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Release Notes for Cisco Cyber Vision Release 4.1.0

For users upgrading to 4.1.0 from previous versions, please carefully read the Cisco Cyber Vision 4.1.0 update procedure.

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Compatible device list

Center	Description
VMware ESXi OVA center	VMware ESXi 6.x or later
Windows Server Hyper-V VHDX Center	Microsoft Windows Server Hyper-V version 2016 or later
Cisco UCS C220 M5 CV-CNTR-M5S5	Cyber Vision Center hardware appliance (Cisco UCS [®] C220 M5 Rack Server) - 16 core CPU, 64 GB RAM, 800GB drives
Cisco UCS C220 M5 CV-CNTR-M5S3	Cyber Vision Center hardware appliance (Cisco UCS [®] C220 M5 Rack Server) - 12 core CPU, 32 GB RAM, 480GB drives
Sentryo CENTER10	Sentryo CENTER10 hardware appliance
Sentryo CENTER30	Sentryo CENTER30 hardware appliance
Sensor	Description
Cisco IC3000	Cyber Vision Sensor hardware appliance
Cisco Catalyst IE3400	Cyber Vision Sensor IOx application hosted in Cisco Catalyst IE3400 Industrial Ethernet switches
Cisco Catalyst IE3300 10G	Cyber Vision Sensor IOx application hosted in Cisco Catalyst IE3300 Industrial Ethernet switches with 10G ports
Cisco IR1101	Cyber Vision Sensor IOx application hosted in Cisco IR1101 Series Industrial Integrated Services Routers
Cisco Catalyst IR8300	Cyber Vision Sensor IOx application hosted in Cisco Catalyst IR8300 Rugged Series Routers
Cisco Catalyst 9300, 9400	Cyber Vision Sensor IOx application hosted in Catalyst 9300, 9400 Series switches
Sentryo SENSOR3	Sentryo SENSOR3 hardware appliance
Sentryo SENSOR5	Sentryo SENSOR5 hardware appliance
Sentryo SENSOR7	Sentryo SENSOR7 hardware appliance

Cisco Cyber Vision 4.1.0 update procedure

Cisco Cyber Vision 4.1.0 update procedure will depend on the architecture deployed and the tool used to deploy it.

If you are currently running a version earlier than Cisco Cyber Vision 4.0.0, you must first upgrade to 4.0.0 prior upgrading to Cyber Vision 4.1.0. Versions 4.0.0, 4.0.1 and 4.0.2 and 4.0.3 can be updated to 4.1.0.

Upgrade Path to	Cisco Cyber	Vision 4.1.0
-----------------	--------------------	--------------

Current Software Release	Upgrade Path to Release 4.1.0
If version prior to 3.2.4	Upgrade first to 3.2.4 then to 4.0.0 and finally to 4.1.0
Version 3.2.4	Upgrade first to 4.0.0 then to 4.1.0
Version 4.0.0 to 4.0.3	You can upgrade directly to Release 4.1.0

Data purge

The Center database in 4.0.0, 4.0.1, 4.0.2 or 4.0.3 will be migrated to the new 4.1.0 schema. All components, activities, flows, events, etc. will be migrated.

The new data retention policies introduced in 4.0.0 are still valid in 4.1.0. Once migrated, the following expiration settings will be applied, and the system will run the purge process unless the configuration is modified within 2 days:

- Events after 6 months.
- Flows after 6 months.
- Variables after 2 years.

Center updates

Architecture with Global Center

<u>Preliminary checks</u>: it is highly recommended to check the health of all Centers connected to the Global Center and of the Global Center itself before proceeding to the update.

To do this check, it is recommended to use an SSH connection to the center and to type the following command:

systemctl --failed

The number of listed sbs-* units should be 0, otherwise the failure needs to be fixed before the update.

Cisco Cyber Vision system check - 0 failure

<pre>root@Center21:~# systemctl</pre>	failed							
0 loaded units listed.								
root@Center21:~#								

Rational: all sbs services need to run in a normal state before the update. If one of them is listed as failed it has to be fixed before the upgrade.

Cisco Cyber Vision system check - example of failure



Rebooting of the center most often solves the issue. If not please contact the support.

In the case of a distributed architecture, the following steps need to be followed:

- 1. Update the Global Center:
 - a. Either using the graphical user interface:
 - File= CiscoCyberVision-update-combined-4.1.0.dat
 - Navigate to Admin > System and use the System Update button and browse and select the update file.
 - b. Or using the command line interface (CLI):
 - File= CiscoCyberVision-update-center-4.1.0.dat
 - Launch the update with the following command:

sbs-update install /data/tmp/CiscoCyberVision-update-center-4.1.0.dat

- 2. Update the Centers connected to the Global Center with the same procedure used for the Global Center (user interface or CLI)
- 3. Update the sensors, from their corresponding Center (not from the Global Center):
 - a. Hardware sensors:
 - i. If you used the combined file to update the Center which owns the sensor, and the SSH connection from the Center to the Sensor is allowed, the hardware sensors (IC3000 and Sentryo SENSOR's) were updated at the same time.
 - ii. If IC3000 sensor was deployed using the "Sensor management extension", it can be upgraded by "redeploying it"
 - iii. If not, the update needs to be done from the Command Line (CLI):
 - File= CiscoCyberVision-update-sensor-4.1.0.dat
 - Launch the update with the following command:

sbs-update install /data/tmp/CiscoCyberVision-update-sensor-4.1.0.dat

You may check the sensor version on the Administration / Sensor page, to make sure that the version is 4.1.

Note: Cisco Cyber Vision Sensor application should not be updated from the IC3000 Local manager because the configuration will be lost. In case this is done, the sensor enrollment package needs to be deployed again.

- b. IOx sensors:
 - i. If you have installed the sensor with the sensor management extension, the upgrade of the extension will also update all sensors reachable from the Center.
 - File = CiscoCyberVision-sensor-management-4.1.0.ext
 - Navigate to Admin > Extensions. In the Actions column, use the update button and browse to select the update file.
 - Cyber Vision sensor management extension could also be updated from the CLI with the command:

sbs-extension upgrade /data/tmp/CiscoCyberVision-sensor-management-4.1.0.ext

- ii. If a sensor was not updated by the extension update, access the sensor administration page, and use the UPDATE CISCO DEVICES button or the redeploy button to update the remaining IOx sensors connected to the Center.
- iii. If you have not installed the sensor with the sensor management extension, the upgrade of the sensor can be performed with the sensor package from the platform Local Manager or from the platform Command Line. This procedure is described in the corresponding sensors installation guides.
 - IE3x00 and IR11101 files = CiscoCyberVision-IOx-aarch64-4.1.0.tar or CiscoCyberVision-IOx-Active-Discovery-aarch64--4.1.0.tar
 - Catalyst 9300 and 9400 files = CiscoCyberVision-IOx-x86-64-4.1.0.tar or CiscoCyberVision-IOx-Active-Discovery-x86-64-4.1.0.tar.

Architecture with one Center

In the case of a single Center, the following steps need to be followed:

- 1. Update the Center:
 - a. Either using the graphical user interface:
 - File= CiscoCyberVision-update-combined-4.1.0.dat
 - Navigate to Admin > System, use the System Update button, and browse and select the update file.
 - b. Or using the command line interface (CLI):
 - File= CiscoCyberVision-update-center-4.1.0.dat
 - Launch the update with the following command:

sbs-update install /data/tmp/CiscoCyberVision-update-center-4.1.0.dat

- 2. Update the sensors:
 - a. Hardware sensors:
 - i. If you used the combined file to update the Center which owned the sensor and the SSH connection from the Center to the Sensor is allowed, the hardware sensors (IC3000 and Sentryo SENSOR's) were updated at the same time.
 - ii. If IC3000 sensor was deployed using the "Sensor management extension", it can be upgraded by "redeploying it"
 - iii. If not, the update needs to be done from the command line interface (CLI):
 - File= CiscoCyberVision-update-sensor-4.1.0.dat
 - Launch the update with the following command:

sbs-update install /data/tmp/CiscoCyberVision-update-sensor-4.1.0.dat

- b. IOx sensors:
 - i. If you have installed the sensor with the sensor management extension, the upgrade of the extension will also update all reachable sensors.
 - File = CiscoCyberVision-sensor-management-4.1.0.ext
 - Navigate to Admin > Extensions. In the Actions column, use the update button and browse to select the update file.

Cyber Vision sensor management extension could also be updated from the CLI with the command:

sbs-extension upgrade /data/tmp/CiscoCyberVision-sensor-management-4.1.0.ext

- ii. If a sensor was not updated by the extension update, access the sensor administration page, and use the UPDATE CISCO DEVICES button or the redeploy button to update the remaining IOx sensors connected to the Center.
- iii. If you have not installed the sensor with the sensor management extension, the upgrade of the sensor can be performed with the sensor package from the platform Local Manager or from the platform Command Line. This procedure is described in the corresponding sensors installation guides.
 - IE3x00 and IR1101 files = CiscoCyberVision-IOx-aarch64-4.1.0.tar or CiscoCyberVision-IOx-Active-Discovery-aarch64--4.1.0.tar
 - Catalyst 9300 and 9400 files = CiscoCyberVision-IOx-x86-64-4.1.0.tar or CiscoCyberVision-IOx-Active-Discovery-x86-64-4.1.0.tar.

AWS Center

In case of a center deployed in AWS, the same procedure as "One center" above has to be followed.

Cisco Cyber Vision 4.1.0 important changes

Command line access

A major change regarding the Center command line (CLI) access through serial console or SSH was made. The user root is no more usable to establish the connection. A new user called 'cv-admin' must be used. This user has limited rights and many CLI commands will required permission elevation:

- prefix the command with "sudo".
- or open a root shell using "sudo -i" and enter the command.

Communication port and protocol changes

Port

A new port is used if the LDAP external authentication is configured over TLS/SSL. In this case the port TCP 636 is used instead of the port 389, from the Center admin interface to the Active Directory server.

SecureX

Cyber Vision 4.1 is now integrated with SecureX. For that integration to work, it is required to allow the connection between both the Client (web browser) and the Center admin interface to

https://securex.<region>.security.cisco.com. <region> may either be empty for North America or "eu" for Europe or "apjc" for Asia.

SNMP agent

It is possible to activate an SNMP agent on Cyber Vision centers. Access to UDP port 161 from the client to the center admin interface is required to allow access to the SNMP agent and retrieve indicators.

Active discovery

4.1 allows to configure unicast active discovery for SNMP and Rockwell CIP protocols. Connections are established from sensors where dedicated IP addresses are set in each of the subnets where devices are polled. As connections are direct (same LAN) no additional route or firewall rule is needed, but connections from the sensor to devices using TCP port 44818 (Rockwell) and UDP or TCP port 161 (SNMP) will be made.

Hardware sensor management (IC3000)

SSH is no more required for normal operation. Still used for sensor software upgrade, but upgrades can also be performed by redeploying the sensor.

Release Notes for Cisco Cyber Vision Release 4.1.0

Protocol

No modification in 4.1.0.

API

No modification in 4.1.0.

SYSLOG

No modification in 4.1.0.

Cisco Cyber Vision new features and improvements

Sensor explorer

The old Cisco Cyber Vision Sensors page was redesigned and improved. A new Sensor Explorer page is now available in the administration menu of Cisco Cyber Vision:

uludu cisco												
Ø	₩ System	Sensor Explorer										
£	目 Data Manageme 🗡											
Ë	& Network Organizat	From this page, you can explore authorize it so the Center can r	From this page, you can explore and manage sensors and sensors folders. Sensors can be remotely and securely rebooted, : authorize it so the Center can receive its data.									
¢	Sensors ^	🕂 Install sensor ျိပ္ပို Mar	nage Cisco devices 🛛 📙 Organize									
۹	 Sensor Explorer 	Folders and sensors (8)									
ø	 Management jobs 		Meus selection to Meus Anti-									
	— PCAP Upload	Filter U Selected	Move selection to More Actions Y									
	t@ Active Discovery ∼	Label	IP Address Version	Location Health status 🕠 🍷								
	糸 Users ~	Rockwell	3.2.4 - 4.1.0	Disconnected								
		Siemens	4.1.0 - 4.1.0	Disconnected								
	s [⊄] API ~		4.1.0+202202251422	Connected								
	₩ License	🗌 🗁 Grid	4.1.0+202202251430	Connected								
	灸 External Authen ~	🗌 🖨 <u>Mitsubishi</u>	4.1.0 - 4.1.0	Connected								
	⊙ Snort	Schneider	4.1.0+202202251430	Connected								
	Risk score	Switches	4.1.0 - 4.1.0	Connected								
	≪ Integrations ∨	🗌 🕒 Toyoda	4.1.0+202202251422	Connected								

Cisco Cyber Vision new Sensor Explorer menu

This new design will improve sensor management, especially when there are many. The new folder feature will allow you to organize sets of sensors and make navigation between groups and bulk actions easier. Sensor's health is also easier to check.

Sensor action buttons and related information were moved to an overlay window which appears on the right side of the screen as you click a sensor in the list:

Folder	s and sensors (8)							-	
7 Filter	O Selected Move selection 1 Label IP Address Rockwell Siemens	Version 4.1.0 - 4.1.0	×	- Fuelence		7	_	Label: IE3400 ROCK PLC Serial Number: FOC2401V07N IP address: 192.168.0.161 Version: 4.1.0+202202251430 System date: Mar 14, 2022.702 Deployment: Sensor Manageme Active Discovery: Scanning Capture mode:	1:06 PM ent Extension
	E GE	4.1.0+202202251	Senso	of Explored				not port 2222	
	See See	4.1.0+202202251	Rockw Cedit Folders	ell Delete s and sensors (3) O Selected Move:	selection to More A	ctions ∽		Status: Connected Processing status: Pending data Uptime: 13 days Co to statistics	Ei
				Label	IP Address	Version	Health status 🕑 🍷	Last recording: Jan 17, 2022	4:02:17 PM
				IR1101 ROCKWELL	169.254.0.2	3.2.4+20210611 109	Disconnected		
				E IE3400 ROCK IO	192.168.0.163	4.1.0+20220225 30	Connected	🖻 Move to	
				IE3400 ROCK PLC	192.168.0.161	4.1.0+202202251430	Connected	🔦 Capture mode	Redeploy

Cisco Cyber Vision new Sensor Explorer menu – sensor details

You can perform several bulk actions on the sensors, such as:

- Filter sensors on the sensors list
- Move sensors into folders
- Delete folders
- Reboot/Shutdown sensors on a selected folder

For example, a new menu will allow you to filter folders and sensors:

		Cisco Cy	ber ۱	Vision	new	Sensor	Explorer	menu –	filters
--	--	----------	-------	--------	-----	--------	----------	--------	---------

Filter 0 Selected	Move selection to	
Label		
IP Address		
Version		
Location		
Health status	~	
Cancel	Apply	

The user interface to install or redeploy a sensor was redesigned to guide you through the sequence of steps:

Cisco Cyber Vision new Sensor Explorer menu – New setup screens

	,
IP address"	Port"
	For example 443 or 8443
Center collection IP	
leave blank to use current co	llection IP
Credentials	
Se giobal ci edentiais	
Capture mode	
 Optimal (default): analyze the m 	nost relevant flows
All: analyze all the flows	
Industrial only: analyze industrial	rial flows
0	

Custom User Roles

In addition to the four historical predefined roles (Admin, Auditor, Operator and Product), this new feature will allow you to easily create custom user roles.

These can be managed in the new Role Management administration page. You just need to create a new role by duplicating and modifying existing roles and setting read/write accesses to distinct parts of Cisco Cyber Vision. Roles can then be assigned to a Cisco Cyber Vision user.

Note: The minimum default access is read-only for the Explore page.

Ø	₩ System	Role management													
Ð	目 Data Manageme 🗡	From this page, you can create Cisco Cyber Vision user roles, edit and delete them.													
Ħ	& Network Organizat	ADMIN_ESCALATION NEWCCVGROUP A ADMIN A AUDITOR A OPERATOR A PRODUCT + NewCCVGroup ∠ 1									+				
C	🗋 Sensors 🗸 🗸														
ପ୍ ଜ	tQ Active Discovery ∨	demo 🖉													
	糸 Users へ	Administrative Rights (i)	read	write					read	write					
	 Management 	Active Discovery	\Box	\Box		AF	PI		\Box						
	 Role Management 	Center Certificate	\Box			Da	ata Managem	ient	\Box						
	Conveitu sottingo	Events	\checkmark	\Box		Ev	ents Setting	5	\Box						
	 Security settings 	Explore	\checkmark			Extensions			\Box						
	⊲ Events	External Authentication	\checkmark			Int	tegrations		\Box						
	S ADI	License		\checkmark		M	onitor		\checkmark						
		Network Organization				Re	eports		\checkmark						
	🛱 License	Risk Score				Se	ecure X								
		Security Settings				Se	ensors								
	ℜ External Authen Υ	SNMP				Sn	ort								
	⊙ Snort	System				Us	ser Admin								
	② Risk score	Vulnerability Management													
>	∝® Integrations ∨										Save				

Cisco Cyber Vision Custom User Roles

External Authentication - Secure LDAP

The existing LDAP feature to use an external user directory was improved. It is now possible to secure the connection with an LDAP server using TLS certificates.

Four different versions of Active Directory are supported: Windows Server 2012, 2016, 2019 and 2022.

Redundant LDAP servers are also supported by Cisco Cyber Vision.

In addition, custom and default roles can be mapped to groups in Active Directory.

Cisco Cyber Vision LDAP connection

	EDIT LDAP SETTINGS						
Settings	Role Mapping						
🗸 LDAP ove	r TLS/SSL	Use self signed certificate					
* Primary Ser	ver Address	* Primary Server Port					
SRV-AD-LA	BCCV.lab-autom-ccv.l	636					
Secondary Se	rver Address	Secondary Server Port					
		636					
* Base DN 🕕							
ou=TESTCC	V,dc=lab-autom-ccv,dc=	=local					
* Server Resp	onse Time 🕕						
10							
* CA Trust Ch	ain						
	1	<u>_</u>					
	Choose a file or drag	g and drop to upload					
Accepted files: .pem							
		ОК Са	ancel				

Center web server certificate

In addition to the historical auto-signed certificate, Cyber Vision Center web server now gives the possibility to use an enterprise certificate. A new Center certificate page is available in Cisco Cyber Vision's administration menu from where you can upload a .p12 file or generate a CSR to generate and import a complete PEM bundle (concatenated CA, subCA, certificate).

谢 System	Center web server certificate
🗄 Data Management	•
å Network Organizatio	From this page, you can check your current web server certificate basic information and replace it with a new one. This certificate is also relevant for the API.
. Sensors	Fingerprint: 65ebcf80c2c3973e4c9d34b68e5cdb1f0a184119bc4f9bf5efd32c44708e57db
Q Active Discovery	Subject Name: Center 102
冬 Users	Alternates Names: Center102 * Expires: Mon Apr 29 2024 19:02:01 GMT+0200
⊲ Events	Update with a new web server certificate:
a ^o API	 Upload a .p12 Generate a CSR (RSA 2048)
꾜 License	Password of the certificate (optional)
& External Authentic	·
⊙ Snort	Please import a PKCS#12 file
② Risk score	
% Integrations	Choose a file or drag and drop to upload
器 Extensions	
Center certificate	ි Save

Cisco Cyber Vision LDAP connection

Brownfield Global Center migration

The synchronization between Centers and a Global Center was completely redesigned in Cisco Cyber Vision 4.1.0. The new software architecture significantly improves:

- Data synchronization
- Connection of a synchronized Center to a Global Center without data loss
- Center enrollment/unenrollment
- Performances and robustness

Cisco Cyber Vision Global Center System management

System management									
From this page you can manage centers and sensors.									
🖹 R	egister a Center			Fingerprint: b23	88559590a410c66a59082d93446	51669a53ca012b636e6f937	7233931592563c 🗓		
	Center Name	IP	Version	Enrollment status	Up time	Connectivity Status	Action		
+	Center 159	10.2.3.159	SBS: 4.1.0+202202021811 KDB: 20220202	Synchronization delay sec	y: 1 24 days 9 hrs 15 mins 3 secs	Connected	Unenroll		
+	Center 160b	10.2.3.160	SBS: 4.1.0+202202021811 KDB: 20220202	Synchronization delay sec	y: 1 24 days 9 hrs 14 mins 55 secs	Connected	Unenroll		
+	Center 161	10.2.3.161	SBS: 4.1.0+202202021811 KDB: 20220202	Enrolled	24 days 7 hrs 43 mins 29 secs	Connected	Unenroll		

Cyber Vision Center SNMP monitoring

SNMP can now be used for remote monitoring of Cisco Cyber Vision Centers.

Cisco Cyber Vision version 4.1.0 supports:

- SNMP v2c with a community for authentication
- SNMP V3 with a username for authentication (NoAuthNoPriv)
- SNMP V3 with a username and password for authentication (AuthNoPriv)
- SNMP V3 with a username and password for authentication and encryption (AuthPriv).

A new SNMP page in the admin menu will allow you to enable monitoring and add required settings:

Cisco Cyber Vision center SNMP settings

₩ System	SNMP Global Configuration									
🗐 Data Management 🛛 🗡		Ũ								
& Network Organization	SNMP protocol allows remote monitoring of network and equipment.									
🗋 Sensors 🛛 🗸	I his page allows you to configure the configuration used by the SNMP agents on this center and on connected sensors. Note that changing the configuration on this page does not automatically replace the configuration used on sensors.									
ⓐ Active Discovery ∨	šNMP agent									
糸 Users ~	Configuration									
⊲ Events	Monitoring hosts (IPv4):	10.2.2.156								
rể API ∽	Version:	● 3 ○ 2c								
및 License	Security type:	Auth \vee	Priv V							
条 External Authentic、 >	Username:	ics								
⊙ Snort	A			<i>a</i> .						
② Risk score	Autnentication:	SHA V	•••••	w.						
≪ Integrations ∨	Privacy:	AES 🗸	•••••	Ø						
器 Extensions	Tana									
Center certificate	Irap									
,⊘ SNMP					∩ Cancel	Save Configuration				

In addition to SNMP monitoring, enabling traps will let Cisco Cyber Vision send unrequested messages to the SNMP manager. Traps can be activated for CPU or Memory consumptions and rates and thresholds can be customized.

Ci	isco Cyber Visio	n center SNMP trap set	ttings
Trap 🔵			
Engine ID:			
V Type: CPU	Rate: 5s	Threshold: 80%	
V Type: RAM	Rate: 5s	Threshold: 80%	

Cyber Vision Unicast Active Discovering

Introduction

Cisco Cyber Vision Sensors can now send unicast messages to devices. Available unicast discovery protocols are SNMP and Ethernet/IP (ENIP). This feature will offer better visibility when broadcast discovery is limited by network architecture or sensor placement, it enables advanced discovery inquiries such as backplane configurations.

Unicast Active Discovery packets will only work on LAN and cannot be routed: for each subnet to be "discovered" a dedicated IP must be provisioned and will be activated on a sensor with Active Discovery feature enabled.

The unicast Active Discovery configuration is more complex than the Broadcast one. It consists of the following steps:

- 1. Configure the sensor
 - a. Add the necessary interfaces to join the network
 - b. Deploy the Active Discovery sensor application
- 2. Define Active Discovery Policies

A policy is used by a preset to define the list of broadcast and unicast protocols used by selected sensors. Policies also list different protocol parameters.

3. Associate a policy to a preset

Active Discovery will use preset definition to run. The sensors selected in the preset filters will be used as scanner. The list of components with an IPv4 will be used by the scanner as the list of devices to scan.

In the preset settings, the scanning schedule will also be defined.

Policies

New Active Discovery Policies will give you full control of how Active Discovery is performed:

- Protocol to use for broadcast and unicast discovery
- Protocol parameters

A new Policies page is available in the Cisco Cyber Vision administration menu to manage and configure Active Discovery policies.

cisco			<u>⊢</u> 8 ·
Ø	System	Active Discovery policies	S
£	🗄 Data Management 🗡	From this page you can manage the Active Discov	very policies.
Ħ	🙏 Network Organizati		
C	. Sensors 🗸 🗸	Name	Number of associated presets
م		All Broadcast + snmp	4
<u>_</u>	🔞 Active Discovery \land	CAT9300	0
- CS	 Policies 	IC3000 Slemens old	0
	糸 Users ~	ROCKWELL_ActivDisc	1
	4.5.1	Rockwell	0
	S Events	SIEMENS_ActiveDisc	0
	ø API ∽	Siemens	1
	🗑 License	rockwell_Sensors	1
	条 External Authent ゞ		< 1 >
	⊙ Snort		+ Create policy
	@ Dick score		

Cisco Cyber Vision Policies Management

Preset settings

Additional parameters were added in the Active Discovery preset settings:

- Policies need to be associated to Cyber Vision Presets. Active Discovery cannot run by error: users must select a policy.
- Ability to run once or schedule regular discovery to keep inventory up to date.

Cisco Cyber Vision Active Discovery Preset Settings

	ACTIVE DISCOVERY SETTINGS						
	Active Discovery policies						
	Name	Enabled broadcast protocols	Configured unicast protocols				
	All Broadcast + snmp	EtherNet/IP, SiemensS7, Profinet	SNMPv2c				
	CAT9300	EtherNet/IP, SiemensS7, Profinet, ICMPv6	None				
	IC3000 Slemens old	SiemensS7, Profinet	None				
۲	ROCKWELL_ActivDisc	EtherNet/IP	EtherNet/IP				
	Rockwell	EtherNet/IP, SiemensS7, Profinet	None				
	SIEMENS_ActiveDisc	SiemensS7, Profinet	None				
	Siemens	EtherNet/IP, SiemensS7, Profinet	None				
	rockwell_Sensors	EtherNet/IP, ICMPv6	None				
Dar M	Schedule broadcast mode	Days M T W T F Time 11:00	< 1 t mode	>			
		Cancel	Save Save and run one	e			

SNMP Policies

SNMP settings available for Active Discovery give the user the ability to choose the version of SNMP to use and the level of authentication and encryption.

Version	Level	Authentication	Encryption
SNMPv1 optional	noAuthNoPriv	Community String	
(Fallback when v2c failed)			
SNMPv2c	noAuthNoPriv	Community String	
SNMPv3	noAuthNoPriv	Username	
SNMPv3	AuthNoPriv	MD5 or SHA	
SNMPv3	AuthPriv	MD5 or SHA	AES or DES

Cisco Cyber Vision Active Discovery SNMP Settings

Enable		
Retry attempts	* Timeout (in seconds)	
0	5	
Jser-based security model configuration		
Security type		
Enable both authentication and privacy		
'Username 'Authentication type	* Authentication password	
Username Authentication type Select authentication type	*Authentication password	
Username Authentication type Select authentication type Privacy type	* Authentication password	
Username Authentication type Select authentication type Privacy type Select privacy type	*Authentication password	
* Username * Authentication type Select authentication type * Privacy type Select privacy type	*Authentication password	

Ethernet/IP unicast policies

Ethernet/IP settings let the user choose whether the backplane is monitored or not. If this option is selected, the scanner will scan all chassis slots:

Cisco Cyber Vision Active Discovery Ethernet/IP Settings

Unicast configuration				101
EtherNet/IP		~		
Enable			Alten-Bradley	
* Retry attempts	* Timeout (in seconds)			
0	5			
Backplane scanning				Backplane scan
		Cancel Save		Buokplane court
			Sensor (Ethe	ernet/IP)
			Unicast Active	Discovery

Cyber Vision SecureX Ribbon integration

Cisco SecureX Ribbon is now available in Cisco Cyber Vision. It gives a unified visibility and accelerates incident response using Cisco Cyber Vision observables.

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⌀ ⊐ ֎֎֎∠ם☆	Last 2	vears (Feb 29, 2020 10:15:1	0 AM — Feb 28, 2022	10:15:10 AM) 🖉 Refr	resh			
OO-all.pcap My preset	16[Devices and 25 oth	ner componer	nts 🔍 New data				
Active baseline: No active baseline Active Discovery: Off		Device 🗘 👻	Group	First activity 0	Last activity \$			
Criteria Selectall Rejectall Default	0	E STATION	-	Feb 28, 2022 10:12:53 AM	Feb 28, 2022 10:12:53 AM			
Search criteria Q	0	Square 192.168.105.71		Feb 28, 2022 10:12:57 AM	Feb 28, 2022 Cisco SECUR	tE 🗙 🗰 Home		🐥 🏭 🖻 🖻 🤇 Enrich 🗔 🌣 👁 —
© RISK SCORE ✓	0	Siemens 1b:e8:8f		Feb 28, 2022 10:12:52 AM	Feb 28, 2022 AM	Ribbon	Applications SecureX	Launch Walld Boudaa
DEVICE TAGS	0	E Siemens 192.168.105.75		Feb 28, 2022 10:12:52 AM	Feb 28, 2022 AM	book Incidents Orbital	Security Services Exchange	Launch wboudaa+platform@coisco.com admin Launch & CCV Logged in with SecureX Sign-On
Device - Level 0-1 Optice - Level 0	0	E Slemens 192.168.105.150		Feb 28, 2022 10:12:52 AM	Feb 27 JOZZ AM	Notifications Center Settings	Threat Response	Launch
O Vetwork analysis	× <		>	< 🏭 🌲 = 🛱 +	2			
							@ 2021 Cisco and/or its affiliates. Al	i rights reserved.

Cisco Cyber Vision SecureX Ribbon

SecureX Ribbon gives access to the Casebook to simplify and streamline your investigative processes for security incidents.

Cisco Cyber Vision SecureX Casebook

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Q Search ↑↓ ✓ + ⊬	Operational_ConfigurationChange			Investigate in Threat Response Link	to Incident \vee 🛛 🛓 🦷
✓ Owned By Me 2	Overview K-	✓ Observables (2)	0 ≁ 0 @ 0 © 2 🛈 ⊱	Notes	/
Operational_ConfigurationChange	Details	Enter logs, IPs, domains, etc.		Validated Programming Workstation invovled in PLC config	uration change.
2 Observables Case Jan 13, 2021, 4:22:27 PM 0 Observables ~ Owned By Others	Title Operational_ConfigurationChange / Created Mar 11, 2022, 1:41:05 PM Owner Daniel Behrens Summary Investigation of configuration change in Paint department / Linked Incidents • Control system event: Start CPU • Control system event: Start CPU • Control system event: Online command has been detected from 192.168.3.99:64441 to 192.168.3.50:44818 • Monitor mode: 1 difference has been detected	✓ ₩2 IP Addresses 192.168.249.51 192.168.249.50	0 + 0 \$ 0 € 2 ®	Identified AMP running and triggered	

SecureX Threat Investigation is also accessible from the ribbon to investigate in Cisco SecureX Threat Response leveraging information from Cisco Cyber Vision. It gives a holistic view across the entire organization.

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Investigate in Threat Response	Link to Incident \vee \pm 🗑						
cisco SecureX Threat Response	tleich SecureX Threat Response Investigate Snapshots Incidents Intelligence						
Add to Investigation	Add to Investigation v new Investigation Snapshots v 1 of 1 enrichments complete Automatic 3 Panel Layou						
⊕ 1 Target ~	Q 1 Investigated ~	0 Omitted	ogeo 2 Related ↓	0 Indicators	2 Modules V		
Sightings	Sightings						
Graph Dispositions: All + Types: All + Selector	n: All • Mode: Expanded • Target Filtering: None •	2022-00- Showing 3 nodes 💩 🖋 ***	ATT75840.0002 Results		8.7		
			Details Threat Context				
SHA-256 ¥ Bezbc28			▼ 1 TARGET BehrWorkWin10 Endpoint	Be2bc288d9f38cd58f41b5dfff0eb2238db9 SHA-256 Hash			
			♥ 1 INVESTIGATED 192.168.3.50 P Address 1 System in My Environment 0 OMITTED	Verdicts (1) Verdicts are the most current, unexpired judgement (j Learn More C Unknown Module: AMP File Reputation	per module) with the highest priority. JSON Expiration: 2525-01-01T00:00:00.000Z		
192.168.3.50	Target Endpoint BehrWorkWin10		v 2 RELATED				
			192.168.3.99 IP Address				
		<u> </u>	Be2bc288d9f38c SHA-256 Hash				

Cisco Cyber Vision SecureX Casebook

Cisco Cyber Vision new Center and sensor's options

Microsoft Azure

In addition to AWS, a Center can now be installed in Microsoft Azure. Center deployment is easy thanks to the Azure virtual machine customization.

Cisco Cyber Vision Center deployment in Azure

Basics Virtual Machine Settings Cyber Vision Settings Review + create					
Configure Cyber Vision * 🕕	Configure right now				
Cyber Vision configuration					
Keyboard layout * 🕕	American				
Center type * ①	Global Center V				
FQDN name * 🕕	Center				
Webapp TLS certificate *	Generate an autosigned certificate with the FQDN				
	Use a custom certificate				
DNS servers					
IP address of the #1 DNS server					
() If no servers are provided, the de	fault provider is OpenDNS: 208.67.222.222, 208.67.220.220				
NTP servers					
IP address / name of the #1 NTP se	erver				
Authorized networks					
CIDR of the #1 authorized network					
If no networks are provided, the default value is to authorize evrything (0.0.0.0/0)					

Json templates can be used to automatize deployments.

Cisco Catalyst IR8300

Cisco Cyber Vision network-sensor runs on Catalyst IR8300 (FW 17.8.x). The IDS option is available (PID: CV-IDS-IR8300).

Cisco Cyber Vision Senor deployment in Catalyst IR8300



Cisco Cyber Vision Resolved Caveats

CDETS	Description		
CSCwa15184	Online licence registration fails when using a proxy		
CSCwa14510	Cyber Vision Device engine sometime breaks Rockwell chassis into several devices		
CSCwb18555	Fix Security issue		
CSCvt81726	Fix Security issue		
CSCvt81722	Fix Security issue		
	Add event on Start/Stop recording on sensors (789)		
	password number of days until password expiration is wrong (3797)		
	ENIP Rockwell: Wrong program name on Download Program (5508)		
	IEC61850 tag is missing (6865)		
	Network interfaces bandwidth section has fewer tabs than expected (7170)		

Cisco Cyber Vision Open Caveats

lssues ID / CDETS	Component	Description
	Center	Sensor explorer "Update Cisco Device" does not find upgradable devices (9917)
CSCwb21270	Center	Sensor Management extension: Sensor not able to be installed due to "duplicate" entry – Could only happen after issue during sensor deletion
CSCwb12630	Center + ISE	All components are not synchronized with ISE
CSCwb08691	Sensor DPI	T101-T104 protocol translation write command not visible in center

Links

Software Download

The files below can be found following this link: https://software.cisco.com/download/home/286325414/type

Center	Description	
CiscoCyberVision-center-4.1.0.ova	VMware OVA file, for Center setup	
CiscoCyberVision-center-with-DPI-4.1.0.ova	VMware OVA file, for Center with DPI setup	
CiscoCyberVision-center-4.1.0.vhdx	Hyper-V VHDX file, for Center setup	
CiscoCyberVision-sensor-management-4.1.0.ext	Sensor Management extension installation file	
Sensor	Description	
CiscoCyberVision-IOx-aarch64-4.1.0.tar	Cisco IE3400, Cisco IR1101 sensor installation and update file	
CiscoCyberVision-IOx-Active-Discovery-aarch64 4.1.0.tar	Cisco IE3400, Cisco IR1101 Active Discovery sensor installation and update file	
CiscoCyberVision-IOx-IC3K-4.1.0.tar	Cisco IC3000 sensor installation and update file	
CiscoCyberVision-IOx-x86-64-4.1.0.tar	Cisco Catalyst 9x00 sensor installation and update file	
CiscoCyberVision-IOx-Active-Discovery-x86-64-4.1.0.tar	Cisco Catalyst 9x00 Active Discovery sensor installation and update file	
Updates	Description	
CiscoCyberVision-Embedded-KDB-4.1.0.dat	KnowledgeDB embedded in Cisco Cyber Vision 4.1.0	
CiscoCyberVision-update-center-4.1.0.dat	Center update file for upgrade from	
	release 4.0.0 or 4.0.1 to release 4.1.0	
CiscoCyberVision-update-sensor-4.1.0.dat	Cisco IC3000 Sensor and Sentryo Sensor3, 5, 7 update file for upgrade from release 4.0.0, 4.0.1 or 4.0.2 to release 4.1.0	
CiscoCyberVision-update-combined-4.1.0.dat	Center, IC3000 Sensor and Legacy Sensor update file from GUI for upgrade from release 4.0.0, 4.0.1 or 4.0.2 to release 4.1.0	

Cisco Cyber Vision Center 4.1.0 can also be deployed on AWS (Amazon Web Services). The Cyber Vision Center AMI (Amazon Machine Image) can be found on the AWS Marketplace:

https://aws.amazon.com/marketplace/seller-profile?id=e201de70-32a9-47fe-8746-09fa08dd334f https://aws.amazon.com/marketplace/search/results?searchTerms=Cisco+Cyber+vision

Related Documentation

Cisco Cyber Vision documentation: https://www.cisco.com/c/en/us/support/security/cyber-vision/series.html

• Cisco Cyber Vision GUI User Guide:

Cisco Cyber Vision GUI User Guide.html

- Cisco Cyber Vision Network Sensor Installation Guide for Cisco IE3300 10G, IE3400 and Catalyst 9300:
 Installation Guide for Cisco IE3300 10G Cisco IE3400 and Cisco Catalyst 9300
- Cisco Cyber Vision Network Sensor Installation Guide for Cisco IR1101:

Cisco Cyber Vision Network Sensor Installation Guide for Cisco IR1101 4 0 0.pdf

- Cisco Cyber Vision Network Sensor Installation Guide for Cisco IC3000: Cisco Cyber Vision Network Sensor Installation Guide for Cisco IC3000
- Cisco Cyber Vision Center Appliance Installation Guide:

Cisco Cyber Vision Center Appliance Installation Guide

• Cisco Cyber Vision Center VM Installation Guide:

Cisco_Cyber_Vision_Center_VM_Installation_Guide

• Cisco Cyber Vision Center AWS Installation Guide:

Cisco Cyber Vision for AWS Cloud Installation Guide

• Cisco Cyber Vision Integration Guide, Integrating Cisco Cyber Vision with Cisco Identity Services Engine (ISE) via pxGrid:

Integrating-Cisco-Cyber-Vision-with-Cisco-Identity-Services-Engine-via-pxGrid_3_1_1.pdf

• Cisco Cyber Vision Smart Licensing User Guide

<u>Cisco_Cyber_Vision_Smart_Licensing_User_Guide</u>

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