

Problemen met het afmelden van IP-telefoons oplossen in CUCM

Inhoud

[Inleiding](#)

[Vereisten](#)

[Gebruikte componenten](#)

[Achtergrondinformatie](#)

[SIP-registratieproces](#)

[SCCP-registratieproces](#)

[Probleem](#)

[Informatie die moet worden verduidelijkt](#)

[Logbestanden om op te halen](#)

[Van telefoon:](#)

[Van CUCM:](#)

[Van Switch:](#)

[Hoe logboeken te verzamelen](#)

[PRT-/consolelogs begrijpen](#)

[IP Phone PCAP-registratieproces](#)

[CUCM Traces](#)

[Problemen oplossen met veel eindpunten voor niet-registratie](#)

[Stappen om het probleem te beperken:](#)

[EndPointUnregistered System Foutmelding uitleg](#)

[Modellijst apparaattype](#)

[Gerelateerde informatie](#)

Inleiding

In dit document wordt beschreven hoe u kunt beginnen met het oplossen van problemen met een IP-telefoon die niet is geregistreerd of niet bij CUCM is geregistreerd.

Vereisten

Cisco raadt kennis van de volgende onderwerpen aan:

- Cisco IP Phone-registratieproces.

- Cisco Unified Communications Manager (CUCM)
- Domain Name System (DNS)
- Cisco Discovery Protocol (CDP)
- Dynamic Host Configuration Protocol (DHCP)
- Trivial File Transfer Protocol (TFTP)
- Voice Virtual LAN (Voice VLAN)
- Power-over-Ethernet (PoE)

Gebruikte componenten

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

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

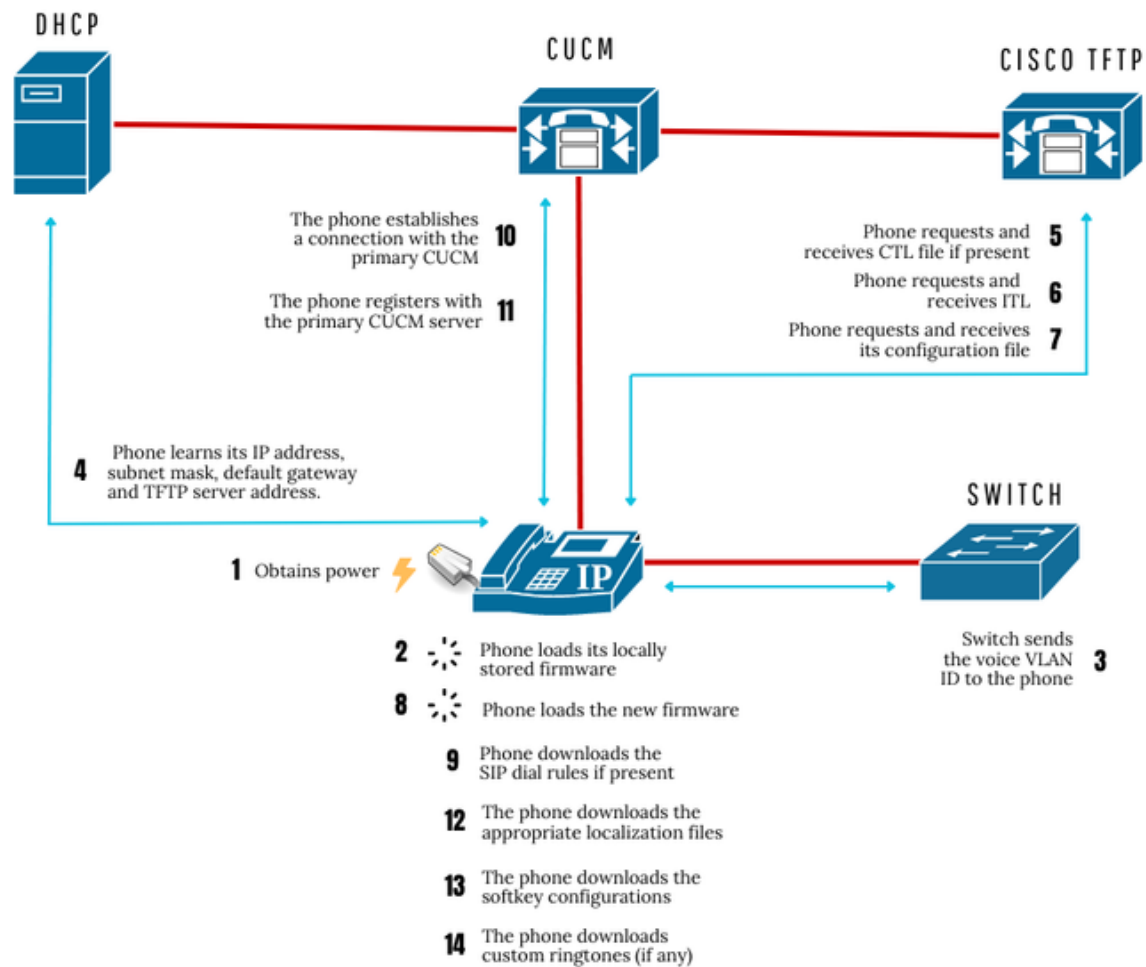
De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u zorgen dat u de potentiële impact van elke opdracht begrijpt.

Achtergrondinformatie

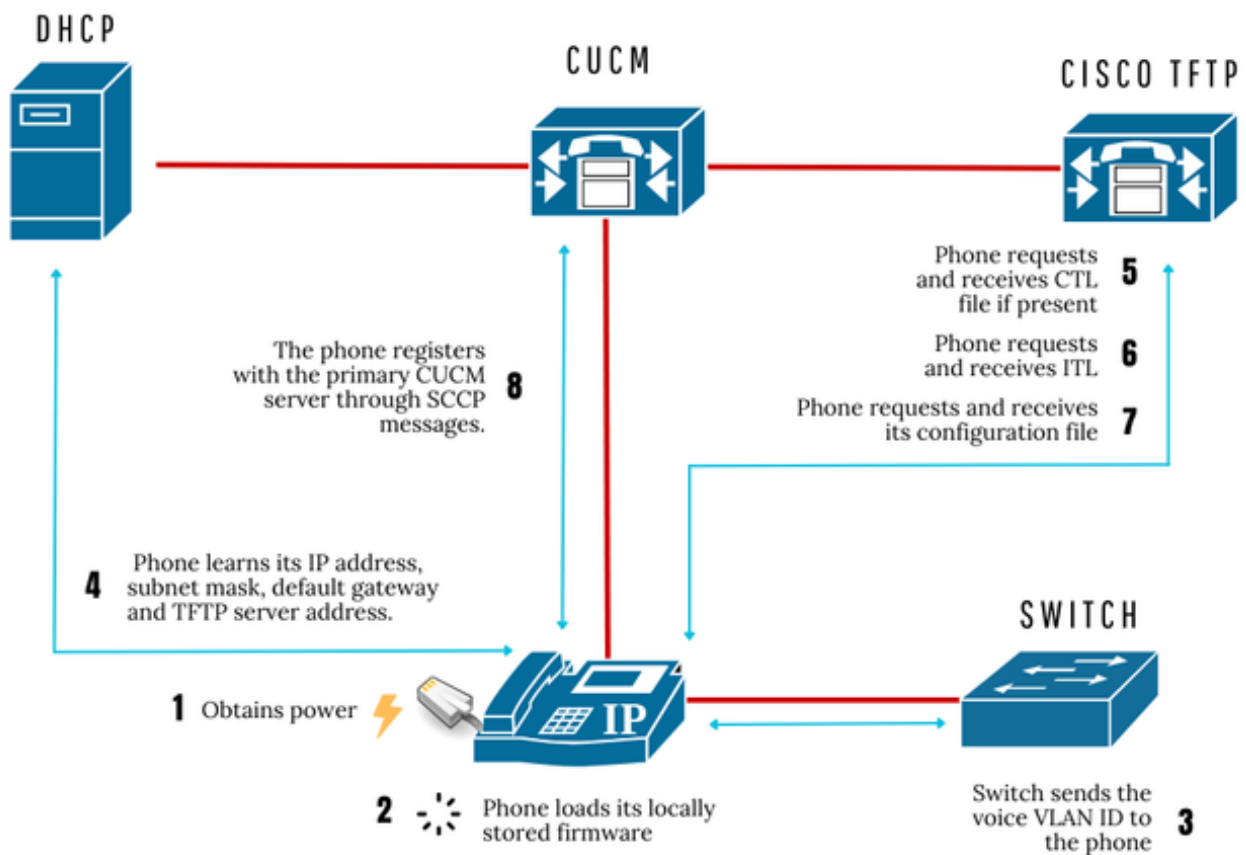
De registratie van een apparaat in CUCM hangt af van de vraag of het een apparaat is dat Skinny Protocol (SCCP) of Session Initiation Protocol (SIP) gebruikt, tussen hen een paar stappen veranderen, maar de probleemoplossing is hetzelfde en richt zich op de stappen die de telefoon doet om te registreren.

Het is essentieel om problemen met apparaatregistratie op te lossen door het proces te begrijpen dat het apparaat doorloopt om correct te registreren.

SIP-registratieproces



SCCP-registratieproces



Probleem

Sommige gebeurtenissen, zoals een stroomstoring, een hardware- of softwaredefect, instabiele verbindingen, gebrek aan servicekwaliteit in het netwerk en andere, kunnen ertoe leiden dat een of meer telefoons niet worden geregistreerd in Call Manager. Of het nu gaat om een enkele gebeurtenis of iets intermitterend, het is belangrijk om het probleem op te helderen om het te beperken.

Informatie die moet worden verduidelijkt

- Volledige CUCM-versie
- Gebeurt dit alleen met een specifiek model?
- Gebeurt dit op één locatie of locatie?
- Hoeveel telefoons zijn getroffen?
- Delen alle telefoons dezelfde firmwareversie?
- Heb je onlangs de firmware bijgewerkt of gedowngraded?
- Heeft u onlangs certificaten opnieuw gegenereerd?

- Heb je een fabrieksreset gedaan?
- Is het probleem naar believen reproduceerbaar?
- Let op een paar MAC-adressen voor getroffen telefoons en tijdstempel wanneer het probleem begint te gebeuren.

Logbestanden om op te halen

Het is noodzakelijk om de logs van elk onderdeel dat betrokken is bij het telefoonregistratieproces te hebben om te vinden waar het probleem zich bevindt.

Van telefoon:

Op de IP-telefoonwebpagina:

- Telefoonprobleemrapport (PRT) of consolelogboeken

Op Wireshark (niet altijd nodig):

- PCAP vanaf telefoon

Van CUCM:

Van RTMT (Real Time Monitor Tool):

- Cisco CallManager Traces
- Toepassingslogboek van Event Viewer
- Systeemlogboek van Event Viewer
- Cisco TFTP

Van CUCM CLI-sessie (niet altijd nodig):

- Pcap van primaire CUCM (waar de telefoon zich registreert)

Van Switch:

- Spanwijdte (optioneel voor het geval dat de pcap van de telefoon niet kan worden

opgehaald)



Opmerking: Zorg dat u de tijdstempel hebt wanneer het probleem zich heeft voorgedaan en dat de details van de telefoon(s) belangrijk zijn.

Hoe logboeken te verzamelen

- [Hoe CUCM-logs van RTMT te verzamelen](#)
- [Hoe IP Phone pcap te verzamelen](#)
- [Hoe CUCM pcap te verzamelen](#)
- [Hoe IP Phone PRT te verzamelen](#)
- [Hoe telefoonconsole logs te verzamelen](#)
- [Hoe een SPAN op switch te verzamelen](#)

PRT-/consolelogs begrijpen

Het proces dat de telefoon neemt om specifieke functies (IP, Configuratiebestand en andere) van de andere betrokken componenten aan te vragen, is te zien in de PRT of in de consolelogs. De PRT bevat de consolelogboeken.



Opmerking: om de consolelogs in de PRT te kunnen lezen, moet u de mappen in het pad prt-date-time-MACAddress > data > logsave > main decomprimeren

***** PRT/Console-logboeken tonen hoe de telefoon zijn firmware-image laadt: *****

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

```
***** Telefoon vraagt het bestand Certificate Trust List (CTL) aan *****
```

```

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:SEPD0EC35C1D98E.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

```

Als het cluster zich in de niet-beveiligde modus bevindt, stuurt de TFTP 404 Not Found naar het verzoek (als het cluster zich in de gemengde modus bevindt, moet TFTP een 200 OK verzenden)

```

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 download 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

```

***** Telefoonverzoeken Identity Trust List (ITL) bestand *****

```

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:SEPD0EC35C1D98E.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...)

```

TFTP stuurt 200 OK voor het ITL-bestandsverzoek

```

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 download 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

***** Telefoonaanvragen voor het TFTP-configuratiebestand *****

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

***** Telefoon downloadt het configuratiebestand *****

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

TFTP stuurt 200 OK naar het configuratiebestand

2163 NOT Jul 21 18:05:26.541364 (351-968) downd-XXX arg[4] SEP0EC35C1D98E.cnf.xml.sgn
2164 NOT Jul 21 18:05:26.541398 (351-968) downd-XXX arg[5] /tmp/ram/SEP0EC35C1D98E.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

***** Telefoon laadt de nieuwe 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

***** Telefoon laadt alle parameters op die in het configuratiebestand zijn geschreven *****

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

***** Bericht registreren *****

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

***** Telefoon stuurt SIP REGISTER-bericht naar 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-
Supported: replaces,join,sdp-anat,norefersub,resource-priority,extended-refer,X-cisco-callinfo,X-cisco-
Content-Length: 0^M
Expires: 3600^M
^M

***** SIP Bericht van de CUCM om het REGISTER in te dienen *****

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 in reactie op het REGISTER-bericht van de 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:00000000-0000-0000-0000-000000000000"
Supported: X-cisco-srtp-fallback,X-cisco-sis-10.0.0^M
Content-Length: 0^M
^M
```

IP Phone PCAP-registratieproces

In pcap wordt het volledige proces getoond over hoe het apparaat de communicatie uitvoert met de andere componenten zoals CUCM, TFTP, DHCP. Als u in detail wilt zien wat niet in de logs is gezien, zou de pcap noodzakelijk zijn.

Een aanbevolen filter voor SIP apparaten: ((tcp) || (http)) || (sip) && (ip.addr == XX.XX.XX.XX)

Een aanbevolen filter voor SCCP-apparaten: ((tcp || (http)) || (skinny)) && (ip.addr == XX.XX.XX.XX)

Waar de XX.XX.XX.XX het IP van de telefoon is.

of een andere optie

In het geval van SIP-apparaten: ((tcp) || (http)) || (sip) && (eth.addr == YYYYYYYYYYYY)

in het geval van SCCP-apparaten: ((tcp) || (http)) || (skinny) && (eth.addr == YYYYYYYYYYYY)

Waar de YYYYYYYYYYYY de MAC van de telefoon is.

U kunt het MAC-adres ook gebruiken met de dubbele punt: 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_nic2:04:19:00:0c:29:2d:04:19, Dst: Cisco						
Internet Protocol Version 4, Src: 10.88.245.30, Dst: 10.88.245.11						

De telefoon opent een TCP-sessie met de 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

Telefoon vraagt het CTL-bestand aan en ontvangt en 404 niet gevonden van het 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

Telefoon vraagt het ITL-bestand aan en ontvangt van het TFTP-bestand via TCP-pakketten

```

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 (*/*)

```

TFTP verzendt 200 OK voor ITL-bestandsverzoek, de telefoon pakt de ontvangen gegevens en sluit de TCP-sessie

```

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



Opmerking: probeer voor elk verzoek aan de TFTP-telefoon een nieuwe TCP-verbinding te maken

Telefoon vraagt het configuratiebestand op naar TFTP en ontvangt het TFTP-bestand via TCP-pakketten

```

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]

```

TFTP stuurt 200 OK voor ITL-bestandsverzoek, de telefoon ACK't de gegevens die het heeft ontvangen

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	140	GET /Desktops/800x480x24/WestRockv3-2.png.sgn	HTTP/1.1		

Telefoon vraagt de configuraties van TFTP en ontvangt elk bestand via TCP-pakketten.

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 Registreer berichten en 200 OK van CUCM.

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

CUCM Traces

***** VERWIJZEN om CUCM te informeren over de laatste registratiestatus *****

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 Aanvaard bericht aan de REFERENT *****

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

***** SIP-berichten registreren vanaf 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 stuur de 200 OK naar het REGISTER bericht *****

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

Problemen oplossen met veel eindpunten voor niet-registratie

Voor dit probleem zijn een paar MAC-adressen van sommige getroffen telefoons nodig.

Om het proces gemakkelijker te maken, is het noodzakelijk om een teksteditor te hebben zoals Notepad ++, Visual Studio of anderen.

Om dit probleem op te lossen, kunnen de logboeken van de gebeurtenisviewer worden geverifieerd. In de logboeken van de kijker kunnen gebeurtenissen zoals het geregistreerde en niet-geregistreerde eindpunt, ITL- en CTL-informatie, het type eindpunt, actieve firmware, telefoonprotocol, reden voor niet-registratie en nog veel meer hier worden gevonden.

Stappen om het probleem te beperken:

1. De map Logs openen in de teksteditor
2. Zoeken in alle mappen
3. Zoeken naar EindpuntNiet geregistreerd

Dit toont ons alle resultaten van de syslog-map en SDL-bestanden die dit woord bevatten.

<#root>

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

EndPointUnregistered System Foutmelding uitleg

IPA-adres: IP voor het getroffen eindpunt.

DeviceName: Mac-adres voor het getroffen eindpunt.

Protocol: Protocol waarmee het eindpunt werd geregistreerd.

Apparaattype: type eindpuntmodel.

Om het modelnummer en de naam van het apparaattype te kennen, voert u uit op CLI: voer sql
select enum uit, naam van typemodel

Beschrijving: Beschrijving ingesteld in Call Manager bij het registreren van de telefoon.

Reden: reden van de systeemfoutmelding.

Alle redenen voor systeemfoutmeldingen vindt u [hier](#).

IPAddrAttributes: Beschrijf het gebruik van het IP-adres.

AppID: type uniforme server.

NodeID: Node-naam.

U moet zich richten op het redenummer van het foutbericht, het MAC-adres en de tijdstempel om de waarschuwing te laten overeenkomen met uw gebeurtenis en vervolgens naar de [pagina](#) gaan waar de redenen zijn gevonden.



Opmerking: De pagina voor systeemfoutbericht bevat alle alarmen die beschikbaar zijn op RTMT, de uitleg en beschrijving van de redenen waarom het alarm is geactiveerd.

Zodra u de pagina opent:

1. Druk op CTRL + F (op Windows) of Command + F (op MacOS)

2. Zoeken naar 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][ApplID=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. Scroll naar beneden totdat je Enum Definitions - Reason vindt

4. Zoek het nummer of de redenen op de systeemfoutmelding

28	FallbackInitiated - The device has initiated a fallback and will automatically re-register to a higher-priority Unified CM. No action is necessary.
----	---

In het geval dat meer informatie nodig is, is de pcap op de telefoon de beste optie om het telefoonregistratieproces stap voor stap te bekijken.

Modellijst apparaattype

Als u wilt weten welke apparaattypen zijn gekoppeld aan het veld DeviceType dat in de waarschuwing wordt weergegeven, kunt u een query uitvoeren in de CLI van de CUCM waar de telefoons zijn geregistreerd.

Query: SQL select enum uitvoeren, naam van 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



Opmerking: het resultaat van de query kan worden gewijzigd op basis van de CUCM-versie.

Gerelateerde informatie

- [Cisco Technical Support en downloads](#)

Over deze vertaling

Cisco heeft dit document vertaald via een combinatie van machine- en menselijke technologie om onze gebruikers wereldwijd ondersteuningscontent te bieden in hun eigen taal. Houd er rekening mee dat zelfs de beste machinevertaling niet net zo nauwkeurig is als die van een professionele vertaler. Cisco Systems, Inc. is niet aansprakelijk voor de nauwkeurigheid van deze vertalingen en raadt aan altijd het oorspronkelijke Engelstalige document (link) te raadplegen.