

Active Discovery policies configuration

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Create a policy

An Active Discovery policy is a list of settings which define protocols and their parameters that will be used to scan the industrial network. The policy will be used in a preset and be applied on a list of sensors and components.

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Ø	Explore	₩ System	Â	tive Discovery policies	
Ð	Reports	目 Data Manageme 🗡	Fron	n this page you can manage the Active Discovery policies.	
Ħ	Events	🙏 Network Organizat			
	Monitor	Sensors		Name	Number of associated presets
م	Search			snmp V2c public	4
		Q Active Discovery ^		Broadcast PN	2
		- Policies		Broadcast S7	0
		糸 Users ~		Broadcast ICMPv6	1

Step 1 Navigate to **Admin** > **Active Discovery** > **Policies** .

Active Discovery policies

From this page you can manage the Active Discovery policies.

Name	Number of associated presets
	No Data
	+ Create policy

Step 2 Click + **Create policy**.

A Create an Active Discovery policy overlay appears.

cisco			Create an Active Discovery policy
Ø	₩ System	Active Disco	• Name:
F	目 Data Manageme 🗡	From this page you can m	Broadcast configuration
Ħ	م Network Organizat		EtherNet/IP
C	🗋 Sensors 🛛 🗸	Name	Profinet
۹	Q Active Discovery ^	enip_policy snmpv2_policy	SiemensS7
¢	 Policies 		
	冬 Users Y		
	⊲ Events		+ Add protocol-specific configuration

What to do next

- Set Active Discovery Broadcast, on page 3
- Set Active Discovery Unicast Ethernet/IP, on page 4
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Set Active Discovery Broadcast

Before you begin

Active Discovery is compatible with the following Broadcast protocols:

- EtherNet/IP
- Siemens S7
- Profinet
- ICMPv6

The sensor will send requests on all defined interfaces.

Step 1 Type a policy name.

Step 2 Toggle the Broadcast protocol buttons ON to enable Active Discovery on these protocols.

* Name: Broad	adcast_policy cast configuration let/IP et			
Broad	cast configuration Net/IP et ns57			
Ethern Profin	vet/IP et			
Profin	et nsS7			
Sieme	nsS7			
	16			
Unicas	st configuration			
+ Add proto	col-specific configuration			

Step 3 Click **Create** to finish or add Unicast configurations to the policy.

What to do next

Add an Active Discovery Unicast configuration:

• Set Active Discovery Unicast Ethernet/IP, on page 4.

- Set Active Discovery Unicast SNMPv2c, on page 5.
- Set Active Discovery Unicast SNMPv3, on page 7.

Configure Active Discovery on a preset.

Set Active Discovery Unicast Ethernet/IP

Set Active Discovery Unicast Ethernet/IP to scan all the devices and components in a preset with Ethernet/IP requests. All components with an IPV4 address will be scanned.

Step 1 Give the policy a name.

Step 2 Under Unicast configuration, click + Add protocol-specific configuration.

Create an Active Discovery policy
• Name: enip_policy
Broadcast configuration
EtherNet/IP
Profinet
SiemensS7
ICMPv6
Unicast configuration
+ Add protocol-specific configuration

Step 3 Click the Select protocol dropdown menu and select EtherNet/IP.

Unicast configuration	
Select protocol	~
EtherNet/IP	
SNMPv2c	
SNMPv3	

- **Step 4** Toggle the **Enable** button ON.
- **Step 5** Leave the Retry attempts and Timeout settings with the default values (0 and 5).
- **Step 6** You can toggle the **Backplane scanning** button ON. Active Discovery will look for PLCs and I/O chassis with module details.

EtherNet/IP		~
Enable		
 Retry attempts 0 	Timeout (in seconds)5	
Backplane scanning		
		Cancel Save
+ Add protocol-specific configuration		
		Cancel Cre

Step 7 Click Save.

The menu closes.

Step 8 Click Create.

What to do next

Add an Active Discovery Unicast configuration:

- Set Active Discovery Unicast SNMPv2c, on page 5.
- Set Active Discovery Unicast SNMPv3, on page 7.

Configure Active Discovery on a preset.

Set Active Discovery Unicast SNMPv2c

Set Active Discovery Unicast SNMPv2c to scan all the devices and components in a preset with SNMPv2c requests. All components with an IPV4 address will be scanned. Default OIDs are requested for all devices and some specific OIDs are requested based on the vendor and the type of components.

Step 1 Give the policy a name.

Step 2 Under Unicast configuration, click + Add protocol-specific configuration.

	Create an Active Discovery policy
C	* Name: snmpv2c_policy
а	Broadcast configuration
	EtherNet/IP
	Profinet
	SiemensS7
	ICMPv6
	Unicast configuration
	+ Add protocol-specific configuration

Step 3 Click the **Select protocol** dropdown menu and select **SNMPv2c**.

Unicast configuration		
Select protocol		\sim
EtherNet/IP		
SNMPv2c		
SNMPv3	SNMPv2c	

- **Step 4** Toggle the **Enable** button ON.
- **Step 5** Leave the Retry attempts and Timeout settings with the default values (0 and 5).
- **Step 6** Type a community string for authentication.

The community string is defined by IT or network administrators. The value "public" is often used by default.

Step 7 You can toggle the **Enable SNMPv1 fallback** button ON. Active Discovery will look for PLCs and I/O chassis with module details.

SNMPv2c		``
• Retry attempts	• Timeout (in seconds)	
* Community ⑦ public		
Enable SNMPv1 fallback		
	Cancel Sa	ve

Step 8 Click Save.

The menu closes.

Step 9 Click Create.

Refer to the Annex appended at the end of this document to see examples of Unicast SNMPv2c results and detailed information about packets.

What to do next

Add an Active Discovery Unicast configuration:

- Set Active Discovery Unicast Ethernet/IP, on page 4
- Set Active Discovery Unicast SNMPv3, on page 7.

Configure Active Discovery on a preset.

Set Active Discovery Unicast SNMPv3

Set Active Discovery Unicast SNMPv3 to scan all the devices and components in a preset with SNMPv3 requests. All components with an IPV4 address will be scanned. Default OIDs are requested for all devices and some specific OIDs are requested based on the vendor and the type of components.

Step 1 Give the policy a name.

Step 2 Under Unicast configuration, click + Add protocol-specific configuration.

	Create an Active Discovery policy
С	*Name: snmpv3_policy
а	Broadcast configuration
	EtherNet/IP
	Profinet
	SiemensS7
	ICMPv6
	Unicast configuration
L	+ Add protocol-specific configuration

Step 3 Click the Select protocol dropdown menu and select SNMPv3.

	Unicast configuration		
	Select protocol	\sim	
	EtherNet/IP		
	SNMPv2c		
	SNMPv3		
	SNMPv3		

- **Step 4** Toggle the **Enable** button ON.
- **Step 5** Leave the Retry attempts and Timeout settings with the default values (0 and 5).
- **Step 6** Type a community string for authentication.

The community string is defined by IT or network administrators. The value "public" is often used by default.

Step 7 Select the proper security and privary level based on the information provided by the IT or network administrators.

All options available on SNMPv3 are implemented in Cisco Cyber Vision. Three security levels are available:

• Disable both authentication and privacy.

Only a username is requested for authentication.

* Security type	
Enable authentication and disable privacy	\sim
Disable both authentication and privacy	
Enable authentication and disable privacy flm	
Enable both authentication and privacy	

· Enable authentication and disable privacy.

Authentication will be based on HMAC-MD5 or HMAC-SHA algorithms.

Select the algorithm to use and provide a username and an authentication password.

* Authentication type	
sha256	\sim
md5	
sha	
sha224	
sha256	
sha384	
sha512	

• Enable both authentication and privacy.

In addition to the previous level, a DES or AES encryption of the content is requested. Select the level of encryption to use and provide a username and an authentication password. In addition, you must provide a password used for the encryption.

* Privacy type	
des	\vee
nopriv	
des	
aes	Ռո
aes192	aes
aes256	
aes192c	
aes256c	

Х

Step 8 Click Save.

Create an Active Discovery policy

ame: SNMPV3_policy		
Broadcast configuration		
EtherNet/IP		
Profinet		
Sigmons S7		
Selfens/		
ICMPv6		
Unicast configuration		
NMPv3		\vee
0 Jser-based security model configuration * Security type	5	
Enable both authentication and privacy		\sim
Username		
admin		
* Authentication type	* Authentication password	
sha256 V	•••••	Ø
* Privacy type	* Privacy password	
aes256 V	•••••	Ø
		Cancel Save

The menu closes.

Step 9 Click Create.

Refer to the Annex appended at the end of this document to see examples of Unicast SNMPv3 results and detailed information about packets.

What to do next

Add an Active Discovery Unicast configuration:

Set Active Discovery Unicast Ethernet/IP, on page 4

• Set Active Discovery Unicast SNMPv2c, on page 5.

Configure Active Discovery on a preset.

Modify a policy

Step 1

Navigate to Admin > Active Discovery > Policies.

Step 2 Click the policy in the list you want to modify.

cisco	CYBER VISION					
Ø	Explore	₩ System		Ac	ctive Discovery policies	
Ē	Reports	🗐 Data Management	~	Fror	n this page you can manage the Active Discovery polici	ies.
	Events	್ಲಿ Network Organizati	ion			
C	Monitor	. Sensors	~		Name	Number of associated presets
Q	Search	a Antiur Discourse			enip_policy	0
~	A day in	Q Active Discovery	^		snmpv2_policy	0
\$	Admin	— Policies			snmpv3_policy	0
		冬 Users	~		ICMPv6_policy	1

An overlay appears with the policy's configurations.

•	enip_policy	\times
- [∠ Edit Duplicate Delete	
	Broadcast configurations	
	√ EtherNet/IP	
	× Profinet	
	× SiemensS7	
	X ICMPv6	
	Unicast configuration	
	> EtherNet/IP - Enabled	
	> SNMPv2c-Enabled	
	> SNMPv3 - Enabled	
	Associated presets	

Step 3 Click Edit, Duplicate or Delete.

If you clicked **Edit**, an Edit policy overlay appears.

Edit policy	×
Name: enip_policy	
Broadcast configuration	
EtherNet/IP	
Profinet	
SiemensS7	
ICMPv6	
Unicast configuration	
> EtherNet/IP - Enabled	_ □
> SNMPv2c - Enabled	_ □
> SNMPv3 - Enabled	_ Ū
+ Add protocol-specific configuration	
	Cancel Update

Step 4 You can toggle the buttons ON/OFF to enable/disable broadcast protocols.

Step 5 Click the pencil button to edit Unicast protocols settings.



The Unicast configuration panels appears below the list of Unicast protocols.

Enable		
* Retry attempts	 Timeout (in seconds) 5 	
Backplane scanning		
		Cancel Save

- **Step 6** Make the necessary modifications.
- Step 7 Click Save.

The overlay closes.

Step 8 Click Update.