Application Note

Siemens HiPath 4000 Release 5.0 using SIP trunk to Cisco Unified Communications Manager 8.5

18th February, 2011, Initial Version

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Introduction

- This application notes describes the necessary steps and configurations for connectivity between Siemens HiPath 4000 Release 5.0 and Cisco Unified Communications Manager (Cisco UCM) 8.5 over SIP trunk.
- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability between Cisco Unified Communications Manager 8.5 connected to Siemens HiPath 4000 Release 5.0 using SIP trunks via IP connectivity. Features tested are basic calls, 3-way (ad-hoc) conference, call transfer (attended and unattended), call forward (all, busy and no answer), hold/resume, DTMF interworking and MWI on/off.
- During testing, a Cisco 3845 voice gateway was used as the DSP farm point (MTP, Conference bridge), however other Cisco voice gateways can be used and the decision to choose what Cisco gateway model to use is left to the customer. The customer should choose a Cisco IOS gateway model based on the capabilities and the capacity that will be required based on the planned network deployment. Here is a list of Cisco IOS products.

  Cisco 2800 Series Integrated Services Routers
  Cisco 3800 Series Integrated Services Routers
  Cisco AS5350XM Universal Gateway
  Cisco AS5400XM Universal Gateway

Network Topology

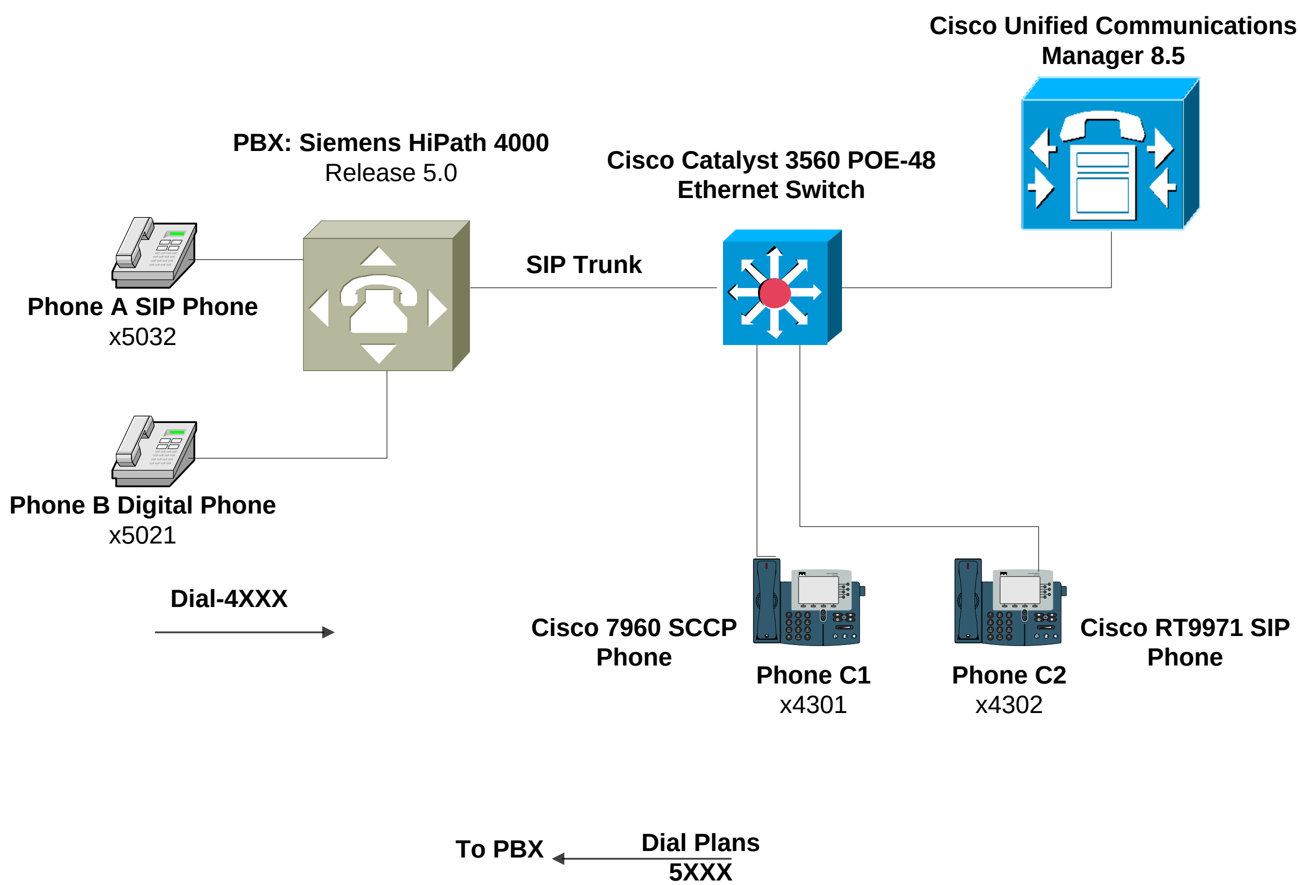


Figure 1. Basic Call Setup

System Components

Hardware Requirements

The following hardware is tested:

- Cisco MCS 7825H3 Unified Communicatios Manager Appliance
- Cisco Unified IP Phone 7960 (SCCP)
- Cisco Round Table Phone 9971 (SIP)
- Siemens HiPath 4000
- Siemens Optipoint 420 (SIP Phone)
- Siemens Optiset E advance plus (Digital Phone)

Software Requirements

The following software is tested:

- Cisco Unified Communications Manager Release 8.5.1.10000-26
- Siemens HiPath 4000 Release 5.0

Features

This section lists supported and unsupported features.

Features Supported

- Basic calls
- CLIP- Calling line(number) identification presentation
- CLIR-Calling line (Number) identification restriction
- CNIR-Calling name identification restriction
- COLP-Connected line (Number) identification presentation
- COLR- Connected line (Number) identification restriction
- CONR- Connected name identification restriction
- Alerting name (See Limitations section for details.)
- Consultation transfer – Local and Network/External (See Limitations section for details.)
- Early Attended transfer – Local and Network/External (See Limitations section for details.)
- Call forward Local – Unconditional, Busy and No reply (See Limitations section for details.)
- Call forward Network/External – Unconditional, Busy and No reply (See Limitations section for details.)
- Hold and resume
- 3-way conference (ad-hoc) (See Limitations section for details)
- DTMF internetworking

Features Not Supported

- CNIP-Calling name identification presentation
- CONP-Connected name identification presentation
- Centralized Message center voicemail integration

Limitations

These are the known limitations, caveats, or integration issues.

- Call direction: From Siemens to Cisco UCM. Siemens does not update phone with the PAI infomration sent by Cisco UCM in 180 during alerting, but forwards PAI information it received in 200 OK and the Siemens end point is updated after connect.
- Call direction: From Cisco UCM to Siemens. Siemens does not send PAI information during alerting, but sends PAI information only in 200 OK and so the Cisco UCM endpoint is updated only after the call is established.
- When a call from Siemens to Cisco UCM is transferred locally, Cisco UCM sends a request UPDATE to Siemens with the information of new name and number. Siemens ignores this request and so the end point does not update its display.
- Siemens SIP phones do not support "Early attended all transfers".
- Call flow: From Cisco UCM to Siemens PhoneA Early attended transfer to PhoneB. No ringback on Originating Phone during transfer. Siemens SIP trunk does not forward 180 ringing sent by Siemens Phone to Cisco UCM.
- Siemens phones do not support blind transfers. (Siemens Optiset E advance plus and Siemens Optipoint 420)
- When a call is originated from Cisco Unified Communications Manager to Siemens and Siemens transfers it locally, Siemens do not send information about the transferred to extension to CUCM.
- Call direction: Siemens to Cisco UCM, Early attended transfer back to Siemens. Upon Early attended call transfer by Cisco UCM, call is initially completed without voice path and after 5 seconds call is disconnected. The workaround for this limitation is to configure "SIP Rel1XX options : send PRACK if 1XX contains SDP" in SIP profile on Cisco UCM. (see configuration section for details)
- Siemens does not include diversion-header or history-info for call flows including "Call forward unconditional", "Call forward Busy" and "Call forward No Reply".
- RT Phone 9971 does not support display of forwarding information.
- Siemens SIP Phone (Optipoint 420) does not support display of forwarding information.
- When a user on the Cisco Unified Communications Manager side invokes call hold feature, MOH was not heard on the Siemens PBX phone. The workaround to get MOH streaming is to set CUCM service parameter **Clusterwide Parameters (Service**) -> **Duplex Streaming Enabled** to True.
- Siemens SIP Phone (Optipoint 420) require conferencing server to support 3 way conference. (Configuring External conferencing server is not part of this document).
- Centralized voicemail with Unity Connection is not possible since Siemens PBX does not support Diversion-header or History-info messages.

Configuration

This section contains configuration menus and commands and describes configuration sequences and tasks.

Configuring the Siemens HiPath 4000 Release 5.0

WABE

```
dis-wabe:type=gen;
DIS-WABE:TYPE=GEN;
H500:  AMO WABE  STARTED
  ------------------------------------------------------------------------------
  | DIGIT INTERPRETATION                   VALID FOR ALL DIAL PLANS             |
  ------------------------------------------------------------------------------
  |                 |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
  |      CODE       |             1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
  |                 |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
  ------------------------------------------------------------------------------
  | 101             |* ..... ..... ..... ..... ..| NETRTE   |                  |
  | 102             |* ..... ..... ..... ..... ..| NETRTE   | R                |
  | 103             |* ..... ..... ..... ..... ..| NETRTE   |                  |
  | 150             |. .**** ***** **... ..... .*| TIE      |                  |
  | 199901 - 199902 |. .**** ***** **... ..... .*| TIE      |                  |
  | 201    - 202    |. .**** ***** **... ..... .*| TIE      |                  |
  | 26     - 27     |. .**** ***** **... ..... .*| TIE      | R                |
  | 4300   - 4310   |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO 103        |
  |                 |                            |          |DNNO    0-   0-103 |
  |                 |                            |          |PDNNO   0-   0-203 |
  | 5020   - 5029   |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO   0        |
  |                 |                            |          |DNNO    0-   0-200*|
  | 5031   - 5056   |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO   0        |
  |                 |                            |          |DNNO    0-   0-200*|
  ------------------------------------------------------------------------------
  | DIGIT INTERPRETATION                   VALID FOR ALL DIAL PLANS             |
  ------------------------------------------------------------------------------
  |                 |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
  |      CODE       |             1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
  |                 |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
  ------------------------------------------------------------------------------
  | 5058   - 5059   |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO   0        |
  |                 |                            |          |DNNO    0-   0-200*|
  | 5067            |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO   0        |
  |                 |                            |          |DNNO    0-   0-200*|
  | 5200   - 5219   |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO   0        |
  |                 |                            |          |DNNO    0-   0-200*|
  | 5297            |. .**** ***** **... ..... .*| STN      |                  |
  |                 |                            |          |DESTNO   0        |
  |                 |                            |          |DNNO    0-   0-200*|
  | 9               |. .**** ***** **... ..... .*| TIE      |                  |
  | *0              |. *...* ..**. ..... ..... .*| ACDWORK  |                  |
  | *2              |. *...* ..**. ..... ..... .*| CDRACC   |                  |
  | *3              |. .**** ..**. ..... ..... .*| PUDIR    |                  |
  | *4              |. *...* ..*.. ..... ..... .*| CONF     |                  |
  ------------------------------------------------------------------------------
  | DIGIT INTERPRETATION                   VALID FOR ALL DIAL PLANS             |
  ------------------------------------------------------------------------------
  |                 |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
  |      CODE       |             1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
  |                 |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
  ------------------------------------------------------------------------------
```

```
| *52               |. ....* ..... ..... ..... ..| MWCAN     |                   |
| *530              |. ....* ....* ..... ..... ..| MBOFF     |                   |
| *532              |. ....* ....* ..... ..... ..| MBON      |                   |
| *564              |. *...* ..**. ..... ..... .*| ACDLOGOF  |                   |
| *565              |. *...* ..**. ..... ..... .*| ACDLOGON  |                   |
| *570              |. *...* ..**. ..... ..... ..| ACDPQS    |                   |
| *571              |. *...* ..**. ..... ..... ..| ACDPGS    |                   |
| *580              |. *...* ..**. ..... ..... ..| ACDSQS    |                   |
| *581              |. *...* ..**. ..... ..... ..| ACDSGS    |                   |
| *590              |. ....* ..... ..... ..... .*| ACDEMMSG  |                   |
| *591              |. ....* ..... ..... ..... .*| ACDSHMSG  |                   |
| *61               |. .**.. ..**. ..... ..... ..| DCPA      |                   |
| *62               |. .**.. ..**. ..... ..... ..| SELFPA    |                   |
| *67               |. .**** *.*** **... ..... .*| DISUON    |                   |
| *68               |. .**** *.*** **... ..... .*| DISUOFF   |                   |
| *7                |. ..... ..... ..... ....* ..| CONSKY    |                   |
| *80    - *89      |. .**** ..**. ..... ..... ..| PARK      |                   |
-------------------------------------------------------------------------------
| DIGIT INTERPRETATION                  VALID FOR ALL DIAL PLANS              |
-------------------------------------------------------------------------------
|                   |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
|      CODE         |            1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
|                   |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
-------------------------------------------------------------------------------
| *9                |. ....* ..**. ..... ..... ..| HOLD      |                   |
| **1               |. *.... ..**. ..... ..... .*| SPLIT     |                   |
| **3               |. ....* ..... ..... ..... ..| PU        |                   |
| **41              |. ..... ..... ..... ..... .*| RMCONFP1  |                   |
| **42              |. ..... ..... ..... ..... .*| RMCONFP2  |                   |
| **43              |. ..... ..... ..... ..... .*| RMCONFP3  |                   |
| **44              |. ..... ..... ..... ..... .*| RMCONFP4  |                   |
| **45              |. ..... ..... ..... ..... .*| RMCONFP5  |                   |
| **46              |. ..... ..... ..... ..... .*| RMCONFP6  |                   |
| **47              |. ..... ..... ..... ..... .*| RMCONFP7  |                   |
| **48              |. ..... ..... ..... ..... .*| RMCONFP8  |                   |
| **50              |. *...* ..**. ..... ..... ..| CAFGRAV   |                   |
| **51              |. *...* ..**. ..... ..... ..| CAFGRNAV  |                   |
| **6               |. ....* ..**. ..... ..... .*| COMSPK    |                   |
| **8               |. ....* ..... ..... ..... ..| MWANS     |                   |
| ***200            |. .**** ***** **... ..... .*| OWNNODE   |                   |
| ***4              |. ..... ..*.. ..... ..... .*| RMCONFLP  |                   |
-------------------------------------------------------------------------------
| DIGIT INTERPRETATION                  VALID FOR ALL DIAL PLANS              |
-------------------------------------------------------------------------------
|                   |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
|      CODE         |            1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
|                   |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
-------------------------------------------------------------------------------
| ***5              |. ....* ..... ..... ..... ..| MONSLNT   |                   |
| **#65             |. *...* ..**. ..... ..... ..| CAFGROFF  |                   |
| *#274             |. *...* ..... ..... ..... ..| WSS       |                   |
| *#50              |. *...* ..**. ..... ..... ..| CAFAV     |                   |
| *#51              |. *...* ..**. ..... ..... ..| CAFNAV    |                   |
| *#55              |. *...* ..**. ..... ..... ..| CAFAFWD   |                   |
| *#56              |. *...* ..**. ..... ..... ..| CAFDFWD   |                   |
| *#58              |. .**** ..**. ..... .*... .*| DPIN      |                   |
| *#590             |. ....* ..... ..... ..... ..| DCOSX     |                   |
| *#591             |. ....* ..... ..... ..... ..| ACOSX     |                   |
| *#65              |. *...* ..**. ..... ..... ..| CAFLOGOF  |                   |
| *#736             |. ....* ..... ..... ..... ..| SIGNON    |                   |
| *#739             |. ....* ..... ..... ..... ..| SIGNOFF   |                   |
| *#99              |. ..*.. *.... ..... ..... ..| SAT       | R                 |
| #0                |. *...* ..**. ..... ..... .*| ACDNAV    |                   |
| #1                |. *.... ..*.. ....* ..... .*| ACBK      |                   |
| #2                |. *...* ..**. ..... ..... .*| APRIV     |                   |
-------------------------------------------------------------------------------
| DIGIT INTERPRETATION                  VALID FOR ALL DIAL PLANS              |
```

```
-----------------------------------------------------------------------------
|                 |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
|      CODE       |            1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
|                 |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
-----------------------------------------------------------------------------
| #3              |. .**.* ..**. ..... ..... .*| SPDI     |                  |
| #4              |. ***.* ..**. ....* ..... .*| SNR      |                  |
| #5              |. ....* ..... ..... ..... ..| ADND     |                  |
| #61             |. .**** ..*** **... ..... .*| SPDC1    |                  |
| #62             |. .**** ..*** **... ..... .*| SPDC2    |                  |
| #80             |. *...* ..**. ..... ..... .*| BROADCST |                  |
| #81             |. *...* ..**. ..... ..... .*| SPKRCALL |                  |
| #8378           |. ..... ..... ....* ..... ..| HWTEST   |                  |
| #90             |. ....* ..... ....* ..... ..| ASYSFWD  |                  |
| #91             |. ....* ..... ....* ..... ..| AFWDEXIN |                  |
| #92             |. ....* ..... ....* ..... ..| AFWDEXT  |                  |
| #93             |. ....* ..... ....* ..... ..| AFWDINT  |                  |
| #94             |. ....* ..... ....* ..... ..| AFWDB    |                  |
| #95             |. ....* ..... ....* ..... ..| AFWDBNA  |                  |
| #99             |. .**** ***** **..* ..... ..| AFWDREM  |                  |
|                 |                            |          |CFREMVAR CFU      |
|                 |                            |          |CFREMSE  VOICE    |
-----------------------------------------------------------------------------
| DIGIT INTERPRETATION                  VALID FOR ALL DIAL PLANS             |
-----------------------------------------------------------------------------
|                 |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
|      CODE       |            1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
|                 |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
-----------------------------------------------------------------------------
| #*1             |. ***** ..**. ..... ..... ..| MWACT    |                  |
| #*2             |. *...* ..**. ..... ..... ..| BUZZ     |                  |
| #*329           |. .**.* *.*** **... ..... ..| FAX      |                  |
| #*75            |. ....* ..... ..... ..... ..| DIGIDAT  |                  |
| #*77            |. .**.* *...* **... ..... ..| DTE      |                  |
| #*8             |. ***** ****. ..*** .**** ..| MWCANORI |                  |
| #*92            |. ....* ..... ..... ..... ..| AHTVCE   |                  |
| #*93            |. ....* ..... ..... ..... ..| DHTVCE   |                  |
| #*94            |. ....* ..... ..... ..... ..| AHTDTE   |                  |
| #*95            |. ....* ..... ..... ..... ..| DHTDTE   |                  |
| #*96            |. ....* ..... ..... ..... ..| AHTFAX   |                  |
| #*97            |. ....* ..... ..... ..... ..| DHTFAX   |                  |
| ##0             |. *...* ..**. ..... ..... .*| ACDAV    |                  |
| ##1             |. ....* ..... ..... ..... ..| DCBK     |                  |
| ##2             |. *...* ..**. ..... ..... .*| DPRIV    |                  |
| ##3             |. ....* ..... ....* ..... ..| SPDIPROG |                  |
| ##4             |. *...* ..**. ..... ..... .*| LNR      |                  |
-----------------------------------------------------------------------------
| DIGIT INTERPRETATION                  VALID FOR ALL DIAL PLANS             |
-----------------------------------------------------------------------------
|                 |    CALL PROGRESS STATE     |NODE/DIGIT| RESERVED/CONVERT |
|      CODE       |            1 11111 11112 22| ANALYSIS | DNI/ADD-INFO     |
|                 |0 12345 67890 12345 67890 12|  RESULT  | *=OWN NODE       |
-----------------------------------------------------------------------------
| ##5             |. ....* ..... ..... ..... ..| DDND     |                  |
| ##7             |. *.... ..... ..... ..... ..| KNOVR    |                  |
| ##90            |. ....* ..... ....* ..... ..| DSYSFWD  |                  |
| ##91            |. ....* ..... ..... ..... ..| DFWDVCE  |                  |
| ##92            |. ....* ..... ....* ..... ..| DFWDEXT  |                  |
| ##93            |. ....* ..... ....* ..... ..| DFWDINT  |                  |
| ##99            |. .**** ***** **..* ..... ..| DFWDREM  |                  |
|                 |                            |          |CFREMVAR CFU      |
|                 |                            |          |CFREMSE  VOICE    |
| ###1            |. *.... ..**. ..... ..... ..| TRACE    |                  |
| ###20           |. ..... **..* **... ..... ..| MILLWAT  |                  |
| ###21           |. ..... **..* **... ..... ..| LOOPBACK |                  |
| ###22           |. ..... **..* **... ..... ..| SILENCE  |                  |
| ###23           |. ..... **..* **... ..... ..| COMBO    |                  |
```

```
  | ###6            |. ....* ..... ..... ..... ..| MONTONE  |                  |
  ------------------------------------------------------------------------------

AMO-WABE -111       DIALLING PLANS, FEATURE ACCESS CODES
DISPLAY COMPLETED;
```

Trunk Group Access Code, BUEND

```
dis-buend;
DIS-BUEND;
H500:  AMO BUEND STARTED
  TRUNK GROUPS (FORMAT=S)
  NO. NAME                CHARCON
    1 1-PRI              (NEUTRAL)
   26 PRI ECMA 1         (NEUTRAL)
  150 150-SIP            (NEUTRAL)
  151 151-SIP Q          (NEUTRAL)

AMO-BUEND-111       TRUNK GROUP
DISPLAY COMPLETED;
```

Trunk Configuration, TDCSU

```
dis-tdcsu:1-1-1-0;
DIS-TDCSU:1-1-1-0;
H500:  AMO TDCSU STARTED
  +------------------------- DIGITAL TRUNK (FORMAT=L) --------------------------+
  | DEV      = HG3550IP      PEN      =  1-01-001-0   TGRP     = 150            |
  |----------------------------------------------------------------------------|
  | PROTVAR  = PSS1V2        INS      = Y             SRCHMODE = DSC            |
  | COTNO    = 59            COPNO    = 59            DPLN     = 0              |
  | ITR      = 0             COS      = 59            LCOSV    = 15             |
  | LCOSD    = 15            CCT      = SIP TRUNK     DESTNO   = 111            |
  | SEGMENT  = 8             DEDSCC   =               DEDSVC   = NONE           |
  | FACILITY =               DITIDX   =               SRTIDX   =                |
  | TRTBL    = GDTR          SIDANI   = N             ATNTYP   = TIE            |
  | CBMATTR  = NONE          NWMUXTIM = 10            TCHARG   = N              |
  | SUPPRESS = 0             DGTPR    =               CHIMAP   = N              |
  | ISDNIP   =               ISDNNP   =                                         |
  | PNPL2P   =               PNPL1P   =               PNPAC    =                |
  | TRACOUNT = 31            SATCOUNT = MANY          NNO      = 111            |
  | ALARMNO  = 0             FIDX     = 1             CARRIER  = 1              |
  | ZONE     = EMPTY         COTX     = 59            FWDX     = 10             |
  | DOMTYPE  =               DOMAINNO =               TPROFNO  =                |
  | INIGHT   =                                        CCHDL    =                |
  | UUSCCX   = 16            UUSCCY   = 8             FNIDX    = 1              |
  | CLASSMRK = EC       & G711     & G729AOPT         SRCGRP   = 1              |
  | TCCID    =                                        SECLEVEL = TRADITIO       |
  |----------------------------------------------------------------------------|
  | BCNEG    = N             BCGR     = 1             LWPAR    = 10             |
  | LWPP     = 0             LWLT     = 0             LWPS     = 0              |
  | LWR1     = 0             LWR2     = 0                                       |
  | DMCALLWD = Y             VNNO     =                                         |
  | SVCDOM   =                                                                  |
  | BCHAN    =  1 && 10                                                         |
  |                                                                             |
```

```
  +-------------------------------------------------------------------------------+
  AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 10

AMO-TDCSU-111       DIGITAL TRUNKS
DISPLAY COMPLETED;
```

Class of Trunk, COT

```
DISPLAY-COT:COTNO=59;
DISPLAY-COT:COTNO=59;
H500:  AMO COT   STARTED

   COT:  59  INFO: SIP TRUNK
   DEVICE: INDEP        SOURCE: DB
   PARAMETER:
        TRUNK SIGNALING ANSWER                                          ANS
        CALL EXTEND FOR BUSY, RING OR CALL STATE                        CEBC
        DON'T RELEASE CALL TO BUSY HUNT GROUP                           BSHT
        END-OF-DIAL FOR BLOCK IS SET                                    BLOC
        SEND NO NODE NUMBER TO PARTNER                                  LWNC
        INCOMING CIRCUIT FROM SYSTEM WITHOUT LCR                        NLCR
        TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)              TSCS
        USE DEFAULT NODE NUMBER OF LINE                                 DFNN
        INCOMING CIRCUIT FROM SYSTEM WITHOUT LCR (DATA)                 NLRD
        LINE WITH IMPLICIT NUMBERS FOR CARRIER                          LINC
        NO FLAG TRACE                                                   NOFT
        NO TONE                                                         NTON

AMO-COT  -111       CLASS OF TRUNK FOR CALL PROCESSING
DISPLAY COMPLETED;
```

Class of Parameter for Device Handler, COP

```
DISPLAY-COP:COPNO=59;
DISPLAY-COP:COPNO=59;
H500:  AMO COP   STARTED

   COP:  59  INFO: SIP TRUNK
   DEVICE: INDEP        SOURCE: DB
   PARAMETER:
        REGISTRATION OF LAYER 3 ADVISORIES                              L3AR

   CO TRUNK ACCESS:
        TRUNK ACCESS                                                    TA

   TOLL ACCESS:
        TRUNK ACCESS                                                    TA

AMO-COP  -111       CLASS OF PARAMETER FOR DEVICE HANDLER
DISPLAY COMPLETED;
```

Class of Service, COSSU

```
DISPLAY-COSSU:TYPE=COS,COS=59;
DISPLAY-COSSU:TYPE=COS,COS=59;
H500:  AMO COSSU STARTED
   +------+-----------------+---------------+-----------------+
   | COS  |      VOICE      |      FAX      |       DTE       |
   +------+-----------------+---------------+-----------------+
```

```
   |   59 |>SIP TRUNK                                             |
   |      |         TA       |      NOCO      |       NOCO       |
   |      |     TNOTCR       |     NOTIE      |      NOTIE       |
   |      |         MB       |                |                  |
   |      |     FWDNWK       |                |                  |
   |      |        TTT       |                |                  |
   +------+------------------+----------------+------------------+

AMO-COSSU-111       CLASSES OF SERVICE
DISPLAY COMPLETED;
```

```
DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;
DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;
H500:  AMO COSSU STARTED
   +----+----------------------------------------------------------------+-----+
   |LCOS|                             LAUTH                              |COPIN|
   |  V |         1         2         3         4         5         6    |     |
   |    |1234567890123456789012345678901234567890123456789012345678901234|     |
   |    |>SERVICE INFORMATION                                            |     |
   +----+----+----|----+----|----+----|----+----|----+----|----+----|----+-----+
   |   1|X...............................................................|  0  |
   |    |>1-LOCAL                                                        |     |
   +----+----------------------------------------------------------------+-----+

AMO-COSSU-111       CLASSES OF SERVICE
DISPLAY COMPLETED;
```

```
DISPLAY-COSSU:TYPE=LCOSD,LCOSD=1;
DISPLAY-COSSU:TYPE=LCOSD,LCOSD=1;
H500:  AMO COSSU STARTED
   +----+----------------------------------------------------------------+-----+
   |LCOS|                             LAUTH                              |COPIN|
   |  D |         1         2         3         4         5         6    |     |
   |    |1234567890123456789012345678901234567890123456789012345678901234|     |
   |    |>SERVICE INFORMATION                                            |     |
   +----+----+----|----+----|----+----|----+----|----+----|----+----|----+-----+
   |   1|X...............................................................|  .  |
   |    |>1-LOCAL                                                        |     |
   +----+----------------------------------------------------------------+-----+

AMO-COSSU-111       CLASSES OF SERVICE
DISPLAY COMPLETED;
```

Gateway Board configuration, STMIB

RICHT

```
DISPLAY-RICHT:MODE=CD,CD=103;
DISPLAY-RICHT:MODE=CD,CD=103;
H500:  AMO RICHT STARTED
+-------------------------------------------------------------------------------+
| ROUTES FOR ALL DPLN                                               SVC = VCE |
|                                                                               |
+--------+------------------+----+-+------------------------------+-----+----+--+
|CODE    |NAME, CQMAX,      |TGRP|P|          DTMF                | LRTE|CPAR| F|
|        |DESTNO AND CPS    |CCNO|L+---+---+----------------+-----+     |    | W|
|        |          1 111112|    |B|CNV|DSP|      TEXT      |PULS |     |    | D|
|        |12345 67890 123452|    | |   |   |                |PAUSE|     |    | B|
+--------+------------------+----+-+---+---+----------------+-----+-----+----+--+
|103     |..... ..... ......| 150| | W | W |                |     |  103|    |  |
|NEUTRAL|SIP TRUNK          |    | |   |   |                |     |     |    |  |
|        |DNNO:         103 |    | |   |   |                |     |     |    |  |
```

```
|       |PDNNO:         203 |    | |   |   |                |     |     |    |  |
|       |DESTNO   :103      |    | |   |   |                |     |     |    |  |
|       |REROUT   :YES      |    | |   |   |                |     |     |    |  |
+-------+------------------+----+-+---+---+----------------+-----+-----+----+--+
+------------------------------------------------------------------------------+
| ROUTES FOR ALL DPLN                                              SVC = FAX |
|                                                                              |
+-------+------------------+----+-+-----------------------------+-----+----+--+
|CODE   |NAME, CQMAX,      |TGRP|P|           DTMF              | LRTE|CPAR| F|
|       |DESTNO AND CPS    |CCNO|L+---+---+----------------+-----+     |    | W|
|       |          1 111112|    |B|CNV|DSP|      TEXT      |PULS |     |    | D|
|       |12345 67890 123452|    | |   |   |                |PAUSE|     |    | B|
+-------+------------------+----+-+---+---+----------------+-----+-----+----+--+
|103    |..... ..... ......| 150| |   |   |                |     |  103|    |  |
|NEUTRAL|SIP TRUNK         |    | |   |   |                |     |     |    |  |
|       |DNNO:          103 |    | |   |   |                |     |     |    |  |
|       |PDNNO:         203 |    | |   |   |                |     |     |    |  |
|       |DESTNO   :103      |    | |   |   |                |     |     |    |  |
|       |REROUT   :YES      |    | |   |   |                |     |     |    |  |
+-------+------------------+----+-+---+---+----------------+-----+-----+----+--+
+------------------------------------------------------------------------------+
| ROUTES FOR ALL DPLN                                              SVC = DTE |
|                                                                              |
+-------+------------------+----+-+-----------------------------+-----+----+--+
|CODE   |NAME, CQMAX,      |TGRP|P|           DTMF              | LRTE|CPAR| F|
|       |DESTNO AND CPS    |CCNO|L+---+---+----------------+-----+     |    | W|
|       |          1 111112|    |B|CNV|DSP|      TEXT      |PULS |     |    | D|
|       |12345 67890 123452|    | |   |   |                |PAUSE|     |    | B|
+-------+------------------+----+-+---+---+----------------+-----+-----+----+--+
|103    |..... ..... ......| 150| |   |   |                |     |  103|    |  |
|NEUTRAL|SIP TRUNK         |    | |   |   |                |     |     |    |  |
|       |DNNO:          103 |    | |   |   |                |     |     |    |  |
|       |PDNNO:         203 |    | |   |   |                |     |     |    |  |
|       |DESTNO   :103      |    | |   |   |                |     |     |    |  |
|       |REROUT   :YES      |    | |   |   |                |     |     |    |  |
+-------+------------------+----+-+---+---+----------------+-----+-----+----+--+

AMO-RICHT-111       TRUNK ROUTING
DISPLAY COMPLETED;
```

LODR

```
DISPLAY-LODR:ODR=103;
DISPLAY-LODR:ODR=103;
H500:  AMO LODR  STARTED
   +--------------------------------------------------------+
   |  ODR     POSITION  CMD          PARAMETER              |
   +--------+-----------------------------------------------+
   |  103 * |       1    NPI          ISDN                   |
   |        |       2    TON          UNKNOWN                |
   |        |       3    ECHOALL                             |
   |        |       4    END                                 |
   |        +-----------------------------------------------+
   |        |       *  = READY FOR USE BY AMO LDAT           |
   +--------+-----------------------------------------------+
   |INFO:SIP TRUNK                                          |
   +--------------------------------------------------------+
H03: THE NEXT FREE ODR IS 3

AMO-LODR -111       ADMINISTRATION OF LCR OUTDIAL RULES
DISPLAY COMPLETED;
```

LDAT

```
DISPLAY-LDAT:TYPE=NWLCR,LROUTE=103;
DISPLAY-LDAT:TYPE=NWLCR,LROUTE=103;
H500:  AMO LDAT  STARTED
+--------------------------------------------------------------------------------+
| LROUTE = 103                NAME = SIP TRUNK                  SERVICE =  ALL |
| TYPE = NWLCR                                   DNNO OF ROUTE  =        103     |
| SERVICE INFO =                                                                 |
+------+-----+-----+----+-----+----------+-----------+----------+------+-------+
|      |     |     |    |     | SCHEDULE | CARRIER   |          |      |       |
|LRTEL | LVAL|TGRP | ODR|LAUTH| ABCDEFGH |       ZONE|     LATTR | LDSRT|COTIDX |
+------+-----+-----+----+-----+----------+-----------+----------+------+-------+
|     1|    1|  150| 104| 1   | ******** | 1    EMPTY|      NONE |      | 0     |
|      | DNNO =         103                                                      |
|      +-------------------------------------------------------------------------+
|      |        GW1 =    3-0      GW2 =             GW3 =                          |
|      |               GW4 =             GW5 =                                    |
+--------------------------------------------------------------------------------+

AMO-LDAT -111       LCR-DIRECTIONS
DISPLAY COMPLETED;
```

In-Band DTMF signaling:

In order to enable In-band DTMF signaling on digital stations for Voicemail applications, the station configuration has to be changed so that the parameter **DTMFCTRD=Y.**

MOH configuration:

Make sure the values of MOH and Hold is 22.

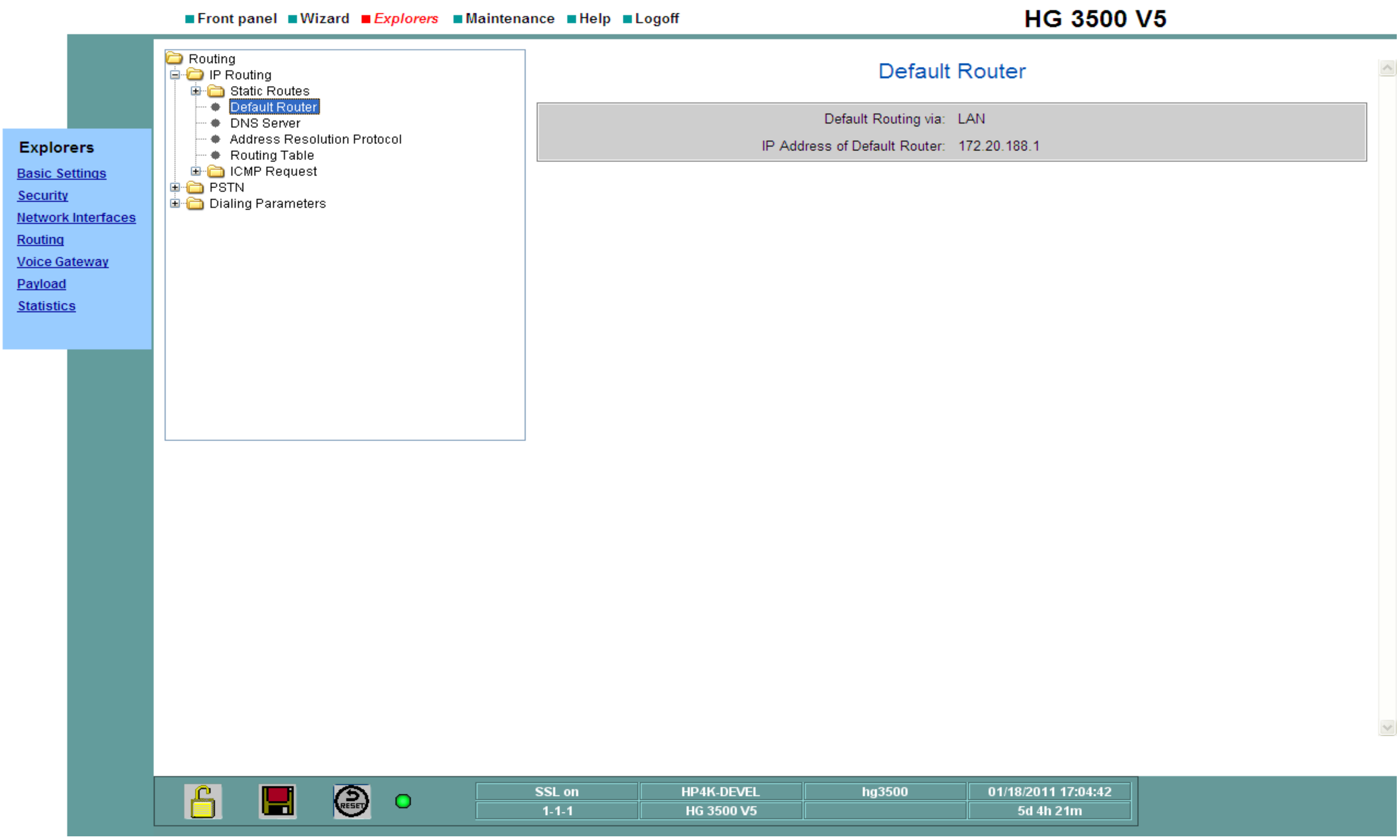
```
<DISPLAY-ZAND:TYPE=TONES;
DISPLAY-ZAND:TYPE=TONES;
H500:  AMO ZAND  STARTED
   CP-TONETABLE
   ============
   CP        | SIU
   ---------+----
   INTDTN    |  1
   EXTDTN    |  1
   SPEC      |  3
   RNGBK     |  8
   FRNGBK    |  8
   BUSY      |  5
   OVRTN     | 10
   CAMP      | 13
   DATA      |  4
   HOLDLINE  |  0
   NOTREACH  |  9
   NOPO      |  9
   NOTALWD   | 14
   IMPOSSFM  |  9
   MOH       | 22
   NACK      |  9
   PACK      |  1
   VOICEMAL  |  0
   MWI       |  3
   CONG      |  5
   NU        |  9
   OFFHKTRQ  |  7
   RTCHKNTF  |  1
```

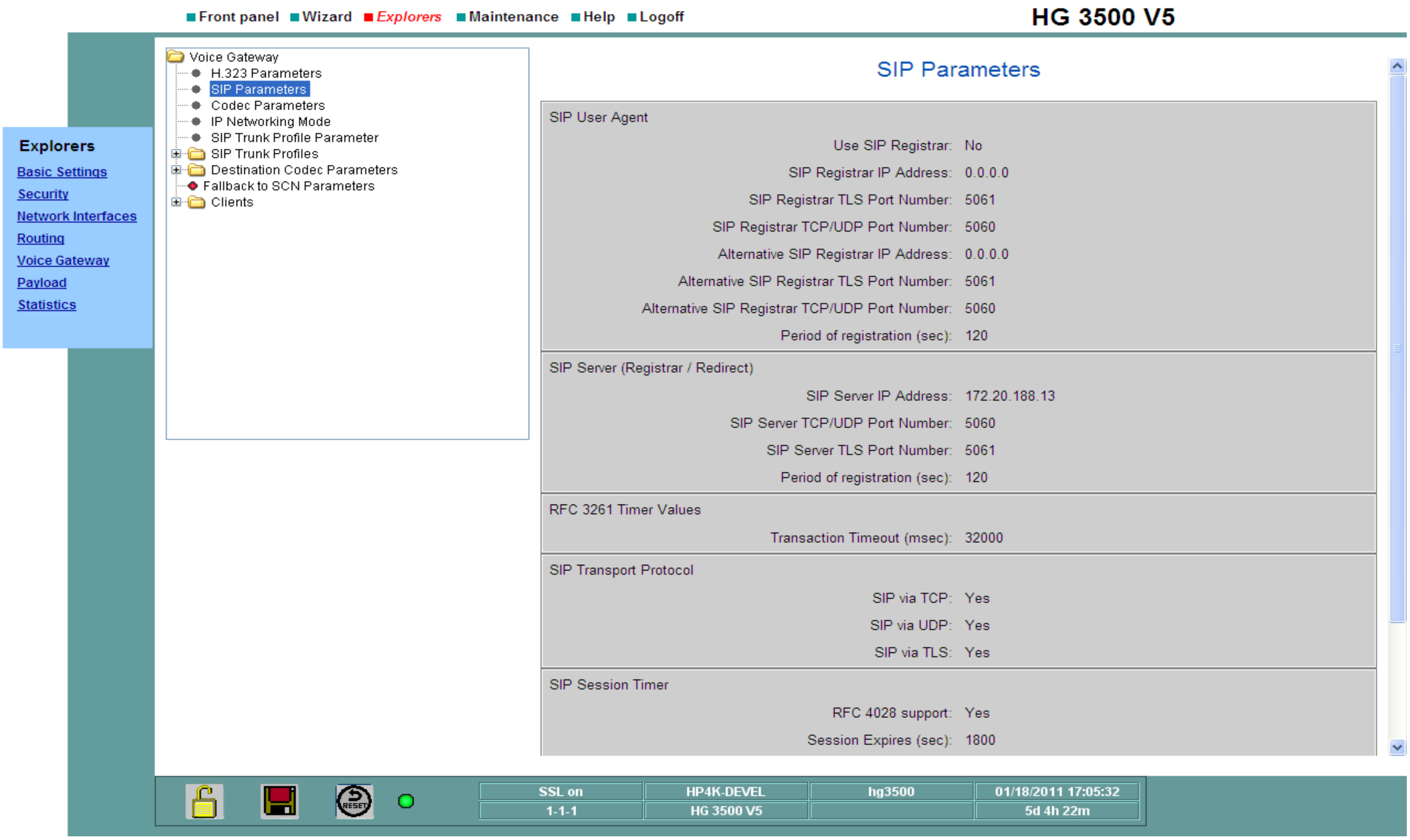
```
   LCRET    | 10
   RECDIALT |  1
   CAMPRBK  | 13
   BRKMSGWT |  0
   CONFTN   | 10
   TEST     | 15
   EXTDTN2  |  1
   BONHK    |  5
   NODIAL   |  5
   HOLD     | 22
   ALERT    |  0
   CBKALERT | 10
   OVR      |  0
   OVRWARN  |  0
   REORDER  |  5
   LOCANN   |  0
   KNCONF   |  0
   DND      |  3
   PACKWD   |  1
   ZIPTONE  |  2
   ANNICPT  |  0
   RTOTON1  | 10
   RTOTON2  |  5
   FCAMP    |  7
   DISCTONE |  9
   CMALTONE |  1
   HOLDEXT  |  0
   HOLDINT  |  0
   HOLDHUNT |  8
   HOLDCCS  |  0
   HOLDH1   |  0
   HOLDH2   |  0
   HUNTGRUP |  1
   POSTDIAL |  1
   CCMABSEN |  0
   HOWLTONE |  0
   ROUTTONE |  0
   REQDIALT |  1
   SECDIALT |  0
   CONFDISC |  0

AMO-ZAND -111       SYSTEM DATA
DISPLAY COMPLETED;
```

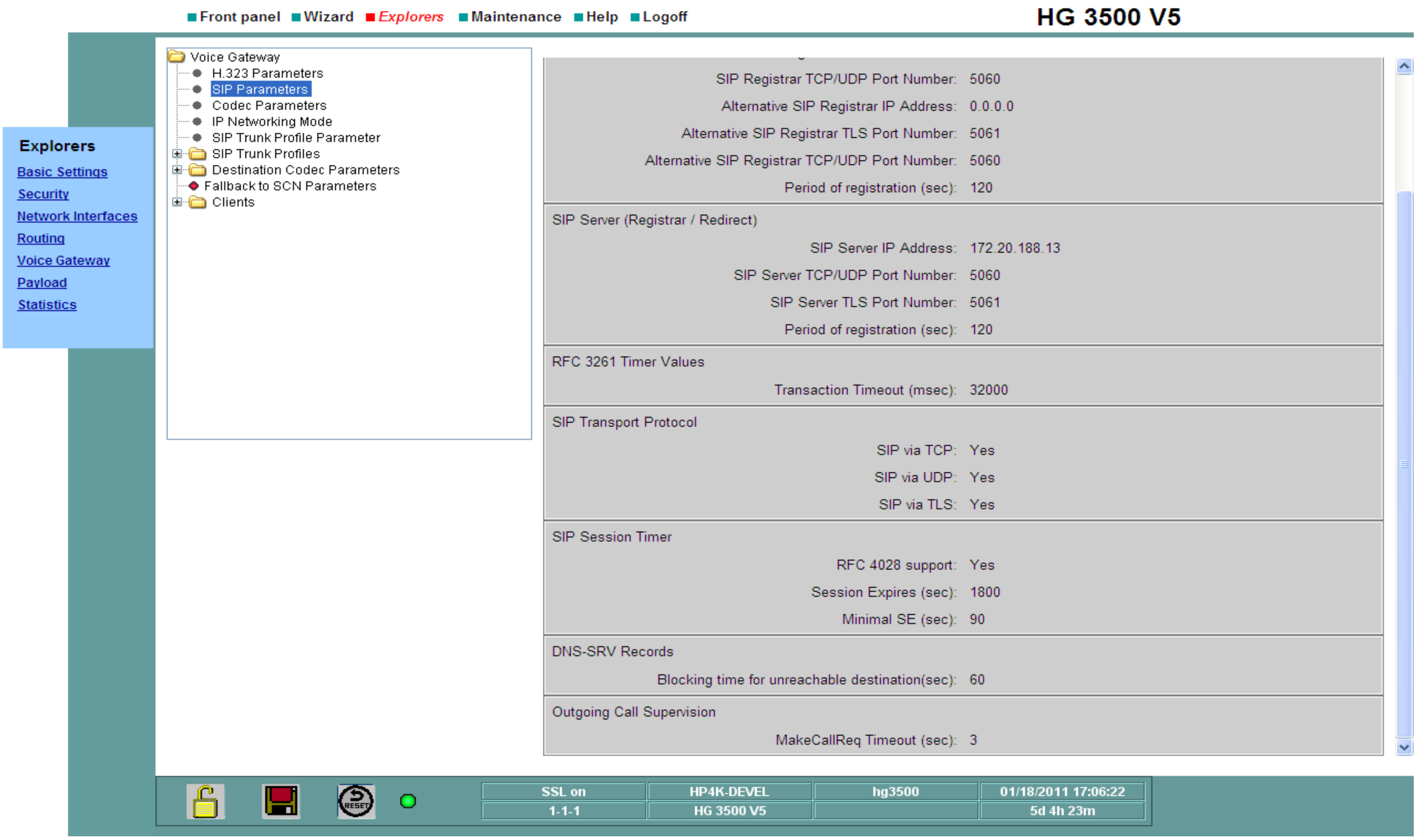
SIP trunk configuration

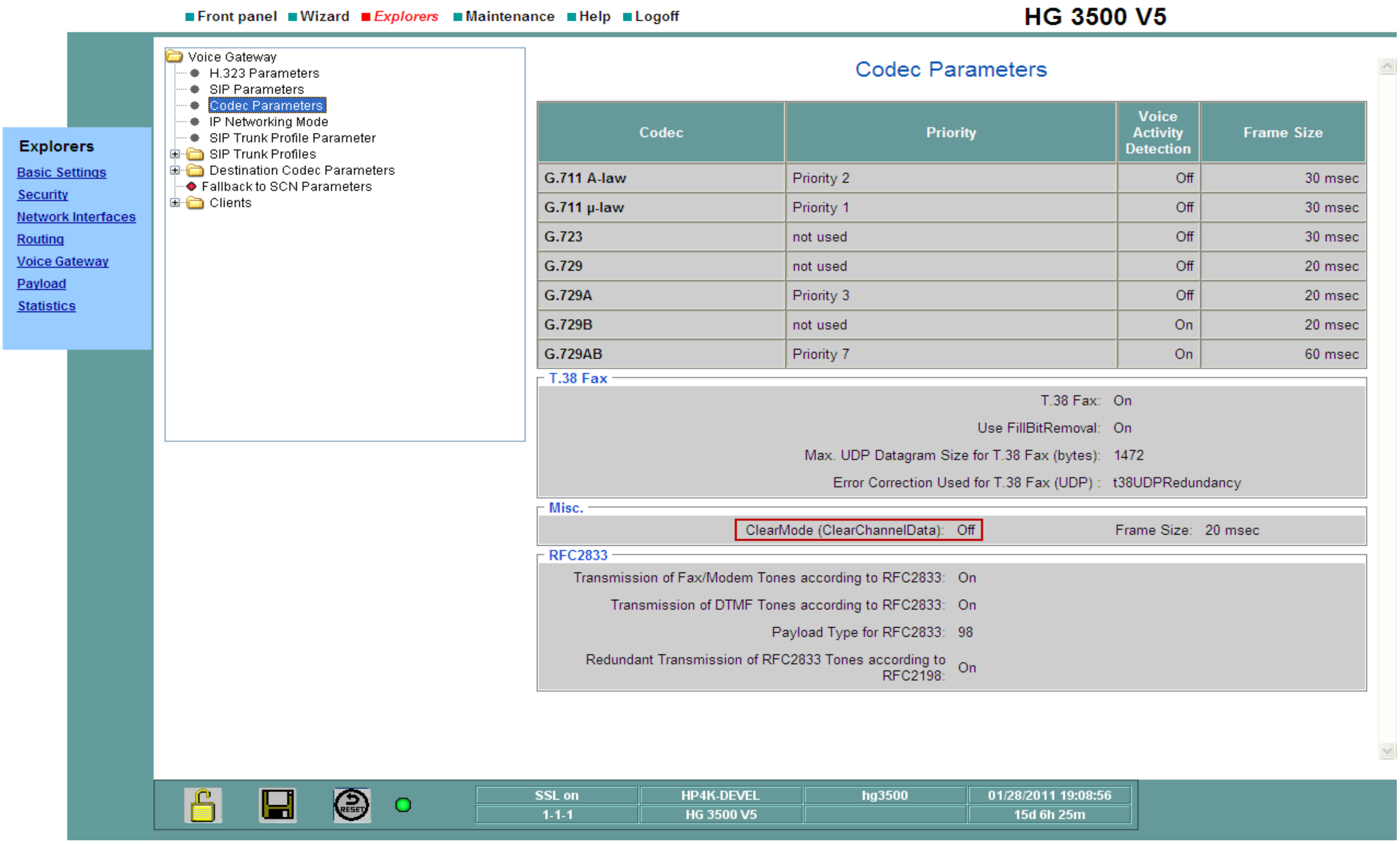
```
dis-gkreg;
DIS-GKREG;
H500:  AMO GKREG STARTED
+------------------------------------------------------------------------------+
| GWNO      1               GWATTR   INTGW    REGGW    HG3550V2 SIP            |
| GWIPADDR  172.20 .188.13           GWDIRNO  199901                           |
| DIPLNUM  0          DPLN 0                                                   |
| LAUTH     1                                                                  |
| GATEWAY REGISTERED: YES                                                      |
| IP GATEWAY IS CONFIGURED   BY  GKREG                                         |
| INFO:   1-SIP                                                                |
| SECLEVEL:  TRADITIO                                                         |
+------------------------------------------------------------------------------+
| GWNO      2               GWATTR   INTGW    REGGW    HG3550V2 SIPQ           |
| GWIPADDR  17 .20 .188.14           GWDIRNO  199902                           |
| DIPLNUM  0          DPLN 0                                                   |
| LAUTH     1                                                                  |
| GATEWAY REGISTERED: YES                                                      |
| IP GATEWAY IS CONFIGURED   BY  GKREG                                         |
| INFO:   2-SIP Q                                                              |
| SECLEVEL:  TRADITIO                                                         |
+------------------------------------------------------------------------------+
| GWNO      3               GWATTR   EXTGW    HG3550V2 SIP                     |
| GWIPADDR  172.20 .109.254          GWDIRNO  5060                             |
| DIPLNUM  0          DPLN 0                                                   |
| LAUTH     1                                                                  |
| GATEWAY REGISTERED: NO                                                       |
| IP GATEWAY IS CONFIGURED   BY  GKREG                                         |
| INFO:                                                                        |
| SECLEVEL:  TRADITIO                                                         |
+------------------------------------------------------------------------------+

AMO-GKREG-111       GATEKEEPER REGISTRY
DISPLAY COMPLETED;
```


Front panel
Wizard
Explorers
Maintenance
Help
Logoff
HG 3500 V5
Explorers
Basic Settings
Security
Network Interfaces
Routing
Voice Gateway
Payload
Statistics
Network Interfaces
LAN1 (LAN1)
LAN2 (Redundancy for LAN1)
LAN1/Customer LAN
Interface Name: LAN1
Interface Is Active: Yes
IP Address: 172.20.188.13
Subnet Mask: 255.255.255.0
MAC Address : 00:1a:e8:36:e2:d3
Ethernet Link Mode: 100FDX
Max. Data Packet Size (bytes): 1500
IEEE802.1p/q Tagging: No
SSL on
HP4K-DEVEL
hg3500
01/18/2011 17:03:02
1-1-1
HG 3500 V5
5d 4h 20m


Front panel
Wizard
Explorers
Maintenance
Help
Logoff
HG 3500 V5
Explorers
Basic Settings
Security
Network Interfaces
Routing
Voice Gateway
Payload
Statistics
Routing
IP Routing
Static Routes
Default Router
DNS Server
Address Resolution Protocol
Routing Table
ICMP Request
PSTN
Dialing Parameters
Default Router
Default Routing via: LAN
IP Address of Default Router: 172.20.188.1
SSL on
HP4K-DEVEL
hg3500
01/18/2011 17:04:42
1-1-1
HG 3500 V5
5d 4h 21m

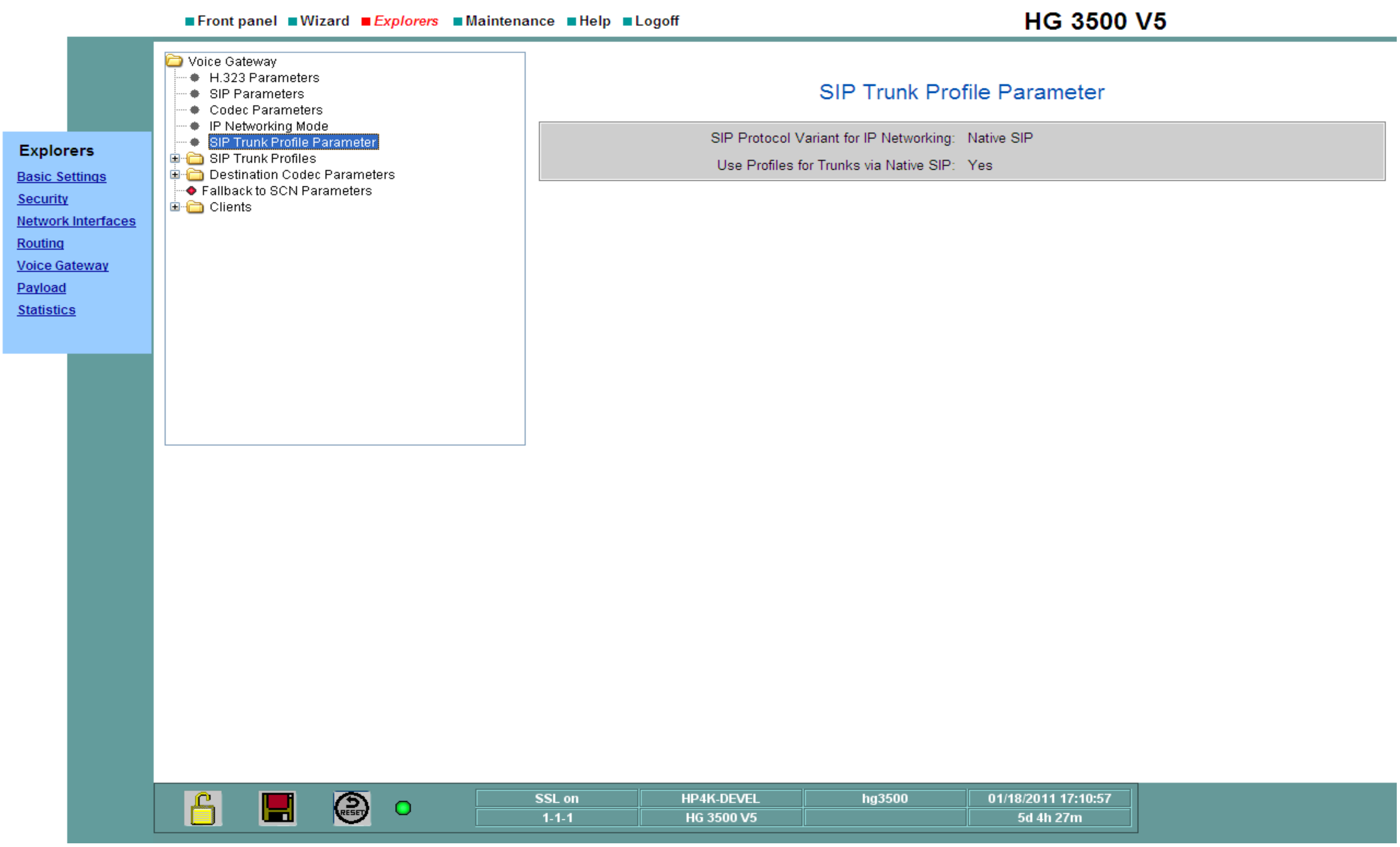

Front panel
Wizard
Explorers
Maintenance
Help
Logoff
HG 3500 V5
Explorers
Basic Settings
Security
Network Interfaces
Routing
Voice Gateway
Payload
Statistics
Voice Gateway
H.323 Parameters
SIP Parameters
Codec Parameters
IP Networking Mode
SIP Trunk Profile Parameter
SIP Trunk Profiles
Destination Codec Parameters
Fallback to SCN Parameters
Clients
SIP Parameters
SIP User Agent
Use SIP Registrar: No
SIP Registrar IP Address: 0.0.0.0
SIP Registrar TLS Port Number: 5061
SIP Registrar TCP/UDP Port Number: 5060
Alternative SIP Registrar IP Address: 0.0.0.0
Alternative SIP Registrar TLS Port Number: 5061
Alternative SIP Registrar TCP/UDP Port Number: 5060
Period of registration (sec): 120
SIP Server (Registrar / Redirect)
SIP Server IP Address: 172.20.188.13
SIP Server TCP/UDP Port Number: 5060
SIP Server TLS Port Number: 5061
Period of registration (sec): 120
RFC 3261 Timer Values
Transaction Timeout (msec): 32000
SIP Transport Protocol
SIP via TCP: Yes
SIP via UDP: Yes
SIP via TLS: Yes
SIP Session Timer
RFC 4028 support: Yes
Session Expires (sec): 1800
SSL on
HP4K-DEVEL
hg3500
01/18/2011 17:05:32
1-1-1
HG 3500 V5
5d 4h 22m


Front panel
Wizard
Explorers
Maintenance
Help
Logoff
HG 3500 V5
Explorers
Basic Settings
Security
Network Interfaces
Routing
Voice Gateway
Payload
Statistics
Voice Gateway
H.323 Parameters
SIP Parameters
Codec Parameters
IP Networking Mode
SIP Trunk Profile Parameter
SIP Trunk Profiles
Destination Codec Parameters
Fallback to SCN Parameters
Clients
SIP Registrar TCP/UDP Port Number: 5060
Alternative SIP Registrar IP Address: 0.0.0.0
Alternative SIP Registrar TLS Port Number: 5061
Alternative SIP Registrar TCP/UDP Port Number: 5060
Period of registration (sec): 120
SIP Server (Registrar / Redirect)
SIP Server IP Address: 172.20.188.13
SIP Server TCP/UDP Port Number: 5060
SIP Server TLS Port Number: 5061
Period of registration (sec): 120
RFC 3261 Timer Values
Transaction Timeout (msec): 32000
SIP Transport Protocol
SIP via TCP: Yes
SIP via UDP: Yes
SIP via TLS: Yes
SIP Session Timer
RFC 4028 support: Yes
Session Expires (sec): 1800
Minimal SE (sec): 90
DNS-SRV Records
Blocking time for unreachable destination(sec): 60
Outgoing Call Supervision
MakeCallReq Timeout (sec): 3
RESET
SSL on
HP4K-DEVEL
hg3500
01/18/2011 17:06:22
1-1-1
HG 3500 V5
5d 4h 23m

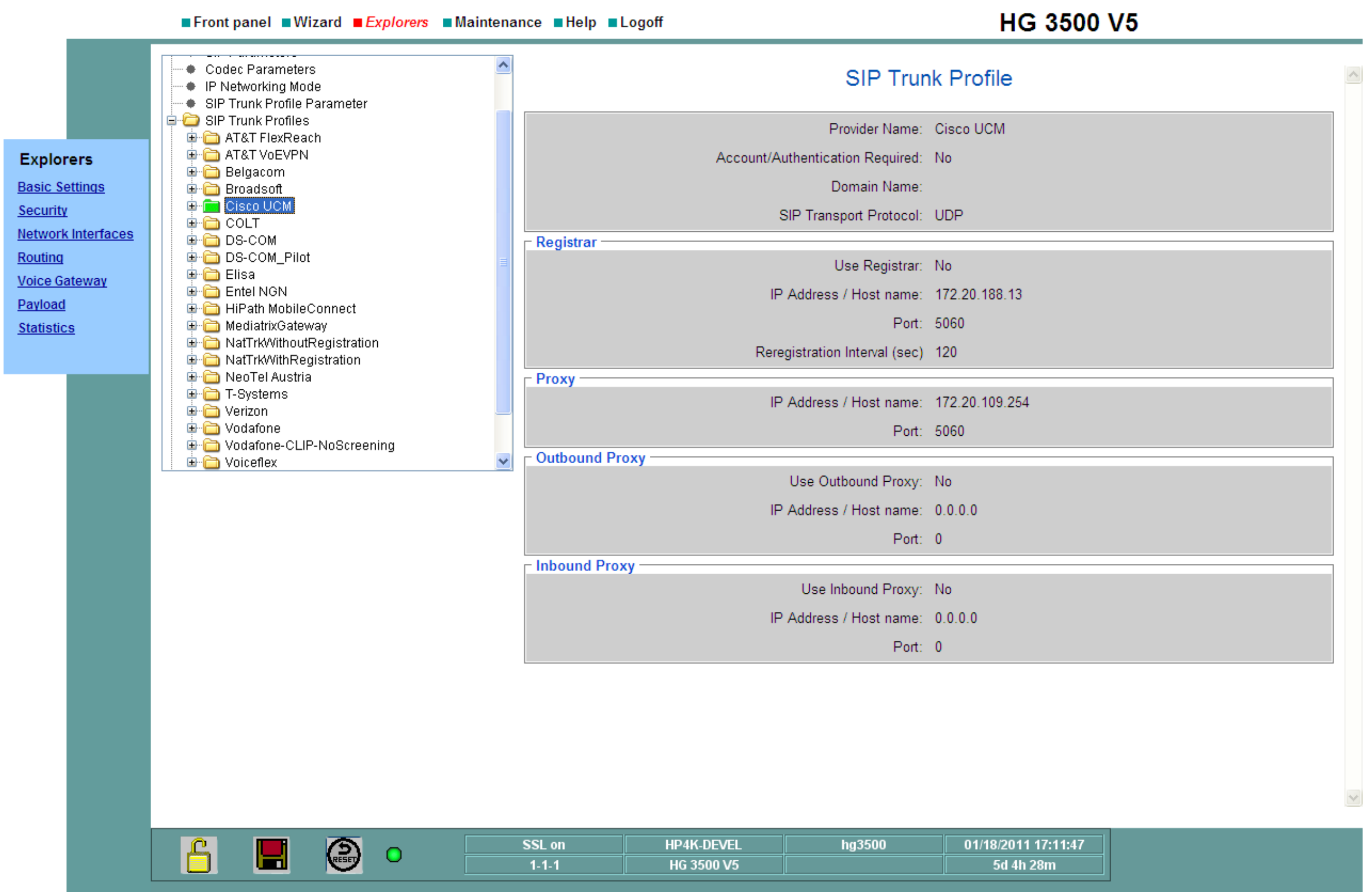


Codec	Priority	Voice Activity Detection	Frame Size
G.711 A-law	Priority 2	Off	30 msec
G.711 µ-law	Priority 1	Off	30 msec
G.723	not used	Off	30 msec
G.729	not used	Off	20 msec
G.729A	Priority 3	Off	20 msec
G.729B	not used	On	20 msec
G.729AB	Priority 7	On	60 msec

Notes:



Front panel
Wizard
Explorers
Maintenance
Help
Logoff
HG 3500 V5
Explorers
Basic Settings
Security
Network Interfaces
Routing
Voice Gateway
Payload
Statistics
Voice Gateway
H.323 Parameters
SIP Parameters
Codec Parameters
IP Networking Mode
SIP Trunk Profile Parameter
SIP Trunk Profiles
Destination Codec Parameters
Fallback to SCN Parameters
Clients
SIP Trunk Profile Parameter
SIP Protocol Variant for IP Networking: Native SIP
Use Profiles for Trunks via Native SIP: Yes
RESET
SSL on
HP4K-DEVEL
hg3500
01/18/2011 17:10:57
1-1-1
HG 3500 V5
5d 4h 27m


Front panel
Wizard
Explorers
Maintenance
Help
Logoff
HG 3500 V5
Explorers
Basic Settings
Security
Network Interfaces
Routing
Voice Gateway
Payload
Statistics
Codec Parameters
IP Networking Mode
SIP Trunk Profile Parameter
SIP Trunk Profiles
AT&T FlexReach
AT&T VoEVPN
Belgacom
Broadsoft
Cisco UCM
COLT
DS-COM
DS-COM_Pilot
Elisa
Entel NGN
HiPath MobileConnect
MediatrixGateway
NatTrkWithoutRegistration
NatTrkWithRegistration
NeoTel Austria
T-Systems
Verizon
Vodafone
Vodafone-CLIP-NoScreening
Voiceflex
SIP Trunk Profile
Provider Name: Cisco UCM
Account/Authentication Required: No
Domain Name:
SIP Transport Protocol: UDP
Registrar
Use Registrar: No
IP Address / Host name: 172.20.188.13
Port: 5060
Reregistration Interval (sec) 120
Proxy
IP Address / Host name: 172.20.109.254
Port: 5060
Outbound Proxy
Use Outbound Proxy: No
IP Address / Host name: 0.0.0.0
Port: 0
Inbound Proxy
Use Inbound Proxy: No
IP Address / Host name: 0.0.0.0
Port: 0
SSL on
HP4K-DEVEL
hg3500
01/18/2011 17:11:47
1-1-1
HG 3500 V5
5d 4h 28m

Display Name of the station:

```
DISPLAY-PERSI:TYPE=NAME,STNO=5032;
DISPLAY-PERSI:TYPE=NAME,STNO=5032;
H500:  AMO PERSI STARTED
+------------+----------------------------------------+-------------------------+
|    STNO    |  CHRISTIAN AND SURNAME          CHARCON|  ORGANIZATIONAL UNIT    |
+------------+----------------------------------------+-------------------------+
|            |                                        |                         |
|5032        |HIPATH IP 3*                            |                         |
|            |                                        |                         |
+------------+----------------------------------------+-------------------------+

AMO-PERSI-111       PERSONAL IDENTIFICATION DATA
DISPLAY COMPLETED;
```

To change name "Change-Persi" should be used.

Name and Number Restrictions:

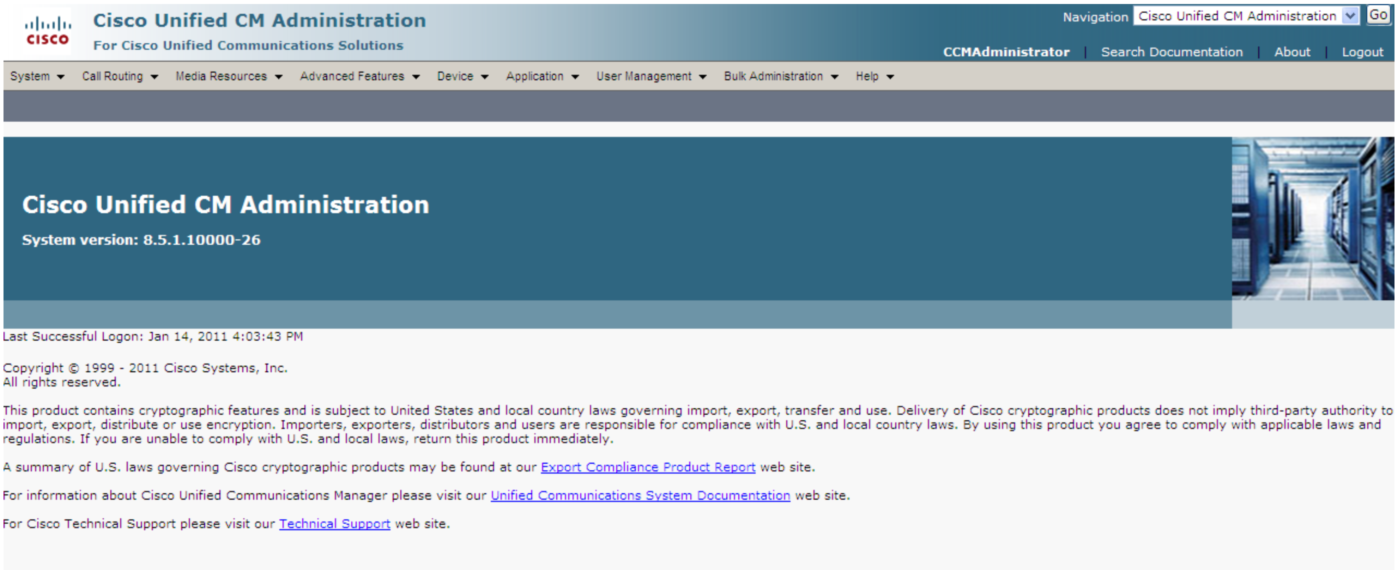
```
DISPLAY-SBCSU:STNO=5032;
DISPLAY-SBCSU:STNO=5032;
H500:  AMO SBCSU STARTED

----------------------------- USER DATA ----------------------------------------
 STNO    =5032         OPT     =FPP       COS1    =5          DPLN    =0
 MAINO   =5032         CONN    =SIP       COS2    =5          ITR     =0
 PEN     =1- 1-  1-  3                    LCOSV1  =15         COSX    =0
 INS     =Y            ASYNCT  =          LCOSV2  =15
 SSTNO   =Y            PERMACT =N         LCOSD1  =15         CBKBMAX =5
 TRACE   =N            EXTBUS  =          LCOSD2  =15         RCBKB   =N
 ALARMNO =0            DFSVCANA=          SPDI    =30         RCBKNA  =N
 HMUSIC  =1            FLASH   =          SPDC1   =           CBKNAMB =
 PMIDX   =1                               SPDC2   =
 DVCFIG  =S0PP        LWPAR   =          PROT    =SBDSS1    OPTIDX  =10
 SMGSUB  =N           IPCODEC =G711P     USERID  =""
 FIXEDIP =N           AUTHREQ =N         PASSWD  =
 IPADDR  =0.0.0.0                        SECZONE =""
 DTMFCTRD=Y
 ------------------- ACTIVATION IDENTIFIERS FOR FEATURES ----------------------
                     HTOS    :N         DND     :N
                     HTOD    :N         VCP     :N         TWLOGIN :
                     HTOF    :N         CWT     :N
 ------------------- FEATURES AND GROUP MEMBERSHIPS ---------------------------
  PUGR    :          ESSTN   :
  KEYSYS  :          NOPTNO  :
  SRCGRP  : 1        TCLASS  : 0
  HUNT CD :N
 ------------------- SUBSCRIBER ATTRIBUTES (AMO SDAT) -------------------------
  KN       VC       DMCALLWD MBCHL
 ------------------------------------------------------------------------------

AMO-SBCSU-111       STATION AND S0-BUS CONFIGURATION OF SWITCHING UNIT
DISPLAY COMPLETED;
```

Siemens HiPath 4000 Software Release

```
DISPLAY-DBC:VERBOSE=N;
DISPLAY-DBC:VERBOSE=N;
H500:  AMO DBC   STARTED
+--------------------------------------------------------------------------------+
| SYSTEM CLASSIFICATION    : SYSTEM 600          (H600  )                        |
| HARDWARE ASSEMBLY        : COMPACT PCI         (CPCI    )                      |
| OPERATING MODE           : SIMPLEX                                             |
| RESTART TYPE             : SYM                                                 |
| HW-ARCHITECTURE          : 4000                                                |
| HW-ARCHITECTURE TYPE     : 3                                                   |
|                                                                                |
| 'NO OF' HW VALUES                                                              |
|   LTG'S     :    1  LTU'S          : 15  LOG.LINES : 32000  MTS BD /GSN:   1 |
|   SIUP'S/LTU:    4  TMD24'S PER LTU:  4  PHYS.PORTS: 16000  HWY /MTS BD: 128 |
|   HDLC /DCL :   16  PBC /DCL       :  6  PBC'S     :    17                   |
| LOG. SIU LINES           :   81                                                |
| LOG. CONF LINES          :   90                                                |
| LOG. DCL LINES           :   91                                                |
| DB DIMENSIONING-NAME     : LARGE           CONF-TABLE VERSION:  26            |
| DB SUSY'S:                                                                     |
|   SWITCH NUMBER : L31910Z0291U00001                                            |
| LOCATION         : CUSTOMER                                                    |
| BAPPL            : BSMONO                                                      |
| DBAPPL           : DBLARGE                                                     |
| SYSTEM_ID        :                                                             |
|                                                                                |
| OVERLAY RESOURCES IN ADP:                                                      |
|   SLOTS       : 1000   MEMORY SPACE : 2000 KB                                  |
| OVERLAY RESOURCES IN SWU:                                                      |
|   SLOTS       : 1000   MEMORY SPACE : 2000 KB                                  |
| OVERLAY RESOURCES BEI MONO PROCESSING:                                         |
|   SLOTS       :  400   MEMORY SPACE : 3000 KB                                  |
+--------------------------------------------------------------------------------+

AMO-DBC  -111       DATABASE CONFIGURATION
DISPLAY COMPLETED;
```

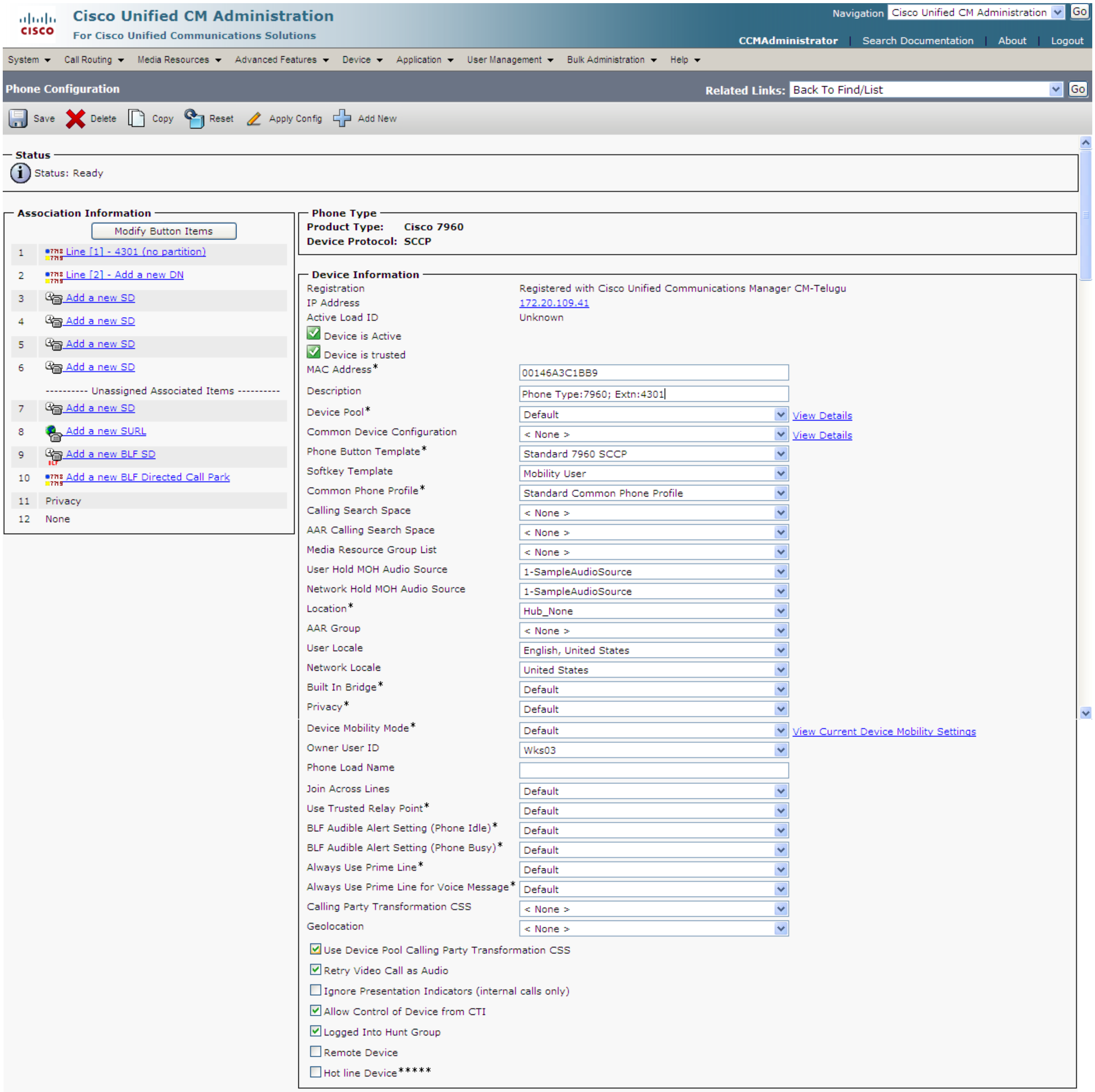
Configuring the Cisco Unified Communications Manager

Cisco UCM Version



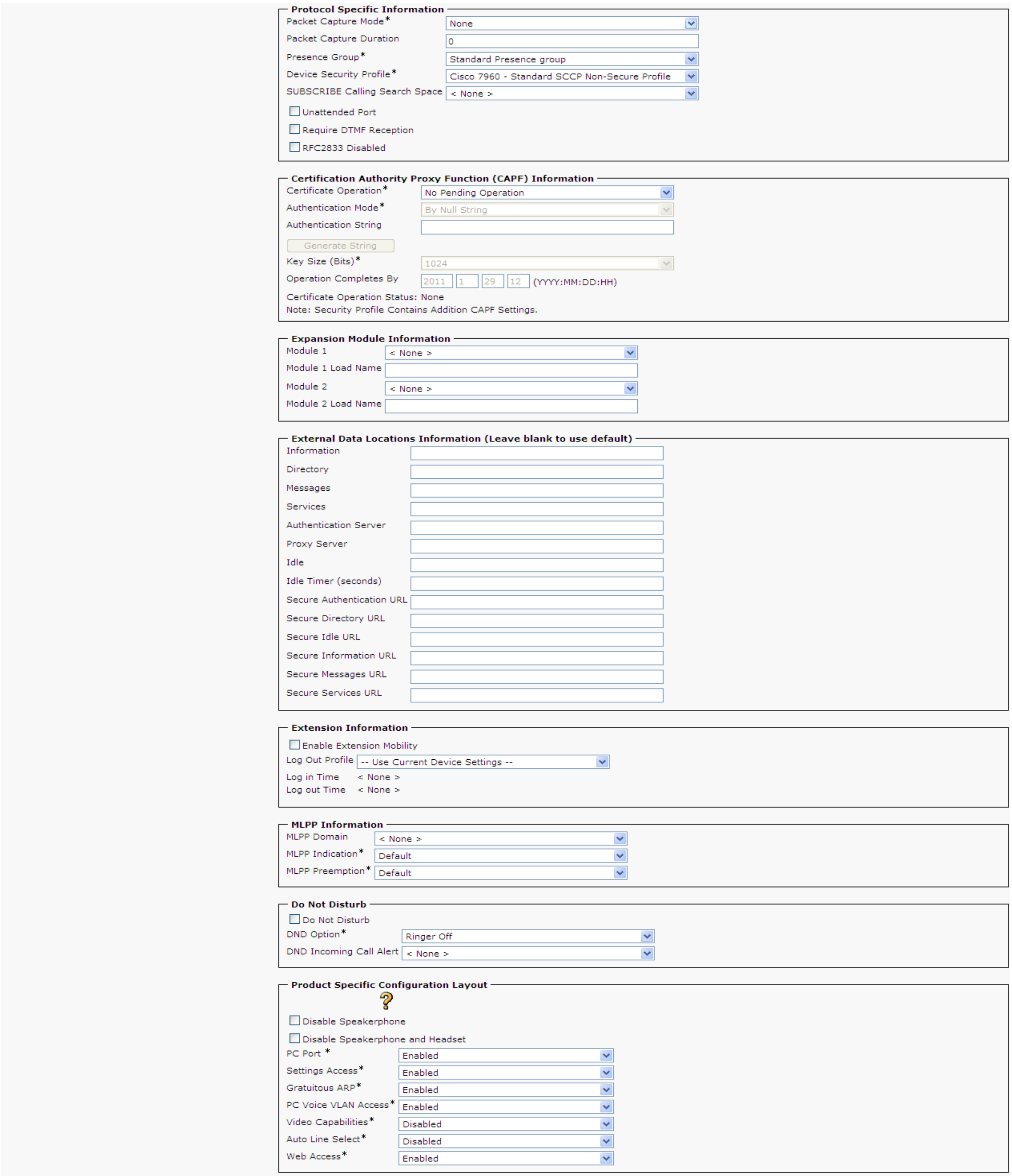
Configuring 7960 SCCP Phone (Page 1 of 4)

Navigation Path: Cisco UCM Administration → Device → Phone



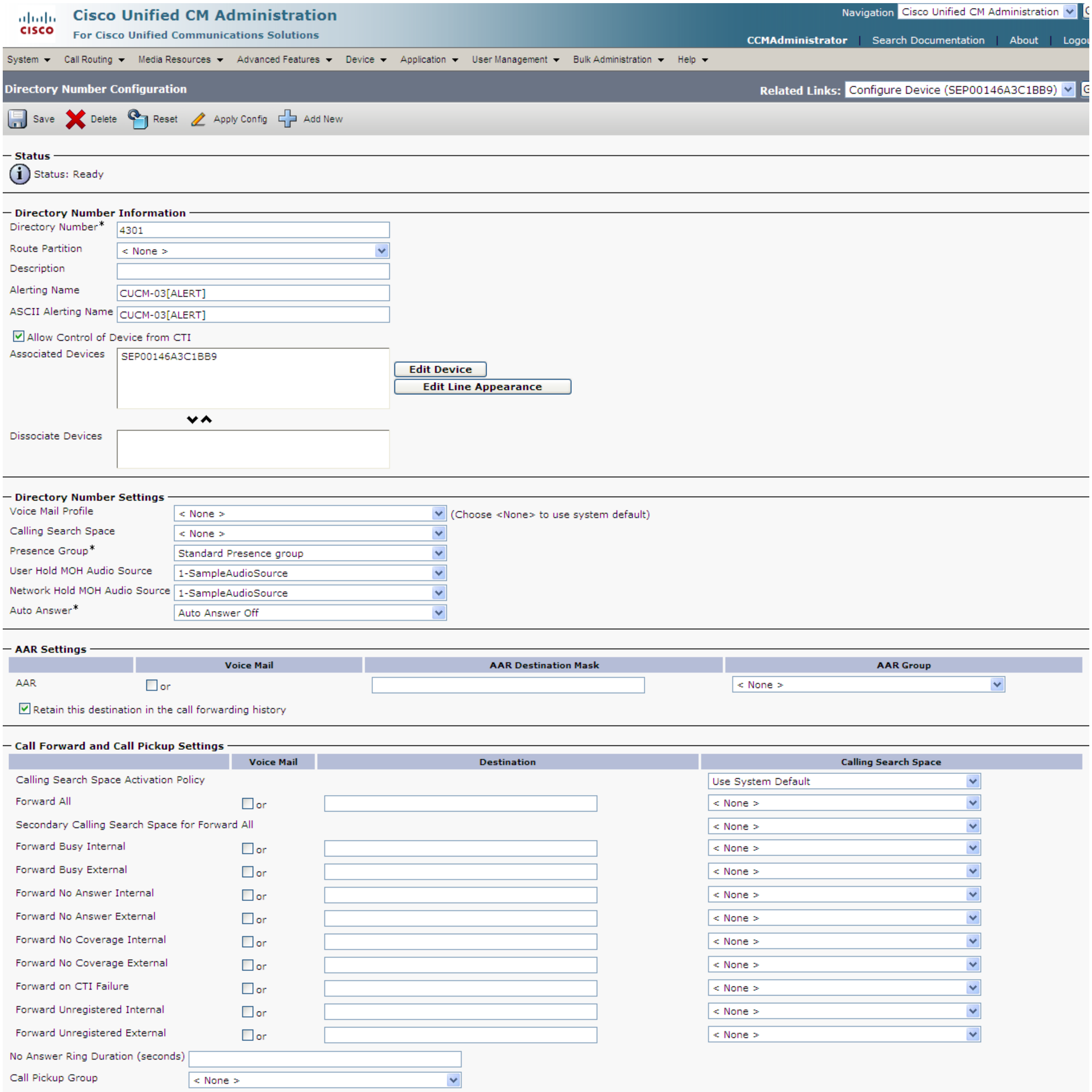
Configuring 7960 SCCP Phone (Page 2 of 4)

Navigation Path: Cisco UCM Administration → Device → Phone



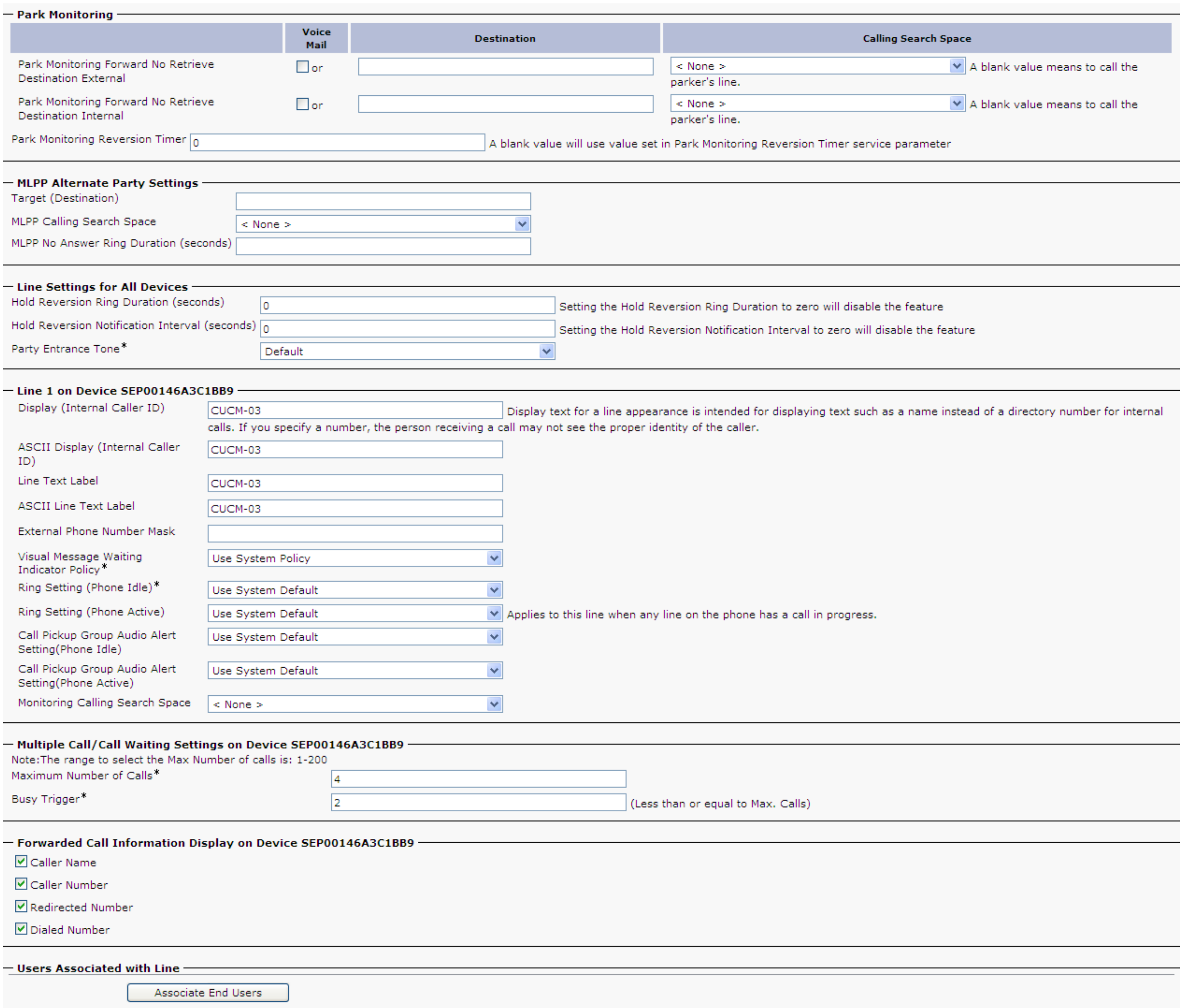
Configuring 7960 SCCP Phone (Page 3 of 4)

Navigation Path: Cisco UCM Administration → Device → Phone



Configuring 7960 SCCP Phone (Page 4 of 4)

Navigation Path: Cisco UCM Administration → Device → Phone



Park Monitoring

	Voice Mail	Destination	Calling Search Space
Park Monitoring Forward No Retrieve Destination External	☐ or		< None > A blank value means to call the parker's line.
Park Monitoring Forward No Retrieve Destination Internal	☐ or		< None > A blank value means to call the parker's line.

Park Monitoring Reversion Timer: 0 — A blank value will use value set in Park Monitoring Reversion Timer service parameter

MLPP Alternate Party Settings

Target (Destination):

MLPP Calling Search Space: < None >

MLPP No Answer Ring Duration (seconds):

Line Settings for All Devices

Hold Reversion Ring Duration (seconds): 0 — Setting the Hold Reversion Ring Duration to zero will disable the feature

Hold Reversion Notification Interval (seconds): 0 — Setting the Hold Reversion Notification Interval to zero will disable the feature

Party Entrance Tone*: Default

Line 1 on Device SEP00146A3C1BB9

Display (Internal Caller ID): CUCM-03 — Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID): CUCM-03

Line Text Label: CUCM-03

ASCII Line Text Label: CUCM-03

External Phone Number Mask:

Visual Message Waiting Indicator Policy*: Use System Policy

Ring Setting (Phone Idle)*: Use System Default

Ring Setting (Phone Active): Use System Default — Applies to this line when any line on the phone has a call in progress.

Call Pickup Group Audio Alert Setting(Phone Idle): Use System Default

Call Pickup Group Audio Alert Setting(Phone Active): Use System Default

Monitoring Calling Search Space: < None >

Multiple Call/Call Waiting Settings on Device SEP00146A3C1BB9

Note:The range to select the Max Number of calls is: 1-200

Maximum Number of Calls*: 4

Busy Trigger*: 2 (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device SEP00146A3C1BB9

☑ Caller Name

☑ Caller Number

☑ Redirected Number

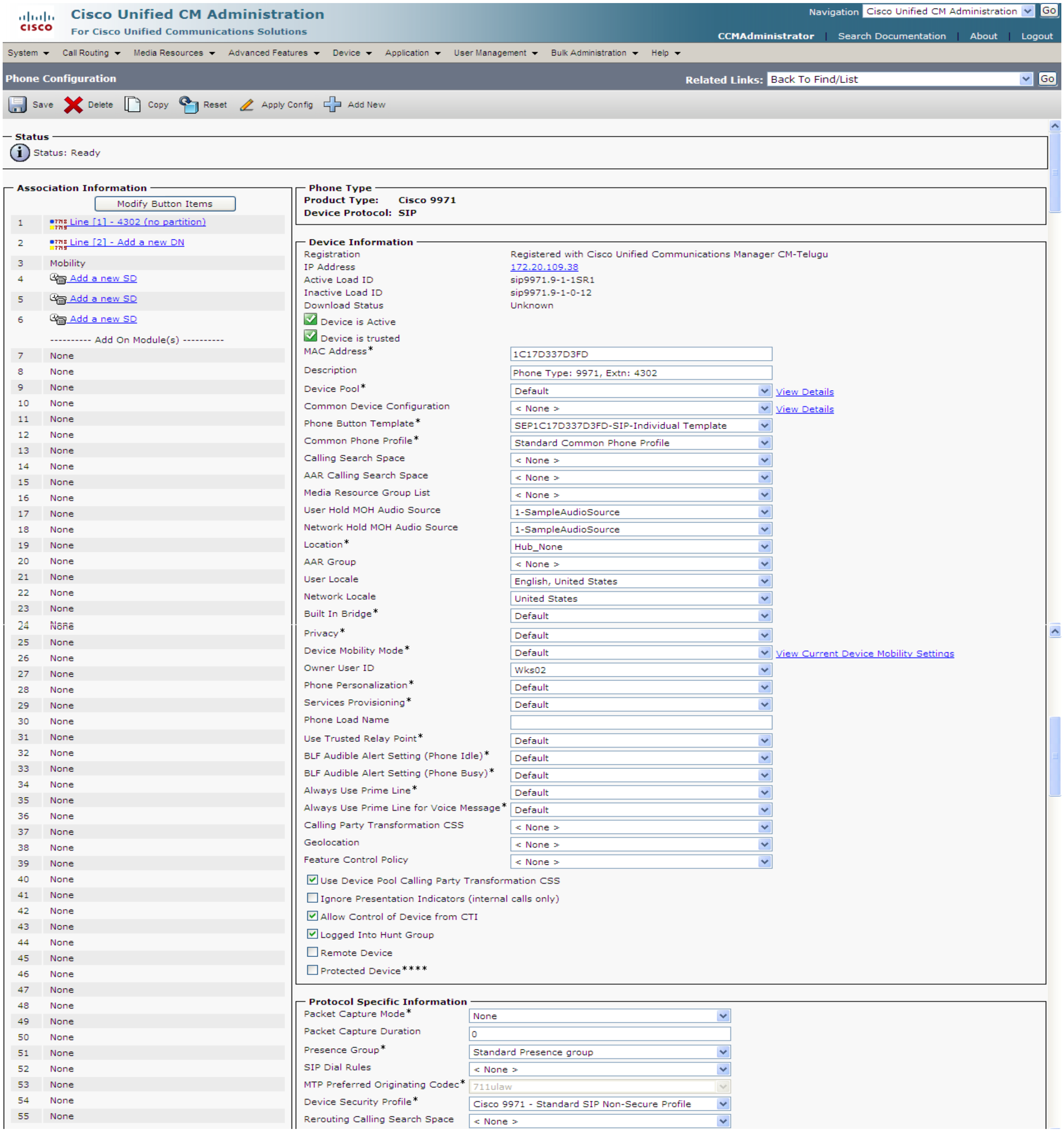
☑ Dialed Number

Users Associated with Line

Associate End Users

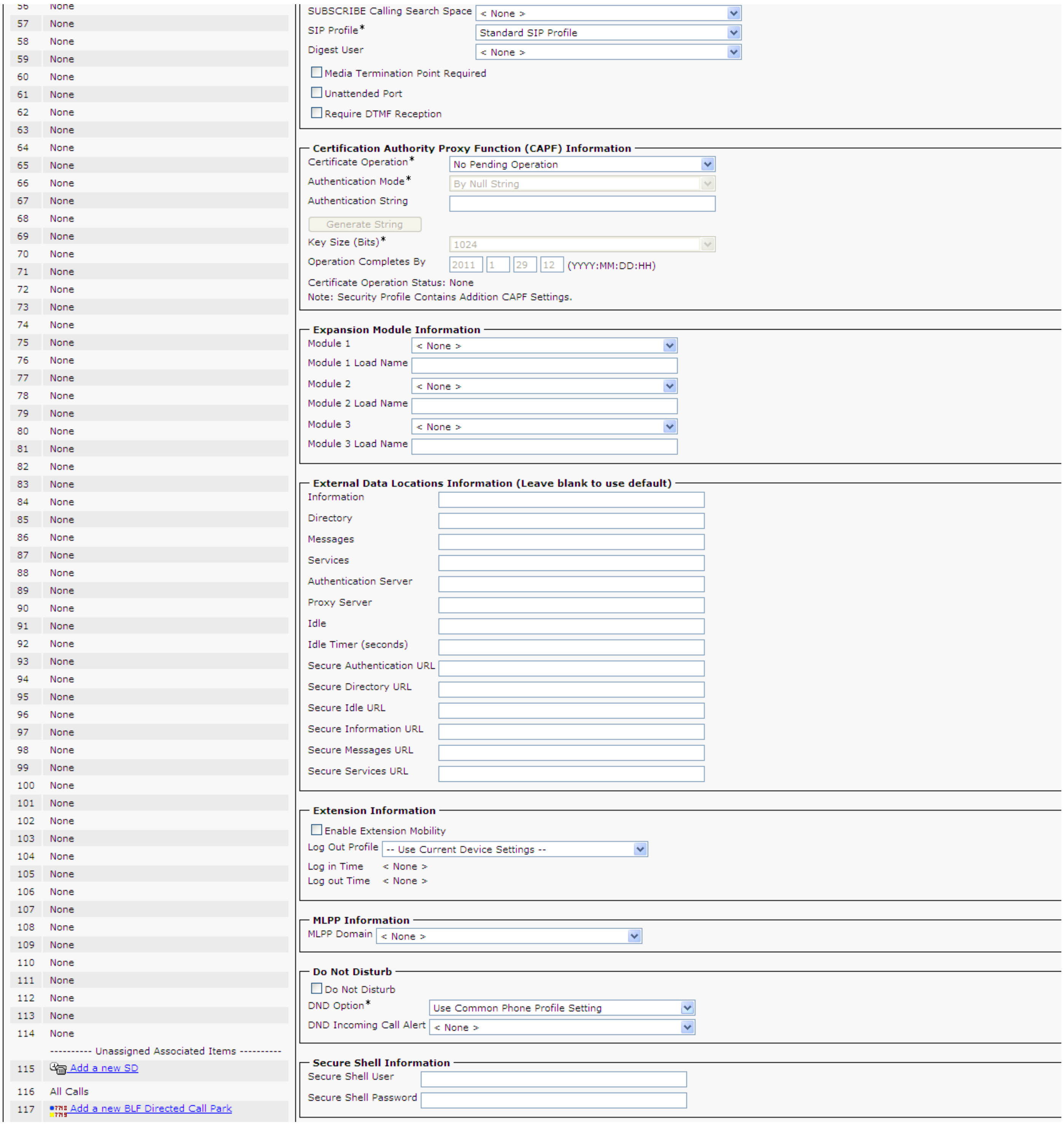
Configuring RT9971 SIP Phone (Page 1 of 5)

Navigation Path: Cisco UCM Administration → Device → Phone



Configuring RT9971 SIP Phone (Page 2 of 5)

Navigation Path: Cisco UCM Administration → Device → Phone



Configuring RT9971 SIP Phone (Page 3 of 5)

Navigation Path: Cisco UCM Administration → Device → Phone

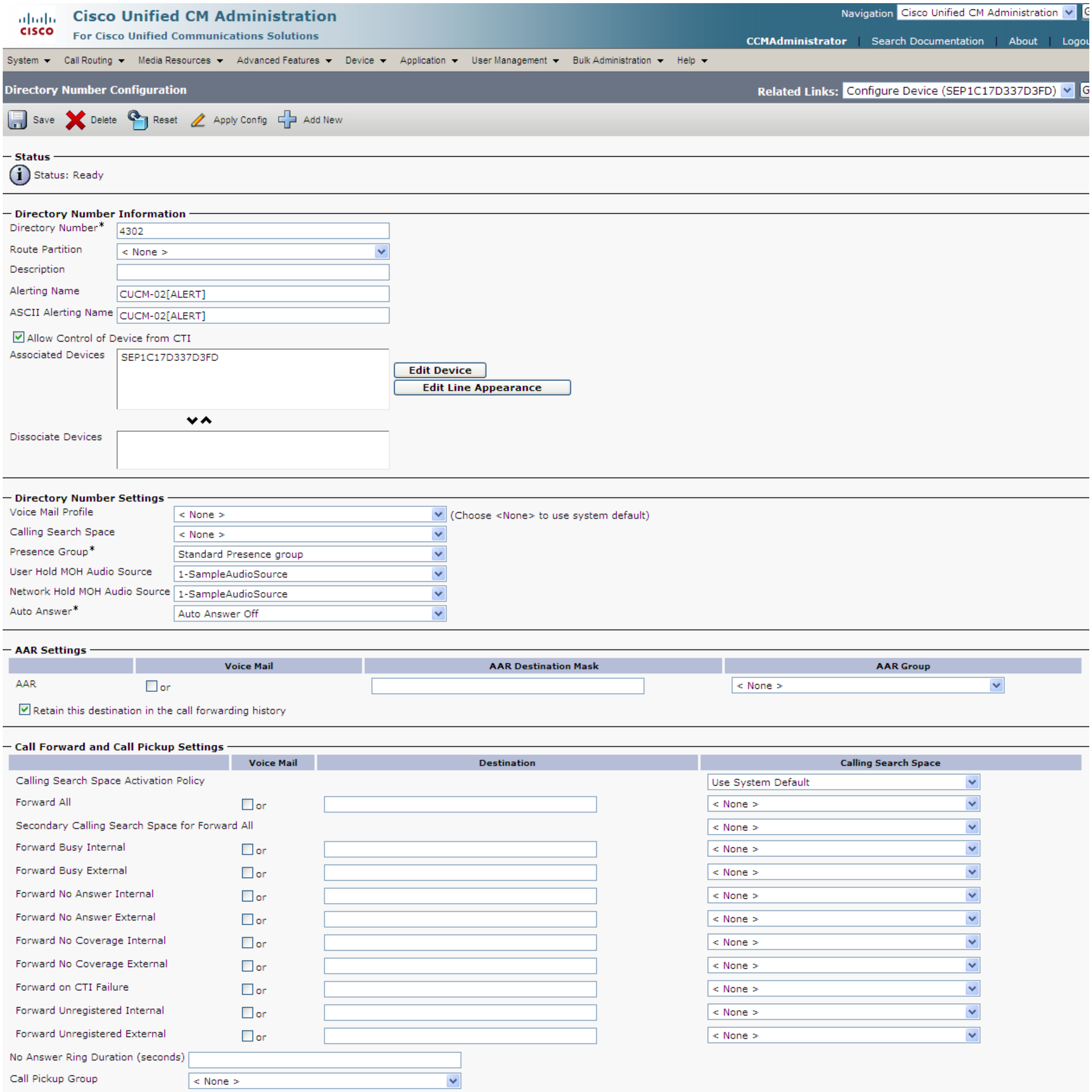
118	Call Park
119	Call Pickup
120	CallBack
121	Group Call Pickup
122	Hunt Group Logout
123	Intercom [1] - Add a new Intercom
124	Malicious Call Identification
125	Meet Me Conference
126	Other Pickup
127	Quality Reporting Tool
128	Redial
129	Add a new SURL
130	Add a new BLF SD
131	Answer Oldest
132	Do Not Disturb
133	Services
134	Record
135	Privacy
136	None

Product Specific Configuration Layout

	Param	Override Common Settings
☐ Disable Speakerphone		
☐ Disable Speakerphone and Headset		
PC Port *	Enabled	
Back USB Port*	Enabled	☐
Side USB Port*	Enabled	☐
Cisco Camera*	Disabled	☐
Video Capabilities*	Disabled	☐
Enable/Disable USB Classes	Mass Storage Human Interface Device Audio Class	☐
SDIO *	Disabled	☐
Bluetooth *	Enabled	☐
Wifi *	Enabled	☐
Bluetooth Profiles*	Handsfree Human Interface Device	☐
Settings Access*	Enabled	☐
Gratuitous ARP*	Disabled	
PC Voice VLAN Access*	Enabled	
Web Access*	Disabled	☐
Days Display Not Active	Sunday Monday Tuesday	☐
Display On Time	07:30	☐
Display On Duration	10:30	☐
Display Idle Timeout	01:00	☐
HTTPS Server*	http and https Enabled	
Span to PC Port*	Disabled	
Logging Display*	Disabled	
Load Server		☐
Recording Tone*	Disabled	
Recording Tone Local Volume*	100	
Recording Tone Remote Volume*	50	
Recording Tone Duration		
Display On When Incoming Call*	Enabled	
RTCP*	Disabled	☐
Log Server		
Advertise G.722 Codec*	Use System Default	
Wideband Headset UI Control*	Enabled	
Wideband Headset*	Enabled	
Peer Firmware Sharing*	Enabled	☐
Cisco Discovery Protocol (CDP): Switch Port*	Enabled	☐
Cisco Discovery Protocol (CDP): PC Port*	Enabled	☐
Link Layer Discovery Protocol - Media Endpoint Discover (LLDP-MED): Switch Port*	Enabled	☐
Link Layer Discovery Protocol (LLDP): PC Port*	Enabled	☐
LLDP Asset ID		
LLDP Power Priority*	Unknown	
802.1x Authentication*	User Controlled	☐
Detect Unified CM Connection Failure*	Normal	
Switch Port Remote Configuration*	Disabled	☐
PC Port Remote Configuration*	Disabled	☐
Automatic Port Synchronization*	Disabled	☐
Power Negotiation*	Enabled	☐
Restrict Data Rates*	Disabled	

Configuring RT9971 SIP Phone (Page 4 of 5)

Navigation Path: Cisco UCM Administration → Device → Phone



Configuring RT9971 SIP Phone (Page 5 of 5)

Navigation Path: Cisco UCM Administration → Device → Phone

Park Monitoring

	Voice Mail	Destination	Calling Search Space
Park Monitoring Forward No Retrieve Destination External	☐ or		< None > A blank value means to call the parker's line.
Park Monitoring Forward No Retrieve Destination Internal	☐ or		< None > A blank value means to call the parker's line.

Park Monitoring Reversion Timer: 0 — A blank value will use value set in Park Monitoring Reversion Timer service parameter

MLPP Alternate Party Settings

- Target (Destination):
- MLPP Calling Search Space: < None >
- MLPP No Answer Ring Duration (seconds):

Line Settings for All Devices

- Hold Reversion Ring Duration (seconds): 0 — Setting the Hold Reversion Ring Duration to zero will disable the feature
- Hold Reversion Notification Interval (seconds): 0 — Setting the Hold Reversion Notification Interval to zero will disable the feature
- Party Entrance Tone*: Default

Line 1 on Device SEP1C17D337D3FD

- Display (Internal Caller ID): CUCM-02 — Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
- ASCII Display (Internal Caller ID): CUCM-02
- Line Text Label: CUCM-02
- ASCII Line Text Label: CUCM-02
- External Phone Number Mask:
- Visual Message Waiting Indicator Policy*: Use System Policy
- Audible Message Waiting Indicator Policy*: Default
- Ring Setting (Phone Idle)*: Use System Default
- Ring Setting (Phone Active): Use System Default — Applies to this line when any line on the phone has a call in progress.
- Call Pickup Group Audio Alert Setting(Phone Idle): Use System Default
- Call Pickup Group Audio Alert Setting(Phone Active): Use System Default
- Recording Option*: Call Recording Disabled
- Recording Profile: < None >
- Monitoring Calling Search Space: < None >
- ☑ Log Missed Calls

Multiple Call/Call Waiting Settings on Device SEP1C17D337D3FD

Note:The range to select the Max Number of calls is: 1-200

- Maximum Number of Calls*: 4
- Busy Trigger*: 2 (Less than or equal to Max. Calls)

Forwarded Call Information Display on Device SEP1C17D337D3FD

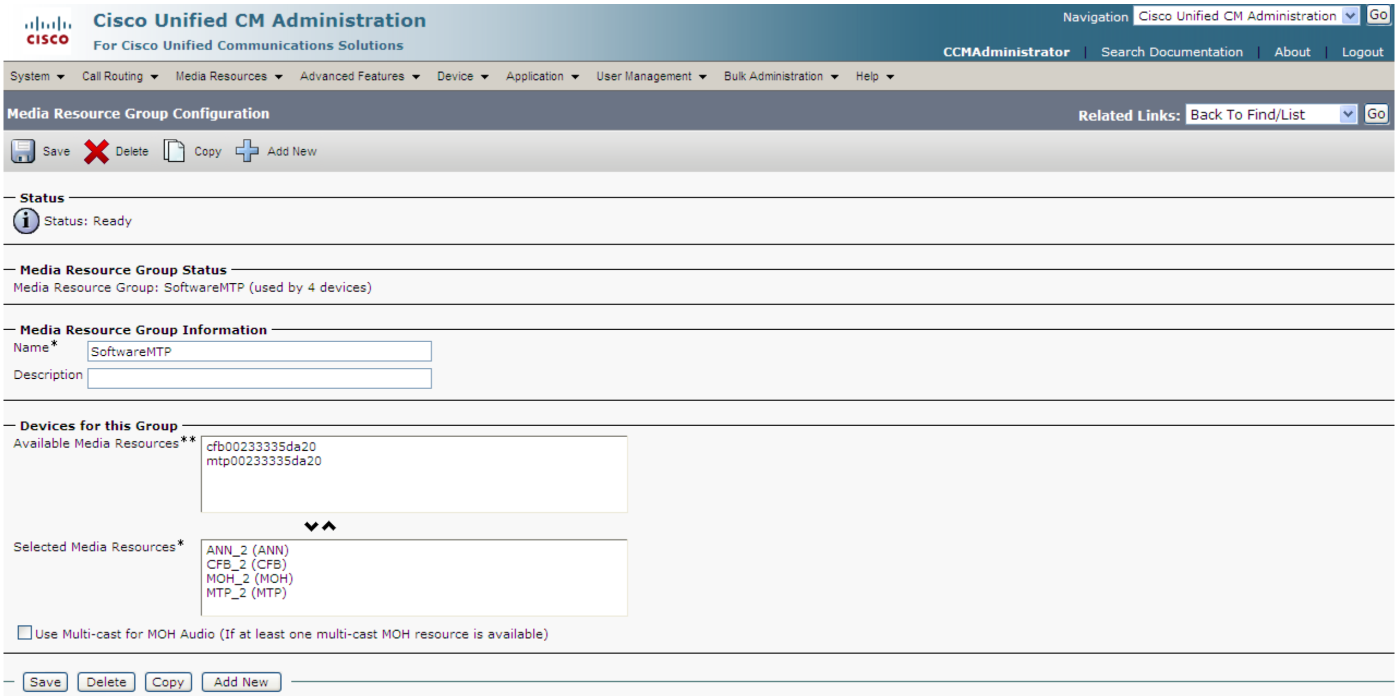
- ☑ Caller Name
- ☑ Caller Number
- ☑ Redirected Number
- ☑ Dialed Number

Users Associated with Line

Associate End Users

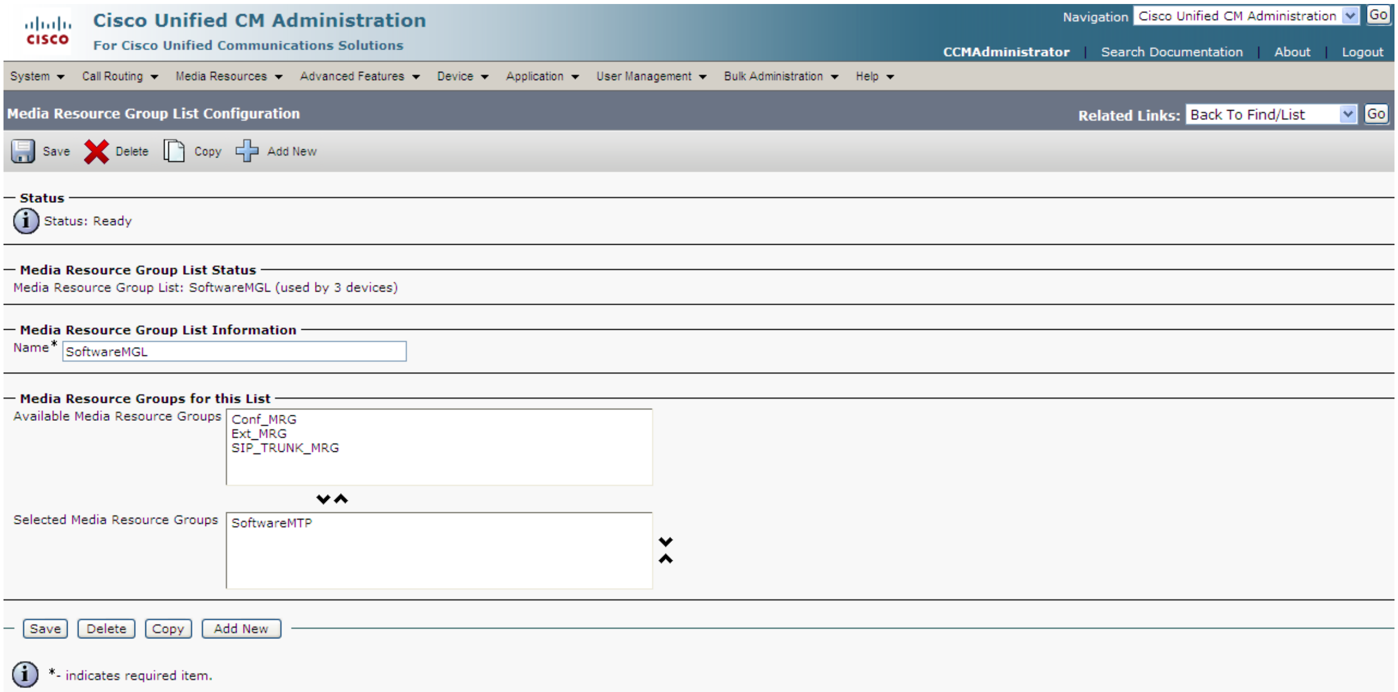
Configuring Media Resource Group

Navigation Path: Cisco UCM Administration → Media Resources → Media Resource Group



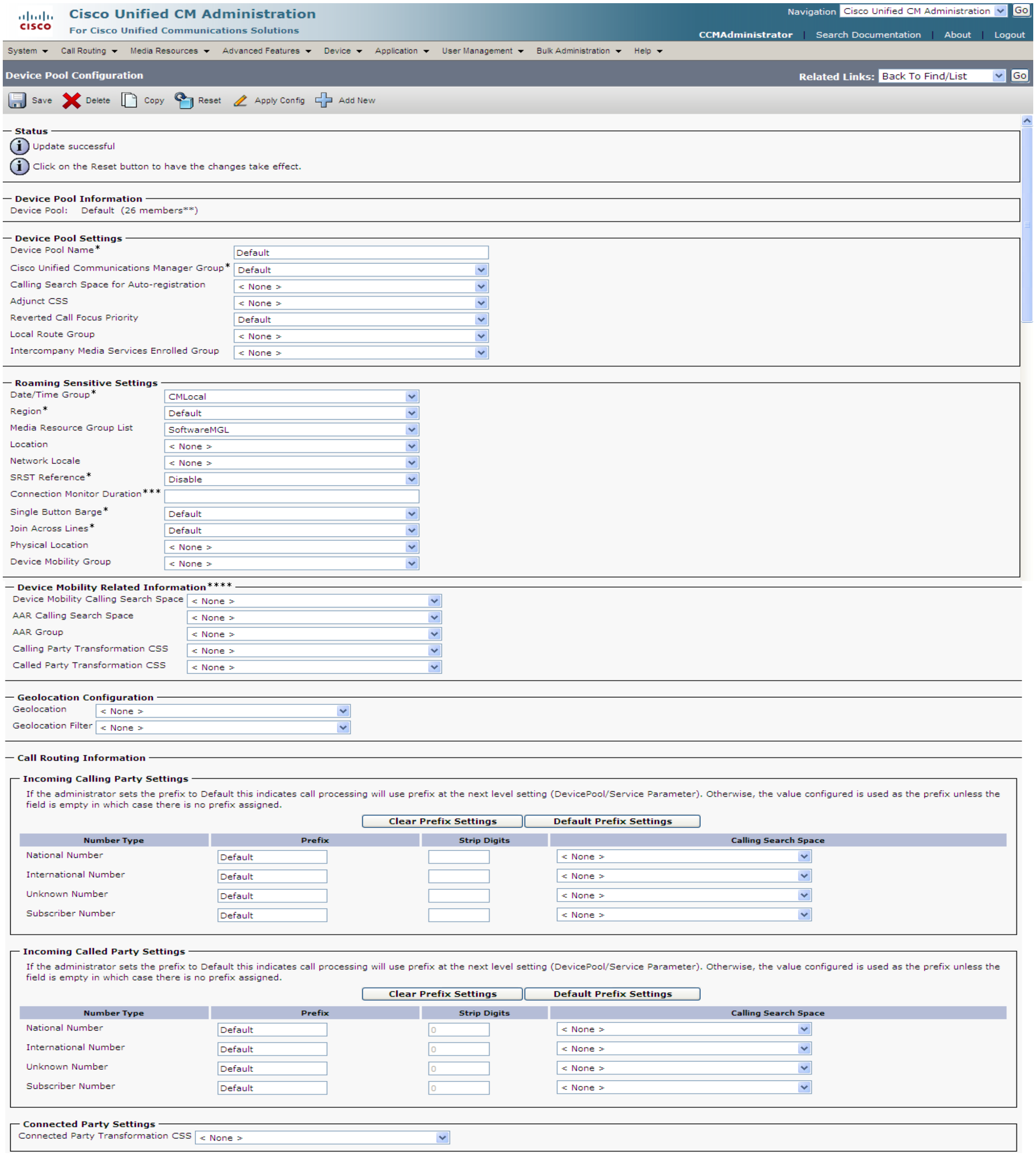
Configuring Media Resource Group List

Navigation Path: Cisco UCM Administration → Media Resources → Media Resource Group List



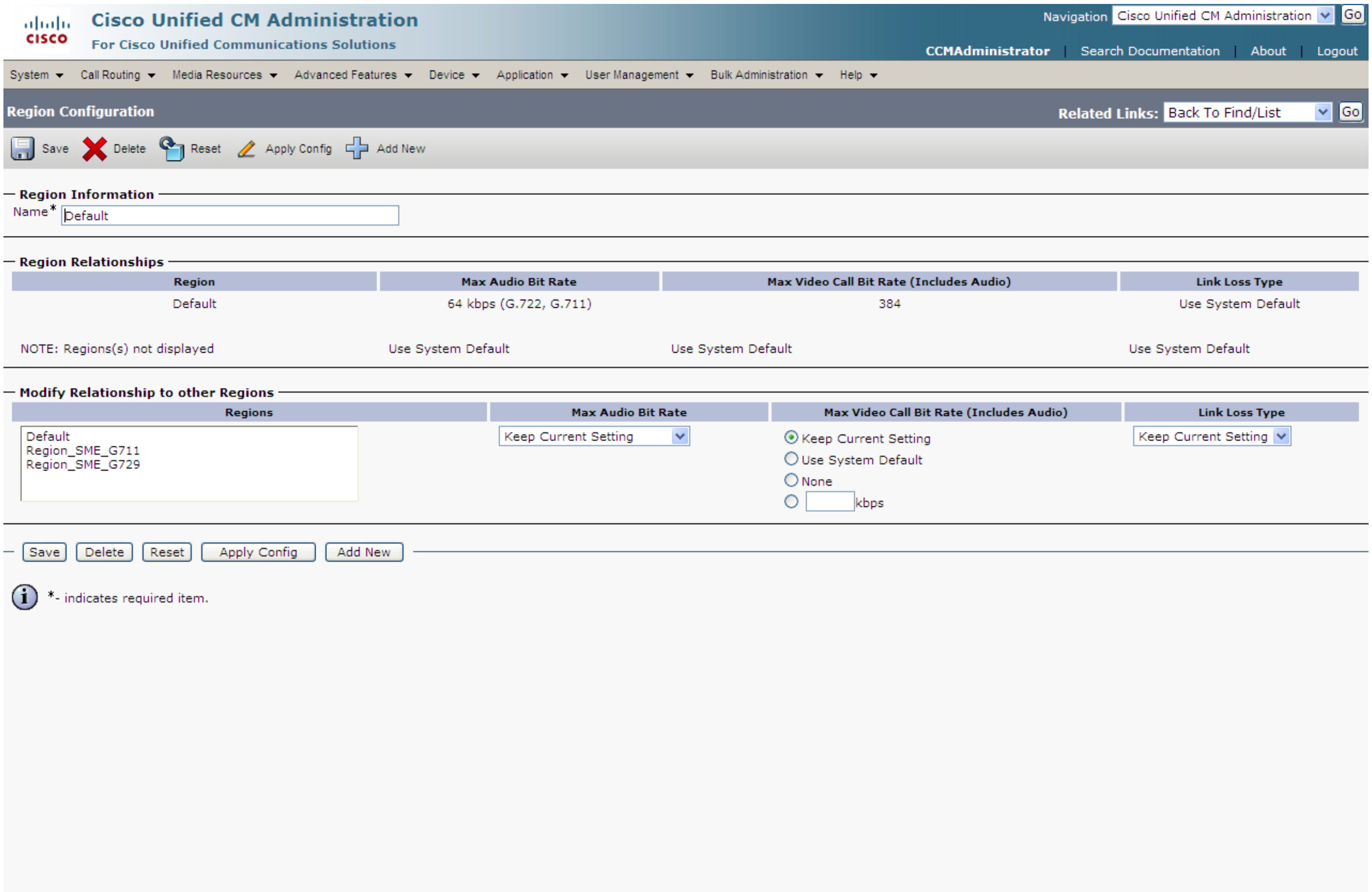
Configuring Device Pool

Navigation Path: Cisco UCM Administration → System → Device Pool



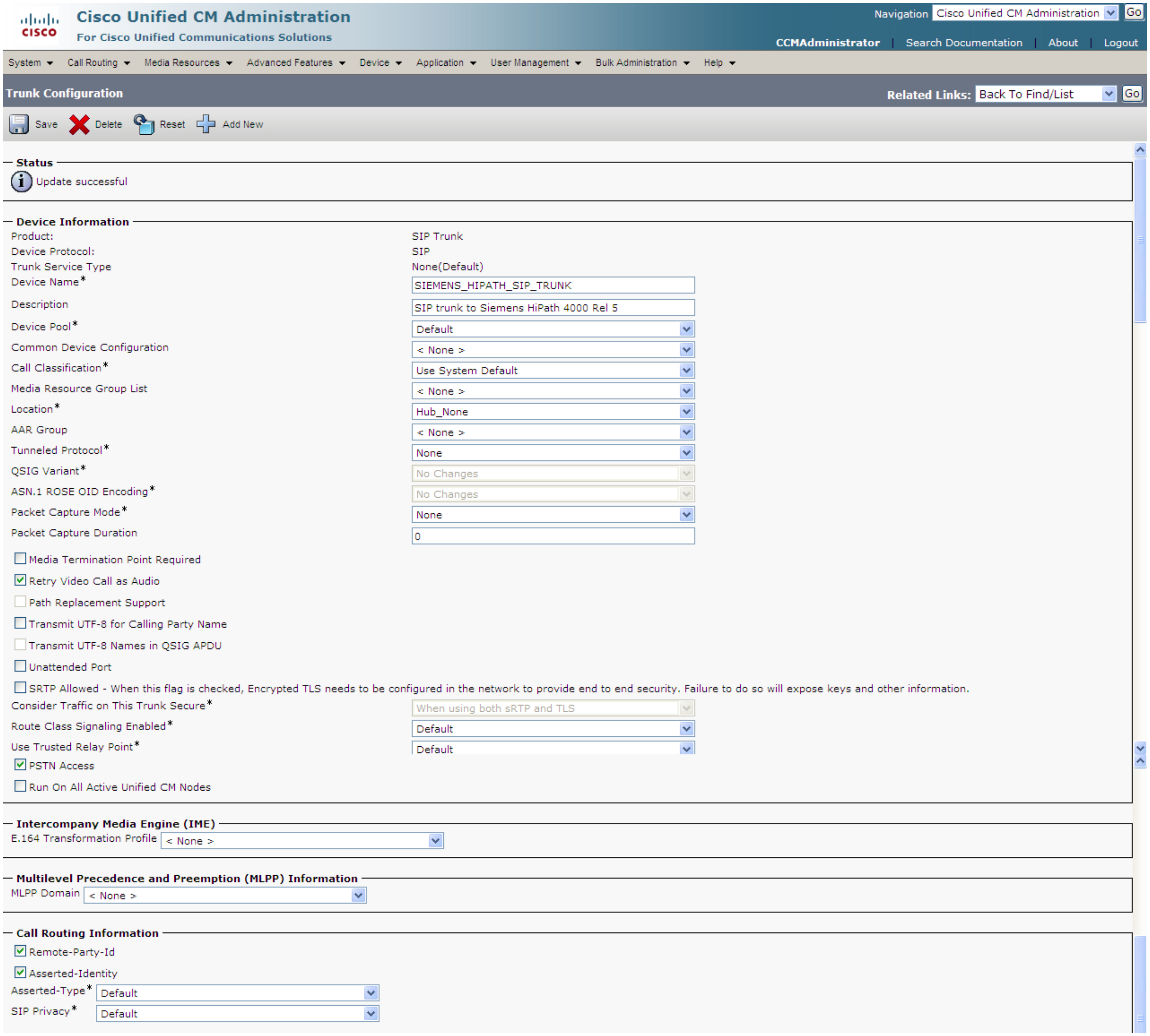
Configuring Region

Navigation Path: Cisco UCM Administration → System → Region



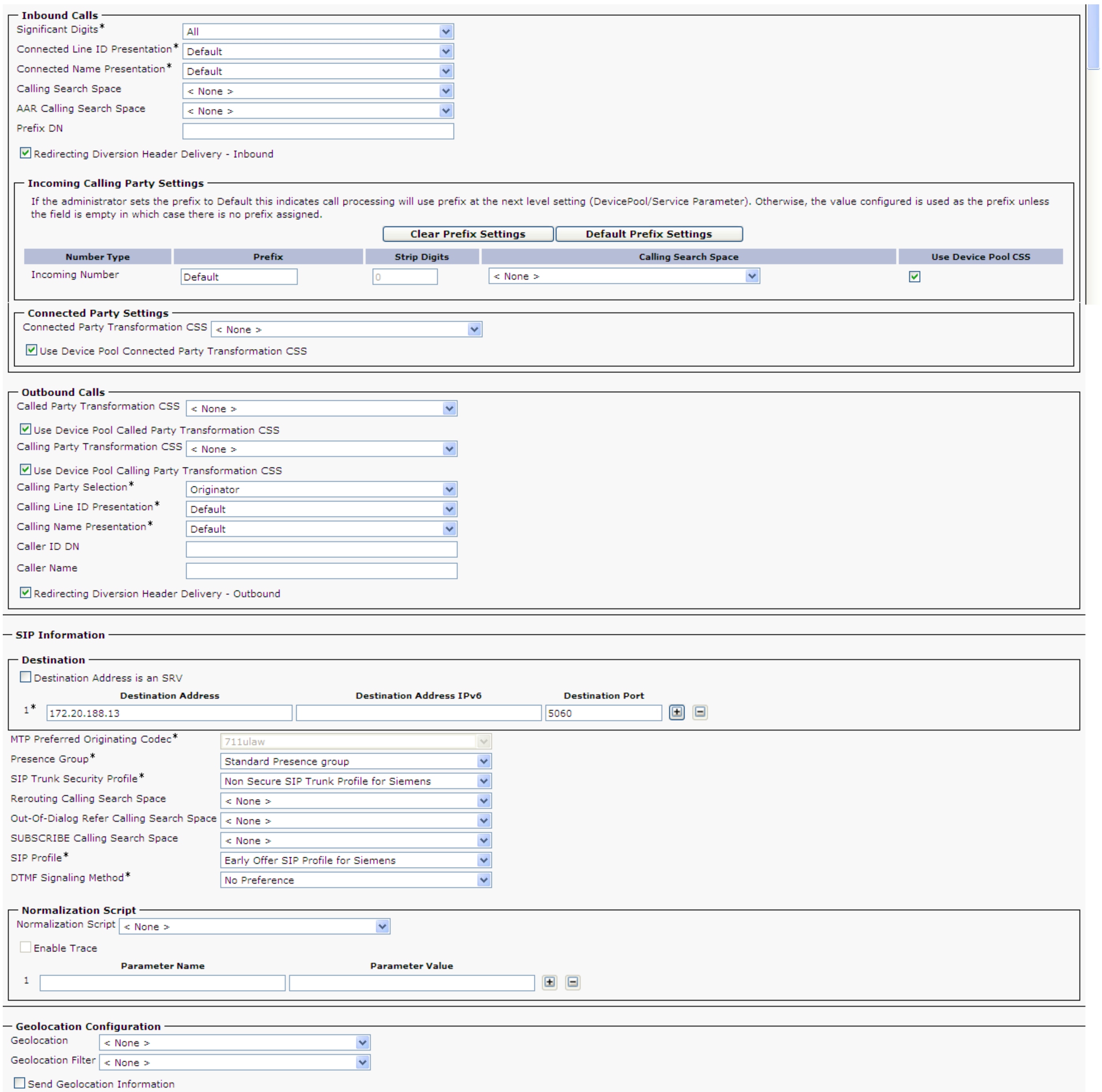
Configuring SIP trunk to Siemens HiPath 4000 Rel 5.0 (Page 1 of 2)

Navigation Path: Cisco UCM Administration → Device → Trunk



Configuring SIP trunk to Siemens HiPath 4000 Rel 5.0 (Page 2 of 2)

Navigation Path: Cisco UCM Administration → Device → Trunk



Inbound Calls

Significant Digits* All
Connected Line ID Presentation* Default
Connected Name Presentation* Default
Calling Search Space < None >
AAR Calling Search Space < None >
Prefix DN
☑ Redirecting Diversion Header Delivery - Inbound

Incoming Calling Party Settings

If the administrator sets the prefix to Default this indicates call processing will use prefix at the next level setting (DevicePool/Service Parameter). Otherwise, the value configured is used as the prefix unless the field is empty in which case there is no prefix assigned.

Clear Prefix Settings | Default Prefix Settings

Number Type	Prefix	Strip Digits	Calling Search Space	Use Device Pool CSS
Incoming Number	Default	0	< None >	☑

Connected Party Settings

Connected Party Transformation CSS < None >
☑ Use Device Pool Connected Party Transformation CSS

Outbound Calls

Called Party Transformation CSS < None >
☑ Use Device Pool Called Party Transformation CSS
Calling Party Transformation CSS < None >
☑ Use Device Pool Calling Party Transformation CSS
Calling Party Selection* Originator
Calling Line ID Presentation* Default
Calling Name Presentation* Default
Caller ID DN
Caller Name
☑ Redirecting Diversion Header Delivery - Outbound

SIP Information

Destination

☐ Destination Address is an SRV

	Destination Address	Destination Address IPv6	Destination Port
1*	172.20.188.13		5060

MTP Preferred Originating Codec* 711ulaw
Presence Group* Standard Presence group
SIP Trunk Security Profile* Non Secure SIP Trunk Profile for Siemens
Rerouting Calling Search Space < None >
Out-Of-Dialog Refer Calling Search Space < None >
SUBSCRIBE Calling Search Space < None >
SIP Profile* Early Offer SIP Profile for Siemens
DTMF Signaling Method* No Preference

Normalization Script

Normalization Script < None >
☐ Enable Trace

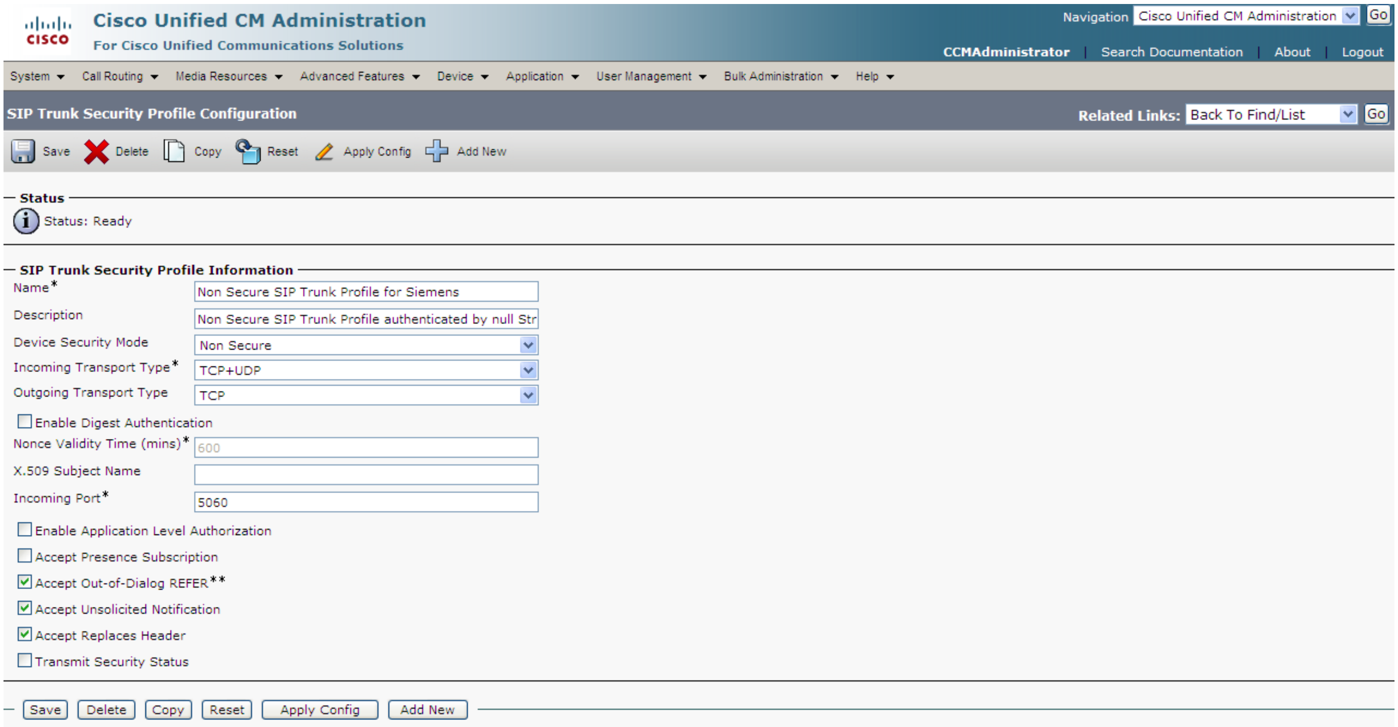
	Parameter Name	Parameter Value
1		

Geolocation Configuration

Geolocation < None >
Geolocation Filter < None >
☐ Send Geolocation Information

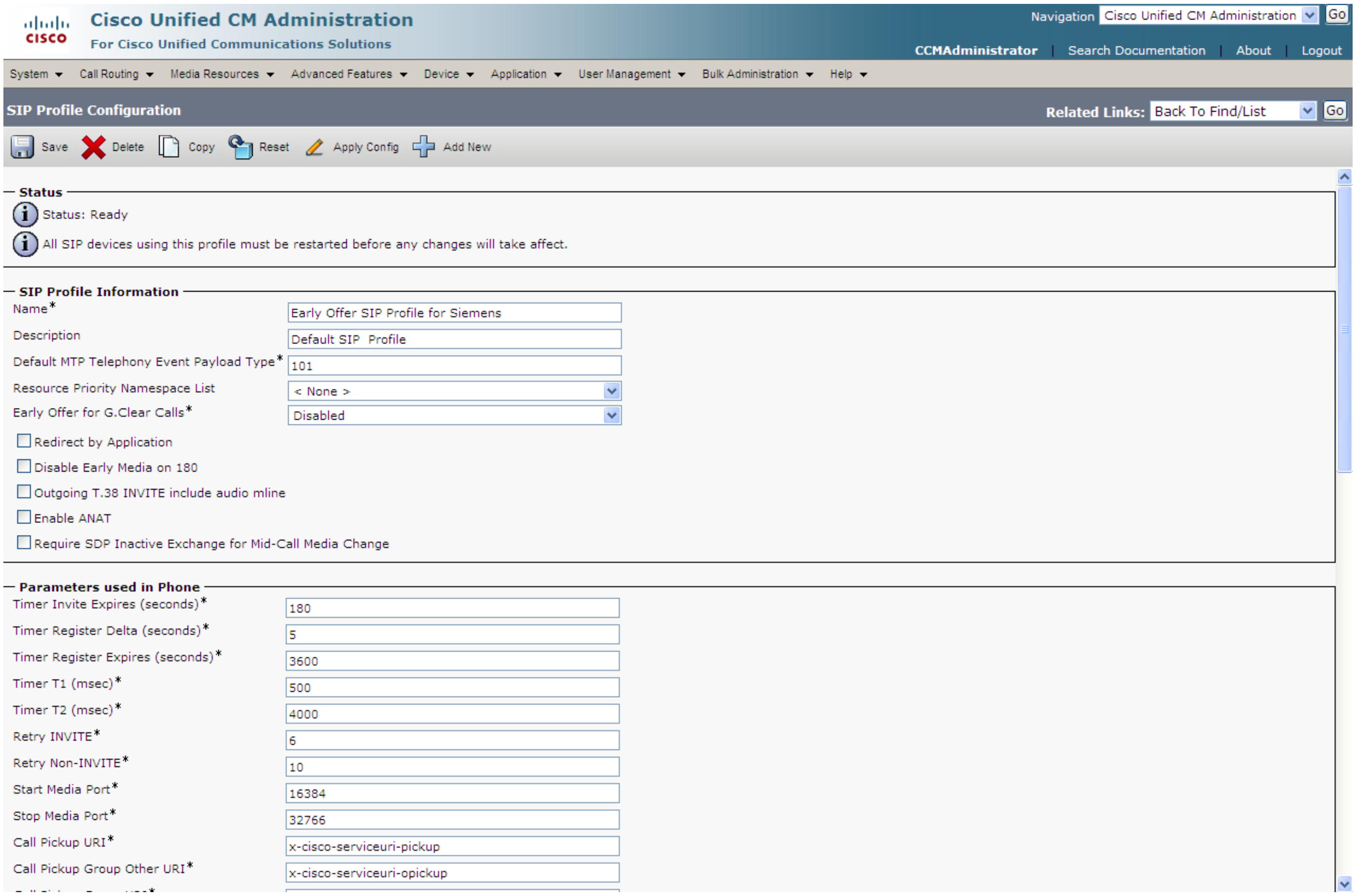
Configuring SIP Trunk security profile

Navigation Path: Cisco UCM Administration → System → Security → SIP Trunk Security Profile



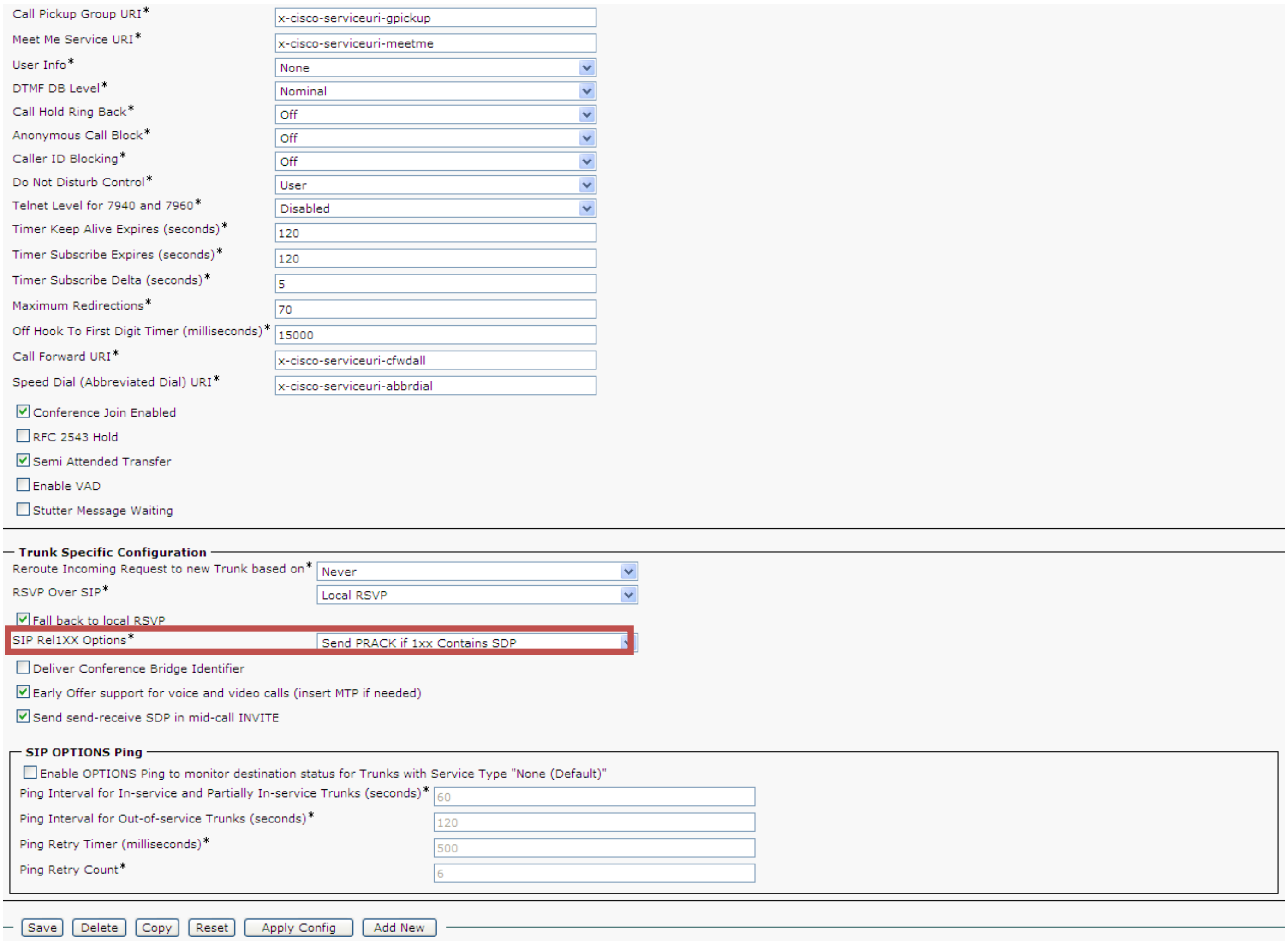
Configuring SIP Profile for Trunk (Page 1 of 2)

Navigation Path: Cisco UCM Administration → Device →Device Settings → SIP Profile



Configuring SIP Profile for Trunk (Page 2 of 2)

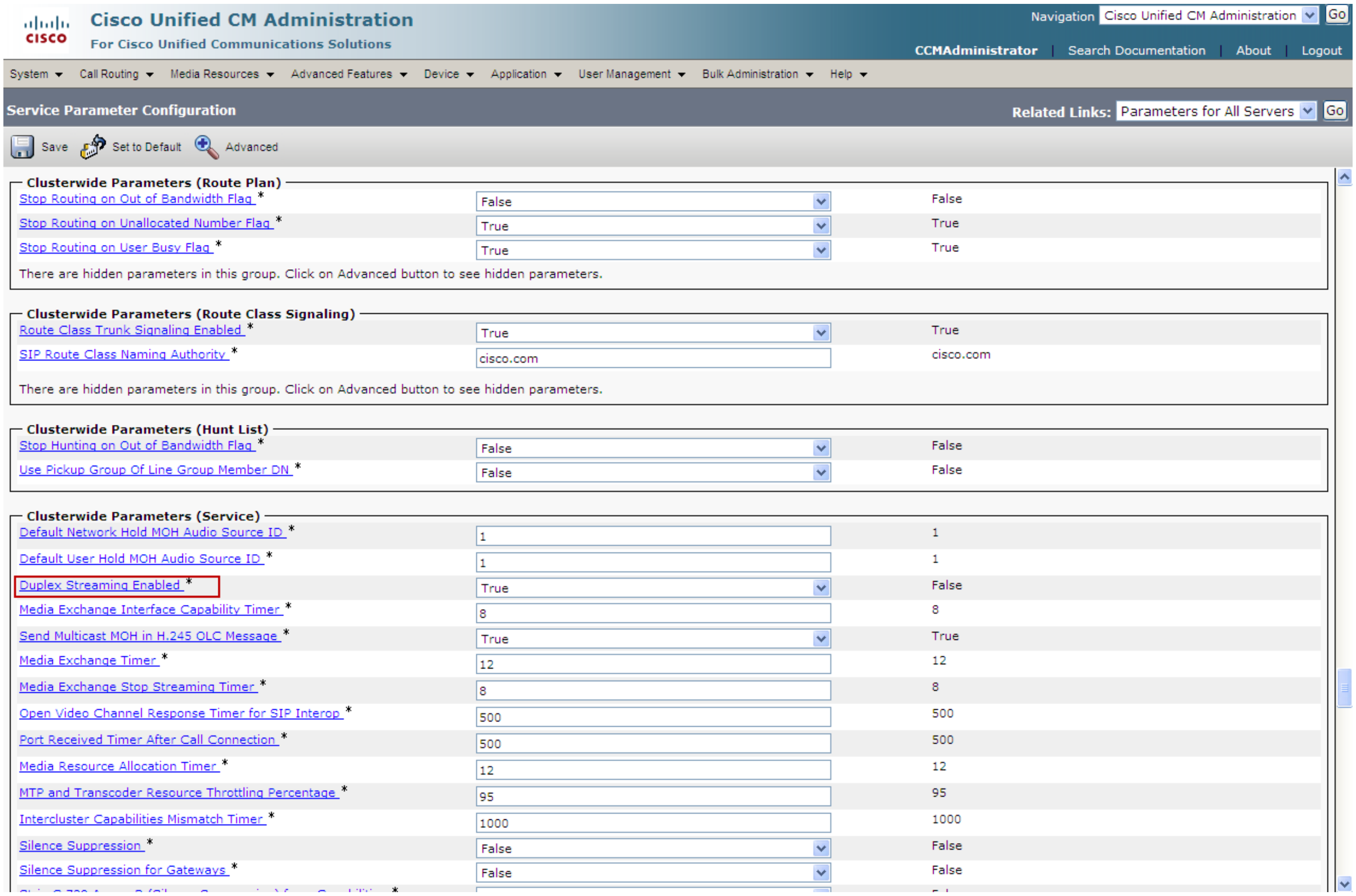
Navigation Path: Cisco UCM Administration → Device →Device Settings → SIP Profile



Note: Call direction: Siemens to Cisco UCM, Early attended transfer back to Siemens. Upon Early attended call transfer by Cisco UCM, call is initially completed without voice path and after 5 seconds call is disconnected. The workaround for this limitation is to configure "SIP Rel1XX options : send PRACK if 1XX contains SDP" in SIP profile on Cisco UCM.

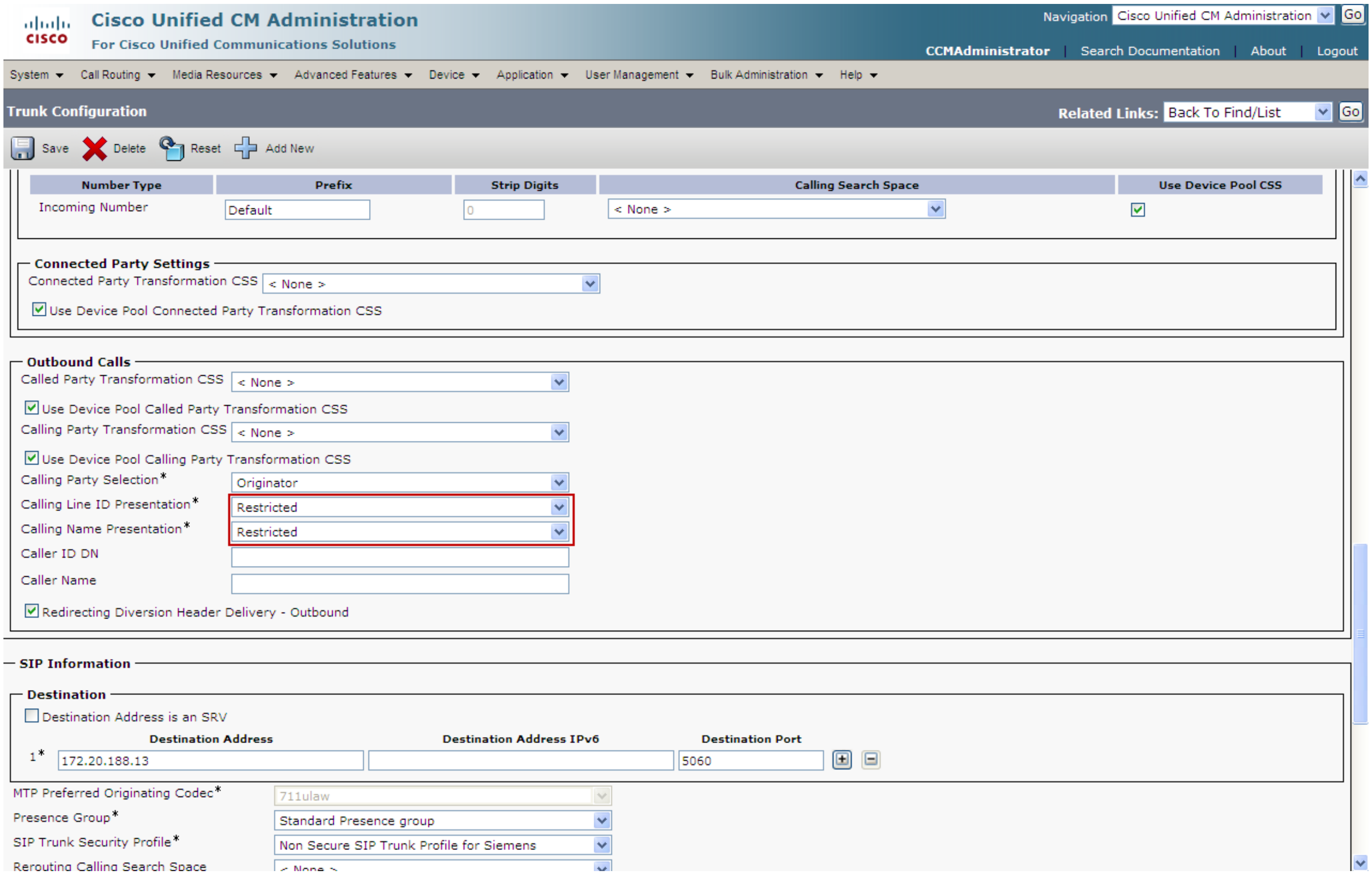
Configuring Service Parameters for MOH

Navigation Path: Cisco UCM Administration → System → Service Parameters



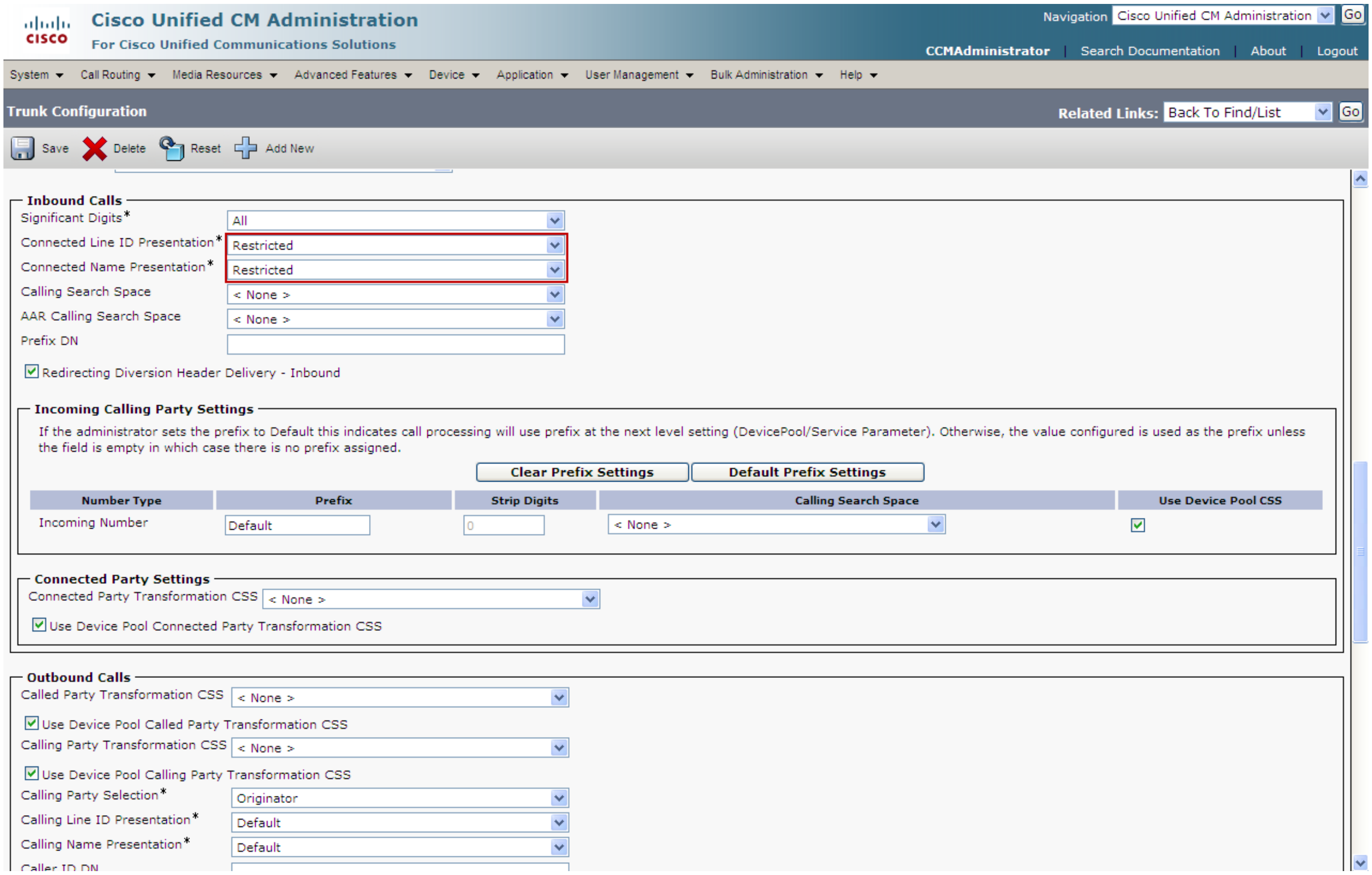
Configuring Calling Name and Number Restriction

Navigation Path: Cisco UCM Administration → Device → Trunk



Configuring Connected Name and Number Restriction

Navigation Path: Cisco UCM → Device → Trunk



Acronyms

Acronym	Definition
CUCM	Cisco Unified Communications Manager
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CFB	Call Forwarding on Busy
CFNR	Call Forwarding No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
CLIR	Calling Line (Number) Identification Restriction
CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation
COLR	Connected Line (Number) Identification Restriction
CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
MWI	Message Waiting Indicator
PBX	Private Branch Exchange

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