

Firmware do telefone IP da elevação com CCME

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Introdução

Este documento fornece o procedimento de como atualizar a firmware do Cisco IP Phone com o Cisco CallManager Express.

Pré-requisitos

Requisitos

Certifique-se de atender a estes requisitos antes de tentar esta configuração:

- Os Telefones IP de Cisco são registrados atualmente com o CallManager da Cisco expresso.

Componentes Utilizados

A informação neste documento é baseada nestes versão de software e hardware, mas aplicável a todas as liberações do CallManager da Cisco e cargas expressas do Cisco IP Phone:

- Cisco IOS? Roteador no Cisco IOS? Libere 12.4(4)T com liberação expressa do CallManager da Cisco 3.4(0)
- Telefone IP 7960 da Cisco

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 sua rede estiver ativa, certifique-se de que entende o impacto

potencial de qualquer comando.

Convenções

Consulte as [Convenções de Dicas Técnicas da Cisco](#) para obter mais informações sobre convenções de documentos.

Informações de Apoio

Assinado e imagens não assinadas (autenticação de imagem)

Há dois tipos de imagens que são usadas no Cisco IP Phone 7960 e 7940: assinado e imagens não assinadas. A autenticação de imagem é executada através dos arquivos binários assinados. As imagens assinadas têm uma extensão .sbn, quando as imagens não assinadas tiverem uma extensão do .bin.

As versões da imagem mais cedo do que 5.x aceitam arquivos binários sem assinatura. As versões da imagem 5.x e aceitam mais tarde somente arquivos binários assinados, que melhora a Segurança no Cisco IP Phone 7960 e 7940. Contudo, o uso de arquivos binários assinados não permite que você retorne a uma imagem de firmware sem assinatura mais adiantada. Uma vez que uma imagem de firmware da versão 5.0 é instalada, apesar do protocolo, a imagem não pode ser substituída com toda a versão anterior. A imagem de firmware pode ser substituída somente com uma outra versão da imagem assinada 5.x ou mais tarde. Todas as versões mais cedo do que a versão 5.0 para o Cisco IP Phone 7960 e 7940 não carregam no telefone após a instalação.

Configurar

Nesta seção, você é apresentado com a informação para promover o firmware do Cisco IP Phone.

Downloads

Os arquivos de firmware SCCP exigidos podem ser transferidos do [7900 Series do Cisco IP Phone FW \(SORVO NON\) - download do software \(clientes registrados somente\)](#). Transfira o arquivo apropriado do .zip para o modelo do Cisco IP Phone. Segundo o modelo do Cisco IP Phone, o arquivo do .zip pode conter uns ou vários arquivos.

O arquivo do .zip da versão de firmware 7.2(3) para o Cisco IP Phone modela 7960 e 7940, **cmterm-7940-7960-sccp.7-2-3.zip**, inclui estes arquivos:

- P00307020300.bin
- P00307020300.sbn
- P00307020300.sb2
- P00307020300.loads

Similarmente, o arquivo do .zip do firmware para o modelo 7905G do Cisco IP Phone, **cmterm-7905G-sccp.6-1-1**, inclui estes arquivos:

- CP7905060101SCCP050429A.sbin
- CP7905060101SCCP050429A.zup

[Configurações passo a passo](#)

A fim configurar o firmware aplicável, termine estas etapas:

1. Transfira todos os arquivos de firmware à memória Flash do CallManager da Cisco expressa. A fim verificar transferência dos arquivos, emita o **comando show**

```
flash:Router_CCME#show flash -#- --length-- -----date/time----- path !--- Part of output
elided. 13 128996 Nov 30 2005 07:05:36 +00:00 P00307020300.bin 14 129400 Nov 30 2005
07:06:02 +00:00 P00307020300.sbn 15 681290 Nov 30 2005 07:06:18 +00:00 P00307020300.sb2 16
461 Nov 30 2005 07:06:34 +00:00 P00307020300.loads 24612864 bytes available (103567360
bytes used)
```

2. Faça os arquivos disponíveis para a transferência por Telefones IP de Cisco com esta

```
configuração:Router_CCME#configure terminal Router_CCME(config)#tftp-server flash:
P00307020300.bin Router_CCME(config)#tftp-server flash: P00307020300.sbn
Router_CCME(config)#tftp-server flash: P00307020300.sb2 Router_CCME(config)#tftp-server
flash: P00307020300.loads
```

3. Configurar o firmware apropriado para os Telefones IP de Cisco:Router_CCME#configure

```
terminal Enter configuration commands, one per line. End with CNTL/Z.
Router_CCME(config)#telephony-service Router_CCME(config-telephony)#load 7960-7940
```

```
P00307020300 Updating CNF files CNF files updating complete Nota: No comando load, a
extensão (.bin ou .sbn) do arquivo de firmware não deve ser mencionada.
```

4. Restaure os Telefones IP de Cisco a fim fazê-los escolher a versão do novo firmware. Se você planejou para o tempo ocioso da máquina, restaure todos os telefones imediatamente. Você pode igualmente restaurar os telefones individualmente, porque os usuários estão

```
prontos.Router_CCME(config-telephony)#reset ? H.H.H mac address all reset all ethernet
phones cancel cancel in progress reset sequence-all reset all ethernet phones sequentially,
wait for each phone to re-register before resetting the next phone. This prevents possible
conflict between phones when accessing IOS TFTP services. Router_CCME(config-
telephony)#reset all Reset 1 phones: at 15 second interval - this could take several
minutes p er phone Starting with 7960 phones Router_CCME(config-telephony)# Reset-All:
Requesting Reset for phone SEP000A8A93E0F9 at 172.16.2.101 deviceType 7 Telecaster 7960
Idle [count=1] *Nov 30 09:21:39.803 UTC: %IPPHONE-6-UNREGISTER_NORMAL: ephone-
1:SEP000A8A93E0F9 IP:172.16.2.101 Socket:1 DeviceType:Phone has unregistered normally.
Reset/Restart-all looking for phones registered as type 8 Telecaster 7940 Reset/Restart-all
looking for phones registered as type 6 Telecaster 7910 Reset/Restart-all looking for
phones registered as type 20000 7905 *Nov 30 09:21:53.803 UTC: %IPPHONE-6-REG_ALARM: 22:
Name=SEP000A8A93E0F9 Load=7. 2(3.0) Last=Reset-Reset *Nov 30 09:21:53.803 UTC: %IPPHONE-6-
REGISTER: ephone-1:SEP000A8A93E0F9 IP:172.1 6.2.101 Socket:1 DeviceType:Phone has
registered. Reset/Restart-all looking for phones registered as type 30008 7902
Reset/Restart-all looking for phones registered as type 30007 7912 Reset/Restart-all
looking for phones registered as type 30002 7920 Reset/Restart-all looking for phones
registered as type 30016 CIPC Reset/Restart-all looking for phones registered as type 30006
7970 Reset/Restart-all looking for phones registered as type 119 7971 Reset/Restart-all
looking for phones registered as type 115 7941 Reset/Restart-all looking for phones
registered as type 308 7961GE Reset/Restart-all looking for phones registered as type 309
7941GE Reset/Restart-all looking for phones registered as type 307 7911 Reset/Restart-all
looking for phones registered as type 302 7985 Reset/Restart-all looking for phones
registered as type 30018 7961 Reset/Restart-all looking for phones registered as type 30019
7936 Reset/Restart-all looking for phones registered as type 12 ATA Phone Reset/Restart-all
looking for phones registered as type 30027 SCCP Gateway (AN) Reset/Restart-all looking for
phones registered as type 30028 SCCP Gateway (BRI) Reset/Restart-all looking for phones
registered as type 9 7935 Reset/Restart-all looking for phones registered as type 1 30SP+
Reset/Restart-all looking for phones registered as type 2 12SP+ Reset/Restart-all looking
for phones registered as type 3 12SP Reset/Restart-all looking for phones registered as
type 4 12 Reset/Restart-all looking for phones registered as type 5 30VIP Reset/Restart-all
looking for phones registered as type 80 Unity Voice Port Reset/Restart-all looking for
phones registered as type 21 Unity Voice Port Reset/Restart-all looking for phones
registered as type -1 Unknown -1 Reset-All issued for 1 phones 43 seconds (wait for last
```

phone to re-register)

```
Router_CCME
Router_CCME#show ephone phone-load DeviceName
CurrentPhoneload PreviousPhoneload LastReset
=====
===== SEP000A8A93E0F9 7.2(3.0) 7.2(2.0)
Initialized
```

Verificar

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

Emita estes comandos a verfiy sua configuração:

- **mostre o telefonia-serviço todo** — indica a configuração detalhada de todos os Telefones IP, portas de voz, e dial peer de Cisco do roteador do Cisco IOS Telephony

```
Service.Router_CCME#show telephony-service all CONFIG [Version=3.4(0)]
===== Version 3.4(0) Cisco CallManager Express For on-line documentation
please see: www.cisco.com/univercd/cc/td/doc/product/access/ip_ph/ip_ks/index.htm ip source-
address 172.16.2.211 port 2000 load 7960-7940 P00307020300 max-ephones 1 max-dn 1 max-
conferences 8 gain -6 dspfarm units 0 dspfarm transcode sessions 0 hunt-group report delay 1
hours max-redirect 5 time-format 12 date-format mm-dd-yy timezone 0 Greenwich Standard Time
keepalive 30 timeout interdigit 10 timeout busy 10 timeout ringing 180 caller-id name-only:
enable edit DN through Web: disabled. edit TIME through web: disabled. Log (table
parameters): max-size: 150 retain-timer: 15 create cnf-files version-stamp Jan 01 2002
00:00:00 transfer-system full-consult auto assign 1 to 1 local directory service: enabled.
ephone-dn 1 number 7001 preference 0 secondary 9 huntstop call-waiting beep Number of
Configured ephones 1 (Registered 1) ephone 1 mac-address 000A.8A93.E0F9 type 7960 button 1:1
! voice-port 50/0/1 station-id number 7001 ! dial-peer voice 20011 pots destination-pattern
7001$ huntstop progress_ind setup enable 3 port 50/0/1 tftp-server
system:/its/SEPDEFAULT.cnf tftp-server system:/its/SEPDEFAULT.cnf alias SEPDefault.cnf tftp-
server system:/its/XMLDefault.cnf.xml alias XMLDefault.cnf.xml tftp-server
system:/its/ATADefault.cnf.xml tftp-server system:/its/XMLDefault7960.cnf.xml alias
SEP000A8A93E0F9.cnf.xml tftp-server system:/its/united_states/7960-tones.xml alias
United_States/7960-to nes.xml tftp-server system:/its/united_states/7960-font.xml alias
English_United_States/ 7960-font.xml tftp-server system:/its/united_states/7960-
dictionary.xml alias English_United_S tates/7960-dictionary.xml tftp-server
system:/its/united_states/7960-kate.xml alias English_United_States/ 7960-kate.xml tftp-
server system:/its/united_states/SCCP-dictionary.xml alias English_United_S tates/SCCP-
dictionary.xml
```

- **ephone da mostra** — informação dos indicadores sobre Telefones IP registrados de

```
CISCO.Router_CCME#show ephone ephone-1 Mac:000A.8A93.E0F9 TCP socket:[1] activeLine:0
REGISTERED in SCCP ver 6 mediaActive:0 offhook:0 ringing:0 reset:0 reset_sent:0 paging 0
debug:1 IP:172.16.2.101 50230 Telecaster 7960 keepalive 5 max_line 6 button 1: dn 1 number
7001 CH1 IDLE
```

Troubleshooting

Esta seção fornece informações que podem ser usadas para o troubleshooting da sua configuração.

Estes comandos debug ajudam a identificar todas as edições na upgrade de firmware:

- debugar eventos de tftp
- debugar o registro do ephone

Este exemplo mostra a informação debugar gerada quando um Cisco IP Phone 7960 é promovido com sucesso à versão de firmware 7.2.2:

```
*Nov 30 09:15:19.868 UTC: ephone-1[1]:UnregisterMessage after Reset/Restart sent
*Nov 30 09:15:19.868 UTC: ephone-1[1]:Phone Unregistered on socket [1] SEP000A8A93E0F9
93E0F9
*Nov 30 09:15:19.868 UTC: ephone-1[1]:UnregisterAck sent on socket [1] (0/0/10)
*Nov 30 09:15:19.868 UTC: %IPPHONE-6-UNREGISTER_NORMAL: ephone-1:SEP000A8A93E0F9
IP:172.16.2.101 Socket:1 DeviceType:Phone has unregistered normally.
*Nov 30 09:15:19.868 UTC: skinny_server_process: Socket error. errno=0
*Nov 30 09:15:19.868 UTC: ephone-1[1]:DisAssociate: Closed socket 1 for unregist
ered phone
*Nov 30 09:15:19.868 UTC: CLOSED Skinny socket 1 for de-registered phone
*Nov 30 09:15:30.976 UTC: TFTP: Looking for CTLSEP000A8A93E0F9.tlv
*Nov 30 09:15:30.984 UTC: TFTP: Looking for SEP000A8A93E0F9.cnf.xml
*Nov 30 09:15:31.504 UTC: TFTP: Opened system:/its/XMLDefault7960.cnf.xml, fd 0,
size 788 for process 216
*Nov 30 09:15:31.508 UTC: TFTP: Finished system:/its/XMLDefault7960.cnf.xml, tim
e 00:00:00 for process 216
Reset sequence-all, Ready to reset next phone (last 15 sec)
```

Reset/Restart-all looking for phones registered as type 8 Telecaster 7940

```
*Nov 30 09:15:34.384 UTC: New Skinny socket accepted [1] (0 active)
*Nov 30 09:15:34.384 UTC: sin_family 2, sin_port 50230, in_addr 172.16.2.101
*Nov 30 09:15:34.384 UTC: skinny_add_socket 1 172.16.2.101 50230
*Nov 30 09:15:34.869 UTC: %IPPHONE-6-REG_ALARM: 22: Name=SEP000A8A93E0F9 Load=7.
2(3.0) Last=Reset-Reset
*Nov 30 09:15:34.869 UTC:
Skinny StationAlarmMessage on socket [1] 172.16.2.101 SEP000A8A93E0F9
*Nov 30 09:15:34.869 UTC: severityInformational p1=2049 [0x801] p2=1694634156 [0
x650210AC]
*Nov 30 09:15:34.869 UTC: 22: Name=SEP000A8A93E0F9 Load=7.2(3.0) Last=Reset-Rese
t
*Nov 30 09:15:34.869 UTC: ephone-(1)[1] StationRegisterMessage (0/0/10) from 172
.16.2.101
*Nov 30 09:15:34.869 UTC: ephone-(1)[1] Register StationIdentifier DeviceName SE
P000A8A93E0F9
*Nov 30 09:15:34.869 UTC: ephone-(1)[1] StationIdentifier Instance 1 deviceTy
pe 7
*Nov 30 09:15:34.869 UTC: ephone-1[-1]:stationIpAddr 172.16.2.101
*Nov 3
```

Reset/Restart-all looking for phones registered as type 6 Telecaster 7910 0 09:15:34.869 UTC: ephone-1[-1]:maxStreams 0

```
*Nov 30 09:15:34.869 UTC: ephone-1[-1]:protocol Ver 0x84000006
*Nov 30 09:15:34.869 UTC: ephone-1[-1]:phone-size 2820 dn-size 488
*Nov 30 09:15:34.869 UTC: ephone-(1) Allow any Skinny Server IP address 172.16.2
.211
*Nov 30 09:15:34.869 UTC: ephone-1[-1]:Found entry 0 for 000A8A93E0F9
*Nov 30 09:15:34.869 UTC: ephone-1[-1]:socket change -1 to 1
*Nov 30 09:15:34.869 UTC: ephone-1[-1]:FAILED: CLOSED old socket -1
*Nov 30 09:15:34.869 UTC: ephone-1[1]:***Force device subtype to 0
*Nov 30 09:15:34.869 UTC: ephone-1[1]:phone SEP000A8A93E0F9 re-associate OK on s
ocket [1]
*Nov 30 09:15:34.869 UTC: %IPPHONE-6-REGISTER: ephone-1:SEP000A8A93E0F9 IP:172.1
6.2.101 Socket:1 DeviceType:Phone has registered.
*Nov 30 09:15:34.869 UTC: Phone
```

Reset/Restart-all looking for phones registered as type 20000 7905 0 socket 1

```
*Nov 30 09:15:34.869 UTC: Skinny Local IP address = 172.16.2.211 on port 2000
*Nov 30 09:15:34.869 UTC: Skinny Phone IP address = 172.16.2.101 50230
*Nov 30 09:15:34.869 UTC: ephone-1[1]:Signal protocol ver 5 to phone with ver 6
*Nov 30 09:15:34.869 UTC: ephone-1[1]:Date Format M/D/Y
*Nov 30 09:15:34.869 UTC: ephone-1[1]:RegisterAck sent to ephone 1: keepalive pe
```

riod 30 use sccp-version 5
*Nov 30 09:15:34.873 UTC: ephone-1[1]:CapabilitiesReq sent
*Nov 30 09:15:35.125 UTC: ephone-1[1]:CapabilitiesRes received
*Nov 30 09:15:35.125 UTC: ephone-1[1]:Caps list 7
WideBand_256K 120 ms
G711Ulaw64k 40 ms
G711Alaw64k 40 ms
G729AnnexB 60 ms
G729AnnexAwAnnexB 60 ms
G729 60 ms
G729AnnexA 60 ms

*Nov 30 09:15:35.125 UTC: ephone-1[1]:ButtonTemplateReqMessage
*Nov 30 09:15:35.
Reset/Restart-all looking for phones registered as type 30008 7902 125 UTC: ephone-1[1]:CheckAutoReg
*Nov 30 09:15:35.125 UTC: ephone-1[1]:AutoReg is disabled
*Nov 30 09:15:35.125 UTC: ephone-1[1][SEP000A8A93E0F9]:Setting 6 lines 0 speed-dials on phone (max_line 6)
*Nov 30 09:15:35.125 UTC: ephone-1[1]:First Speed Dial Button location is 0 (0)
*Nov 30 09:15:35.125 UTC: ephone-1[1]:Configured 0 speed dial buttons
*Nov 30 09:15:35.125 UTC: ephone-1[1]:ButtonTemplate lines=6 speed=0 buttons=6 offset=0
*Nov 30 09:15:35.381 UTC: ephone-1[1]:StationSoftKeyTemplateReqMessage
*Nov 30 09:15:35.381 UTC: ephone-1[1]:StationSoftKeyTemplateResMessage
*Nov 30 09:15:35.633 UTC: ephone-1[1]:StationSoftKeySetReqMessage
*Nov 30 09:15:35.633 UTC: ephone-1[1]:Removed SkPark key
*Nov 30 09:15:35.633 UTC: ephone-1[1]:StationSoftKeySetResMessage
*Nov 30 09:15:3
Reset/Restart-all looking for phones registered as type 30007 7912 5.885 UTC: ephone-1[1]:StationLineStatReqMessage from ephone line 6
*Nov 30 09:15:35.885 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatReqMessage from ephone line 6 Invalid DN 0
*Nov 30 09:15:35.885 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatResMessage sent to ephone (1 of 6)
*Nov 30 09:15:36.137 UTC: ephone-1[1]:StationLineStatReqMessage from ephone line 5
*Nov 30 09:15:36.137 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatReqMessage from ephone line 5 Invalid DN 0
*Nov 30 09:15:36.137 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatResMessage sent to ephone (2 of 6)
*Nov 30 09:15:36.389 UTC: ephone-1[1]:StationLineStatReqMessage from ephone line 4
*Nov 30 09:15:36.389 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatReqMessage from ephone line 4 Invalid DN 0
*Nov 30 09:15:36.38
Reset/Restart-all looking for phones registered as type 30002 7920 9 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatResMessage sent to ephone (3 of 6)
*Nov 30 09:15:36.641 UTC: ephone-1[1]:StationLineStatReqMessage from ephone line 3
*Nov 30 09:15:36.641 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatReqMessage from ephone line 3 Invalid DN 0
*Nov 30 09:15:36.641 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatResMessage sent to ephone (4 of 6)
*Nov 30 09:15:36.893 UTC: ephone-1[1]:StationLineStatReqMessage from ephone line 2
*Nov 30 09:15:36.893 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatReqMessage from ephone line 2 Invalid DN 0
*Nov 30 09:15:36.893 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatResMessage sent to ephone (5 of 6)
*Nov 30 09:15:37.145 UTC: ephone-1[1]:StationLineStatReqMessage from ephone line 1
*Nov 30 09:15:37.145 UTC: ephone
Reset/Restart-all looking for phones registered as type 30016 CIPC e-1[1]:Stati

```
onLineStatReqMessage ephone line 1 DN 1 = 7001 desc = 7001 label =
*Nov 30 09:15:37.145 UTC: ephone-1[1][SEP000A8A93E0F9]:StationLineStatResMessage
sent to ephone (6 of 6)
*Nov 30 09:15:37.145 UTC: ephone-1[1]:SkinnyCompleteRegistration
*Nov 30 09:15:37.221 UTC: TFTP: Looking for SEP000A8A93E0F9.cnf.xml
*Nov 30 09:15:37.221 UTC: TFTP: Opened system:/its/XMLDefault7960.cnf.xml, fd 0,
size 788 for process 216
*Nov 30 09:15:37.221 UTC: TFTP: Looking for RINGLIST.XML
*Nov 30 09:15:37.241 UTC: TFTP: Finished system:/its/XMLDefault7960.cnf.xml, tim
e 00:00:00 for process 216
*Nov 30 09:15:37.245 UTC: TFTP: Looking for DISTINCTIVERINGLIST.XML
*Nov 30 09:15:37.409 UTC: ephone-1[1]:Skinny Available Lines 6 set for socket [1
]
*Nov 30 09:15:37.409 UTC: ephone-1[1]:Already d
Reset/Restart-all looking for phones registered as type 30006 7970 one SkinnyCo
mpleteRegistration
Reset/Restart-all looking for phones registered as type 119 7971
Reset/Restart-all looking for phones registered as type 115 7941
Reset/Restart-all looking for phones registered as type 308 7961GE
Reset/Restart-all looking for phones registered as type 309 7941GE
Reset/Restart-all looking for phones registered as type 307 7911
Reset/Restart-all looking for phones registered as type 302 7985
Reset/Restart-all looking for phones registered as type 30018 7961
Reset/Restart-all looking for phones registered as type 30019 7936
Reset/Restart-all looking for phones registered as type 12 ATA Phone
Reset/Restart-all looking for phones registered as type 30027 SCCP Gateway (AN)
Reset/Restart-all looking for phones registered as type 30028 SCCP Gateway (BRI)

Reset/Restart-all looking for phones registered as type 9 7935
Reset/Restart-all looking for phones registered as type 1 30SP+
Reset/Restart-all looking for phones registered as type 2 12SP+
Reset/Restart-all looking for phones registered as type 3 12SP
Reset/Restart-all looking for phones registered as type 4 12
Reset/Restart-all looking for phones registered as type 5 30VIP
Reset/Restart-all looking for phones registered as type 80 Unity Voice Port
Reset/Restart-all looking for phones registered as type 21 Unity Voice Port
Reset/Restart-all looking for phones registered as type -1 Unknown -1
Reset-All issued for 1 phones
45 seconds (wait for last phone to re-register)
```

Nota: Durante uma elevação, se o LCD de um Cisco IP Phone indica o arquivo não encontrado, isto poderia indicar uma tentativa de carregar uma imagem não assinada em um Cisco IP Phone que já tivesse uma imagem assinada.

[Informações Relacionadas](#)

- [Matriz de Upgrade de Firmware dos Telefones IP Cisco 7940 e 7960](#)
- [Suporte à Tecnologia de Voz](#)
- [Suporte de Produtos de Comunicação de Voz e de IP](#)
- [Troubleshooting da Telefonia IP Cisco](#)
- [Suporte Técnico e Documentação - Cisco Systems](#)