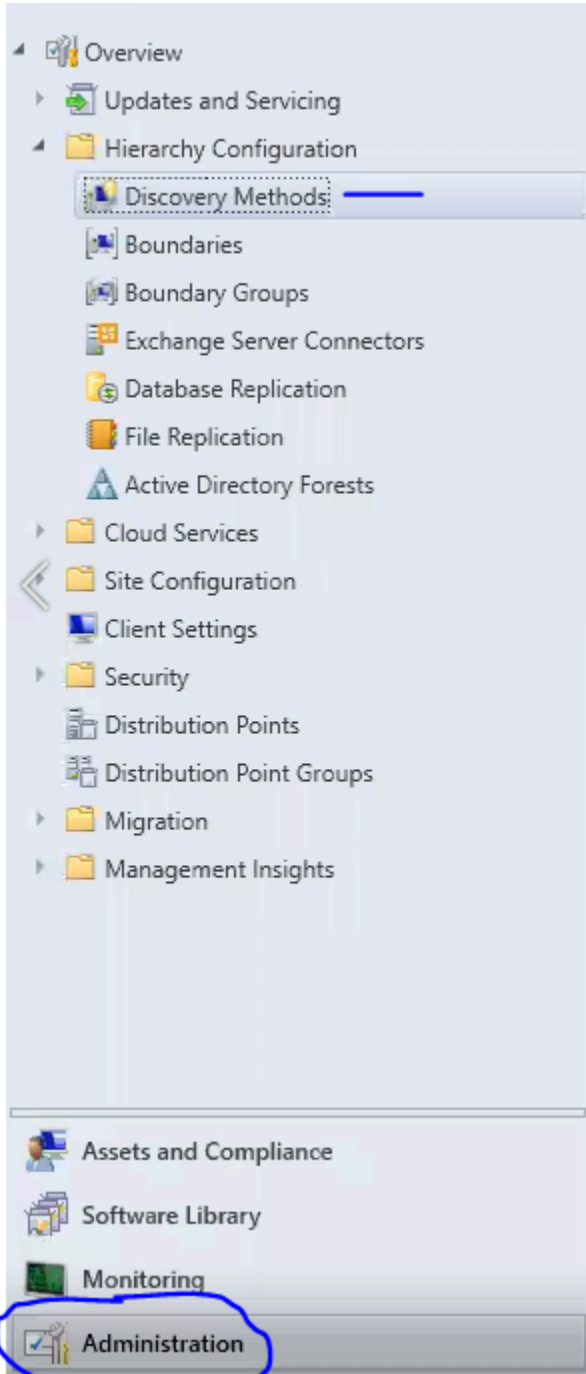
Database Replication

Create Boundary Group





# Enabling Client and User Discovery on SCCM



Overview

- Updates and Servicing
- Hierarchy Configuration
  - Discovery Methods**
  - Boundaries
  - Boundary Groups
  - Exchange Server Connectors
  - Database Replication

Icon	Name	Status	Site	Description
	Heartbeat Discovery	Enabled	SA1	Configures interval for Configuration Manager clients to perio...
	Active Directory Forest Discovery	Disabled	SA1	Configures settings that Configuration Manager uses to find A...
	Active Directory Group Discovery	Disabled	SA1	Configures settings that Configuration Manager uses to find g...
	Active Directory System Discovery	Disabled	SA1	Configures settings that Configuration Manager uses to find c...
	Active Directory User Discovery	Disabled	SA1	Configures settings that Configuration Manager uses to find u...
	Network Discovery	Disabled	SA1	Configures settings and polling intervals to discover resources...

Discovery Methods

Icon	Name	Status	Site
	Heartbeat Discovery	Enabled	SA1
	Active Directory Forest Discovery	Disabled	SA1
	Active Directory Group Discovery	Disabled	SA1
	Active Directory System Discovery	Disabled	SA1
	Active Directory User Discovery	Disabled	SA1
	Network Discovery	Disabled	SA1

**Active Directory Forest Discovery Properties**

General

Active Directory Forest Discovery

Configure settings to find resources from Active Directory forests. When you configure the forests to discover Active Directory sites and subnets, Configuration Manager can automatically create boundaries from this information.

☒ Enable Active Directory Forest Discovery

☒ Automatically create Active Directory site boundaries when they are discovered

☒ Automatically create IP address range boundaries for IP subnets when they are discovered

Schedule

Run every: 1 Weeks

OK Cancel Apply

Discovery Methods

Icon	Name	Status	Site
	Active Directory Forest Discovery	Enabled	SA1
	Heartbeat Discovery	Enabled	SA1
	Active Directory Group Discovery	Disabled	SA1
	Active Directory System Discovery	Disabled	SA1
	Active Directory User Discovery	Disabled	SA1
	Network Discovery	Disabled	SA1

**Active Directory Group Discovery Properties**

General Polling Schedule Options

Active Directory Group Discovery

Configure settings to discover the Active Directory group membership of computers and users.

☒ Enable Active Directory Group Discovery

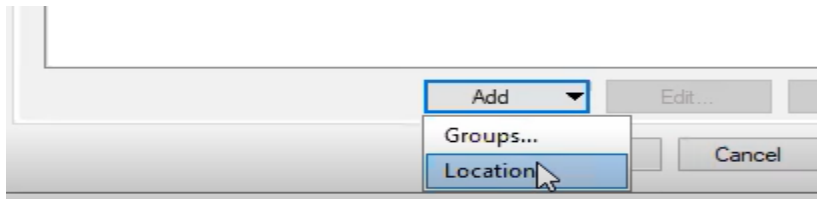
Discovery scopes:

Filter...

Name	Type	Recursive	Account
There are no items to show in this view.			

Add Edit... Delete

OK Cancel Apply



**Add Active Directory Location** [X]

Active Directory location  
Enter the location by using a distinguished name (DN) for an Active Directory forest, domain, container, or organizational unit (OU). Or, browse to the location.

⚠ When you specify an Active Directory location that has a large number of groups or groups that have many members, the discovery process can take a long time to finish.

Name:

Location: Example: LDAP://OU=UserAccounts, DC=contoso, DC=com

☒ Recursively search Active Directory child containers

Active Directory Group Discovery Account  
The Active Directory Group Discovery Account must have Read permission to the specified location.

☒ Use the site server's computer account  
☐ Specify an account:

Discovery Methods

Icon	Name	Status	Site
	Active Directory Forest Discovery	Enabled	SA1
	Active Directory Group Discovery	Enabled	SA1
	Heartbeat Discovery	Enabled	SA1
	Active Directory System Discovery	Disabled	SA1
	Active Directory User Discovery	Disabled	SA1
	Network Discovery	Disabled	SA1

Active Directory System Discovery Properties [X]

General | Polling Schedule | Active Directory Attributes | Options

Active Directory System Discovery

Configure the settings to find computers in Active Directory Domain Services.

☒ Enable Active Directory System Discovery

Active Directory containers:

Filter...

Distinguished Name	Recursive	Group	Account
There are no items to show in this view.			

Active Directory Container

×

Location

Specify a location for the Active Directory search. You can browse to a single container and enter an LDAP query to find an Active Directory container within a particular domain. Or, you can enter a Global Catalog (GC) query to find an Active Directory container within multiple domains.

Path:

LDAP://DC=ServerAcademy,DC=com

Browse...

Search Options

Select options to modify the search behavior.

☐ Discover objects within Active Directory groups

☒ Recursively search Active Directory child containers

Select sub containers to be excluded from discovery

Filter...

Name

There are no items to show in this view.

Add...

Remove

Active Directory Discovery Account

The Active Directory Discovery Account must have Read permission to the specified location.

☒ Use the computer account of the site server




☐ Specify an account:

Set...

OK

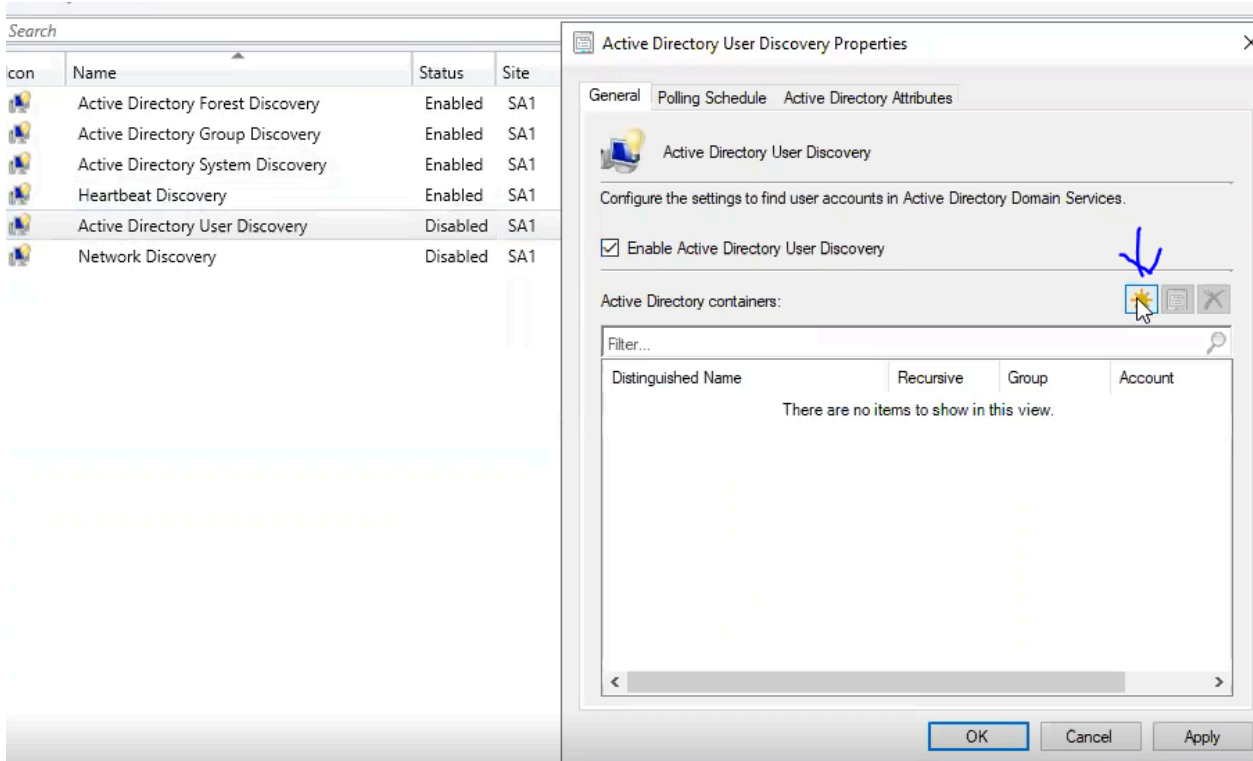
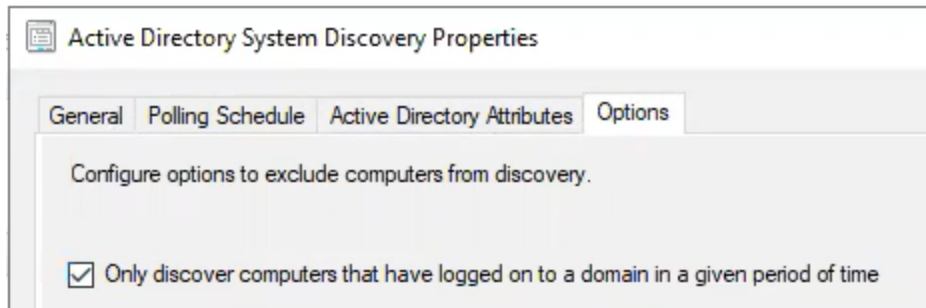
Cancel

Active Directory containers:

Filter...

Distinguished Name	Recursive	Group	Account
LDAP://DC=ServerAcademy,DC=com	Yes	Excluded	Site Server



Active Directory Container

×

Location

Specify a location for the Active Directory search. You can browse to a single container and enter an LDAP query to find an Active Directory container within a particular domain. Or, you can enter a Global Catalog (GC) query to find an Active Directory container within multiple domains.

Path:LDAP://DC=ServerAcademy,DC=comBrowse...

Search Options

Select options to modify the search behavior.

☐ Discover objects within Active Directory groups

☒ Recursively search Active Directory child containers

Select sub containers to be excluded from discovery

Name

There are no items to show in this view.

Add...Remove

Active Directory Discovery Account

The Active Directory Discovery Account must have Read permission to the specified location.

☒ Use the computer account of the site server

☐ Specify an account:

Set...

Active Directory User Discovery Properties

×

GeneralPolling ScheduleActive Directory Attributes

Specify how often Configuration Manager polls Active Directory Domain Services to find user data.

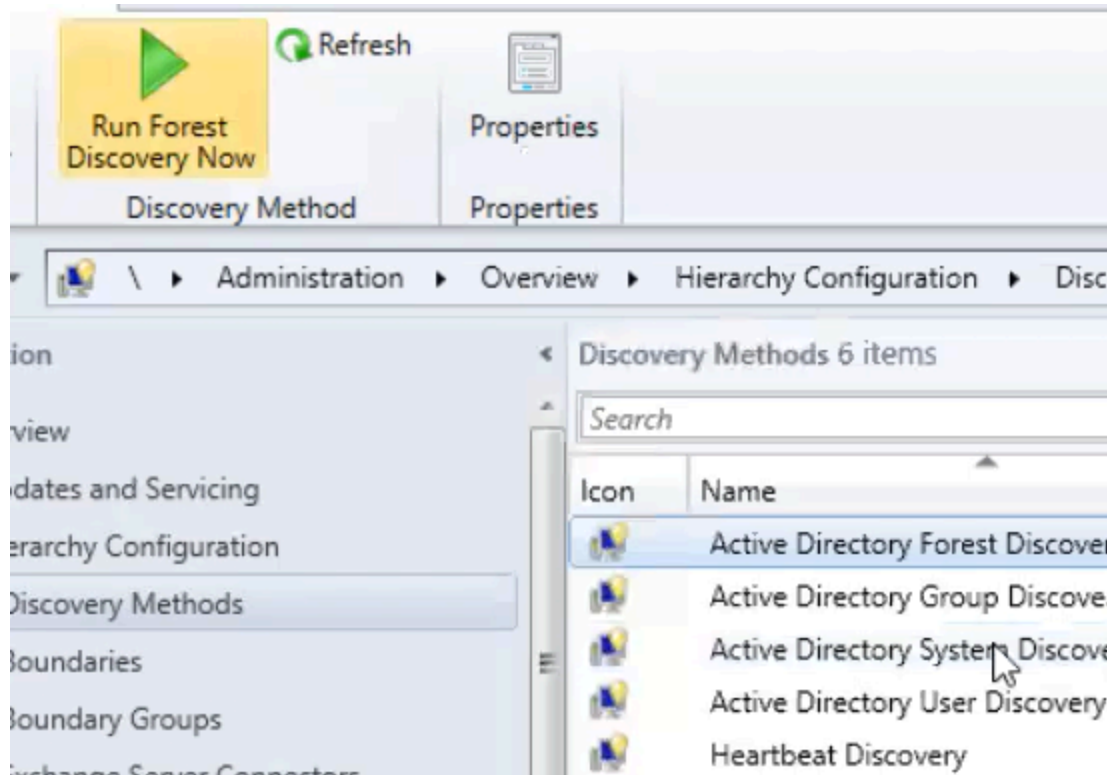
Full discovery polling schedule:

Occurs every 7 days effective 1/1/1998 12:00 AMSchedule...

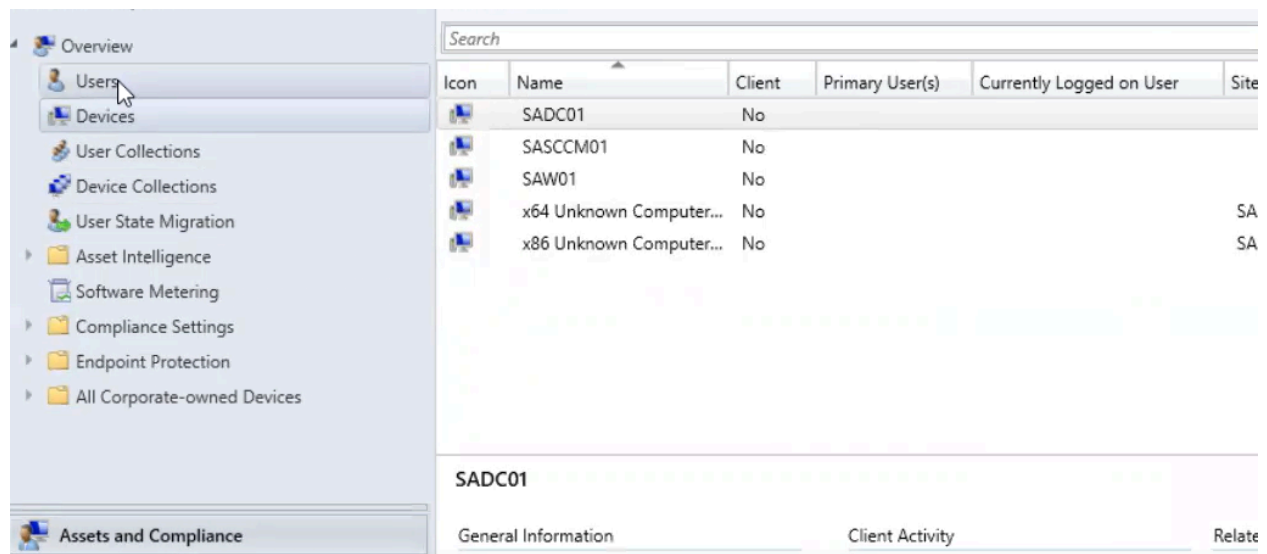
☒ Enable delta discovery

Delta discovery finds resources in Active Directory Domain Services that are new or modified since the last discovery cycle.

Delta discovery interval (minutes):5



## Clients and Devices on Network Successfully Discovered





Overview

Users

Devices

User Collections

Device Collections

User State Migration

Asset Intelligence

Software Metering

Compliance Settings

Endpoint Protection

All Corporate-owned Devices

Assets and Compliance

Search

Icon	Name	Domain	Resource Type
	SERVERACADEMY\Domain Contr...	SERVERACADEMY	User Group
	SERVERACADEMY\Domain Guests	SERVERACADEMY	User Group
	SERVERACADEMY\Domain Users	SERVERACADEMY	User Group
	SERVERACADEMY\Enterprise Ad...	SERVERACADEMY	User Group
	SERVERACADEMY\Enterprise Key...	SERVERACADEMY	User Group
	SERVERACADEMY\Enterprise Rea...	SERVERACADEMY	User Group
	SERVERACADEMY\Group Policy C...	SERVERACADEMY	User Group
	SERVERACADEMY\Key Admins	SERVERACADEMY	User Group
	SERVERACADEMY\paul.hill (Paul...	SERVERACADEMY	User
	SERVERACADEMY\Protected Users	SERVERACADEMY	User Group
	SERVERACADEMY\RAS and IAS S...	SERVERACADEMY	User Group

SERVERACADEMY\Administrator (Administrator)

General Information

## Client Push Installation

Administration > Overview > Site Configuration > Sites

Sites 0 items

Search

Icon	Name	Type	Server Name	State	Site Code	Parent
	SA1 - Server Academy S...	Primary site	SASCCM01.ServerAcademy.co...	Site Active	SA1	

Server Academy Site

General

Site Code:

- Add Site System Roles
- Create Site System Server
- Create Secondary Site
- Retry Secondary Site
- Recover Secondary Site
- Upgrade
- Show Install Status
- Refresh F5
- Delete Delete
- Manage Content Library
- Configure Site Components
- Client Installation Settings
  - Client Push Installation
  - Software Update-Based Client Installation
- Site Maintenance



Windows User Account ✕


User name:    
Example: Domain\User

Password:

Confirm password:

Data source:  ▼

Network share:    
Example: \\server\share

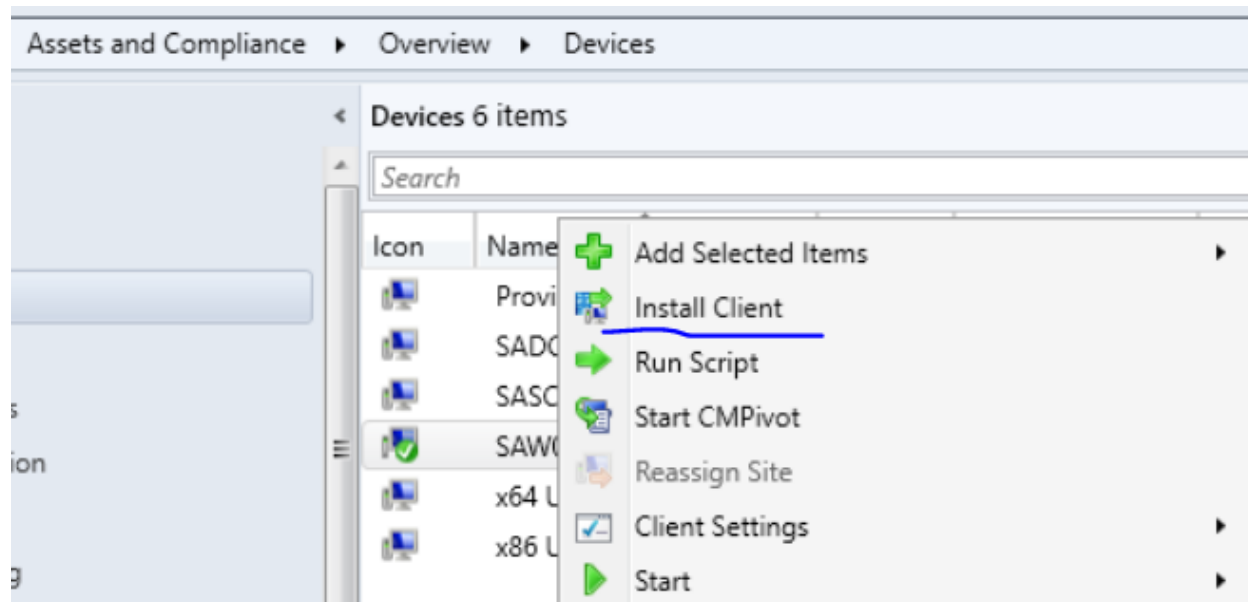
 Client Push Installation Properties

General Accounts **Installation Properties**

Specify any client.msi installation properties that you require when you install the Configuration Manager client software. Do not specify installation properties for CCMSetup.exe.

Installation properties:

▲



## Specify Client Push Options

- ☐ Allow the client software to be installed on domain controllers

If you have configured client push installation to domain controllers in the Client Push Installation Properties dialog box, this option is unavailable.

- ☐ Always install the client software

When a computer already has the Configuration Manager client installed, you can repair, upgrade, or reinstall the client software.

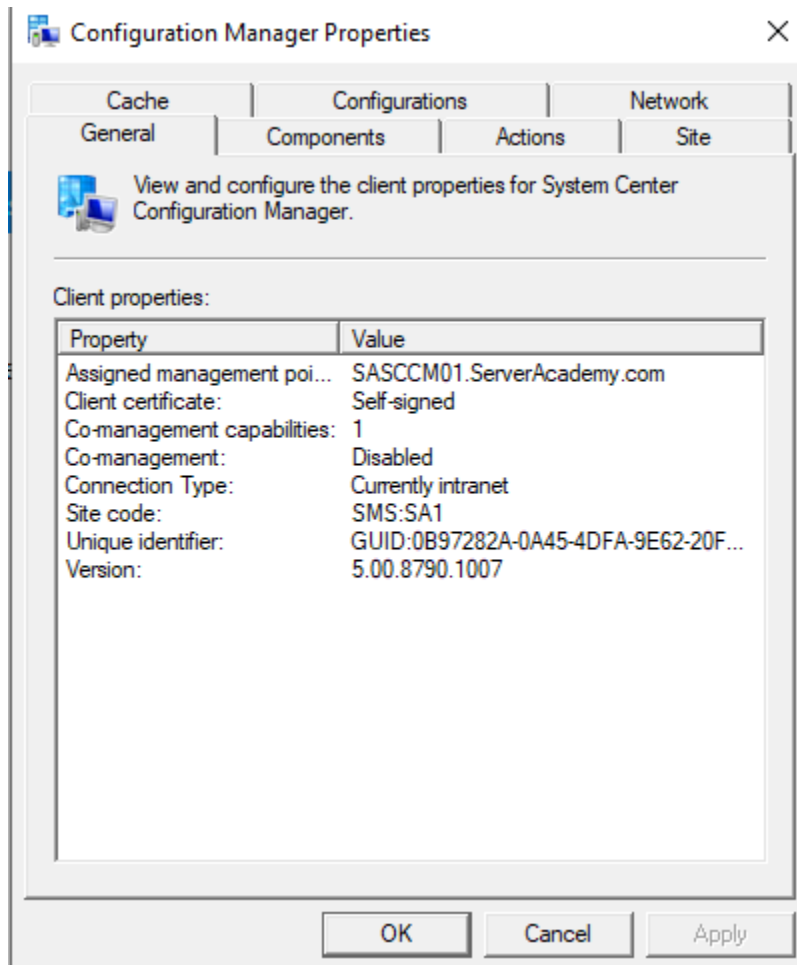
- ☐ Uninstall existing Configuration Manager client before the client is installed

- ☒ Install the client software from a specified site

Site:

The site server in the specified site will install the client software. When you do not use this option, the site server in the assigned site for the resource will install the client software.

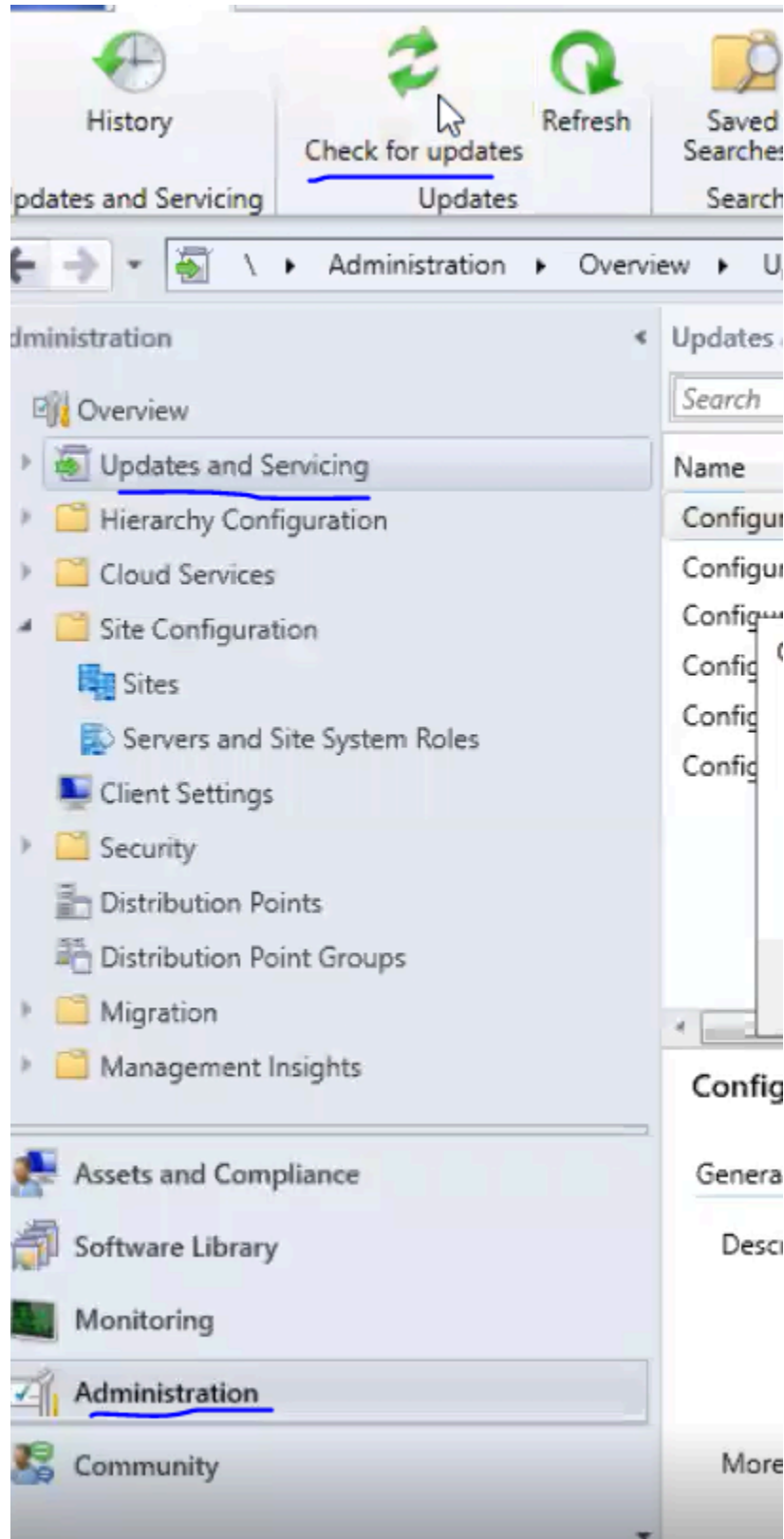
## Verifying SCCM is Installed on Client



Devices 6 items

Icon	Name	Client	Primary User(s)	Currently Logged on User	Site Code	Client Activity
	Provisioning Device(Pro...	No			SA1	
	SADC01	No				
	SASCCM01	No				
	SAW01	Yes			SA1	Active
	x64 Unknown Computer...	No			SA1	
	x86 Unknown Computer...	No			SA1	

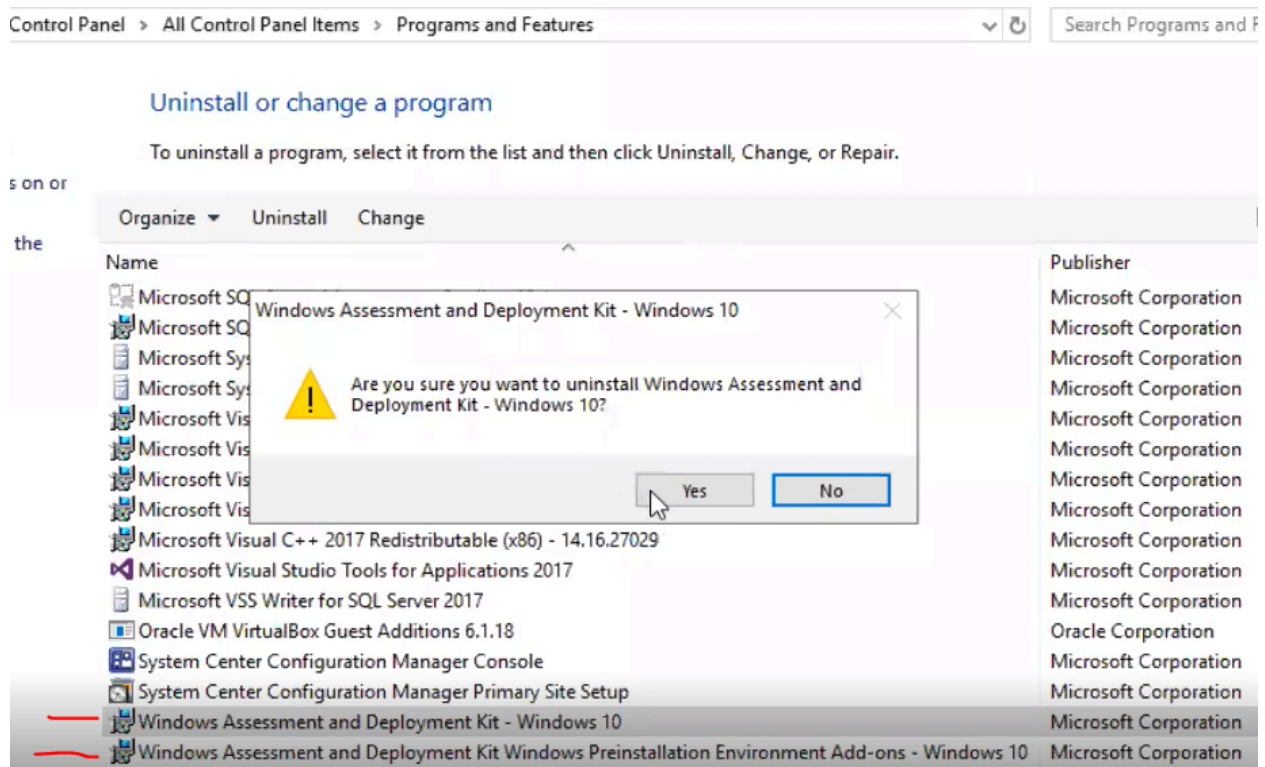
# Updating SCCM to Latest Version



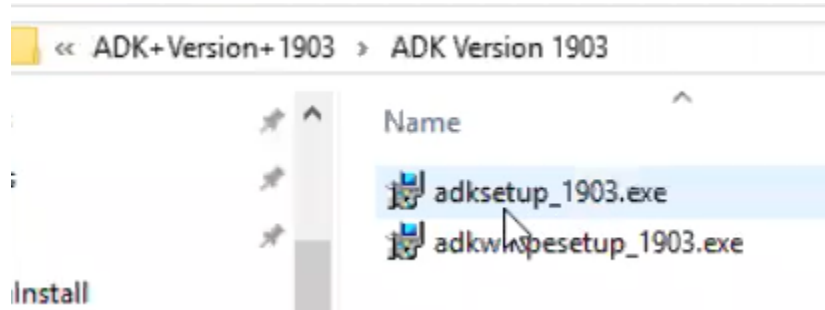
## Older version 1902 being updated



## Uninstalling Both Assessment and Deployment Kits



# Reinstalling Assessment and Deployment Kit



## Select the features you want to install

Click a feature name for more information.

- ☐ Application Compatibility Tools
- ☒ **Deployment Tools**
- ☐ Imaging And Configuration Designer (ICD)
- ☐ Configuration Designer
- ☒ User State Migration Tool (USMT)
- ☐ Volume Activation Management Tool (VAMT)
- ☐ Windows Performance Toolkit
- ☐ Microsoft User Experience Virtualization (UE-V) Template Ger
- ☐ Microsoft Application Virtualization (App-V) Sequencer
- ☐ Microsoft Application Virtualization (App-V) Auto Sequencer
- ☐ Media eXperience Analyzer

### Deployment Tools

Size: 96.3 MB

Tools to customize and manage Windows images and to automate installation.

Includes:

- Deployment Image Servicing and Management (DISM) tool. To use DISM cmdlets, [PowerShell 3.0](#) must also be installed.
- OEM Activation 2.5 and 3.0 Tools.
- Windows System Image Manager (SIM).
- OSDIMG, BCDBoot, DISMAPI, WIMGAPI, and other tools and interfaces.

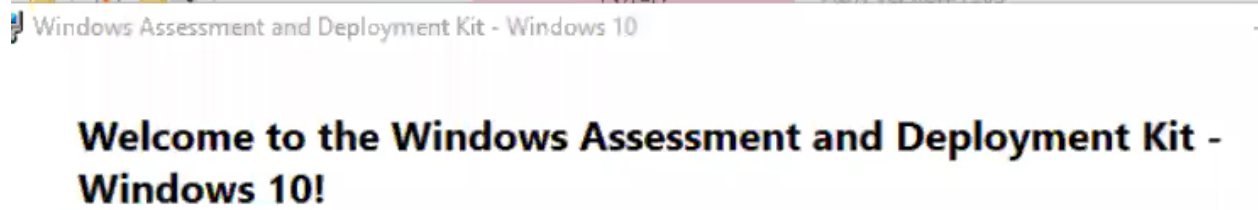
## User State Migration Tool (USMT)

Size: 609.5 MB

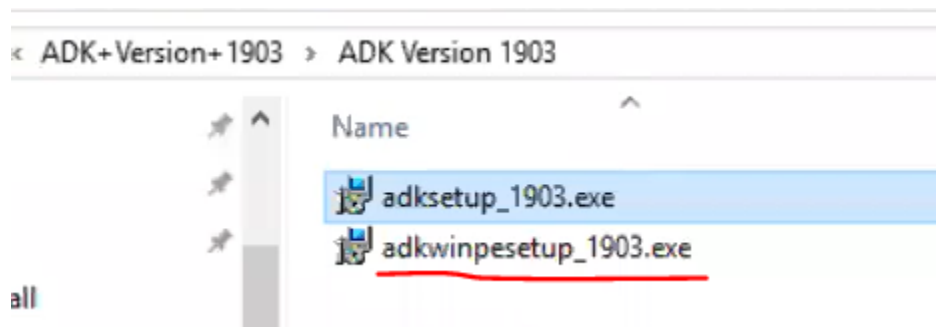
Tools to migrate user data from a previous installation of Windows to a new installation.

Includes:

- ScanState tool
- LoadState tool
- USMTUtils tool

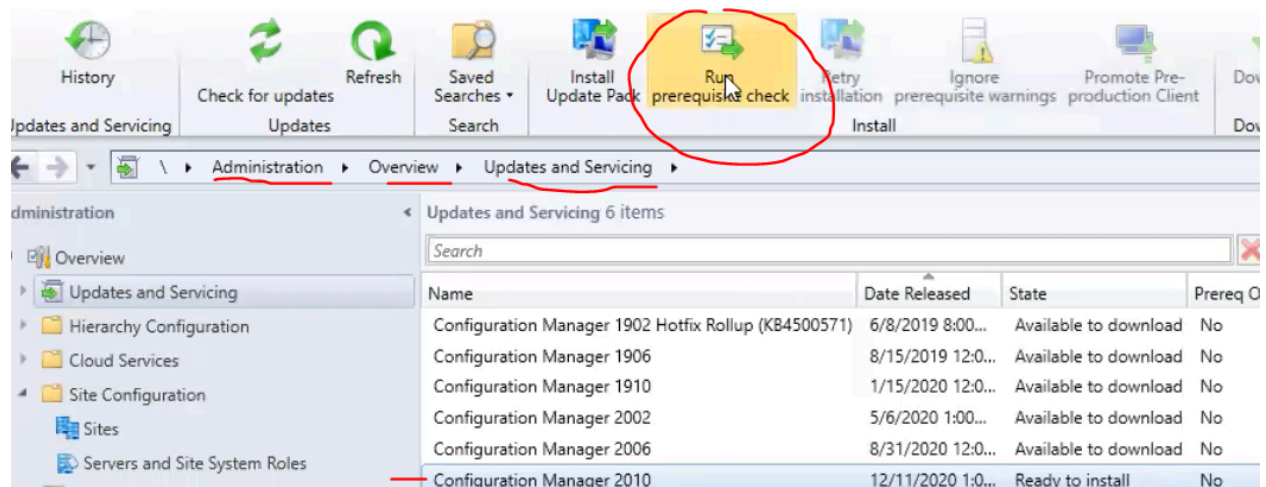


## Launching the WinPE Setup



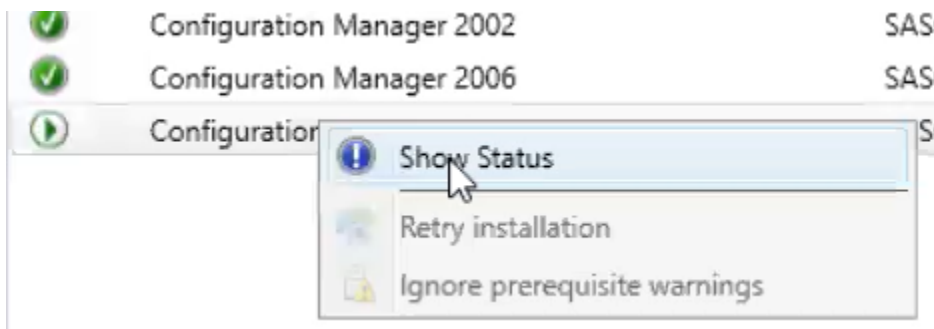
## Welcome to the Windows Assessment and Deployment Kit Windows Preinstallation Environment Add-ons - Windows 10!

## Running Prerequisite Checks Before Updating

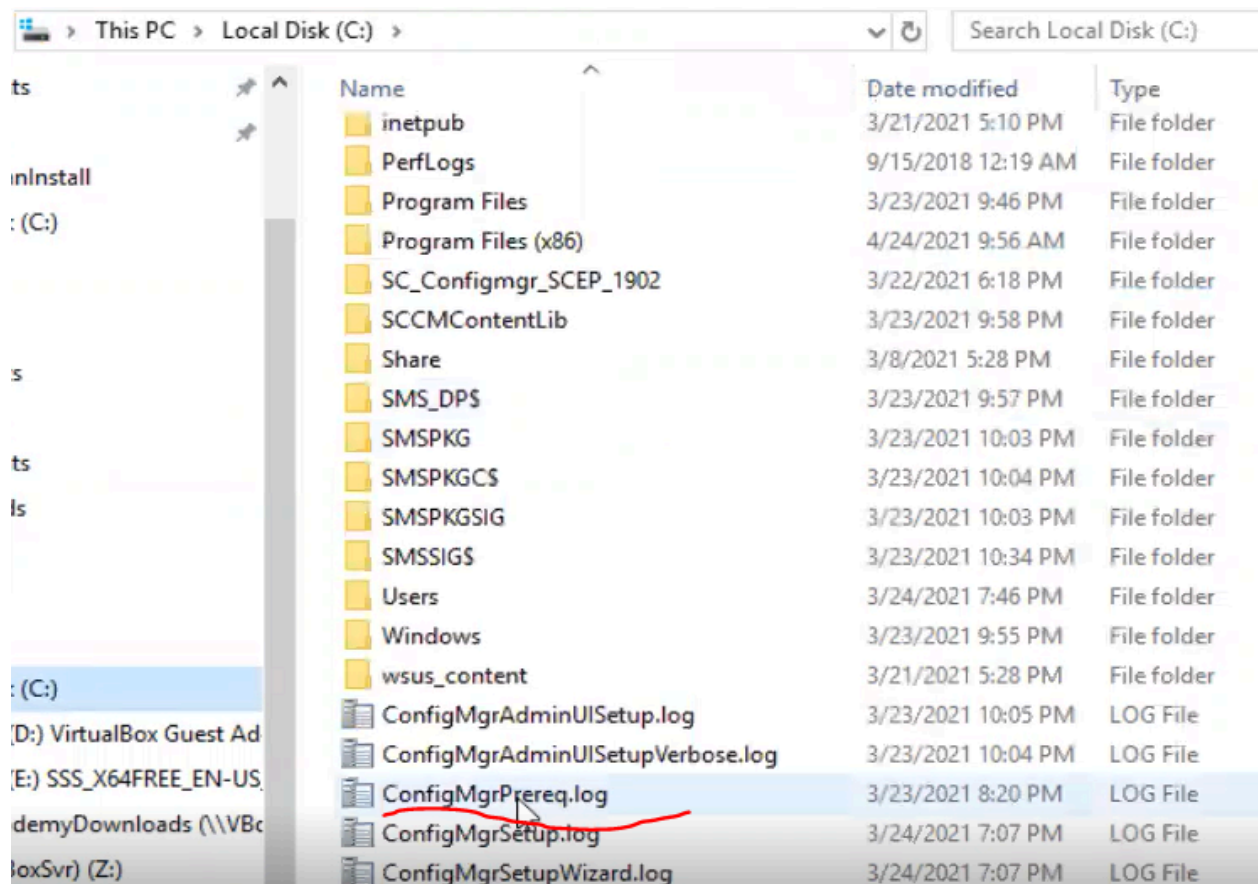





Configuration Manager 2002	5/6/2020 1:00...	Available to download	No	No
Configuration Manager 2006	8/31/2020 12:0...	Available to download	No	No
Configuration Manager 2010	12/11/2020 1:0...	Checking prerequisites	Yes	No














## Checking Prerequisites log file with the CMTrace Tool





 Configuration Manager Trace Log Tool - [C:\ConfigMgrPrereq.log]

 File
  Tools
  Window
  Help

Log Text

<03-23-2021 20:20:50> SASCCM01.ServerAcademy.com; Minimum Microsoft .NET Fra  
 <03-23-2021 20:20:50> INFO: Checking .NET framework versions 4.5...  
 <03-23-2021 20:20:50> INFO: .NET 4.5 is installed  
 <03-23-2021 20:20:50> SASCCM01.ServerAcademy.com; Minimum Microsoft .NET Fra  
 <03-23-2021 20:20:50> INFO: The rule 'Microsoft XML Core Services 6.0 (MSXML60)' has  
 <03-23-2021 20:20:50> INFO: The rule 'Windows Remote Management (WinRM) v1.1' ha  
 <03-23-2021 20:20:50> \*\*\*\*\*  
 <03-23-2021 20:20:50> \*\*\*\*\* Prerequisite checking is completed. \*\*\*\*\*  
 <03-23-2021 20:20:50> \*\*\*\*\*  
 <03-23-2021 20:20:50> INFO: Updating Prerequisite checking result into the registry  
 <03-23-2021 20:20:50> INFO: Connecting to SASCCM01.ServerAcademy.com registry  
 <03-23-2021 20:20:50> INFO: Setting registry values

<b>Date/Time:</b>	<b>Component:</b>
<b>Thread:</b>	<b>Source:</b>

<03-23-2021 20:20:50> INFO: Setting registry values

## Microsoft Endpoint Configuration Manager

Microsoft Endpoint Configuration Manager

Version 2010

Console version: 5.2010.1093.1900

Site version: 5.0.9040.1000

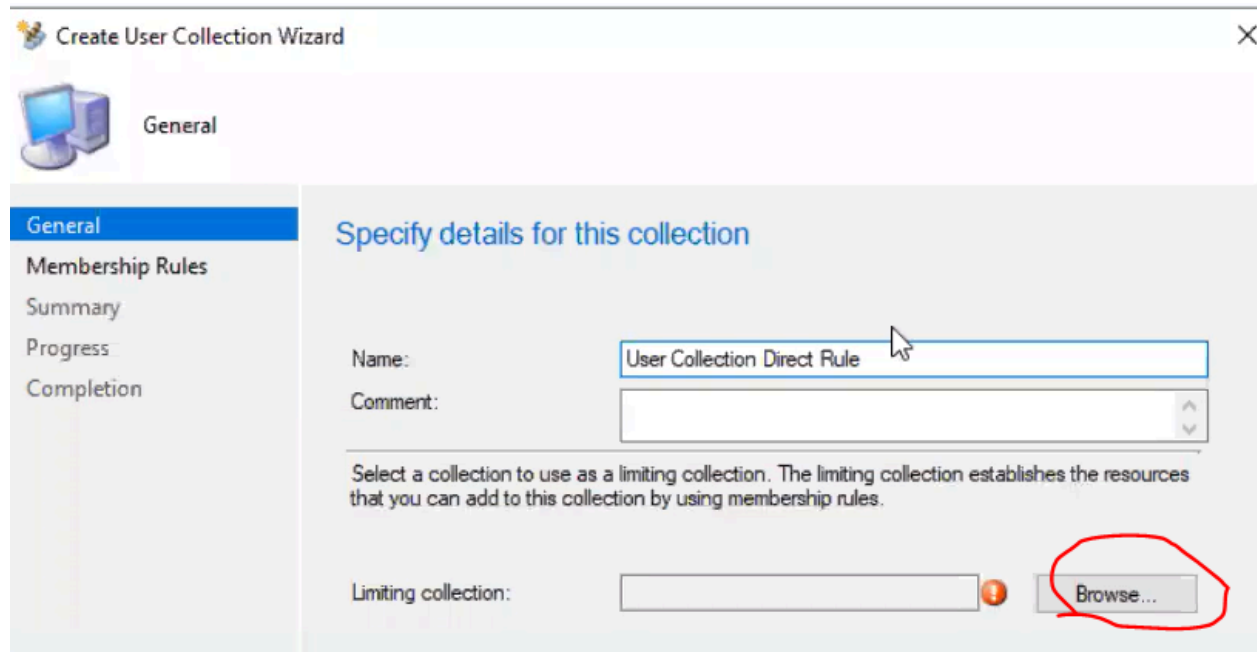
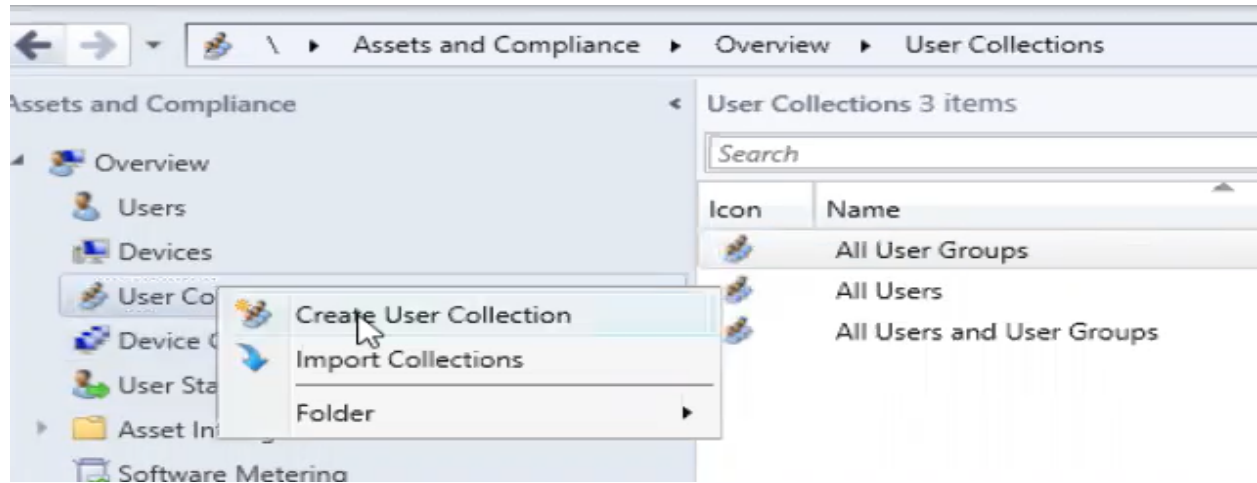
Support ID:

/45PH2jCEkZKZmIRrcNVbQwsiY4f/sUt+eT5jnbUcKA=

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# Creating a Collection



Filter...	
Name	Member Count
All User Groups	24
All Users	9
All Users and User Groups	33

Membership Rules

Summary

Progress

Completion

### Create membership rules for this collection

Membership rules determine the resources that are included in the collection when it updates. You can use membership rules to add a specific object or a set of objects from a query. The collection membership can also include or exclude other collections. Membership rules can add only those objects that are members of the limiting collection.

Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

Add Rule

Edit

Delete

☐ Use incremental updates for this collection. An incremental update periodically adds resources that qualify for this collection.

☒ Schedule a full update on this collection.

Direct Rule

Query Rule

Device Category Rule

Include Collections

Exclude Collections

Search for Resources

Select Resources

Summary

Progress

Completion

### Locate resources to add to the collection

To create direct membership rules, locate and select the resources that you want to add as direct members of the collection.

Find all resources that match the following criteria:

Resource class:

User Resource

Attribute name:

Name

Type:

String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value:

%

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

Select Resources

Summary

Progress

Completion

Resources:

☒ SERVERACADEMY\Administrator (Administrator)  
☒ SERVERACADEMY\paul.hill (Paul Hill)  
☒ SERVERACADEMY\SCCM-admin (SCCM Admin)  
☒ SERVERACADEMY\SQLService (SQL Service)  
☒ SERVERACADEMY\tanner.jones-admin (Tanner Jones (Admin))  
☒ SERVERACADEMY\tanner.jones (Tanner Jones)  
☒ SERVERACADEMY\ttest.user (Test User)  
☒ SERVERACADEMY\troy.taysom-admin (Troy Taysom (Admin))  
☒ SERVERACADEMY\troy.taysom (Troy Taysom)

Select All

Clear All

User Collections 4 items

Icon	Name	Limiting Collection	Member Count	Members Visible on Site
	All User Groups	All Users and User...	24	24
	All Users	All Users and User...	9	9
	All Users and User Groups		33	33
	User Collection Direct Rule	All Users	9	9

## Create Device Collection Wizard



General

General

Membership Rules

Summary

Progress

Completion

Specify details for this collection

Name:

Devices - Direct Rule 1

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

All Systems

Browse...

Find all resources that match the following criteria:

Resource class:

System Resource

Attribute name:

Name

Type: String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value:

%

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

## Select resources to add as direct members to the collection

Resources:

- ☒ SADC01
- ☒ SASCCM01
- ☒ SAW01

Select

Clear

	All Unknown Computers	All Systems	2	2
	Devices - Direct Rule 1	All Systems	3	3



## General

### General

Membership Rules

Summary

Progress

Completion

### Specify details for this collection

Name:

Include Collection

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

All Systems

Browse...

### Define membership rules for this collection

Membership rules determine the resources that are included in the collection when it updates. You can use membership rules to add a specific object or a set of objects from a query. The collection membership can also include or exclude other collections. Membership rules can add only those objects that are members of the limiting collection.

Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

Add Rule

Edit

Delete

☐ Use incremental updates for this collection.

An incremental update periodically adds resources that qualify for this collection. This option does not update the collection.

adds resources that qualify for this collection.

Direct Rule

Query Rule

Device Category Rule

Include Collections

Exclude Collections

☒ Schedule a full update on this collection.

Occurs every 7 days effective 4/24/2021 4:19 PM

Schedule...



<input type="checkbox"/> All Systems	2
<input type="checkbox"/> All Unknown Computers	2
<input type="checkbox"/> <u>Devices - Direct Rule 1</u>	3

Custom Schedule

Time

Start: 4/24/2021 4:19 PM

Recurrence pattern

Configure the recurrence schedule.

☐ None
☐ Monthly
☐ Weekly
☒ Custom interval

Recur every: 7 Days

OK Cancel

☒ Schedule a full update on this collection

Occurs every 7 days effective 4/24/2021 4:19 PM

Schedule...

When it updates. You try. The collection add only those

Collection Id  
00017

Delete

An incremental update periodically evaluates new resources and then adds resources that qualify to this collection. This option does not require you to schedule a full update for this collection.

Devices - Direct Rule 1	All Systems	3	3
Include Collection	All Systems	3	3

## Specify details for this collection

Name:

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

### Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

☒ Use incremental updates for this collection  
An incremental update periodically adds resources that qualify for this collection. This option does not update for this collection.

☒ Schedule a full update on this collection  
Occurs every 7 days effective 4/24/2021 4:38 PM

Direct Rule

Query Rule

Device Category Rule


Include Collections

Exclude Collections




Query Rule Properties

General

 Name:

Resource class:









Query Statement:

 Configuration Manager uses the Windows Management Instrumentation (WMI) Query Language (WQL) to query the site database.

Query Statement Properties


General Criteria Joins

You can specify criteria to narrow the query and limit the results that are returned.

Criteria:        

Criterion Properties

General

 Criterion Properties

Criterion Type:

Where:

Select Attribute ✕


Attribute class: User Resource ▾

Alias as: <No Alias> ▾

Attribute: User OU Name ▾

OK Cancel

General

 Criterion Properties

Criterion Type: Simple value ▾

Where: User Resource - User OU Name

Select...

Operator: is equal to ▾

Value: SERVERACADEMY.COM/MANAGERS

Type: String

Value...

Query Statement Properties



General Criteria Joins

You can specify criteria to narrow the query and limit the results that are returned.

Criteria:

User Resource.User OU Name is equal to "SERVERACADEMY.COM/MAN

Show Query Language OK Cancel

	All Users and User Groups		34	34
	Query Managers	All Users	3	3
	User Collection Direct Rule	All Users	9	9

## Specify details for this collection

Name:

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

### Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

<



☐ Use incremental updates for this collection. An incremental update periodically adds resources that qualify for this collection. This option does not schedule a full update on this collection.

☒ Schedule a full update on this collection.

- Direct Rule
- Query Rule
- Device Category Rule
- Include Collections
- Exclude Collections

## Query Rule Properties

General


 Name:  Query Admin

Import Query Statement...

Resource class: User Resource


Edit Query Statement...

Query Statement: `Select * from SMS_R_User`

 Configuration Manager uses the Windows Management Instrumentation (WMI) Query Language (WQL) to query the site database.







## Query Statement Properties

General Criteria Joins

 Specify the attributes to search for and how they will be displayed when the query is run.

Find objects of type: User Resource

☐ Omit duplicate rows (select distinct)

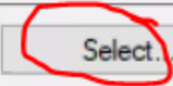
Results:      

Class	Attribute	Sort
There are no items to show in this view.		

Result Properties

General

Result Properties

Attribute:  

Sort: <Unsorted>

Select Attribute

Attribute class: User Resource

Alias as: <No Alias>

Attribute: User OU Name

OK Cancel

General

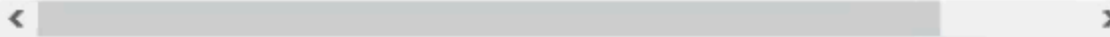
Result Properties

Attribute: User Resource as SMS\_R\_User - User OU Name

Sort: <Unsorted>

Membership rules:

Rule Name	Type	Collection Id
Query Admin	Query	Not Applicable



Add Rule ▼

Edit...

Delete

☒ Use incremental updates for this collection

An incremental update periodically evaluates new resources and then adds resources that qualify to this collection. This option does not require you to schedule a full update for this collection.

☒ Schedule a full update on this collection

Occurs every 7 days effective 4/24/2021 5:11 PM

Schedule...

< Previous

Next >

Summary

Cancel

## Specify details for this collection

Name: Query Services

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection: All Systems

Browse...

Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

< >

**Add Rule** ▼ Edit... Delete


- Direct Rule
- Query Rule**
- Device Category Rule
- Include Collections
- Exclude Collections

☒ Use incremental updates for this collection  
An incremental update periodically adds resources that qualify for this collection. This option does not update for this collection.

☒ Schedule a full update on this collection  
Occurs every 7 days effective 4/24/2021 5:18 PM

Query Rule Properties


General

 Name:

Resource class:

Query Statement: 


Select \* from  
SMS\_R\_System

 Configuration Manager uses the Windows Management Instrumentation (WMI) Query Language (WQL) to query the site database.



## Query Statement Properties

**General** Criteria Joins







 Specify the attributes to search for and how they will be displayed when the query is run.

Find objects of type: System Resource

☐ Omit duplicate rows (select distinct)


Results:

Class	Attribute	Sort
There are no items to show in this view.		

## Criterion Properties

**General**

 Criterion Properties

Criterion Type: Simple value

Where: Services - Name

Select...

Operator: is equal to

Value: BITS

Type: String

Value...

OK Cancel

Exclude Collection	All Systems	3	3
Include Collection	All Systems	3	3
Query Services	All Systems	1	1

## Specify details for this collection

Name:

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

### Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

☐ Use incremental updates for this collection.  
 An incremental update periodically adds resources that qualify for this collection. This option does not update resources that are already in the collection.

☒ Schedule a full update on this collection.  
 Occurs every 7 days effective 4/24/2021 5:57 PM

Direct Rule  
 Query Rule  
 Device Category Rule  
 Include Collections  
 Exclude Collections

Find all resources that match the following criteria:

Resource class: User Group Resource

Attribute name: Active Directory Container Name

Type: String[]

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value: %

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

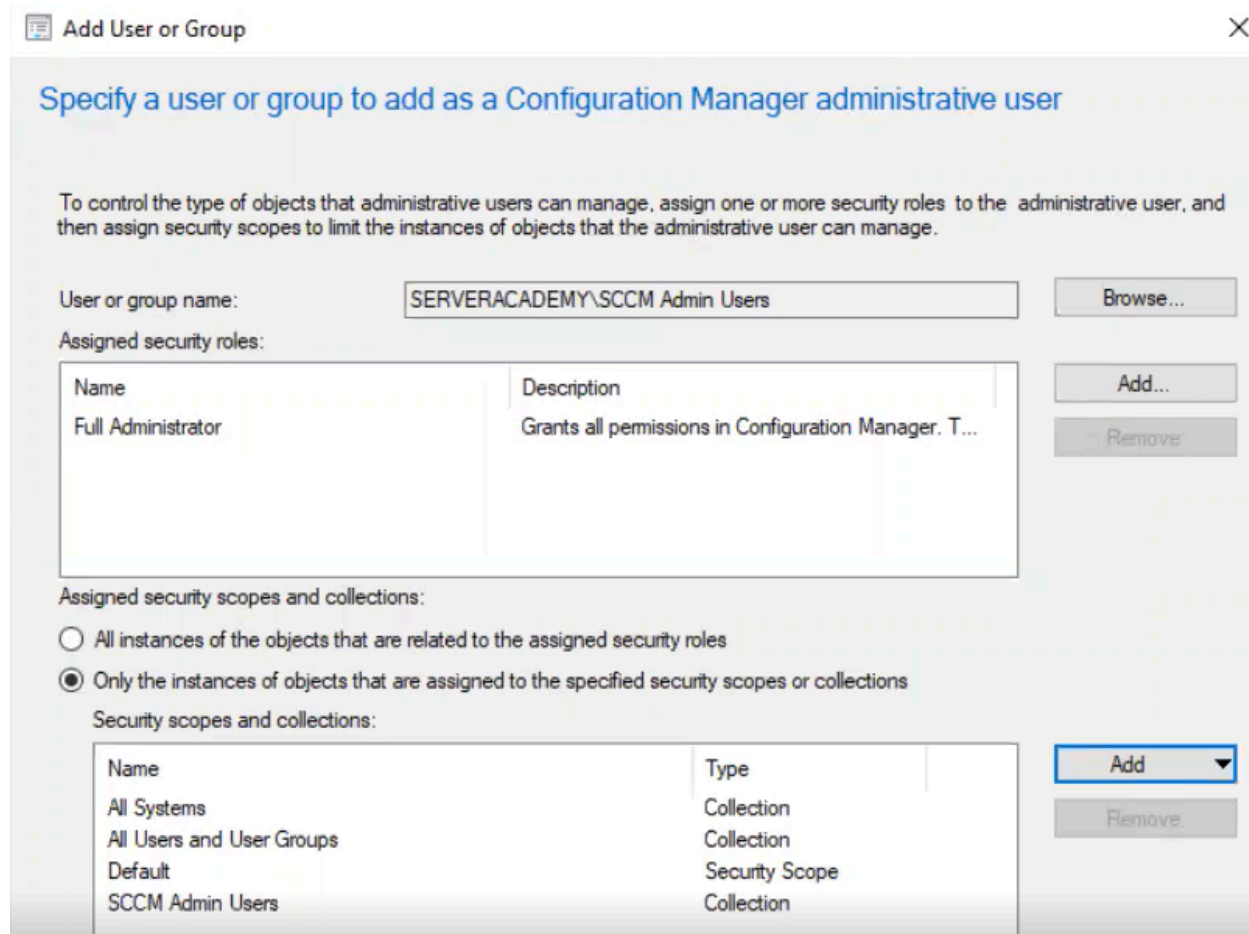
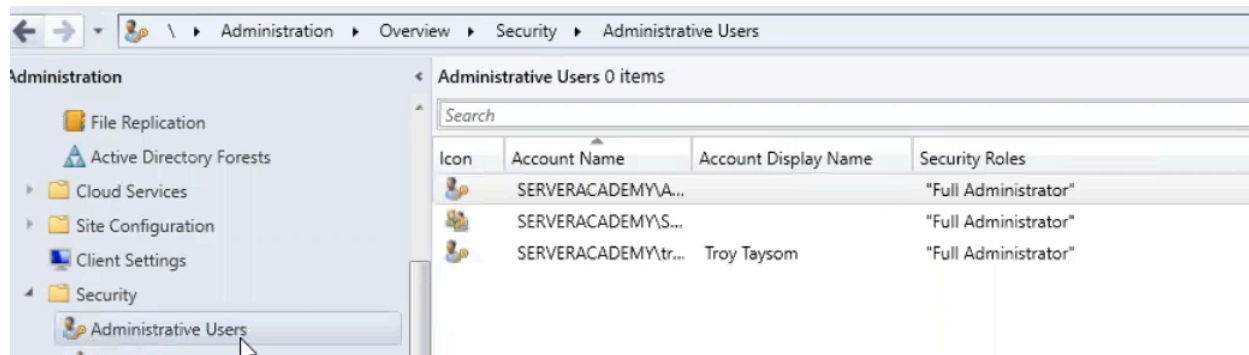
Resources:

- ☐ SERVERACADEMY\DHCP Users
- ☐ SERVERACADEMY\DnsAdmins
- ☐ SERVERACADEMY\DnsUpdateProxy
- ☐ SERVERACADEMY\Domain Admins
- ☐ SERVERACADEMY\Domain Computers
- ☐ SERVERACADEMY\Domain Controllers
- ☐ SERVERACADEMY\Domain Guests
- ☐ SERVERACADEMY\Domain Users
- ☐ SERVERACADEMY\Enterprise Admins
- ☐ SERVERACADEMY\Enterprise Key Admins
- ☐ SERVERACADEMY\Enterprise Read-only Domain Controllers
- ☐ SERVERACADEMY\Group Policy Creator Owners
- ☐ SERVERACADEMY\Key Admins
- ☐ SERVERACADEMY\Protected Users
- ☐ SERVERACADEMY\RAS and IAS Servers
- ☐ SERVERACADEMY\Read-only Domain Controllers
- ☒ SERVERACADEMY\SCCM Admins
- ☐ SERVERACADEMY\Schema Admins
- ☐ SERVERACADEMY\SQL Admins

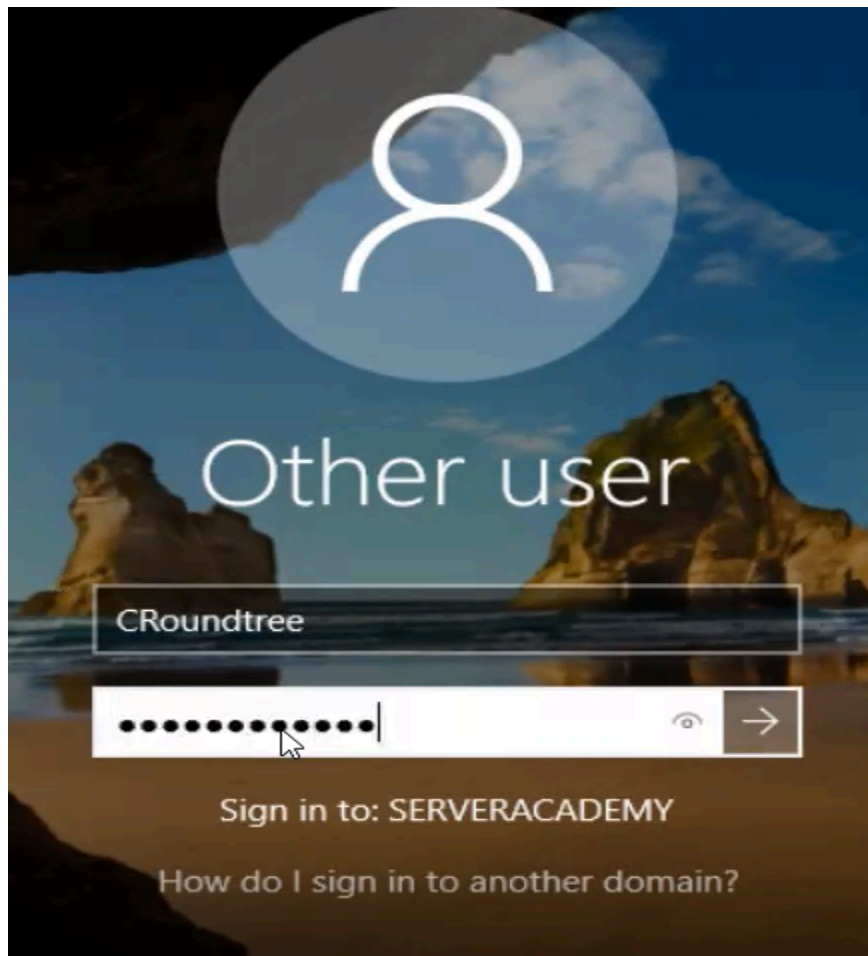
Select All

Clear All

Query managers	All Users	0	0
SCCM Admin Users	All User Groups	0	0



# SCCM Admin Group User Clay Roundtree Logging in to Verify Admin Privileges for SCCM



Administration > Overview > Security > Administrative Users

< Administrative Users 4 items

Search

Icon	Account Name	Account Display Name	Security Roles
	SERVERACADEMY\Administrator		"Full Administrator"
	SERVERACADEMY\SCCM Admin Users		"Full Administrator"
	SERVERACADEMY\SCCM Admins		"Full Administrator"
	SERVERACADEMY\troy.taysom	Troy Taysom	"Full Administrator"

## SERVERACADEMY\SCCM Admin Users Properties

General Security Roles Security Scopes

Specify the security roles that are associated with this administrative user or group. Security roles define a collection of actions that can be performed on Configuration Manager securable objects. You can manage permissions for Configuration Manager reports by using SQL Server Reporting Services security settings.

To limit these security roles to a set of Configuration Manager securable objects, use security scopes and collections.

Security roles:

Name	Description
Full Administrator	Grants all permissions in Configur...

## Downgrading Permissions to Read Only for SCCM Admins

Add Security Role

Select one or more security roles to associate with this administrative user or group. Only unassigned roles that you have permission to delegate appear in the list.

Available security roles:

- ☐ Application Administrator
- ☐ Application Author
- ☐ Application Deployment Manager
- ☐ Asset Manager
- ☐ Company Resource Access Manager
- ☐ Compliance Settings Manager
- ☐ Endpoint Protection Manager
- ☐ Infrastructure Administrator
- ☐ Operating System Deployment Manager
- ☐ Operations Administrator
- ☒ Read-only Analyst
- ☐ Remote Tools Operator



## SERVERACADEMY\SCCM Admin Users Properties

General Security Roles Security Scopes

Specify the security roles that are associated with this administrative user or group. Security roles define a collection of actions that can be performed on Configuration Manager securable objects. You can manage permissions for Configuration Manager reports by using SQL Server Reporting Services security settings.

To limit these security roles to a set of Configuration Manager securable objects, use security scopes and collections.

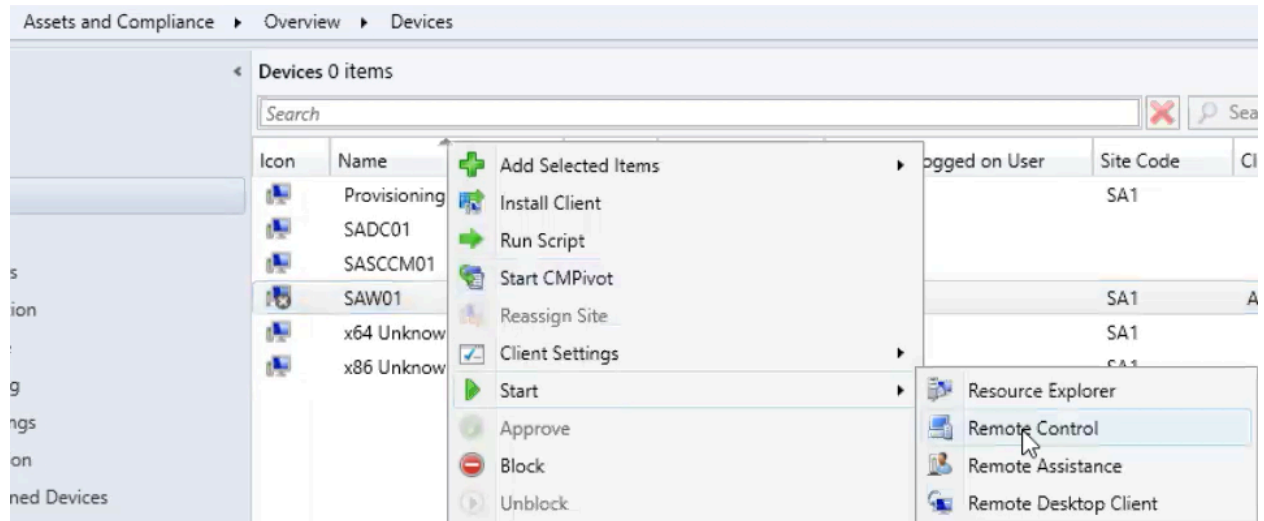
Security roles:

Name	Description
Full Administrator	Grants all permissions in Configur...
Read-only Analyst	Grants permissions to view all Co...

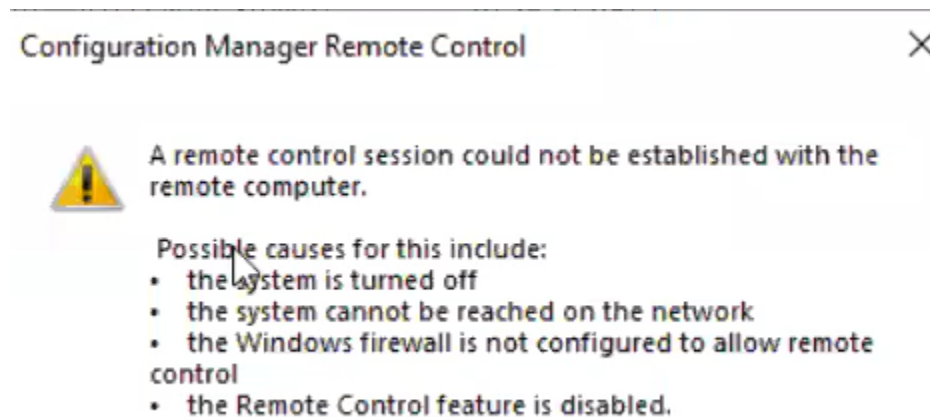
Add...

Remove

# Establishing a Remote Session with Client Machine

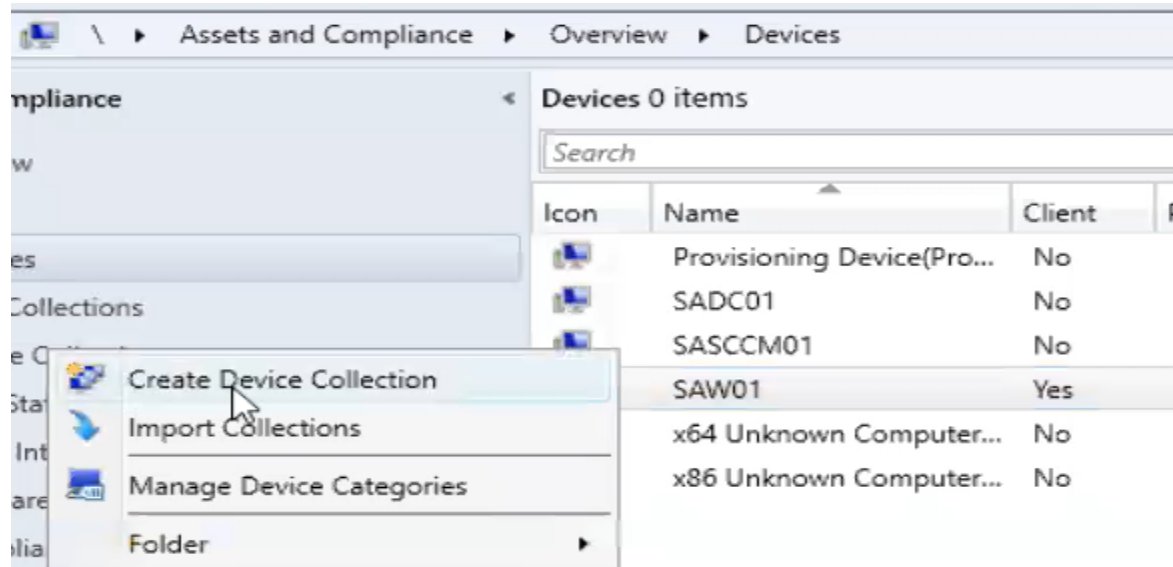


## Connection Refused





# Enabling Connection with SCCM with a Direct Rule



## Specify details for this collection

Name:

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

### Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

☐ Use incremental updates for this collection

An incremental update periodically evaluates new resources and then adds resources that qualify to this collection. This option does not require you to schedule a full update for this collection.

Find all resources that match the following criteria:

Resource class:

Attribute name:

Type: String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value:

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

Resources:

- ☐ SADC01
- ☐ SASCCM01
- ☒ SAW01

Select All

Clear All

Administration > Overview > Client Settings

Client Settings 1 items

Search

Icon	Name
	Default Client Settings

Create Custom Client Device Settings

Create Custom Client User Settings

## Custom Device Settings



Specify the settings for devices. These settings override the default settings when they are assigned to a collection.

Name:

Remote Desktop

Description:

Select and then configure the custom settings for client devices.

<input type="checkbox"/>	Background Intelligent Transfer
<input type="checkbox"/>	Client Cache Settings
<input type="checkbox"/>	Client Policy
<input type="checkbox"/>	Cloud Services
<input type="checkbox"/>	Compliance Settings
<input type="checkbox"/>	Computer Agent
<input type="checkbox"/>	Computer Restart
<input type="checkbox"/>	Delivery Optimization
<input type="checkbox"/>	Endpoint Protection
<input type="checkbox"/>	Enrollment
<input type="checkbox"/>	Hardware Inventory
<input type="checkbox"/>	Metered Internet Connections
<input type="checkbox"/>	Power Management
<input checked="" type="checkbox"/>	Remote Tools
<input type="checkbox"/>	Software Center
<input type="checkbox"/>	Software Deployment

General

Remote Tools

Security

### Custom Device Settings



Specify the settings for devices. These settings override the default settings when they are assigned to a collection.

Specify remote control settings on client computers.

#### Device Settings



Enable Remote Control on clients

Disabled

Configure Settings

Firewall exception profiles

Users can change policy or notification settings in Software Center

No

## Remote Control and Windows Defender Firewall Client Settings



☒ Enable Remote Control on client computers

Remote Control allows you to log on to computers over the network and is typically used for troubleshooting scenarios.

To ensure that this connection is not blocked by Windows Firewall on the destination computer, select one or more of the firewall profiles to automatically configure the Remote Control port and program exceptions for clients.

☒ Domain

This Windows Defender Firewall profile is for computers that log on to a Windows domain.

### Device Settings



Enable Remote Control on clients

Enabled

[Configure Settings](#)

Firewall exception profiles

Domain

Users can change policy or notification settings in Software Center

No ▾

Allow Remote Control of an unattended computer

Yes ▾

Prompt user for Remote Control permission

Yes ▾

Prompt user for permission to transfer content from shared clipboard

No ▾

Grant Remote Control permission to local Administrators group

Yes ▾

Access level allowed

Full Control ▾

Permitted viewers of Remote Control and Remote Assistance

(none)

[Set Viewers ...](#)

Show session notification icon on taskbar

Yes ▾

Show session connection bar

Yes ▾

Play a sound on client

Beginning and end of session ▾

Manage unsolicited Remote Assistance settings

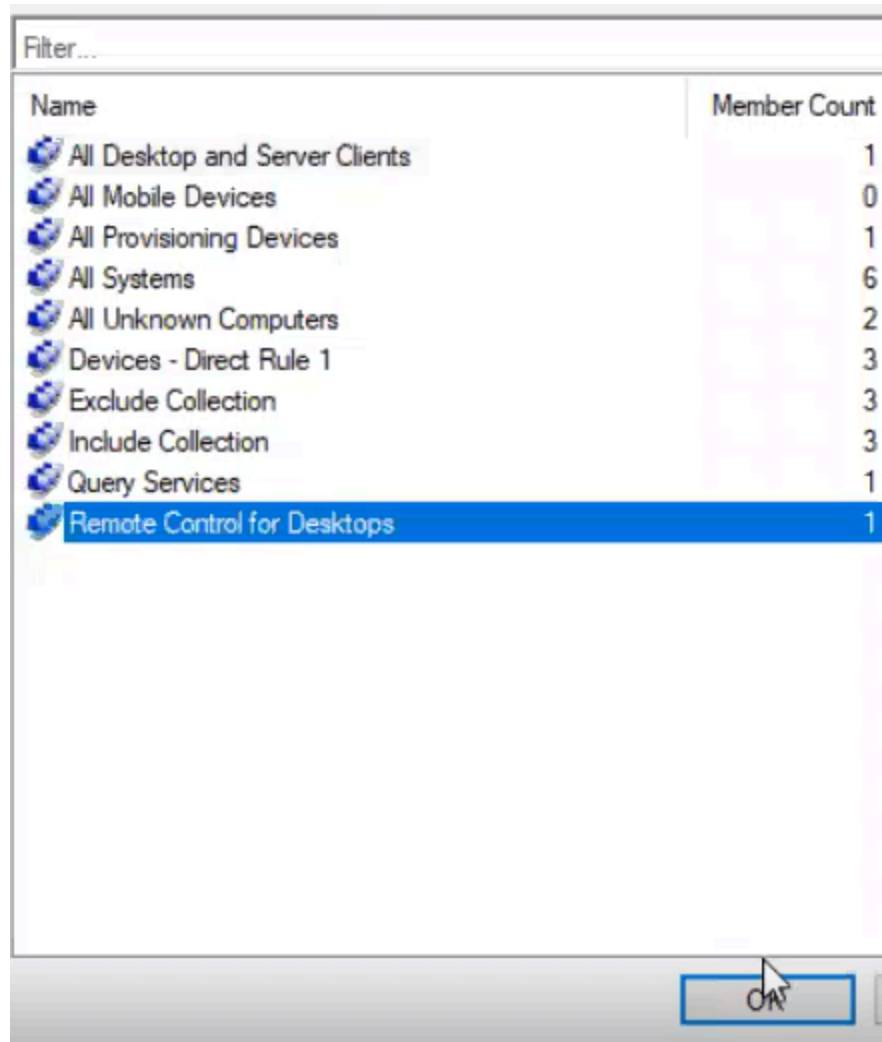
No ▾

Manage unsolicited Remote Assistance settings	Yes
Manage solicited Remote Assistance settings	Yes
Level of access for Remote Assistance	Full Control
Manage Remote Desktop settings	Yes
Allow permitted viewers to connect by using Remote Desktop connection	Yes
Require network level authentication on computers that run Windows Vista operating system and later versions	Yes

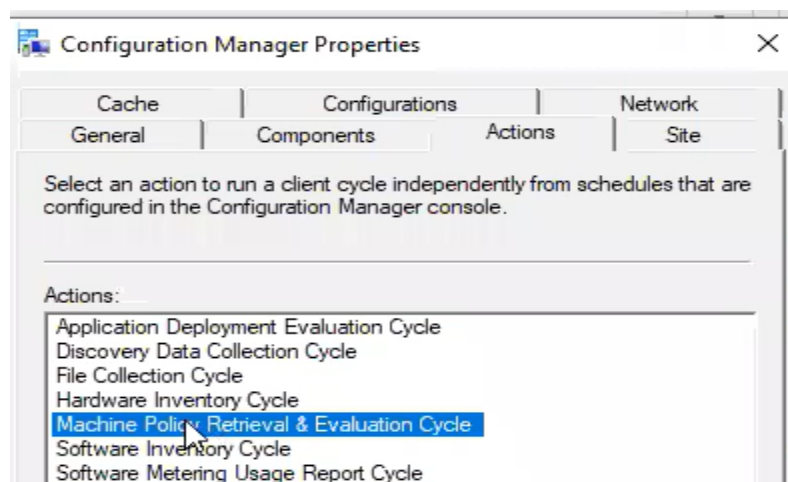
Administration

Client Settings 2 items

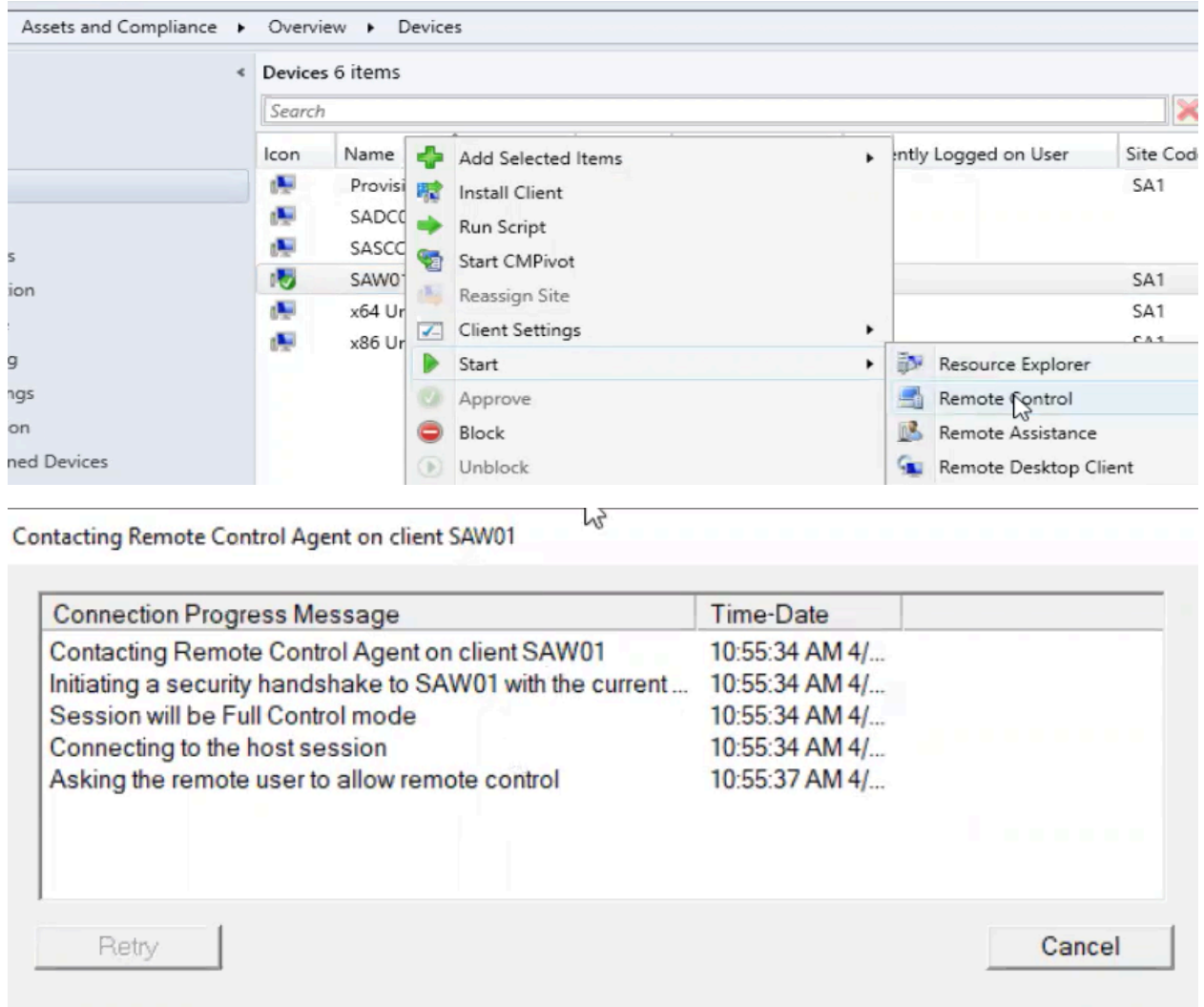
Icon	Name	Type	Priority	Deployments
	Default Client Settings	Default	10000	0
	Remote Desktop	Device	1	0



## Running Policy Retrieval on Client Machine



## Reinitiating Remote Control with Client

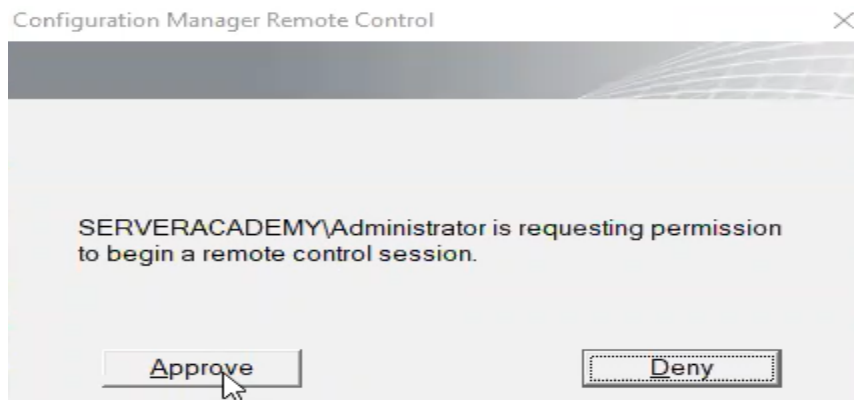


The screenshot shows the Configuration Manager console with the 'Devices' list. A context menu is open for the device 'SAW01', and the 'Remote Control' option is selected. Below the console, a 'Connection Progress Message' window displays the following information:

Connection Progress Message	Time-Date
Contacting Remote Control Agent on client SAW01	10:55:34 AM 4/...
Initiating a security handshake to SAW01 with the current ...	10:55:34 AM 4/...
Session will be Full Control mode	10:55:34 AM 4/...
Connecting to the host session	10:55:34 AM 4/...
Asking the remote user to allow remote control	10:55:37 AM 4/...

The window includes 'Retry' and 'Cancel' buttons.

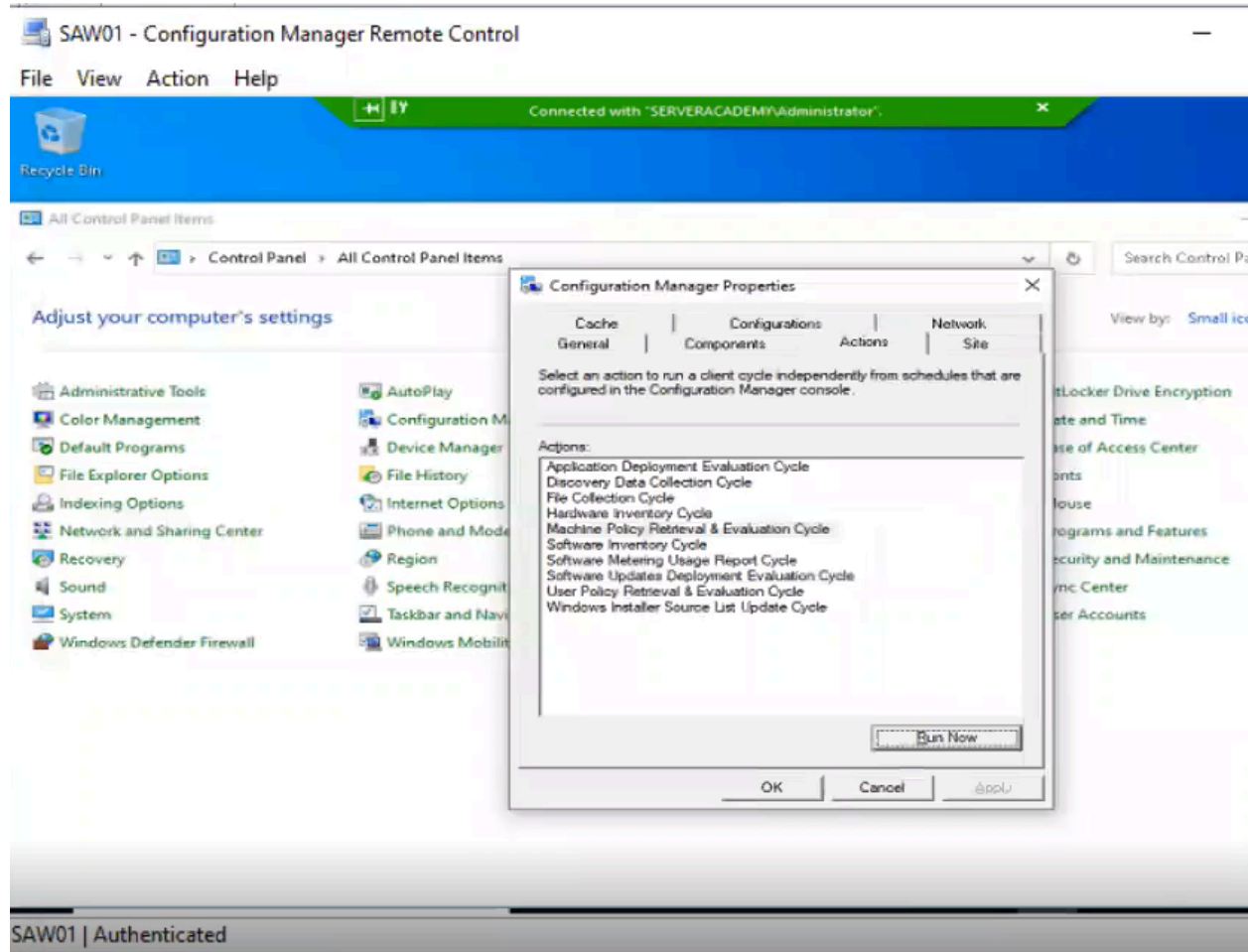
## Client Grants Permission to Remote In



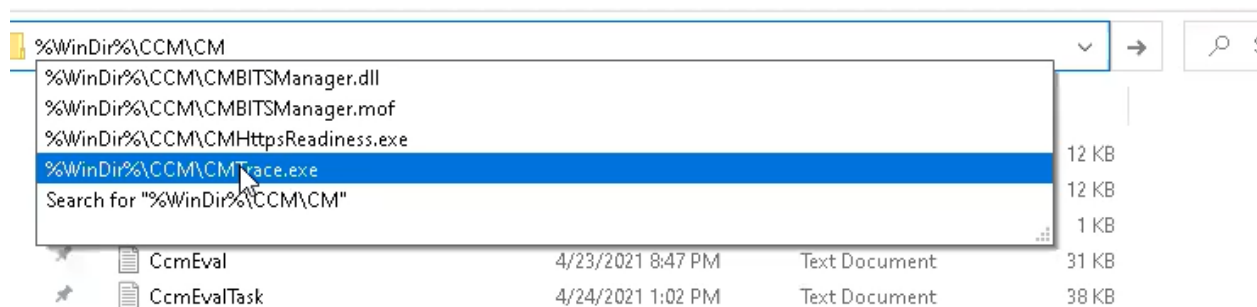
The screenshot shows the 'Configuration Manager Remote Control' dialog box. The text inside reads: 'SERVERACADEMY\Administrator is requesting permission to begin a remote control session.' Below the text are 'Approve' and 'Deny' buttons. The 'Approve' button is highlighted with a mouse cursor.



# View of Remote Session



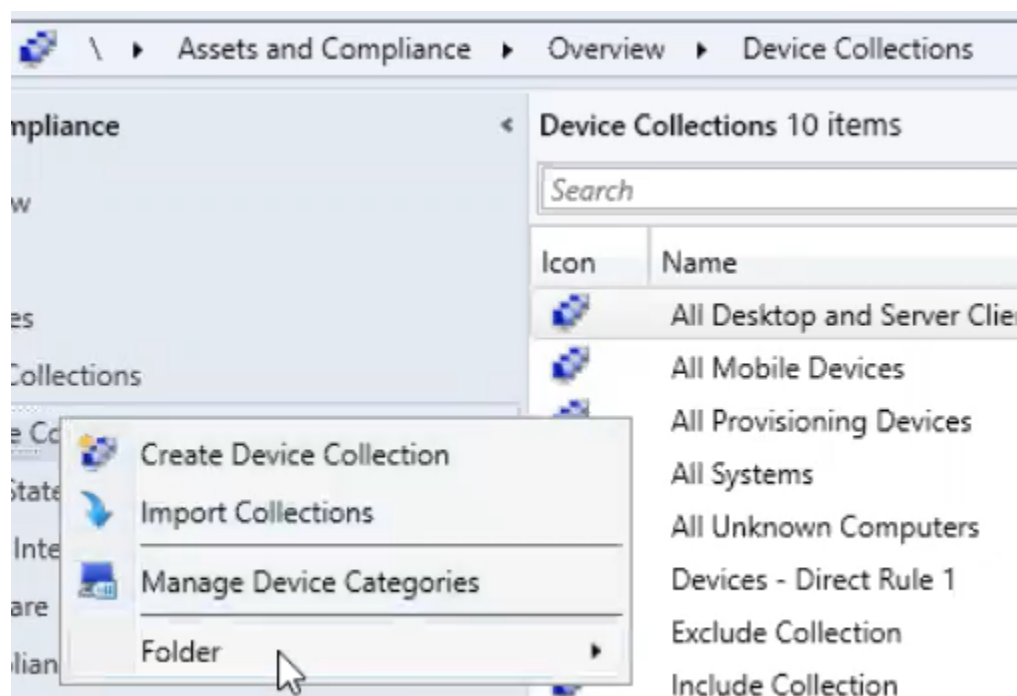
## Running CMTrace on Client to View Log of Remote Session





Configuration Manager Trace Log Tool - [C:\Windows\CCM\Logs\CmRcService.log]	
File Tools Window Help	
Log Text	
=== Security handshake completed [0x10000000] ===	Component
The viewer is a member of the Local Administrators group who are all...	CmRcService
The user(SERVERACADEMY\Administrator) is authorized for Remote ...	CmRcService
Session allowed: Full Control	CmRcService
=== Session Info ===	CmRcService
Authorized viewer user: SERVERACADEMY\Administrator	CmRcService
Viewer address: 192.168.1.11:54450	CmRcService
Host address: 192.168.1.100:2701	CmRcService
Connection completed (ID = 1) (OnConnectionCompleted)	CmRcService
Create a process application Name=C:\Windows\CCM\SCToastNotifi...	CmRcService
Local user allowed the remote control session.	CmRcService
The remote control session is allowed. (OnSessionAllowed)	CmRcService
=== A remote control session is in progress (OnViewerConnected) ===	CmRcService

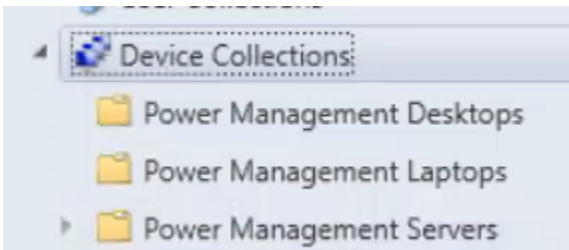
## Deploying Power Management with Collections



## Configuration Manager

Folder name:

Power Management Desktops



## Specify details for this collection

Name:

Power Management Laptops

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

All Systems

Browse...

Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

Add Rule

Edit

Delete

☐ Use incremental updates for this collection.

An incremental update periodically adds resources to this collection. This option does not add resources that qualify for this collection.

Direct Rule

Query Rule

Device Category Rule

Find all resources that match the following criteria:

Resource class:

Attribute name:

Type: String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value:

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

Resources:

- ☐ SADC01
- ☐ SASCCM01
- ☒ SAW01

Select All

Clear All

Administration > Overview > Client Settings

Client Settings 2 items

Search

Icon	Name	Type	Priority	Deploy
	Default Client Settings	Default	10000	0
	Remote Desktop	Device	1	1

Create Custom Client Device Settings

Create Custom Client User Settings

## Power Management Laptops Properties

Collection Variables   Distribution Point Groups   Cloud Sync   Security   Alerts  
General | Membership Rules | **Power Management** | Deployments | Maintenance Windows

Copy power management settings from another collection:

Browse...

Configure power management settings for this collection:

- ☐ Do not specify power management settings
- ☐ Never apply power management settings to computers in this collection
- ☒ Specify power management settings for this collection

Peak hours

Start:

9:00 AM



End:

5:00 PM



Duration:

8 hours

Peak plan:

Balanced (ConfigMgr)



View...

Non-peak plan:

Balanced (ConfigMgr)



View...

☐ Wakeup time (desktop computers):

3:00 AM



## Custom Device Settings



Specify the settings for devices. These settings override the default settings when they are assigned to a collection.

Name:

Description:

Select and then configure the custom settings for client devices.

<input type="checkbox"/>	Background Intelligent Transfer
<input type="checkbox"/>	Client Cache Settings
<input type="checkbox"/>	Client Policy
<input type="checkbox"/>	Cloud Services
<input type="checkbox"/>	Compliance Settings
<input type="checkbox"/>	Computer Agent
<input type="checkbox"/>	Computer Restart
<input type="checkbox"/>	Delivery Optimization
<input type="checkbox"/>	Endpoint Protection
<input type="checkbox"/>	Enrollment
<input type="checkbox"/>	Hardware Inventory
<input type="checkbox"/>	Metered Internet Connections
<input checked="" type="checkbox"/>	Power Management
<input type="checkbox"/>	Remote Tools

## Custom Device Settings



Specify the settings for devices. These settings override the default settings when they are assigned to a collection.

Specify power management settings for client computers.

### Device Settings



Allow power management of devices

Allow users to exclude their device from power management

Allow network wake-up

Enable wake-up proxy

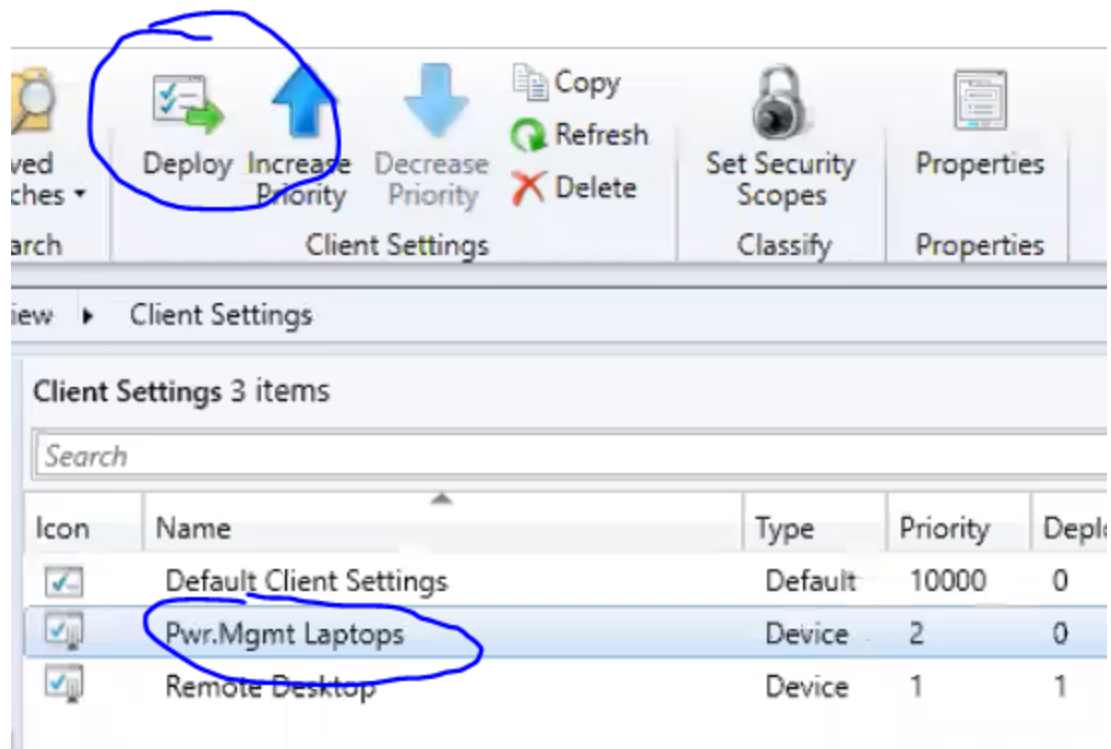
Wake-up proxy port number (UDP)

Wake On LAN port number (UDP)

Windows Defender Firewall exception for wake-up proxy.

IPv6 prefixes if required for DirectAccess or other intervening network devices. Use a comma to specify multiple entries.

[Configure Settings](#)



## Creating a Maintenance Window with Collections

Specify details for this collection

Name:

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection:

There are no items to show in this view.

< >

**Add Rule** Edit... Delete

☐ Use incremental updates for this collection. An incremental update periodically adds resources that qualify for this collection. This option does not update the date for this collection.

- Direct Rule
- Query Rule
- Device Category Rule

Find all resources that match the following criteria:

Resource class: System Resource

Attribute name: Name

Type: String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value: %

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

Resources:

<input type="checkbox"/> SADC01	Select All
<input type="checkbox"/> SASCCM01	
<input checked="" type="checkbox"/> SAW01	

Clear All



## ServerAcademy OU Properties

Collection Variables | Distribution Point Groups | Cloud Sync | Security | Alerts  
General | Membership Rules | Power Management | Deployments | **Maintenance Windows**

The following maintenance windows are assigned to this collection.

Maintenance windows define the time during which Configuration Manager can apply software deployments to devices in this collection.

Maintenance windows:



Name	Description	Maintenance Window Type
There are no items to show in this view.		

<new> Schedule

Name: Server Academy OU Maintenance Schedule

### Time

Effective date: 4/26/2021  
Start: 1:00:00 AM End: 4:00:00 AM  
Duration: 3 Hours 0 Minutes  
☐ Coordinated Universal Time (UTC)

### Recurrence pattern

Configure the recurrence schedule.

☐ None  
☐ Monthly  
☒ Weekly  
☐ Daily

Recur every: 1 weeks on:  
☐ Sunday  
☐ Monday  
☐ Tuesday  
☐ Wednesday  
☐ Thursday  
☒ Friday  
☐ Saturday

Apply this schedule to:

All deployments

OK

Cancel



Maintenance windows:		
Name	Description	Maintenance Window Type
<input checked="" type="checkbox"/> Server Academy OU...	Occurs every 1 weeks on Friday ...	All deployments

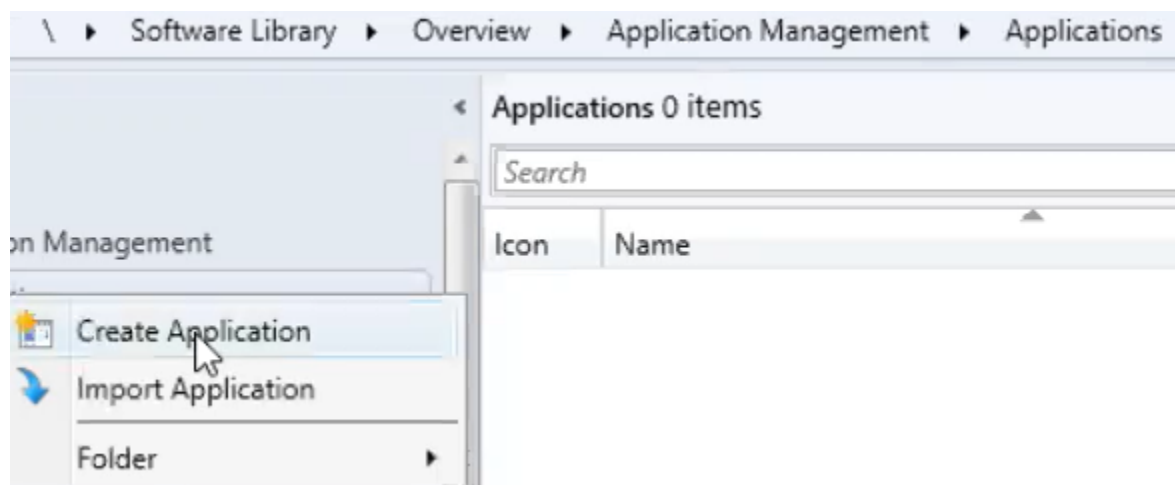
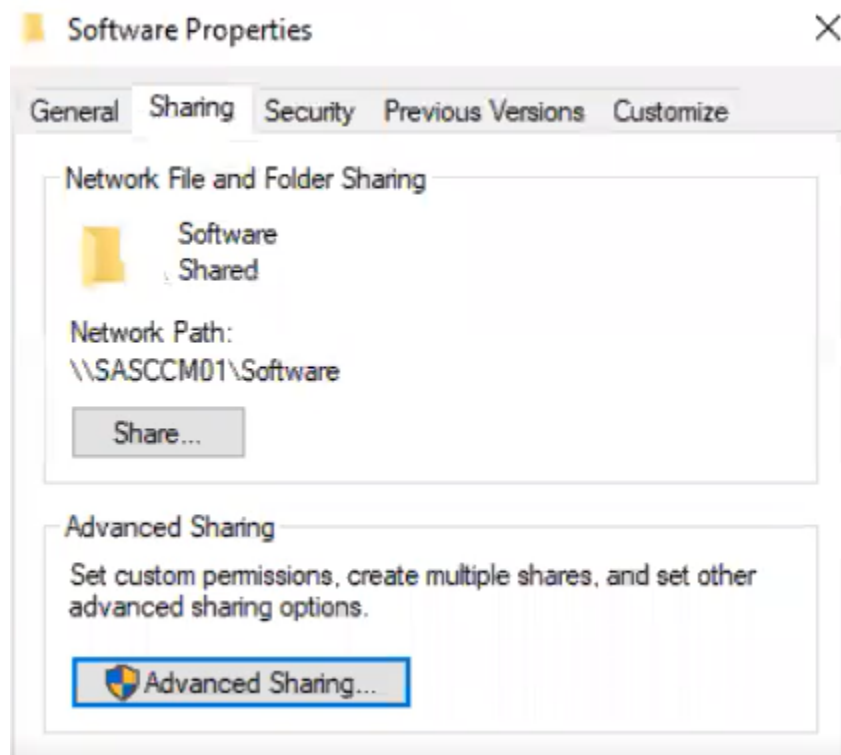
## Running CMTrace.exe on Client to Verify Window

Configuration Manager Trace Log Tool - [C:\Windows\CCM\Logs\ServiceWindowManager.log]

File Tools Window Help

Log Text	Component	Date/Time	Thread
This is a one shot Service Window that has already finished.	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Duration for the Service Window is Total days: 0, hours: 00, mins: ...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Populating instance of ServiceWindow with ID=90a5f436-364c-48c...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
StartTime is 05/02/21 00:00:00	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Duration for the Service Window is Total days: 1, hours: 05, mins: ...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Populating instance of ServiceWindow with ID=45dca355-3249-484...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
StartTime is 04/28/21 22:00:00	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Duration for the Service Window is Total days: 0, hours: 07, mins: ...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Populating instance of ServiceWindow with ID=87e4759c-2884-45e...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
StartTime is 04/29/21 22:00:00	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Duration for the Service Window is Total days: 0, hours: 07, mins: ...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Populating instance of ServiceWindow with ID=36da6950-3d1e-402...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
StartTime is 04/30/21 22:00:00	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Duration for the Service Window is Total days: 0, hours: 02, mins: ...	ServiceWindowManager	4/26/2021 10:39:05 AM	4520 (0x11A8)
Date/Time: 4/26/2021 10:39:05 AM	Component: ServiceWindowManager		
Thread: 4520 (0x11A8)	Source: servicewindowhandler.cpp:104		
Populating instance of ServiceWindow with ID=90a5f436-364c-48c7-8dc7-c5014abcbca8, ScheduleString=00084AC028592000, Type=6			

## Deploying 7-Zip Application to Software Center on Client




Downloaded .MSI version of 7-Zip on a shared folder on Hypervisor for Creation

## Specify settings for this application

Applications contain software that you can deploy to users and devices in your Configuration Manager environment. Applications can contain multiple deployment types that customize the installation behavior of the application.

- ☒ Automatically detect information about this application from installation files:

Type:

Location:  

Example: \\Server\Share\File

- ☐ Manually specify the application information

## Specify settings for this application

Applications contain software that you can deploy to users and devices in your Configuration Manager environment. Applications can contain multiple deployment types that customize the installation behavior of the application.

- ☒ Automatically detect information about this application from installation files:

Type:

Location:

Example: \\Server\Share\File

- ☐ Manually specify the application information

## Specify information about this application

Name:	7-Zip 19.00 (x64 edition)		
Administrator comments:	7 zip is a file archiver		
Publisher:	Igor Pavlov		
Software version:	19.00		
Optional reference:			
Administrative categories:			Select...

Specify the installation program for this application and the required installation rights.

Installation program:	msiexec /i "7z1900-x64.msi" /q	Browse...
<input type="checkbox"/> Run installation program as 32-bit process on 64-bit clients.		
Install behavior:	Install for system	

### 7-Zip 19.00 (x64 edition) Properties

General Information   Software Center   References   Distribution Settings   Deployment Types   Content Locations   Supersedence   Security

Name:	7-Zip 19.00 (x64 edition)		
Administrator comments:	7 zip is a file archiver		
Publisher:	Igor Pavlov	Software version:	19.00
Optional reference:			
Administrative categories:			Select...
<input type="checkbox"/> Date published:	4/26/2021		

☒ Allow this application to be installed from the Install Application task sequence action without being deployed

General Information | **Software Center** | References | Distribution Settings | Deployment Types | Content Locations | Supersedence | Security

Specify information about how you want to display this application to users when they browse the Software Center. To provide information in a specific language, select the language before you enter a description.

Selected language: English (United States) default Add/Remove...

Localized application name: 7-Zip 19.00 (x64 edition)

User categories: "Editor" Edit...


User documentation: Browse...

Link text:

Privacy URL:

Localized description:  
7 zip is a file archiver

Keywords:

Icon:  Browse...

### 7-Zip 19.00 (x64 edition) - Windows Installer (\*.msi file) Properties

Install Behavior

General | Content | Programs | Detection Method | **User Experience** | Requirements | Return Codes | Dependencies

Specify user experience settings for the application.

Installation behavior: Install for system

Logon requirement: Whether or not a user is logged on

Installation program visibility: Hidden

☐ Allow users to view and interact with the program installation

---

Specify the maximum run time and estimated installation time of the deployment program for this application. The estimated installation time displays to the user when the application installs.

Maximum allowed run time (minutes): 15

Estimated installation time (minutes): 2

# 7-Zip 19.00 (x64 edition) - Windows Installer (\*.msi file) Properties

Install Behavior

General Content Programs Detection Method User Experience Requirements Return Codes Dependencies

Specify any requirements, such as hardware features or the operating system version, that devices must have before they can install this deployment type. Configuration Manager verifies that these requirements are met before content is deployed to the device.

Requirements:

Filter...

Requirement Type	Operator	Values
There are no items to show in this view.		

Add... Edit... Delete

## Create Requirement

Category: Device

Condition: Operating system

Rule type: Value

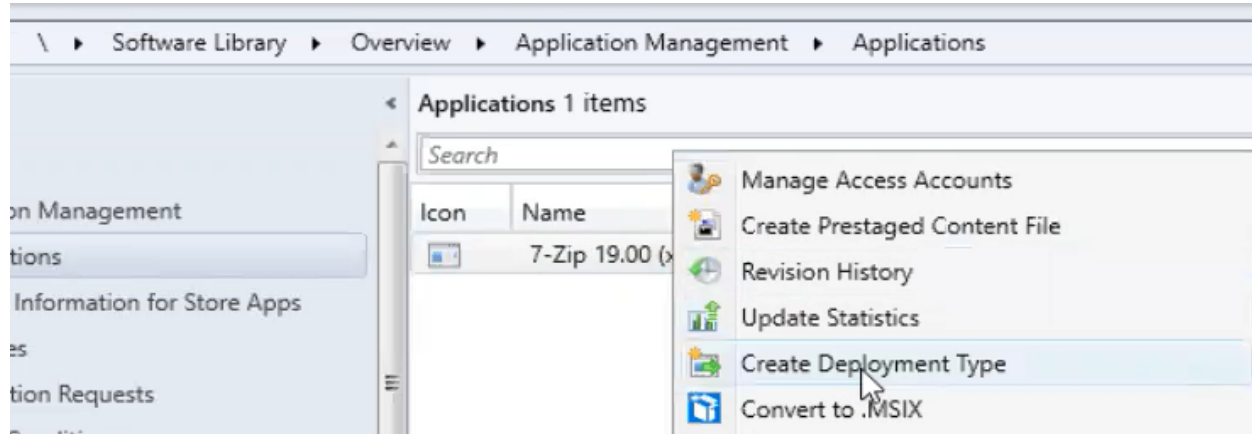
Operator: One of

☒ Select all

- ☐ Windows 8
- ☐ Windows 8.1
- ☒ Windows 10
  - ☐ All Windows 10 (ARM64)
  - ☐ All Windows 10 Enterprise multi-session and higher
  - ☒ All Windows 10 (64-bit)
  - ☐ All Windows 10 (32-bit)
- ☐ Windows 2003
- ☐ Windows 2008



# Creating a Deployment for 32bit Version of 7-Zip



### Specify settings for this deployment type

Deployment types include information about the installation method and source files for this application.

Type: Windows Installer (\*.msi file) ▼

☒ Automatically identify information about this deployment type from installation files

Location: \\SASCCM01\Software\7Zip Folder\7z1900.msi Browse...

Example: \\Server\Share\File

### Specify information about this deployment type

Name: 7-Zip 19.00 MSI\_x86

Administrator comments:

Languages:  Select...

---

Specify the installation program for this application, and the required installation rights.

Installation program: msiexec /i "7z1900.msi" /q Browse...

☐ Run installation program as 32-bit process on 64-bit clients.

Installation behavior: Install for system ▼

## Create Requirement



Category:

Device

Condition:

Operating system

Create...

Rule type:

Value

Operator:

One of

☒ Select all

- ☐ Windows 8.1
- ☒ Windows 10
  - ☐ All Windows 10 (ARM64)
  - ☐ All Windows 10 Enterprise multi-session and higher
  - ☐ All Windows 10 (64-bit)
  - ☒ All Windows 10 (32-bit)
- ☐ Windows 2003
- ☐ Windows 2008
- ☐ Windows Server 2012

### 7-Zip 19.00 (x64 edition)

Icon	Priority	Name	Dependencies	Technology Title	Superseded
	1	7-Zip 19.00 MSI_x64	No	Windows Installer...	No
	2	7-Zip 19.00 MSI_x86	No	Windows Installer...	No



7-Zip 19.00 MSI\_x86 Properties

Install Behavior

General Content Programs Detection Method User Experience Requirements Return Codes Dependencies

Specify user experience settings for the application.

Installation behavior: Install for system

Logon requirement: Whether or not a user is logged on

Installation program visibility: Hidden

☐ Allow users to view and interact with the program installation

Specify the maximum run time and estimated installation time of the deployment program for this application. The estimated installation time displays to the user when the application installs.

Maximum allowed run time (minutes): 15

Estimated installation time (minutes): 2

## Creating Windows 10 Laptops Collection for 7 Zip Deployment

Specify details for this collection

Name: Windows 10 Laptops

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection: All Systems [Browse...](#)

Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

☐ Use incremental updates for this collection. An incremental update periodically adds resources that qualify for this collection. This option does not apply to Direct Rules.

☐ Select the following resources:

**Add Rule** ▼

- Direct Rule
- Query Rule
- Device Category Rule
- Include Collections
- Exclude Collections

**Edit** **Delete**

Find all resources that match the following criteria:

Resource class: System Resource ▼

Attribute name: Name ▼

Type: String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value: %

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

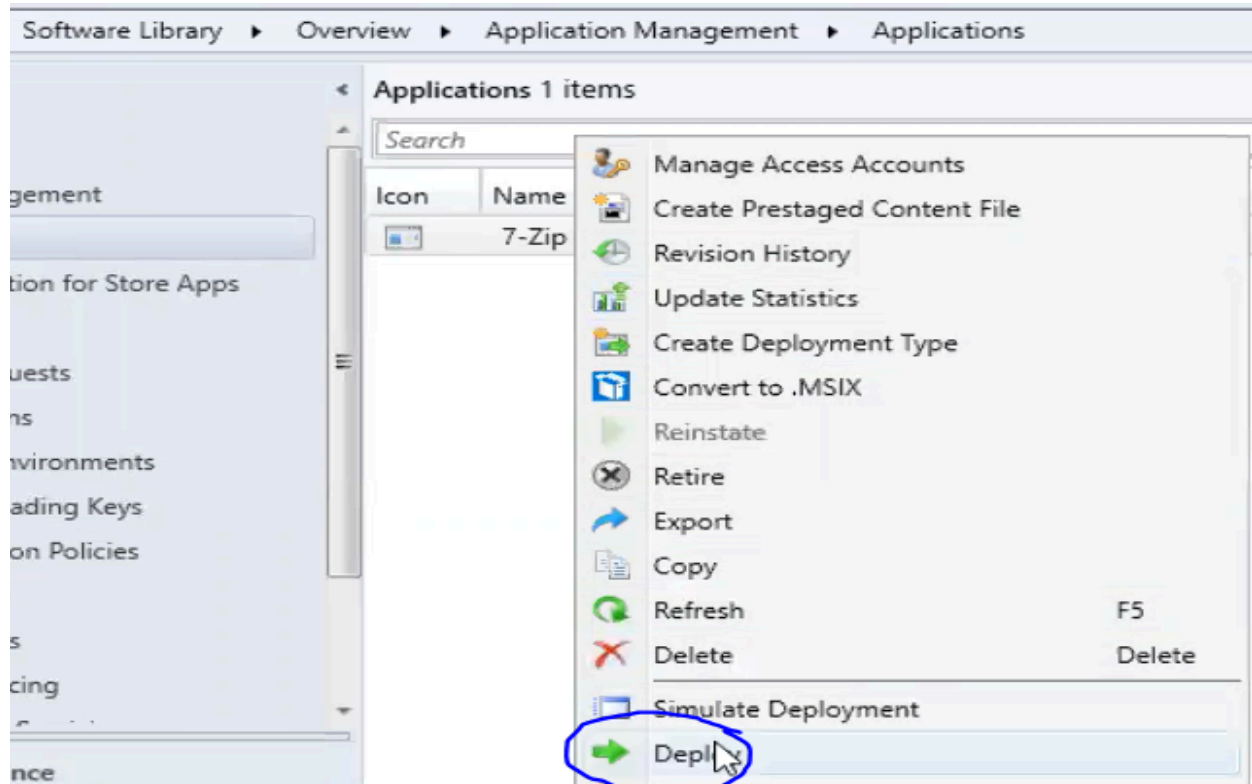
Resources:

- ☐ SADC01
- ☐ SASCCM01
- ☒ SAW01

Select All

Clear All

## Deploying 7 - Zip



### Specify general information for this deployment

Software:

Collection:

☐ Use default distribution point groups associated to this collection

☒ Automatically distribute content for dependencies

## Specify the content destination

Distribution points or distribution point groups that the content has been distributed to:

Name	Type
There are no items to show in this view.	

Additional distribution points, distribution point groups, and the distribution point groups that are currently associated with collections to distribute content to:

Filter...			Add ▼
Name	Description	Associations	Remove
SASCCM01.SERVERAC...	Distribution point		

## Specify settings to control how this software is deployed

Action: Install ▼

Purpose: Available ▼

☐ Allow end users to attempt to repair this application

☐ Require administrator approval if users request this application

## Specify the user experience for the installation of this software on the selected devices

Specify user experience setting for this deployment

User notifications:

Display in Software Center, and only show notifications for computer restarts

☐ When software changes are required, show a dialog window to the user instead of a toast notification

When the installation deadline is reached, allow the following activities to be performed outside the maintenance window:

☐ Software installation

☐ System restart (if required to complete the installation)

Write filter handling for Windows Embedded devices

☒ Commit changes at deadline or during a maintenance window (requires restarts)

## Running gpupdate in client

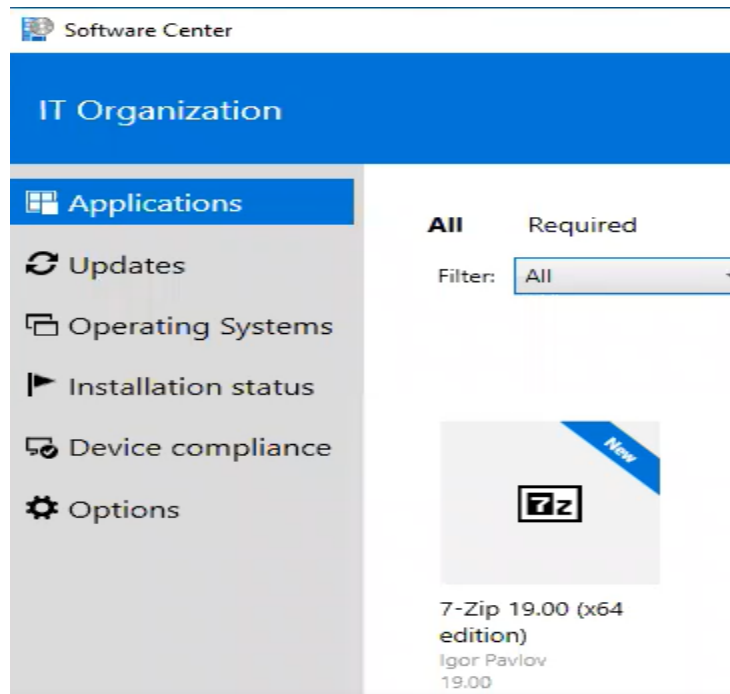
Command Prompt

```
Microsoft Windows [Version 10.0.19042.928]
(c) Microsoft Corporation. All rights reserved.

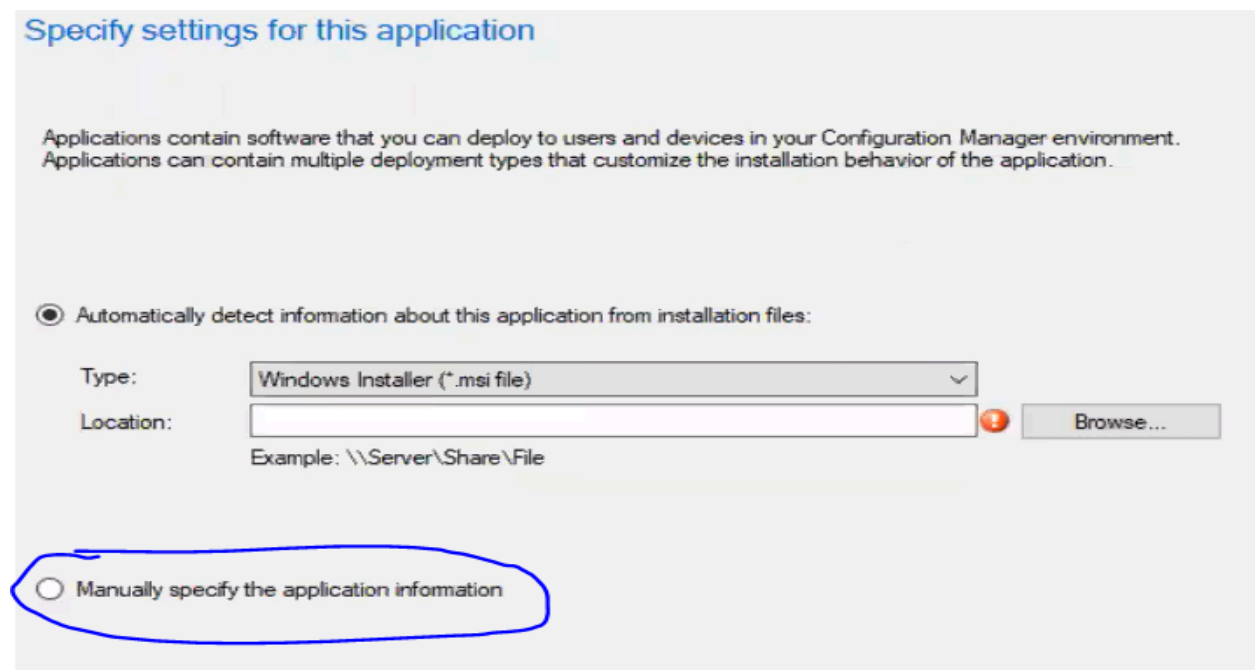
C:\Users\localuser>gpupdate /force
Updating policy...

Computer Policy update has completed successfully.
User Policy update has completed successfully.
```

## 7-Zip Successfully Installed in Software Center on Client



## Deploying Google Chrome to Software Center



## Specify information about this application


Name:	<input type="text" value="Google Chrome"/>		
Administrator comments:	<input type="text" value="Tool for browsing the internet"/>		
Publisher:	<input type="text" value="Google"/>	Software version:	<input type="text" value="Version 90.0.4430.85"/>
Optional reference:	<input type="text"/>		
Administrative categories:	<input type="text"/>	<input type="button" value="Select..."/>	
<input type="checkbox"/> Date published:	<input type="text" value="4/26/2021"/>		

Specify the administrative users who are responsible for this application.

Owners:	<input type="text" value="Administrator"/>	<input type="button" value="Browse..."/>
Support contacts:	<input type="text" value="Administrator"/>	<input type="button" value="Browse..."/>

## Specify the Software Center entry

Specify information about how you want to display this application to users when they browse the Software Center. To provide information in a specific language, select the language before you enter a description.

Selected language:	<input type="text" value="English (United States) default"/>	<input type="button" value="Add/Remove..."/>
Localized application name:	<input type="text" value="Google Chrome"/>	
User categories:	<input type="text" value="'Browser'"/>	<input type="button" value="Edit..."/>
User documentation:	<input type="text"/>	<input type="button" value="Browse..."/>
Link text:	<input type="text"/>	
Privacy URL:	<input type="text"/>	
Localized description:	<input type="text"/>	
Keywords:	<input type="text"/>	
Icon:		<input type="button" value="Browse..."/>
<input type="checkbox"/> Display this as a featured app and highlight it in the company portal		

## Specify settings for this deployment type

Deployment types include information about the installation method and source files for this application.

Type: Script Installer

☐ Automatically identify information about this deployment type from installation files

Location:

Browse...

Example: \\Server\Share\File

☒ Manually specify the deployment type information

## Specify information about the content to be delivered to target devices

Specify the location of the deployment type's content and other settings that control how content is delivered to target devices. All the contents in the path specified will be delivered.

Content location:

\\SASCCM01\Software\Chrome Download

Browse...

☐ Persist content in the client cache

Specify the command used to install this content.

Installation program:

"ChromeSetup.exe" /silent /install

Browse...

Installation start in:

Configuration Manager can remove installations of this content if an uninstall program is specified below.

Uninstall program:

net -system-level -verbose-logging -force-uninstall

Browse...

Uninstall start in:

☐ Run installation and uninstall program as 32-bit process on 64-bit clients.



## Detection Rule

Create a rule that indicates the presence of this application.

Setting Type:

Registry

Specify the registry key or value to detect this application.

Hive:

HKEY\_LOCAL\_MACHINE

Browse...

Key:

SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall  
\GoogleChrome

Value:

Display Version

☐ Use (Default) registry key value for detection

☒ This registry key is associated with a 32-bit application on 64-bit systems

Data Type:

Version

☐ This registry setting must exist on the target system to indicate presence of this application

☒ This registry setting must satisfy the following rule to indicate the presence of this application

Operator:

Greater than or equal to

Value:

90.0.4430.85

## Specify how this deployment type is detected

Specify how Configuration Manager determines whether this deployment type is already present on a device. This detection occurs before the content is installed or when software inventory data is collected.

☒ Configure rules to detect the presence of this deployment type:

	Connector	(	Clause	)
▶			LocalMachine\SOFTWARE\Microsoft\Windows\C...	

Add Clause...

Edit Clause...

Delete Clause

Group

Ungroup

☐ Use a custom script to detect the presence of this deployment type:

Script type:

Script length:

Edit...

## Specify user experience settings for the application

Installation behavior:

Install for system

Logon requirement:

Whether or not a user is logged on

Installation program visibility:

Normal

☐ Allow users to view and interact with the program installation



Specify the maximum run time and estimated installation time of the deployment program for this application. The estimated installation time displays to the user when the application installs.

Maximum allowed run time (minutes):

15

Estimated installation time (minutes):

2

Application Management	Icon	Name	Deployment Types	Deployments	Status
Applications		7-Zip 19.00 (x64 edition)	2	1	Active
License Information for Store Apps		Google Chrome	1	0	Active
Packages					
Application Reports					

General Information   Software Center   References   Distribution Settings   Deployment Types   Content Locations   Supersedence   Security

Name: Google Chrome

Administrator comments: Tool for browsing the internet

Publisher: Google      Software version: Version 90.0.4430.85

Optional reference:

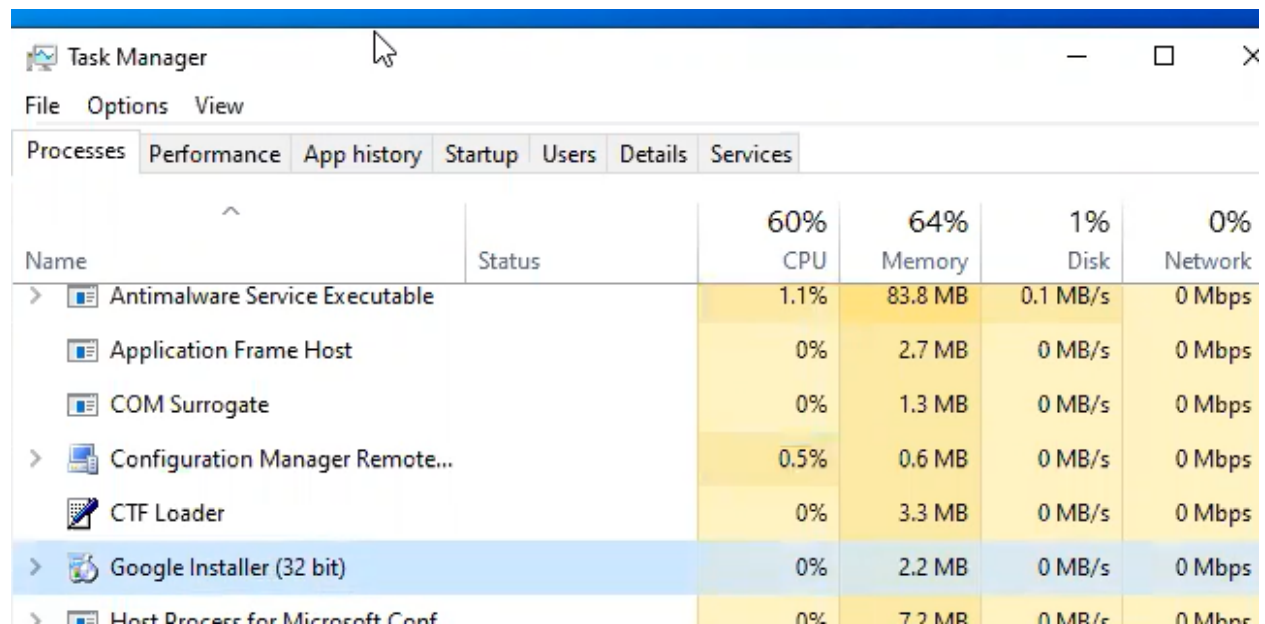
Administrative categories:      Select...

☐ Date published: 4/26/2021

☒ Allow this application to be installed from the Install Application task sequence action without being deployed

## Preparing Client for Chrome in Software Center

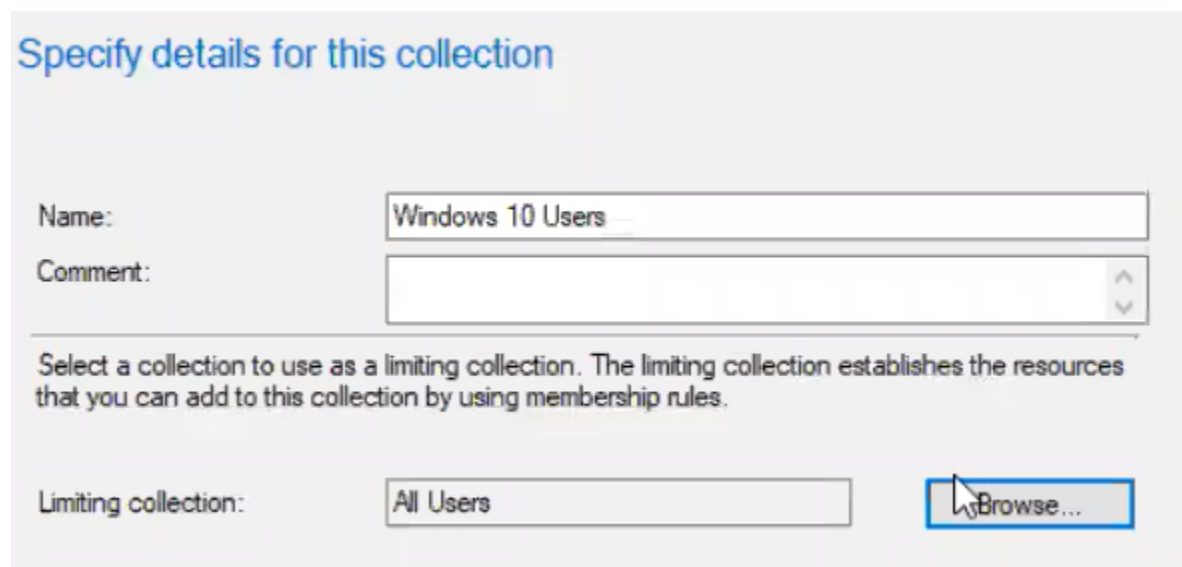
```
C:\Software\Chrome Download>ChromeSetup.exe /silent /install
C:\Software\Chrome Download>
```



The screenshot shows the Windows Task Manager Performance tab. The 'Processes' tab is selected, and the 'Performance' sub-tab is active. The table displays system resource usage for various processes. The 'Google Installer (32 bit)' process is highlighted in blue.

Name	Status	60% CPU	64% Memory	1% Disk	0% Network
> Antimalware Service Executable		1.1%	83.8 MB	0.1 MB/s	0 Mbps
Application Frame Host		0%	2.7 MB	0 MB/s	0 Mbps
COM Surrogate		0%	1.3 MB	0 MB/s	0 Mbps
> Configuration Manager Remote...		0.5%	0.6 MB	0 MB/s	0 Mbps
CTF Loader		0%	3.3 MB	0 MB/s	0 Mbps
> Google Installer (32 bit)		0%	2.2 MB	0 MB/s	0 Mbps
> Host Process for Microsoft Conf		0%	7.2 MB	0 MB/s	0 Mbps

## Creating a Windows 10 User Collection



The screenshot shows the 'Specify details for this collection' dialog box. The 'Name' field is filled with 'Windows 10 Users'. The 'Comment' field is empty. The 'Limiting collection' dropdown is set to 'All Users'. A 'Browse...' button is visible next to the dropdown.

Specify details for this collection

Name: Windows 10 Users

Comment:

Select a collection to use as a limiting collection. The limiting collection establishes the resources that you can add to this collection by using membership rules.

Limiting collection: All Users [Browse...](#)

Membership rules:

Rule Name	Type	Collection Id
There are no items to show in this view.		

Add Rule ▼

Edit

Delete

☐ Use incremental updates for this collection.  
An incremental update periodically adds resources that qualify for this collection. This option does not update for this collection.

Direct Rule

Query Rule

Device Category Rule

## Locate resources to add to the collection

To create direct membership rules, locate and select the resources that you want to add as direct members of the collection.

Find all resources that match the following criteria:

Resource class:

Attribute name:

Type: String

☐ Exclude resources marked as obsolete

☐ Exclude resources that do not have the Configuration Manager client installed

Value:

When the type is a string, you can use the percent character (%) as a wildcard for part or all of the value.

Resources:

- ☐ SERVERACADEMY\ACase (Aaron Case)
- ☒ SERVERACADEMY\Administrator (Administrator)
- ☐ SERVERACADEMY\AGee (Andrew Gee)
- ☐ SERVERACADEMY\APish (Andrew Pish)
- ☐ SERVERACADEMY\CRoundtree (Clay Roundtree)
- ☐ SERVERACADEMY\JGrey (Joe Grey)

Select All

Clear All

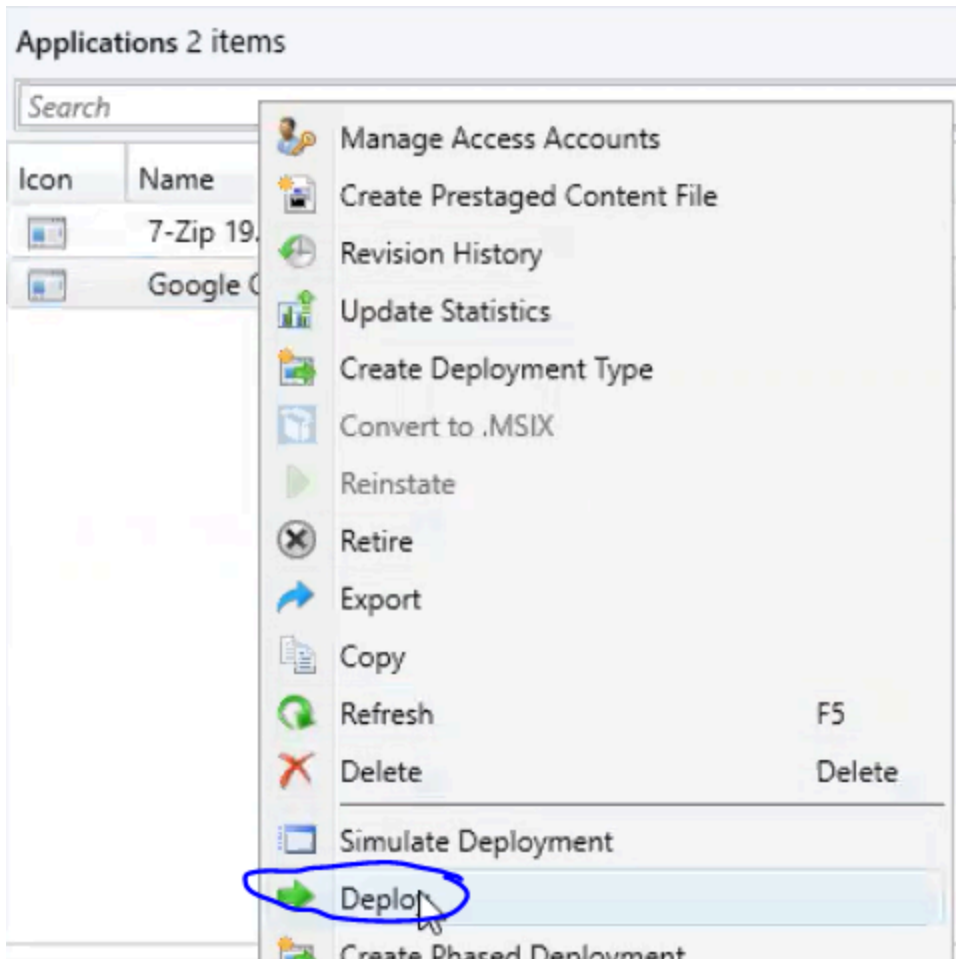
User Collections 7 items

Search



Search

Icon	Name	Limiting Collection	Member Count	Member
	All User Groups	All Users and User...	25	25
	All Users	All Users and User...	14	14
	All Users and User Groups		39	39
	Query Managers	All Users	3	3
	SCCM Admin Users	All User Groups	1	1
	User Collection Direct Rule	All Users	9	9
	Windows 10 Users	All Users	0	0



### Specify general information for this deployment

Software:

Collection:

☐ Use default distribution point groups associated to this collection

☒ Automatically distribute content for dependencies

## Specify the user experience for the installation of this software on the selected devices

Specify user experience setting for this deployment

User notifications:

Display in Software Center, and only show notifications for computer restarts

☐ When software changes are required, show a dialog window to the user instead of a toast notification

When the installation deadline is reached, allow the following activities to be performed outside the maintenance window:

☐ Software Installation

☐ System restart (if required to complete the installation)

Write filter handling for Windows Embedded devices

☒ Commit changes at deadline or during a maintenance window (requires restarts)

## Chrome successfully added in Software Center

Software Center

### IT Organization

#### Applications

#### Updates

#### Operating Systems

#### Installation status

#### Device compliance

#### Options

All Required

Filter:

All

Sort by:

Most recent



Google Chrome

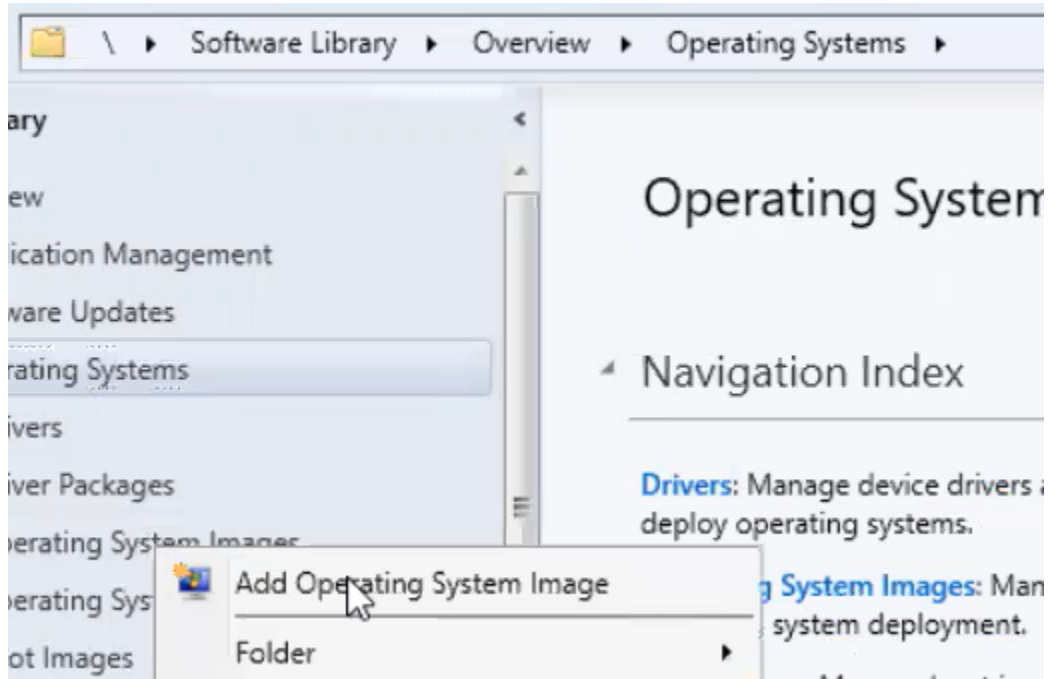
Google  
Version 90.0.4430.85



7-Zip 19.00 (x64 edition)

Igor Pavlov  
19.00

## Adding Windows 10 Deployable ISO to SCCM



Installed Windows ISO in the shared folder in Hypervisor to transfer ISO to a folder titled “Software” in SCCM server.



## Browse to the data source for the operating system image

Specify the path to the operating system image file.

Path:

\\SASCCM01\Windows 10 images\sources\install.wim

Browse...

Example: \\servername\sharename\path\file.WIM

☐ Extract a specific image index from the specified WIM file

Image index:

1 - Windows 10 Enterprise Evaluation

Selecting a specific image will result in Configuration Manager exporting the index as a new WIM file in the same directory as the source image.

If the selected architecture and language matches that of the client, the package content will be downloaded in advance.

Architecture:

☒ x86

☐ x64

Language:



## Type general information for the operating system image

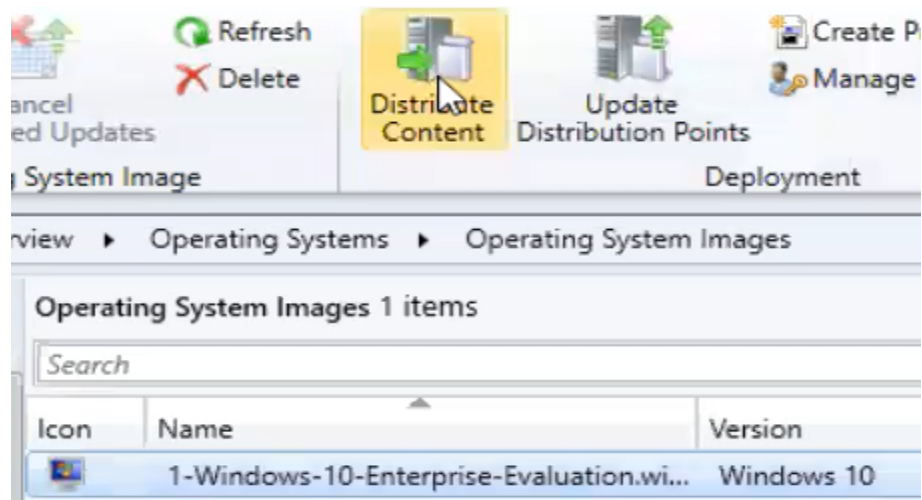
Provide a name, version, and comment for the operating system image.

Name:

1-Windows-10-Enterprise-Evaluation.wim

Version:

Windows 10

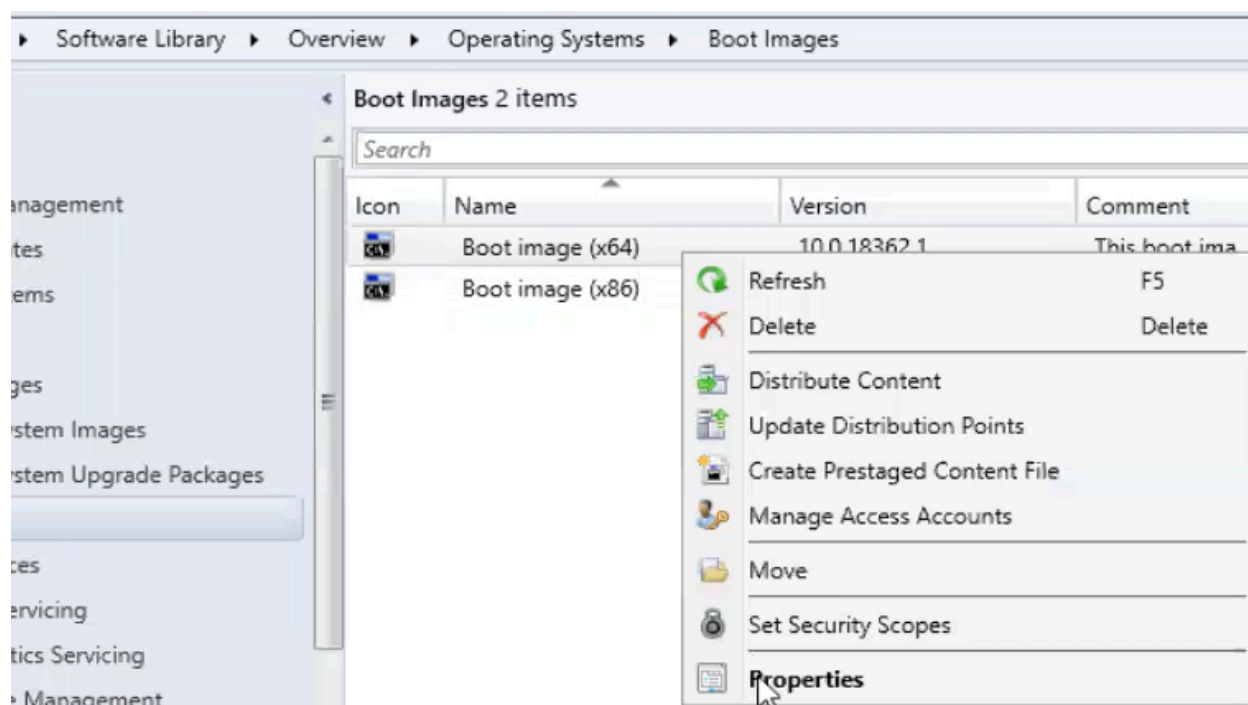


## Specify the content destination

Content will be distributed to the following distribution points, distribution point groups, and the distribution point groups that are currently associated with collections.

Content destination:

Filter...			Add
Name	Description	Associations	Remove
SASCCM01.SERVERAC...	Distribution point		



## Boot image (x64) Properties

Content Locations	Optional Components	Security
General	Images	Drivers
Customization	Data Source	Data Access
Distribution Settings		

☐ Enable prestart command

Prestart command settings

Command line:

☐ Include files for the prestart command

Source directory:

Windows PE Background

☐ Specify the custom background image file (UNC path):

Windows PE Scratch Space (MB):

☒ Enable command support (testing only)

## Boot image (x64) Properties

Content Locations	Optional Components	Security
General	Images	Drivers
Customization	Data Source	Data Access
Distribution Settings		

Specify the image file that contains the boot image for this package. If this is default boot image, the image file cannot be changed.

Image path:

Source version:

☐ Update distribution points on a schedule

Occurs every 1 days effective 4/26/2021 8:08 PM



☐ Persist content in client cache







☐ Enable binary differential replication

☒ Deploy this boot image from the PXE-enabled distribution point

If the selected architecture and language matches that of the client, the package content will be downloaded in advance.

Architecture: ☒ x86 ☐ x64

Icon	Name	Version	Comment	Image ID
	Boot image (x64)	10.0.10262.1	This boot image	SA100005
	Boot image (x86)			00004

 Refresh
  Delete
  **Distribute Content**
 Update Distribution Points
  Create Prestaged Content File
  Manage Access Accounts

## Specify the content destination

Content will be distributed to the following distribution points, distribution point groups, and the distribution point groups that are currently associated with collections.

Content destination:

Filter...			Add ▼
Name	Description	Associations	Remove
SASCCM01.SERVERAC...	Distribution point		

### Boot image (x86) Properties

Content Locations	Optional Components	Security
General	Images	Drivers
Customization	Data Source	Data Access
		Distribution Settings

☐ Enable prestart command

Prestart command settings
 

Command line:

☐ Include files for the prestart command
 

Source directory:
 

Browse...

Windows PE Background
 

☐ Specify the custom background image file (UNC path):
 

Browse...

Windows PE Scratch Space (MB):
 

32

▼

☒ Enable command support (testing only)

## Boot image (x86) Properties

Content Locations Optional Components Security

General Images Drivers Customization Data Source Data Access Distribution Settings

Specify the image file that contains the boot image for this package. If this is default boot image, the image file cannot be changed.

Image path:

\\SASCCM01.ServerAcademy.com\SMS\_SA1\osd\boot\i386\boot.wim Browse...

Source version: 3 (4/24/2021 3:32:15 PM)

☐ Update distribution points on a schedule

Occurs every 1 days effective 4/26/2021 8:11 PM Schedule...

☐ Persist content in client cache






☐ Enable binary differential replication

☒ Deploy this boot image from the PXE-enabled distribution point

If the selected architecture and language matches that of the client, the package content will be downloaded in advance.

Architecture: ☒ x86 ☐ x64

## Boot Images 2 items

Search				
Icon	Name	Version	Comment	Image ID
	Boot image (x64)	10.0.18362.1	This boot ima...	SA100005
	Boot image (x86)	10.0.18362.1	This boot ima...	SA100004
<div><div> Refresh F5</div><div> Delete Delete</div><div> <u>Distribute Content</u></div></div>				

## Specify the content destination

Content will be distributed to the following distribution points, distribution point groups, and the distribution point groups that are currently associated with collections.

Content destination:

Filter...		<b>Add</b> ▼
<b>Name</b>	<b>Description</b>	<b>Associations</b>
SASCCM01.SERVERAC...	Distribution point	

**Remove**

### Boot image (x64)

Comment: This boot image is created during setup.

Architecture: X64

Version: 10.0.18362

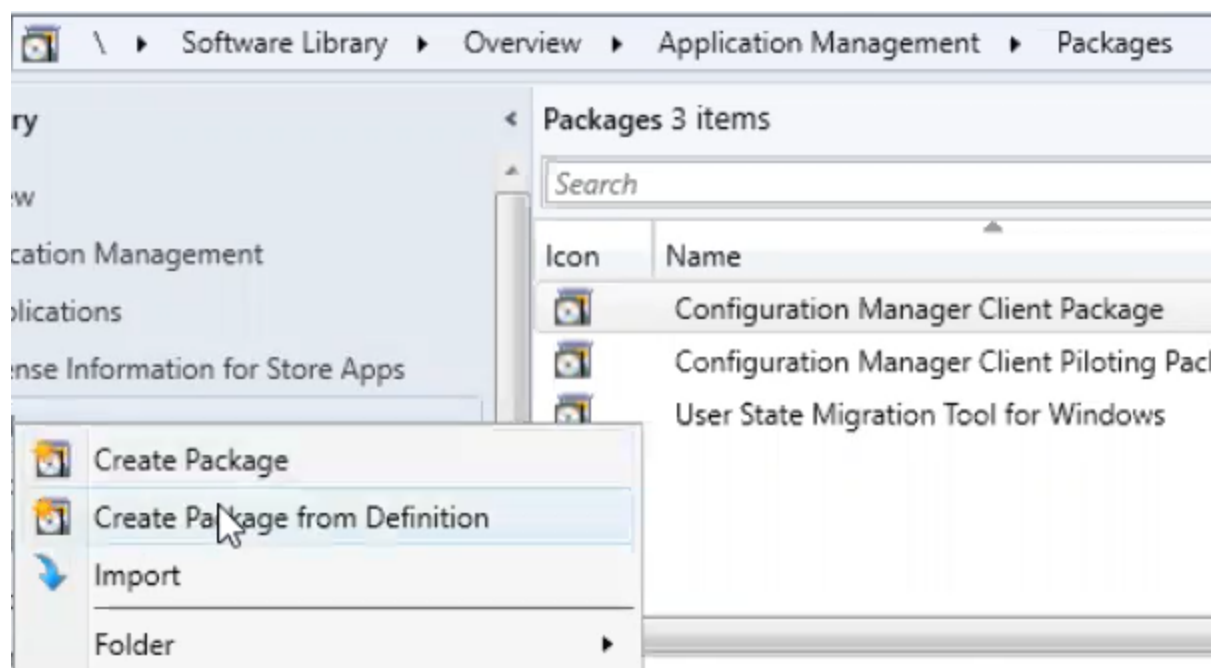
Language: .1 Invariant Language (Invariant Country)

Client Version: 5.00.8790.1007



Success: 1  
In Progress: 0  
Failed: 0  
Unknown: 0

**1 Targeted** (Last Update: 4/26/2021 8:11 PM)



## Specify information about the package definition file to import

Select an existing publisher and definition for this package. If the package definition that you need is not listed and you have an installation disk, click Browse.

Publisher:

Package definition:

Filter...		
Name	Version	Language
Device Management Client Transfer	5.0	ALL
Configuration Manager Client Upgrade	6.0	ALL



## Specify information about the package source files

Source files are executable or data files that must be made available to clients.

If this package contains source files, specify whether they should be obtained from a specified source folder every time that the package is distributed or whether they should be stored as compressed data for distribution.

- ☐ This package does not contain any source files
- ☒ Always obtain source files from a source folder
- ☐ Create a compressed version of the source files

## Specify the package source folder

Make sure that this folder is accessible to the Configuration Manager Service Account for as long as the package exists.

Package name: Configuration Manager Client Upgrade

Package source folder:

- ☒ Network path (UNC name)
- ☐ Local folder on site server

Example: \\servename\sharename\path

\\Sasccm01\sms\_sa1\Client

Browse...




### Configuration Manager Client Upgrade

#### Package Properties

Package ID:	SA10000F
Name:	Configuration Manager Client Upgrade
Manufacturer:	Microsoft
Version:	6.0
Language:	ALL

#### Content Status



Success: 1
In Progress: 0
Failed: 0
Unknown: 0


**1 Targeted** (Last Update: 4/26/2021 8:53 PM)


## Installing Endpoint Protection Server Roles


Administration > Overview > Site Configuration > Servers and Site System Roles


< Servers and Site System Roles 1 items


Search


Icon	Name	Site Code	Count of roles	Type
	\\SASCCM01.ServerAc...	SA1	2	Primar...

 Add Site System Roles

 Start

 Refresh F5

 Delete Delete

 Properties


## Specify roles for this server

Available roles:

- ☐ Asset Intelligence synchronization point
- ☐ Certificate registration point
- ☐ Cloud management gateway connection point
- ☐ Data Warehouse service point
- ☒ Endpoint Protection point
- ☐ Enrollment point
- ☐ Enrollment proxy point
- ☐ Fallback status point
- ☒ Reporting services point
- ☒ Software update point
- ☐ State migration point

## Specify software update point settings

A software update point integrates with Windows Server Update Services (WSUS) to provide software updates to Configuration Manager clients.

 For Configuration Manager to use a software update point that is not installed on the site server, you must first install the WSUS administration console on the site server.

### WSUS Configuration

WSUS is configured to use ports 8530 and 8531 for client communications by default on Windows Server 2012 and later.

Port Number:

SSL Port Number:

- ☐ Require SSL communication to the WSUS server
- ☐ Allow Configuration Manager cloud management gateway traffic

### Client Connection Type

- ☒ Allow intranet-only client connections
- ☐ Allow Internet-only client connections
- ☐ Allow Internet and intranet client connections

## Specify synchronization source settings

Select the synchronization source for this software update point.

☒ Synchronize from Microsoft Update

When there is an upstream software update point, this option is unavailable.

☐ Synchronize from an upstream data source location (URL)

Example: <http://WSUSServer:80> or <https://WSUSServer:8531>

Browse

☐ Do not synchronize from Microsoft Update or upstream data source

Select this option if you manually synchronize software updates on this software update point. Typically, you use manual synchronizing when the software update point is disconnected from Microsoft Update or the upstream software update point.

### WSUS reporting events

You can configure the Windows Update Agent on client computers to create event messages for Windows Server Update Services (WSUS) reporting. Configuration Manager does not use these events, you should not create them unless you require them for other uses.

☒ Do not create WSUS reporting events

☐ Create only WSUS status reporting events

☐ Create all WSUS reporting events

## Synchronization settings

Configure software updates to synchronize automatically.

☒ Enable synchronization on a schedule

### Synchronization schedule

☒ Simple schedule

Run every:

Days

☐ Custom schedule

No custom schedule defined.

Customize

Configuration Manager can create an alert when synchronization fails on any site. You can check for synchronization failure alerts in the Software Update Point Synchronization Status node in the Monitoring workspace.

☐ Alert when synchronization fails on any site in the hierarchy

## Select behavior for software updates that are superseded

You can configure a software update to expire as soon as it is superseded by a more recent software update or to expire after a specified period of time when it is superseded by a more recent software update.

Supersedence settings do not apply to Microsoft Defender definition updates or to software updates that are superseded by Service Packs. These software updates never expire when they are superseded.

Changing this setting will force a full software update point synchronization.

### Supersedence behavior of updates other than feature updates

- ☒ Immediately expire a superseded software update
- ☐ Do not expire a superseded software update until the software update is superseded for a specified period

Months to wait before a superseded software update is expired:

### Supersedence behavior for feature updates

- ☐ Immediately expire a superseded feature update
- ☒ Do not expire a superseded feature update until the feature update is superseded for a specified period

Months to wait before a superseded feature update is expired:

## Select the software update classifications that you want to synchronize

### Software update classifications:

- ☒ All Classifications
  - ☐ Critical Updates
  - ☒ Definition Updates
  - ☐ Feature Packs
  - ☐ Security Updates
  - ☐ Service Packs
  - ☐ Tools
  - ☐ Update Rollups
  - ☐ Updates
  - ☐ Upgrades

## Select the products that you want to synchronize

Products:

- |                                     |                             |
|-------------------------------------|-----------------------------|
| <input type="checkbox"/>            | Windows 2000                |
| <input checked="" type="checkbox"/> | Windows 7                   |
| <input type="checkbox"/>            | Windows 7 Language Packs    |
| <input checked="" type="checkbox"/> | Windows 8                   |
| <input checked="" type="checkbox"/> | Windows Defender            |
| <input type="checkbox"/>            | Windows Embedded Standard 7 |

## Specify Reporting Services settings

The reporting services point provides integration with SQL Server Reporting Services to create and manage reports for Configuration Manager.

### Site database connection settings

Specify the Configuration Manager site database server name, optional database instance name, and database name which SQL Reporting Services will use when running reports.

Example: ServerName\InstanceName

Site database server name:

Database name:

Successfully verified

Specify the folder to create on the reporting services point site system server that will contain the Configuration Manager reports.

Folder name:

Reporting Services server instance:

### Reporting Services Point Account

Specify the credentials that SQL Reporting Services will use when connecting to the Configuration Manager site database.

User name:

Site System Roles		
Icon	Role Name	Role Description
	Component server	Any server requiring a Configuration Manager service to be installed.
	Distribution point	A Configuration Manager server role that stages packages for distribution to clients.
	Endpoint Protection point	A site system role that serves as an Endpoint Protection point.
	Management point	A site system role that replies to Configuration Manager client requests and accepts
	Reporting services point	A site system role that provides integration with SQL Server Reporting Services to c
	Service connection point	A service connection point connects Configuration Manager to Microsoft cloud servi
	Site database server	A site system role that runs Microsoft SQL Server and hosts the Configuration Mana
	Site server	The main site system role that hosts the Configuration Manager components and se
	Site system	A server or server share that hosts one or more site system roles for a Configuration
	SMS Provider	A site system role used by Configuration Manager consoles to access site database i
	Software update point	A site system role that runs Microsoft Windows Server Update Services (WSUS) and

## Endpoint Protection Policies

Assets and Compliance > Overview > Endpoint Protection > Antimalware Policies

< Antimalware Policies 1 items

Search

Icon	Name	Type
	Default Client Antimalware Policy	Default

Create Antimalware Policy

Import



## Endpoint Protection Antimalware Policy



Specify the name and a description for this Endpoint Protection antimalware policy. The settings defined in this policy override the default settings when this policy is assigned to a collection.

Name: SCEP Standard Desktop

Description: SCEP Standard Desktop

- ☒ Scheduled scans
- ☒ Scan settings
- ☒ Default actions
- ☒ Real-time protection
- ☒ Exclusion settings
- ☒ Advanced
- ☐ Threat overrides
- ☒ Cloud Protection Service
- ☒ Security Intelligence updates

### Antimalware Policies 2 items

Search

Icon	Name	Type
	Default Client Antimalware Policy	Default
	SCEP Standard Desktop	Custom

Assets and Compliance > Overview > Endpoint Protection > Windows Defender Firewall Policies

### Windows Defender Firewall Policies 0 items

Search

Icon	Name	Revision	Order	Deployed
------	------	----------	-------	----------

No items found.

Create Windows Defender Firewall Policy



## Specify general information about this Windows Defender Firewall policy

Name:	<input type="text" value="ServerAcademy Firewall Policy"/>
Description:	<div><div></div><div>^</div><div>v</div></div>

## Configure Windows Defender Firewall profile settings

Windows Defender Firewall profile settings control incoming and outgoing network traffic on computers to which this policy is deployed. Configure Windows Defender Firewall settings for each network profile.

Enable Windows Defender Firewall:

Domain profile:	<input type="text" value="Yes"/>
Private profile:	<input type="text" value="Yes"/>
Public profile:	<input type="text" value="Yes"/>

Block all incoming connections, including those in the list of allowed programs:

Domain profile:	<input type="text" value="Not Configured"/>
Private profile:	<input type="text" value="Not Configured"/>
Public profile:	<input type="text" value="Not Configured"/>

Notify the user when Windows Defender Firewall blocks a new program:

Domain profile:	<input type="text" value="Not Configured"/>
Private profile:	<input type="text" value="Not Configured"/>
Public profile:	<input type="text" value="Yes"/>

Administration > Overview > Security > Administrative Users

Administrative Users 4 items

Search

Icon	Account Name	Account Display Name
	SERVERACADEMY\Administrator	
	SERVERACADEMY\SCCM Admin Users	
	SERVERACADEMY\SCCM Admins	
	SERVERACADEMY\troy.taysom	Troy Taysom

Refresh F5  
Delete Delete  
Properties

## SERVERACADEMY\troy.taysom Properties

General Security Roles Security Scopes

Specify the security roles that are associated with this administrative user or group. Security roles define a collection of actions that can be performed on Configuration Manager securable objects. You can manage permissions for Configuration Manager reports by using SQL Server Reporting Services security settings.

To limit these security roles to a set of Configuration Manager securable objects, use security scopes and collections.

Security roles:

Name	Description
Endpoint Protection Manager	Grants permissions to define and ...
Full Administrator	Grants all permissions in Configur...

	SERVERACADEMY\SCCM Admins		"Full Administrator"
	SERVERACADEMY\troy.taysom	Troy Taysom	"Full Administrator", "Endpoint Protection Manager"

Assets and Compliance > Overview > Endpoint Protection > Antimalware Policies

< Antimalware Policies 2 items

Search

Icon	Name	Type
	Default Client Antimalware Policy	Default
	SCEP Standard Desktop	Custom

SCEP Standard Desktop

Properties

Priority: F5

Deployments: Delete

Increase Priority  
 Decrease Priority  
 Export  
 Copy  
 Merge  
 Refresh  
 Delete  
 Deploy  
 Set Security Scopes  
 Properties

## Scheduled scans



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

### Specify scheduled scan settings



Run a scheduled scan on client computers: Yes

Scan type: Quick Scan

Scan day: Saturday

Scan time: 3:00 AM

Run a daily quick scan on client computers: No

Daily quick scan schedule time: 12:00 AM

Check for the latest security intelligence updates before running a scan: Yes

Start a scheduled scan only when the computer is idle: Yes

Force a scan of the selected scan type if client computer is offline during two or more scheduled scans: No

Limit CPU usage during scans to (%): 50

Assets and Compliance > Overview > Endpoint Protection > Antimalware Policies

< Antimalware Policies 2 items

Search

Icon	Name	Type
	Default Client Antimalware Policy	Default
	SCEP Standard Desktop	

Merge  
Properties

## Default Antimalware Policy

- Scheduled scans
- Scan settings
- Default actions
- Real-time protection
- Exclusion settings
- Advanced
- Threat overrides
- Cloud Protection Service
- Security Intelligence updates

## Scheduled scans



The settings that you specify in this policy apply to all Endpoint Protection Custom policies override the default policy.

### Specify scheduled scan settings



- Run a scheduled scan on client computers: Yes
- Scan type: Quick Scan
- Scan day: Saturday
- Scan time: 2:00 AM
- Run a daily quick scan on client computers: No
- Daily quick scan schedule time: 2:00 AM
- Check for the latest security intelligence updates before running a scan: No
- Start a scheduled scan only when the computer is idle: Yes
- Force a scan of the selected scan type if client computer is offline during two or more scheduled scans: Yes
- Limit CPU usage during scans to (%): 50

## Scan settings



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

### Specify scan settings



Scan email and email attachments:	Yes
Scan removable storage devices such as USB drives:	Yes
Scan network files:	No
Scan mapped network drives when running a full scan:	No
Scan archived files:	Yes
Allow users to configure CPU usage during scans:	No
User control of scheduled scans:	No control

## Default actions



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

Specify how Endpoint Protection responds to threats classified according to the following alert levels. The recommended response for each threat is specified in the security intelligence files.

### Specify default actions



Severe:	Remove
High:	Remove
Medium:	Quarantine
Low:	Quarantine

## Real-time protection



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

---

### Specify real-time protection settings



Enable real-time protection:	Yes	▼
Monitor file and program activity on your computer:	Yes	▼
Scan system files:	Scan incoming and outgoing files	▼
Scan all downloaded files and enable exploit protection for Internet Explorer:	Yes	▼
Enable behavior monitoring:	Yes	▼
Enable protection against network-based exploits:	Yes	▼
Allow users on client computers to configure real-time protection settings :	No	▼
Enable protection against Potentially Unwanted Applications at download and prior to installation:	Yes	▼

## Exclusion settings



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

---

### Specify excluded files and folders, file types, and processes



Excluded files and folders:	%windir%\Softwa...	Set
Excluded file types:	.bat...	Set
Excluded processes:	C:\windows\syst...	Set



## Security Intelligence updates



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

### Configure how Endpoint Protection clients will receive security intelligence updates



Check for Endpoint Protection security intelligence at a specific interval (hours):  
(0 = disable check on interval)

8

Check for Endpoint Protection security intelligence daily at:  
(Only configurable if interval-based check is disabled)

2:00 AM

Force a security intelligence update if the client computer is offline for more than two consecutive scheduled updates:

No

Set sources and order for Endpoint Protection security intelligence updates:

4 sources selected

Set Source

If Configuration Manager is used as a source for security intelligence updates, clients will only update from alternative sources if security intelligence is older than (hours):

72

If UNC file shares are selected as a security intelligence update source, specify the UNC paths:

(none)

Set Paths

### Antimalware Policies 2 items

Search

Icon	Name	Type
	Default Client Antimalware Policy	Default
	SCEP Standard Desktop	Custom

# Endpoint Protection Client Installation

Administration ► Overview ► Client Settings

Client Settings 3 items

Search

Icon	Name	Type	Priority
	Default Client Settings	Default	10000
	Pwr.Mgmt Laptops	Device	2
	Remote Desktop	Device	1

System Roles

Users

Create Custom Client Device Settings

Create Custom Client User Settings

## Custom Device Settings



Specify the settings for devices. Then  
to a collection.

Name: EP Client Settings

Description:

Select and then configure the custom settings

- ☐ Background Intelligent Transfer
- ☐ Client Cache Settings
- ☐ Client Policy
- ☐ Cloud Services
- ☐ Compliance Settings
- ☐ Computer Agent
- ☐ Computer Restart
- ☐ Delivery Optimization
- ☒ Endpoint Protection



Client Settings 4 items

Search

Icon	Name	Type	Priority
	Default Client Settings	Default	100
	EP Client Setting		
	Pwr.Mgmt Lapto		
	Remote Desktop		

**EP Client Settings**

Description

Name: EP Client Settings

Deploy  
 Increase Priority  
 Decrease Priority  
 Copy  
 Refresh F5  
 Delete Delete  
 Set Security Scopes  
**Properties**

## Custom Device Settings



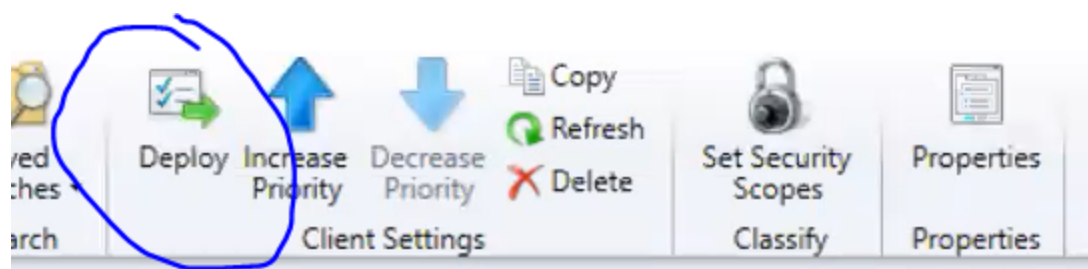
Specify the settings for devices. These settings override the default settings when they are assigned to a collection.

Select whether to manage existing Endpoint Protection clients or to install Endpoint Protection on clients.

### Device Settings



- Manage Endpoint Protection client on client computers Yes
- Install Endpoint Protection client on client computers Yes
- Allow Endpoint Protection client installation and restarts outside maintenance windows. Maintenance windows must be at least 30 minutes long for client installation. No
- For Windows Embedded devices with write filters, commit Endpoint Protection client installation (requires restarts) Yes
- Suppress any required computer restarts after the Endpoint Protection client is installed Yes
- Allowed period of time users can postpone a required restart to complete the Endpoint Protection installation (hours) 24
- Disable alternate sources (such as Microsoft Windows Update, Microsoft Windows Server Update Services, or UNC shares) for the initial security intelligence update on client computers Yes



view ▶ Client Settings

### Client Settings 4 items

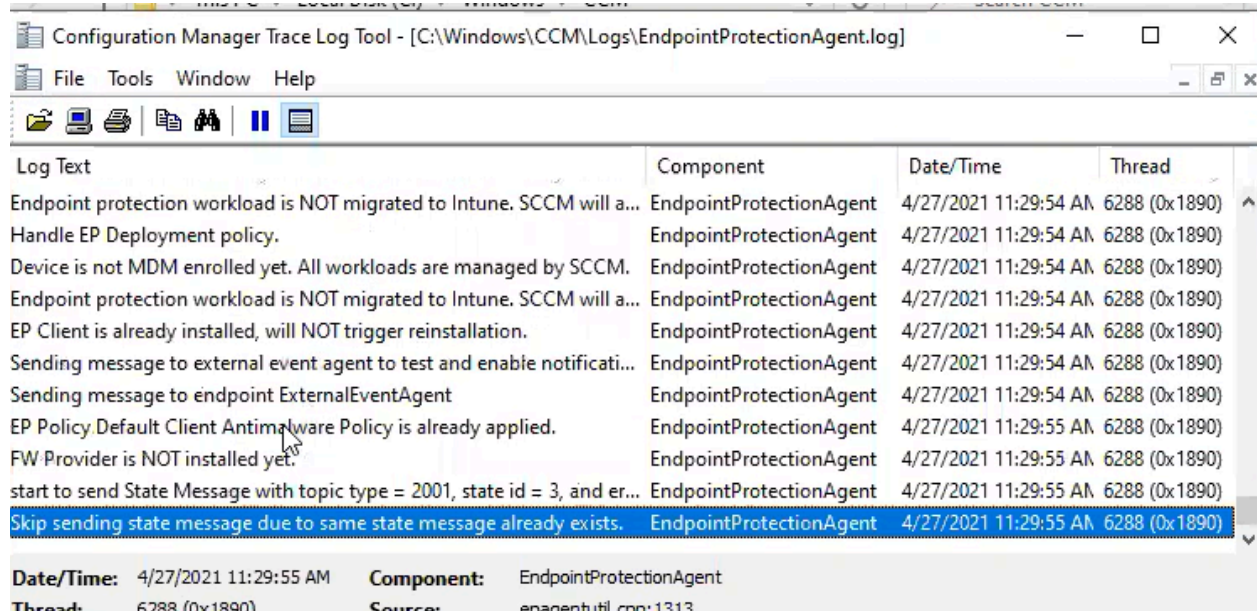
Search

Icon	Name	Type	Priority	Depl
	Default Client Settings	Default	10000	0
	EP Client Settings	Device	3	0
	Pwr.Mgmt Laptops	Device	2	1
	Remote Desktop	Device	1	1

Filter...

Name	Member Count
All Desktop and Server Clients	1
All Mobile Devices	0
All Provisioning Devices	1
All Systems	6
All Unknown Computers	2
Devices - Direct Rule 1	3
Exclude Collection	3
Include Collection	3
Query Services	1
Remote Control for Desktops	1
ServerAcademy OU	1
Windows 10 Laptops	1

# Running CMTrace on Client to Verify Policy Update

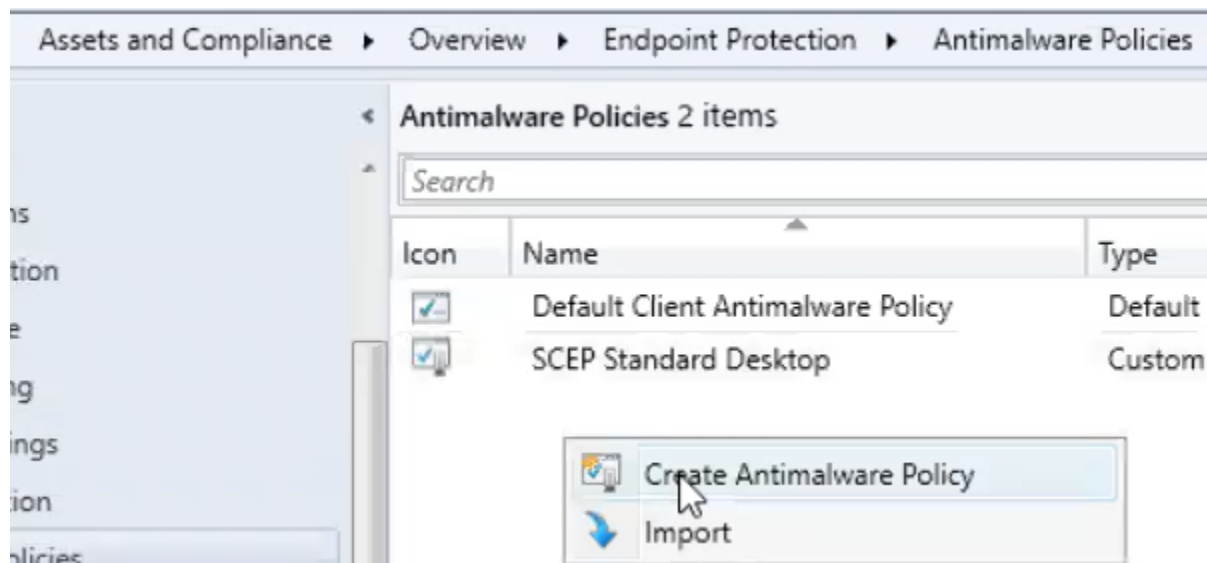


The screenshot shows the Configuration Manager Trace Log Tool window. The title bar reads "Configuration Manager Trace Log Tool - [C:\Windows\CCM\Logs\EndpointProtectionAgent.log]". The menu bar includes "File", "Tools", "Window", and "Help". The toolbar contains icons for file operations and execution. The main area displays a log table with columns: "Log Text", "Component", "Date/Time", and "Thread". The log entries show the EndpointProtectionAgent component sending various messages. The last entry is highlighted in blue: "Skip sending state message due to same state message already exists." Below the table, summary information is provided: "Date/Time: 4/27/2021 11:29:55 AM", "Component: EndpointProtectionAgent", "Thread: 6288 (0x1890)", and "Source: enagentutil.cmn:1313".

Log Text	Component	Date/Time	Thread
Endpoint protection workload is NOT migrated to Intune. SCCM will a...	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
Handle EP Deployment policy.	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
Device is not MDM enrolled yet. All workloads are managed by SCCM.	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
Endpoint protection workload is NOT migrated to Intune. SCCM will a...	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
EP Client is already installed, will NOT trigger reinstallation.	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
Sending message to external event agent to test and enable notificati...	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
Sending message to endpoint ExternalEventAgent	EndpointProtectionAgent	4/27/2021 11:29:54 AM	6288 (0x1890)
EP Policy Default Client Antimalware Policy is already applied.	EndpointProtectionAgent	4/27/2021 11:29:55 AM	6288 (0x1890)
FW Provider is NOT installed yet.	EndpointProtectionAgent	4/27/2021 11:29:55 AM	6288 (0x1890)
start to send State Message with topic type = 2001, state id = 3, and er...	EndpointProtectionAgent	4/27/2021 11:29:55 AM	6288 (0x1890)
Skip sending state message due to same state message already exists.	EndpointProtectionAgent	4/27/2021 11:29:55 AM	6288 (0x1890)

**Date/Time:** 4/27/2021 11:29:55 AM    **Component:** EndpointProtectionAgent  
**Thread:** 6288 (0x1890)    **Source:** enagentutil.cmn:1313

## Creating Windows 10 Antimalware Policy



## Endpoint Protection Antimalware Policy



Specify the name and a description for this Endpoint Protection policy. You can override the default settings when this policy is deployed.

Name:

Description:

- ☒ Scheduled scans
- ☒ Scan settings
- ☒ Default actions
- ☒ Real-time protection
- ☒ Exclusion settings
- ☒ Advanced
- ☒ Threat overrides
- ☒ Cloud Protection Service
- ☒ Security Intelligence updates

### Antimalware Policies 3 items

Search

Icon	Name	Type	Order	Deployment
	Default Client Antimalware Policy	Default	10000	0
	SCEP Standard Desktop	Custom	1	0
	Windows 10 Desktop	Custom	2	0

### Windows 10 Desktop

#### Properties

Priority: 2  
Deployments: 0

- Increase Priority
- Decrease Priority
- Export
- Copy
- Merge
- Refresh F5
- Delete Delete
- Deploy
- Set Security Scopes
- Properties

## Scheduled scans



The settings that you specify in this policy apply to all Endpoint Protection Custom policies override the default policy.

### Specify scheduled scan settings



Run a scheduled scan on client computers:	Yes
Scan type:	Quick Scan
Scan day:	Daily
Scan time:	6:00 AM
Run a daily quick scan on client computers:	No
Daily quick scan schedule time:	2:00 AM
Check for the latest security intelligence updates before running a scan:	Yes
Start a scheduled scan only when the computer is idle:	Yes
Force a scan of the selected scan type if client computer is offline during two or more scheduled scans:	Yes
Limit CPU usage during scans to (%):	50

## Default actions



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

Specify how Endpoint Protection responds to threats classified according to the following alert levels. The recommended response for each threat is specified in the security intelligence files.

### Specify default actions



Severe:	Remove
High:	Remove
Medium:	Quarantine
Low:	Quarantine



## Real-time protection



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

### Specify real-time protection settings



Enable real-time protection:

Yes ▾

Monitor file and program activity on your computer:

Yes ▾

Scan system files:

Scan incoming and outgoing files ▾

Scan all downloaded files and enable exploit protection for Internet Explorer:

Yes ▾

Enable behavior monitoring:

Yes ▾

Enable protection against network-based exploits:

Yes ▾

Allow users on client computers to configure real-time protection settings:

No ▾

Enable protection against Potentially Unwanted Applications at download and prior to installation:

Yes ▾

## Exclusion settings



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

### Specify excluded files and folders, file types, and processes



Excluded files and folders:

%windir%\Softwa...

Set

Excluded file types:

.bat...

Set

Excluded processes:

C:\windows\syst...

Set

## Security Intelligence updates



The settings that you specify in this policy apply to all Endpoint Protection clients in the hierarchy. Custom policies override the default policy.

### Configure how Endpoint Protection clients will receive security intelligence updates



Check for Endpoint Protection security intelligence at a specific interval (hours):  
(0 = disable check on interval)

1

Check for Endpoint Protection security intelligence daily at:  
(Only configurable if interval-based check is disabled)

2:00 AM

Force a security intelligence update if the client computer is offline for more than two consecutive scheduled updates:

No

Set sources and order for Endpoint Protection security intelligence updates:

1 sources selected

Set Source

If Configuration Manager is used as a source for security intelligence updates, clients will only update from alternative sources if security intelligence is older than (hours):

72

If UNC file shares are selected as a security intelligence update source, specify the UNC paths:

(none)

Set Paths

Decrease Priority   Export   Copy   Merge   Refresh   Delete   **Deploy**

Client Settings   Deployment

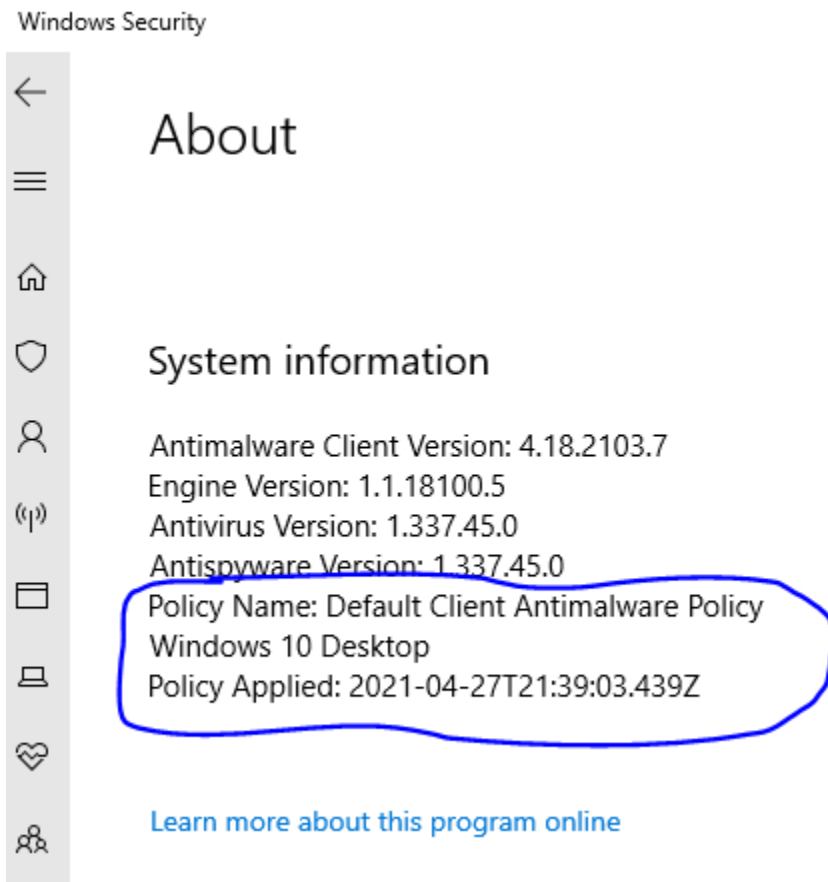
Overview > Endpoint Protection > Antimalware Policies

Antimalware Policies 3 items

Search

on	Name	Type	Ord
	Default Client Antimalware Policy	Default	10
	SCEP Standard Desktop	Custom	1
	Windows 10 Desktop	Custom	2

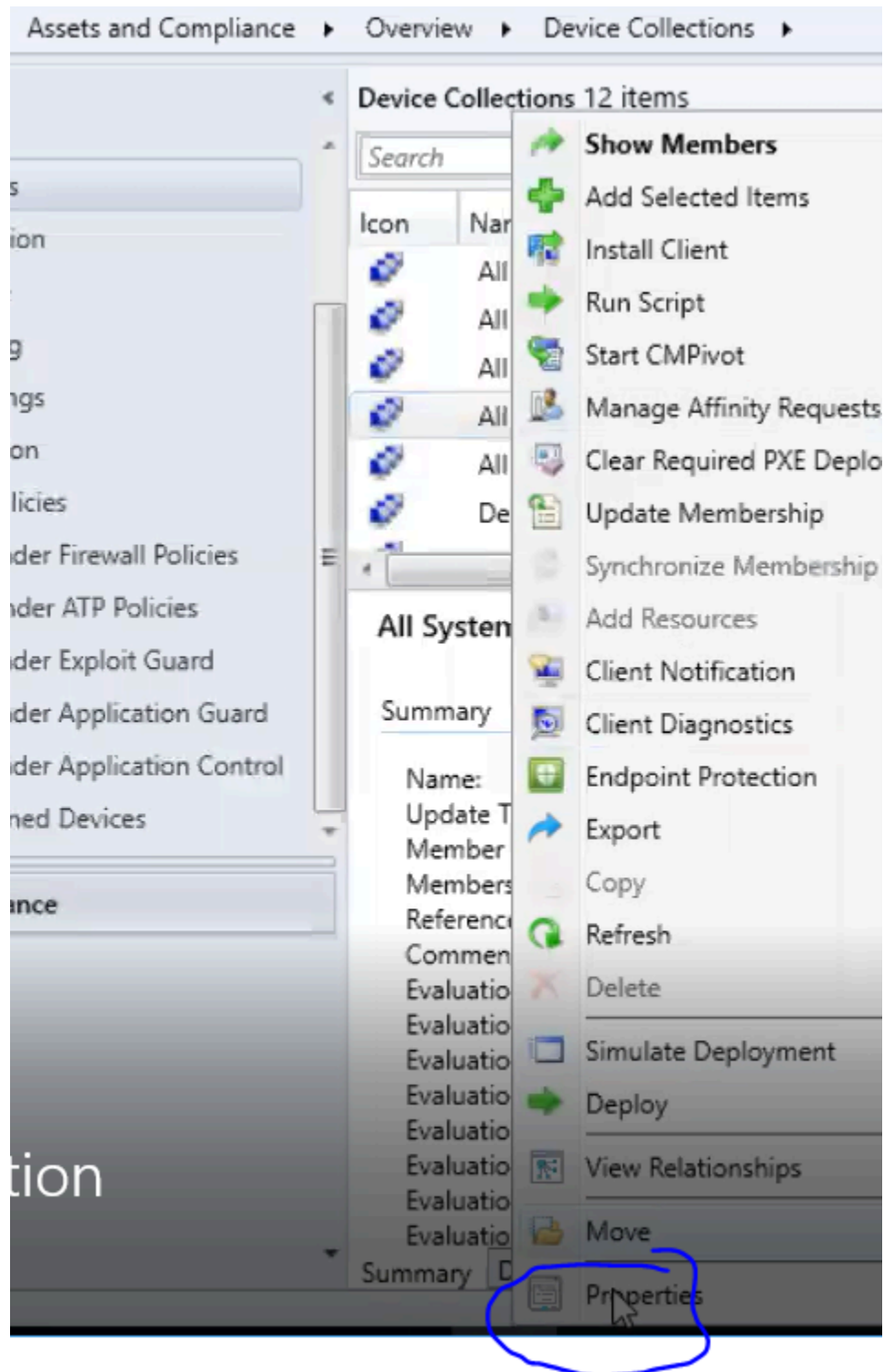
# Verifying Applied Policies on Client



```
End of search: 8 match(es) found.  
PS C:\Windows\system32> Reg Query hklm\software\microsoft\ccm\epagent\lastappliedpolicy /f 2 /d  
  
HKEY_LOCAL_MACHINE\software\microsoft\ccm\epagent\lastappliedpolicy  
Windows 10 Desktop (Scan Schedule) REG_DWORD 0x2  
Windows 10 Desktop (Threat Default Action) REG_DWORD 0x2  
Windows 10 Desktop (Excluded) REG_DWORD 0x2  
Default Client Antimalware Policy (Excluded) REG_DWORD 0x2  
Windows 10 Desktop (Realtime Config) REG_DWORD 0x2  
Windows 10 Desktop (Advance Setting) REG_DWORD 0x2  
Windows 10 Desktop (Spynet) REG_DWORD 0x2  
Windows 10 Desktop (Signature Update) REG_DWORD 0x2  
Windows 10 Desktop (Scan) REG_DWORD 0x2  
  
End of search: 9 match(es) found.  
PS C:\Windows\system32>
```



# Managing Alerts on All Systems



## Add New Collection Alerts

### Client status:

- ☒ Client check pass or no results for active clients falls below threshold (%)
- ☒ Client remediation success falls below the threshold (%)
- ☒ Client activity falls below threshold (%)

### Endpoint protection:

- ☒ Malware is detected
- ☒ The same type of malware is detected on a number of computers
- ☒ The same type of malware is repeatedly detected within the specified interval on a computer
- ☒ Multiple types of malware are detected on the same computer with the specified interval

### Membership:

- ☐ Member count exceeds threshold

OK

## All Systems Properties

General | Membership Rules | Power Management | Deployments | Maintenance Windows | Collection Variables | Distribution Point Groups | Cloud Sync | Security | Alerts

☐ View this collection in the Endpoint Protection dashboard

Configure the alert thresholds.

### Conditions:

Client check  
Client remediation  
Client activity  
Malware detection  
Malware outbreak

Add...

Remove

### Multiple malware detection definitions

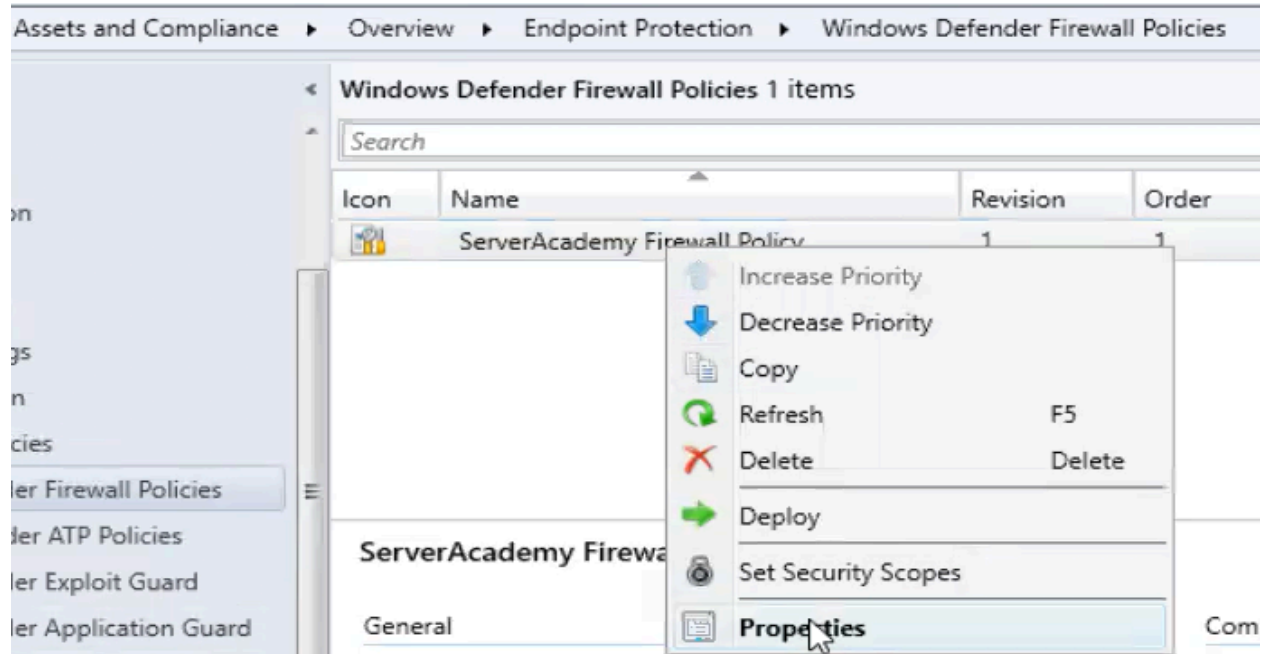
Alert Name: Multiple malware detection alert for collection: All Systems

Alert Severity: Critical

Number of malware types detected: 2

Interval for detection (hours): 1

# Reconfiguring Firewall Policy



### ServerAcademy Firewall Policy Properties

General | Profile Settings | Security

Windows Defender Firewall profile settings control incoming and outgoing network traffic on computers to which this policy is deployed. Configure Windows Defender Firewall settings for each network profile.

Enable Windows Defender Firewall:

Domain profile:	Yes
Private profile:	Yes
Public profile:	Yes

Block all incoming connections, including those in the list of allowed programs:

Domain profile:	Yes
Private profile:	Yes
Public profile:	Yes

Notify the user when Windows Defender Firewall blocks a new program:

Domain profile:	Yes
Private profile:	Yes
Public profile:	Yes

[illegible]

# SAW01 Client Machine Configuration

## Testing connection to gateway and Domain Controller

```
CA: Command Prompt
C:\Users\localuser>ping google.com
Ping request could not find host google.com. Please check the name and t

C:\Users\localuser>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\localuser>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:
Reply from 192.168.1.10: bytes=32 time<1ms TTL=128
Reply from 192.168.1.10: bytes=32 time<1ms TTL=128
Reply from 192.168.1.10: bytes=32 time<1ms TTL=128
Reply from 192.168.1.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Performing a Group Policy Update for any changes made in the group policy

```
C:\Users\localuser>gpupdate /force
Updating policy...

Computer Policy update has completed successfully.
```

## Verifying results of gpupdate

```
C:\Windows\system32>gpresult /r /scope computer

Microsoft (R) Windows (R) Operating System Group Policy Result tool v2.0
© 2020 Microsoft Corporation. All rights reserved.
```

### COMPUTER SETTINGS

```
-----

Last time Group Policy was applied: 3/8/2021 at 6:16:51 PM
Group Policy was applied from:      SADC01.ServerAcademy.com
Group Policy slow link threshold:   500 kbps
Domain Name:                        SERVERACADEMY
Domain Type:                        Windows 2008 or later
```

#### Applied Group Policy Objects

```
-----
Default Domain Policy
SCCM Client Firewall
```

```
The following GPOs were not applied because they were filtered out
```

```
-----
Local Group Policy
Filtering: Not Applied (Empty)
```

The computer is a part of the following security groups

---

BUILTIN\Administrators  
Everyone  
BUILTIN\Users  
NT AUTHORITY\NETWORK  
NT AUTHORITY\Authenticated Users  
This Organization  
SAW01\$  
Domain Computers  
Authentication authority asserted identity  
System Mandatory Level