

# Configurar o FTD do arquivo de configuração do ASA com a ferramenta de migração Firepower

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## Introduction

Este documento descreve um exemplo de migração do Adaptive Security Appliance (ASA) para Firepower Threat Defense (FTD) no FPR4145.

## Prerequisites

### Requirements

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Conhecimento básico do ASA
- Conhecimento do Firepower Management Center (FMC) e do FTD

### Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- ASA versão 9.12(2)
- FTD versão 6.7.0
- FMC versão 6.7.0
- Firepower Migration Tool versão 2.5.0

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

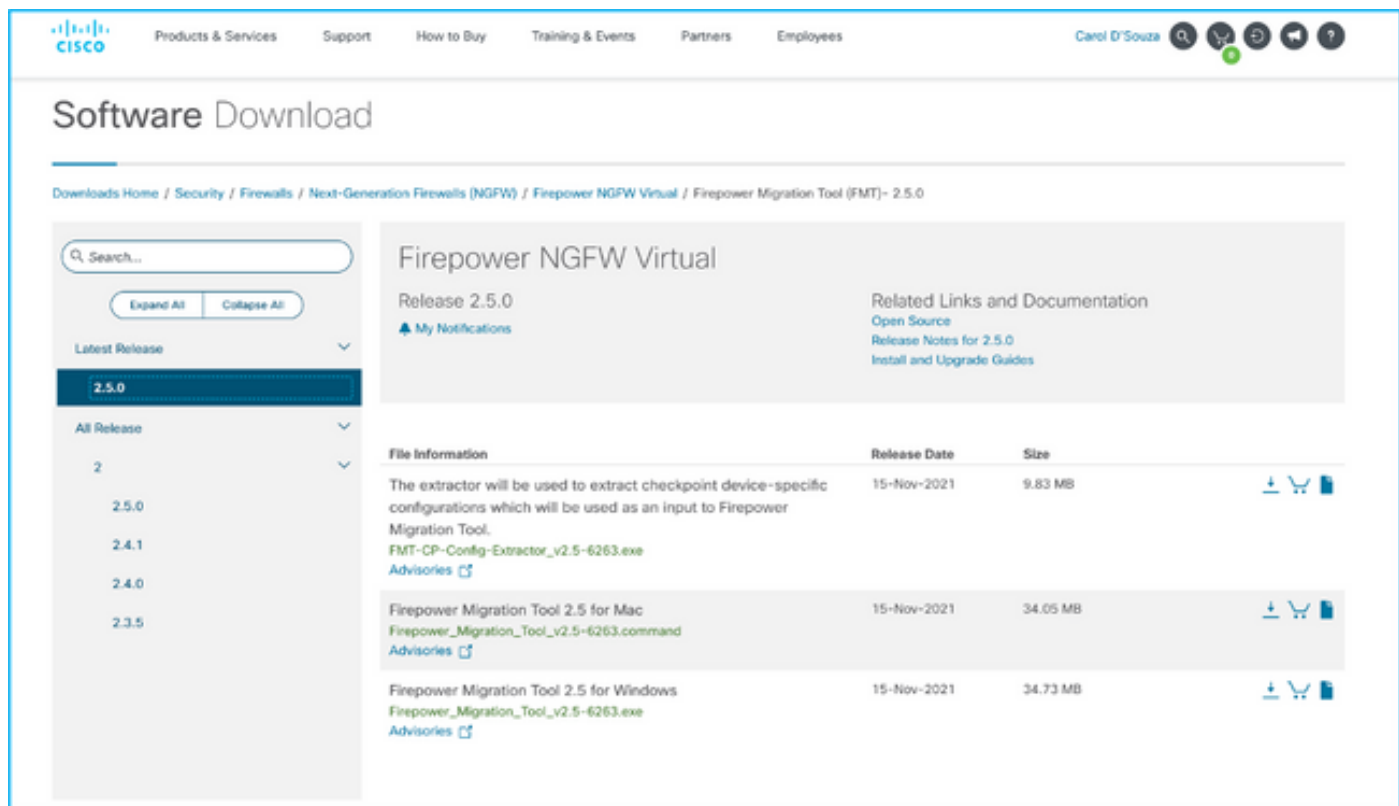
## Informações de Apoio

Exporte o arquivo de configuração do ASA no formato `.cfg` ou `.txt`. O FMC deve ser implantado

com o FTD registrado nele.

## Configurar

1. Baixe a Firepower Migration Tool de [software.cisco.com](https://software.cisco.com), como mostrado na imagem.



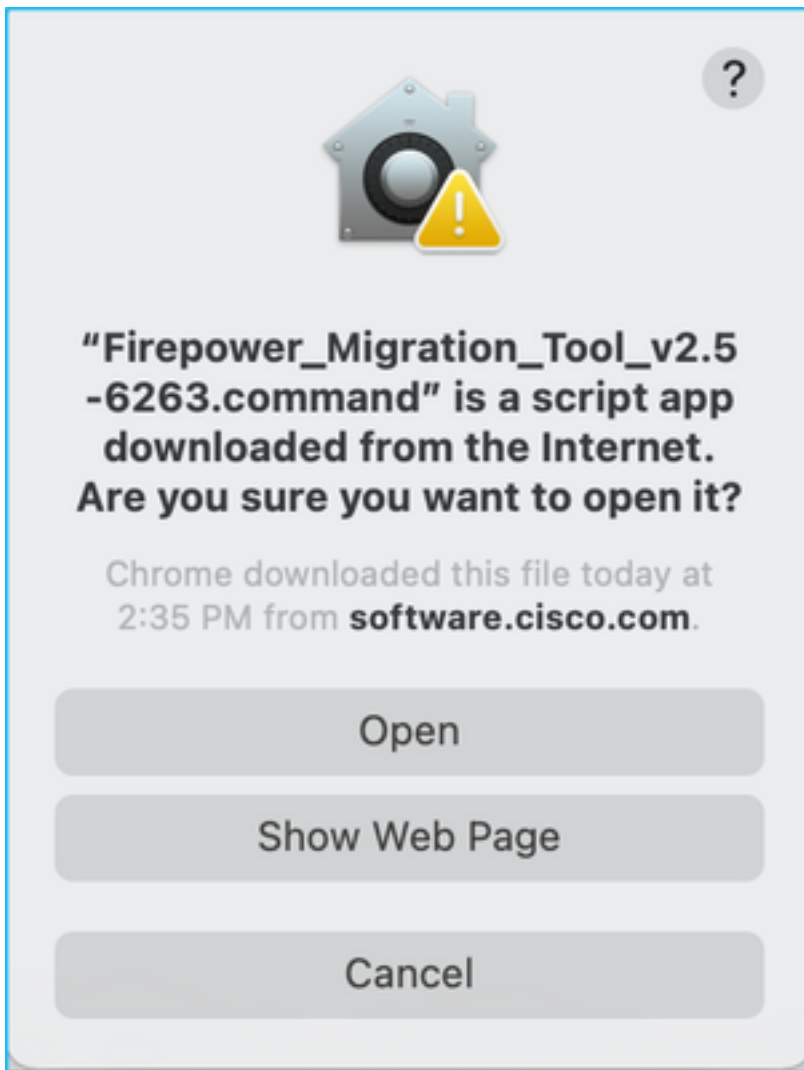
2. Revise e verifique os requisitos na [seção Diretrizes e Limitações](#) da ferramenta de migração Firepower.

3. Se você estiver planejando migrar um arquivo de configuração grande, configure as configurações de espera para que o sistema não fique em espera durante um envio de migração.

3.1. No Windows, navegue até Opções de energia no Painel de controle. Clique em **Alterar configurações do plano** próximo ao seu plano de energia atual. Alteração **Coloque o computador para dormir para Nunca**. Clique em **Salvar alterações**.

3.2. Para MAC, navegue até **System Preferences > Energy Saver**. Marque a caixa ao lado para evitar que o computador fique dormindo automaticamente quando a tela estiver desligada e arraste a tecla **Turn Off (Desligar exibição)** depois do controle deslizante para Nunca.

**Note:** Esse aviso abre a caixa de diálogo quando os usuários MAC tentam abrir o arquivo baixado. Ignore isso e siga a Etapa 4 A.



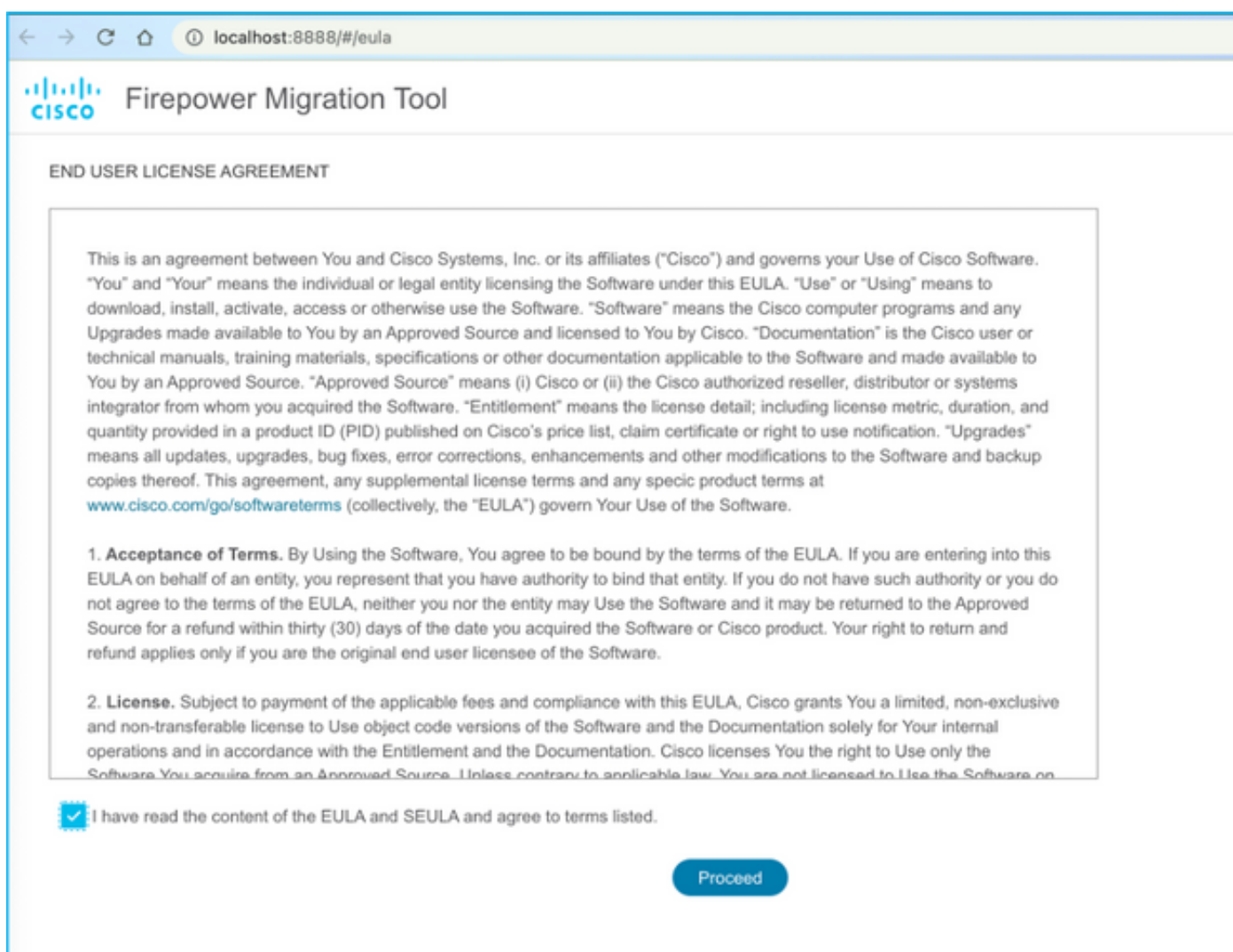
4. A. Para MAC - Use o terminal e execute esses comandos.

```
CAROLDSO-M-WGYT:~ caroldso$ cd Downloads/  
CAROLDSO-M-WGYT:Downloads caroldso$ chmod 750 Firepower_Migration_Tool_v2.5-6263  
.command  
CAROLDSO-M-WGYT:Downloads caroldso$ ./Firepower_Migration_Tool_v2.5-6263.command  
[75653] PyInstaller Bootloader 3.x  
[75653] LOADER: executable is /Users/caroldso/Downloads/Firepower_Migration_Tool  
_v2.5-6263.command  
[75653] LOADER: hompath is /Users/caroldso/Downloads  
[75653] LOADER: _MEIPASS2 is NULL  
[75653] LOADER: archivename is /Users/caroldso/Downloads/Firepower_Migration_Too  
l_v2.5-6263.command  
[75653] LOADER: Cookie found at offset 0x219AE08  
[75653] LOADER: Extracting binaries  
[75653] LOADER: Executing self as child
```

```
127.0.0.1 - - [23/Nov/2021 14:49:47] "GET /inline.318b50c57b4eba3d437b.bundle.js HTTP/1.1" 200 -
127.0.0.1 - - [23/Nov/2021 14:49:47] "GET /cui-font.880241c0aa87aa899c6a.woff2 HTTP/1.1" 200 -
2021-11-23 14:49:47,999 [INFO      | cco_login] > "EULA check for an user"
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /assets/cisco.svg HTTP/1.1" 200 -
2021-11-23 14:49:48,013 [DEBUG     | common] > "session table records count:1"
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /api/eula_check HTTP/1.1" 200 -
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /assets/icons/login.png HTTP/1.1" 200 -
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /assets/images/1.png HTTP/1.1" 200 -
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /assets/images/3.png HTTP/1.1" 200 -
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /assets/images/2.png HTTP/1.1" 200 -
127.0.0.1 - - [23/Nov/2021 14:49:48] "GET /favicon.ico HTTP/1.1" 200 -
```

4. B. No Windows - clique duas vezes na Firepower Migration Tool para iniciá-la em um navegador Google Chrome.

5. Aceite a licença conforme mostrado na imagem.



← → ↻ 🏠 ⓘ localhost:8888/#/eula

**cisco** Firepower Migration Tool

END USER LICENSE AGREEMENT

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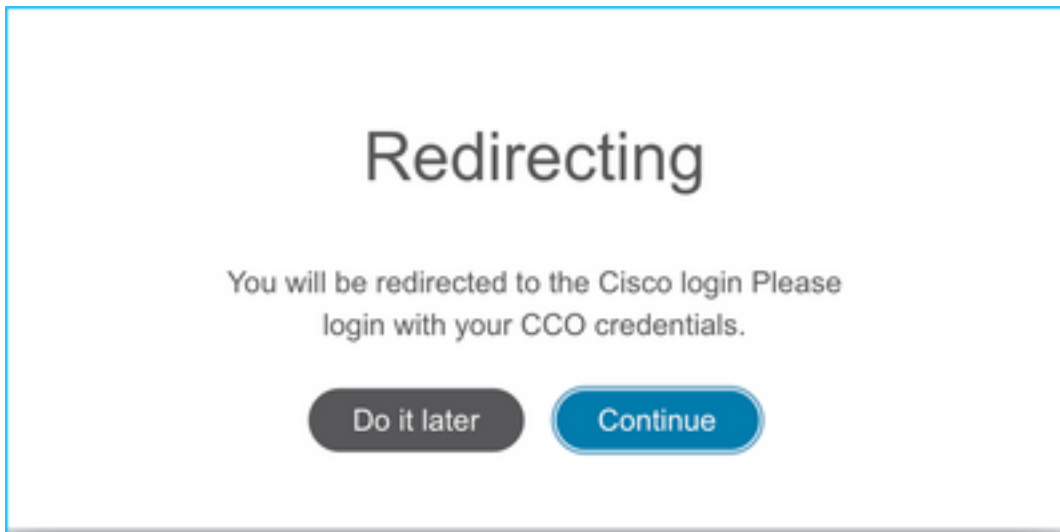
I have read the content of the EULA and SEULA and agree to terms listed.

Proceed

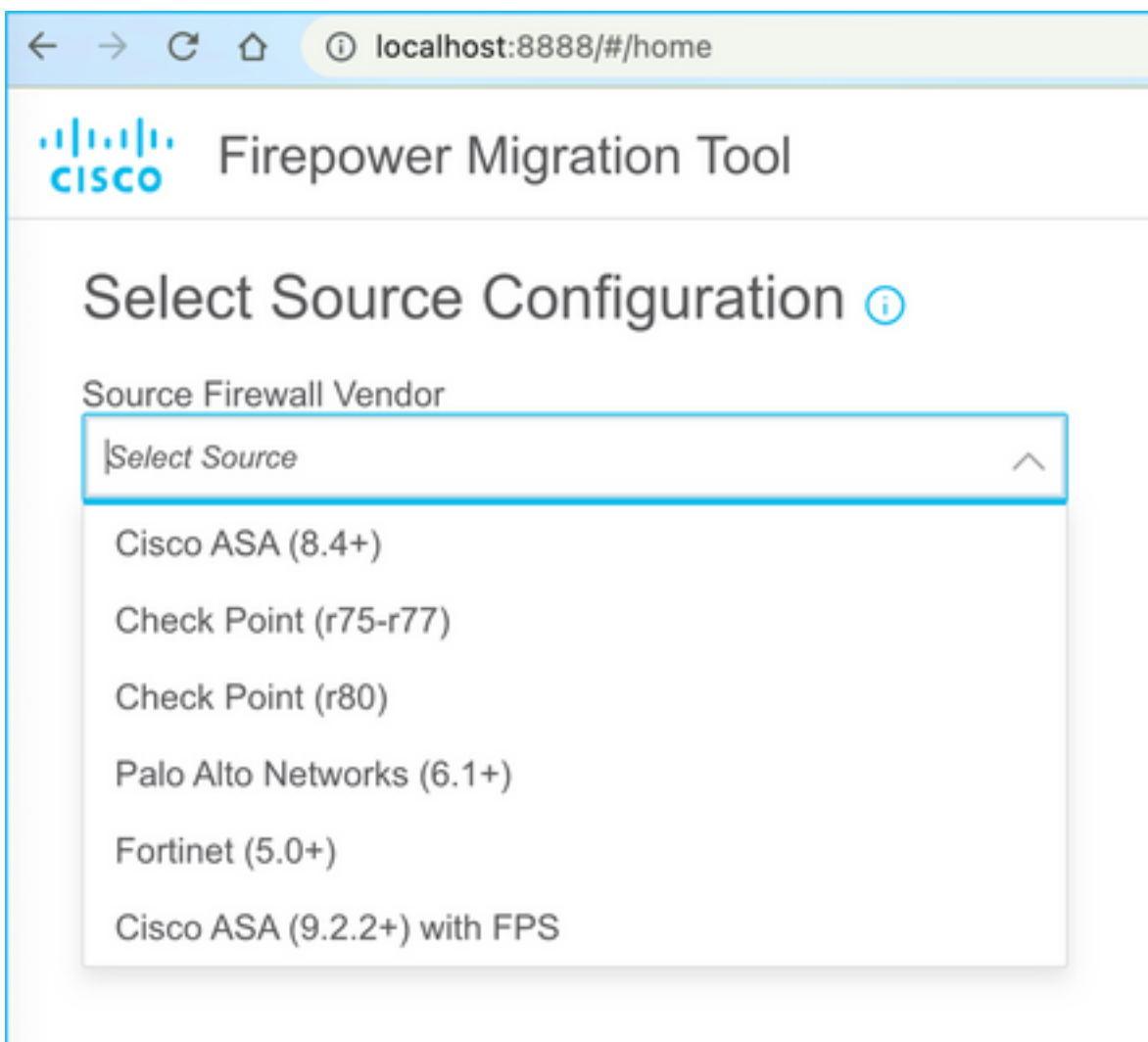
6. Na página de login da Firepower Migration Tool, clique no link de login com CCO para fazer login em sua conta Cisco.com com suas credenciais de login único.

**Note:** Se você não tiver uma conta do Cisco.com, crie-a na página de login do Cisco.com.

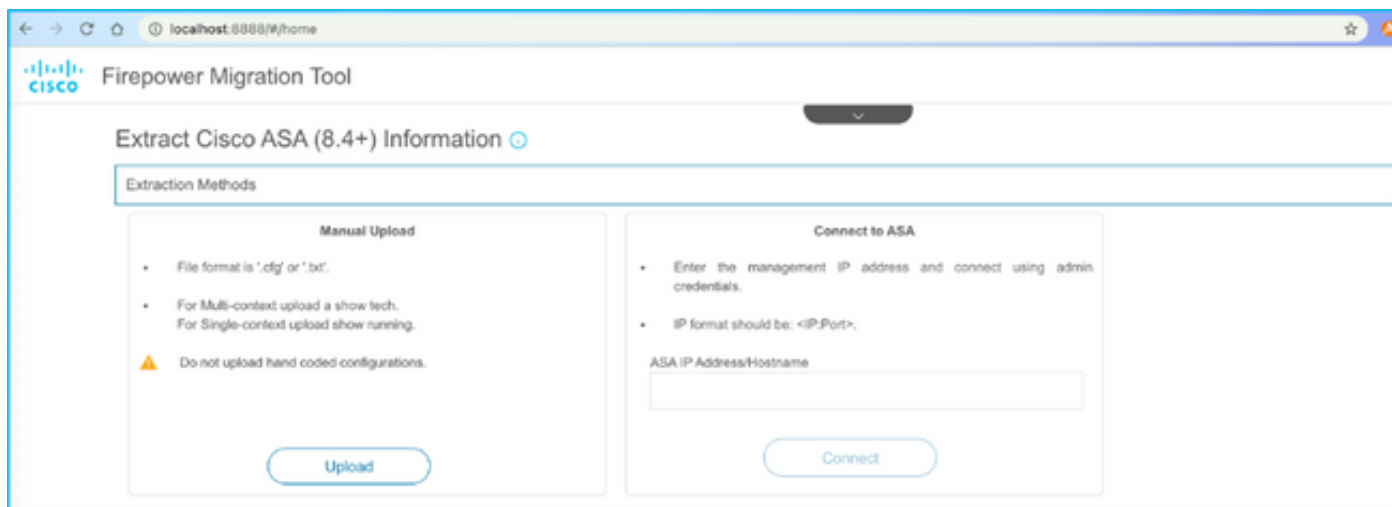
Faça login com as seguintes credenciais padrão: Nome de usuário—senha admin—Admin123.



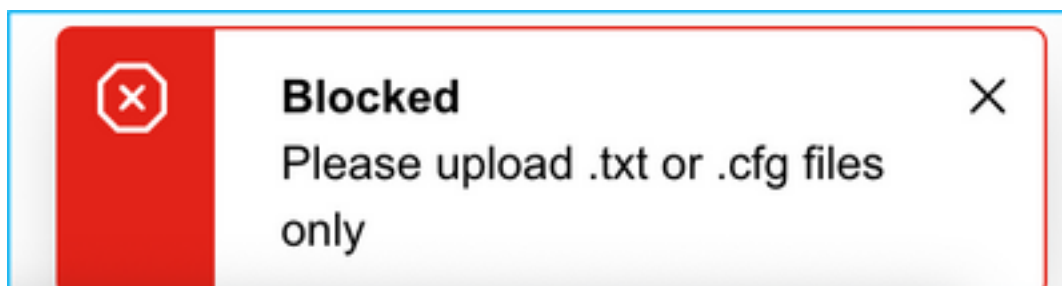
7. Selecione a configuração de origem. Nesse cenário, é o Cisco ASA (8.4+).



8. Selecione Manual Upload se você não tiver conectividade com o ASA. Caso contrário, você pode recuperar a configuração atual do ASA e inserir o IP de gerenciamento e os detalhes de login. Em nosso cenário, foi feito um upload manual.



**Note:** Esse erro será exibido se o arquivo não for suportado. Certifique-se de alterar o formato para texto simples. (Erro apesar da extensão .cfg).



```
ASAConfig.cfg — Edited
asa# show running-config
: Saved
:
:
: Serial Number: FLM22160652
: Hardware: FPR4K-SM-12, 56533 MB RAM, CPU Xeon E5 series 2200 MHz, 1 CPU (24 cores)
:
ASA Version 9.12(2)
:
hostname asa
enable password ***** pbkdf2
:
license smart
feature tier standard
names
no mac-address auto
:
interface Ethernet1/1
no nameif
no security-level
no ip address
:
interface Ethernet1/2
nameif Inside
cts manual
security-level 0
no ip address
:
interface Ethernet1/3
nameif Outside
cts manual
security-level 0
no ip address
```

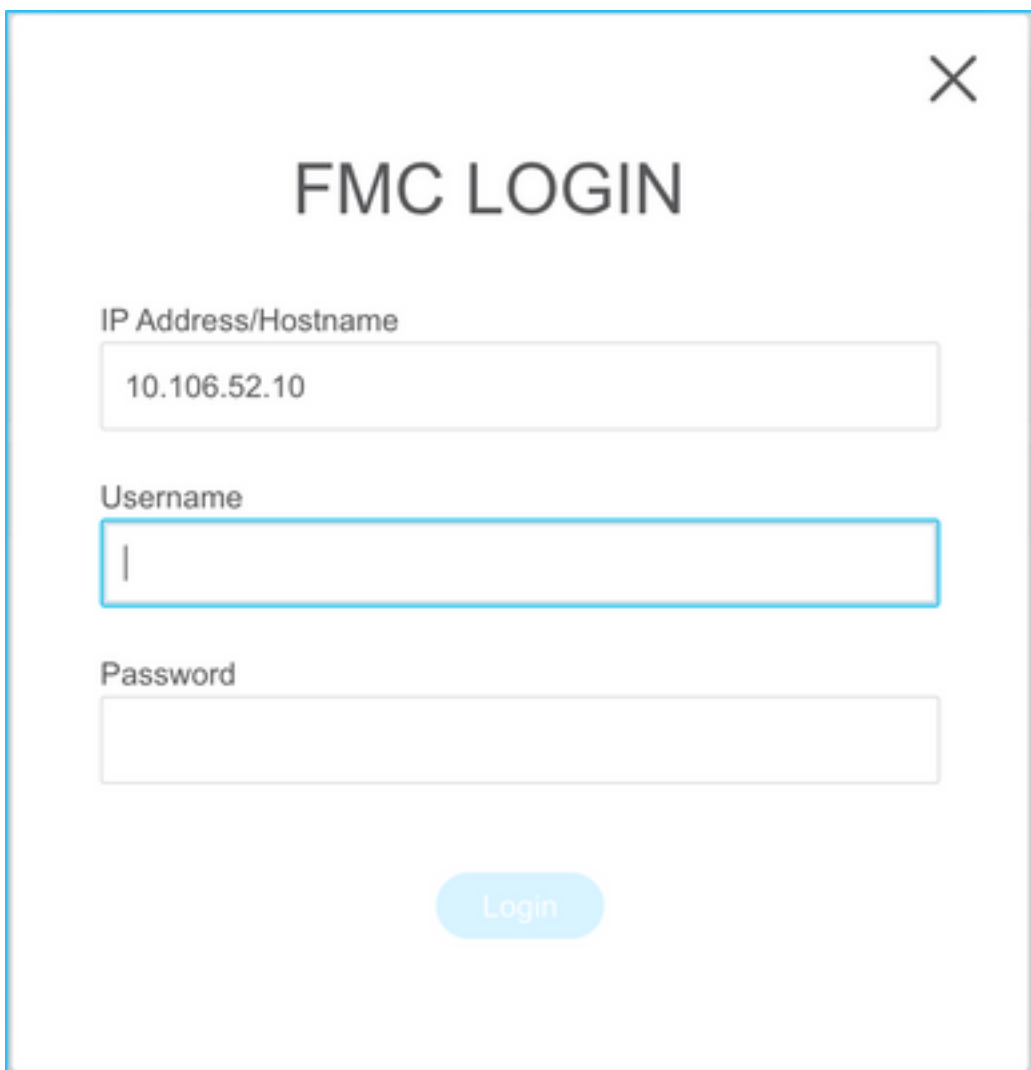
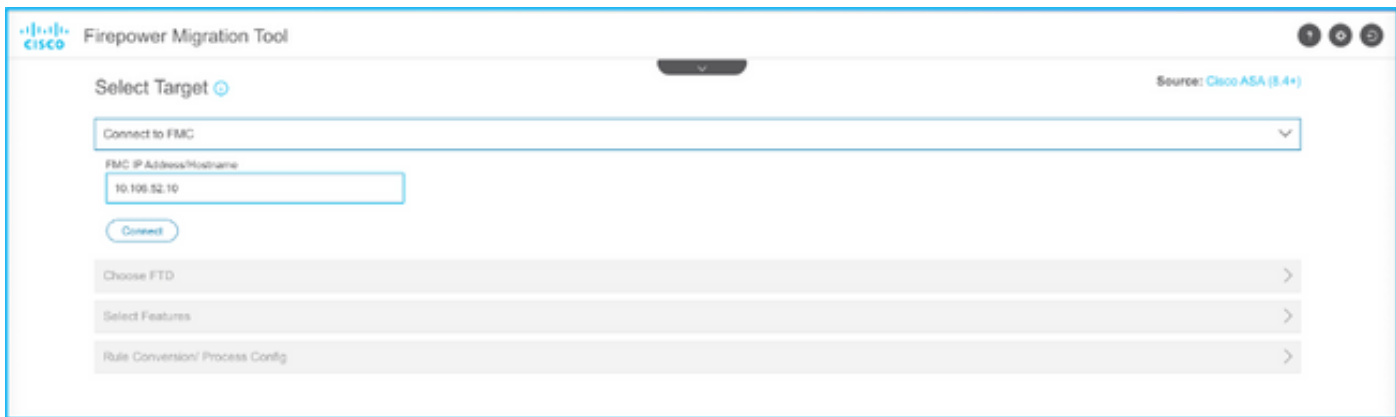
9. Após o upload do arquivo, os elementos serão analisados fornecendo um resumo como mostrado na imagem:

The screenshot displays the Cisco Firepower Migration Tool interface. At the top, it says "Extract Cisco ASA (8.4+) Information" with a source of "Cisco ASA (8.4+)". Below this, there are several sections: "Extraction Methods" with a manual upload of "ASAConfig.cfg.txt"; "Context Selection" set to "Single Context Mode"; and a "Parsed Summary" dropdown. A note indicates that hitcount information is only available when connected to a live ASA. The summary is presented in a grid of seven cards:

20 Access Control List Lines	88 Network Objects	14 Port Objects	
8 Logical Interfaces	9 Static Routes	4 Network Address Translation	1 Site-to-Site VPN Tunnels

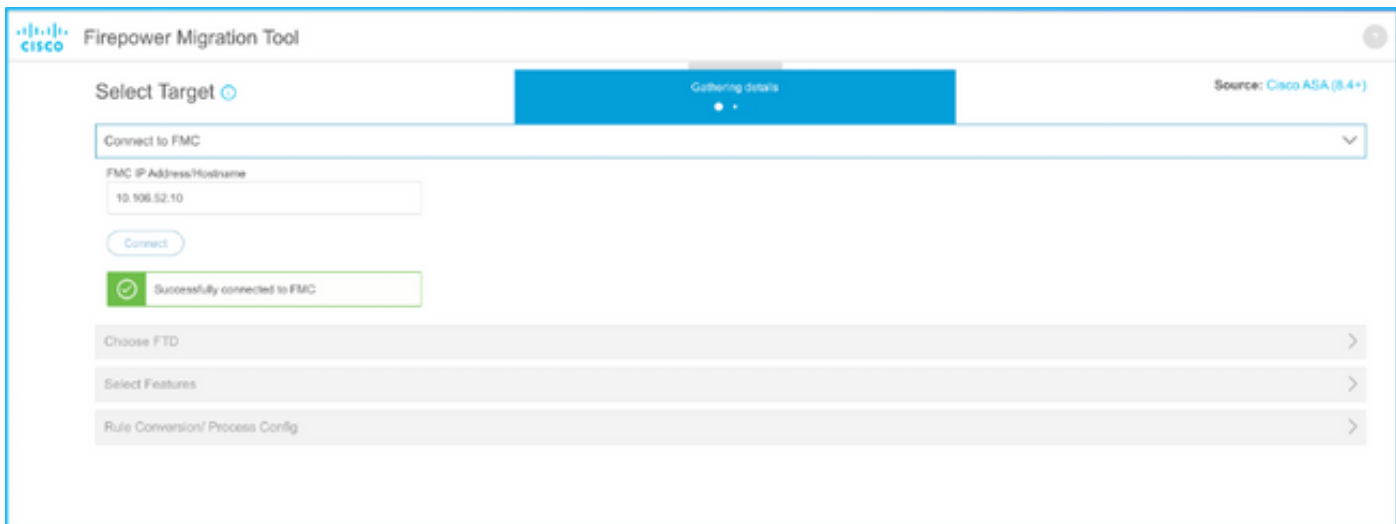
A note at the bottom states: "Pre-migration report will be available after selecting the targets."

10. Insira o IP do FMC e as credenciais de login para as quais a configuração do ASA será migrada. Certifique-se de que o IP do FMC esteja acessível a partir da sua estação de trabalho.

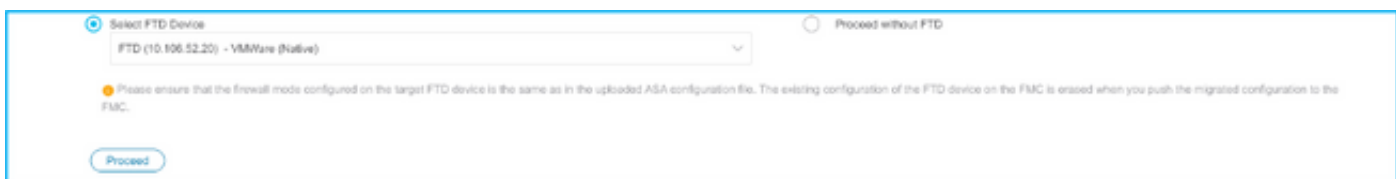


11. Quando o FMC estiver conectado, os FTDs gerenciados abaixo dele serão exibidos.

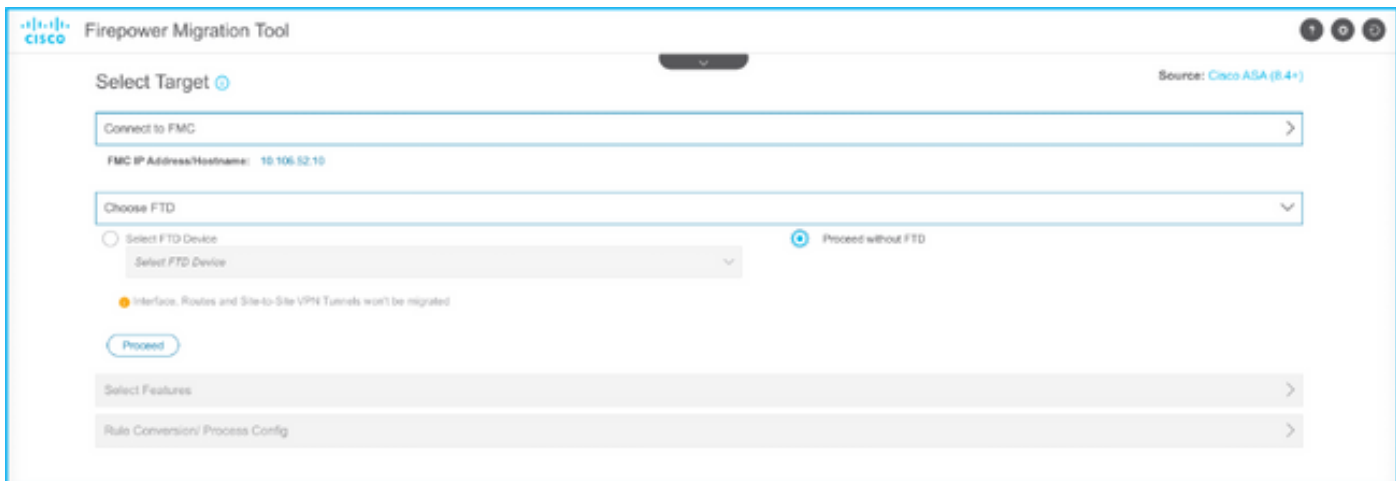




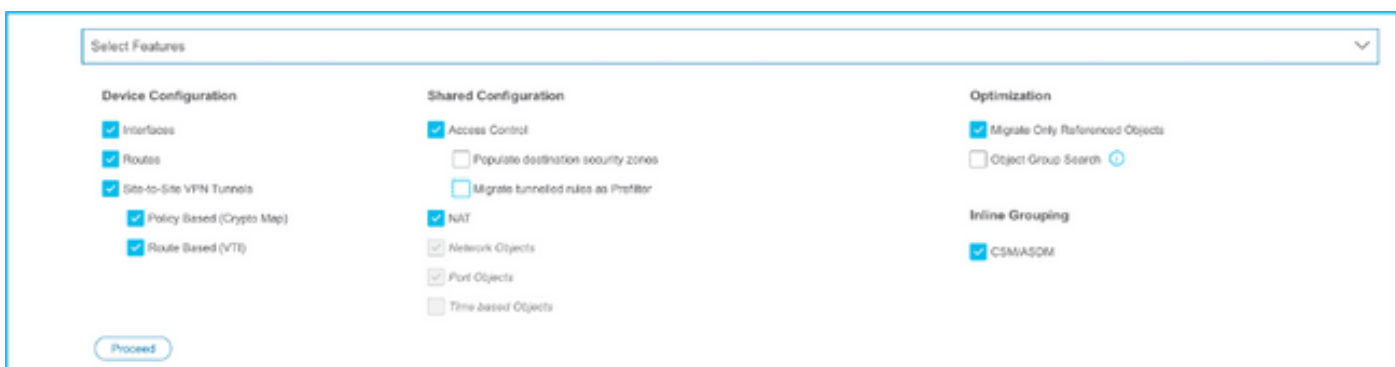
12. Escolha o FTD para o qual deseja executar a migração da configuração do ASA.



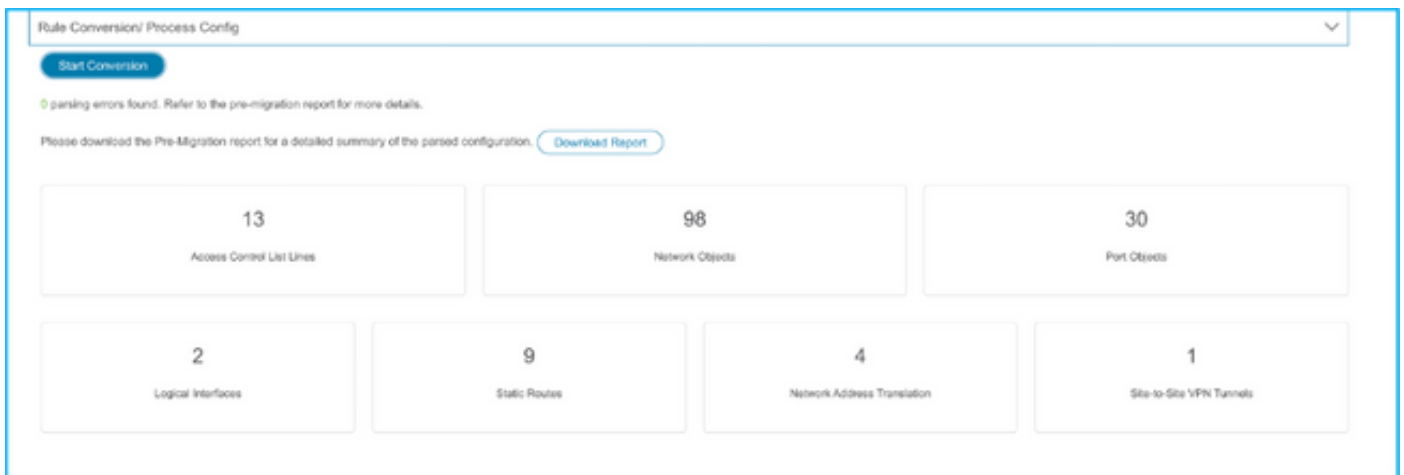
**Note:** Recomenda-se selecionar o dispositivo FTD, caso contrário, as interfaces, rotas e a configuração de VPN site a site terão que ser feitas manualmente.



13. Selecione os recursos que devem ser migrados conforme mostrado na imagem.



14. Selecione **Start Conversion** para iniciar a pré-migração que preencherá os elementos referentes à configuração do FTD.



15. Clique em **Download Report** visto anteriormente para exibir o Pre-Migration Report, como mostrado na imagem.

← → ↻ 🏠 📄 File | /Users/caroldso/Downloads/pre\_migration\_report\_asa\_2021-11-23\_09-41-15.html

**CISCO** Pre-Migration Report

**Note:** Review all contents of this pre-migration report carefully. Unsupported rules will not be migrated completely, which can potentially alter your original configuration, restrict some traffic, or permit unwanted traffic. We recommend reviewing the configuration by Firepower Threat Defense after the configuration is successfully migrated.

### 1. Overall Summary:

A summary of the supported ASA configuration elements that can be successfully migrated to Firepower Threat Defense.

Collection Method	Manual
ASA Configuration Name	ASAConfig.cfg.txt
ASA Version	9.12(2)
ASA Hostname	asa
ASA Device Model	FPR4K-SM-12, 56533 MB RAM, CPU Xeon E5 series 2200 MHz, 1 CPU (24 cores)
Hit Count Feature	No
IP SLA Monitor	0
Total Extended ACEs	13
ACEs Migratable	13
Site to Site VPN Tunnels	1
Logical Interfaces	2
Network Objects and Groups	98
Service Objects and Groups	30
Static Routes	9
NAT Rules	4

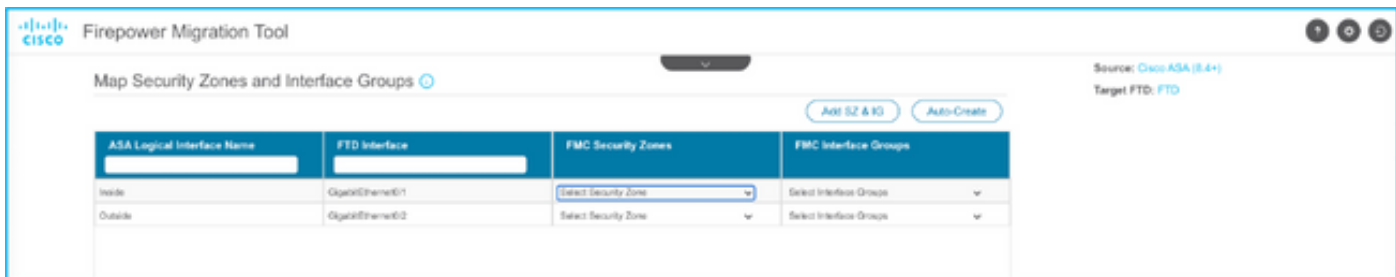
**Note:** ACEs that are applied outbound or not attached to interfaces using the access-group command are ignored.

16. Mapeie as interfaces ASA com as interfaces FTD conforme necessário, conforme mostrado na imagem.

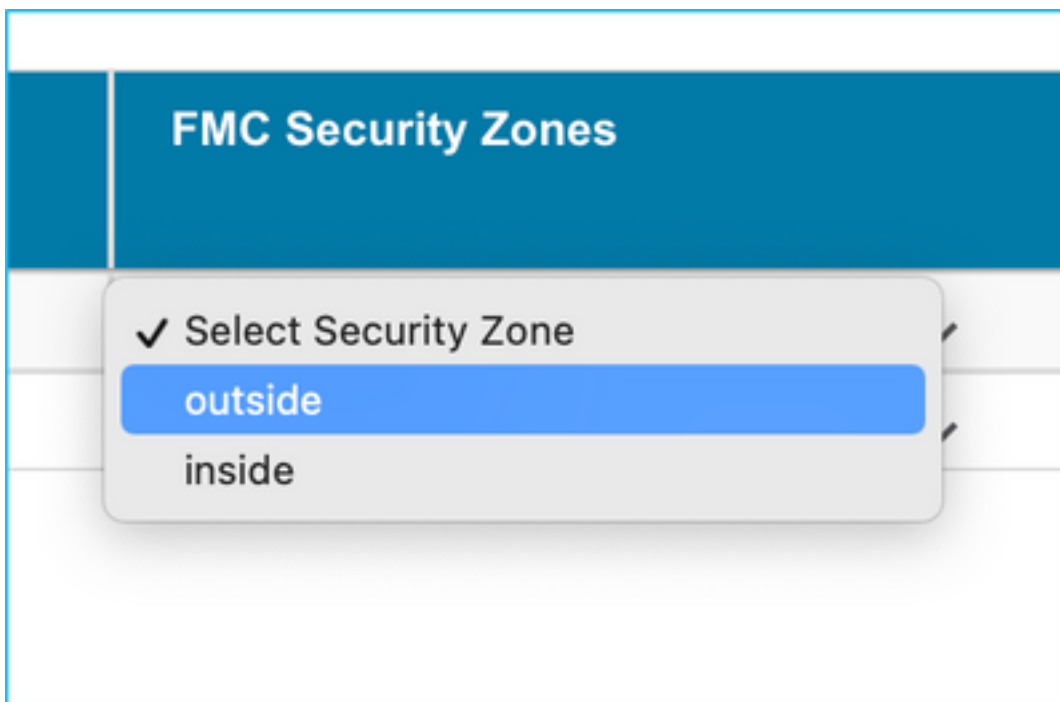
Refresh

ASA Interface Name	FTD Interface Name
<input type="text"/>	Select Interface GigabitEthernet0/0 GigabitEthernet0/1 <input checked="" type="checkbox"/> GigabitEthernet0/2
Ethernet1/2	
Ethernet1/3	

17. Atribua zonas de segurança e grupos de interface às interfaces FTD.



A. Se o FMC tiver zonas de segurança e grupos de interface já criados, você poderá selecioná-los conforme necessário:



B. Se houver necessidade de criar zonas de segurança e um grupo de interface, clique em **Adicionar SZ e IG** como mostrado na imagem.

✕

## Add SZ & IG

Security Zones (SZ)    Interface Groups (IG)

Addi Max 48 characters for Interface Group name. Allowed special characters are \_.-+

Interface Groups	Type	Actions
<input style="width: 100%;" type="text" value="Inside"/>	ROUTED	<span style="background-color: black; color: white; border-radius: 50%; padding: 5px 10px;">✕</span> <span style="background-color: green; color: white; border-radius: 50%; padding: 5px 10px;">✓</span>

0 - 0 of 0 |< <  > >|

Close

C. Caso contrário, você pode optar pela opção **Criação automática** que criará zonas de segurança e grupos de interface com o nome **ASA logical interface\_sz** e **ASA logical interface\_ig** respectivamente.

# Auto-Create

Auto-create maps ASA interfaces to existing FTD security zones and interface groups in FMC that have the same name. If no match is found, the Migration Tool creates a new FTD security zone and interface group with the same name in FMC.

Select the objects that you want to map to ASA interfaces

Security Zones  Interface Groups

Cancel

Auto-Create

**Firepower Migration Tool**

Map Security Zones and Interface Groups ⓘ

Add SZ & IG Auto-Create

ASA Logical Interface Name	FTD Interface	FMC Security Zones	FMC Interface Groups
Inside	GigabitEthernet0/1	inside	Inside_ig (A)
Outside	GigabitEthernet0/2	outside	Outside_ig (A)

18. Revise e valide cada um dos elementos FTD criados. Os alertas são vistos em vermelho como mostrado na imagem.

**Firepower Migration Tool**

Optimize, Review and Validate Configuration ⓘ

Source: Cisco ASA (8.4+) Target FTD: FTD

Access Control NAT Network Objects Port Objects Interfaces Routes VPN Objects Site-to-Site VPN Tunnels ⓘ

ADP Pre-Filter

Select all 13 entries Selected: 0 / 13

#	Name	SOURCE				DESTINATION				State	Action	ACE Count
		Zone	Network	Port	Zone	Network	Port					
1	Outside_access_in_01	outside	any	ANY	ANY				✓	Allow	1	
2	Outside_access_in_02	outside	any	ANY	ANY				✓	Allow	1	
3	Outside_access_in_03	outside	any	ANY	ANY				✓	Allow	2	
4	Outside_access_in_04	outside	any	ANY	ANY				✓	Allow	4	
5	Outside_access_in_05	outside	any	ANY	ANY				✓	Allow	3	
6	Outside_access_in_06	outside	any	ANY	ANY				✓	Allow	2	
7	Outside_access_in_07	outside	any	ANY	ANY				✓	Allow	3	
8	Outside_access_in_08	outside	any	ANY	ANY				✓	Allow	1	
9	Outside_access_in_09	outside	any	ANY	ANY				✓	Allow	8	
10	Outside_access_in_010	outside	any	ANY	ANY				✓	Allow	7	
11	Outside_access_in_011	outside	any	ANY	ANY				✓	Allow	2	
12	Outside_access_in_012	outside	any	ANY	ANY				✓	Allow	1	

50 perpage 1 to 13 of 13 1 Page 1 of 1

Update the Pre-Shared Key (PSK) Certificate column highlighted in yellow for each VPN-tunnel rows under Site-to-Site VPN Tunnels tab to validate and proceed with migration. For additional help, click here.

Optimize ACL (RMH)

19. As ações de migração podem ser selecionadas conforme mostrado na imagem se você quiser editar qualquer regra. Os recursos FTD de adição de arquivos e política de IPS podem ser feitos nesta etapa.

The screenshot shows a configuration interface with a table of rules. At the top, there are tabs for 'ACP' and 'Pre-filter'. Below the tabs, there is a checkbox for 'Select all 13 entries' and a status indicator 'Selected: 13 / 13'. To the right, there are buttons for 'Actions' and 'Save'. The table has columns for selection, ID, Name, and Source. A dropdown menu is open over the table, showing 'MIGRATION ACTIONS' (Do not migrate) and 'RULE ACTIONS' (File Policy, IPS Policy, Log, Rule Action). The table data is as follows:

	#	Name	SOURCE
<input checked="" type="checkbox"/>			network
<input checked="" type="checkbox"/>	1	Outside_access_in_#1	
<input checked="" type="checkbox"/>	2	Outside_access_in_#2	
<input checked="" type="checkbox"/>	3	Outside_access_in_#3	
<input checked="" type="checkbox"/>	4	Outside_access_in_#4	
<input checked="" type="checkbox"/>	5	Outside_access_in_#5	
<input checked="" type="checkbox"/>	6	Outside_access_in_#6	outside any

**Note:** Se as Políticas de arquivo já existirem no FMC, elas serão preenchidas como mostrado na imagem. O mesmo se aplica às políticas de IPS junto com as políticas padrão.

The screenshot shows a dialog box titled 'File Policy'. It has a close button (X) in the top right corner. Below the title, there is a label 'Select File Policy \*' and a dropdown menu. The dropdown menu is open, showing two options: 'eicar' and 'None'. At the bottom of the dialog, there are two buttons: 'Cancel' and 'Select'.

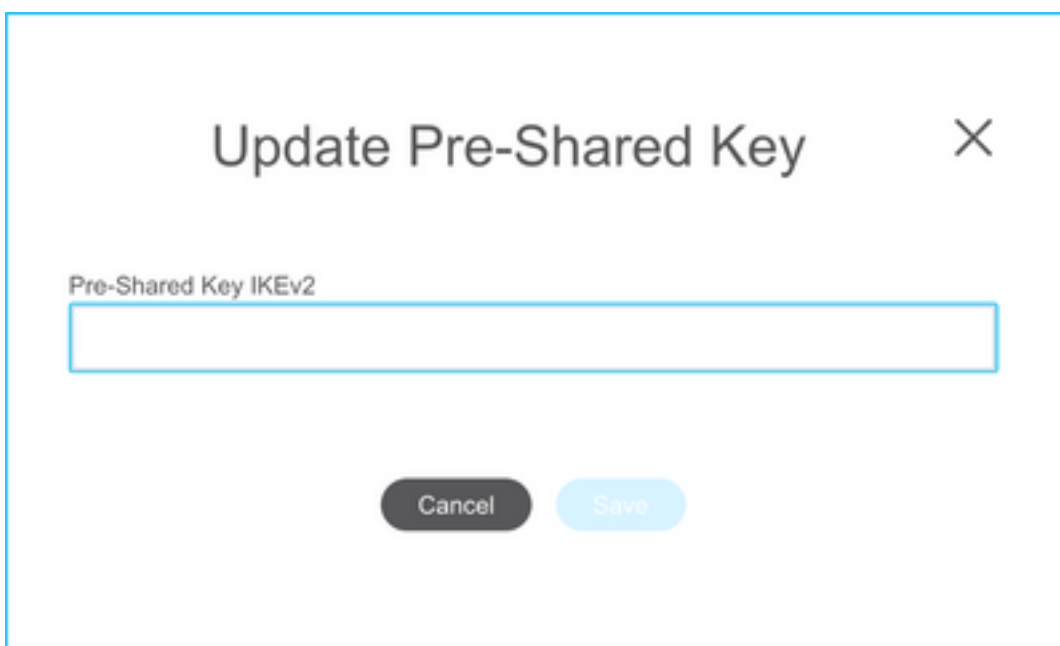
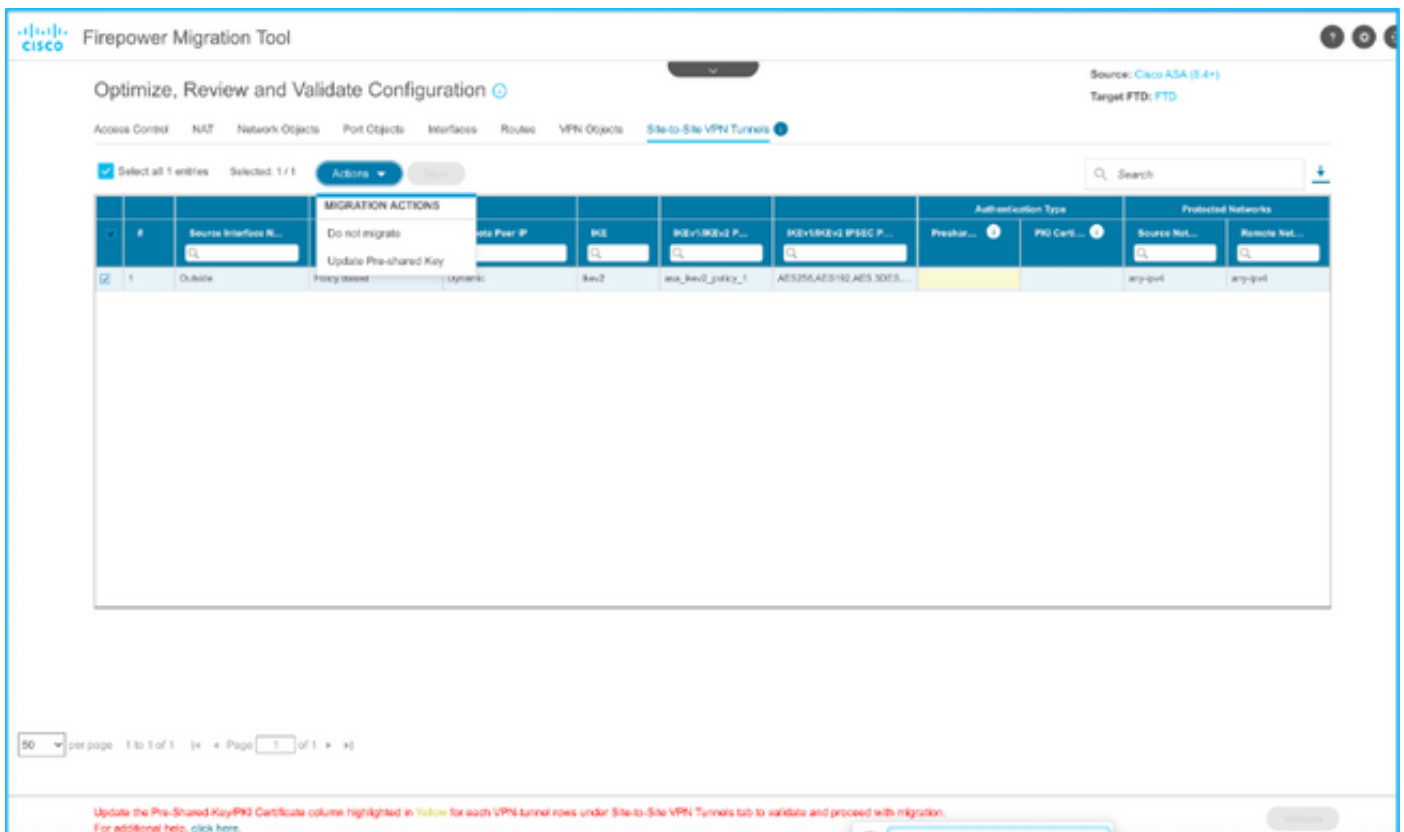
A configuração do log pode ser feita para as regras necessárias. A configuração do servidor syslog existente no FMC pode ser selecionada neste estágio.



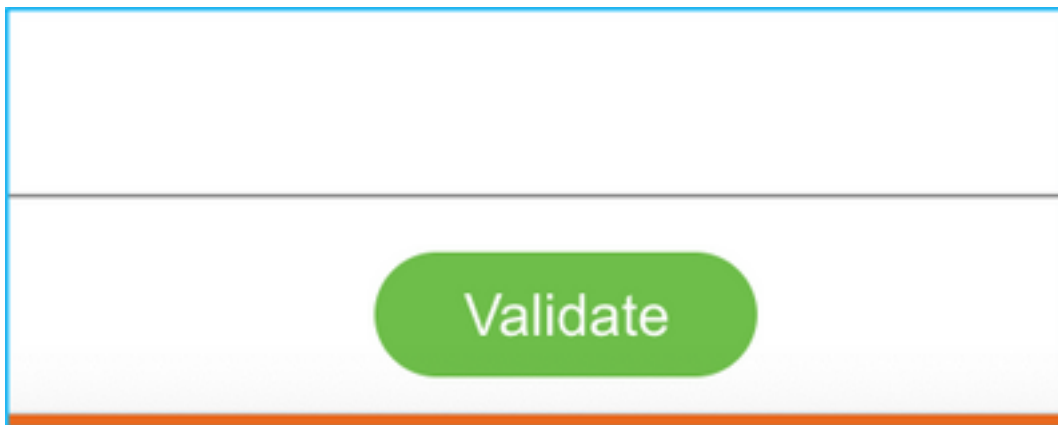


20. Da mesma forma, NAT, Objeto de Rede, Objetos de Porta, Interfaces, Rotas, Objetos VPN, Túneis VPN Site a Site e outros elementos de acordo com sua configuração podem ser revisados passo a passo.

**Note:** O alerta será notificado conforme mostrado na imagem para atualizar a chave pré-compartilhada, pois ela não é copiada no arquivo de configuração do ASA. Selecione **Ações** > **Atualizar chave pré-compartilhada** para inserir o valor.



21. Finalmente, clique no ícone **Validar** na parte inferior direita da tela, como mostrado na imagem.



22. Depois que a validação for bem-sucedida, clique em **Push Configuration** como mostrado na imagem.

**Validation Status**

Successfully Validated

Validation Summary (Pre-push)

13 Access Control List Lines	37 Network Objects	14 Port Objects	
2 Logical Interfaces	9 Static Routes	4 Network Address Translation	1 Site-to-Site VPN Tunnels

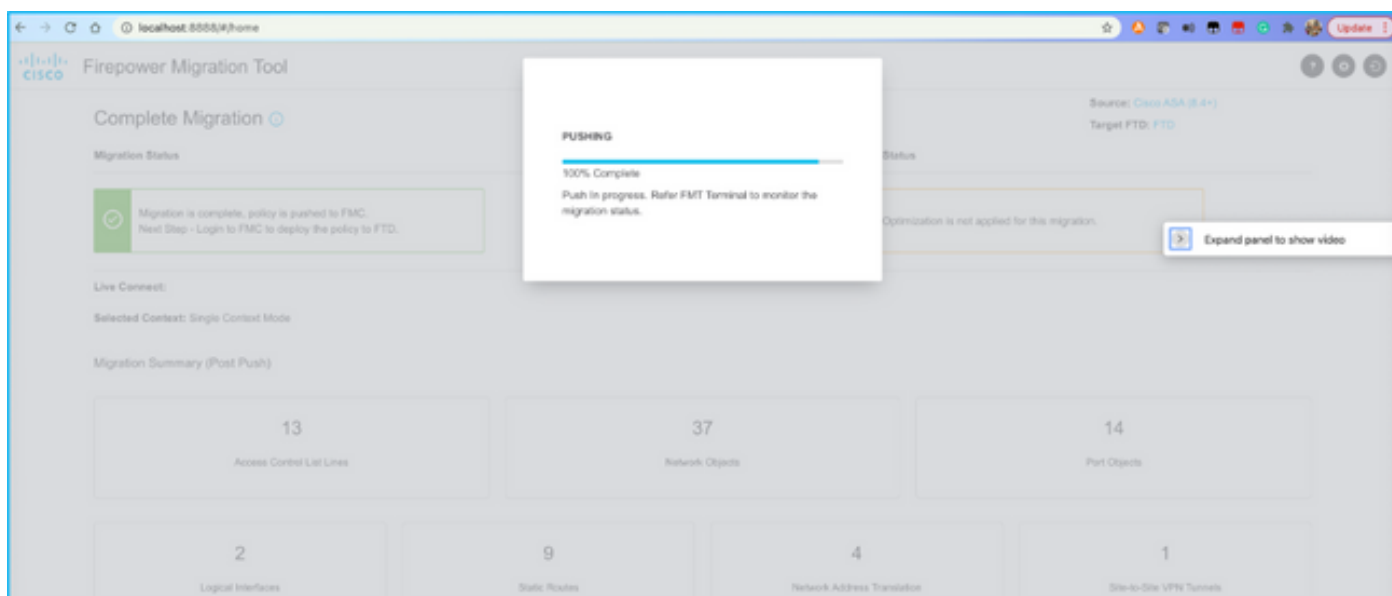
Note: The configuration on the target FTD device FTD (10.106.52.20) will be overwritten as part of this migration.

Push Configuration

## PUSHING

0% Complete

Push In progress. Refer FMT Terminal to monitor the migration status.



23. Quando a migração for bem-sucedida, a mensagem que será exibida será mostrada na imagem.

Complete Migration 🔍 Source: Cisco ASA (8.4+)  
Target FTD: FTD

**Migration Status** Optimization Status

Migration is complete, policy is pushed to FMC.  
Next Step - Login to FMC to deploy the policy to FTD.

ACL Optimization is not applied for this migration.

Live Connect:  
Selected Context: Single Context Mode

Migration Summary (Post Push)

13 Access Control List Lines	37 Network Objects	14 Port Objects	
2 Logical Interfaces	9 Static Routes	4 Network Address Translation	1 Site-to-Site VPN Tunnels

Please download the Post-Push migration report for a detailed summary. [Download Report](#)

**Note:** Se a migração não for bem-sucedida, clique em **Download Report** para exibir o relatório pós-migração.

Complete Migration 🔍 Source: Cisco ASA (8.4+)  
Target FTD: FTD

**Migration Status** Optimization Status

Migration Unsuccessful!  
Internal Server Error.

ACL Optimization is successful but due to migration failure the refined optimized policy cannot be deployed to FMC.

Please refer logs for more details. [Download Report](#)

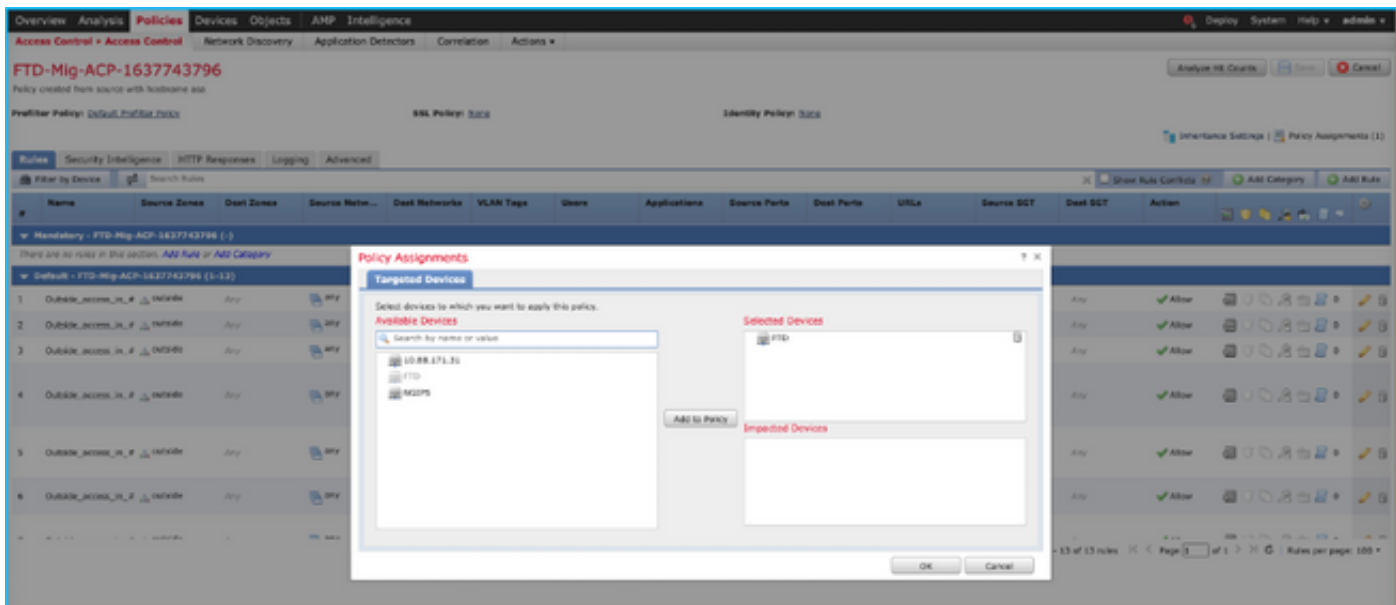
[Contact Support](#)

## Verificar

Use esta seção para confirmar se a sua configuração funciona corretamente.

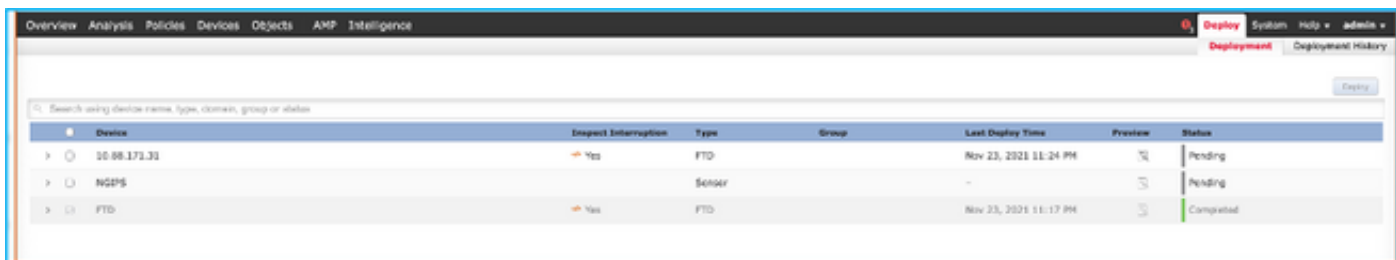
Validação no CVP.

1. Navegue para **Políticas > Controle de Acesso > Política de Controle de Acesso > Atribuição de Política** para confirmar se o FTD selecionado está preenchido.



**Note:** A política de controle de acesso à migração teria um nome com o prefixo **FTD-Mig-ACP**. Se não tiver sido selecionado um DTF na etapa 2.8, o DTF deve ser selecionado no CVP.

2. Empurre a política para o FTD. Navegue até **Implantar > Implantação > Nome do FTD > Implantar** como mostrado na imagem.



## Erros conhecidos relacionados à ferramenta de migração Firepower

- ID de bug da Cisco [CSCwa56374](#) - ferramenta FMT trava na página de mapeamento de zona com erro com alta utilização de memória
- ID de bug da Cisco [CSCvz88730](#) - Falha de envio de interface para o tipo de interface de gerenciamento de canal de porta FTD
- ID de bug da Cisco [CSCvx21986](#) - Migração do canal de porta para a plataforma de destino - o FTD virtual não é suportado
- ID de bug da Cisco [CSCvy63003](#) - A ferramenta de migração deve desativar o recurso de interface se o FTD já fizer parte do cluster
- ID de bug da Cisco [CSCvx08199](#) - a ACL precisa ser dividida quando a referência do aplicativo for superior a 50

## Informações Relacionadas

- [Migração do ASA Firewall para a Threat Defense com a ferramenta Firewall Migration](#)

- [Suporte Técnico e Documentação - Cisco Systems](#)