CDO(Cisco Defense Orchestrator)에서 클라우드 제공 FMC(cdFMC) 구축

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소개

이 문서에서는 CDO 플랫폼에서 클라우드로 제공되는 FMC의 구축 및 온보드 프로세스에 대해 설 명합니다.

사전 요구 사항

요구 사항

Cisco에서는 다음 항목에 대한 지식을 권장합니다.

- 클라우드 제공 Firepower Management Center(cdFMC)
- CDO(Cisco Defense Orchestrator)
- Firepower FTDv(Threat Defense Virtual)

사용되는 구성 요소

이 문서의 정보는 다음 소프트웨어 및 하드웨어 버전을 기반으로 합니다.

- cdFMC 7.2.0
- FTDv 7.2.0

이 문서의 정보는 특정 랩 환경의 디바이스를 토대로 작성되었습니다. 이 문서에 사용된 모든 디바 이스는 초기화된(기본) 컨피그레이션으로 시작되었습니다. 현재 네트워크가 작동 중인 경우 모든 명령의 잠재적인 영향을 미리 숙지하시기 바랍니다.

배경 정보

Cisco Defense Orchestrator(CDO)는 클라우드 기반 cdFMC(Firewall Management Center)를 위한 플랫폼입니다. 클라우드 기반 방화벽 관리 센터는 보안 방화벽 위협 방어 장치를 관리하는 SaaS(Software-as-a-Service) 제품입니다. 온프레미스 보안 방화벽 보안 방화벽 위협 방어 기능과 동일한 기능을 다수 제공합니다. 온프레미스 Secure Firewall Management Center와 모양과 동작이 동일하며 동일한 FMC API(Application Programming Interface)를 사용합니다.

이 제품은 온프레미스 Secure Firewall Management Center에서 Secure Firewall Management Center SaaS 버전으로 마이그레이션하도록 설계되었습니다.

구성

CDO에 클라우드 제공 Firepower Management Center를 구축합니다.

이 그림은 CDO에 클라우드 제공 FMC를 구축하는 데 필요한 초기 설정 프로세스를 보여줍니다.

먼저, Menu > Inventory 새 디바이스를 추가합니다.

cisco Defense Orchestrator	Inventory	Q	۵.	⇔	• (?)	cmonterr_cdo cmonterr@cisco.com
E Hide Menu	Templates Q Search by Device Name, IP Address, or Serial Number Displaying 0 of 0 results					C 🕘 🕇
Inventory	M					
Configuration	Name 0 Configuration Status 0	Conr	nectivity 0			
Policies >	No devices or services found. You must onboard a device or service to get started.					
Objects						
⊷å VPN >						
Events & Monitoring						
√r Analytics >						
Change Log						
曲 Jobs						
🋠 Tools & Services 🛛 >						
🔆 Settings 🔋 🖒						

선택 Firepower Threat Defense (FTD).

cisco Defense Orchestrator	Onboarding				Q	۵.	⇔	• (?)	cmonterr_cdo cmonterr@cisco.com
	What would you like to onboard?								Cancel
E Inventory									
Configuration		S	elect a Device or Service Typ	8					
Policies >		(11/ 111/10)		(R)					
Objects		_	_	<u> </u>					
⊷ð⊷ VPN →		ASA Adaptive Security Appliance	Multiple ASAs Adaptive Security Appliance	On-Prem FMC Firepower Management Center					
Events & Monitoring		(8.4+)	(8.4+)	(6.4+)					
$\sqrt{-}$ Analytics \rightarrow		(18	in the second se	Marali					
Change Log		(Com/a)		meraki					
📥 Jobs		FTD Firepower Threat Defense	SFCN Secure Firewall Cloud Native	Meraki Meraki Security Appliance					
🛠 Tools & Services >									
			VPC	Umbrella					
		Integrations	AWS VPC	Umbrella Organization					
		Enable basic CDO functionality for integrations	Amazon Virtual Private Cloud	View Umbrella Organization Policies from CDO					
		\sim							
		Import							
		Import configuration for offline management							

선택 Request FMC Firepower Management Center를 요청할 수 있습니다.

cisco Defense Orchestrator	Onboard FTD Device Q 🗘 •	٢	•	cmonterr_cdo cmonterr@cisco.com
Hide Menu	Follow the steps below Cancel			
Enventory				
Configuration	Cloud-Delivered Firewall Management Center now available!			
Policies >	Cisco Defense Orchestrator now provides many of the features and functions available to Secure Firewall Management Center customers.			
Objects	Request FMC			
⊷Še VPN →				
Events & Monitoring				
√ Analytics >				
Change Log				
📥 Jobs				
🎗 Tools & Services 🕠				
Settings >				

참고: 테넌트에 cdFMC가 없는 경우에만 "FMC 요청" 옵션이 표시됩니다.

탐색 Menu > Tools & Services > Firewall Management Center CdFMC를 사용할 준비가 된 경우



원하는 cdFMC를 선택하여 cdFMC 정보를 표시합니다.

cisco Defense Orchestrator	Firewall Management Center				Q	۵.	⇔	• (cmonterr_cdo cmonterr@cisco.com
Hide Menu									ø
Inventory	Name	SFCN Devices	Devices	Status	Last Hearth	eat			
Configuration	Firewall Management Center	⊖0	⊖ 0	Active	13:40:18 0	8/26/2022			
Policies									
Objects >									
⊷Č∗ VPN >									
√- Analytics >									
Change Log									
dobs									
🛠 Tools & Services 🕠									

cdFMC의 GUI(Graphical User Interface)에 액세스하려면 오른쪽에서 사용 가능한 옵션을 선택합니 다.

Firewall Management Center					Q	۵.		• (?)	cmonterr_cdo _
				c	>	Firewa	Center		
Name	SFCN Devices	Devices	Status	Last Heartbeat	Software Version 7.2.0-build 10364				
Firewall Management Center	⊕ 0	⊕ 0	Active	13:40:18 08/26/2022		Actions			
							ployment dates arkflows I Explorer nent licles jects T		
						Settings Cor Sm AN √- Der L Aur O Cis	nfiguration lart License IP Manager vice Health dit ico Cloud E	rs nent vents	

이제 cdFMC GUI를 볼 수 있습니다.

Defense Orchestr FMC / System / Health / I	rator Analysis Monitor	Policies Device	s Objects	Integration	🖘 Return Home Deploy Q 🍪 🌣 🚱 Imatuscl@cisco.com 🔻	enco SECURE
Monitoring	Health Status 1 total 0 critical Devices ••••••••••••••••••••••••••••••••••••	0 warnings 1 normal	0 disabled	Q. Filter using device name		Í
	Device			Version	Model	
	> © FTDv			7.2.0	Cisco Firepower Threat Defense for Azure	

클라우드 제공 FMC에서 FTD 온보딩

이 그림에서는 CLI(Command Line Interface) 등록 키를 사용하여 cdFMC에 등록하기 위해 FTD를 온보딩하는 방법을 보여 줍니다.

먼저 Onboard an FTD CDO 홈 페이지.

cisco Defense Orchestrator					Q	٥.	⇔	• ①	cmonterr_cdo cmonterr@cisco.com
	Ciana Defense Orebo	otroto	No devices or services have be	en onboarded					
	Cisco Defense Orches	strate	Click Here to Get Started						
Configuration									
Policies	FTD Management New	Take a to	our of Cisco Defense Orchestrator	😡 What's New in Defense	Orchestr	ator			
Objects	Manage FTD Policies Create, edit, or manage FTD Policies		Onboarding Devices and Services Get started by onboarding all your devices to	CDO Support for FDM-Ma	, 2022 maged D	Devices,	1		
-& VPN >				Version 7.2 CDO now supports Secure Firev	wall Threat	t Defense			
Events & Monitoring	Onboard an FTD Device	\otimes	Object Management and Issue Detection CDO provides easy object management and	version 7.2 for FDM-managed d onboard an FDM-managed devi and upgrade an existing FDM-m	Sevices. Yo ice running nanaged d	ou can now g version 7.2 device to	t.		
√r Analytics →	Migrate FTD to Cloud		anaytes.	version 7.2.					
Change Log	Migrate FTD Manager from Firewall Management Center to Cloud-Delivered FMC via CDO	۲	ASA image Upgrades ASA and ASDM upgrades made simple.	Cisco Secure Firewall Mig Supports Migrations to Ci	ration Te	lool			
deb Jobs	Configure Dynamic Attributes	>_	ASA Command Line Interface For expert users, CDO provides a command line interface for ASA devices.	Firewall Threat Defense The Secure Firewall Migration T you to migrate a Secure Firewall Secure Firewall Threat Defense	ool Versio I ASA to a managed	n 3.0, allows i Cisco i by either an	e C		
夜 Settings >		•Å•	VPN Management Visualize VPN configurations across all your devices to detect and resolve issues.	on-prem or virtual Secure Firew Center, or by our new cloud-de Management Center in Cisco Dr Burger State St	all Manag livered Fin efense Ore 2022	ement ewall chestrator.			
		×	Change Log and Change Requests CDO provides easy logging of changes made actions your devices. Read More Vals our documentation for a full view of what	Cloud-Delivered Firewall I Center Clisco Defense Orchestrator (CD for the cloud-delivered Firewall The cloud-delivered Firewall Mit software-as-a-service (SasS) p Secure Firewall Threat Defense of the same functions as an on p	Manager NO) is now Manager anagemen voduct the devices. I premises !	ment r the platform sent Center. it Center is a at manages It offers man Secure	y y		
			CDO offers.	Prevent Management Center, II appearance and behavior as an Firewall Management Center, an API. This product is designed for Management Center customers from an on-premises version of Management Center to a SaaS i immlammentations of service free	nas the sa on-premit nd uses th or Secure I who want the Secur version; or rall who wi	ime ses Secure e same FMC Firewall t to move re Firewall r to new deb to simulit	0 N		

그런 다음 Use CLI Registration Key 옵션을 선택합니다.



요청된 FTDv 정보와 원하는 FTDv 정보를 계속 입력합니다.

1 Device Name	FTDv				Edit
2 Policy Assignment	Access Control Policy: Default	Access Control Policy			Edit
3 Subscription License	 Please indicate if this FTD is physi Physical FTD Device Virtual FTD Device Performance Tier (FTDv 7.0 and FTDv100 - Tiered (16 core 	cal or virtual: d above only) • / 32 GB) -	0	Enable subscription licenses. CDO will attempt to enal the selected licenses when the device is connected to CDO and registered with the supplied Smart License. Learn more about Cisco Smart Accounts. Note: All virtual FTDs require performance tier license. Make sure your subscription licensing account contain	ble)
	License Type Base License	Includes Base Firewall Capabilities		the available licenses you need. Its important to choos the tier that matches the license you have in your account. Until you choose a tier, your FTDv defaults to FTDv50 selection.	e
	Threat	S Intrusion Policy			
	URL License	URL Reputation			
	RA VPN VPNOnly -	RA VPN			
	Next				

마지막으로, cdFMC는 сы кеу디바이스에 대한 CLI 키.

4 CLI Registration Key	 Ensure the device's initial configuration is complete before trying to apply the registration key. Learn more 2 Copy the CLI Key below and paste it into the CLI of the FTD
	configure manager add cmonterr-cdo.app.us.cdo.cisco.com 2 NaRZpWdiG4waNYJMQVAxdKqsukd2nDTn 6qDJQJAyKn53d0TnEifT0XF5nseZ43pd cmonterr- cdo.app.us.cdo.cisco.com
	Next

복사 CLI Key 관리되는 디바이스의 CLI에 액세스합니다.

> configure manager add cmc qsukd2nDTn 6qDJQJAyKn53d0Tr File HA_STATE is not found.	onterr-cdo.app.us.cdo.cisco.com NaRZpWdiG4waNYJMQVAxdK nEifT0XF5nseZ43pd cmonterr-cdo.app.us.cdo.cisco.com
Manager cmonterr-cdo.app.us	s.cdo.cisco.com successfully configured.
Please make note of reg_key	/ as this will be required while adding Device in FMC.
>	
> show managers	
Туре :	: Manager
Host :	: cmonterr-cdo.app.us.cdo.cisco.com
Display name :	cmonterr-cdo.app.us.cdo.cisco.com
Identifier	6qDJQJAyKn53d0TnEifT0XF5nseZ43pd
Registration :	Pending

cdFMC가 등록 작업을 시작합니다.

Defense Orchestrator	Inventory			Q ∴
⊟ Hide Menu	T Devices Templates Q Search by Device Name, IP Address, or Serial Number		Displaying 1 of 1 results C 🐵 +	> FTDv @
inventory	All FTD			Device Details ~
Contiguration Policies Cobjects Cobjects	Name 2 FTDv FTD	Configuration Status 8	Connectivity 0 Onboarding	Location n/a Model n/a Serial n/a Version n/a Onboarding Registration Key Method
Events & Mentoring Vr Analytics Change Log				Registration Pending Wating for Device Registration to start. Please complete the onboarding process by executing the following registration command on the device grouns // Mate sure your FTD can connect to consterr-cdu age us cdu cacu con. Configure manager add consterr-cdu.a.
				Device Actions ~
X Tools & Services				Workflows
				Monitoring ~
				Device Management ~
				Policies
				Objects ~
				Label Groups and Labels ~
				Add Labels 🛛
				Add label groups and labels +

참고: 등록 프로세스를 완료하려면 FTD 디바이스가 포트 8305(sftunnel) 및 443을 통해 CDO 테넌트에 연결되어 있는지 확인하십시오. 전체 <u>네트워크</u> 요구 사항을 <u>참조하십시오</u>.

참고: 호스트에 연결할 수 없는 경우 다음 명령을 사용하여 FTD-CLI에서 DNS 컨피그레이션 을 수정할 수 있습니다. configure **network dns <address>**.

등록 프로세스를 모니터링하려면 Device Actions > Workflows..

Workflows				۹ ۵-	(?) • cmonterr_cdo • Imatusci@cisco.com			
Return to Inventory								
FTDv (FTD)					C ()			
Name	Priority	Condition	Current State	Last Active	Time			
fmceRegisterFtdStateMachine	On Demand	Done	Done	8/30/2022, 3:35:50 PM	8/30/2022, 3:33:11 PM / 8/30/2022, 3:35:50 PM			
ftdcOnboardingStateMachine	On Demand	Done	Done	8/30/2022, 3:32:50 PM	8/30/2022, 3:32:50 PM / 8/30/2022, 3:32:50 PM			

를 펼칩니다. Active 참고: 이 그림은 FTDv가 성공적으로 등록된 방식을 보여줍니다.

Workflows

WORNOWS						u 2.		Imatusci@cisco.com
Return to Inventory								
T FTDv (FTD)								C
Name	Priority	Condition	Current State		Last Active		Time	
ACTION	TIME	START STATE		END STATE		RESULT		
PollingDelayedCheckAction	15:34:46.812 / 15:34:46.819	POLLING_WAIT_BEFORE	_CHECK_REGISTER_FTD	INITIATE_GET_TASK_STATU	s	SUCCESS		
FmcRequestGetAction	15:35:17.324 / 15:35:17.724	INITIATE_GET_TASK_STA	TUS	WAIT_FOR_GET_TASK_STAT	tus	SUCCESS		
FmcQueryTaskStatusResponseHandler	15:35:18.223 / 15:35:18.244	AWAIT_RESPONSE_FROM	M_executeFmcRequests	@ POLLING_WAIT_BEFORE_CH	IECK_REGISTER_FTD	JOB_IN_PROG	RESS	
PollingDelayedCheckAction	15:35:18.288 / 15:35:18.299	POLLING_WAIT_BEFORE	_CHECK_REGISTER_FTD	INITIATE_GET_TASK_STATU	5	SUCCESS		
FmcRequestGetAction	15:35:48.708 / 15:35:49.173	INITIATE_GET_TASK_STA	TUS	WAIT_FOR_GET_TASK_STAT	tus	SUCCESS		
FmcQueryTaskStatusResponseHandler	15:35:49.639 / 15:35:49.652	AWAIT_RESPONSE_FROM	M_executeFmcRequests	INITIATE_GET_DEVICE_RECO	ORDS_REGISTER_FTD	JOB_SUCCEER)ED	
FmcRequestDeviceRecordsAction	15:35:49.674 / 15:35:50.084	INITIATE_GET_DEVICE_R	ECORDS_REGISTER_FTD	WAIT_FOR_DEVICE_RECORD	S_REGISTER_FTD	SUCCESS		
FmceFilterDeviceResponseHandler	15:35:50.496 / 15:35:50.510	AWAIT_RESPONSE_FROM	M_executeFmcRequests	DONE		SUCCESS		
ноок	TYPE	TIME		RESULT				
SaveInitialConnectivityStateBeforeHook	Before	15:33:11.229 / 15:33:11.231		Saved Connectivity Sta	te to context			
UpdateSMContextWithDeviceVersionHook	Before	15:33:11.231 / 15:33:11.234		setDeviceVersionInSMC	Context			
DeviceStateMachineClearErrorBeforeHook	Before	15:33:11.234 / 15:33:11.236		noErrorOccurred				
FmceRegisterPtdcStatusPreHook	Before	15:33:11.236 / 15:33:11.289		Executed pre hook such	cessfully for FTD device: FTDv			
FmceRegisterFtdcStatusHook	After	15:35:50.517 / 15:35:50.519		Executed hook success	fully			
NotifyOnConnectivityStateChangeAfterHook	After	15:35:50.519 / 15:35:50.521		Notification skipped for	this event			
UpdateSMContextWithDeviceAsaNgPolicyFlagHook	After	15:35:50.521 / 15:35:50.523		notAsaDevice				
AddDeviceNameToStateMachineDebugAfterHook	After	15:35:50.523 / 15:35:50.528		Added device name to	debug record			
DeviceStateMachineSetErrorAfterHook	After	15:35:50.528 / 15:35:50.530		noErrorOccurred				
ftdcOnboardingStateMachine	On Demand	Done	Done		8/30/2022, 3:32:5	50 PM	8/30/2022, 3:32:50 PM	3:32:50 PM / 8/30/2022,
								cmonterr cdo
Inventory						Q Q.	<u>۳</u>	Imatusci@cisco.com
T Devices Templates Q Search by Devices	vice Name, IP Address, or Serial Nu	umber	Di	splaying 1 of 1 results	C 🕘 +	FTDV @ FTD		
All FTD						Device Detail	8	~
✓ Name ≑		Configuratio	n Status 🗢	Connectivity \$		Location	n/a	
FTDv		O Synced		Online		Model	Cisco Firepo Azure	ower Threat Defense for
- vio						Serial Version	9AGTAFW2 7.2.0	14C6
						Onboarding	Registration	n Key
						Snort Versi	on 3.1.21.1-12	26
								_
						O Synced Your device	s configuration is up	-to-date.
						Device Anti-		
						Device Action	.5	×
						C Check f	or Changes Licenses	
						El Workflo	ws	
						B Remove		
						Monitoring		Ý
						+ Health		
						Device Mana	3ement	~
						Device	Overview	
						B Routing	05	
						E Inline Se	its	
						High Av	ailability	

마지막으로 Device Management > Device Overview cdFMC에 액세스하여 FTDv 개요 상태를 검토합니다.

C Defense Orchestrator FMC / Devices / Secure Firewall Device Summary	Analysis Policies D	evices Objects Integration		+> Return Home Deploy Q 💕 🔅	Imatuscl@cisco.com • thete SECU
Device Routing Interfaces Inline Sets	DHCP VTEP				
General	/±∓	License	1	System	0 G
Name:	FTDv	Performance Tier :	FTDv100 - Tiered (Core 16 / 32 GB)	Model:	Cisco Firepower Threat Defense for Azure
Transfer Packets:	No	Base:	Yes	Serial:	9AGTAFW24C6
Mode:	Routed	Export-Controlled Features:	No	Time:	2022-08-30 21:04:27
Compliance Mode:	None	Malware:	No	Time Zone:	UTC (UTC+0:00)
TLS Crypto Acceleration:	Disabled	Threat:	No	Version:	7.2.0
		URL Filtering:	No	Time Zone setting for Time based Rules:	UTC (UTC+0:00)
Device Configuration:	Import Export Download	AnyConnect Apex:	No		
		AnyConnect Plus:	No		
		AnyConnect VPN Only:	No		
Inspection Engine		Health		Management	/ 🜑
Inspection Engine:	Snort 3	Status:	•	Host:	NO-IP
Revent to Snort 2		Policy:	Initial_Health_Policy 2022-06-04 01:25:03	Status:	0
		Excluded:	None	Manager Access Interface:	Management Interface

관련 정보

- <u>기술 지원 및 문서 Cisco Systems</u>
- <u>클라우드 기반 방화벽 관리 센터를 통해 Cisco Secure Firewall Threat Defense 디바이스 관리</u>

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