Aplicación de licencias permanentes en redes Air-Gap en FDM

Contenido

Introducción
Prerequisites
Requirements
Componentes Utilizados
Configurar
Activar el modo PLR
Cancelar el registro de PLR
Tengo una licencia en CSSM
No tengo una licencia en CSSM
Anulación del registro del dispositivo en modo PLR
Verificación
Troubleshoot
Problemas comunes
Información Relacionada

Introducción

Este documento describe cómo aplicar licencias permanentes en redes Air-Gapped en Firepower Device Manager (FDM).

Prerequisites

Requirements

Se recomienda tener conocimiento de este tema:

• Configuración inicial de Cisco Secure Firewall Threat Defence

Componentes Utilizados

La información de este documento se basa en la versión de software:

• Firepower Threat Defence versión 7.4.1.

La información que contiene este documento se creó a partir de los dispositivos en un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). Si tiene una red en vivo, asegúrese de entender el posible impacto de cualquier comando.

Configurar

Activar el modo PLR

Paso 1. Active el modo PLR en el dispositivo.

Haga clic en Device y navegue hasta Smart License.



Paso 2. Haga clic en el engranaje y seleccione Switch to Universal PLR.



Nota: si el dispositivo utiliza la licencia inteligente, debe anular el registro del dispositivo.



Precaución: una vez que cambie al modo PLR, no podrá volver al modo de evaluación.

Firewall Device Manager Monitoring Policies Objects Device: firepower	> 🖆 🗐 ?	admin Administrator
Device Summary Smart License		
LICENSE ISSUE Evaluation Period You are in Evaluation mode now.		Resync connection
		Switch to Universal PLR

En la ventana de vista previa, seleccione el Nivel de rendimiento y haga clic en Sí.

A Change to Permanent License

If you switch to Universal Permanent License Reservation mode, you cannot switch back to Evaluation mode.

Are you sure you want to use Universal Permanent License Reservation for this device?

Select Performance Tier

The selected performance tier determines VPN session limits and device throughput, click here 🖸 to learn more.

Make sure the performance tier selected matches the license in your Cisco Smart Software Manager account.

Performance Tier		Your Device Specifications			
Pick a Tier	~	Cores	/ RAM 4 co	ore / 8 GB	
					1
			NO	YES	

Paso 3. Guarde el código de solicitud.

Un	iversal Permanent License Reservation ${ m @}~ imes$
6	f you have Cloud Services enabled you might want to disable them.
1	Save Request Code for this Device.
\downarrow	Request Code
	DE-ZNGFWv:9ADKC86E1VU-CCRVmZyqM-BF SAVE AS TXT
(2) ↓	Log into your Cisco Smart Software Manager 2 account, go to the Inventory > Licenses page, and start the License Reservation process. Use the request code to generate an Authorization Code. Note that you must work with your Cisco representative to enable Universal Permanent License Reservation mode in your account. If you cannot start the License Reservation process (that is, the button does not appear on the Inventory > License page), please contact your Cisco representative.
3	Paste or type in the Authorization Code:
	Authorization Code
	Paste code from clipboard here
?	For a more detailed overview on Cisco Licensing, go to cisco.com/go/licensingguide
	CANCEL

Paso 4. Inicie sesión en su cuenta CSSM y navegue hasta Smart Software Licensing > Inventory > Licenses y haga clic en License Reservation.



Haga clic en Proceed.

Use of the Software contained in this Smart Account is subject to Cisco's EULA. Cisco may restrict the availability or features of this Smart Account or the Smart Licensing capabilities in any region, or modify or discontinue features to comply with applicable laws and regulations. You may only use the Software in the country for which it is purchased and intended to be used.

				Proceed
Pegue el código de	e solicitud y haga	clic en Next.		
Smart License Reservati	ion			
STEP 1	STEP 2	STEP 3	STEP 4	
Enter Request Code	Select Licenses	Review and Confirm	Authorization Code	
To learn how to generating a To learn how to generate this Once you have generated the 1) Enter the Reservation F 2) Select the licenses to b 3) Generate a Reservation 4) Enter the Reservation A • Reservation Request Code	a reservation Request Code from tr code, see the configuration guide for code: Request Code below pe reserved n Authorization Code Authorization Code on the product in coopy (2020) 25	re product instance. or the product being licensed. stance to activate the features		
DE-ZNGFWV:9ADKC86E1VU-	-CCRVmZyqM-BF	В	owse	9
				Cancel

Seleccione su licencia y haga clic en Next.

Smart License Reservation

step 1 🗸	STEP 2	STEP 3	STEP 4
Enter Request Code	Select Licenses	Review and Confirm	Authorization Code
Product Instance Detai	ls		
Product Type:	VIRTSEC		
UDI PID:	NGFWv		
UDI Serial Number:	9ADKC86E1VU		
Licenses to Reserve			
In order to continue, ensure that	you have a surplus of the licenses	ou want to reserve in the Virtual Acco	unt.

Cisco Firepower Virtual Threat Defense Universal License



×

Haga clic en Generar código de autorización.

Smart License Reservation

STEP 1 🗸	STEP $2 \checkmark$ Select Licenses	STEP 3 Review and Confirm	STEP 4 Authorization Code	
Product Instance Deta	ils			
Product Type: UDI PID: UDI Serial Number: Licenses to Reserve	VIRTSEC NGFWv 9ADKC86E1VU			
License			Expires	Quantity to Reserve
Cisco Firepower Virtual Thr Oisco Firepower Virtual Threat Defe	eat Defense Universal License			1

Cancel Back

Generate Authorization Code

Para guardar el código de autorización, haga clic en Descargar como archivo o Copiar al Portapapeles.

Smart License Reservation

step 1 🗸	STEP $2 \checkmark$	step 3 🗸	STEP 4	
Enter Request Code	Select Licenses	Review and Confirm	Authorization Code	
The Reservation Autho	rization Code below has been genera	ited for this product instance. Enter th	is code into the Smart Licensing set	ings for the product, to enable the licensed features.
Product Instance Deta	ails			
Product Type:	VIRTSEC			
UDI PID:	NGFWv			
UDI Serial Number:	9ADKC86E1VU			
Authorization Code:	10005 0110 -05-014-0-4- D0-40	17 E 17		
To learn how to enter this cod	e see the confiduration duide for the	product being licensed		
			D	ownload as File Copy to Clipboard Close

Haga clic en Cerrar para finalizar el proceso.

Paso 5. Vuelva a FDM y pegue el código de autorización y haga clic en Register.



Nota: Actualice la página para ver el estado actual de la licencia.

Universal Permanent License Reservation



If you have Cloud Services enabled you might want to disable them.

1	Save Request Code for this Device.	
\downarrow	Request Code	
	DE-ZNGFWv:9ADKC86E1VU-CCRVmZyqM-BF	SAVE AS TXT
2 ↓	Log into your Cisco Smart Software Manager 2 account, go to and start the License Reservation process. Use the request of Code. Note that you must work with your Cisco representative License Reservation mode in your account. If you cannot star process (that is, the button does not appear on the Inventory your Cisco representative.	to the Inventory > Licenses page, node to generate an Authorization we to enable Universal Permanent t the License Reservation > License page), please contact
3	Paste or type in the Authorization Code:	
	Authorization Code	
?	For a more detailed overview on Cisco Licensing, go to cisco	o.com/go/licensingguide 🖸
		CANCEL

Cancelar el registro de PLR

Tengo una licencia en CSSM

Utilice esta opción cuando complete el asistente de registro de licencias en CSSM y disponga de un código de autorización. Por ejemplo, ha iniciado el proceso en el FDM incorrecto, por lo que debe liberar la licencia en la cuenta CSSM.

Paso 1. Haga clic en Device y navegue hasta Smart License.



Paso 2. Haga clic en el engranaje y seleccione Cancelar PLR.

Firewall Device Manager Monitoring Policies Objects Device: firepower	(.) (a) (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
Device Summary Licensing UNIVERSAL PLR NOT FINISHED CONTINUE RESErVATION Need help?(2)	Resync connection
Tiered Performance Performance Tier : FTDv20 - 3 Gbps Session limits for VPN and rate-limited throughput are determined by the selected performance tier. Learn More (2) Session limits for VPN and rate-limited throughput are determined by the selected performance tier. Session limits for VPN and rate-limited throughput are determined by the selected performance tier. Session limits for VPN and rate-limited throughput are determined by the selected performance tier.	Includes: Minimum Threat Defense Virtual Cores 4 core Rate Limit 3 Gbps Minimum Threat Defense Virtual RAM 8 GB VPN Limit 250
	Your Device: Cores / RAM: 4 core / 8 GB

Paso 3. Seleccione Tengo una licencia en CSSM.

Are you sure you want to cancel the Permanent License Reservation?



Paso 4. Pegue el código de autorización y haga clic en Generar código de liberación.

8 ×

Are you sure you want to cancel the Permanent License Reservation?

License States I have a License in CSSM I do not have a License in ... 1 Get Authorization Code from CSSM and paste it here: Authorization Code BAR 1 1/ 11 A 70--..... 2 Generate a Release License Code using your Authorization Code. J GENERATE RELEASE CODE 3 In your Cisco Smart Software Manager 🖸 account free up license by putting Release Code. CANCEL

8

 \times

Guarde su código de licencia de lanzamiento.

Are you sure you want to cancel the Permanent License Reservation?



8

Paso 5. Inicie sesión en su cuenta CSSM y navegue hasta Licencias de software inteligente > Inventario > Instancias de productos.

Smart Software Licensing

SL Product Details Support Help

Alerts | Inventory | Convert to Smart Licensing | Reports | Preferences | On-Prem Accounts | Activity

Authorize License-Enforced Features		Search by De	vice or by Product Type	(
Name	Product Type	Last Contact	Alerts	Actions
10.106.60.161	FP	2024-Feb-08 21:22:04		Actions 👻
68.com	ESA	2024-Feb-08 15:47:37		Actions -
724FMC	FP	2024-Jan-16 18:30:52		Actions 👻
A-TSZ-HIS-FMC01	FP	2023-Oct-03 21:05:28	8 Failed to Renew	Actions 👻
a4115	FPRUHI	2024-Jan-27 17:05:40		Actions -
AAALAB	ASAHIGH	2024-Jan-18 19:07:58		Actions 👻
AAALAB	ASAHIGH	2024-Jan-18 11:25:38		Actions 👻
AAALAB	ASAHIGH	2024-Jan-18 20:14:33		Actions 👻
AAALAB	ASAHIGH	2024-Jan-18 05:30:17		Actions 🗸
AAALAB	ASAHIGH	2024-Jan-18 08:00:04		Actions -

Paso 6. Busque el dispositivo por nombre.



Nota: El nombre es el número de serie del dispositivo.

General	Licenses	Product Instances	Event Log			
Authorize	e License-Enforc	ed Features			UDI_PID:NGFWv; UDI_SN:9ADKC86E1VU;	× c
Name			Product Type	Last Contact	Alerts	Actions
UDI_PID:N	GFWv; UDI_SN:9/	ADKC86E1VU;	VIRTSEC	2024-Feb-09 01:1	1:40 (Reserved Licenses)	Actions 👻
						Showing 1 Re

Paso 7. Haga clic en Acciones y seleccione Eliminar en la lista desplegable.

General	Licenses	Product Instances	Event Log			
Authorize	e License-Enforce	ed Features		UDI_P	ID:NGFWv; UDI_SN:9ADKC86E1VU;	×Q
Name			Product Type	Last Contact	Alerts	Actions
UDI_PID:N	GFWv; UDI_SN:94	DKC86E1VU;	VIRTSEC	2024-Feb-09 01:11:40 (Res	erved Licenses)	Actions 👻
					Tra	ansfer
					Re	move
					Re	host Licenses from a Failed Produc

х

Pegue el código de licencia de lanzamiento y haga clic en Quitar reserva.

Remove Reservation

To remove a Product Instance that has reserved licenses and make those licenses once again available to other Product Instances, enter in the Reservation Return Code generated by the Product Instance. If you cannot generate a Reservation Return Code, contact Cisco Support

* Reservation Return Code:	DKvxiU-zchZA5-M6ekJk-EmeitQ-85pErd-Ft7	
	Remove Reservation	Cancel

Paso 8. Vuelva a su dispositivo y haga clic en Aceptar.



Nota: Actualice la página para ver el estado actual de la licencia.

Are you sure you want to cancel the Permanent License Reservation?



No tengo una licencia en CSSM

Utilice esta opción cuando no complete el asistente de registro de licencias en CSSM. Por ejemplo, ha iniciado el proceso PLR en su FDM, pero no dispone de las licencias correctas en su CSSM.

Paso 1. Haga clic en Device y navegue hasta Smart License.

8 ×



Paso 2. Haga clic en el engranaje y seleccione Cancelar PLR.

Firewall Device Manager	(5.) (2.) (2.) (2.) (2.) (2.) (2.) (2.) (2
Device Summary Licensing UNIVERSAL PLR NOT FINISHED Reservation Pending CONTINUE RESERVATION Need help?(3)	Resync connection
Tiered Performance Performance Tier: FTDv20 - 3 Gbps Session limits for VPN and rate-limited throughput are determined by the selected performance tier. Learn More (2) Session limits for VPN and rate-limited throughput are determined by the selected performance tier. Session limits for VPN and rate-limited throughput are determined by the selected performance tier.	Includes: Minimum Threat Defense Virtual Cores 4 core Rate Limit 3 Gbps Minimum Threat Defense Virtual RAM 8 GB VPN Limit 250
	Your Device: Cores / RAM 4 core / 8 GB

Paso 3. Seleccione No tengo licencia en CSSM.

Cancel Permanent License Reservation		3 ×
Are you sure you want to cancel the Permanent License Reservation License States I have a License in CSSM	on?	
i In this case you can proceed with Cancelling Permanent License Reser	vation.	
	CANCEL	ОК

Haga clic en Aceptar para finalizar.

Anulación del registro del dispositivo en modo PLR

Paso 1.	Haga	clic en	Device v	naveque	hasta	Smart L	icense.
1 400 1.	inaga		D01 100 y	navoguo	naota	Official C	

Firewall Device Manager Monitoring Policies Objects	Device: firepower	> 🖨 🙆 ?	admin Administrator
Model Cisco Firepower Threat Defens	Software VDB Intrusion Rule ie for VMwa 7.4.1-172 376.0 20231011-15	Update Cloud Services High Availa 36 🖗 Not Registered Register Not Config	bility O CONFIGURE
Fe Inside Net	Cisco Firepower Threat Defense for VMware O(0 0/1 0/2	CONSOLE	Internet INS Server VTP Server Universal P
Interfaces Management: Merged Enabled 1 of 4 View All Interfaces	Routing 1 static route View Configuration	Updates Geolocation, Rule, VDB, System Upgrade, Security Intelligence Feeds View Configuration	System Settings Management Access Logging Settings DHCP Server / Relay DDNS Service
Smart License Universal PLR Tier: Not selected (Threat Defense Virtual - Variable) View Configuration	Backup and Restore View Configuration	Troubleshoot No files created yet REQUEST FILE TO BE CREATED	Hostname Time Services SSL Settings See more

Paso 2. Haga clic en el engranaje y seleccione Unregister Universal PLR.



Paso 3. Haga clic en Yes para continuar el proceso.

\Lambda Warning

If you unregister the device, you cannot make any changes to the device configuration. You will have to re-register the device using either Smart Licensing or Universal Permanent License Reservation mode to make changes.

Are you sure you want to unregister the device?



Paso 4. Guarde el código de licencia de la versión.



Paso 5. Inicie sesión en su cuenta CSSM y navegue hasta Licencias de software inteligente > Inventario > Instancias de productos.



Smart Software Licensing

SL Product Details Support Help

Alerts | Inventory | Convert to Smart Licensing | Reports | Preferences | On-Prem Accounts | Activity

Authorize License-Enforced Features		Search by De	vice or by Product Type	(
Name	Product Type	Last Contact	Alerts	Actions
10.106.60.161	FP	2024-Feb-08 21:22:04		Actions 👻
68.com	ESA	2024-Feb-08 15:47:37		Actions -
724FMC	FP	2024-Jan-16 18:30:52		Actions 👻
A-TSZ-HIS-FMC01	FP	2023-Oct-03 21:05:28	8 Failed to Renew	Actions 👻
a4115	FPRUHI	2024-Jan-27 17:05:40		Actions -
AAALAB	ASAHIGH	2024-Jan-18 19:07:58		Actions 👻
AAALAB	ASAHIGH	2024-Jan-18 11:25:38		Actions 👻
AAALAB	ASAHIGH	2024-Jan-18 20:14:33		Actions 👻
AAALAB	ASAHIGH	2024-Jan-18 05:30:17		Actions 🗸
AAALAB	ASAHIGH	2024-Jan-18 08:00:04		Actions -

Paso 6. Busque el dispositivo por nombre.



Nota: El nombre es el número de serie del dispositivo.

General	Licenses	Product Instances	Event Log			
Authorize	e License-Enforc	ed Features			UDI_PID:NGFWv; UDI_SN:9ADKC86E1VU;	× c
Name			Product Type	Last Contact	Alerts	Actions
UDI_PID:N	GFWv; UDI_SN:9/	ADKC86E1VU;	VIRTSEC	2024-Feb-09 01:1	1:40 (Reserved Licenses)	Actions 👻
						Showing 1 Re

Paso 7. Haga clic en Acciones y seleccione Eliminar en la lista desplegable.

General	Licenses	Product Instances	Event Log			
Authorize	License-Enforce	d Features		UDI_P	ID:NGFWv; UDI_SN:9ADKC86E1VU;	× Q
Name			Product Type	Last Contact	Alerts	Actions
UDI_PID:N	GFWv; UDI_SN:9A	DKC86E1VU;	VIRTSEC	2024-Feb-09 01:11:40 (Res	erved Licenses)	Actions 👻
					Tra	nsfer
					Ren	nove
					Ref	nost Licenses from a Failed Produc

Pegue el código de licencia de lanzamiento y haga clic en Quitar reserva.

Remove Reservation

To remove a Product Instance that has reserved licenses and make those licenses once again available to other Product Instances, enter in the Reservation Return Code generated by the Product Instance. If you cannot generate a Reservation Return Code, contact Cisco Support

×

Remove Reservation

Paso 8. Vuelva al dispositivo y haga clic en Anular registro.

Unregister Universal Permanent License Reservation

1	Save Release Code for this Device.			
\downarrow	Release License Code			
	DCsSXH-D2rBtc-UZzer8-Un5yqp-vcKF1v-EG4		SAVE AS TXT	
	You will not be able to regenerate the Release Code after save this code for use in Cisco Smart Software Manager.	r you uni	register. Please n	nake sure that you
2	In your Cisco Smart Software Manager [2] free up licens from here.	se by in	serting Releas	e License Code
		CA	NCEL	UNREGISTER

Verificación

Navegue hasta Device > Smart License y podrá ver que la licencia es Universal PLR.



Troubleshoot

1. Busque errores en /ngfw/var/log/cisco/smart_agent.log.

Por ejemplo, en estos registros, puede ver que el proceso de registro se ha realizado correctamente.

```
<#root>
> expert
admin@firepower:~$ sudo su
Password:
```

```
root@firepower:/home/admin# cd /ngfw/var/log/cisco/
root@firepower:/ngfw/var/log/cisco# tail smart_agent.log
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO LicenseSoftwareIds:82 - Selected software ID: regid.2019-
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO DefaultSmartAgentFactoryProvider:398 - New platform tag i
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO SmartAgentConfFileSync:178 - RegistrationStatus : REGISTER
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO SmartAgentConfFileSync:192 - updated the smart Agent File
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO SmartAgentConfFileSync:192 - updated the smart Agent File
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO PLRUnhandledNotificationHandler:31 - Handling listener cl
2024-02-09 03:21:21 ajp-nio-8009-exec-8: INFO DefaultSmartAgentManager:159 - Received notification from
```

2. Tomar una decisión para solicitar la asistencia del TAC y adjuntarla a las notas del caso. Puede solicitar asistencia en <u>Soporte Técnico y Descargas de Cisco</u>.

> expert
admin@firepower:~\$ sudo su
<u>root@firepower:/home/admin#</u> pigtail all -outfile LogsRegistration.txt

3. El estado de la licencia también se informa en el archivo /etc/sf/smart_agent.conf. Si el dispositivo se encuentra en el modo de reserva de licencia permanente universal, smart_agent.conf se muestra como REGISTERED (REGISTRADO) y AUTHORIZED (AUTORIZADO).

```
> expert
admin@firepower:~$ sudo su
root@firepower:/home/admin# tail /etc/sf/smart_agent.conf
#Fri Feb 09 03:21:21 UTC 2024
virtual_acct=
registration=REGISTERED,null
authorization=AUTHORIZED,1707448881842
```

Problemas comunes

No hay suficientes licencias.

En el proceso de Reserva de Licencia, aparece este error:



Acción Recomendada .

Compruebe que dispone de suficientes licencias en su cuenta CSSM. Si tiene suficientes

licencias, solicite asistencia del TAC.

No puede ver el botón Reserva de licencia.

Smart Software Licensing	SL Product Details Support Help			
Alerts Inventory Convert to Smart Licensing	Reports Preferences 0	On-Prem Accounts Activity		
General Licenses Product Instance	s Event Log			
				By Name By Tag
Available Actions - Manage Lice	ense Tags		Show License Transactions	Search by License Q

Acción Recomendada

Debe ponerse en contacto con su representante de Cisco para habilitar el modo PLR en su cuenta.

Información Relacionada

• Guía de configuración de Cisco Secure Firewall Device Manager, versión 7.4

Acerca de esta traducción

Cisco ha traducido este documento combinando la traducción automática y los recursos humanos a fin de ofrecer a nuestros usuarios en todo el mundo contenido en su propio idioma.

Tenga en cuenta que incluso la mejor traducción automática podría no ser tan precisa como la proporcionada por un traductor profesional.

Cisco Systems, Inc. no asume ninguna responsabilidad por la precisión de estas traducciones y recomienda remitirse siempre al documento original escrito en inglés (insertar vínculo URL).