Aplicar Licenças Permanentes em Redes Air-Gapped no FDM

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Introdução Pré-requisitos Requisitos Componentes Utilizados Configurar Ativar o modo PLR Cancelar registro de PLR Tenho uma licença no CSSM Não tenho uma licença no CSSM Não tenho uma licença no CSSM Verificar Verificar Iroubleshooting Problemas comuns

Introdução

Este documento descreve como aplicar licenças permanentes em redes Air-Gapped no Firepower Device Manager (FDM).

Pré-requisitos

Requisitos

Recomenda-se ter conhecimento deste tópico:

Configuração inicial do Cisco Secure Firewall Threat Defense

Componentes Utilizados

As informações neste documento são baseadas na versão do software:

• Firepower Threat Defense versão 7.4.1.

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

Configurar

Ativar o modo PLR

Etapa 1. Ative o modo PLR em seu dispositivo.

Clique em Device e navegue até Smart License.



Etapa 2. Clique na engrenagem e selecione Switch to Universal PLR.



Observação: se seu dispositivo estiver usando o Smart Licensing, você deverá cancelar o registro do dispositivo.



Cuidado: Depois de alternar para o modo PLR, você não poderá voltar para o modo de avaliação.



Na janela de visualização, selecione a camada de desempenho e clique em Sim.

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 De	vice Specific	ations
Pick a Tier	~	Cores /	RAM 4 c	ore / 8 GB
			NO	YES

Etapa 3. Salve o código de solicitação.

Un	iversal Permanent License Reservation ${oldsymbol{argen}} imes$
•	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

Etapa 4. Faça login na sua conta CSSM e navegue para Smart Software Licensing > Inventory > Licenses e clique em License Reservation.



Clique em Continuar.

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.

le o código de s	olicitação e cliqu	e em Avancar.		Proceed
nart License Reservati	on			
STEP 1	STEP 2	STEP 3	STEP 4	
Enter Request Code	Select Licenses	Review and Confirm	Authorization Code	
You will begin by generating a To learn how to generate this Once you have generated the 1) Enter the Reservation R 2) Select the licenses to b 3) Generate a Reservatior 4) Enter the Reservation A • Reservation Request Code:	Reservation Request Code from th code, see the configuration guide f code: Request Code below e reserved a Authorization Code withorization Code on the product in	re product instance. or the product being licensed. stance to activate the features		
DE-ZNGFW:9ADKC86E1VU-	CCRVmZyqM-BF			9
Upload File		Br	owse	

Selecione sua licença e clique em Avançar.

Smart License Reservation

step 1 🗸	STEP 2	STEP 3	STEP 4				
Enter Request Code	Select Licenses	Review and Confirm	Authorization Code				
Product Instance Detai	ils						
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 you want to reserve in the Virtual Account.							

Cisco Firepower Virtual Threat Defense Universal License



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Clique em Gerar código de autorização.

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:	VIRTSEC NGFWV 9ADKC86E1VU			
Licenses to Reserve				
License			Expires	Quantity to Reserve
Cisco Firepower Virtual Thr Olsco Firepower Virtual Threat Defer	eat Defense Universal License			1
				Cancel Back Generate Authorization Cod

Para salvar o Código de Autorização, clique em Download como Arquivo ou em Copiar para Área de Transferência.

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 se	tings 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 - 05-01(-0-2), DO-40	U LU		
To learn how to enter this cod	e see the confiduration duide for the i	product being licensed		
			D	ownload as File Copy to Clipboard Close

Clique em Fechar para concluir o processo.

Etapa 5. Volte para o FDM, cole o Código de Autorização e clique em Registrar.



Observação: atualize a página para ver o status atual da licença.

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 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 sta process (that is, the button does not appear on the Inventory your Cisco representative.	to the Inventory > Licenses page, code to generate an Authorization ve to enable Universal Permanent int the License Reservation y > 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 registro de PLR

Tenho uma licença no CSSM

Use esta opção quando concluir o Assistente de registro de licença no CSSM e você tiver um código de autorização. Por exemplo, você iniciou o processo no FDM incorreto, portanto, deve liberar sua licença em sua conta CSSM.

Etapa 1. Clique em Device e navegue até Smart License.



Etapa 2. Clique na engrenagem e selecione Cancelar PLR.

Firewall Device Manager Monitoring Policies Objects Device: firepower	(b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
Device Summary Licensing UNIVERSAL PLR NOT FINISHED Reservation Pending 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)	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

Etapa 3. Selecione Eu tenho uma licença no CSSM.

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



Etapa 4. Cole seu código de autorização e clique em Gerar código de liberação.

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

Х

Salve seu Código de Licença de Liberação.

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 2 Generate a Release License Code using your Authorization Code. Release License Code PRINT DKvxiU-zchZA5-M6ekJk-EmeitQ-85pErd-Ft7 SAVE AS TXT You will not be able to regenerate the Release Code after you unregister. Please make sure that you save this code for use in Cisco Smart Software Manager. 3 In your Cisco Smart Software Manager 2 account free up license by putting Release Code. CANCEL OK

8

Etapa 5. Faça login na sua conta CSSM e navegue para Smart Software Licensing > Inventory > Product Instances.

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	evice or by Product Type	0
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 -

Etapa 6. Pesquise o dispositivo por nome.



Observação: o nome é o número de série do dispositivo.

General License	s Product Instances	Event Log			
Authorize License-E	nforced Features			UDI_PID:NGFWv; UDI_SN:9ADKC86E1VU;	× (
Name		Product Type	Last Contact	Alerts	Actions
UDI_PID:NGFWv; UDI_	SN:9ADKC86E1VU;	VIRTSEC	2024-Feb-09 01:11:4	0 (Reserved Licenses)	Actions 👻
					Showing 1 Re

Passo 7. Clique em Actions e selecione Remove na lista suspensa.

General	Licenses	Product Instances	Event Log			
Authorize	e License-Enforce	ed Features		UDI_PI	D: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 (Rese	erved Licenses)	Actions 👻
					Tr	ansfer
					R	emove
					R	ehost Licenses from a Failed Produc

X

Cole o código de licença de lançamento e clique em Remover 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

Etapa 8. Volte para o dispositivo e clique em Ok.



Observação: atualize a página para ver o status atual da licença.

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



0

Não tenho uma licença no CSSM

Use esta opção quando não concluir o Assistente de registro de licenças no CSSM. Por exemplo, você iniciou o processo PLR no FDM, mas não tem as licenças corretas no CSSM.

Etapa 1. Clique em Device e navegue até Smart License.



Etapa 2. Clique na engrenagem e selecione Cancelar PLR.

Firewall Device Manager Monitoring Policies Objects Device: firepower	(b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c
Device Summary Licensing UNIVERSAL PLR NOT FINISHED Reservation Pending 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)	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 OB

Etapa 3. Selecione I do not have a license in CSSM.

Cancel Permanent License Reservation					
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 Rese	rvation.				
	CANCEL	ОК			

Clique em Ok para concluir.

Cancelar o registro do dispositivo no modo PLR

	- 1		Davias		~ 1ć	Creat	Lingman
Elab	зат	lue em	Device e	navegue	ale	Sman	License.

Firewall Device Manager Monitoring Policies Objects	Device: firepower		admin Administrator
Model Cisco Firepower Threat Defens	Software VDB Intrusion Rule I e for VMwa 7.4.1-172 376.0 20231011-153	Update Cloud Services High Availa 36 🖗 Not Registered Register Not Config	bility C CONFIGURE
FC Inside Netw	O/1 Cisco Firepower Threat Defense for VMware () 0/0 0/1 0/2 () 0/0		Internet NS 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

Etapa 2. Clique no equipamento e selecione Unregister Universal PLR.



Etapa 3. Clique em Sim para continuar o processo.

\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?



Etapa 4. Salve o código de licença de lançamento.



Etapa 5. Faça login na sua conta CSSM e navegue para Smart Software Licensing > Inventory > Product Instances.

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	evice or by Product Type	0
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	S 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 -

Etapa 6. Pesquise o dispositivo por nome.



Observação: o nome é o número de série do dispositivo.

General Licens	Product Instances	Event Log			
Authorize License-	Enforced Features		UDI	PID:NGFWv; UDI_SN:9ADKC86E1VU;	× Q
Name		Product Type	Last Contact	Alerts	Actions
UDI_PID:NGFWv; UDI_	SN:9ADKC86E1VU;	VIRTSEC	2024-Feb-09 01:11:40 (Re	served Licenses)	Actions -
					Showing 1 Red

Passo 7. Clique em Actions e selecione Remove na lista suspensa.

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

Cole o código de licença de lançamento e clique em Remover 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

×

Etapa 8. Volte para o dispositivo e clique em Cancelar registro.

Unregister Universal Permanent License Reservation

1	Save Release Code for this Device.			
\downarrow	Release License Code			
	DCsSXH-D2rBtc-UZzer8-Un5yqp-vcKF1v-EG4	SAVE A	AS TXT	PRINT
	You will not be able to regenerate the Release Code after save this code for use in Cisco Smart Software Manager.	you unregister.	Please mak	e sure that you
2	In your Cisco Smart Software Manager [2] free up licens from here.	e by inserting	Release L	icense Code
		CANCEL		UNREGISTER

Verificar

Navegue até Device > Smart License e você poderá ver que a licença é Universal PLR.



Troubleshooting

1. Procure erros em /ngfw/var/log/cisco/smart_agent.log.

Por exemplo, nesses logs, você pode ver que o processo de registro foi bem-sucedido.

<#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
```

2. Use um rabisco para solicitar assistência do TAC e anexe-o às notas do caso. Você pode solicitar assistência de suporte em <u>Suporte técnico e downloads da Cisco</u>.

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

3. O status da licença também é informado no arquivo /etc/sf/smart_agent.conf. Se o dispositivo estiver no modo Reserva de Licenciamento Permanente Universal, o smart_agent.conf será exibido como REGISTERED e AUTHORIZED.

```
> 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 comuns

Não há licenças suficientes.

No processo License Reservation, você recebeu este erro:

Smart License Reserva	tion)
STEP 1 🗸	STEP 2 Select Licenses	STEP 3 Review and Confirm	STEP 4 Authorization Code		
The licenses cannot	be reserved because the Virtual Acc	ount does not contain a sufficient surp	olus of the following perpetual license	es: FTDv 3 Gbps Universal License.	

Ação recomendada.

Verifique se você tem licenças suficientes em sua conta CSSM. Se você tiver licenças suficientes, solicite assistência do TAC.

Você não pode ver o botão License Reservation (Reserva de licença).

Smart Software L	SL Product Details Support Help				
Alerts Inventory Convert t	o Smart Licensing Reports	Preferences (Dn-Prem Accounts Activity		
General Licenses	Product Instances Eve	nt Log			
Available Actions -	Manage License Tags		G	Show License Transactions	By Name By Tag Search by License Q

Ação recomendada

Você deve entrar em contato com seu representante da Cisco para ativar o modo PLR em sua conta.

Informações Relacionadas

• Guia de configuração do gerenciador de dispositivos do Cisco Secure Firewall, versão 7.4

Sobre esta tradução

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