

Solucionar problemas de cancelamento de registro do telefone IP no CUCM

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Introdução

Este documento descreve como começar a solucionar problemas de um telefone IP que não é registrado ou não é registrado no CUCM.

Requisitos

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Processo de registro do telefone IP da Cisco.

- Cisco Unified Communications Manager (CUCM)
- Domain Name System (DNS)
- Cisco Discovery Protocol (CDP)
- Protocolo de Configuração de Host Dinâmico (DHCP)
- Protocolo de Transferência de Arquivo Trivial (TFTP - Trivial File Transfer Protocol)
- LAN virtual de voz (VLAN de voz)
- PoE (Power Over Ethernet)

Componentes Utilizados

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

- CUCM 11.5(1)SU9
- Telefone IP SIP 8811 sip88xx.14-2-1-0001-14

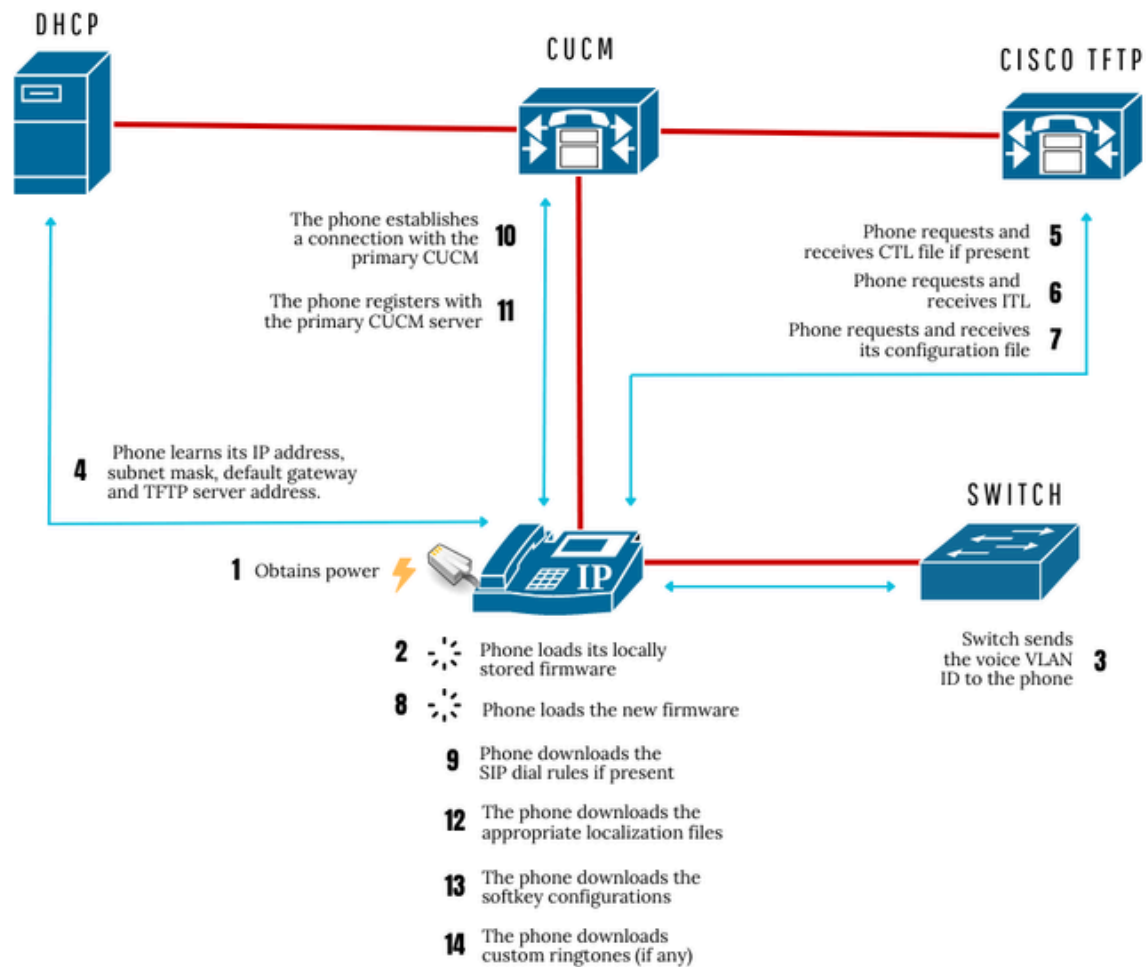
As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer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

Informações de Apoio

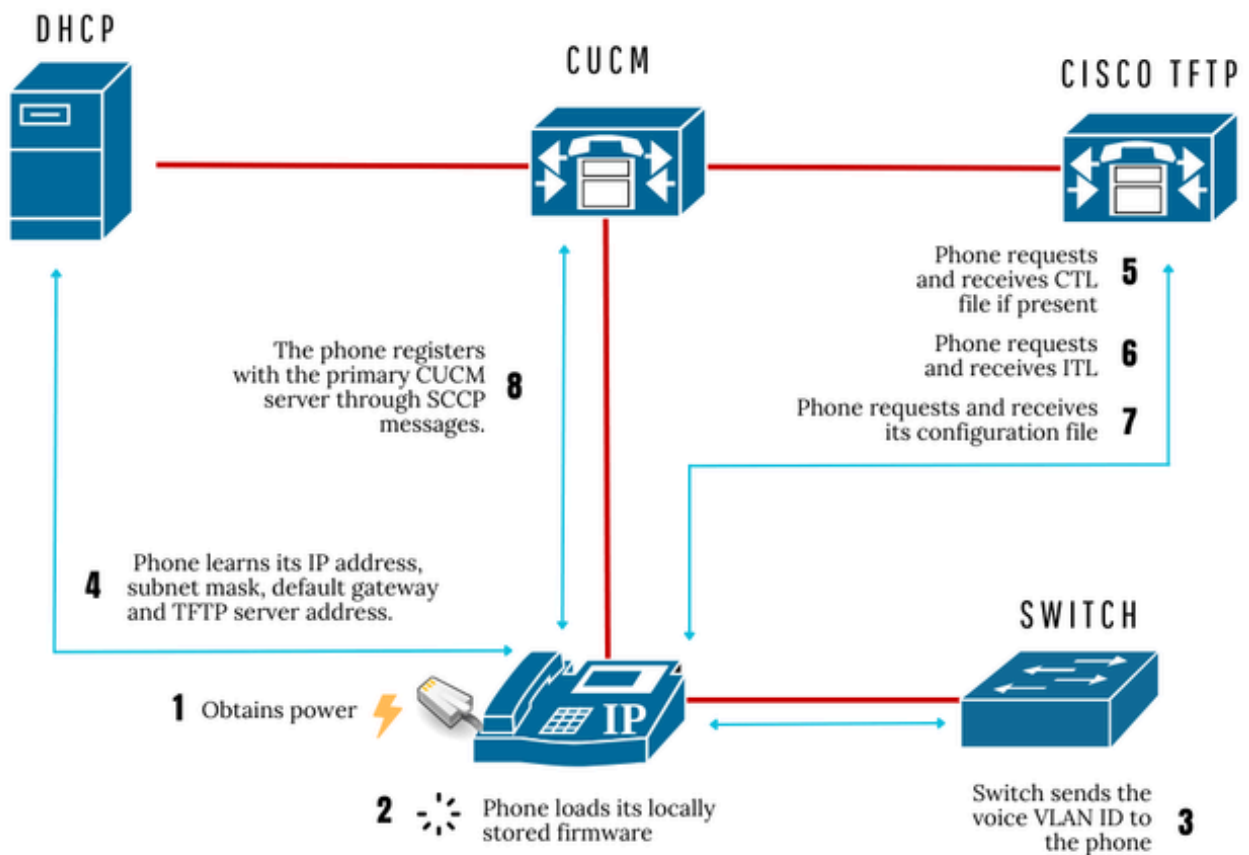
O registro de um dispositivo no CUCM depende se é um dispositivo que usa o Skinny Protocol (SCCP) ou o Session Initiation Protocol (SIP), entre eles algumas etapas mudam, no entanto, a solução de problemas é a mesma e se concentra nas etapas que o telefone faz para registrar.

É essencial solucionar problemas de registro de dispositivos entendendo o processo pelo qual o dispositivo passa para se registrar corretamente.

processo de registro SIP



processo de registro SCCP



Problema

Alguns eventos, como falta de energia, um defeito de hardware ou software, conexões instáveis, falta de qualidade de serviço na rede e outros, podem fazer com que um ou vários telefones não sejam registrados no Call Manager. Seja um evento único ou algo intermitente, é importante esclarecer o problema para reduzi-lo.

Informações a clarificar

- Versão completa do CUCM
- Isso acontece apenas com um modelo específico?
- Isso acontece em um único local ou local?
- Quantos telefones são afetados?
- Todos os telefones compartilham a mesma versão de firmware?
- Você atualizou ou fez o downgrade do firmware recentemente?
- Você regenerou certificados recentemente?
- Você fez uma redefinição de fábrica?

- O problema pode ser reproduzido à vontade?
- Anote alguns endereços MAC para os telefones afetados e carimbo de data e hora quando o problema começar a ocorrer.

Registros a serem coletados

É necessário ter os registros de cada componente envolvido no processo de registro do telefone para encontrar onde o problema está.

Do telefone:

Na página da Web do telefone IP:

- Relatório de problemas do telefone (PRT) ou registros do console

No Wireshark (nem sempre necessário):

- Pcap do telefone

Do CUCM:

Da RTMT (Real Time Monitor Tool, Ferramenta de monitoramento em tempo real):

- Rastreamentos do Cisco CallManager
- Log do Aplicativo Visualizador de Eventos
- Log do Sistema do Visualizador de Eventos
- Cisco TFTP

Da sessão CLI do CUCM (nem sempre necessário):

- Pcap do CUCM principal (onde o telefone é registrado)

Do Switch:

- Intervalo (opcional no caso de não ser possível coletar o pcap do telefone)



Note: Tenha o Timestamp quando o problema ocorreu é importante e detalhe de telefone(s).

Como coletar guias de logs

- [Como coletar logs do CUCM do RTMT](#)
- [Como coletar IP Phone pcap](#)
- [Como coletar CUCM pcap](#)
- [Como coletar a PRT do telefone IP](#)
- [Como coletar registros do console do telefone](#)
- [Como coletar um SPAN no switch](#)

Entender os registros de PRT/console

O processo que o telefone leva para solicitar recursos específicos (IP, arquivo de configuração e outros) dos outros componentes envolvidos pode ser visto na PRT ou nos registros do console. A PRT inclui os registros de console.



Note: Para poder ler os registros de console dentro da PRT, é necessário descompactar as pastas contidas no caminho prt-date-time-MACAddress > data > logsave > main

***** registros de PRT/Console mostram como o telefone carrega sua imagem de firmware:

```
1429 NOT Jul 21 18:05:16.217247 (620-869) JAVA-SIPCC-PLAT_API: extract_release_num_from_phone_load_name
```

***** Telefone solicita o ***** de arquivos da Lista de Certificados Confiáveis (CTL)

```

2056 NOT Jul 21 18:05:24.839195 (351-928) downd-GETXXTP [GT351][src=CTLSEPD0EC35C1D98E.tlv][dest=/tmp/C
2057 NOT Jul 21 18:05:24.839912 (351-928) downd-handle_get_file:SEP file is:SEP0EC35C1D98E.cnf.xml
2058 NOT Jul 21 18:05:24.840023 (351-928) downd-handle_get_file:dst:/tmp/CTLFile.tlv
2059 NOT Jul 21 18:05:24.891683 (351-928) downd-In normal mode, call - > makeXXTPrequest (V6...)
2060 NOT Jul 21 18:05:24.892095 (351-928) downd-EMCC mode is false
2061 NOT Jul 21 18:05:24.893087 (351-928) downd-parseDhcpInfoIntoTftpList(): no valid load server
2062 NOT Jul 21 18:05:24.893555 (351-928) downd-AUTH.SRVR [GT351] look up server - 0 - 198.51.100.30
2063 NOT Jul 21 18:05:24.944833 (351-928) downd-AUTH.SRVR [GT351] authentication retval = 9
2064 NOT Jul 21 18:05:24.944987 (351-928) downd-XXTP Non secure file requested
2065 NOT Jul 21 18:05:24.945138 (351-928) downd-tftp.avail file does not exist, so creating it

```

Se o cluster estiver no modo não seguro, o TFTP enviará 404 Não encontrado para a solicitação (se o cluster estiver no modo misto, o TFTP deverá enviar 200 OK)

```

2078 NOT Jul 21 18:05:24.947516 (351-931) downd-XXX arg[4] CTLSEPD0EC35C1D98E.tlv
2079 NOT Jul 21 18:05:24.947550 (351-931) downd-XXX arg[5] /tmp/CTLFile.tlv
2080 NOT Jul 21 18:05:24.947584 (351-931) downd-XXX arg[6] (null)
2081 NOT Jul 21 18:05:24.976370 (931-931) GHTTP-LIMIT downdload will be limited to 8192 KB
2082 ERR Jul 21 18:05:24.994707 (931-931) GHTTP-http get [HTTP/1.1 404 Not Found^M

```

***** Telefone solicita ***** de arquivo de Lista de Confiabilidade de Identidade (ITL)

```

2088 NOT Jul 21 18:05:25.049240 (351-935) downd-GETXXTP [GT351][src=ITLSEPD0EC35C1D98E.tlv][dest=/tmp/I
2089 NOT Jul 21 18:05:25.049419 (351-935) downd-handle_get_file:SEP file is:SEP0EC35C1D98E.cnf.xml
2090 NOT Jul 21 18:05:25.049484 (351-935) downd-handle_get_file:dst:/tmp/ITLFile.tlv
2091 NOT Jul 21 18:05:25.049525 (351-935) downd-handle_get_file:downloading ITLFILE
2092 NOT Jul 21 18:05:25.100110 (351-935) downd-In normal mode, call - > makeXXTPrequest (V6...)

```

O TFTP envia 200 OK para a solicitação de arquivo ITL

```

2110 NOT Jul 21 18:05:25.153781 (351-938) downd-XXX arg[4] ITLSEPD0EC35C1D98E.tlv
2111 NOT Jul 21 18:05:25.153815 (351-938) downd-XXX arg[5] /tmp/ITLFile.tlv
2112 NOT Jul 21 18:05:25.153849 (351-938) downd-XXX arg[6] (null)
2113 NOT Jul 21 18:05:25.166084 (938-938) GHTTP-LIMIT downdload will be limited to 8192 KB
2114 NOT Jul 21 18:05:25.168904 (938-938) GHTTP-hdr->HTTP/1.1 200 OK
2115 NOT Jul 21 18:05:25.169081 (938-938) GHTTP-hdr->Content-length: 11698
2116 NOT Jul 21 18:05:25.169149 (938-938) GHTTP-hdr->Cache-Control: no-store
2117 NOT Jul 21 18:05:25.169211 (938-938) GHTTP-hdr->Content-type: */*
2118 NOT Jul 21 18:05:25.170338 (351-935) downd-PARENT, child process status: 25600
2119 NOT Jul 21 18:05:25.170472 (351-935) downd-NORMAL tftp-exit 100

```

2120 NOT Jul 21 18:05:25.170724 (351-935) downd-XXTP complete - status = 100
2121 NOT Jul 21 18:05:25.170755 (351-935) downd-cancel the monitor timer
2122 NOT Jul 21 18:05:25.175638 (355-939) SECUREAPP-validateSignedCTL: new TL matches old, not updating
2123 NOT Jul 21 18:05:25.186516 (351-935) downd-DDGETTFTP.RESULT [_100_ HTTP NO ERROR

***** Solicitações de telefone para TFTP no arquivo de configuração *****

2140 NOT Jul 21 18:05:26.436017 (351-965) downd-GETXXTP [GT351][src=SEPD0EC35C1D98E.cnf.xml][dest=/tmp/
2141 NOT Jul 21 18:05:26.436216 (351-965) downd-handle_get_file:SEP file is:SEPD0EC35C1D98E.cnf.xml
2142 NOT Jul 21 18:05:26.436285 (351-965) downd-handle_get_file:dst:/tmp/ram/SEPD0EC35C1D98E.cnf.xml.19
2143 NOT Jul 21 18:05:26.436346 (351-965) downd-handle_get_file:downloading CNF FILE
2144 NOT Jul 21 18:05:26.487402 (351-965) downd-In normal mode, call - > makeXXTPrequest (V6...)
2145 NOT Jul 21 18:05:26.487841 (351-965) downd-EMCC mode is false
2146 NOT Jul 21 18:05:26.488595 (351-965) downd-parseDhcpInfoIntoTftpList(): no valid load server
2147 NOT Jul 21 18:05:26.488787 (351-965) downd-AUTH.SRVR [GT351] look up server - 0 - 198.51.100.30
2148 NOT Jul 21 18:05:26.539279 (351-965) downd-AUTH.SRVR [GT351] authentication retval = 9
2149 NOT Jul 21 18:05:26.539419 (351-965) downd-XXTP Secure file requested
2150 NOT Jul 21 18:05:26.539536 (351-965) downd-XXTP authenticated file approved - add .sgn if necessary

O ***** Phone faz o download do arquivo de configuração *****

137 NOT Jul 21 18:05:26.432207 (620-840) JAVA-configmgr MQThread|cip.cfg.Config: - Requesting CONFIG fi
2138 INF Jul 21 18:05:26.432653 (620-840) JAVA-[[MESSAGE_1.0]]: [CONFIG-MGR] --> tftpRequest(ram/SEPD0E
2139 NOT Jul 21 18:05:26.435882 (351-965) downd-start the monitor timer
2140 NOT Jul 21 18:05:26.436017 (351-965) downd-GETXXTP [GT351][src=SEPD0EC35C1D98E.cnf.xml][dest=/tmp/
2141 NOT Jul 21 18:05:26.436216 (351-965) downd-handle_get_file:SEP file is:SEPD0EC35C1D98E.cnf.xml
2142 NOT Jul 21 18:05:26.436285 (351-965) downd-handle_get_file:dst:/tmp/ram/SEPD0EC35C1D98E.cnf.xml.19
2143 NOT Jul 21 18:05:26.436346 (351-965) downd-handle_get_file:downloading CNF FILE
2144 NOT Jul 21 18:05:26.487402 (351-965) downd-In normal mode, call - > makeXXTPrequest (V6...)
2145 NOT Jul 21 18:05:26.487841 (351-965) downd-EMCC mode is false
2146 NOT Jul 21 18:05:26.488595 (351-965) downd-parseDhcpInfoIntoTftpList(): no valid load server
2147 NOT Jul 21 18:05:26.488787 (351-965) downd-AUTH.SRVR [GT351] look up server - 0 - 198.51.100.30
2148 NOT Jul 21 18:05:26.539279 (351-965) downd-AUTH.SRVR [GT351] authentication retval = 9
2149 NOT Jul 21 18:05:26.539419 (351-965) downd-XXTP Secure file requested
2150 NOT Jul 21 18:05:26.539536 (351-965) downd-XXTP authenticated file approved - add .sgn if necessary

O TFTP envia 200 OK para a solicitação do arquivo de configuração

2163 NOT Jul 21 18:05:26.541364 (351-968) downd-XXX arg[4] SEPD0EC35C1D98E.cnf.xml.sgn
2164 NOT Jul 21 18:05:26.541398 (351-968) downd-XXX arg[5] /tmp/ram/SEPD0EC35C1D98E.cnf.xml.19036
2165 NOT Jul 21 18:05:26.541432 (351-968) downd-XXX arg[6] (null)
2166 NOT Jul 21 18:05:26.552194 (968-968) GHTTP-LIMIT download will be limited to 8192 KB
2167 NOT Jul 21 18:05:26.603994 (968-968) GHTTP-hdr->HTTP/1.1 200 OK
2168 NOT Jul 21 18:05:26.604360 (968-968) GHTTP-hdr->Content-length: 14939
2169 NOT Jul 21 18:05:26.604470 (968-968) GHTTP-hdr->Cache-Control: no-store
2170 NOT Jul 21 18:05:26.604523 (968-968) GHTTP-hdr->Content-type: */*
2171 NOT Jul 21 18:05:26.607331 (351-965) downd-PARENT, child process status: 25600
2172 NOT Jul 21 18:05:26.607479 (351-965) downd-NORMAL tftp-exit 100
2173 NOT Jul 21 18:05:26.607504 (351-965) downd-XXTP complete - status = 100

***** O telefone carrega o novo ***** de firmware

2202 NOT Jul 21 18:05:27.530229 (620-981) JAVA-Seamless Upgrade Thread|UpgradeService: - Got request fo
2203 NOT Jul 21 18:05:27.530908 (620-981) JAVA-Seamless Upgrade Thread|UpgradeService: - and (sip88xx.1

***** O telefone cobra todos os parâmetros gravados no arquivo de configuração *****

4479 NOT Jul 17 22:29:45.818159 (559-1232) JAVA-configmgr MQThread|cip.cfg.Config: - HEADSET_DISCOVERY_
4480 NOT Jul 17 22:29:45.819013 (559-1232) JAVA-configmgr MQThread|cip.cfg.SipConfig: - Entering setPro
4481 NOT Jul 17 22:29:45.998381 (559-1232) JAVA-configmgr MQThread|cip.cfg.SipConfig:? - embrace featur
4482 NOT Jul 17 22:29:46.037905 (559-1232) JAVA-configmgr MQThread|cip.cfg.SipConfig: - Exiting setProt
4483 NOT Jul 17 22:29:46.106088 (559-1232) JAVA-configmgr MQThread|cip.cfg.Config: - CUCM in config fil
4484 NOT Jul 17 22:29:46.107950 (559-1232) JAVA-configmgr MQThread|cip.cfg.Config: - CUCM in config fil
4485 NOT Jul 17 22:29:46.109415 (559-1232) JAVA-configmgr MQThread|cip.cfg.Config: - CUCM in config fil
4486 NOT Jul 17 22:29:46.111032 (559-1232) JAVA-configmgr MQThread|cip.cfg.Config: - CUCM in config fil
4487 NOT Jul 17 22:29:46.112528 (559-1232) JAVA-configmgr MQThread|cip.cfg.Config: - CUCM in config fil
4488 WRN Jul 17 22:29:46.291408 (345-2829) SECUREAPP-SEC_CAPF_N_IN_USE: CAPF not in use, user cancel ig
4489 NOT Jul 17 22:29:46.341949 (559-1232) JAVA-configmgr MQThread|cip.sec.CapfProperty:? - CapfProp 96

***** Registrar ***** de mensagem

6260 DEB Jul 17 22:29:50.880584 (610-796) JAVA-SIPCC-SIP_STATE: 201/1, sip_reg_sm_change_state: Registr
6261 DEB Jul 17 22:29:50.880638 (610-796) JAVA-SIPCC-SIP_MSG_SEND: ccsip_register_send_msg: cmd=85=SIP_
6262 DEB Jul 17 22:29:50.880750 (610-796) JAVA-SIPCC-SIP_STATE: 201/1, sip_reg_sm_change_state: Registr

***** telefone envia uma mensagem SIP REGISTER para o CUCM *****

```
76 DEB Jul 17 22:29:50.882403 (610-796) JAVA-sipio-sent--> REGISTER sip:198.51.100.31 SIP/2.0^M
Via: SIP/2.0/TCP 198.51.100.109:50020;branch=z9hG4bK775c97a8^M
From: <sip:***@198.51.100.31>;tag=d0ec35c1d98e2e142ea51ccd-2fdbbe4d^M
To: <sip:***@198.51.100.31>^M
Call-ID: d0ec35c1-d98e0017-3593f645-7a3311ca@198.51.100.109^M
Max-Forwards: 70^M
Session-ID: 0ffda3aa00105000a000d0ec35c1d98e;remote=00000000000000000000000000000000^M
Date: Mon, 17 Jul 2023 22:29:50 GMT^M
CSeq: 11749 REGISTER^M
User-Agent: Cisco-CP8811/14.2.1^M
Contact: <sip:***@198.51.100.109:50020;transport=tcp>;+sip.instance="<urn:uuid:00000000-0000-0000-0000-000000000000>"^M
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-callinfo,X-cisco-info,X-cisco-rtcp-ssrc^M
Content-Length: 0^M
Expires: 3600^M
^M
```

***** mensagem SIP Tentando para o REGISTRO recebida do CUCM *****

```
6284 DEB Jul 17 22:29:50.884485 (610-796) JAVA-sipio-recv<--- SIP/2.0 100 Trying^M
Via: SIP/2.0/TCP 198.51.100.109:50020;branch=z9hG4bK775c97a8^M
From: <sip:***@198.51.100.31>;tag=d0ec35c1d98e2e142ea51ccd-2fdbbe4d^M
To: <sip:***@198.51.100.31>^M
Date: Mon, 17 Jul 2023 22:29:52 GMT^M
Call-ID: d0ec35c1-d98e0017-3593f645-7a3311ca@198.51.100.109^M
CSeq: 11749 REGISTER^M
Content-Length: 0^M
^M
```

***** 200 OK em resposta à mensagem REGISTER do CUCM *****

```
6294 DEB Jul 17 22:29:50.885744 (610-796) JAVA-sipio-recv<--- SIP/2.0 200 OK^M
Via: SIP/2.0/TCP 198.51.100.109:50020;branch=z9hG4bK775c97a8^M
From: <sip:***@198.51.100.31>;tag=d0ec35c1d98e2e142ea51ccd-2fdbbe4d^M
To: <sip:***@198.51.100.31>;tag=696179034^M
Date: Mon, 17 Jul 2023 22:29:52 GMT^M
Call-ID: d0ec35c1-d98e0017-3593f645-7a3311ca@198.51.100.109^M
Server: Cisco-CUCM14.0^M
```

CSeq: 11749 REGISTER^M

Expires: 120^M

Contact: <sip:***@198.51.100.109:50020;transport=tcp>;+sip.instance="urn:uuid:00000000-0000-0000-0000-

Supported: X-cisco-srtp-fallback,X-cisco-sis-10.0.0^M

Content-Length: 0^M

^M

Processo de registro PCAP do telefone IP

No pcap é mostrado o processo completo sobre como o dispositivo executa a comunicação com os outros componentes como CUCM, TFTP, DHCP. Se você quiser ver em detalhes o que não foi visto nos logs, o pcap seria necessário.

Um filtro recomendado no caso de dispositivos SIP: ((tcp) || (http) || (sip) e (ip.addr == XX.XX.XX.XX)

Um filtro recomendado no caso de dispositivos SCCP: ((tcp) || (http) || (skinny) e (ip.addr == XX.XX.XX.XX)

Onde XX.XX.XX.XX é o IP do telefone.

ou outra opção

No caso de dispositivos SIP: ((tcp) || (http) || (sip)) && (eth.addr == YYYYYYYYYYYYYY)

no caso de dispositivos SCCP: ((tcp) || (http) || (magro)) e (eth.addr == YYYYYYYYYYYYYY)

Onde YYYYYYYYYYYYYY é o MAC do telefone.

Você também pode usar o endereço MAC com os dois-pontos: eth.addr == YY:YY:YY:YY:YY:YY

No.	Time	Source	Destination	Protocol	Length	Info
				TCP	66	49744 → 6970 [ACK] Seq=89 Ack=1534 Win=17496 Len=0 TSval=4294952671 TSecr=3456007361
				TCP	66	49744 → 6970 [ACK] Seq=89 Ack=2982 Win=20392 Len=0 TSval=4294952671 TSecr=3456007361
				TCP	66	49744 → 6970 [ACK] Seq=89 Ack=4207 Win=23288 Len=0 TSval=4294952671 TSecr=3456007361
				TCP	66	49744 → 6970 [FIN, ACK] Seq=89 Ack=4207 Win=23288 Len=0 TSval=4294952688 TSecr=3456007361
				TCP	66	6970 → 49744 [FIN, ACK] Seq=4207 Ack=90 Win=29056 Len=0 TSval=3456007531 TSecr=4294952688
				TCP	66	49744 → 6970 [ACK] Seq=90 Ack=4208 Win=23288 Len=0 TSval=4294952688 TSecr=3456007531
				TCP	74	49745 → 6970 [SYN] Seq=0 Win=14600 Len=0 MSS=1460 SACK_PERM TSval=4294955939 TSecr=0 WS=4
				TCP	74	6970 → 49745 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM TSval=3456040050 TSecr=4294955939 WS=128
				TCP	66	49745 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294955940 TSecr=3456040050
				HTTP	130	GET /CTLSEP38ED18AF7658.tlv HTTP/1.1
				TCP	66	6970 → 49745 [ACK] Seq=1 Ack=65 Win=29056 Len=0 TSval=3456040050 TSecr=4294955940
				HTTP	130	HTTP/1.1 404 Not Found
				TCP	66	49745 → 6970 [ACK] Seq=65 Ack=65 Win=14600 Len=0 TSval=4294955947 TSecr=3456040122
				TCP	66	49745 → 6970 [FIN, ACK] Seq=65 Ack=65 Win=14600 Len=0 TSval=4294955965 TSecr=3456040122
				TCP	66	6970 → 49745 [FIN, ACK] Seq=65 Ack=66 Win=29056 Len=0 TSval=3456040300 TSecr=4294955965
				TCP	66	49745 → 6970 [ACK] Seq=66 Ack=66 Win=14600 Len=0 TSval=4294955965 TSecr=3456040300
				TCP	74	49746 → 6970 [SYN] Seq=0 Win=14600 Len=0 MSS=1460 SACK_PERM TSval=4294955972 TSecr=0 WS=4
				TCP	74	6970 → 49746 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM TSval=3456040372 TSecr=4294955972 WS=128
				TCP	66	49746 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294955972 TSecr=3456040372
				HTTP	130	GET /ITLSEP38ED18AF7658.tlv HTTP/1.1
				TCP	66	6970 → 49746 [ACK] Seq=1 Ack=65 Win=29056 Len=0 TSval=3456040373 TSecr=4294955972
				TCP	152	6970 → 49746 [PSH, ACK] Seq=1 Ack=65 Win=29056 Len=86 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	66	49746 → 6970 [ACK] Seq=65 Ack=87 Win=14600 Len=0 TSval=4294955972 TSecr=3456040373
				TCP	1514	6970 → 49746 [ACK] Seq=87 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	1514	6970 → 49746 [ACK] Seq=1535 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	1514	6970 → 49746 [ACK] Seq=2983 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	1514	6970 → 49746 [ACK] Seq=4431 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	1514	6970 → 49746 [ACK] Seq=5879 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	1514	6970 → 49746 [ACK] Seq=7327 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	66	49746 → 6970 [ACK] Seq=65 Ack=1535 Win=17496 Len=0 TSval=4294955972 TSecr=3456040373
				TCP	1514	6970 → 49746 [ACK] Seq=8775 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				TCP	1514	6970 → 49746 [ACK] Seq=10223 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
				HTTP	180	HTTP/1.1 200 OK (*)
				TCP	66	49746 → 6970 [ACK] Seq=65 Ack=2983 Win=20392 Len=0 TSval=4294955972 TSecr=3456040373
				TCP	66	49746 → 6970 [ACK] Seq=65 Ack=4431 Win=23288 Len=0 TSval=4294955972 TSecr=3456040373

> Frame 3295: 1514 bytes on wire (12112 bits), 1514 bytes captured

> Ethernet II, Src: VMware_2d:04:19 (00:0c:29:2d:04:19), Dst: Cisco

> Internet Protocol Version 4, Src: 10.88.245.30, Dst: 10.88.245.11

0000 38 ed 10 af 76 58 00 0c 29 2d 04 19 00 00 45 00 8...X...)....E...
0010 05 dc 1f 1b 40 00 00 06 16 be 0a 58 f5 1e 0a 58@.:...X...X...
0020 f5 74 1b 3a c2 52 c7 a6 f3 f0 0b 0e e4 48 80 10 t...R...H...
0030 00 e3 a4 6f 00 00 01 01 08 0a cd fe fd b5 ff ff ...o.....

O telefone abre uma sessão TCP com o TFTP

Protocol	Length	Info
TCP	66	49744 → 6970 [ACK] Seq=89 Ack=1534 Win=17496 Len=0 TSval=4294952671 TSecr=3456007361
TCP	66	49744 → 6970 [ACK] Seq=89 Ack=2982 Win=20392 Len=0 TSval=4294952671 TSecr=3456007361
TCP	66	49744 → 6970 [ACK] Seq=89 Ack=4207 Win=23288 Len=0 TSval=4294952671 TSecr=3456007361
TCP	66	49744 → 6970 [FIN, ACK] Seq=89 Ack=4207 Win=23288 Len=0 TSval=4294952688 TSecr=3456007361
TCP	66	6970 → 49744 [FIN, ACK] Seq=4207 Ack=90 Win=29056 Len=0 TSval=3456007531 TSecr=4294952688
TCP	66	49744 → 6970 [ACK] Seq=90 Ack=4208 Win=23288 Len=0 TSval=4294952688 TSecr=3456007531
TCP	74	49745 → 6970 [SYN] Seq=0 Win=14600 Len=0 MSS=1460 SACK_PERM TSval=4294955939 TSecr=0 WS=4
TCP	74	6970 → 49745 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM TSval=3456040050 TSecr=4294955939 WS=128
TCP	66	49745 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294955940 TSecr=3456040050
HTTP	130	GET /CTLSEP38ED18AF7658.tlv HTTP/1.1

Solicitação de telefone do arquivo CTL e recebe e 404 não encontrado do TFTP

TCP	66	49745 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294955940 TSecr=3456040050
HTTP	130	GET /CTLSEP38ED18AF7658.tlv HTTP/1.1
TCP	66	6970 → 49745 [ACK] Seq=1 Ack=65 Win=29056 Len=0 TSval=3456040050 TSecr=4294955940
HTTP	130	HTTP/1.1 404 Not Found
TCP	66	49745 → 6970 [ACK] Seq=65 Ack=65 Win=14600 Len=0 TSval=4294955947 TSecr=3456040122
TCP	66	49745 → 6970 [FIN, ACK] Seq=65 Ack=65 Win=14600 Len=0 TSval=4294955965 TSecr=3456040122
TCP	66	6970 → 49745 [FIN, ACK] Seq=65 Ack=66 Win=29056 Len=0 TSval=3456040300 TSecr=4294955965
TCP	66	49745 → 6970 [ACK] Seq=66 Ack=66 Win=14600 Len=0 TSval=4294955965 TSecr=3456040300
TCP	74	49746 → 6970 [SYN] Seq=0 Win=14600 Len=0 MSS=1460 SACK_PERM TSval=4294955972 TSecr=0 WS=4
TCP	74	6970 → 49746 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM TSval=3456040372 TSecr=4294955972 WS=128
TCP	66	49746 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294955972 TSecr=3456040372
HTTP	130	GET /ITLSEP38ED18AF7658.tlv HTTP/1.1

Solicitação de telefone do arquivo ITL e recebe do TFTP o arquivo através de pacotes TCP


```

TCP      66 49746 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294955972 TSecr=3456040372
HTTP     130 GET /ITLSEP38ED18AF7658.tlv HTTP/1.1
TCP      66 6970 → 49746 [ACK] Seq=1 Ack=65 Win=29056 Len=0 TSval=3456040373 TSecr=4294955972
TCP      152 6970 → 49746 [PSH, ACK] Seq=1 Ack=65 Win=29056 Len=86 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=87 Win=14600 Len=0 TSval=4294955972 TSecr=3456040373
TCP      1514 6970 → 49746 [ACK] Seq=87 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49746 [ACK] Seq=1535 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49746 [ACK] Seq=2983 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49746 [ACK] Seq=4431 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49746 [ACK] Seq=5879 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49746 [ACK] Seq=7327 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=1535 Win=17496 Len=0 TSval=4294955972 TSecr=3456040373
TCP      1514 6970 → 49746 [ACK] Seq=8775 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49746 [ACK] Seq=10223 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
HTTP     180 HTTP/1.1 200 OK (*/*)

```

O TFTP envia 200 OK para a solicitação de arquivo ITL, o telefone confirma os dados recebidos e fecha a sessão TCP

```

TCP      1514 6970 → 49746 [ACK] Seq=10223 Ack=65 Win=29056 Len=1448 TSval=3456040373 TSecr=4294955972 [TCP segment of a reassembled PDU]
HTTP     180 HTTP/1.1 200 OK (*/*)
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=2983 Win=20392 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=4431 Win=23288 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=5879 Win=26184 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=7327 Win=29080 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=8775 Win=31976 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=10223 Win=34872 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=11671 Win=37768 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [ACK] Seq=65 Ack=11785 Win=37768 Len=0 TSval=4294955972 TSecr=3456040373
TCP      66 49746 → 6970 [FIN, ACK] Seq=65 Ack=11785 Win=37768 Len=0 TSval=4294955993 TSecr=3456040373
TCP      66 6970 → 49746 [FIN, ACK] Seq=11785 Ack=66 Win=29056 Len=0 TSval=3456040580 TSecr=4294955993
TCP      66 49746 → 6970 [ACK] Seq=66 Ack=11786 Win=37768 Len=0 TSval=4294955993 TSecr=3456040580

```

Phone closes TCP connection



Note: Para cada solicitação ao TFTP, o telefone tenta estabelecer uma nova conexão TCP

O telefone solicita o arquivo de configuração para TFTP e recebe do TFTP o arquivo através de pacotes TCP

```

TCP      66 49747 → 6970 [ACK] Seq=1 Ack=1 Win=14600 Len=0 TSval=4294956120 TSecr=3456041859
HTTP     135 GET /SEP38ED18AF7658.cnf.xml.sgn HTTP/1.1
TCP      66 6970 → 49747 [ACK] Seq=1 Ack=70 Win=29056 Len=0 TSval=3456041859 TSecr=4294956120
TCP      152 6970 → 49747 [PSH, ACK] Seq=1 Ack=70 Win=29056 Len=86 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=87 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=1535 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=2983 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=4431 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=5879 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=7327 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=8775 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=10223 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      1514 6970 → 49747 [ACK] Seq=11671 Ack=70 Win=29056 Len=1448 TSval=3456042050 TSecr=4294956120 [TCP segment of a reassembled PDU]
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=87 Win=14600 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=1535 Win=17496 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=2983 Win=20392 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=4431 Win=23288 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=5879 Win=26184 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=7327 Win=29080 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=8775 Win=31976 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=10223 Win=34872 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=11671 Win=37768 Len=0 TSval=4294956140 TSecr=3456042050
TCP      66 49747 → 6970 [ACK] Seq=70 Ack=13119 Win=40664 Len=0 TSval=4294956140 TSecr=3456042050
TCP      1514 6970 → 49747 [ACK] Seq=13119 Ack=70 Win=29056 Len=1448 TSval=3456042051 TSecr=4294956140 [TCP segment of a reassembled PDU]

```

O TFTP envia 200 OK para solicitação de arquivo ITL, o telefone confirma os dados recebidos

HTTP	708	HTTP/1.1	200	OK	(*/*)
TCP	66	49747 → 6970	[ACK]	Seq=70	Ack=14567 Win=43560 Len=0 TSval=4294956140 TSecr=3456042051
TCP	66	49747 → 6970	[ACK]	Seq=70	Ack=15209 Win=43560 Len=0 TSval=4294956140 TSecr=3456042051
TCP	66	49747 → 6970	[FIN, ACK]	Seq=70	Ack=15209 Win=43560 Len=0 TSval=4294956154 TSecr=3456042051
TCP	66	6970 → 49747	[FIN, ACK]	Seq=15209	Ack=71 Win=29056 Len=0 TSval=3456042190 TSecr=4294956154
TCP	66	49747 → 6970	[ACK]	Seq=71	Ack=15210 Win=43560 Len=0 TSval=4294956154 TSecr=3456042190
TCP	74	49748 → 6970	[SYN]	Seq=0	Win=14600 Len=0 MSS=1460 SACK_PERM TSval=4294956540 TSecr=0 WS=4
TCP	74	6970 → 49748	[SYN, ACK]	Seq=0	Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM TSval=3456046055 TSecr=4294956540 WS=128
TCP	66	49748 → 6970	[ACK]	Seq=1	Ack=1 Win=14600 Len=0 TSval=4294956540 TSecr=3456046055
HTTP	149	GET /Desktops/800x480x24/WestRockv3-2.png.sgn	HTTP/1.1		

O telefone solicita as configurações do TFTP e recebe cada arquivo através de pacotes TCP.

HTTP	147	GET /English_United_States/sl-be-sip.jar.sgn	HTTP/1.1		
HTTP	739	HTTP/1.1	200	OK	(*/*)
HTTP	138	GET /United_States/g3-tones.xml.sgn	HTTP/1.1		
HTTP	931	HTTP/1.1	200	OK	(*/*)
HTTP	148	GET /Desktops/800x480x24/WestRockv3-2.png.sgn	HTTP/1.1		
HTTP	631	HTTP/1.1	200	OK	(*/*)
HTTP	124	GET /AppDialRules.xml	HTTP/1.1		
HTTP	91	HTTP/1.1	200	OK	(*/*)
HTTP	154	GET /SKb0ec918f-b9ee-994b-57ae-345883c1fde8.xml.sgn	HTTP/1.1		
HTTP	1291	HTTP/1.1	200	OK	(*/*)
HTTP	130	GET /CTLSEP38ED18AF7658.tlv	HTTP/1.1		
HTTP	130	HTTP/1.1	404	Not Found	
HTTP	130	GET /ITLSEP38ED18AF7658.tlv	HTTP/1.1		
HTTP	180	HTTP/1.1	200	OK	(*/*)
HTTP	135	GET /SEP38ED18AF7658.cnf.xml.sgn	HTTP/1.1		
HTTP	708	HTTP/1.1	200	OK	(*/*)
HTTP	148	GET /Desktops/800x480x24/WestRockv3-2.png.sgn	HTTP/1.1		
HTTP	124	GET /AppDialRules.xml	HTTP/1.1		
HTTP	91	HTTP/1.1	200	OK	(*/*)
HTTP	154	GET /SKb0ec918f-b9ee-994b-57ae-345883c1fde8.xml.sgn	HTTP/1.1		
HTTP	1291	HTTP/1.1	200	OK	(*/*)

SIP Registre mensagens e 200 OK do CUCM.

SIP	128	Request: REFER sip: [redacted]
SIP	449	Status: 202 Accepted
SIP	1140	Request: REGISTER sip: [redacted] (1 binding) (application/x-cisco-remotecd-request+xml) (application/x-cisco-remotecd-request+x...
SIP	383	Status: 100 Trying
SIP	1173	Status: 200 OK (REGISTER) (1 binding)

Rastreamentos de CUCM

***** REFER para informar o CUCM sobre o último status de registro *****

REFER sip:198.51.100.31 SIP/2.0
Via: SIP/2.0/TCP 198.51.100.109:50806;branch=z9hG4bK25771c8e
From: "2001" <sip:2001@198.51.100.109>;tag=d0ec35c1d98e00030abbb40d-0dadaa5e
To: <sip:198.51.100.31>
Call-ID: d0ec35c1-d98e0003-657a07f3-6d626333@198.51.100.109
Session-ID: 92eb5cca00105000a000d0ec35c1d98e;remote=00000000000000000000000000000000
Date: Fri, 21 Jul 2023 18:05:31 GMT
CSeq: 1000 REFER
User-Agent: Cisco-CP8811/14.2.1
Expires: 10
Max-Forwards: 70
Contact: <sip:fa7155fd-ec0d-7b35-c49b-86e9f163bf11@198.51.100.109:50806;transport=tcp>;+u.sip!devicename
Require: norefersub
Referred-By: "2001" <sip:2001@198.51.100.109>
Refer-To: cid:28820b4e@198.51.100.109
Content-Id: <28820b4e@198.51.100.109>
Allow: ACK,BYE,CANCEL,INVITE,NOTIFY,OPTIONS,REFER,REGISTER,UPDATE,SUBSCRIBE
Content-Length: 1693
Content-Type: application/x-cisco-alarm+xml
Content-Disposition: session;handling=required

```
<?xml version="1.0" encoding="UTF-8"?>
<x-cisco-alarm>
<Alarm Name="LastOutOfServiceInformation">
<ParameterList>
<String name="DeviceName">SEPD0EC35C1D98E</String>
<String name="DeviceIPv4Address">198.51.100.109/24</String>
<String name="IPv4DefaultGateway">198.51.100.1</String>
<String name="DeviceIPv6Address"></String>
<String name="IPv6DefaultGateway"></String>
<String name="ModelNumber">CP-8811</String>
<String name="NeighborIPv4Address">198.51.100.98</String>
<String name="NeighborIPv6Address"></String>
<String name="NeighborDeviceID">jpazjaim_SW</String>
<String name="NeighborPortID">GigabitEthernet0/2</String>
<Enum name="DHCPv4Status">1</Enum>
<Enum name="DHCPv6Status">3</Enum>
<Enum name="TFTPcFgStatus">1</Enum>
<Enum name="DNSStatusUnifiedCM1">0</Enum>
<Enum name="DNSStatusUnifiedCM2">0</Enum>
<Enum name="DNSStatusUnifiedCM3">0</Enum>
<Enum name="DNSv6StatusUnifiedCM1">0</Enum>
<Enum name="DNSv6StatusUnifiedCM2">0</Enum>
<Enum name="DNSv6StatusUnifiedCM3">0</Enum>
<String name="VoiceVLAN">360</String>
<String name="UnifiedCMIPAddress">198.51.100.31</String>
<String name="LocalPort">50020</String>
<String name="TimeStamp">1689962095016</String>
<Enum name="ReasonForOutOfService">25</Enum>
<String name="LastProtocolEventSent">Sent:REGISTER sip:198.51.100.31 SIP/2.0 Cseq:11810 REGISTER CallId:
<String name="LastProtocolEventReceived">Rcvd:SIP/2.0 202 Accepted Cseq:1000 REFER CallId:d0ec35c1-d98e
<String name="ReasonForOutOfServiceText">LastTimeInitialized</String>
<String name="ActiveInterface">Wired</String>
</ParameterList>
</Alarm>
</x-cisco-alarm>
```

***** 202 Mensagem aceita para o ***** REFER

SIP/2.0 202 Accepted
Via: SIP/2.0/TCP 198.51.100.109:50806;branch=z9hG4bK25771c8e
From: "2001" <sip:2001@198.51.100.109>;tag=d0ec35c1d98e00030abbb40d-0dadaa5e
To: <sip:198.51.100.31>;tag=1984400291
Date: Fri, 21 Jul 2023 18:08:58 GMT
Call-ID: d0ec35c1-d98e0003-657a07f3-6d626333@198.51.100.109
CSeq: 1000 REFER
Contact: <sip:198.51.100.31:5060;transport=tcp>
Content-Length: 0

***** REGISTRAR mensagens SIP do IP Phone *****

REGISTER sip:198.51.100.31 SIP/2.0
Via: SIP/2.0/TCP 198.51.100.109:50806;branch=z9hG4bK0aeff5a4
From: <sip:2001@198.51.100.31>;tag=d0ec35c1d98e00044e764ab3-2227c9d6
To: <sip:2001@198.51.100.31>
Call-ID: d0ec35c1-d98e0002-71e1f429-052f5580@198.51.100.109
Max-Forwards: 70
Session-ID: 92eb5cca00105000a000d0ec35c1d98e;remote=00000000000000000000000000000000
Date: Fri, 21 Jul 2023 18:05:31 GMT
CSeq: 101 REGISTER
User-Agent: Cisco-CP8811/14.2.1
Contact: <sip:fa7155fd-ec0d-7b35-c49b-86e9f163bf11@198.51.100.109:50806;transport=tcp>;+sip.instance="<
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-callinfo,X-cisco-
Reason: SIP;cause=200;text="cisco-alarm:25 Name=SEPD0EC35C1D98E ActiveLoad=sip88xx.14-2-1-0001-14.loads
Expires: 3600
Content-Type: multipart/mixed; boundary=uniqueBoundary
Mime-Version: 1.0
Content-Length: 1313

***** CUCM envia o 200 OK à mensagem REGISTER *****

SIP/2.0 200 OK
Via: SIP/2.0/TCP 198.51.100.109:50806;branch=z9hG4bK0aeff5a4
From: <sip:2001@198.51.100.31>;tag=d0ec35c1d98e00044e764ab3-2227c9d6
To: <sip:2001@198.51.100.31>;tag=757446526
Date: Fri, 21 Jul 2023 18:08:58 GMT

Call-ID: d0ec35c1-d98e0002-71e1f429-052f5580@198.51.100.109
Server: Cisco-CUCM14.0
CSeq: 101 REGISTER
Expires: 120
Contact: <sip:fa7155fd-ec0d-7b35-c49b-86e9f163bf11@198.51.100.109:50806;transport=tcp>;+sip.instance="
Supported: X-cisco-srtp-fallback,X-cisco-sis-10.0.0
Content-Type: application/x-cisco-remotecc-response+xml
Content-Length: 381

Solucionar problemas de cancelamento de registro de muitos endpoints

Para esse problema, são necessários alguns endereços MAC de alguns telefones afetados.

Para facilitar o processo, é necessário ter um editor de texto como o Notepad++, Visual Studio ou outros.

Para solucionar esse problema, os logs do visualizador de eventos podem ser verificados. Nos logs do visualizador de eventos, eventos como endpoint registrado e não registrado, informações de ITL e CTL, tipo de endpoint, firmware ativo, protocolo de telefone, motivo para não registro e muito mais podem ser encontrados aqui.

Etapas para restringir o problema:

1. Abrir a pasta de logs no editor de texto
2. Pesquisar em todas as pastas
3. Procurar ponto de extremidade não registrado

Isso nos mostra todos os resultados da pasta syslog e os arquivos SDL que contêm essa palavra.

5440:

Jul 17 21:45:17

cucmsub local6 6 ccm: 19: xxxxxxxx.xxxxxx.xx Jul 18 2023 02:45:17 UTC : %UC_CALLMANAGER-6-EndPointUnreg

DeviceName=SEPXXXXXXXXXXXX

] [IPAddress=198.51.100.117] [Protocol=SIP] [DeviceType=622] [Description=SEPXXXXXXXXXXXX_CP_7841] [

Reason=28

] [IPAddrAttributes=0] [AppID=Cisco CallManager] [ClusterID=SSPTSite}] [NodeID=cucmsub]: An endpoint has un

Explicação de mensagem de Erro de Sistema EndPointUnregistered

Endereço IP: IP do ponto final afetado.

Nome do dispositivo: Endereço Mac do ponto final afetado.

Protocolo: Protocolo com o qual o ponto de extremidade foi registrado.

Tipo de dispositivo: Tipo de modelo de ponto de extremidade.

Para saber o número e o nome do modelo do tipo de dispositivo, execute na CLI: execute sql
select enum,name from typemodel

Descrição: Descrição definida no Call Manager ao registrar o telefone.

Razão: Razão da mensagem de erro do sistema.

Localize [aqui](#) todos os motivos das mensagens de erro do sistema.

Atributos IPAddr: Descrever o uso do IP.

ID do aplicativo: Tipo de servidor unificado.

ID do nó: Nome do nó.

Você deve se concentrar no número do motivo da mensagem de erro, no endereço mac e no carimbo de data/hora para corresponder o alerta à sua ocorrência e, em seguida, navegar para a [página](#) onde os motivos são encontrados.



Note: A página da mensagem de erro do sistema contém todos os alarmes disponíveis em RTMT, a explicação e a descrição dos motivos pelos quais o alarme foi disparado.

Depois de abrir a página:

1. Pressione CTRL + F (no Windows) ou Command + F (no MacOs)
2. Procurar EndPointUnregistered

Error Message

%UC_CALLMANAGER-3-EndPointUnregistered: %[DeviceName=String][MACAddress=String][IPAddress=String][Protocol=String][DeviceType=Enum][Description=String][Reason=Enum][IPv6Address=String][IPAddrAttributes=Enum][IPv6AddrAttributes=Enum][LastSignalReceived=String][CallState=String][AppID=String][ClusterID=String][NodeID=String]: An endpoint has unregistered.

Explanation An endpoint that has previously registered with Cisco Unified Communications Manager has unregistered. In cases of normal unregistration with reason code 'CallManagerReset', 'CallManagerRestart', 'DeviceInitiatedReset', 'EMLoginLogout', or 'EMCCLoginLogout', the severity of this alarm is lowered to INFORMATIONAL. An endpoint can unregister for many reasons, both intentional such as manually resetting the device after a configuration change, or unintentional such as loss of network connectivity. Other causes for this alarm could include a phone being registered to a secondary node and then the primary node coming online, causing the phone to rehome to the primary Unified CM node. Or, lack of a KeepAlive message being returned from the Unified CM node to which this endpoint was registered. Unregistration also occurs if Unified CM receives a duplicate registration request for this same device.

Recommended Action Actions to take vary depending on the reason specified for the endpoint unregistration. If the reason is ConfigurationMismatch, go to the Device Configuration page in Cisco Unified CM Administration, make a change to the Description field for this device, click Save, then reset the device. In the case of a network connectivity problem or loss of KeepAlives, use network diagnostic tools and the Cisco Unified CM Reporting tool to fix any reported network or Unified CM system errors. In the case of an endpoint rehome to the primary Unified CM node, watch for a successful registration of the device on the primary node. In the case of a duplicate registration request, it may be a non-malicious occurrence due to timing of an endpoint registering and unregistering; if duplicate registration requests continue or if the same endpoint has different IP addresses, confirm the IP address on the physical device itself by checking the settings on the device (settings button). If unregistration of this device was expected, no action is required. Also, refer to the reason code descriptions in this alarm for additional recommended actions.

Reason Code - Enum Definitions

Enum Definitions - DeviceType

Value	Definition
1	CISCO_30SP+
2	CISCO_12SP+
3	CISCO_12SP

3. Role para baixo até encontrar Definições de Enum - Motivo
4. Pesquise o(s) número(s) dos motivos na mensagem de erro do sistema

28	FallbackInitiated - The device has initiated a fallback and will automatically re-register to a higher-priority Unified CM. No action is necessary.
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Caso sejam necessárias mais informações, o pcap no telefone é a melhor opção para visualizar o processo de registro do telefone passo a passo.

Lista de modelos de tipo de dispositivo

Para saber os tipos de dispositivo associados ao campo DeviceType que aparecem no alerta, você pode executar uma consulta na CLI do CUCM onde os telefones estão registrados.

Consulta: executar `sql select enum,name from typemodel`

```
enum name
=====
1 Cisco 30 SP+
2 Cisco 12 SP+
3 Cisco 12 SP
4 Cisco 12 S
5 Cisco 30 VIP
6 Cisco 7910
7 Cisco 7960
8 Cisco 7940
9 Cisco 7935
10 Cisco VGC Phone
11 Cisco VGC Virtual Phone
12 Cisco ATA 186
15 EMCC Base Phone
20 SCCP Phone
30 Analog Access
40 Digital Access
42 Digital Access+
43 Digital Access WS-X6608
47 Analog Access WS-X6624
48 VGC Gateway
50 Conference Bridge
51 Conference Bridge WS-X6608
52 Cisco IOS Conference Bridge (HDV2)
53 Cisco Conference Bridge (WS-SVC-CMM)
61 H.323 Phone
62 H.323 Gateway
70 Music On Hold
71 Device Pilot
72 CTI Port
73 CTI Route Point
80 Voice Mail Port
83 Cisco IOS Software Media Termination Point (HDV2)
84 Cisco Media Server (WS-SVC-CMM-MS)
```

85 Cisco Video Conference Bridge (IPVC-35xx)
86 Cisco IOS Heterogeneous Video Conference Bridge
87 Cisco IOS Guaranteed Audio Video Conference Bridge
88 Cisco IOS Homogeneous Video Conference Bridge
90 Route List
100 Load Simulator
110 Media Termination Point
111 Media Termination Point Hardware
112 Cisco IOS Media Termination Point (HDV2)
113 Cisco Media Termination Point (WS-SVC-CMM)
115 Cisco 7941
119 Cisco 7971
120 MGCP Station
121 MGCP Trunk
122 GateKeeper
124 7914 14-Button Line Expansion Module
125 Trunk
126 Tone Announcement Player
131 SIP Trunk
132 SIP Gateway
133 WSM Trunk
134 Remote Destination Profile
227 7915 12-Button Line Expansion Module
228 7915 24-Button Line Expansion Module
229 7916 12-Button Line Expansion Module
230 7916 24-Button Line Expansion Module
232 CKEM 36-Button Line Expansion Module
253 SPA8800
254 Unknown MGCP Gateway
255 Unknown
302 Cisco 7985
307 Cisco 7911
308 Cisco 7961G-GE
309 Cisco 7941G-GE
335 Motorola CN622
336 Third-party SIP Device (Basic)
348 Cisco 7931
358 Cisco Unified Personal Communicator
365 Cisco 7921
369 Cisco 7906
374 Third-party SIP Device (Advanced)
375 Cisco TelePresence
376 Nokia S60
404 Cisco 7962
412 Cisco 3951
431 Cisco 7937
434 Cisco 7942
435 Cisco 7945
436 Cisco 7965
437 Cisco 7975
446 Cisco 3911
468 Cisco Unified Mobile Communicator
478 Cisco TelePresence 1000
479 Cisco TelePresence 3000
480 Cisco TelePresence 3200
481 Cisco TelePresence 500-37
484 Cisco 7925
493 Cisco 9971
495 Cisco 6921
496 Cisco 6941
497 Cisco 6961
503 Cisco Unified Client Services Framework

505 Cisco TelePresence 1300-65
520 Cisco TelePresence 1100
521 Transnova S3
522 BlackBerry MVS VoWifi
537 Cisco 9951
540 Cisco 8961
547 Cisco 6901
548 Cisco 6911
550 Cisco ATA 187
557 Cisco TelePresence 200
558 Cisco TelePresence 400
562 Cisco Dual Mode for iPhone
564 Cisco 6945
575 Cisco Dual Mode for Android
577 Cisco 7926
580 Cisco E20
582 Generic Single Screen Room System
583 Generic Multiple Screen Room System
584 Cisco TelePresence EX90
585 Cisco 8945
586 Cisco 8941
588 Generic Desktop Video Endpoint
590 Cisco TelePresence 500-32
591 Cisco TelePresence 1300-47
592 Cisco 3905
593 Cisco Cius
594 VKEM 36-Button Line Expansion Module
596 Cisco TelePresence TX1310-65
597 Cisco TelePresence MCU
598 Ascom IP-DECT Device
599 Cisco TelePresence Exchange System
604 Cisco TelePresence EX60
606 Cisco TelePresence Codec C90
607 Cisco TelePresence Codec C60
608 Cisco TelePresence Codec C40
609 Cisco TelePresence Quick Set C20
610 Cisco TelePresence Profile 42 (C20)
611 Cisco TelePresence Profile 42 (C60)
612 Cisco TelePresence Profile 52 (C40)
613 Cisco TelePresence Profile 52 (C60)
614 Cisco TelePresence Profile 52 Dual (C60)
615 Cisco TelePresence Profile 65 (C60)
616 Cisco TelePresence Profile 65 Dual (C90)
617 Cisco TelePresence MX200
619 Cisco TelePresence TX9000
620 Cisco TelePresence TX9200
621 Cisco 7821
622 Cisco 7841
623 Cisco 7861
626 Cisco TelePresence SX20
627 Cisco TelePresence MX300
628 IMS-integrated Mobile (Basic)
631 Third-party AS-SIP Endpoint
632 Cisco Cius SP
633 Cisco TelePresence Profile 42 (C40)
634 Cisco VXC 6215
635 CTI Remote Device
640 Usage Profile
642 Carrier-integrated Mobile
645 Universal Device Template
647 Cisco DX650
648 Cisco Unified Communications for RTX

652 Cisco Jabber for Tablet
659 Cisco 8831
681 Cisco ATA 190
682 Cisco TelePresence SX10
683 Cisco 8841
684 Cisco 8851
685 Cisco 8861
688 Cisco TelePresence SX80
689 Cisco TelePresence MX200 G2
690 Cisco TelePresence MX300 G2
20000 Cisco 7905
30002 Cisco 7920
30006 Cisco 7970
30007 Cisco 7912
30008 Cisco 7902
30016 Cisco IP Communicator
30018 Cisco 7961
30019 Cisco 7936
30027 Analog Phone
30028 ISDN BRI Phone
30032 SCCP gateway virtual phone
30035 IP-STE
36041 Cisco TelePresence Conductor
36042 Cisco DX80
36043 Cisco DX70
36049 BEKEM 36-Button Line Expansion Module
36207 Cisco TelePresence MX700
36208 Cisco TelePresence MX800
36210 Cisco TelePresence IX5000
36213 Cisco 7811
36216 Cisco 8821
36217 Cisco 8811
36219 Interactive Voice Response
36224 Cisco 8845
36225 Cisco 8865
36227 Cisco TelePresence MX800 Dual
36232 Cisco 8851NR
36235 Cisco Spark Remote Device
36239 Cisco Webex DX80
36241 Cisco TelePresence DX70
36247 Cisco 7832
36248 Cisco 8865NR
36250 Cisco Meeting Server
36251 Cisco Webex Room Kit
36254 Cisco Webex Room 55
36255 Cisco Webex Room Kit Plus
36256 CP-8800-Video 28-Button Key Expansion Module
36257 CP-8800-Audio 28-Button Key Expansion Module
36258 Cisco 8832
36259 Cisco Webex Room 70 Single
36260 Cisco 8832NR
36262 Cisco ATA 191
36265 Cisco Webex Room 70 Dual
36292 Cisco Webex Room Kit Pro
36295 Cisco Webex Room 55 Dual
36296 Cisco Webex Room 70 Single G2
36297 Cisco Webex Room 70 Dual G2
36299 Cisco Webex Room Kit Mini
36304 Cisco Webex Board 55
36305 Cisco Webex Board 70
36306 Cisco Webex Board 85
36307 Cisco Webex Desk Pro

36308 Cisco Webex Room Panorama
36309 Cisco Webex Room 70 Panorama
36312 Cisco Webex Room Phone



Note: O resultado da consulta pode ser alterado com base na versão do CUCM.

Informações Relacionadas

- [Suporte técnico e downloads da Cisco](#)

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