Application Note

Cisco Unified CallManager Release 5.0 - PBX Interoperability: Nortel CS1000M Release 4.0 Using SIP Trunk.

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Introduction

The purpose of this document is to detail the steps and configurations necessary for Cisco Unified CallManager 5.0 to interoperate with the Nortel Communication Server 1000M (CS1000M) running software release 4.0

The following items were tested:

1. SIP and SCCP phone registration to the Cisco Unified CallManager
2. Basic call between the two systems and verification of voice path
3. CLIP/CLIR/CNIP/CNIR features - Calling Party Name and Number delivery (Allowed and Restricted)
4. COLP/CONP/COLR/CONR features - Connected Name and Number delivery (Allowed and Restricted)
5. Call Transfer (Blind, Attended, Early Attended)
6. Call Forwarding (CFA - Call Forward All, CFB - Call Forward Busy, CFNA - Call Forward No Answer)
7. Hold and Resume with Music On-Hold
8. Voice Messaging and MWI activation-deactivation
9. DTMF-relay (RFC2833, SIP INFO, or KPML)

Integration highlights:

1. For Nortel CS1000M and Cisco Unified CallManager to interoperate with each other (Basic Call and/or Supplementary features), it required MTP resources. Therefore, the "Media Termination Point Required" box must be checked under the SIP Trunk configuration.
2. The method used by each system to pass the phone name and number information across the SIP trunk is different. Cisco Unified CallManager used the "Remote-Party-Id" field while Nortel CS1000M used the "P-Asserted-Id" field. Since both parties do not support each other method, they used the information from the SIP From header as the calling party name and number information
3. For features such as CLIR, CNIR, COLR and CONR, both systems set the SIP FROM: header to be "Anonymous" and have the proper restricion set with the RPID and PAI fields. Since both parties do not support each other method, they used the information within the SIP FROM: header instead which is "Anonymous". Cisco Unified CallManager use "Remote-Party-Id" and "Privacy" whereas Nortel use "P-Asserted-Id" and "Privacy".
4. Both systems support Attended and Early Attended Call Transfer feature. However, they are not able to update the phone displays properly after the transfer is completed. This is due to the differences between the two systems method of passing the name and number information across SIP Trunk.
5. Both Nortel phones and Cisco Unified CallManager TNP phones (7961, 7970, 7971 and 7911) phones do not support SIP Blind Call Transfer.
6. Both systems support Call Forwarding (CFU, CFB, and CFNA) features. However, they are not able to update the phone displays properly after the call is forwarded. This is due to the differences between the two systems method of passing the name and number information.
7. Both systems support call conferencing using their local media resources. However, there is an intermittent issue with one way audio when the Nortel phone is the conferencing phone of two other CUCM phones.
8. Call Completion (Callback) Feature is not supported on either systems using standard SIP protocol.
9. Voice Messaging doesn't work across SIP Trunk between Cisco Unified CallManager and Nortel CS1000M PBX. Cisco Unified CallManager uses the SIP Diversion header to pass the redirect information across the SIP Trunk to the system which hosted the VM system. Nortel uses the SIP History-Info field instead. Due to the lack of support for one another method and differences, the redirect information is not passed across the SIP Trunk and therefore the voice mail system will treat the call as a direct access call and not a forwarded call. As a result, Cisco Unity and/or Nortel Call Pilot will not work as a centralized voice mail system for both systems. Each voice mail system (Cisco Unity or Nortel Call Pilot) can not have subscribers belonging to the one another. For example, Cisco Unity can be a voice mail system for Cisco Unified CallManager subscribers but not Nortel CS1000M subscribers using SIP Trunk.

10. MWI Activation and De-activation message do not work across SIP Trunk. Cisco Unified CallManager use SIP Notify message for MWI notification. However, Nortel does not support this method.

11. End-to-end DTMF relay signaling doesn't work between the two systems and are incompatible with one another. Cisco Unified CallManager support both RFC2833 and KPML methods of DTMF-relay. However, on the other hand, use SIP INFO message instead.

12. For the Cisco Unified CallManager SIP Trunk configuration, "Media Termination Point Required", box must be checked in order for the two systems to communicate

Key Results:

1. Cisco Unified CallManager and Nortel CS1000M used different method of passing the name and number information. Cisco Unified CallManager used the "Remote-Party-Id" field while Nortel CS1000M used the "P-Asserted-Id" field

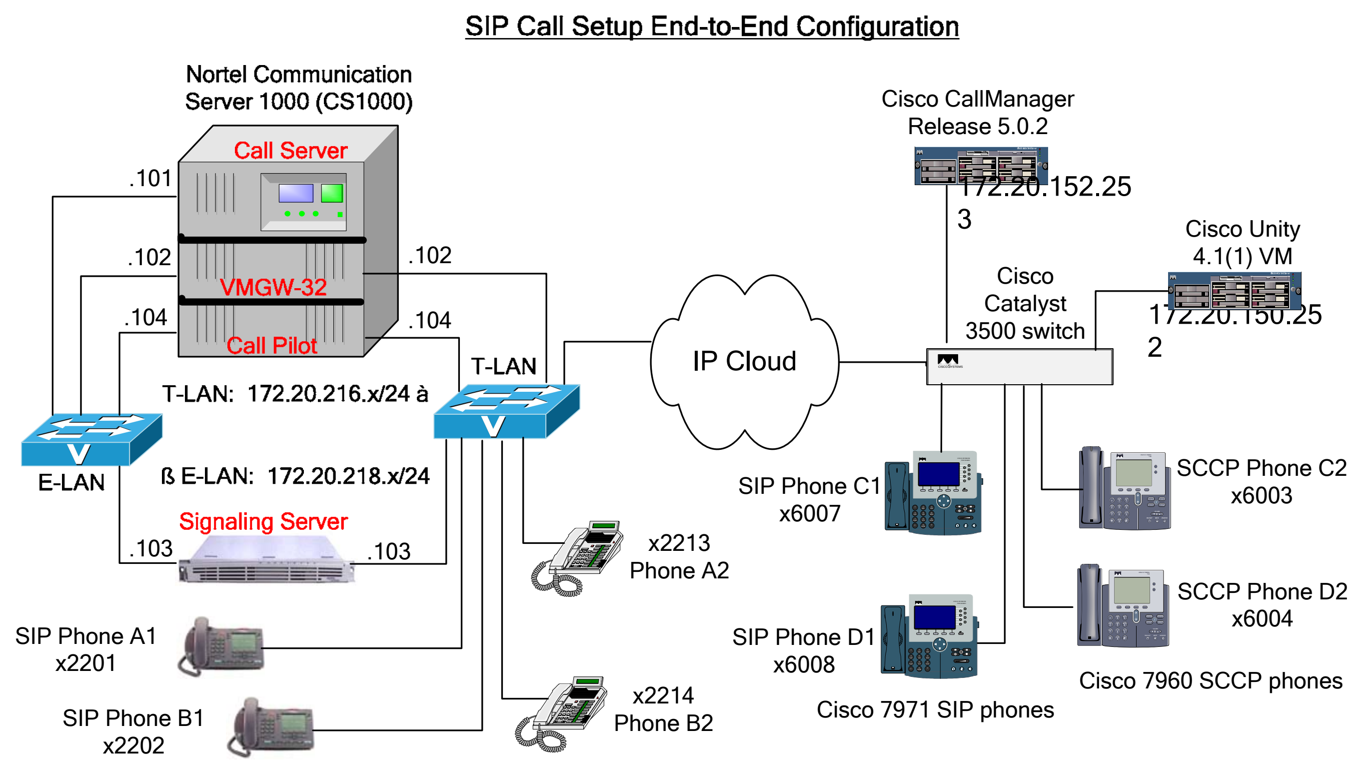
2. "Media Termination Point Required" check box must be enabled on the Cisco Unified CallManager SIP Trunk in order for the two systems to communicate with each other.

3. Basic call, Call Transfer, Call Forwarding, Conference Call, Hold and Resume all work fine with exception of the phone name and number display not being updated correctly.

4. MWI and DTMF-relay do not interoperate between the two systems.

Network Topology

Figure 1. Network Topology or Test Setup



Limitations

No support for MWI- Message Waiting Indication (lamp ON, lamp OFF) across the SIP Trunk

No end-to-end DTMF relay support across the SIP Trunk

No support for Callback across SIP trunk

CLIP/CLIR/CNIP/CNIR features – Please read the Integration Highlight section

COLP/CONP/COLR/CONR features - Please read the Integration Highlight section

System Components

Hardware Requirements

Cisco Unified CallManager MCS -7835H server,

Unity server MCS-7835H

Catalyst switch 3560 PoE-48

Cisco 7971 and 7960 IP phones

Nortel CS1000M

Nortel digital (2616) and IP (i2004) phones

Software Requirements

Cisco Unified CallManager Release 5.0.2

Cisco Unity Release 4.1(1)

CS1000M Release 4.0

Catalyst 3560 with IOS release: c3560-i5-mz.122-20.EX.bin

Features

CLIP-Calling Line (Number) Identification Presentation (Please see the Limitation section)

CLIR-Calling Line (Number) Identification Restriction (Please see the Limitation section)

CNIP-Calling Name Identification Presentation (Please see the Limitation section)

CNIR-Calling Name Identification Restriction (Please see the Limitation section)

Alerting Name (Please see the Limitation section)

Attended Call Transfer (Please see the Limitation section)

Early Attended Call Transfer (Please see the Limitation section)

CFU-Call Forwarding Unconditional (Please see the Limitation section)

CFB-Call Forwarding Busy (Please see the Limitation section)

CFNA-Call Forwarding No Answer (Please see the Limitation section)

COLP-Connected Line (Number) Identification Presentation (Please see the Limitation section)

COLR- Connected Line (Number) Identification Restriction (Please see the Limitation section)

CONP-Connected Name Identification Presentation (Please see the Limitation section)

CONR-Connected Name Identification Restriction (Please see the Limitation section)

Hold and Resume

Conference Call (Please see the Limitation section)

Features Not Supported

MWI- Message Waiting Indication (lamp ON, lamp OFF) across the SIP Trunk

Call Completion (Callback; Automatic Callback)

Blind Call Transfer

DTMF-relay

Configuration

Configuration Sequence and Tasks

Nortel Communication Server 1000 PBX Configuration Sequence and Tasks

Call Server Setup via SSC Card Console

1. LD 17 – Configure the IP D-channel (signaling channel) between the Call Server and the Signaling Server
2. LD 97 – Configure the Super-loop for the Virtual Trunks
3. LD 14 – Configure the SIP Virtual Trunks to the Signaling Server
4. LD 14 – Configure the Virtual Gateway Trunks
5. LD 11 – Configure for the Virtual lines for the Nortel IP phone (i200x series)
6. LD 16 – Configure the SIP route
7. LD 86 – Configure the Route List Block for the Virtual Trunk route
8. LD 87 – Configure CDP steering codes
9. LD 21 – List Trunk Member

Signaling Server Setup via the Nortel Element Manager

1. Configure the Zones
2. Configure a new IP Telephony Node summary
3. Configure the Node section
4. Configure the VGW and IP phone codec profile section
5. Configure the Quality of Service (QoS) section
6. Configure LAN Configuration section
7. Configure the SIP GW Setting section
8. Configure the Card section for the MC-32 VGMC card section
9. Configure the Signaling Server section

NRS (Network Routing Server)

1. Configure the System Wide Settings
2. Configure the NRS Server Settings
3. Configure a Service Domain
4. Configure a L1 Domain (UDP)
5. Configure a L0 Domain (CDP)
6. Configure a SIP gateway
7. Configure the Routing Entries

Cisco Unified CallManager:

1. Cisco Unified CallManager Software Version
2. Cisco Unified CallManager Group Configuration
3. Cisco Unified CallManager Default Device Pool Configuration
4. Cisco Unified CallManager Enterprise Parameters (Organization Top Level Domain) Configuration

5. Cisco Unified CallManager Media Resource Group Configuration
6. Cisco Unified CallManager Media Resource Group List Configuration
7. Cisco Unified CallManager SIP Phone Security Profile Configuration
8. Cisco Unified CallManager SIP Trunk Security Profile Configuration
9. Cisco Unified CallManager SCCP Security Profile Configuration
10. Cisco Unified CallManager SIP Profile for Nortel CS1000M PBX Configuration
11. Cisco Unified CallManager SIP Trunk Configuration to Nortel CS1000M PBX Configuration
12. Cisco Unified CallManager Phone Configuration List Configuration
13. Cisco Unified CallManager SCCP Phone Level Configuration
14. Cisco Unified CallManager SCCP Phone Directory Number (Ext 6003) Level Configuration
15. Cisco Unified CallManager SCCP Phone Directory Number (Ext 6004) Level Configuration
16. Cisco Unified CallManager SIP Phone Level Configuration
17. Cisco Unified CallManager SIP Phone Directory Number (Ext 6007) Level Configuration
18. Cisco Unified CallManager SIP Phone Directory Number (Ext 6008) Level Configuration
19. Cisco Unified CallManager Line Group for Unity Voice Mail Configuration
20. Cisco Unified CallManager Hunt List for Unity Voice Mail Configuration
21. Cisco Unified CallManager Hunt Pilot for Unity Voice Mail Configuration
22. Cisco Unified CallManager Voice Mail Profile Configuration
23. Cisco Unified CallManager Voice Mail Pilot Configuration
24. Cisco Unified CallManager Voice Mail Ports List Configuration (Lakers-VI)
25. Cisco Unified CallManager Voice Mail Ports Configuration (4 VM Ports)
26. Cisco Unified CallManager Voice Mail MWI ON and OFF Configuration
27. Cisco Unified CallManager Route Pattern (22XX) to Nortel PBX extensions Configuration
28. Cisco Unified CallManager Route Pattern (2500) to Nortel Call Pilot VM Pilot Number Configuration

Cisco Unity:

1. Cisco Unity Software Version
2. Cisco Unity Integration (CM-LAKERS)
3. Cisco Unity Subscriber (SCCP 6003) Configuration
4. Cisco Unity Subscriber (SIP 6007) Configurations
5. Cisco Unity Subscriber (Nortel ext. 2201) Configurations
6. Cisco Unity Subscriber (Nortel ext. 2213) Configurations

Configuration Menus and Commands

Nortel Communication Server 1000 (CS1000) Configuration

Call Server Setup:

1. LD 17 – Configure the IP D-channel (signaling channel) between the Call Server and the Signaling Server

```
>ld 22
PT2000

REQ  prt
TYPE adan dch 3

ADAN     DCH 3
  CTYP DCIP
  DES  IP_Trunk_DCH
  USR  ISLD
  ISLM 4000
  SSRC 1800
  OTBF 32
  NASA NO
  IFC  SL1
  CNEG 1
  RLS  ID  4
  RCAP ND2
```

```
MBGA NO
H323
  OVLR NO
  OVLS NO
```

2. LD 97 – Configure the Super-loop for the Virtual Trunks

```
>ld 97
SCSYS000
MEM AVAIL: (U/P): 2854769    USED U P: 182454 59352    TOT: 3096575
DISK RECS AVAIL: 1152
REQ  prt
TYPE supl
SUPL

SUPL  SUPT SLOT XPEC0   XPEC1

 000  STD  LEFT 01 0 1  -- - -
 004  STD  LEFT 02 0 1  -- - -
 008  STD  LEFT 03 0 1  -- - -
 012  STD  LEFT 04 0 1  -- - -
 016  STD  LEFT 05 0 1  -- - -
 032  STD  LEFT 06 0 3  -- - -
 036  STD  LEFT 07 0 3  -- - -
 040  STD  LEFT 08 0 3  -- - -
 044  STD  LEFT 10 0 3  -- - -
 048  STD  LEFT 09 0 3  -- - -
 064  STD  LEFT 11 0 3  -- - -
 068  STD  LEFT 12 0 3  -- - -
 072  STD  LEFT 13 0 3  -- - -
 096  VIRTUAL CARDS 61 - 64  81 - 84
 100  VIRTUAL CARDS 65 - 68  85 - 88
 128  STD  LEFT 32 0 1  33 2 3
 132  STD  LEFT 34 0 1  35 2 3
 136  STD  LEFT 36 0 1  37 2 3
 140  STD  LEFT 38 0 1  39 2 3
 144  STD  LEFT 40 0 1  41 2 3
 148  STD  LEFT 42 0 1  43 2 3
 152  STD  LEFT 44 0 1  45 2 3
 156  STD  LEFT 46 0 1  47 2 3
```

3. LD 14 – Configure the SIP Virtual Trunks to the Signaling Server (One trunk = one line connection)

```
>ld 20
REQ: prt
TYPE: tnb
TN   62 0 0 0                              → SIP Virtual trunk to Signaling Server
DATE
PAGE
DES

DES  SIP_IP_VTRK
TN   062 0 00 00  VIRTUAL
TYPE IPTI
CDEN 8D
CUST 0
XTRK VTRK
ZONE 000
LDOP BOP
TIMP 600
```

BIMP 600
AUTO_BIMP NO
TRK ANLG
NCOS 0
RTMB 10 1
CHID 1
TGAR 1
STRI/STRO IMM IMM
SUPN YES
AST NO
IAPG 0
CLS CTD DTN WTA LPR APN THFD
P10 NTC MID
TKID
AACR NO
DATE 25 FEB 2005

NACT

4. LD 14 – Configure the Virtual Gateway Trunks (up to 32 trunks per MC-32)

>ld 20
REQ: prt
TYPE: tnb
TN 3
CDEN
CUST
DATE
PAGE
DES

DES 192.168.1.2
TN 003 0 00 00 **➔ 1st channel define on the gateway**
TYPE VGW
CUST 0
XTRK MC32
ZONE 000

DES 192.168.1.2
TN 003 0 00 01 **➔ 2nd channel define on the gateway**
TYPE VGW
CUST 0
XTRK MC32
ZONE 000

5. LD 11 – Configure for the Virtual lines for the Nortel IP phones (phone A and phone B)

Phone A1 (i2004)

>ld 11
SL1000
MEM AVAIL: (U/P): 2854769 USED U P: 182454 59352 TOT: 3096575
DISK RECS AVAIL: 1152
DIGITAL TELEPHONES AVAIL: 6 USED: 2 TOT: 8
IP USERS AVAIL: 6 USED: 2 TOT: 8
BASIC IP USERS AVAIL: 7 USED: 1 TOT: 8
ACD AGENTS AVAIL: 10 USED: 0 TOT: 10
PCA AVAIL: 0 USED: 0 TOT: 0
AST AVAIL: 1 USED: 0 TOT: 1

```
TNS     AVAIL:  2405    USED:    95    TOT:  2500
DATA PORTS AVAIL:  2500    USED:     0    TOT:  2500

REQ: prt
TYPE: tnb

TN   61 0 0 02
DATE
PAGE
DES

DES  I2004
TN   061 0 00 02  VIRTUAL
TYPE I2004
CDEN 8D
CUST 0
ZONE 000
FDN  2500
TGAR 1
LDN  NO
NCOS 0
SGRP 0
RNPG 0
SCI  0
SSU
LNRS 16
XLST
CLS  CTD FBA WTA LPR MTD FNA HTA TDD HFD CRPD
    MWA LMPN RMMD SMWD AAD IMD XHD IRA NID OLD VCE DRG1
    POD DSX VMD CMSD SLKD CCSD SWD LNA CNDA
    CFTA SFD MRD DDV CNIA CDCA MSID DAPA BFED RCBD
    ICDD CDMD LLCN MCTD CLBD AUTU
    GPUD DPUD DNDA CFXA ARHD CLTD ASCD
    CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD
    AHD DDGA NAMA
    DRDD EXR0
    USRD ULAD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN
    VOLA VOUD CDMR
CPND_LANG ENG
RCO  0
EFD  2500
HUNT 2500
EHT  2500
LHK  0
LPK  1
PLEV 02
CSDN
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY  00 SCR 2201 0     MARP
       CPND
         NAME ZEUS_2201
         XPLN 8
         DISPLAY_FMT FIRST,LAST
    01
```

02
03 MIK
04 MCK
05
06
07
08
09
10
11
12
13
14
15
16 MWK 2500
17 TRN
18 AO6
19 CFW 16 2500
20 RGA
21 PRK
22 RNP
23
24 PRS
25 CHG
26 CPN
27
28
29
30
31
DATE 24 MAY 2006
NACT

Phone A2 (2616):

REQ: prt
TYPE: 2616

TN   1 0
DATE
PAGE
DES

DES CS101A
TN   001 0 00 00
TYPE 2616
CDEN 8D
CUST 0
AOM 0
FDN 6100
TGAR 1
LDN NO
NCOS 0
SGRP 0
RNPG 0
0 I
SSU
XLST

CLS CTD **FBA** WTA LPR MTD **FNA HTA** ADD HFD
MWA LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
POD DSX VMD CMSD SLKD CCSD SWD LND **CNDA**
CFTA SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
ICDD CDMD LLCN MCTD CLBD AUTU
GPUD DPUD **DNDA CFXA** ARHD CLTD ASCD
CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD AHD
DDGA NAMA
DRDD EXR0
USRD ULAD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN CDMR
CPND_LANG ENG
RCO 0
EFD 6100
HUNT 6100
EHT 6100
LHK 0
PLEV 02
CSDN
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 2213 0 MARP
CPND
NAME ZEUS_2213
XPLN 9
DISPLAY_FMT FIRST,LAST
01
02
03 CFW 4 6100
04 AO6
05 TRN
06
07
08
09
10
11
12
13 MIK
14 MCK
15 RGA
DATE 25 MAY 2006

NACT

Phone B1 (i2002):

REQ: prt
TYPE: tnb
TN 61 0 0 1
DATE
PAGE
DES

DES I2002

TN   061 0 00 01 VIRTUAL
TYPE I2002
CDEN 8D
CUST 0
ZONE 000
FDN 6100
TGAR 1
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
LNRS 16
XLST
CLS CTD **FBA** WTA LPR MTD **FNA HTA** TDD HFD CRPD
  MWA LMPN RMMD SMWD AAD IMD XHD IRA NID OLD VCE DRG1
  POD DSX VMD CMSD SLKD CCSD SWD LNA **CNDA**
  CFTA SFD MRD DDV **CNIA** CDCA MSID DAPA BFED RCBD
  ICDD CDMD LLCN MCTD CLBD AUTU
  GPUD DPUD **DNDA CFXA** ARHD CLTD ASCD
  CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD AHD
  DDGA NAMA
  DRDD EXR0
  USRD ULAD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN
  VOLA VOUD CDMR
CPND_LANG ENG
RCO 0
EFD 6100
HUNT 6100
EHT 6100
LHK 0
LPK 1
PLEV 02
CSDN
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 2201 0   MARP
    CPND
     NAME ZEUS_2201
     XPLN 8
     DISPLAY_FMT FIRST,LAST
  01
  02
  03 MIK
  04 MCK
  05
  06
  07
  08
  09
  10
  11
  12
  13

14
15
16 MWK 6100
17 TRN
18 AO6
19 CFW 16 6100
20 RGA
21 PRK
22 RNP
23
24 PRS
25 CHG
26 CPN
27
28
29
30
31
DATE 24 MAY 2006
NACT

Phone B2 (2616):

REQ PRT
TYPE: 2616
TN   1 1
DATE
PAGE
DES

DES CS101A
TN   001 0 00 01
TYPE 2616
CDEN 8D
CUST 0
AOM 0
FDN 2500
TGAR 1
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
XLST
CLS CTD **FBA** WTA LPR MTD FND **HTA** ADD HFD
 DRG1MWA LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE
 POD DSX VMD CMSD SLKD CCSD SWD LND **CNDA**
 CFTD SFD MRD DDV **CNIA** CDCA MSID DAPA BFED RCBD
 ICDD CDMD LLCN MCTD CLBD AUTU
 GPUD DPUD DNDA **CFXA** ARHD CLTD ASCD
 CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD AHD
 DDGA NAMA
 DRDD EXR0
 CDMRUSRD ULAD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN
CPND_LANG ENG
RCO 0
HUNT 2500
LHK 0

```
PLEV 02
CSDN
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY  00 SCR 2214 0     MARP
       CPND
         NAME ZEUS_2214
         XPLN 7
         DISPLAY_FMT FIRST,LAST
    01
    02
    03 CFW 4  2500
    04 AO6
    05 TRN
    06
    07
    08
    09
    10
    11
    12
    13
    14
    15 RGA
DATE  4 MAY 2006


NACT
```

6. LD 16 – Configure the SIP route

```
>ld 21
PT1000

REQ: prt
TYPE: rdb
CUST 0
ROUT 10

TYPE RDB
CUST 00
DMOD
ROUT 10
DES  SIP_TIE
TKTP TIE
NPID_TBL_NUM   0
ESN  NO
CNVT NO
SAT  NO
RCLS EXT
VTRK YES
ZONE 000
PCID SIP
CRID YES
NODE 101
```

DTRK NO
ISDN YES
MODE ISLD
DCH 3
IFC SL1
PNI 00001
NCNA YES
NCRD YES
TRO NO
FALT NO
CTYP UKWN
INAC NO
ISAR NO
DAPC NO
PTYP ATT
AUTO NO
DNIS NO
DCDR NO
ICOG IAO
SRCH LIN
TRMB YES
STEP
ACOD 2310
TCPP NO
TARG 01
CLEN 1
BILN NO
OABS
INST
ANTK
SIGO STD
STYP SDAT
ICIS YES
TIMR ICF 512
OGF 512
EOD 13952
DSI 34944
NRD 10112
DDL 70
ODT 4096
RGV 640
GRD 896
SFB 3
NBS 2048
NBL 4096

IENB 5

PAGE 002

TFD 0
VSS 0
VGD 6
SST 5 0
NEDC ORG
FEDC ORG
CPDC NO
DLTN NO
HOLD 02 02 40

SEIZ 02 02
SVFL 02 02
DRNG NO
CDR NO
VRAT NO
MUS NO
MANO NO
FRL 0 0
FRL 1 0
FRL 2 0
FRL 3 0
FRL 4 0
FRL 5 0
FRL 6 0
FRL 7 0
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TTBL 0
ATAN NO
OHTD NO
PLEV 2
ALRM NO
ART 0
SGRP 0
AACR NO

REQ:

7. LD 86 – Configure the Route List Block for the Virtual Trunk route

>ld 86
ESN000

MEM AVAIL: (U/P): 2819994 USED U P: 223389 69576 TOT: 3112959
DISK RECS AVAIL: 1152
REQ prt
CUST 0
FEAT rlb
RLI 10

RLI 10
ENTR 0
LTER NO
ROUT 10
TOD 0 ON 1 ON 2 ON 3 ON
4 ON 5 ON 6 ON 7 ON
VNS NO
SCNV NO
CNV NO
EXP NO
FRL 0
DMI 0
ISDM 0
FCI 0
FSNI 0
SBOC NRR
IDBB DBD
IOHQ NO

OHQ NO
CBQ NO

ISET 0
NALT 5
MFRL 0
OVLL 0

8. LD 87 – Configure CDP steering codes

>ld 87
ESN000

MEM AVAIL: (U/P): 2819994   USED U P: 223389 69576   TOT: 3112959
DISK RECS AVAIL: 1152
REQ prt
CUST 0
FEAT cdp
TYPE dsc
DSC
DSC 600 **➔ 600x Route to CCM extension, sent out via SIP route**
FLEN 0
DSP LSC
RLI 10 **➔ SIP Route List which point to Rout 10**
NPA
NXX
DSC 610 **➔ 610x Route to Unity VM send out via SIP route**
FLEN 0
DSP LSC
RLI 10 **➔ SIP Route List which point to Rout 10**
NPA
NXX

9. LD 21 – List Trunk Members

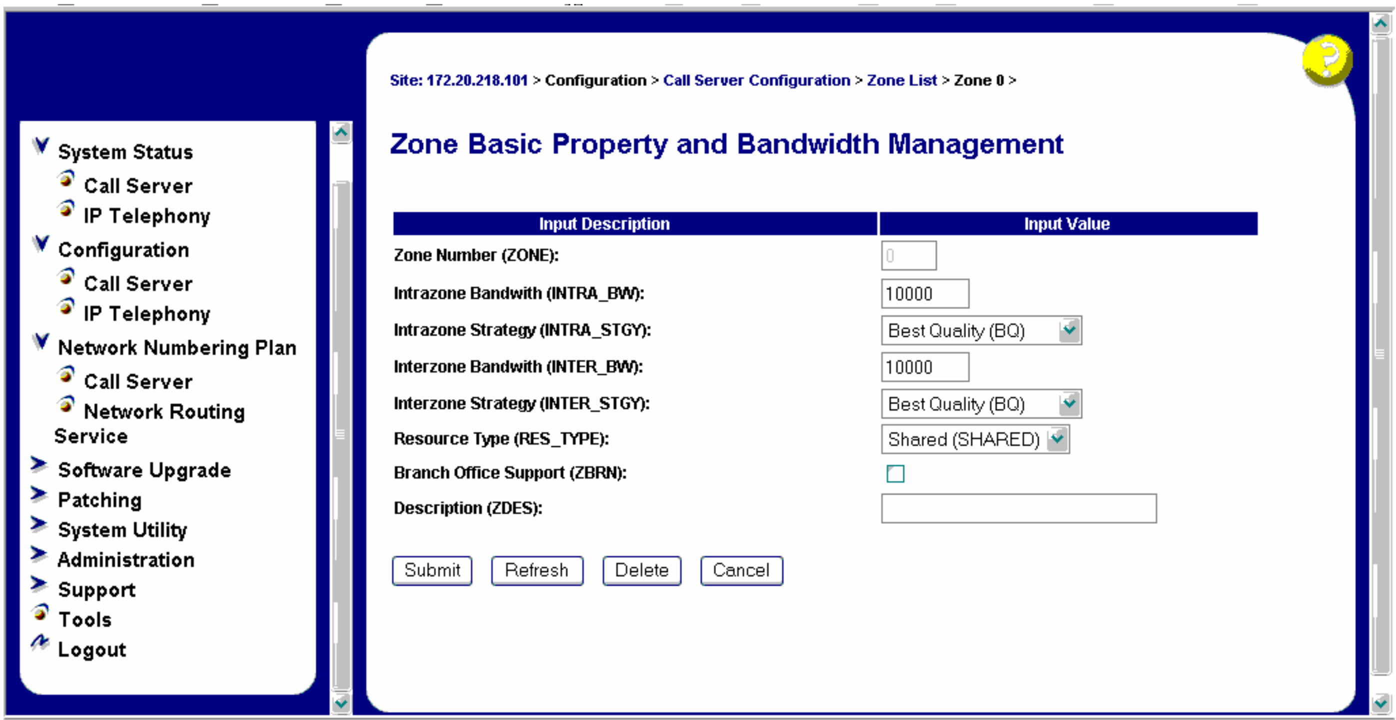
>Ld 21
PT1000

REQ: ltm
CUST 0
ROUT 10

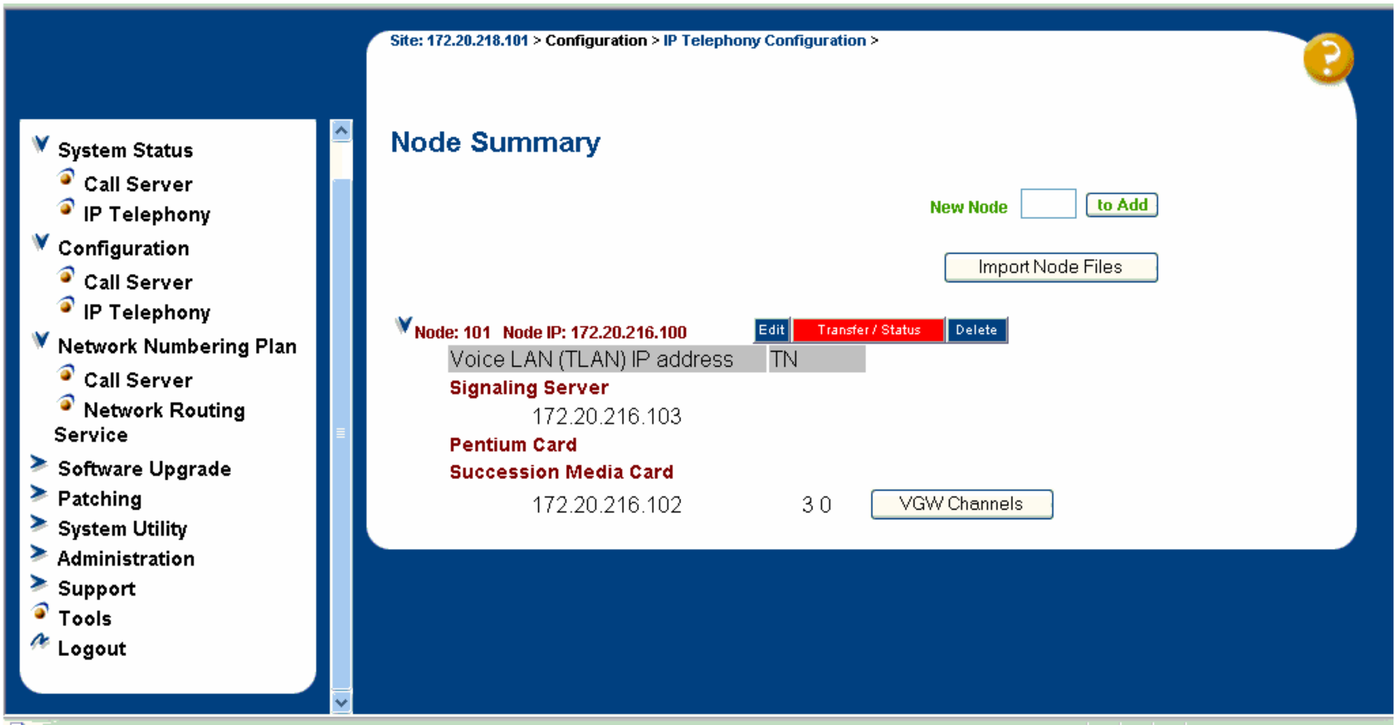
TYPE TLST
TKTP TIE
ROUT 10
DES SIP_TIE
TN 062 0 00 00 MBER 1 SIP_IP_VTRK
TN 062 0 00 01 MBER 2 SIP_IP_VTRK
TN 062 0 00 02 MBER 3 SIP_IP_VTRK
TN 062 0 00 03 MBER 4 SIP_IP_VTRK
TN 062 0 00 04 MBER 5 SIP_IP_VTRK
TN 062 0 00 05 MBER 6 SIP_IP_VTRK
TN 062 0 00 06 MBER 7 SIP_IP_VTRK
TN 062 0 00 07 MBER 8 SIP_IP_VTRK

Signaling Server Setup:

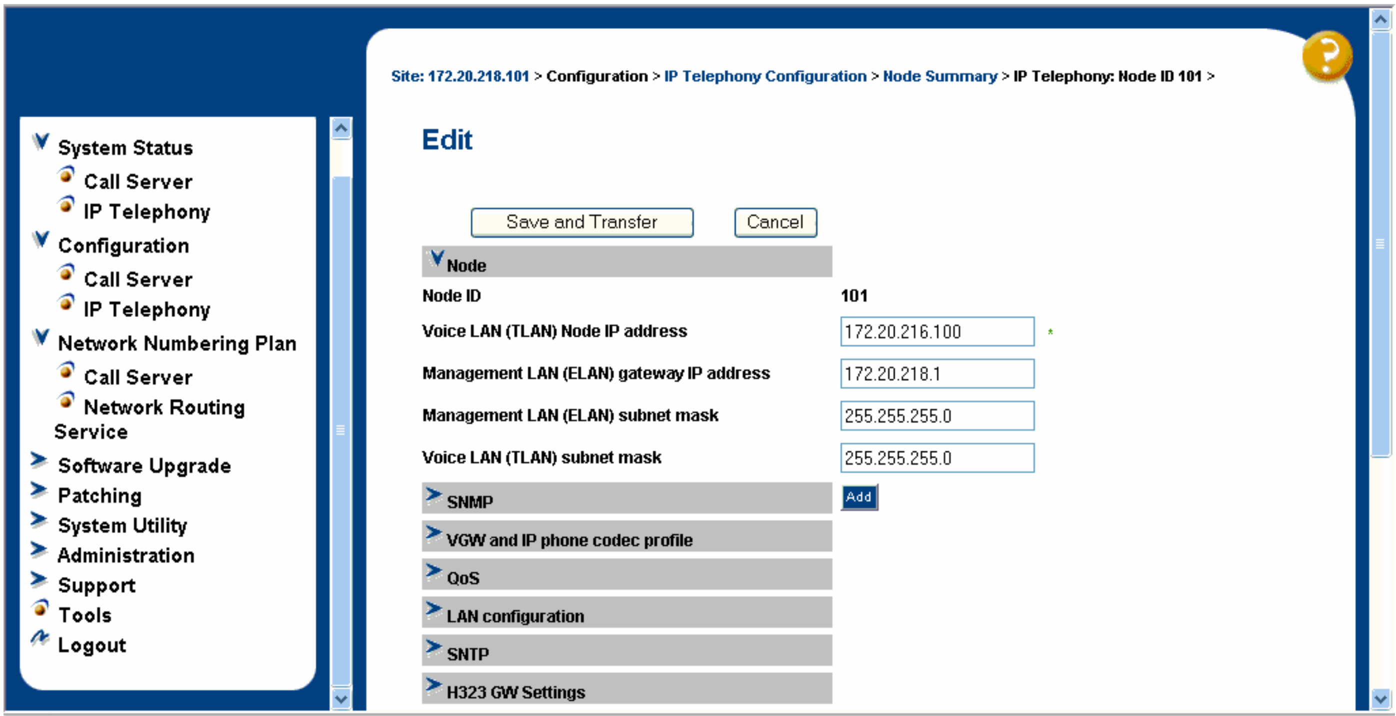
10. Configure the Zones



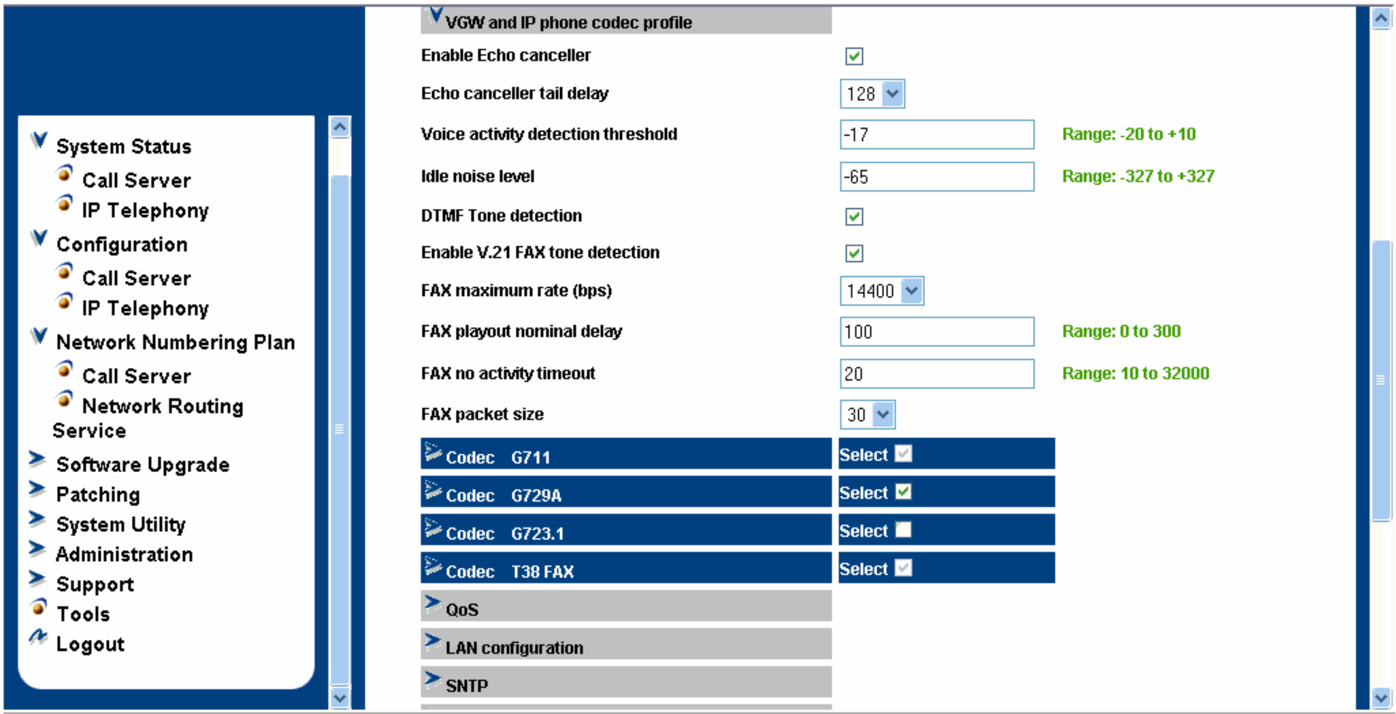
11. Configure a new IP Telephony Node summary


Site: 172.20.218.101 > Configuration > IP Telephony Configuration >
Node Summary
System Status
Call Server
IP Telephony
Configuration
Call Server
IP Telephony
Network Numbering Plan
Call Server
Network Routing Service
Software Upgrade
Patching
System Utility
Administration
Support
Tools
Logout
New Node
to Add
Import Node Files
Node: 101 Node IP: 172.20.216.100
Edit
Transfer / Status
Delete
Voice LAN (TLAN) IP address
TN
Signaling Server
172.20.216.103
Pentium Card
Succession Media Card
172.20.216.102
3 0
VGW Channels

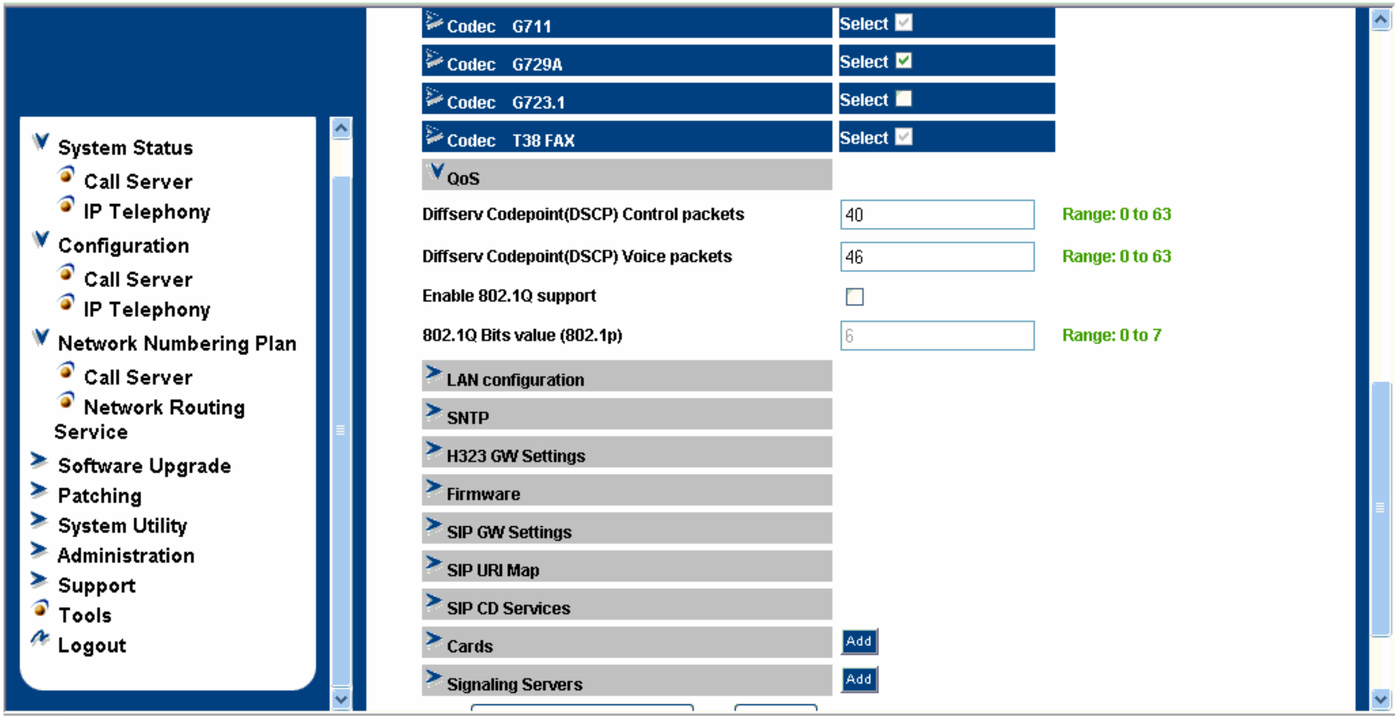
12. Configure the Node section



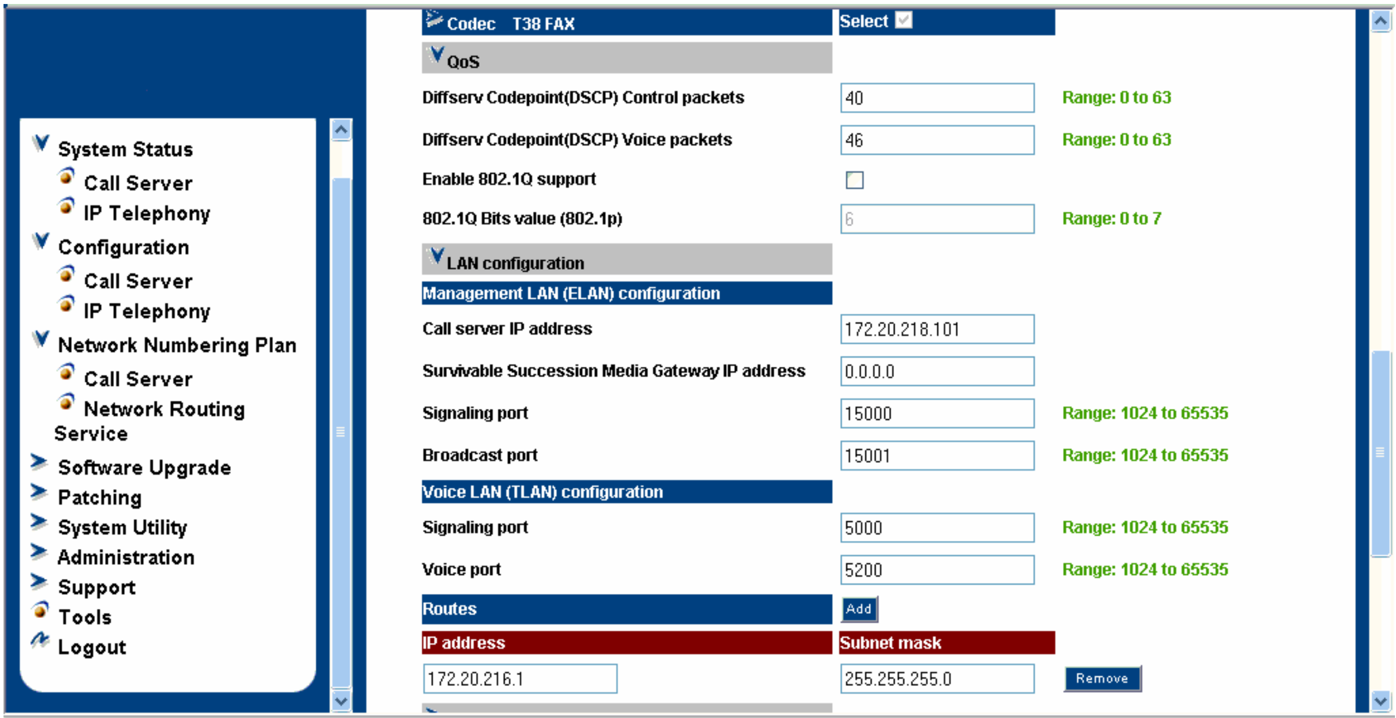
13. Configure the VGW and IP phone codec profile section



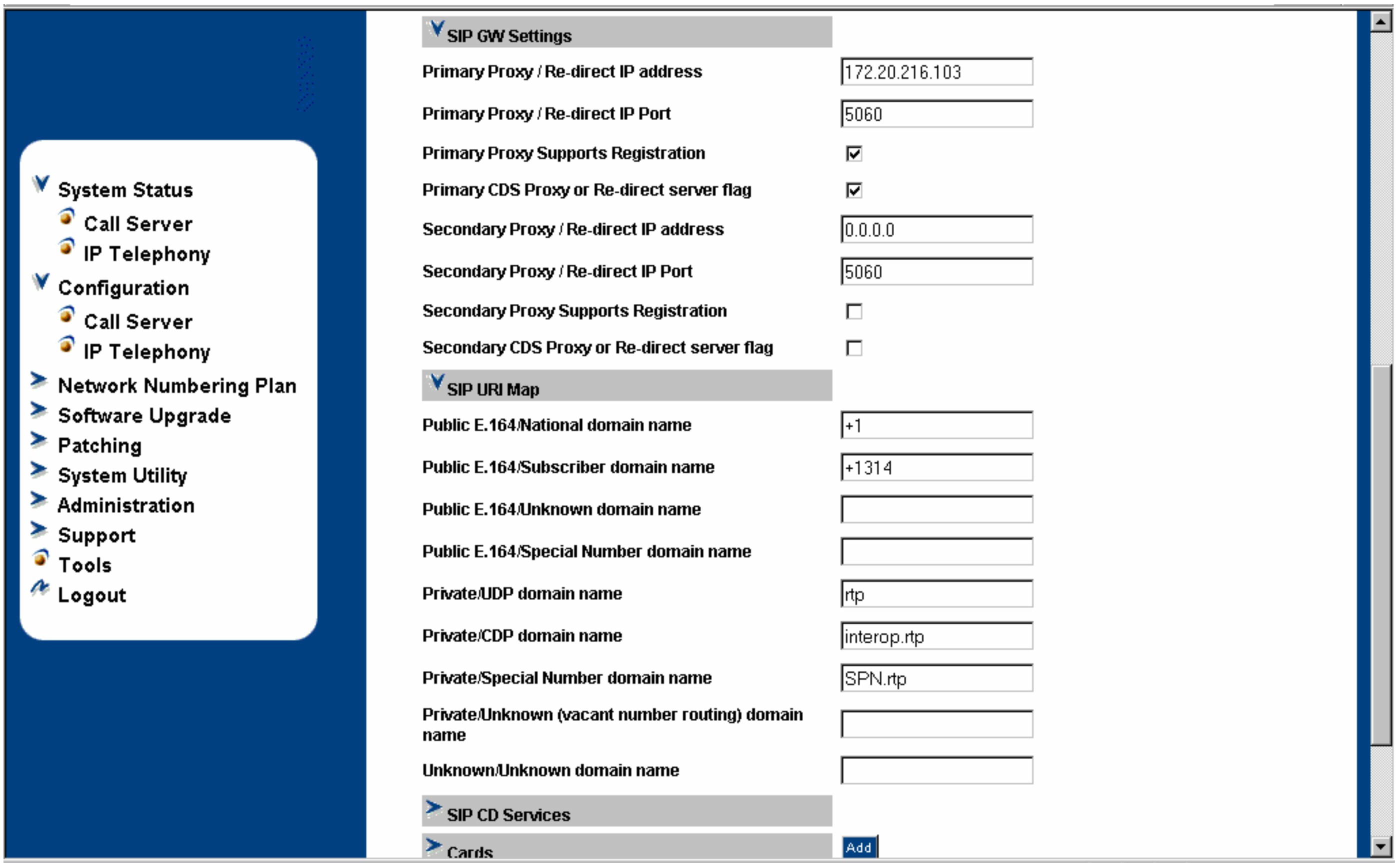
14. Configure the QoS section


System Status
Call Server
IP Telephony
Configuration
Call Server
IP Telephony
Network Numbering Plan
Call Server
Network Routing Service
Software Upgrade
Patching
System Utility
Administration
Support
Tools
Logout
Codec G711
Select
Codec G729A
Select
Codec G723.1
Select
Codec T38 FAX
Select
QoS
Diffserv Codepoint(DSCP) Control packets
40
Range: 0 to 63
Diffserv Codepoint(DSCP) Voice packets
46
Range: 0 to 63
Enable 802.1Q support
802.1Q Bits value (802.1p)
6
Range: 0 to 7
LAN configuration
SNTP
H323 GW Settings
Firmware
SIP GW Settings
SIP URI Map
SIP CD Services
Cards
Add
Signaling Servers
Add

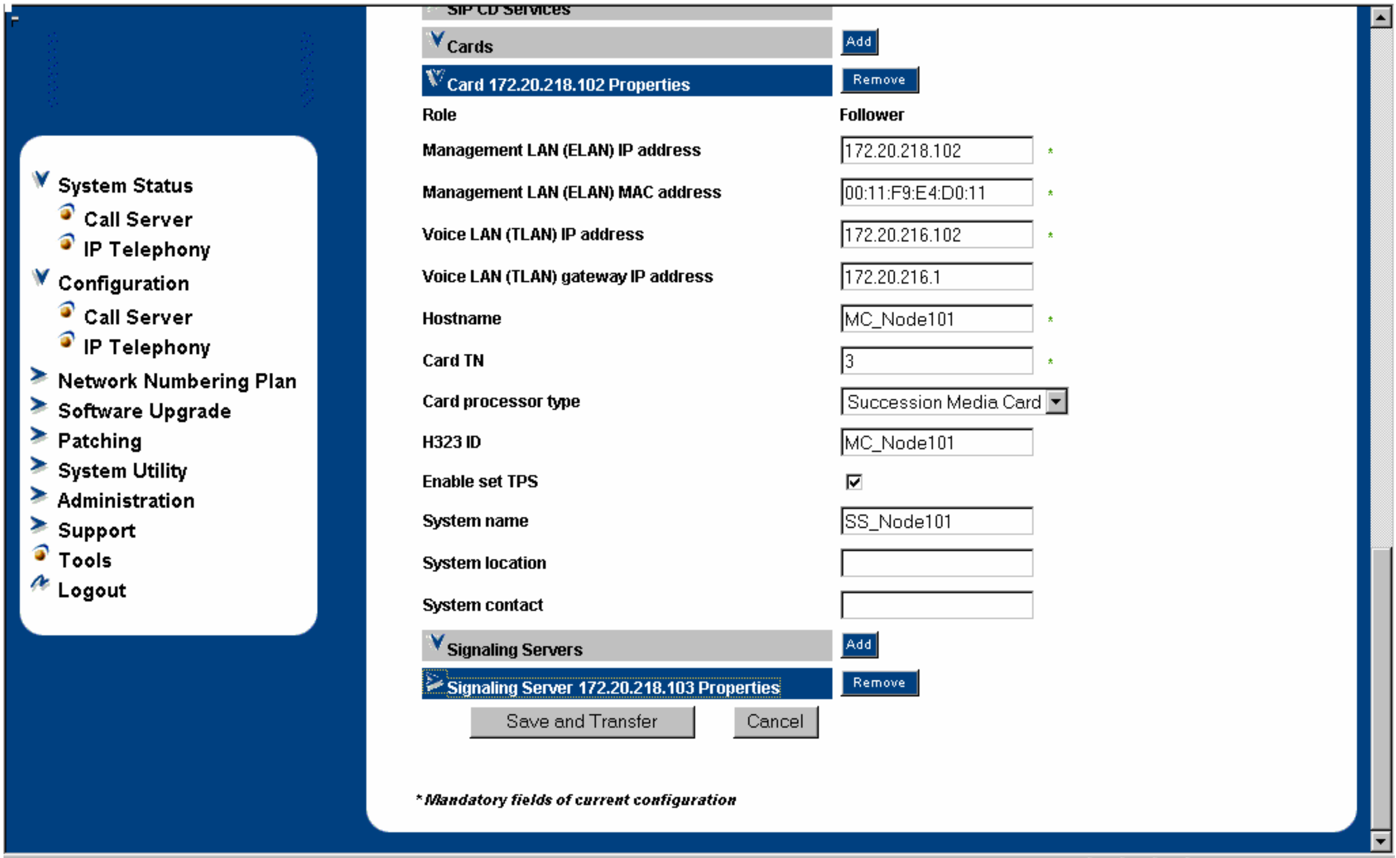
15. Configure LAN Configuration section



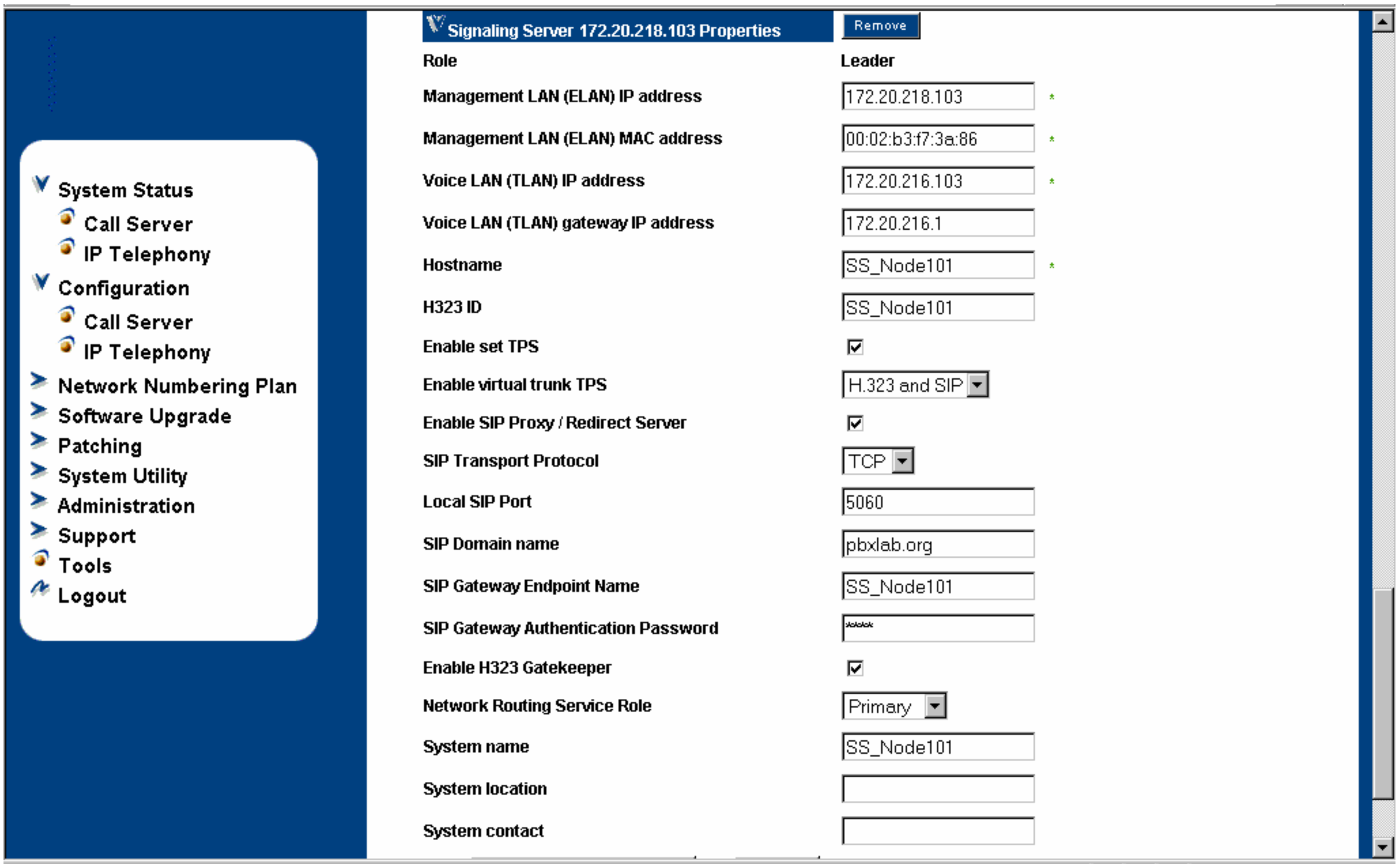
16. Configure the SIP GW Setting section



17. Configure the Card section for the MC-32 VGMC card section

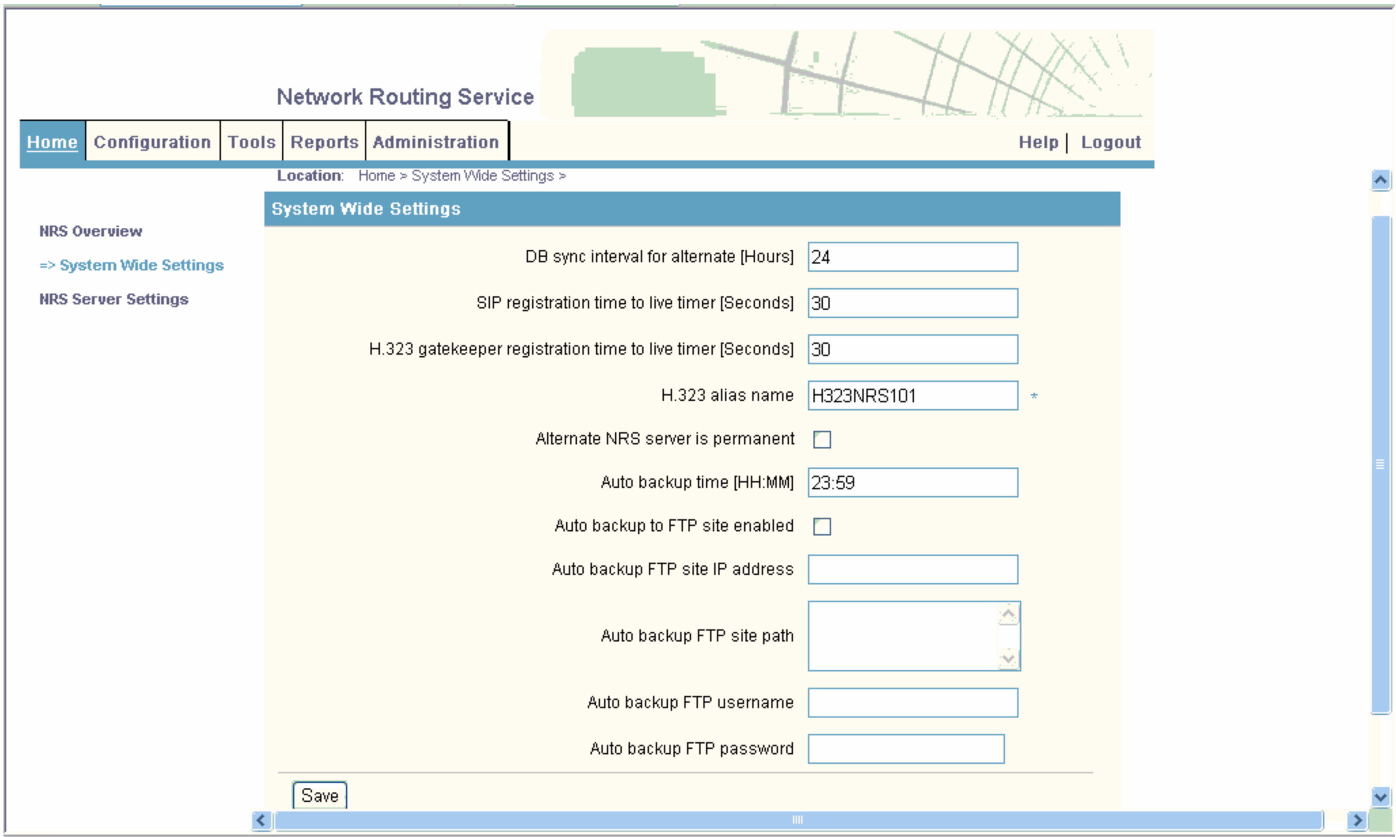


18. Configure the Signaling Server section

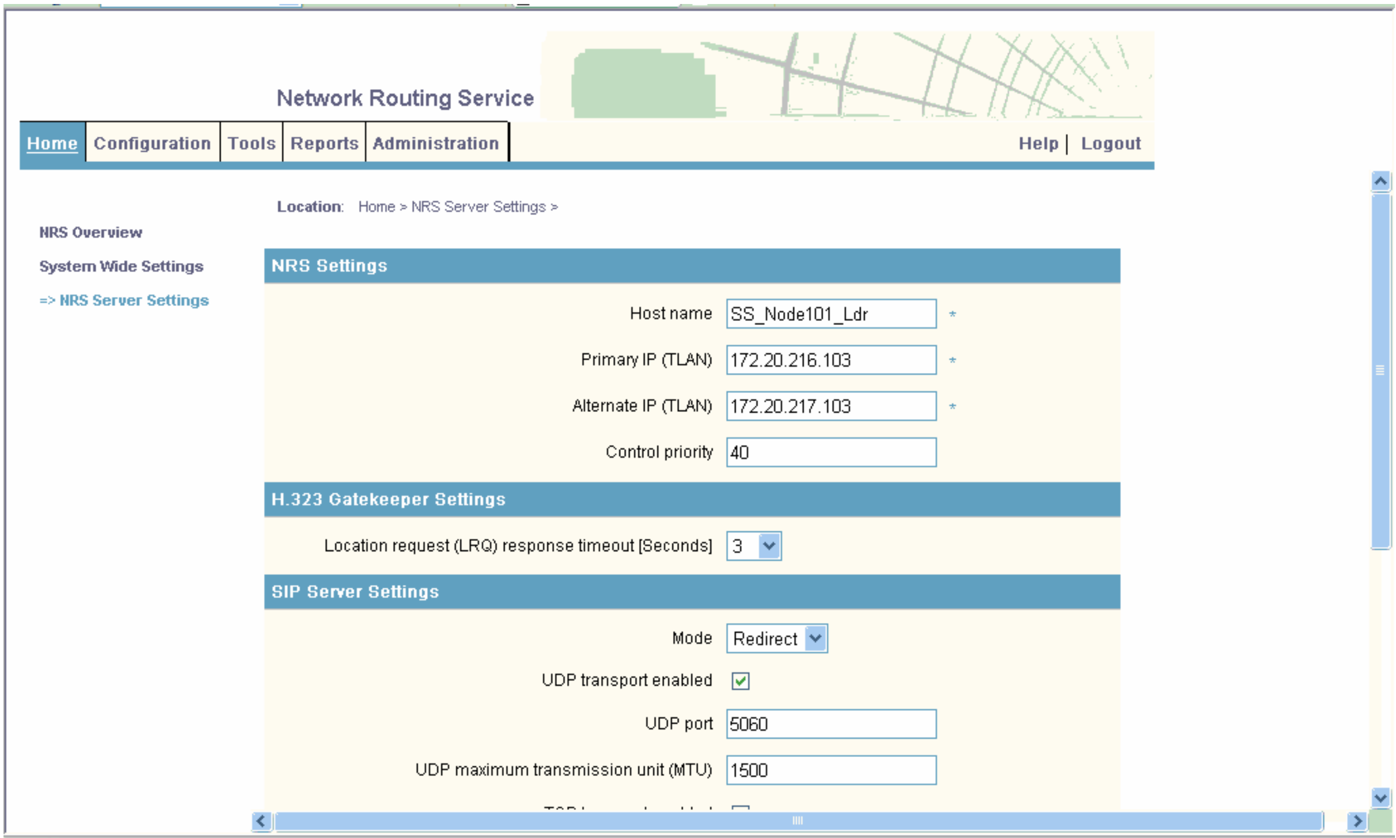


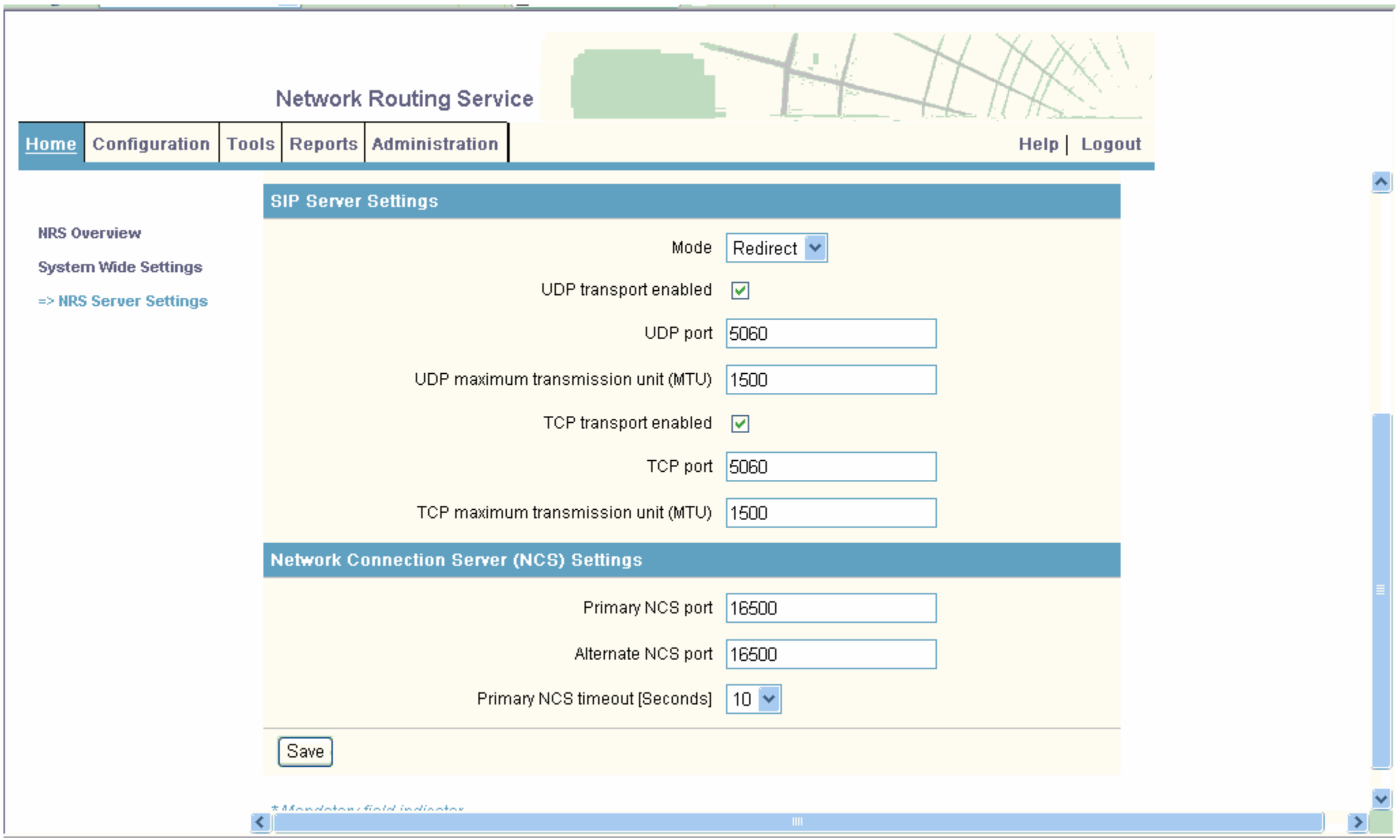
Network Routing Server Setup:

19. Configure the System Wide Settings

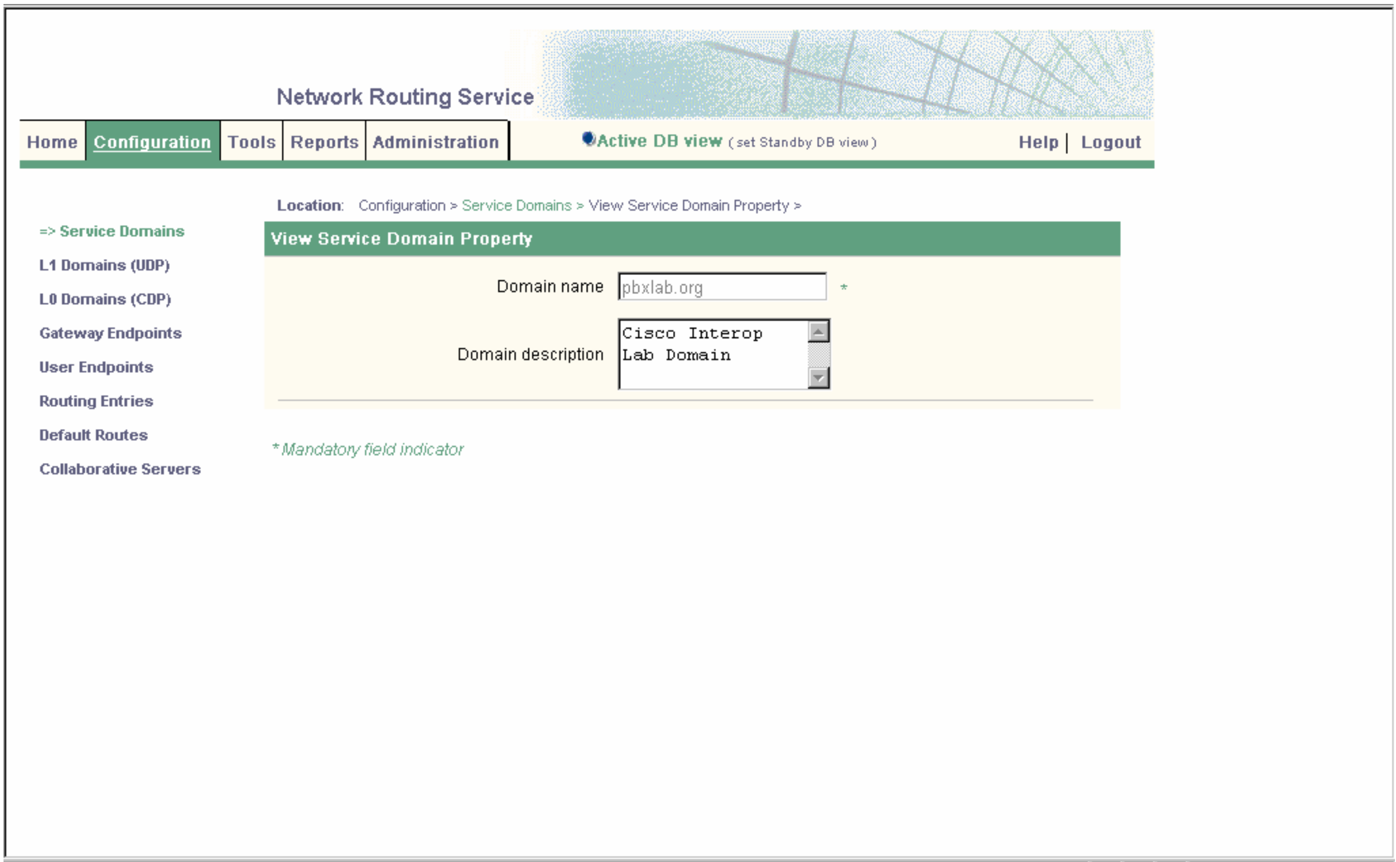


20. Configure the NRS Server Settings

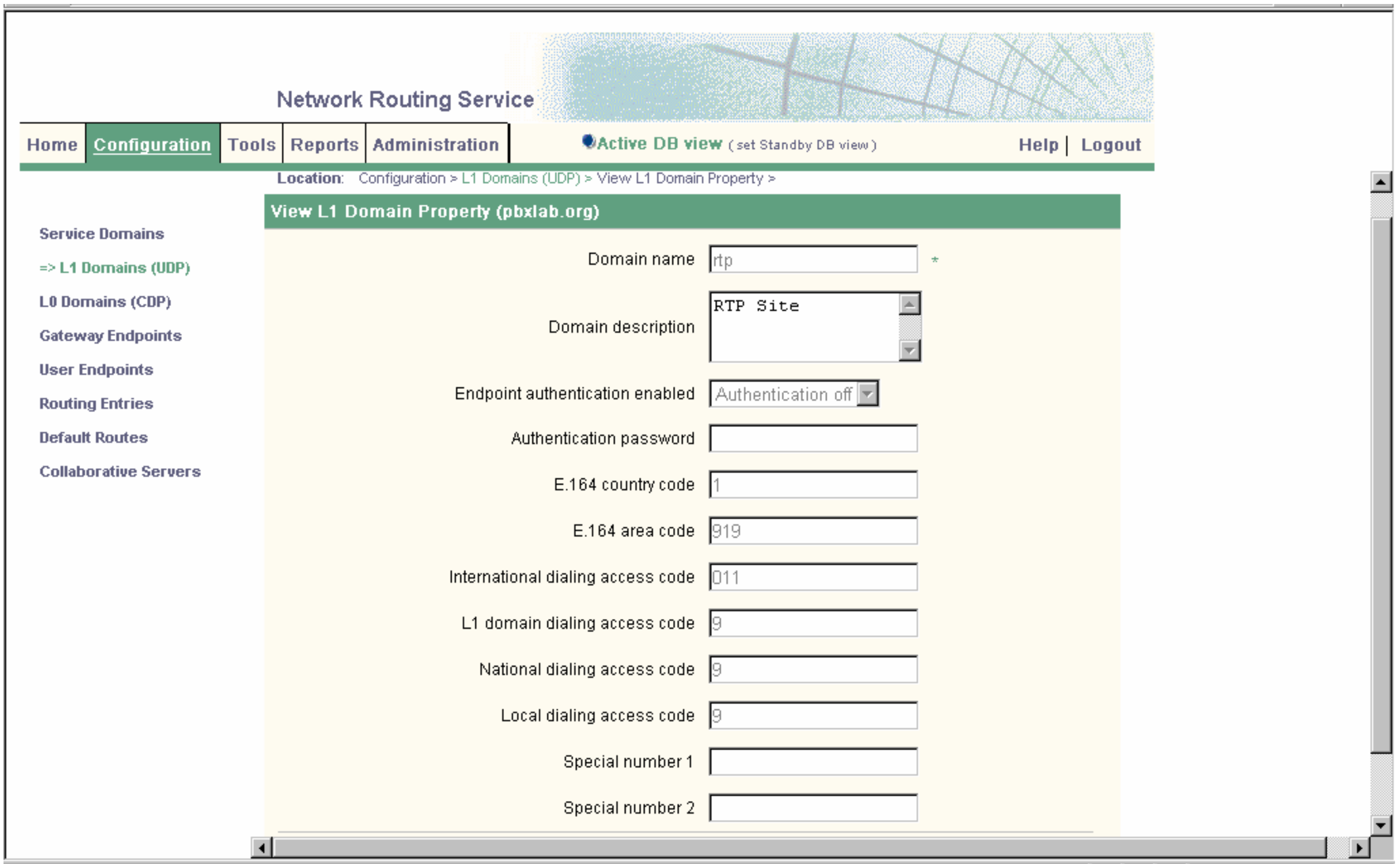

Network Routing Service
Home
Configuration
Tools
Reports
Administration
Help | Logout
Location: Home > NRS Server Settings >
NRS Overview
System Wide Settings
=> NRS Server Settings
NRS Settings
Host name SS_Node101_Ldr *
Primary IP (TLAN) 172.20.216.103 *
Alternate IP (TLAN) 172.20.217.103 *
Control priority 40
H.323 Gatekeeper Settings
Location request (LRQ) response timeout [Seconds] 3
SIP Server Settings
Mode Redirect
UDP transport enabled
UDP port 5060
UDP maximum transmission unit (MTU) 1500



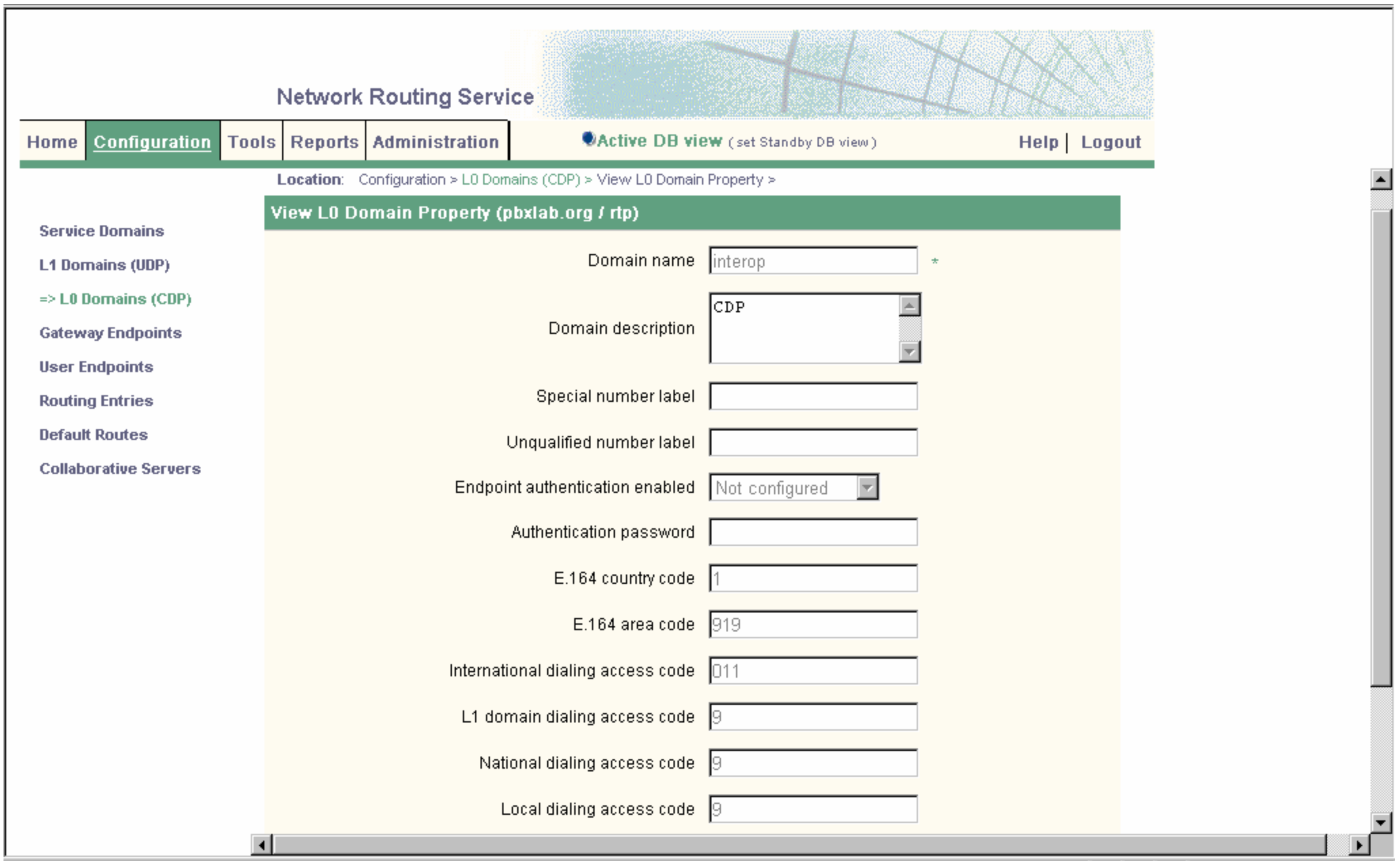
21. Configure a Service Domain


Network Routing Service
Home
Configuration
Tools
Reports
Administration
Active DB view (set Standby DB view)
Help
Logout
Location: Configuration > Service Domains > View Service Domain Property >
=> Service Domains
L1 Domains (UDP)
L0 Domains (CDP)
Gateway Endpoints
User Endpoints
Routing Entries
Default Routes
Collaborative Servers
View Service Domain Property
Domain name
pbxlab.org
*
Domain description
Cisco Interop
Lab Domain
* Mandatory field indicator

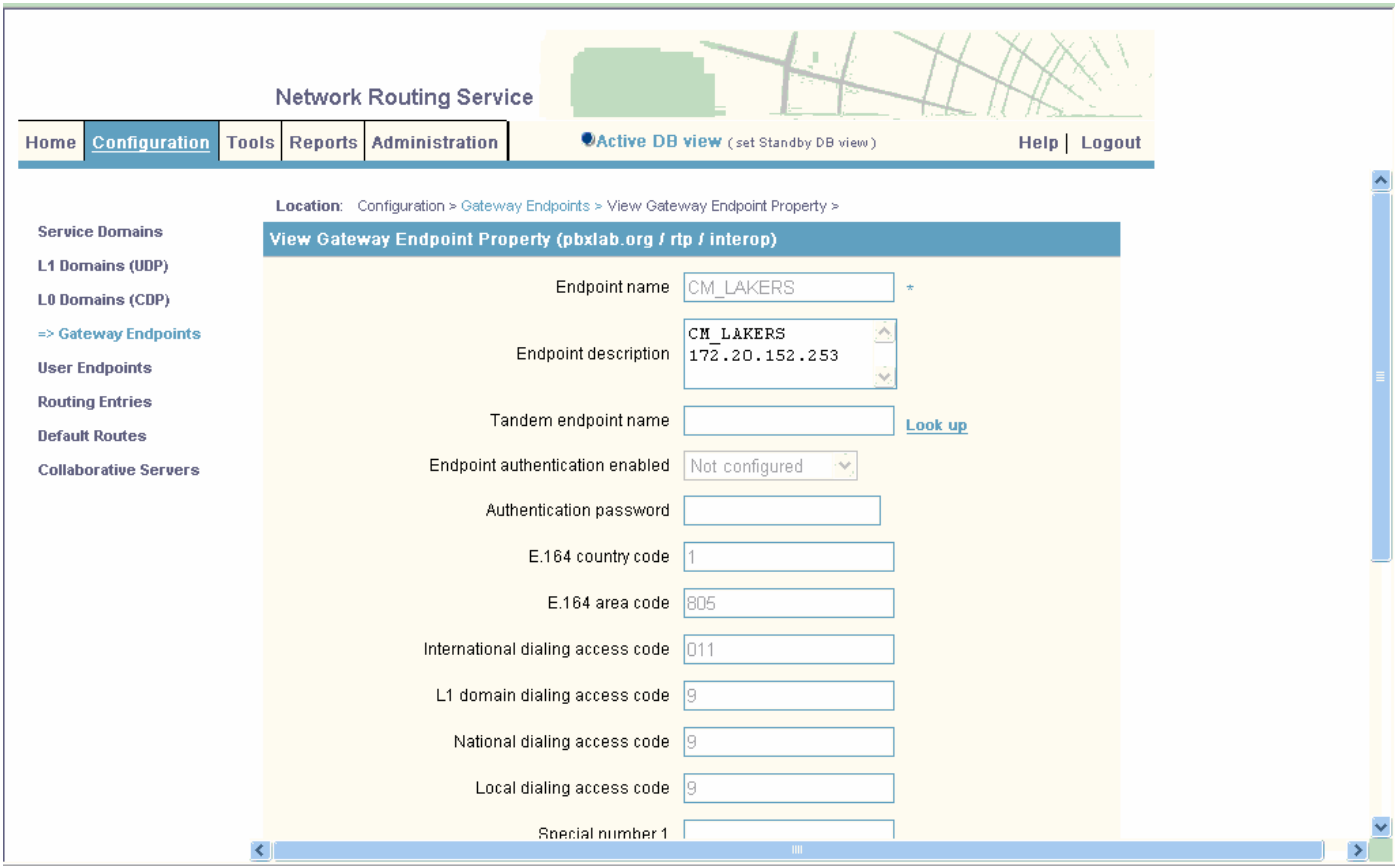
22. Configure a L1 Domain (UDP)

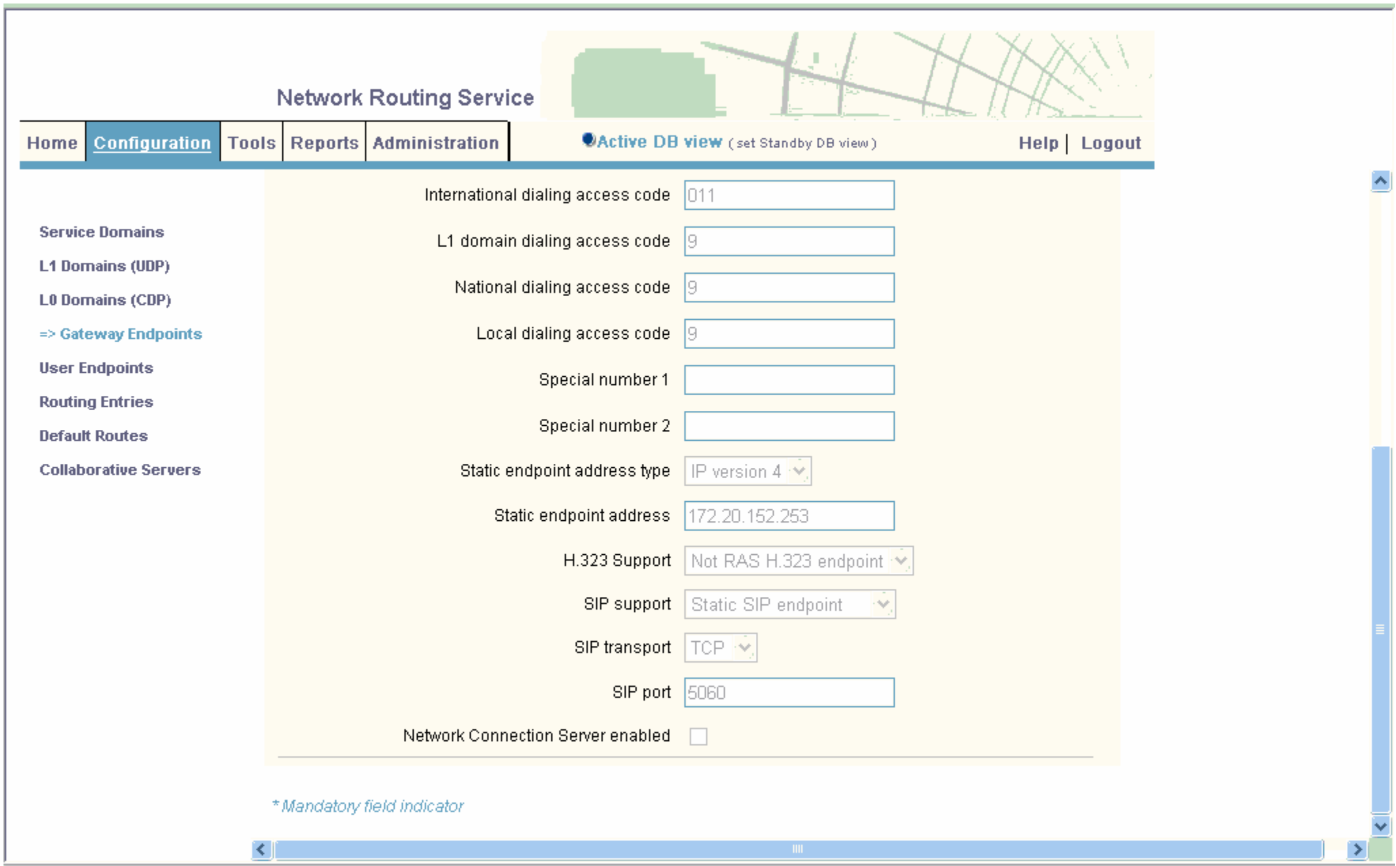


23. Configure a L0 Domain (CDP)

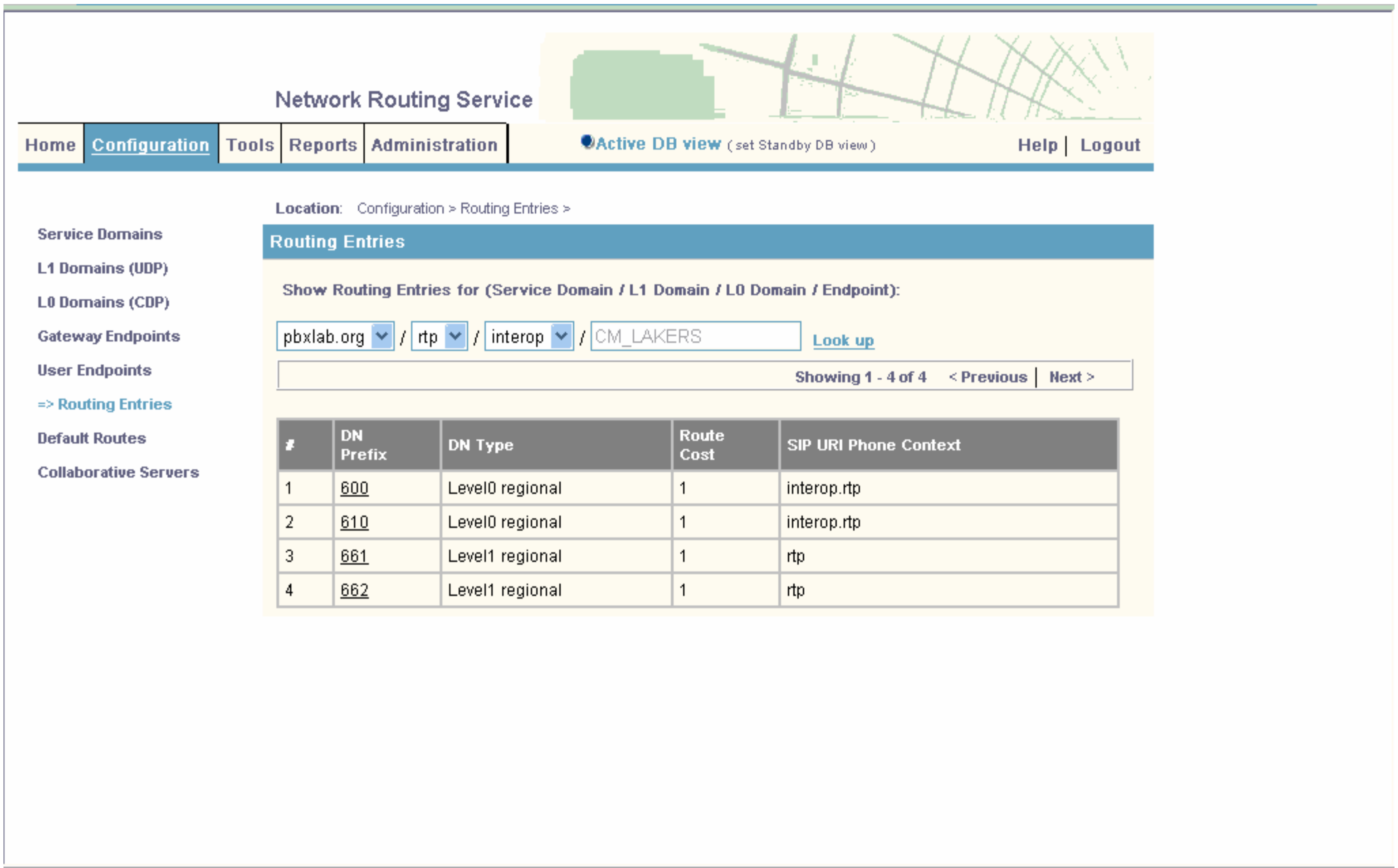


24. Configure a SIP gateway


Network Routing Service
Home
Configuration
Tools
Reports
Administration
Active DB view (set Standby DB view)
Help | Logout
Location: Configuration > Gateway Endpoints > View Gateway Endpoint Property >
Service Domains
L1 Domains (UDP)
L0 Domains (CDP)
=> Gateway Endpoints
User Endpoints
Routing Entries
Default Routes
Collaborative Servers
View Gateway Endpoint Property (pbxlab.org / rtp / interop)
Endpoint name CM_LAKERS *
Endpoint description CM_LAKERS 172.20.152.253
Tandem endpoint name
Look up
Endpoint authentication enabled Not configured
Authentication password
E.164 country code 1
E.164 area code 805
International dialing access code 011
L1 domain dialing access code 9
National dialing access code 9
Local dialing access code 9
Special number 1

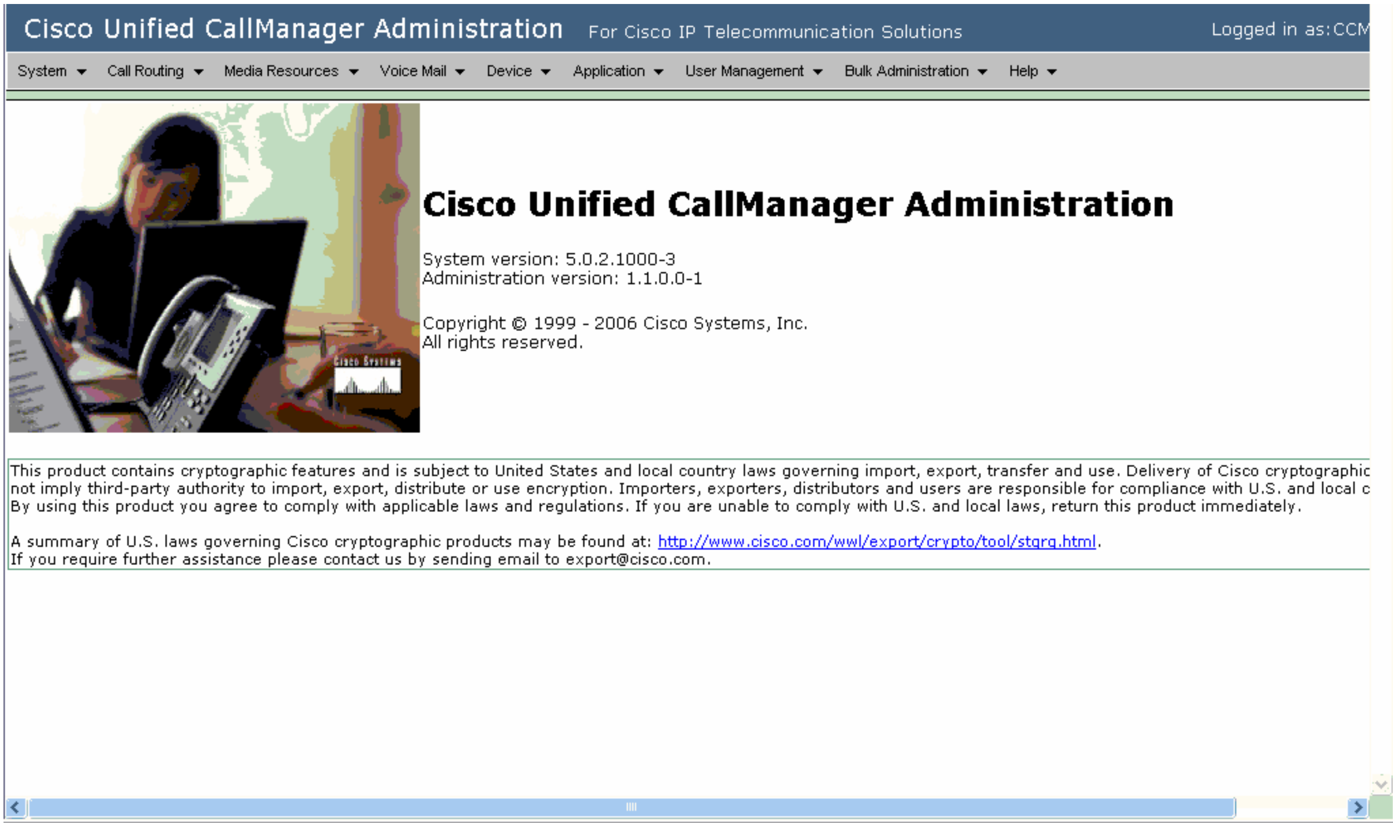

Network Routing Service
Home
Configuration
Tools
Reports
Administration
Active DB view (set Standby DB view)
Help
Logout
Service Domains
L1 Domains (UDP)
L0 Domains (CDP)
=> Gateway Endpoints
User Endpoints
Routing Entries
Default Routes
Collaborative Servers
International dialing access code
011
L1 domain dialing access code
9
National dialing access code
9
Local dialing access code
9
Special number 1
Special number 2
Static endpoint address type
IP version 4
Static endpoint address
172.20.152.253
H.323 Support
Not RAS H.323 endpoint
SIP support
Static SIP endpoint
SIP transport
TCP
SIP port
5060
Network Connection Server enabled
* Mandatory field indicator

25. Configure the Routing Entries

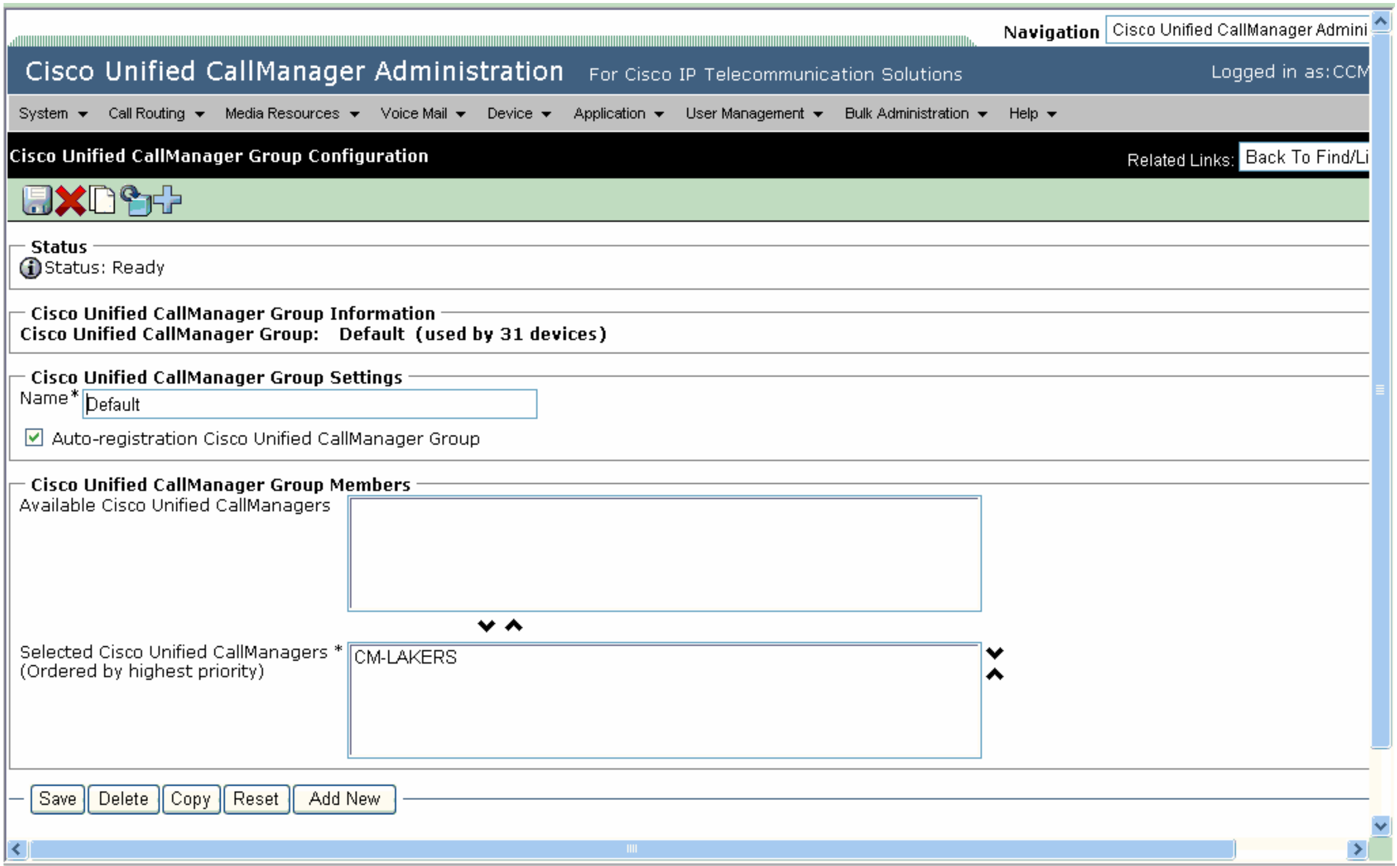


Cisco Unified CallManager Configuration

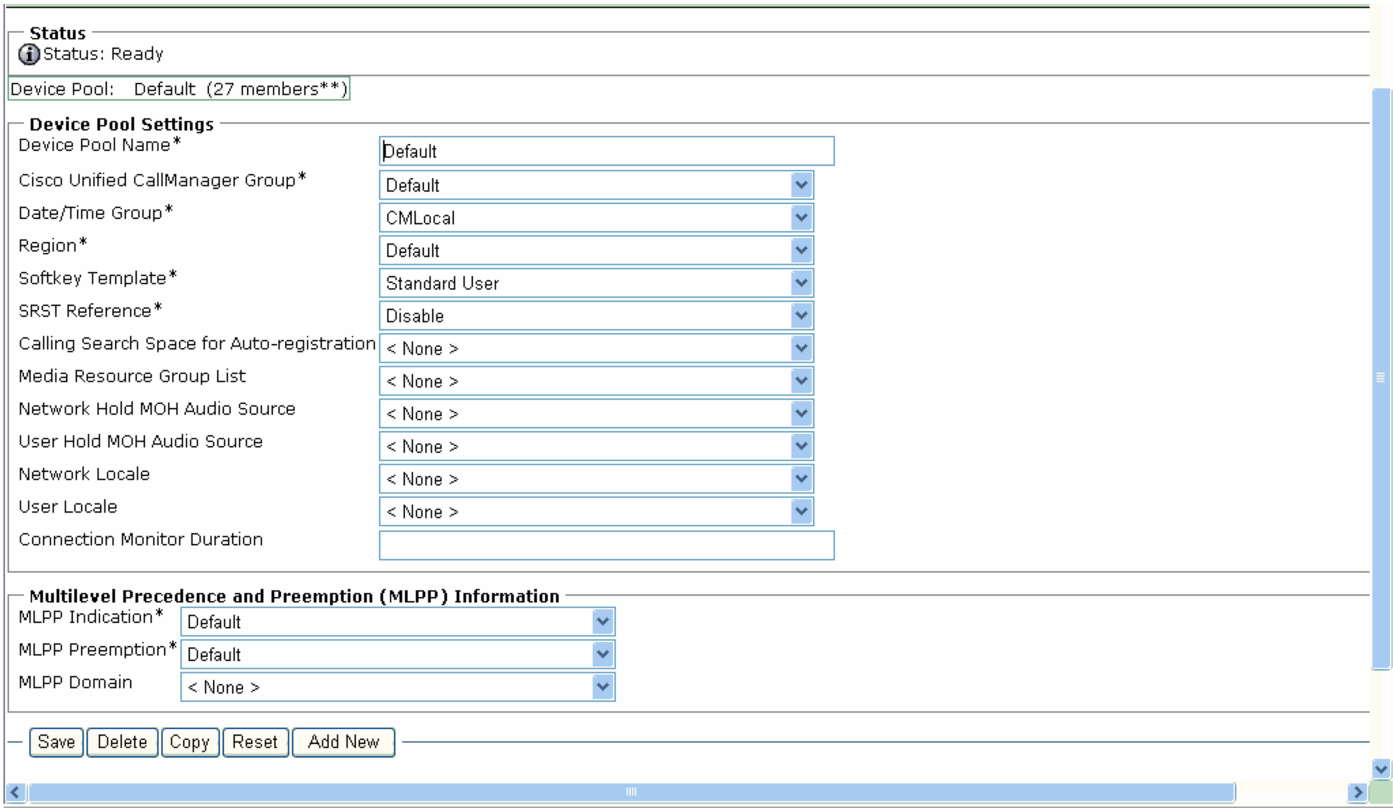
Cisco Unified CallManager Software Version



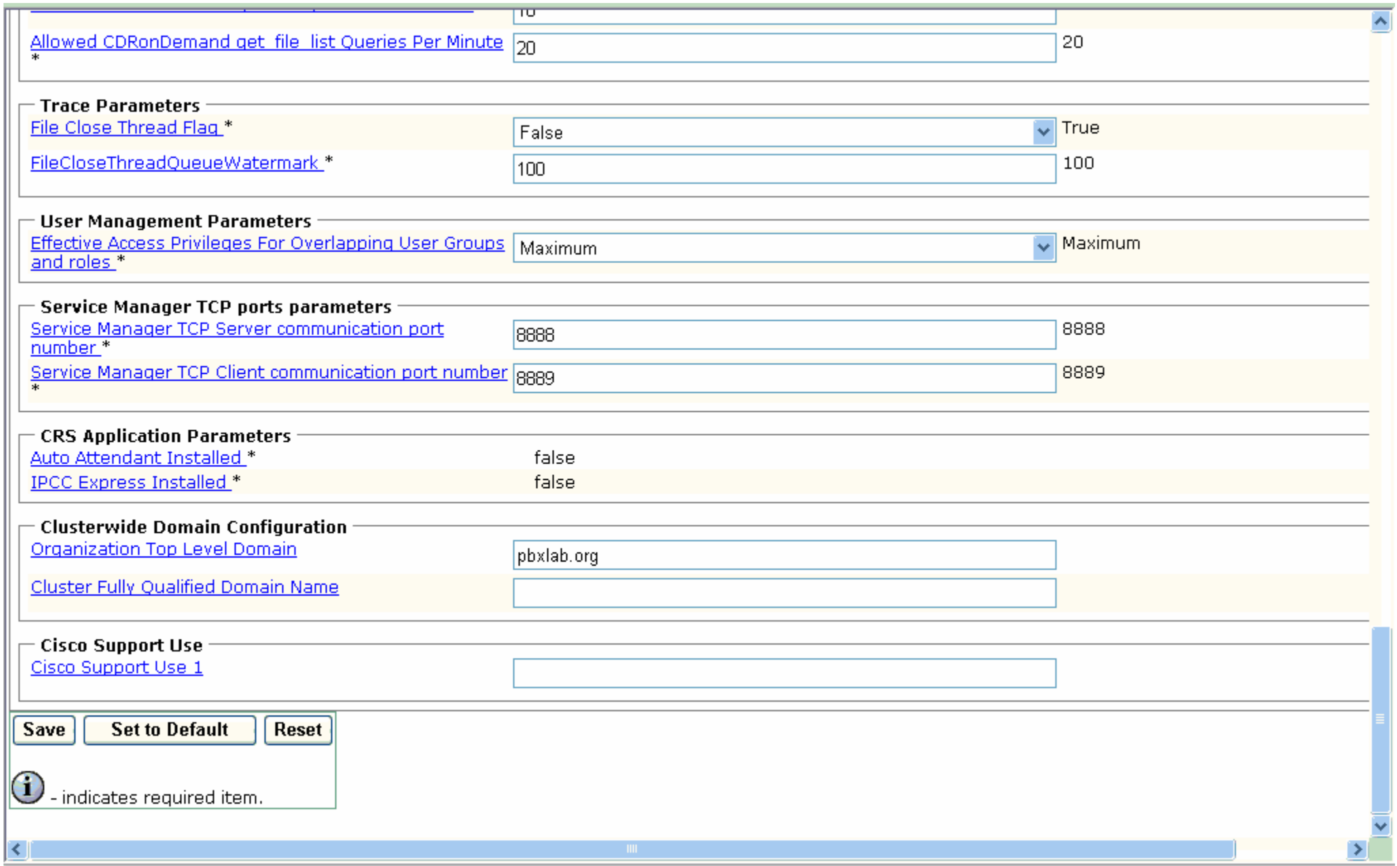
Cisco Unified CallManager Group Configuration



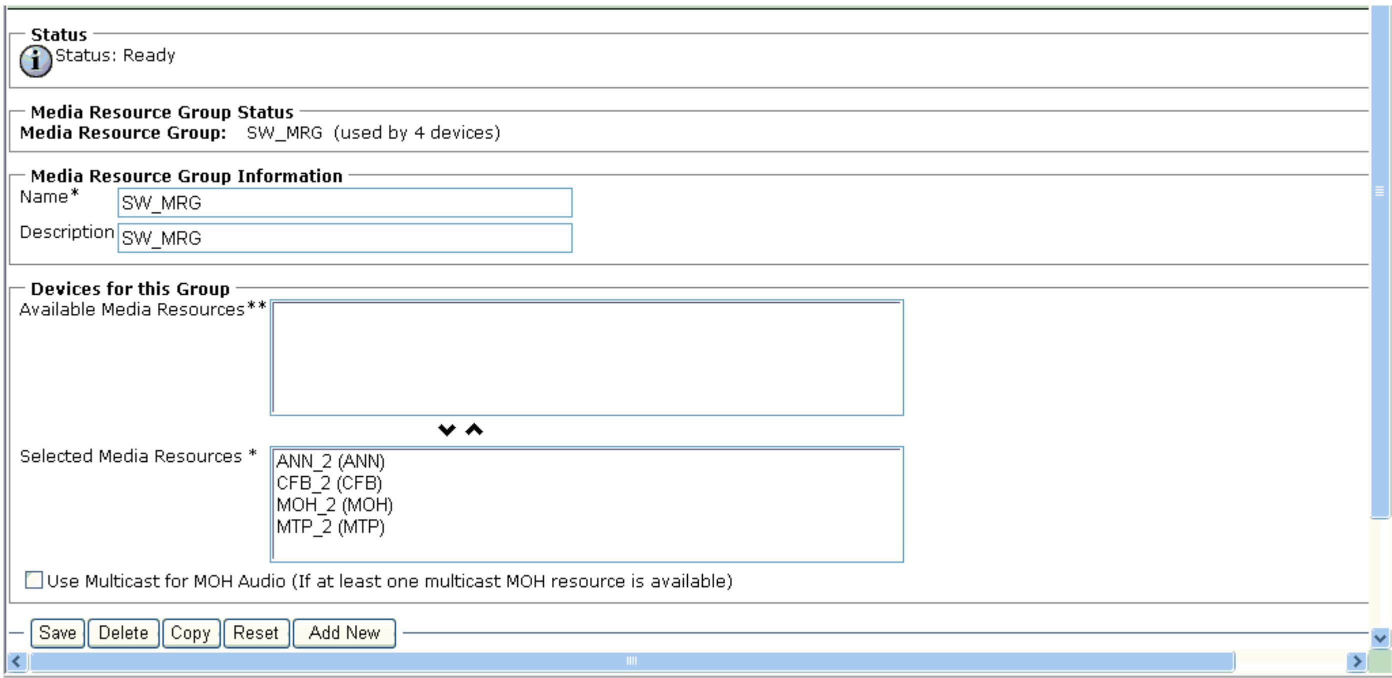
Cisco Unified CallManager Default Device Pool Configuration



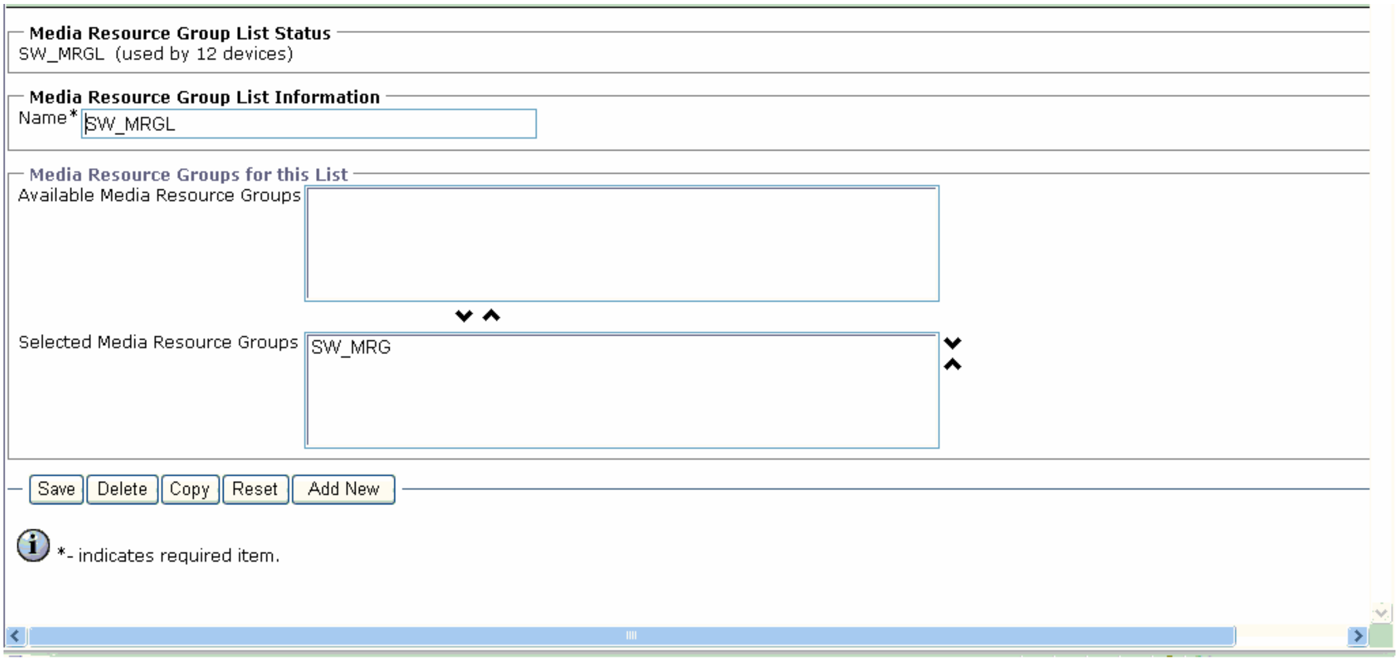
Cisco Unified CallManager Enterprise Parameters (Organization Top Level Domain) Configuration



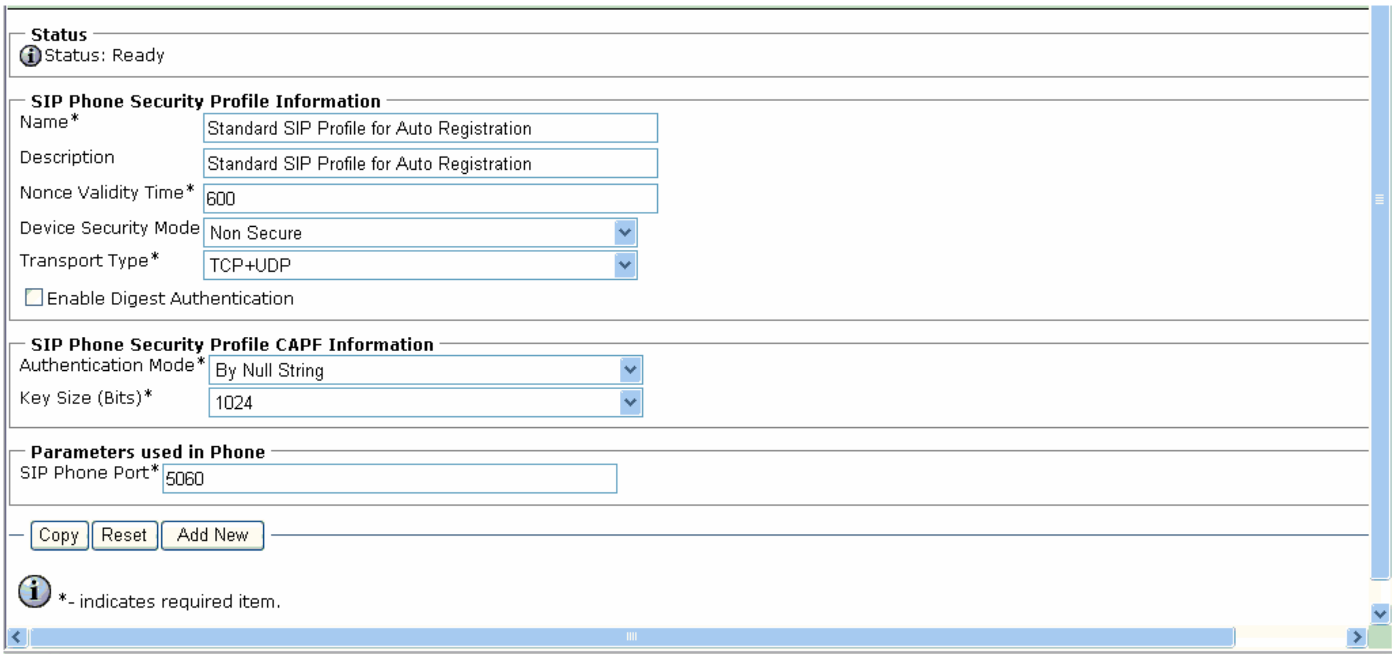
Cisco Unified CallManager Media Resource Group Configuration



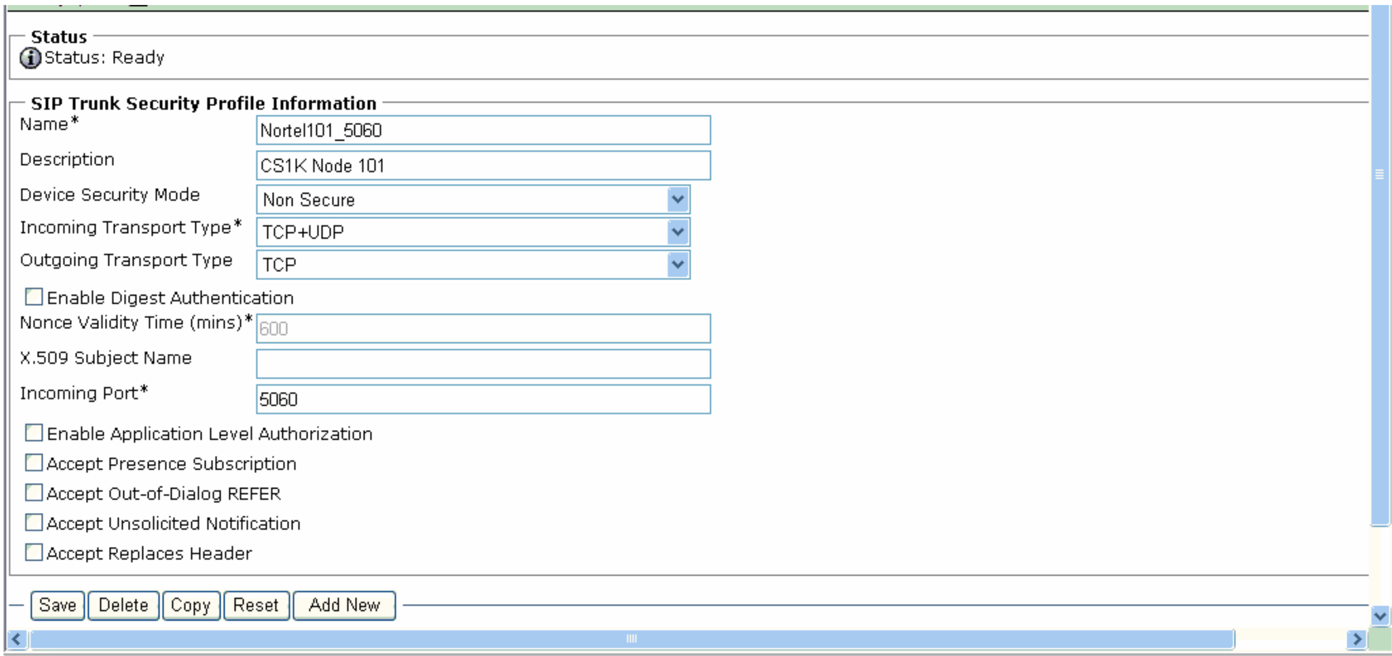
Cisco Unified CallManager Media Resource Group List Configuration



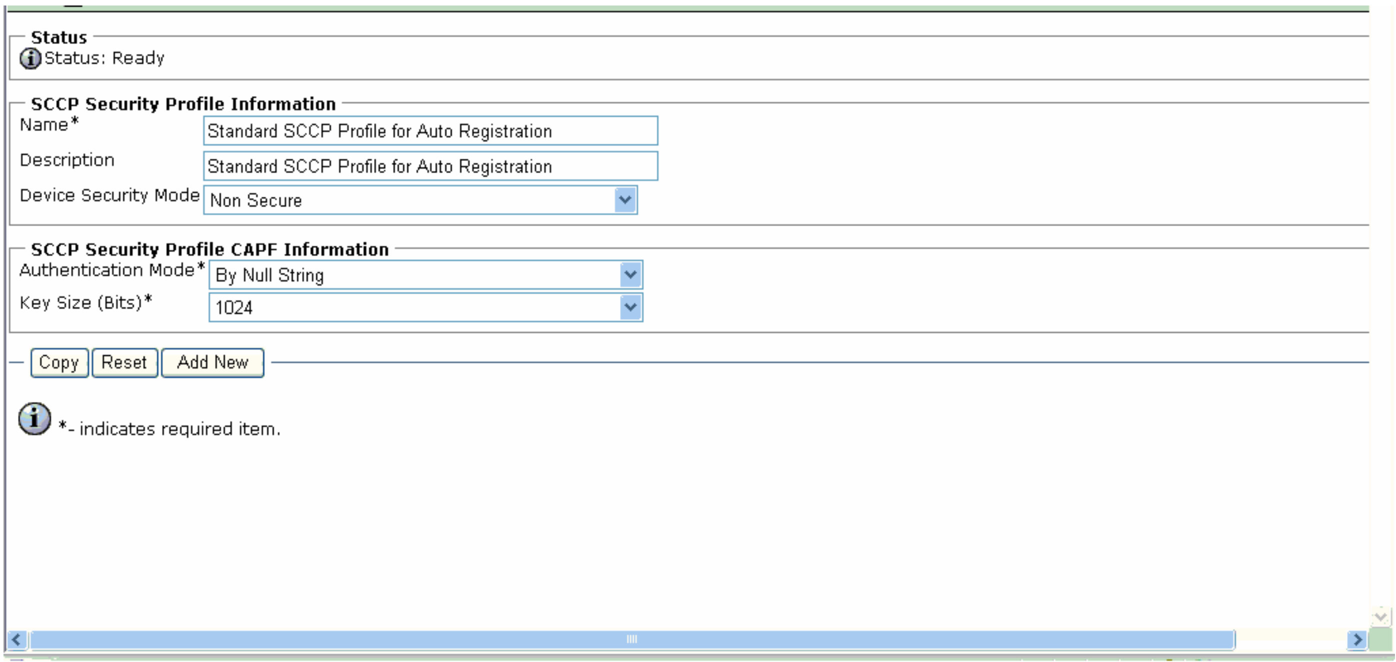
Cisco Unified CallManager SIP Phone Security Profile Configuration



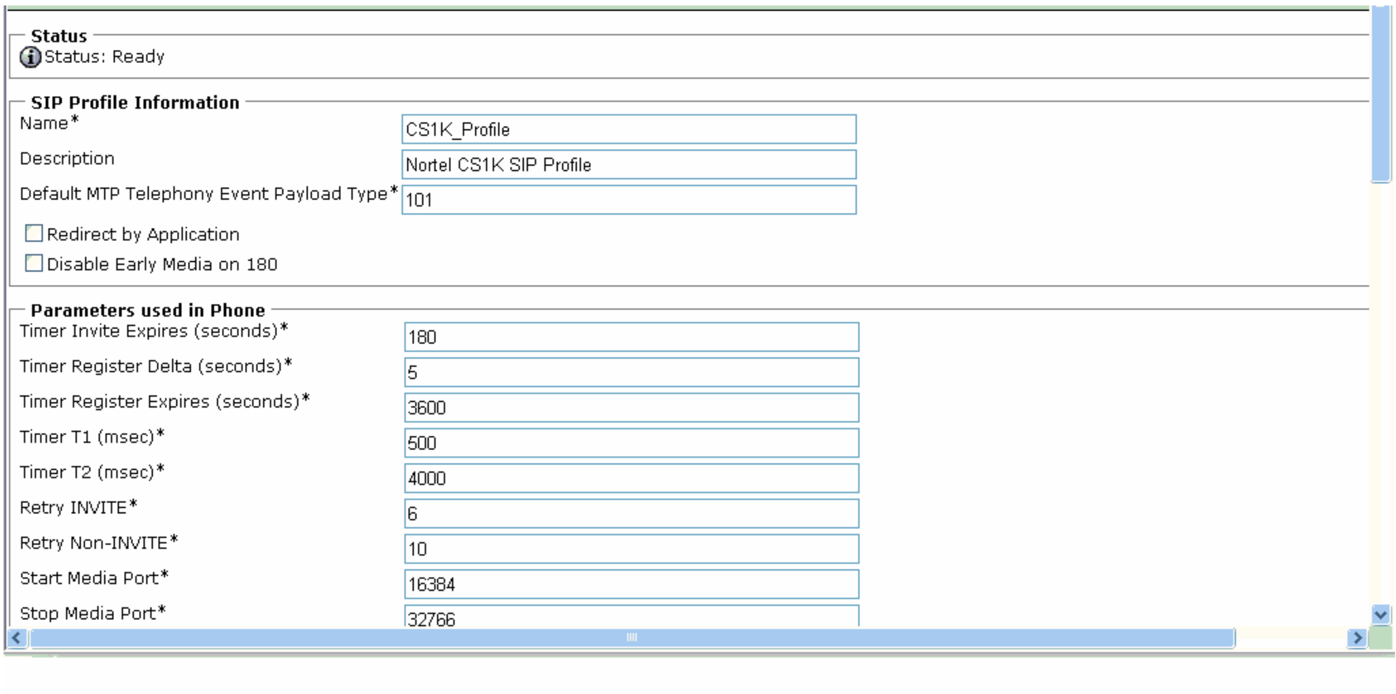
Cisco Unified CallManager SIP Trunk Security Profile Configuration

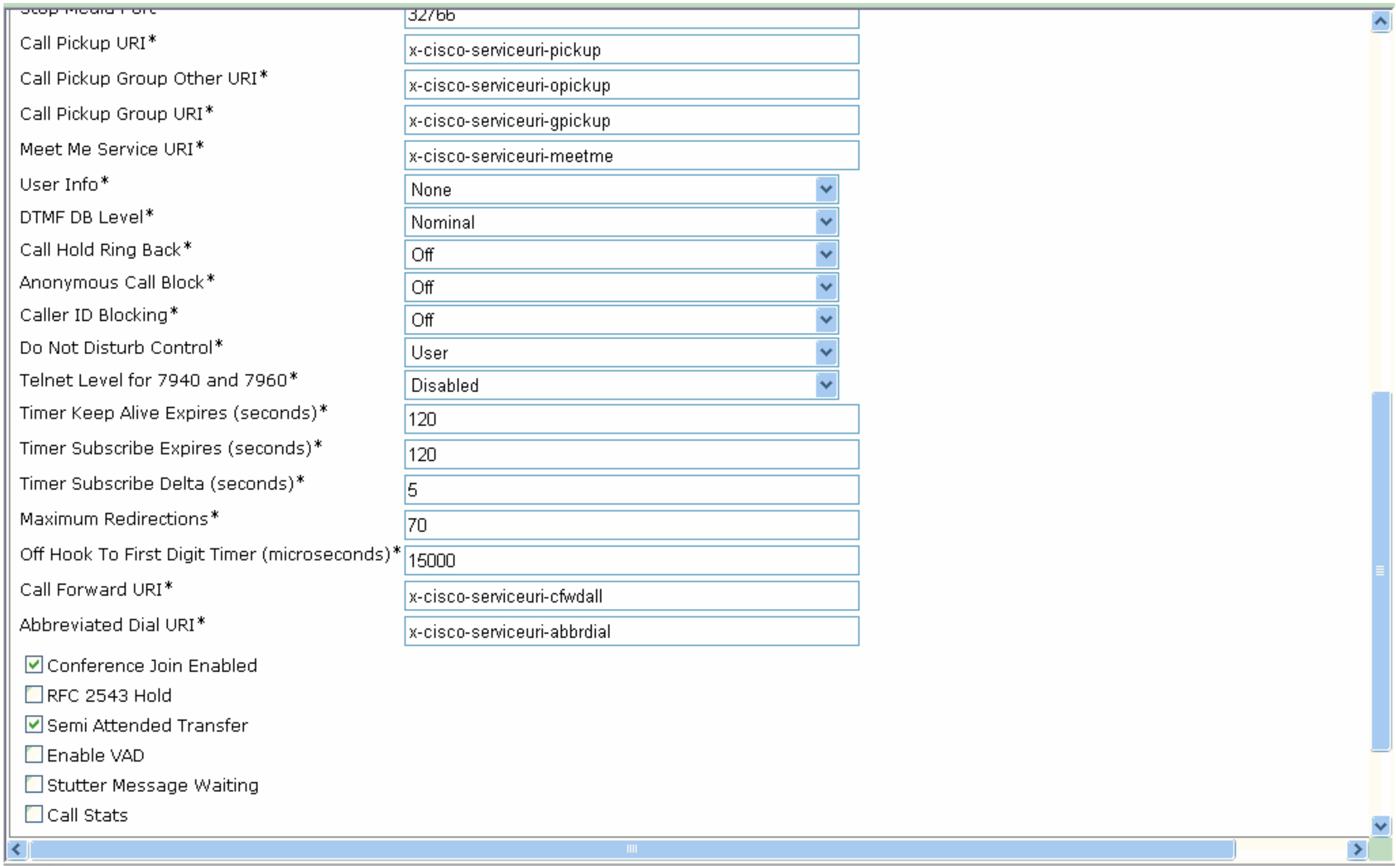


Cisco Unified CallManager SCCP Security Profile Configuration

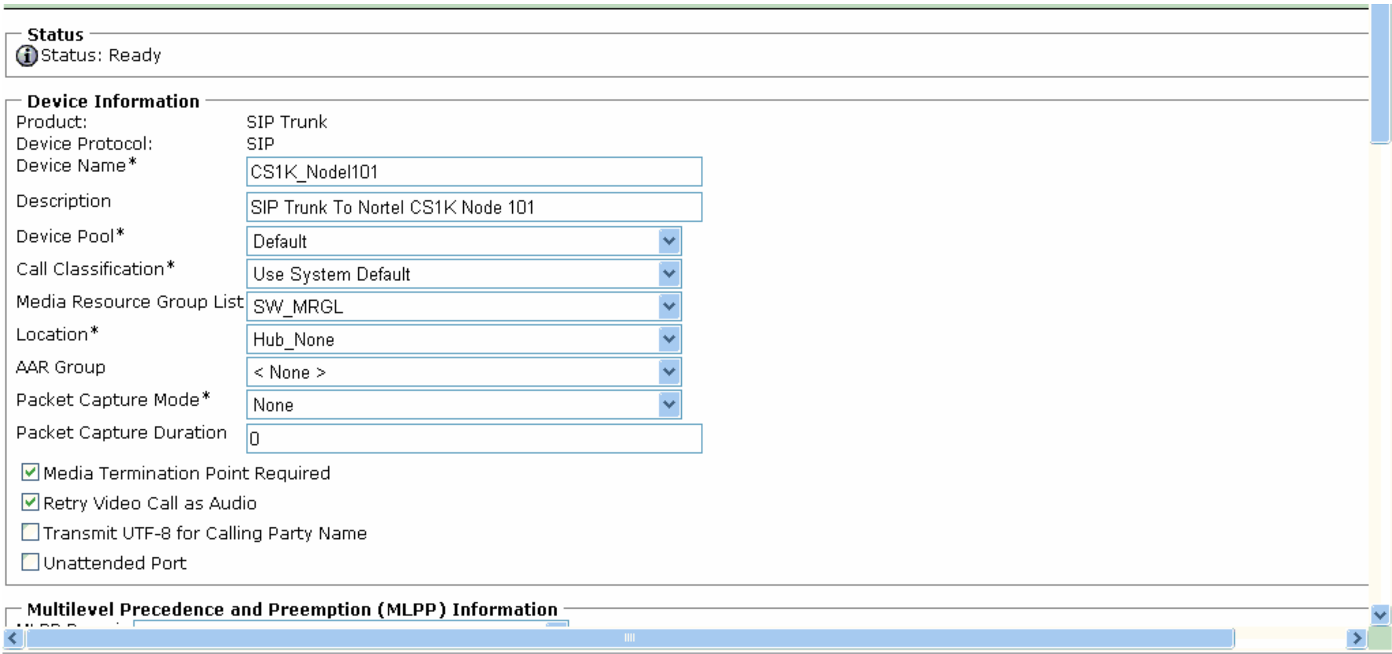


Cisco Unified CallManager SIP Profile for Nortel CS1000M PBX Configuration

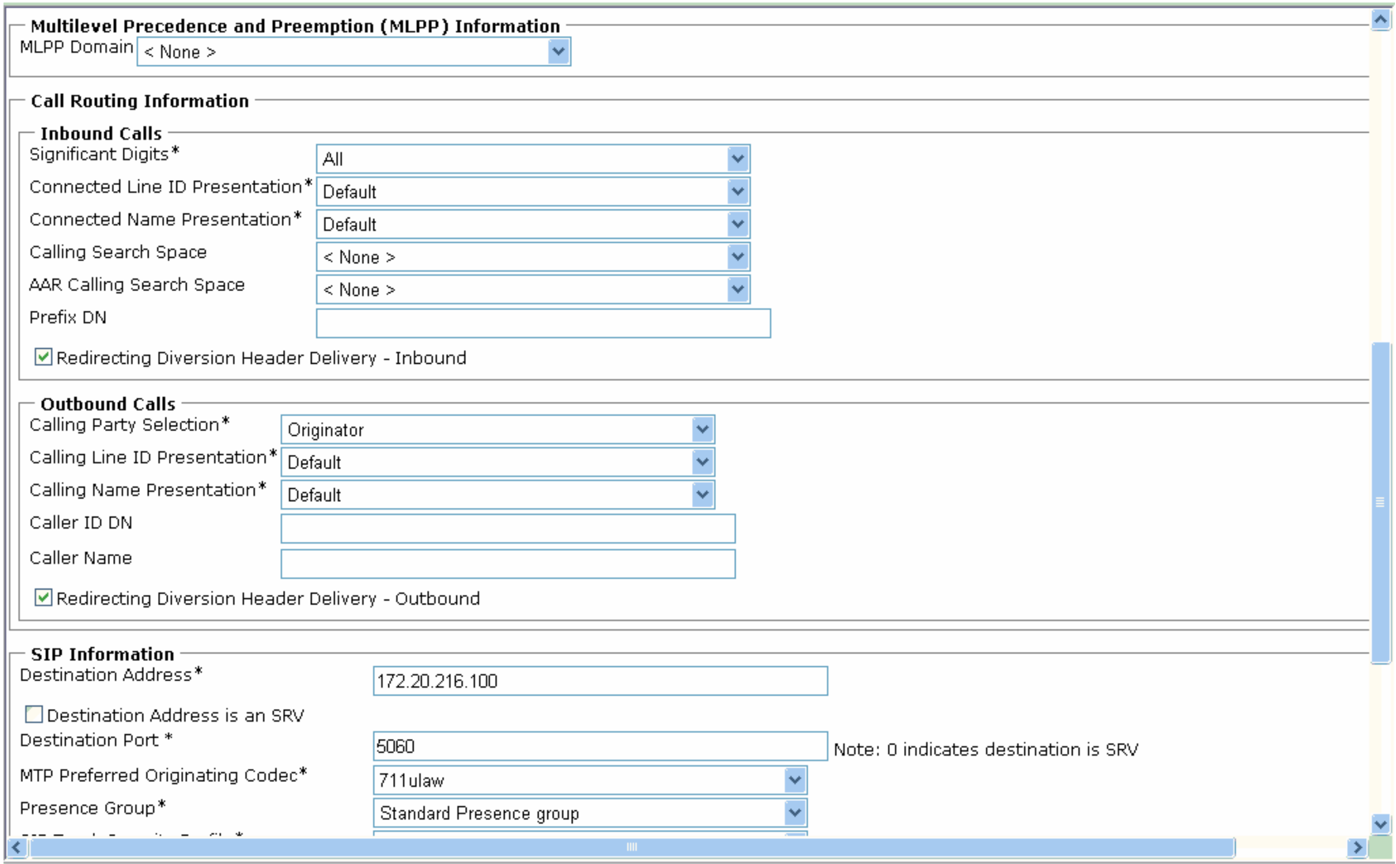


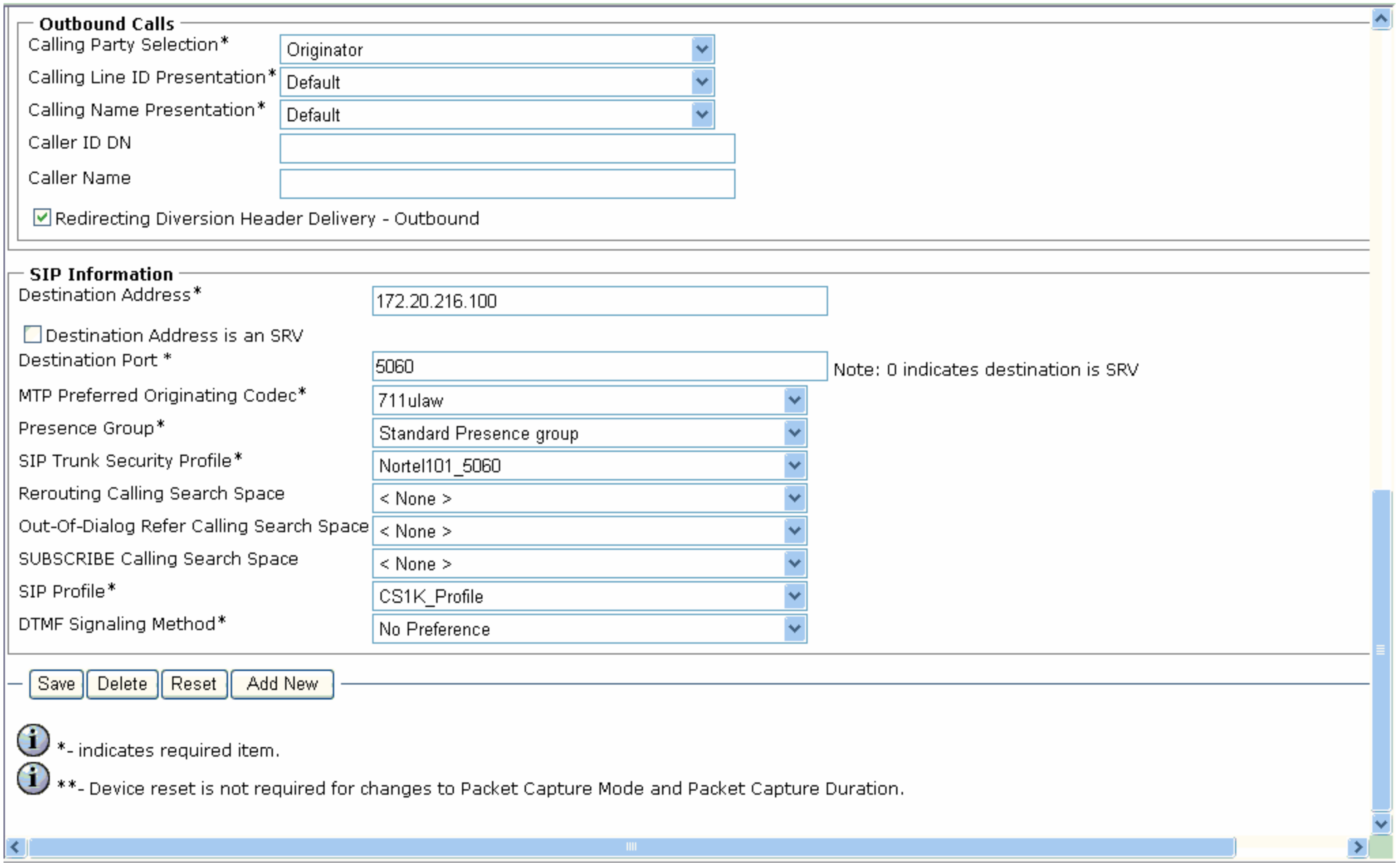


Cisco Unified CallManager SIP Trunk Configuration to Nortel CS1000M PBX Configuration

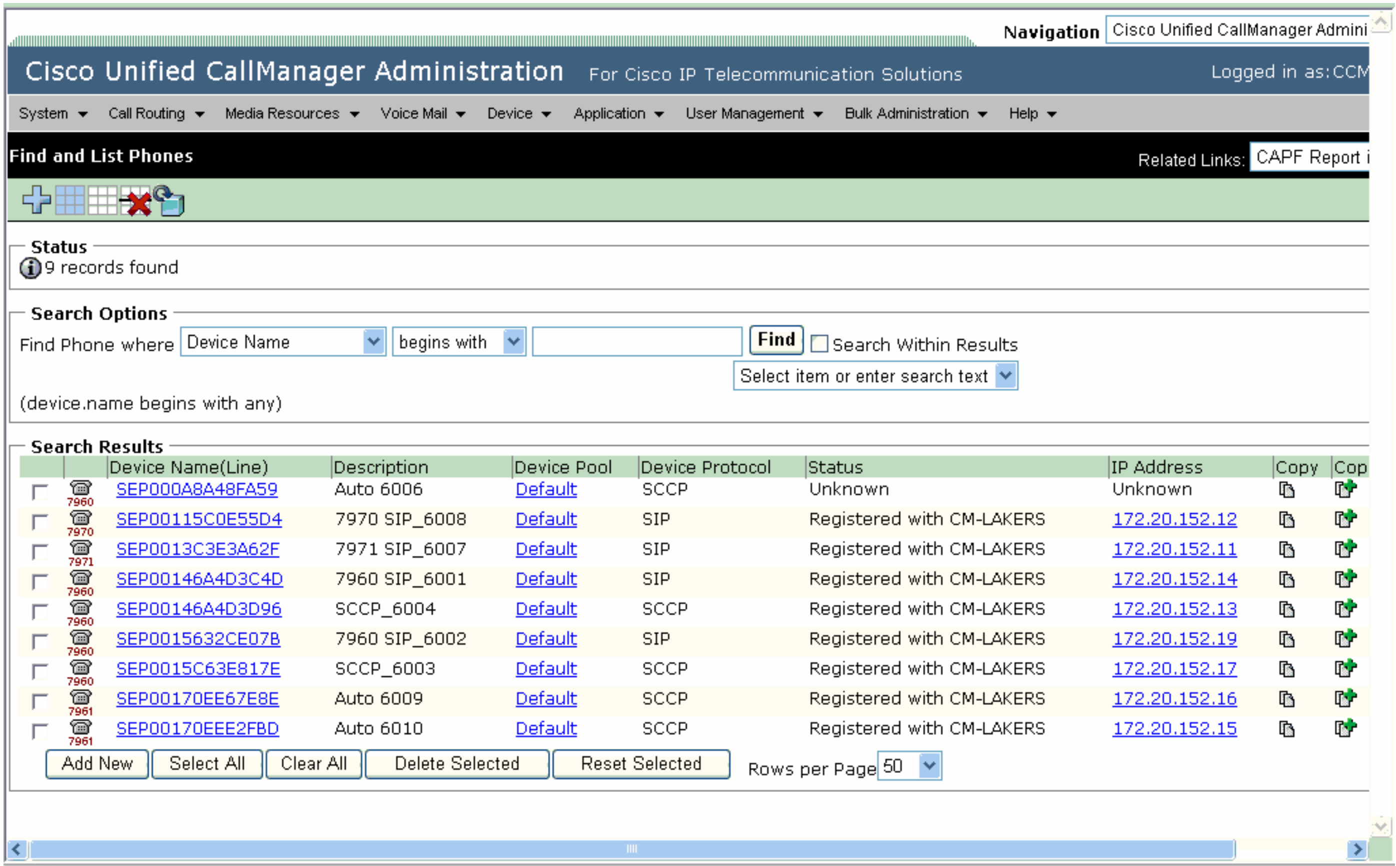


Status
Status: Ready
Device Information
Product:
SIP Trunk
Device Protocol:
SIP
Device Name*
CS1K_Nodel101
Description
SIP Trunk To Nortel CS1K Node 101
Device Pool*
Default
Call Classification*
Use System Default
Media Resource Group List
SW_MRGL
Location*
Hub_None
AAR Group
< None >
Packet Capture Mode*
None
Packet Capture Duration
0
Media Termination Point Required
Retry Video Call as Audio
Transmit UTF-8 for Calling Party Name
Unattended Port
Multilevel Precedence and Preemption (MLPP) Information

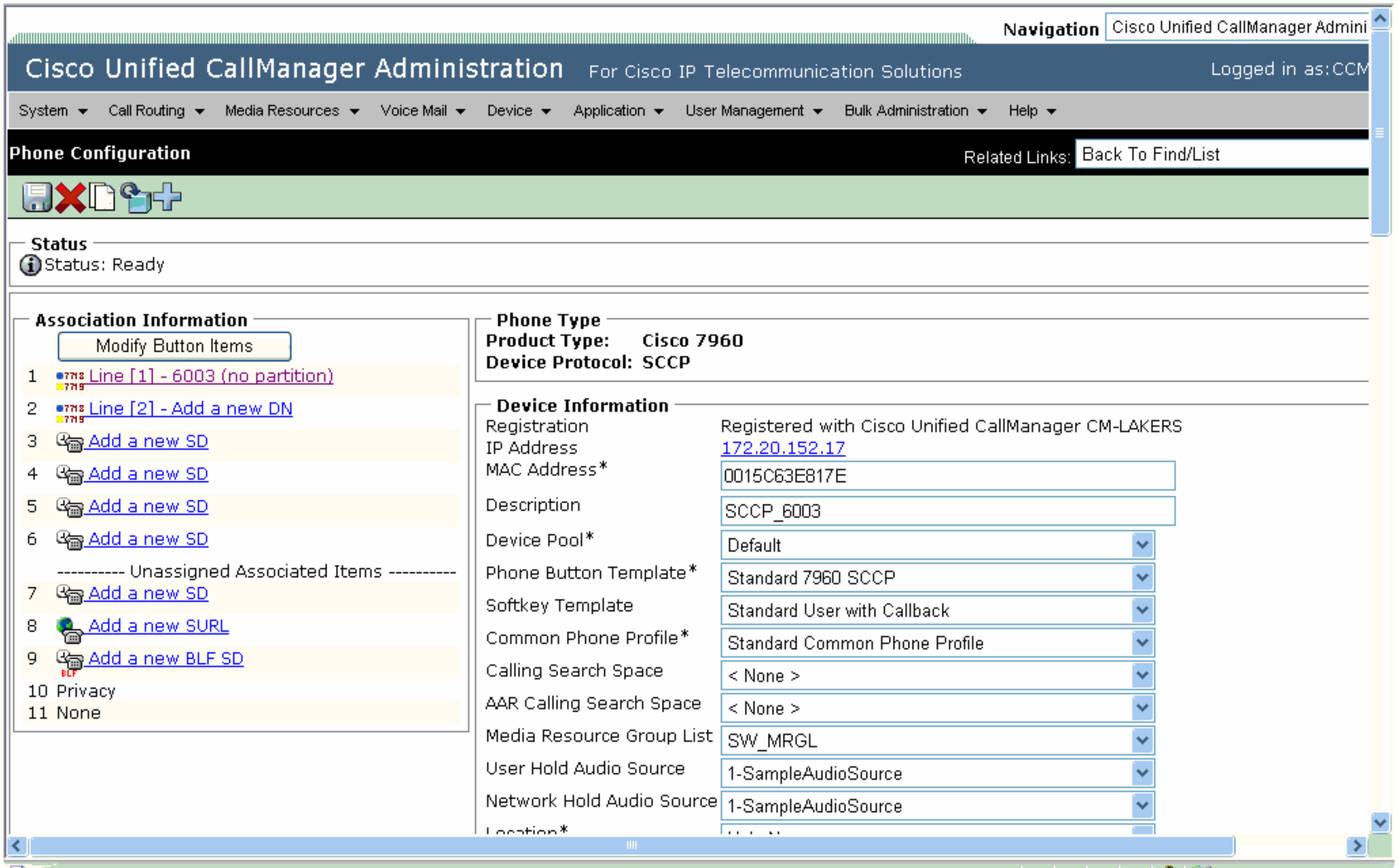

Multilevel Precedence and Preemption (MLPP) Information
MLPP Domain
< None >
Call Routing Information
Inbound Calls
Significant Digits*
All
Connected Line ID Presentation*
Default
Connected Name Presentation*
Default
Calling Search Space
< None >
AAR Calling Search Space
< None >
Prefix DN
Redirecting Diversion Header Delivery - Inbound
Outbound Calls
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 Address*
172.20.216.100
Destination Address is an SRV
Destination Port *
5060
Note: 0 indicates destination is SRV
MTP Preferred Originating Codec*
711ulaw
Presence Group*
Standard Presence group

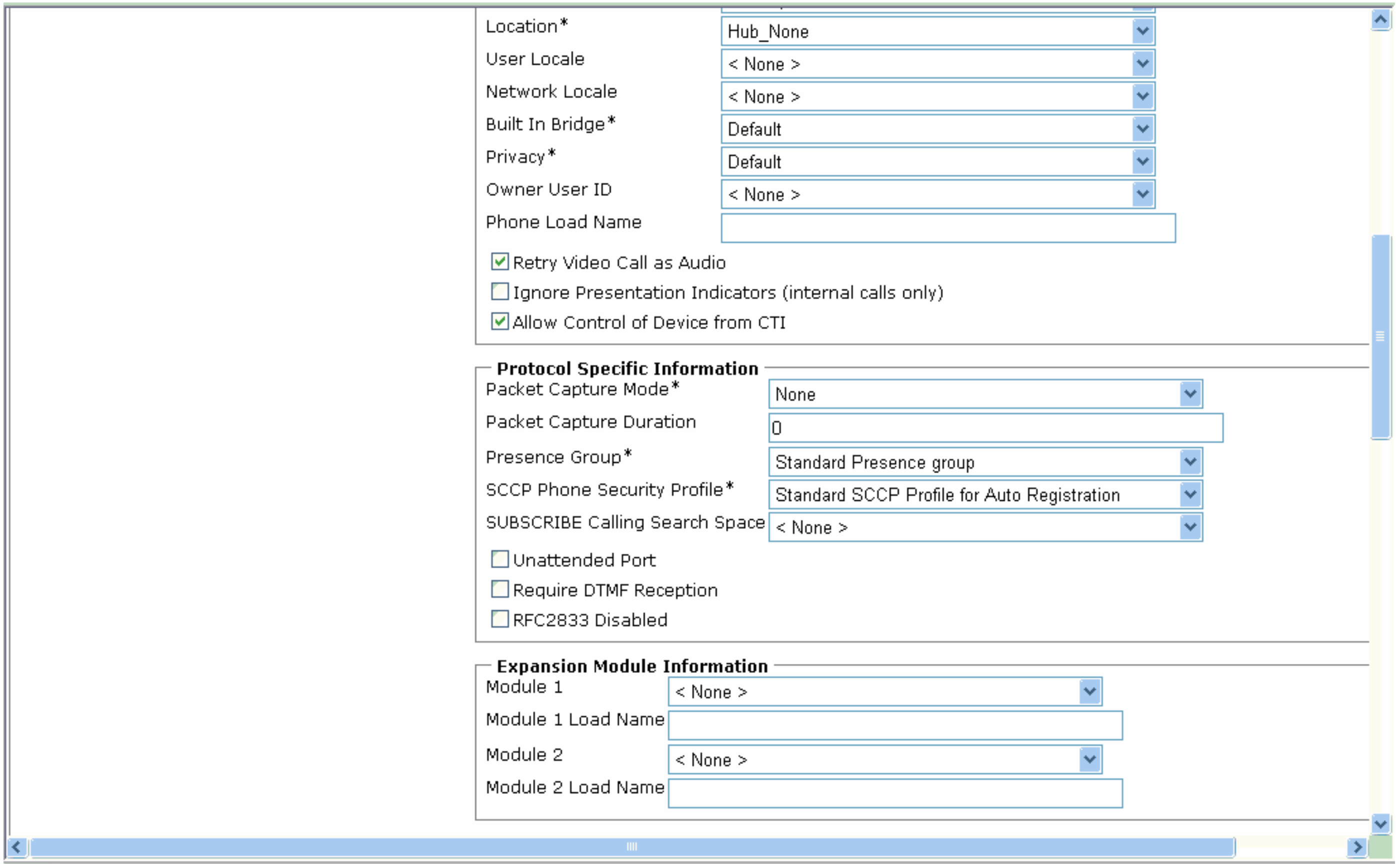

Outbound Calls
Calling Party Selection*
Originator
Calling Line ID Presentation*
Default
Calling Name Presentation*
Default
Caller ID DN
Caller Name
Redirecting Diversion Header Delivery - Outbound
SIP Information
Destination Address*
172.20.216.100
Destination Address is an SRV
Destination Port *
5060
Note: 0 indicates destination is SRV
MTP Preferred Originating Codec*
711ulaw
Presence Group*
Standard Presence group
SIP Trunk Security Profile*
Nortel101_5060
Rerouting Calling Search Space
< None >
Out-Of-Dialog Refer Calling Search Space
< None >
SUBSCRIBE Calling Search Space
< None >
SIP Profile*
CS1K_Profile
DTMF Signaling Method*
No Preference
Save
Delete
Reset
Add New
*- indicates required item.
**- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

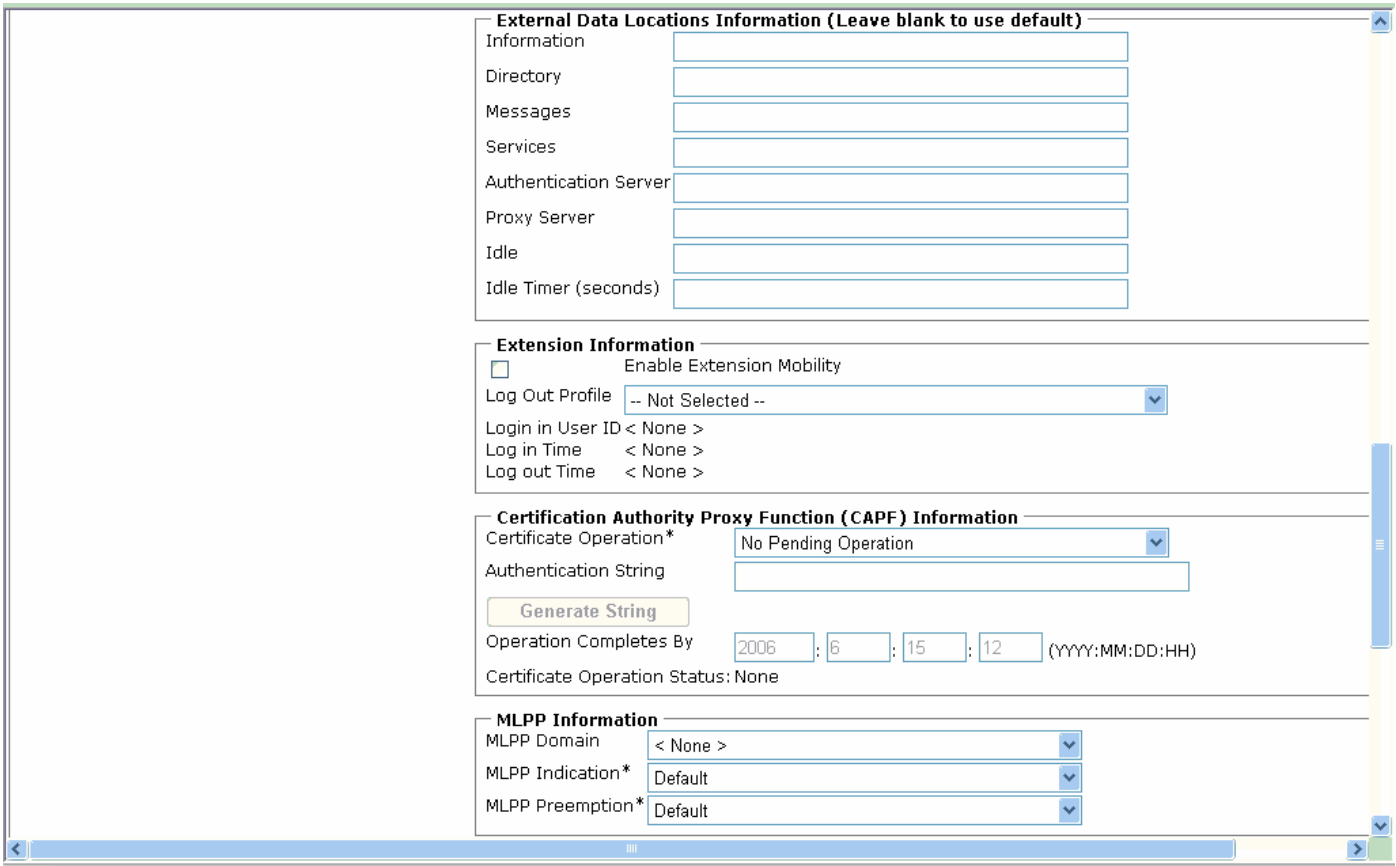
Cisco Unified CallManager Phone Configuration List Configuration

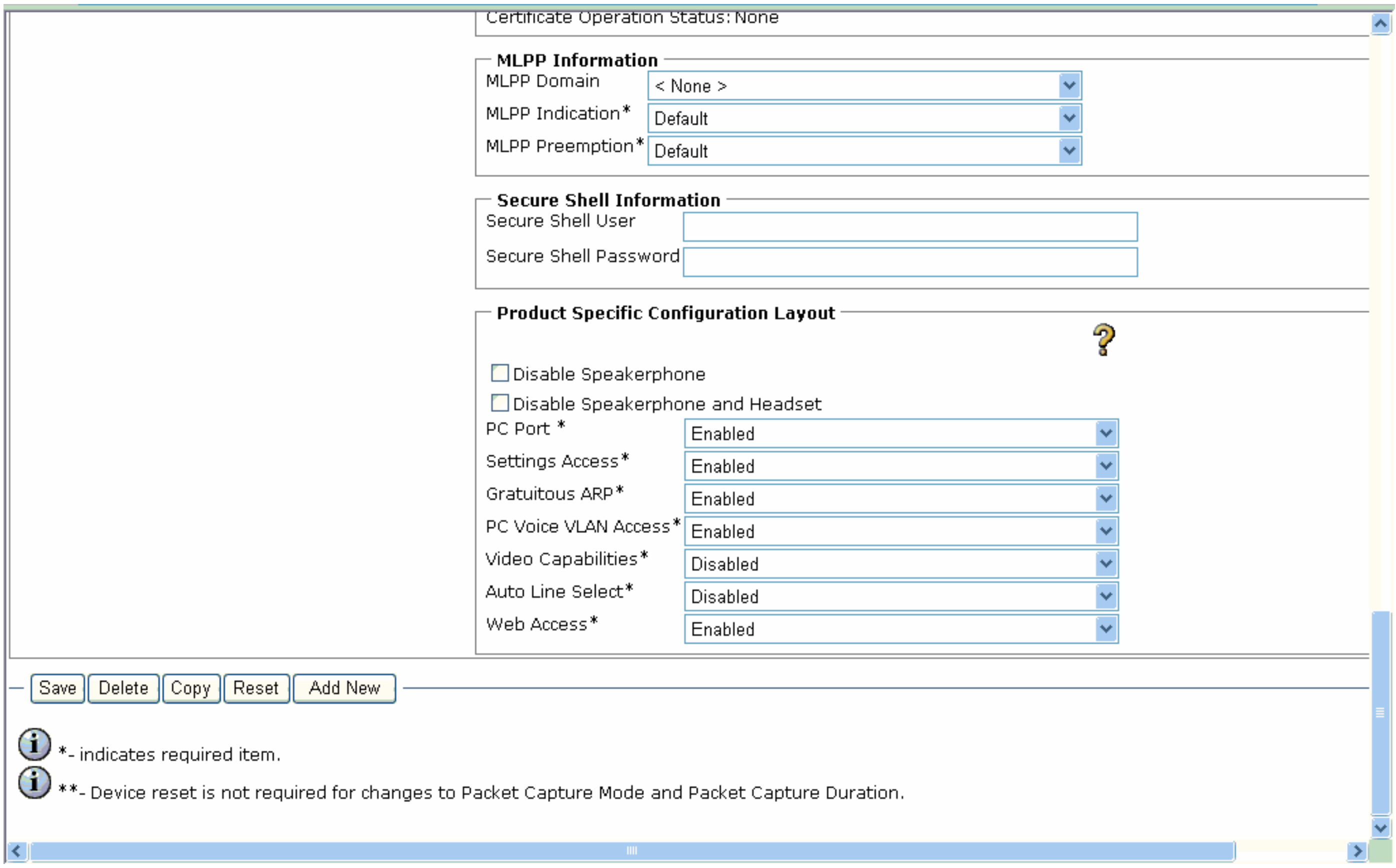


Cisco Unified CallManager SCCP Phone Level Configuration

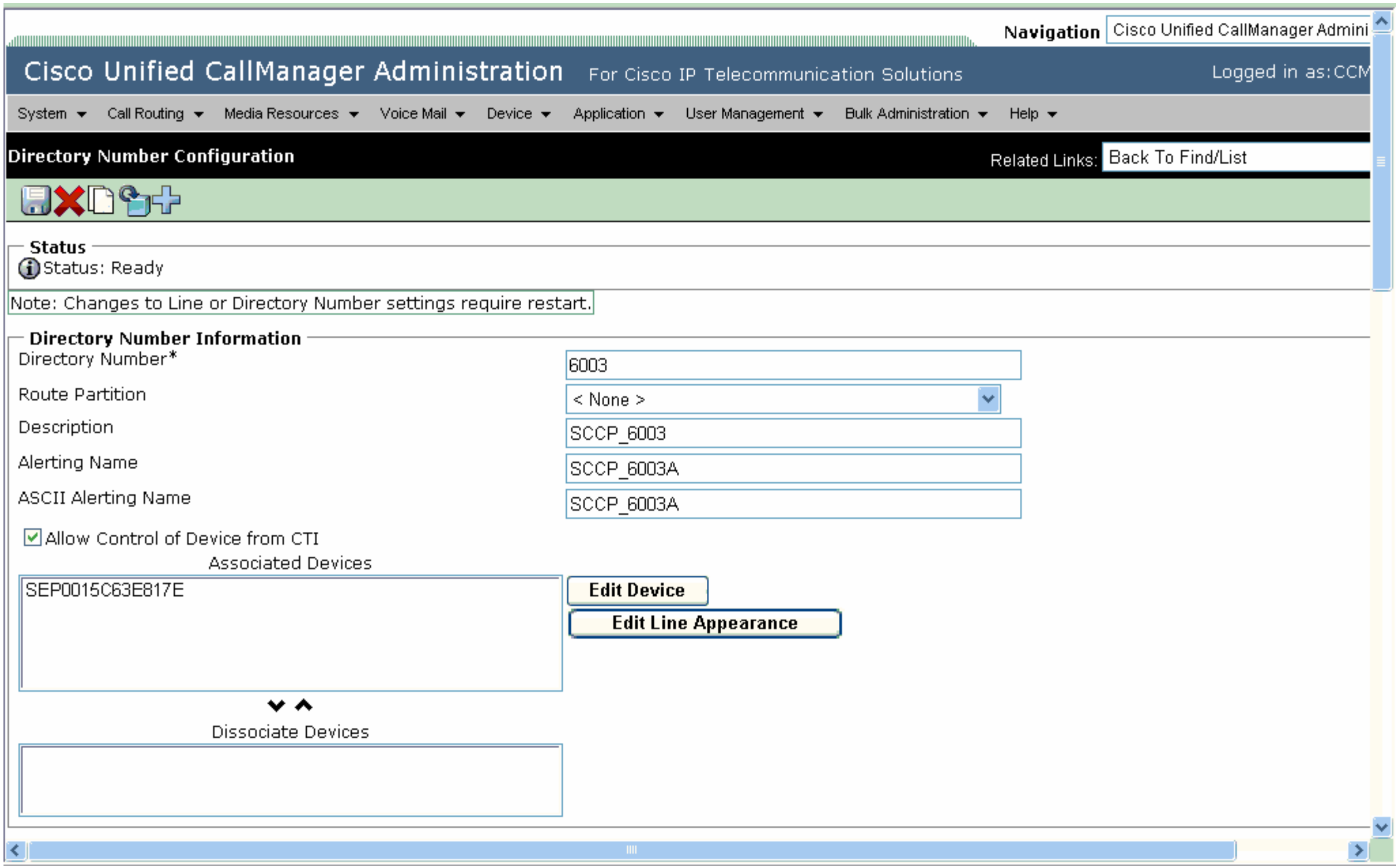

Navigation
Cisco Unified CallManager Admini
Cisco Unified CallManager Administration
For Cisco IP Telecommunication Solutions
Logged in as:CCM
System
Call Routing
Media Resources
Voice Mail
Device
Application
User Management
Bulk Administration
Help
Phone Configuration
Related Links:
Back To Find/List
Status
Status: Ready
Association Information
Modify Button Items
1 Line [1] - 6003 (no partition)
2 Line [2] - Add a new DN
3 Add a new SD
4 Add a new SD
5 Add a new SD
6 Add a new SD
---------- Unassigned Associated Items ----------
7 Add a new SD
8 Add a new SURL
9 Add a new BLF SD
10 Privacy
11 None
Phone Type
Product Type: Cisco 7960
Device Protocol: SCCP
Device Information
Registration
Registered with Cisco Unified CallManager CM-LAKERS
IP Address
172.20.152.17
MAC Address*
0015C63E817E
Description
SCCP_6003
Device Pool*
Default
Phone Button Template*
Standard 7960 SCCP
Softkey Template
Standard User with Callback
Common Phone Profile*
Standard Common Phone Profile
Calling Search Space
< None >
AAR Calling Search Space
< None >
Media Resource Group List
SW_MRGL
User Hold Audio Source
1-SampleAudioSource
Network Hold Audio Source
1-SampleAudioSource

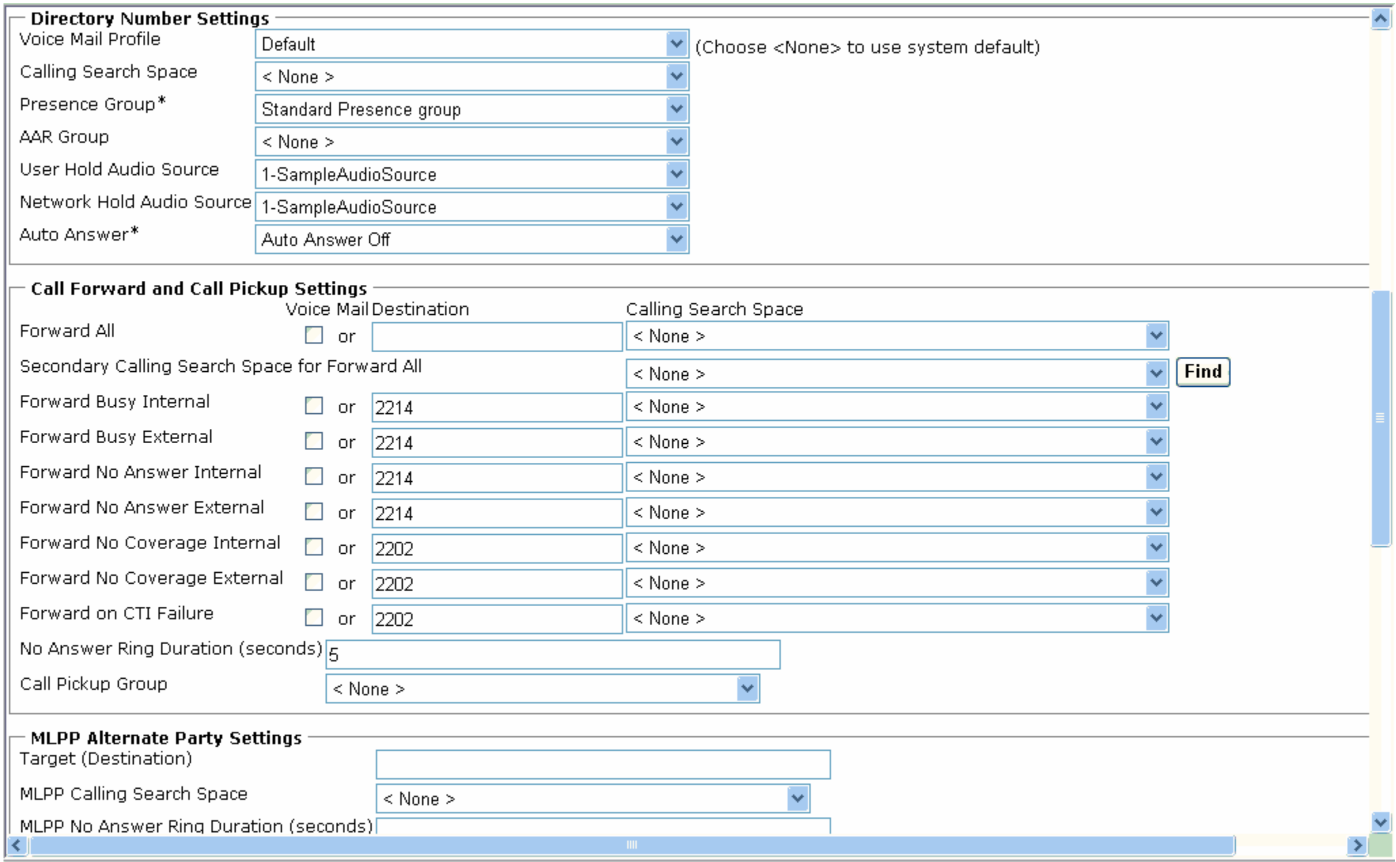

Location*
Hub_None
User Locale
< None >
Network Locale
< None >
Built In Bridge*
Default
Privacy*
Default
Owner User ID
< None >
Phone Load Name
Retry Video Call as Audio
Ignore Presentation Indicators (internal calls only)
Allow Control of Device from CTI
Protocol Specific Information
Packet Capture Mode*
None
Packet Capture Duration
0
Presence Group*
Standard Presence group
SCCP Phone Security Profile*
Standard SCCP Profile for Auto Registration
SUBSCRIBE Calling Search Space
< None >
Unattended Port
Require DTMF Reception
RFC2833 Disabled
Expansion Module Information
Module 1
< None >
Module 1 Load Name
Module 2
< None >
Module 2 Load Name

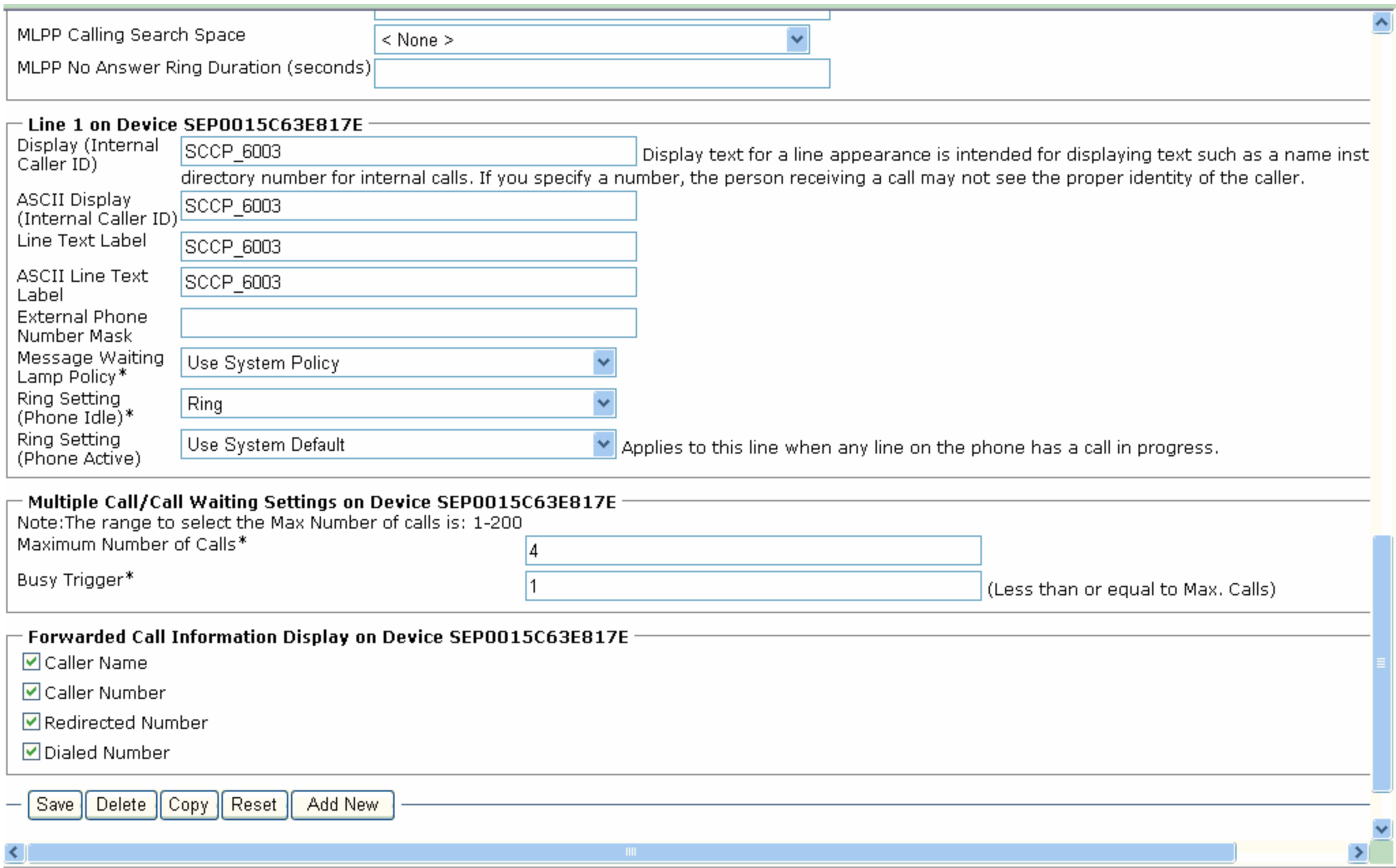

External Data Locations Information (Leave blank to use default)
Information
Directory
Messages
Services
Authentication Server
Proxy Server
Idle
Idle Timer (seconds)
Extension Information
Enable Extension Mobility
Log Out Profile
-- Not Selected --
Login in User ID < None >
Log in Time < None >
Log out Time < None >
Certification Authority Proxy Function (CAPF) Information
Certificate Operation*
No Pending Operation
Authentication String
Generate String
Operation Completes By
2006 : 6 : 15 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None
MLPP Information
MLPP Domain
< None >
MLPP Indication*
Default
MLPP Preemption*
Default



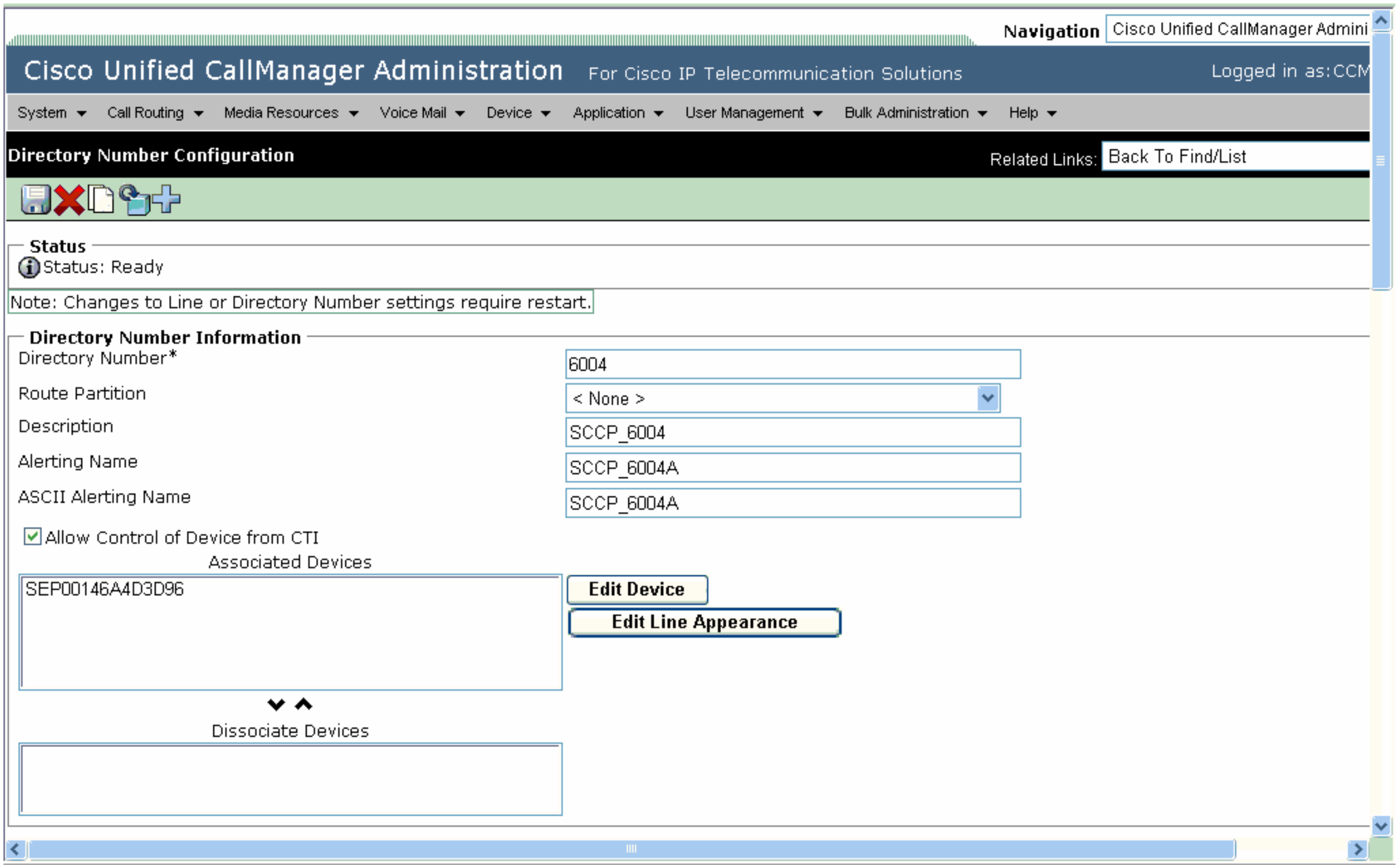
Cisco Unified CallManager SCCP Phone Directory Number (Ext 6003) Level Configuration

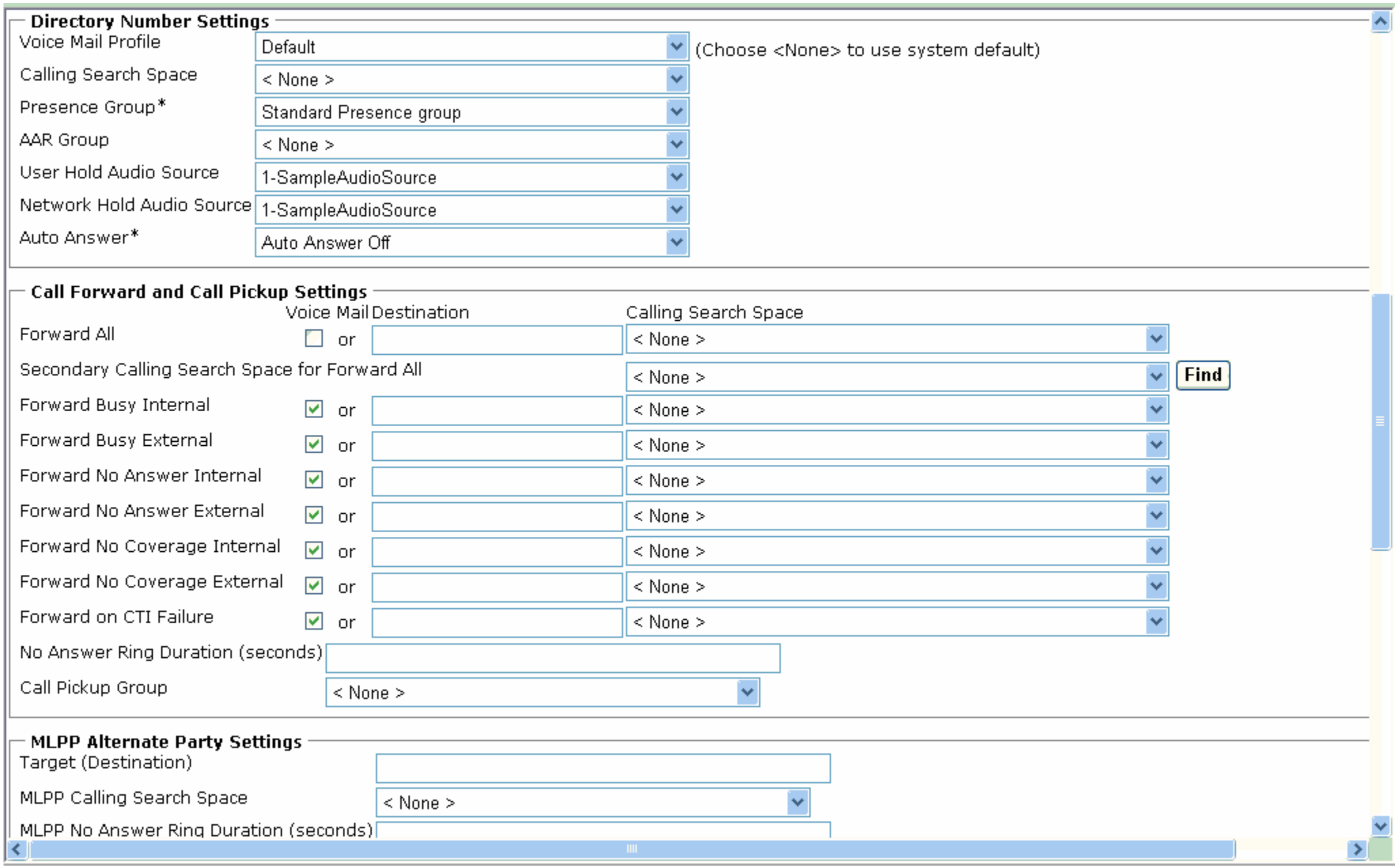

Navigation
Cisco Unified CallManager Admini
Cisco Unified CallManager Administration
For Cisco IP Telecommunication Solutions
Logged in as:CCM
System
Call Routing
Media Resources
Voice Mail
Device
Application
User Management
Bulk Administration
Help
Directory Number Configuration
Related Links:
Back To Find/List
Status
Status: Ready
Note: Changes to Line or Directory Number settings require restart.
Directory Number Information
Directory Number*
6003
Route Partition
< None >
Description
SCCP_6003
Alerting Name
SCCP_6003A
ASCII Alerting Name
SCCP_6003A
Allow Control of Device from CTI
Associated Devices
SEP0015C63E817E
Edit Device
Edit Line Appearance
Dissociate Devices

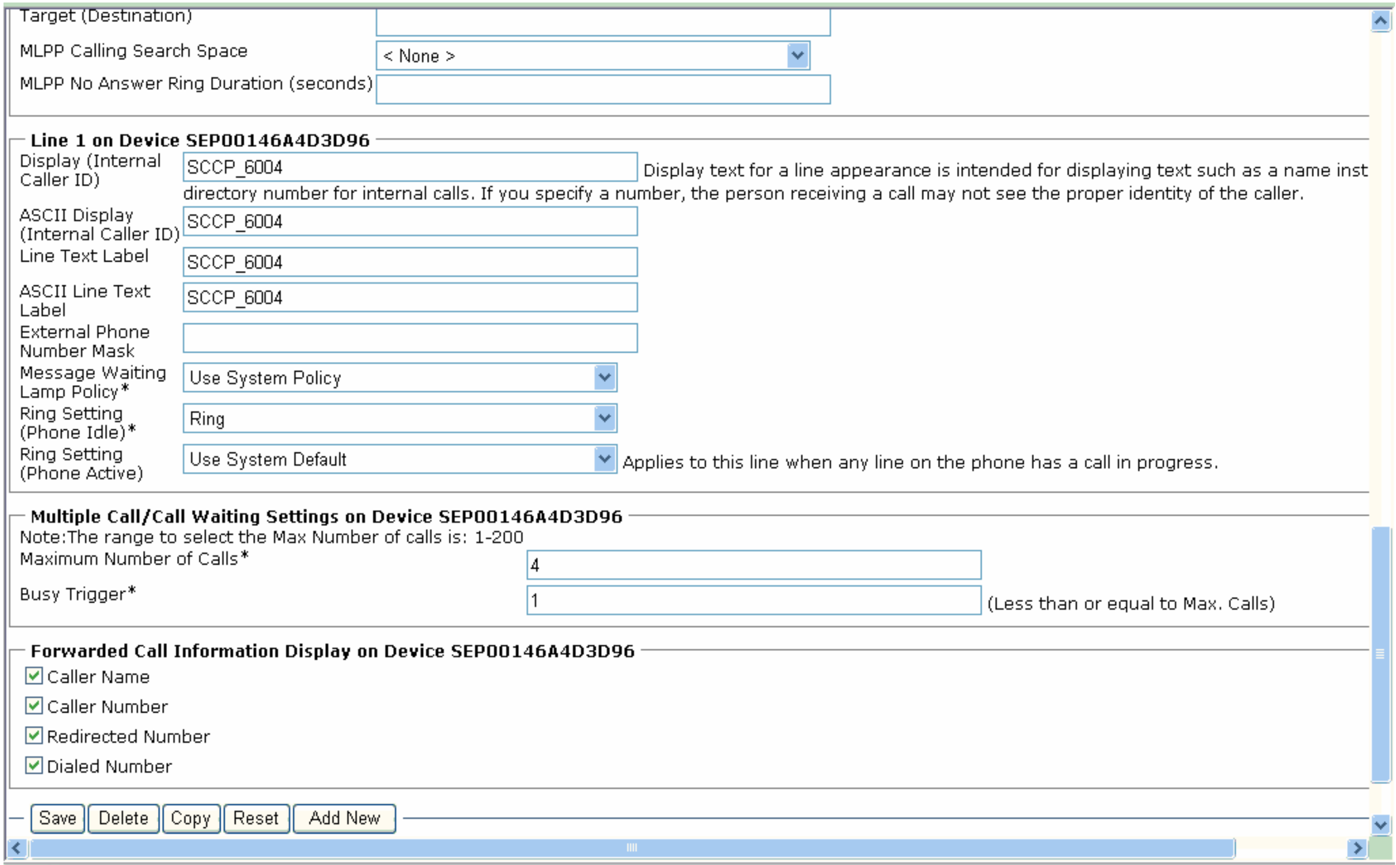

Directory Number Settings
Voice Mail Profile
Default
(Choose <None> to use system default)
Calling Search Space
< None >
Presence Group*
Standard Presence group
AAR Group
< None >
User Hold Audio Source
1-SampleAudioSource
Network Hold Audio Source
1-SampleAudioSource
Auto Answer*
Auto Answer Off
Call Forward and Call Pickup Settings
Voice Mail
Destination
Calling Search Space
Forward All
or
< None >
Secondary Calling Search Space for Forward All
< None >
Find
Forward Busy Internal
or
2214
< None >
Forward Busy External
or
2214
< None >
Forward No Answer Internal
or
2214
< None >
Forward No Answer External
or
2214
< None >
Forward No Coverage Internal
or
2202
< None >
Forward No Coverage External
or
2202
< None >
Forward on CTI Failure
or
2202
< None >
No Answer Ring Duration (seconds)
5
Call Pickup Group
< None >
MLPP Alternate Party Settings
Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)


MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)
Line 1 on Device SEP0015C63E817E
Display (Internal Caller ID)
SCCP_6003
Display text for a line appearance is intended for displaying text such as a name inst
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)
SCCP_6003
Line Text Label
SCCP_6003
ASCII Line Text Label
SCCP_6003
External Phone Number Mask
Message Waiting Lamp Policy*
Use System Policy
Ring Setting (Phone Idle)*
Ring
Ring Setting (Phone Active)
Use System Default
Applies to this line when any line on the phone has a call in progress.
Multiple Call/Call Waiting Settings on Device SEP0015C63E817E
Note:The range to select the Max Number of calls is: 1-200
Maximum Number of Calls*
4
Busy Trigger*
1
(Less than or equal to Max. Calls)
Forwarded Call Information Display on Device SEP0015C63E817E
Caller Name
Caller Number
Redirected Number
Dialed Number
Save
Delete
Copy
Reset
Add New

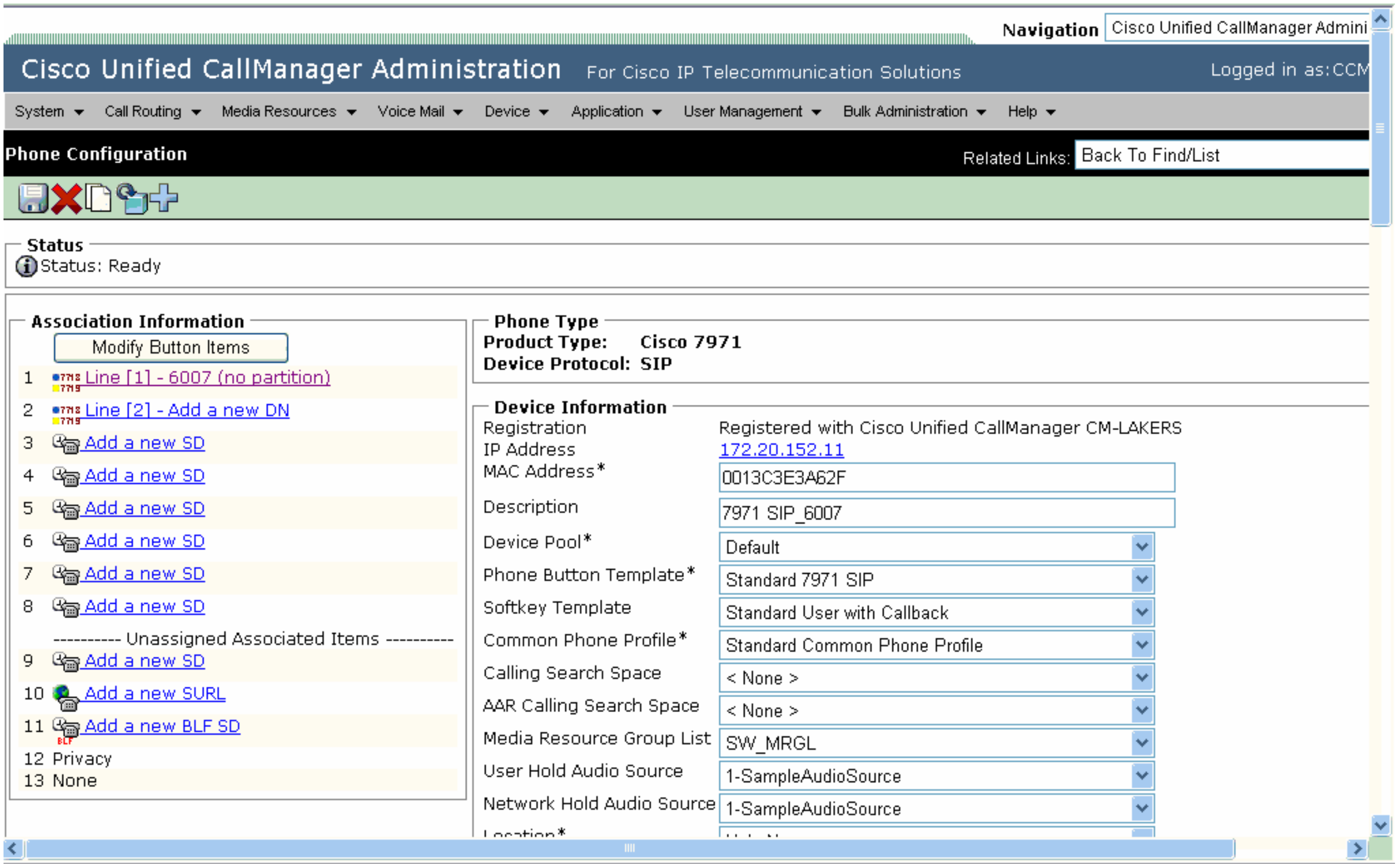
Cisco Unified CallManager SCCP Phone Directory Number (Ext 6004) Level Configuration

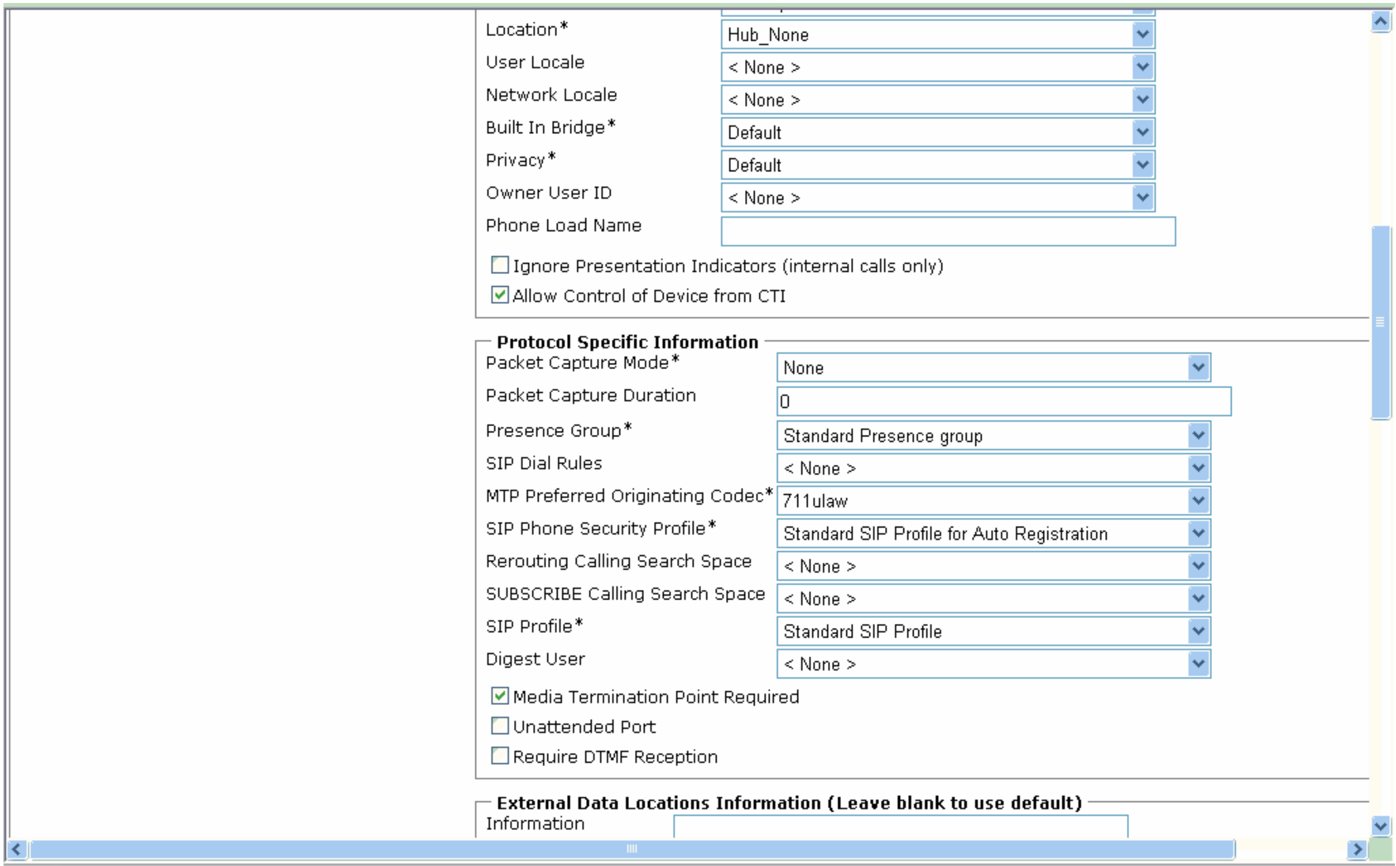


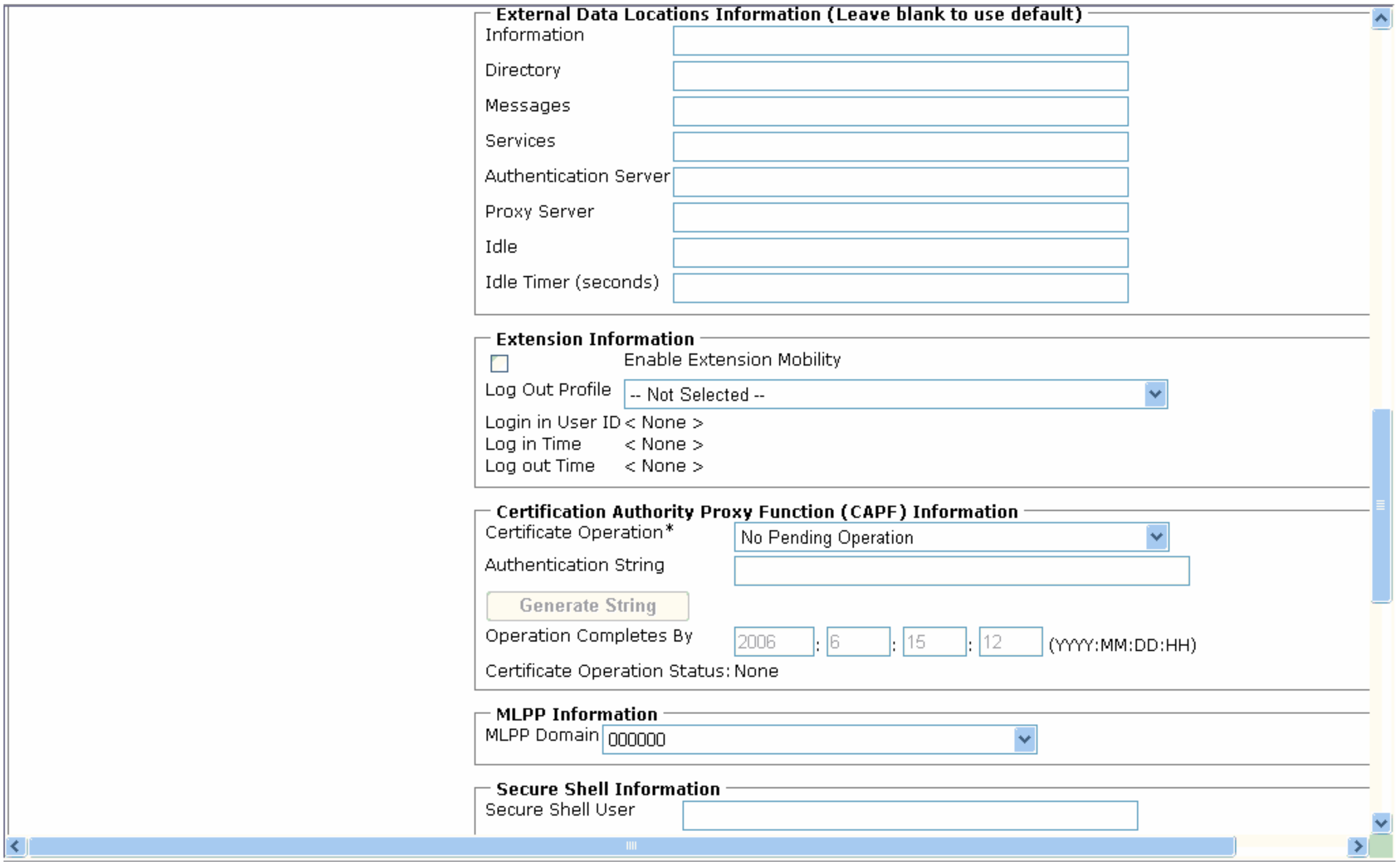

Directory Number Settings
Voice Mail Profile
Default
(Choose <None> to use system default)
Calling Search Space
< None >
Presence Group*
Standard Presence group
AAR Group
< None >
User Hold Audio Source
1-SampleAudioSource
Network Hold Audio Source
1-SampleAudioSource
Auto Answer*
Auto Answer Off
Call Forward and Call Pickup Settings
Voice Mail
Destination
Calling Search Space
Forward All
or
< None >
Secondary Calling Search Space for Forward All
< None >
Find
Forward Busy Internal
or
< None >
Forward Busy External
or
< None >
Forward No Answer Internal
or
< None >
Forward No Answer External
or
< None >
Forward No Coverage Internal
or
< None >
Forward No Coverage External
or
< None >
Forward on CTI Failure
or
< None >
No Answer Ring Duration (seconds)
Call Pickup Group
< None >
MLPP Alternate Party Settings
Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)

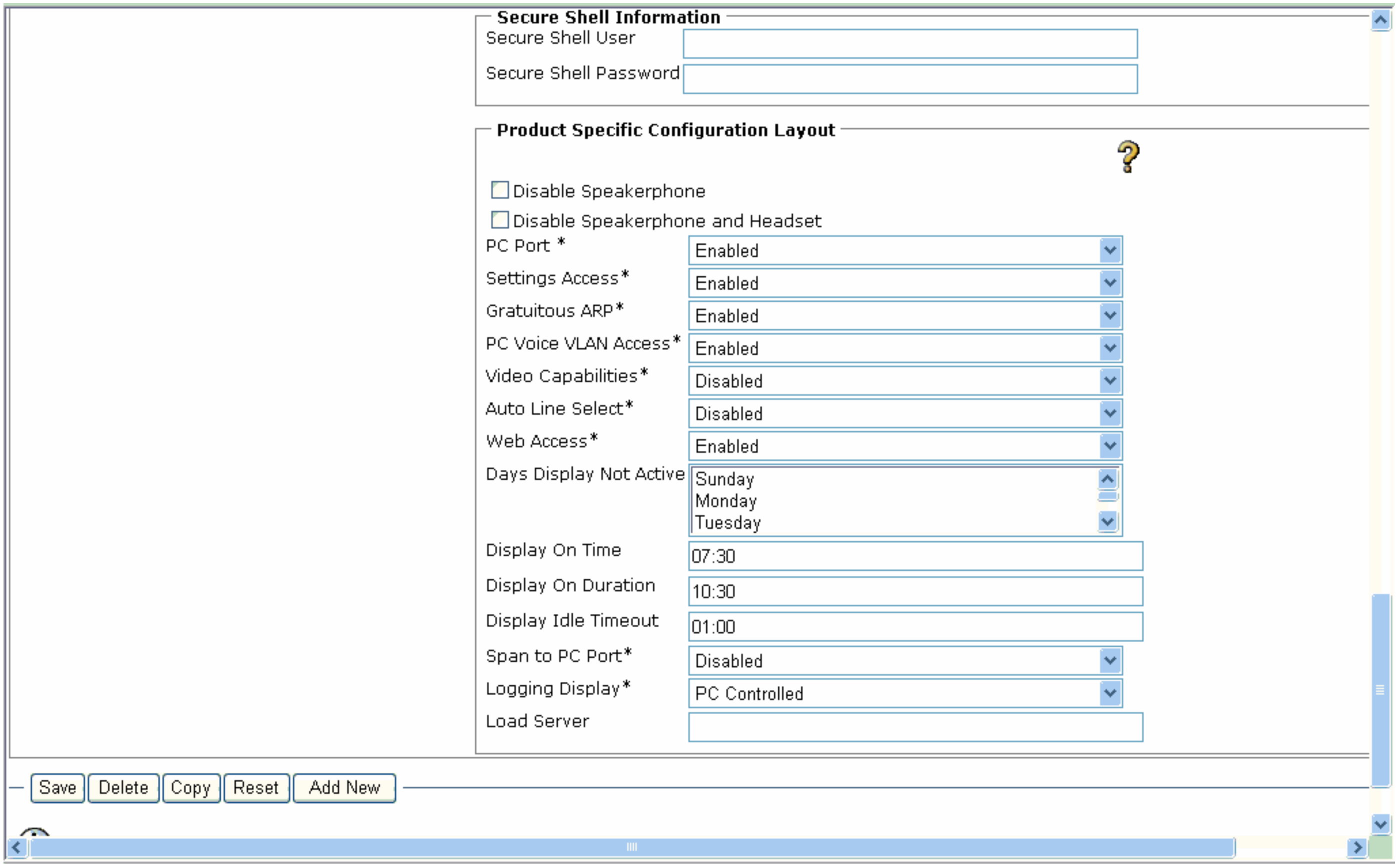

Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)
Line 1 on Device SEP00146A4D3D96
Display (Internal Caller ID)
SCCP_6004
Display text for a line appearance is intended for displaying text such as a name inst
directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)
SCCP_6004
Line Text Label
SCCP_6004
ASCII Line Text Label
SCCP_6004
External Phone Number Mask
Message Waiting Lamp Policy*
Use System Policy
Ring Setting (Phone Idle)*
Ring
Ring Setting (Phone Active)
Use System Default
Applies to this line when any line on the phone has a call in progress.
Multiple Call/Call Waiting Settings on Device SEP00146A4D3D96
Note:The range to select the Max Number of calls is: 1-200
Maximum Number of Calls*
4
Busy Trigger*
1
(Less than or equal to Max. Calls)
Forwarded Call Information Display on Device SEP00146A4D3D96
Caller Name
Caller Number
Redirected Number
Dialed Number
Save
Delete
Copy
Reset
Add New

Cisco Unified CallManager SIP Phone Level Configuration

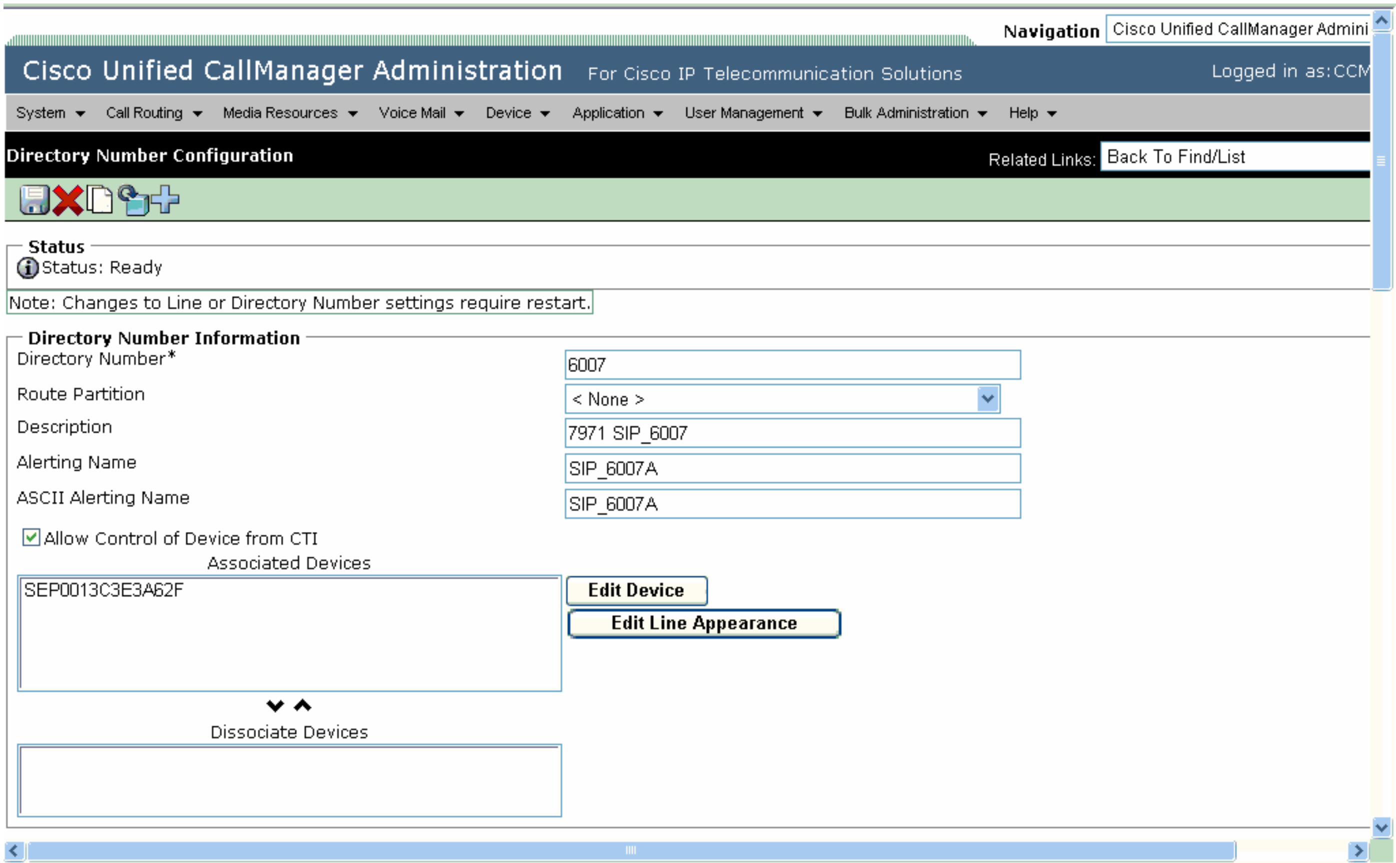


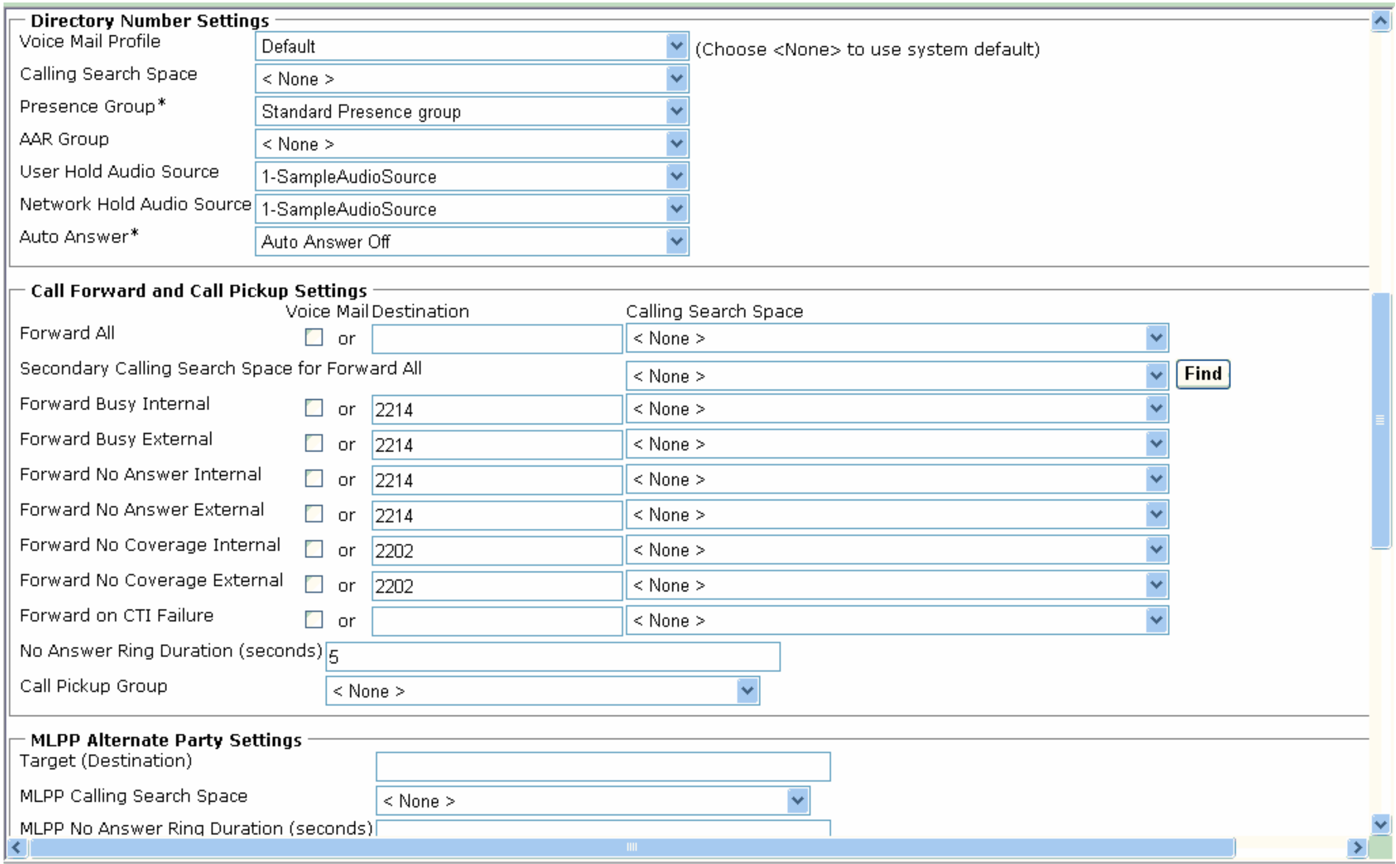

Location* Hub_None
User Locale < None >
Network Locale < None >
Built In Bridge* Default
Privacy* Default
Owner User ID < None >
Phone Load Name
Ignore Presentation Indicators (internal calls only)
Allow Control of Device from CTI
Protocol Specific Information
Packet Capture Mode* None
Packet Capture Duration 0
Presence Group* Standard Presence group
SIP Dial Rules < None >
MTP Preferred Originating Codec* 711ulaw
SIP Phone Security Profile* Standard SIP Profile for Auto Registration
Rerouting Calling Search Space < None >
SUBSCRIBE Calling Search Space < None >
SIP Profile* Standard SIP Profile
Digest User < None >
Media Termination Point Required
Unattended Port
Require DTMF Reception
External Data Locations Information (Leave blank to use default)
Information

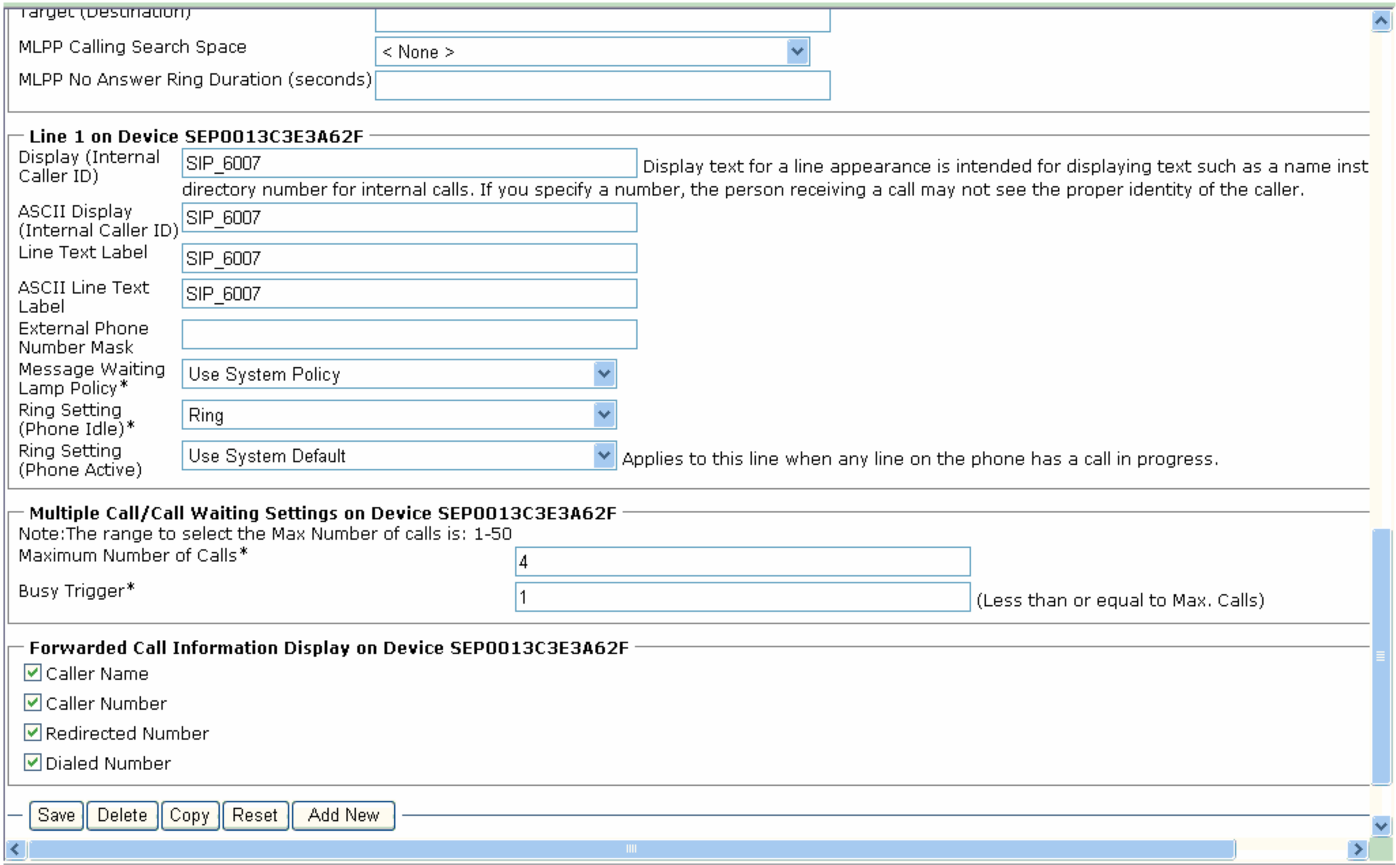

External Data Locations Information (Leave blank to use default)
Information
Directory
Messages
Services
Authentication Server
Proxy Server
Idle
Idle Timer (seconds)
Extension Information
Enable Extension Mobility
Log Out Profile
-- Not Selected --
Login in User ID < None >
Log in Time < None >
Log out Time < None >
Certification Authority Proxy Function (CAPF) Information
Certificate Operation*
No Pending Operation
Authentication String
Generate String
Operation Completes By
2006 : 6 : 15 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None
MLPP Information
MLPP Domain
000000
Secure Shell Information
Secure Shell User


Secure Shell Information
Secure Shell User
Secure Shell Password
Product Specific Configuration Layout
Disable Speakerphone
Disable Speakerphone and Headset
PC Port *
Enabled
Settings Access*
Enabled
Gratuitous ARP*
Enabled
PC Voice VLAN Access*
Enabled
Video Capabilities*
Disabled
Auto Line Select*
Disabled
Web Access*
Enabled
Days Display Not Active
Sunday
Monday
Tuesday
Display On Time
07:30
Display On Duration
10:30
Display Idle Timeout
01:00
Span to PC Port*
Disabled
Logging Display*
PC Controlled
Load Server
Save
Delete
Copy
Reset
Add New

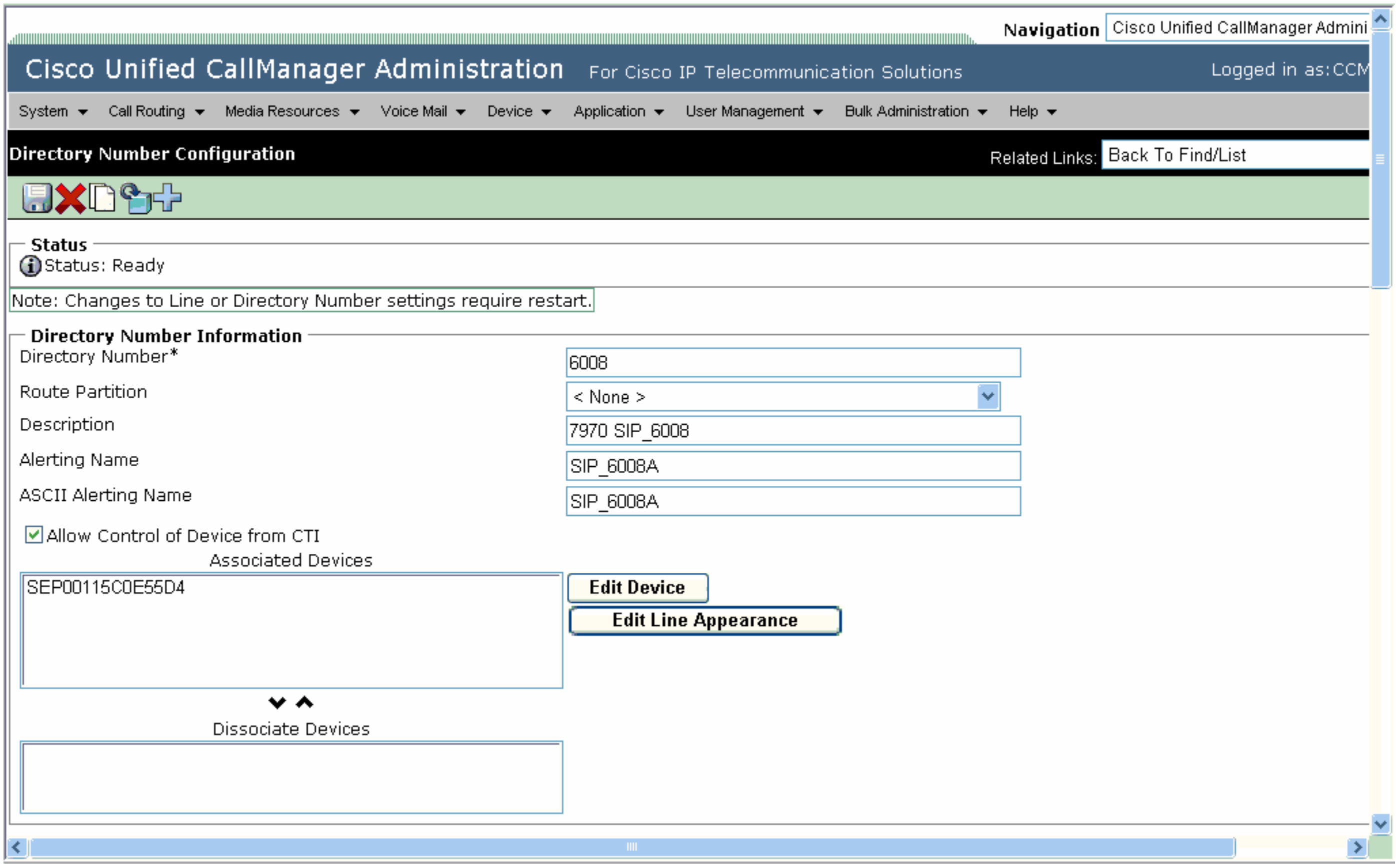
Cisco Unified CallManager SIP Phone Directory Number (Ext 6007) Level Configuration

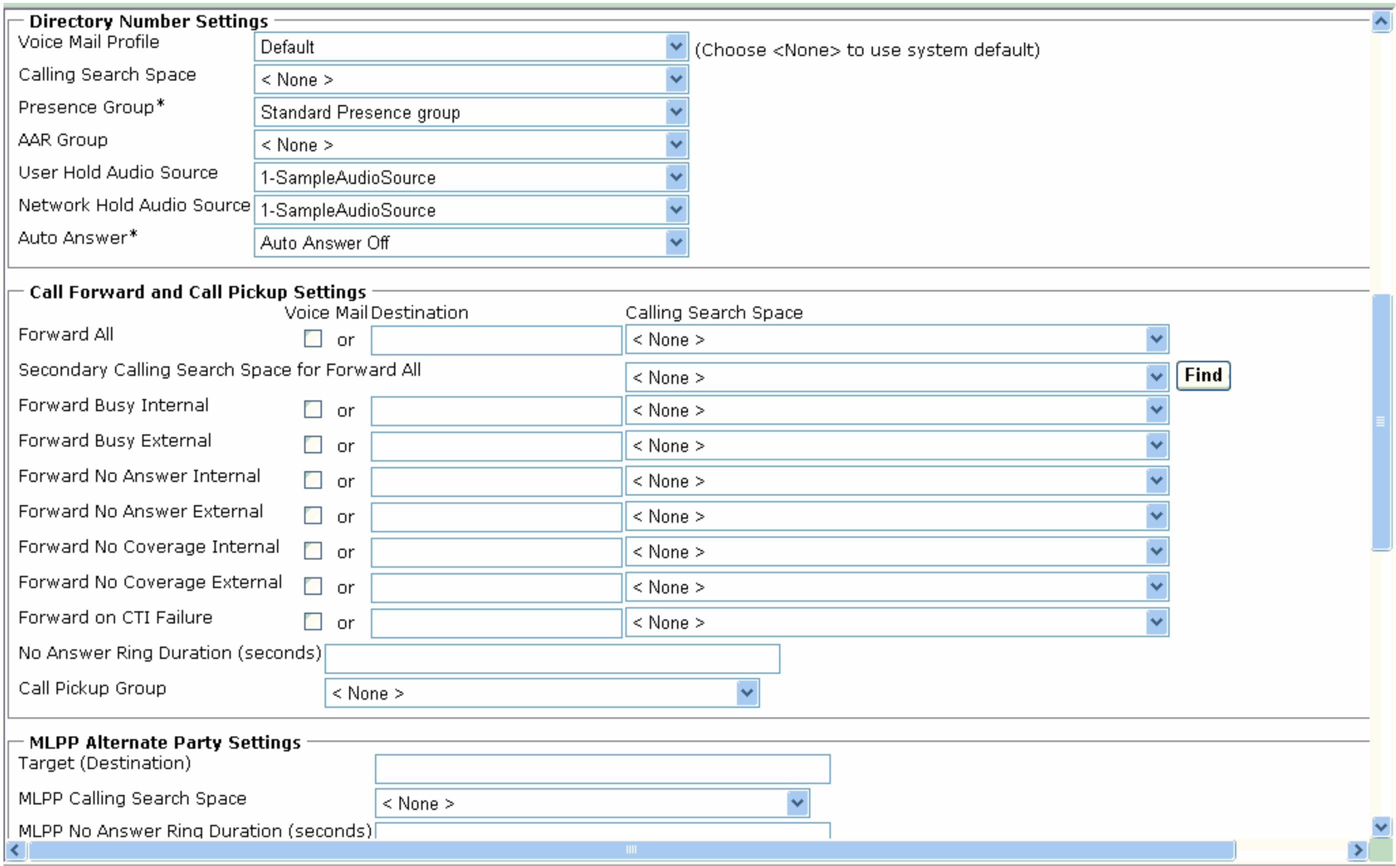


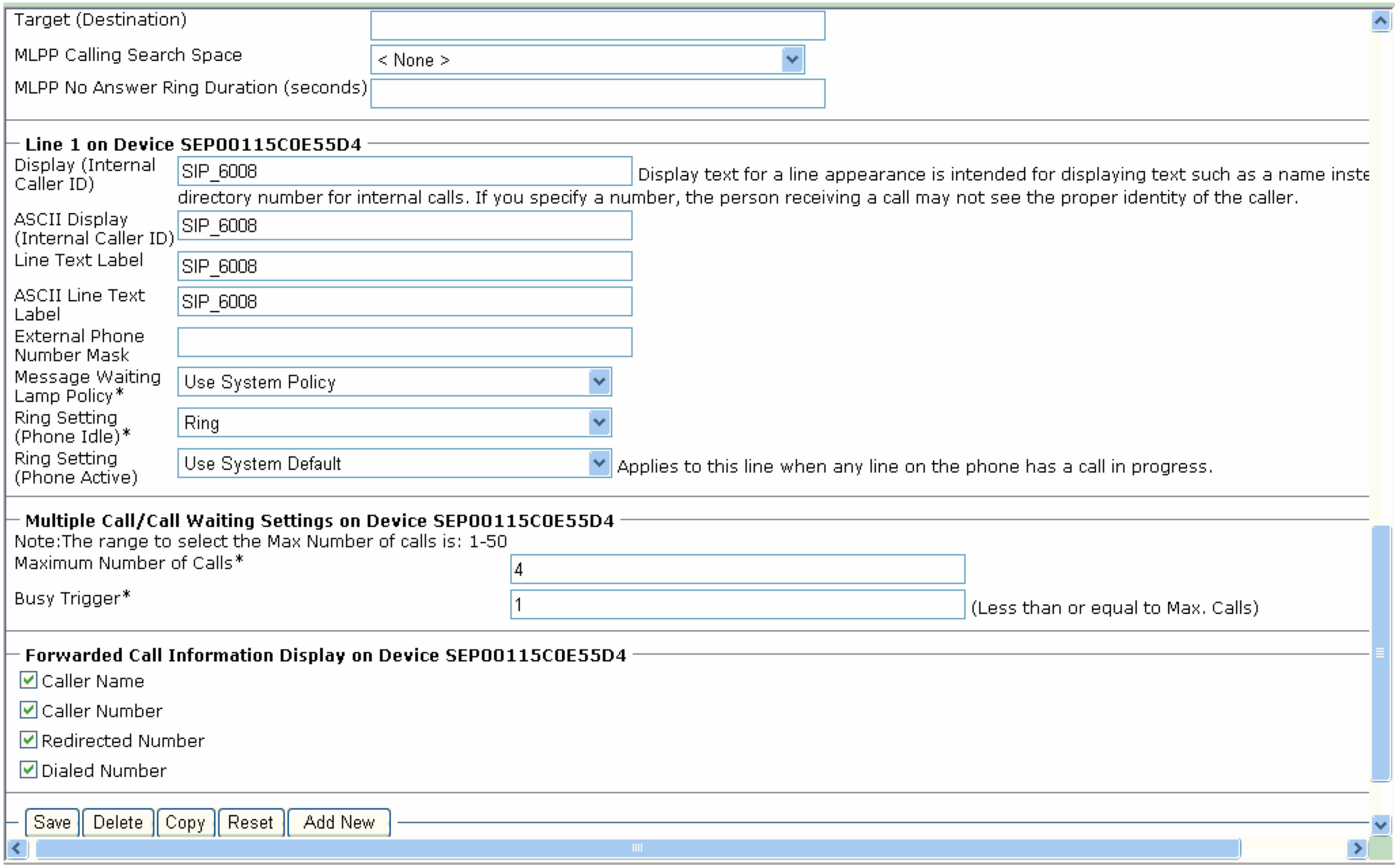

Directory Number Settings
Voice Mail Profile
Default
(Choose <None> to use system default)
Calling Search Space
< None >
Presence Group*
Standard Presence group
AAR Group
< None >
User Hold Audio Source
1-SampleAudioSource
Network Hold Audio Source
1-SampleAudioSource
Auto Answer*
Auto Answer Off
Call Forward and Call Pickup Settings
Voice Mail
Destination
Calling Search Space
Forward All
or
< None >
Secondary Calling Search Space for Forward All
< None >
Find
Forward Busy Internal
or
2214
< None >
Forward Busy External
or
2214
< None >
Forward No Answer Internal
or
2214
< None >
Forward No Answer External
or
2214
< None >
Forward No Coverage Internal
or
2202
< None >
Forward No Coverage External
or
2202
< None >
Forward on CTI Failure
or
< None >
No Answer Ring Duration (seconds)
5
Call Pickup Group
< None >
MLPP Alternate Party Settings
Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)


Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)
Line 1 on Device SEP0013C3E3A62F
Display (Internal Caller ID)
SIP_6007
Display text for a line appearance is intended for displaying text such as a name inst
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)
SIP_6007
Line Text Label
SIP_6007
ASCII Line Text Label
SIP_6007
External Phone Number Mask
Message Waiting Lamp Policy*
Use System Policy
Ring Setting (Phone Idle)*
Ring
Ring Setting (Phone Active)
Use System Default
Applies to this line when any line on the phone has a call in progress.
Multiple Call/Call Waiting Settings on Device SEP0013C3E3A62F
Note:The range to select the Max Number of calls is: 1-50
Maximum Number of Calls*
4
Busy Trigger*
1
(Less than or equal to Max. Calls)
Forwarded Call Information Display on Device SEP0013C3E3A62F
Caller Name
Caller Number
Redirected Number
Dialed Number
Save
Delete
Copy
Reset
Add New

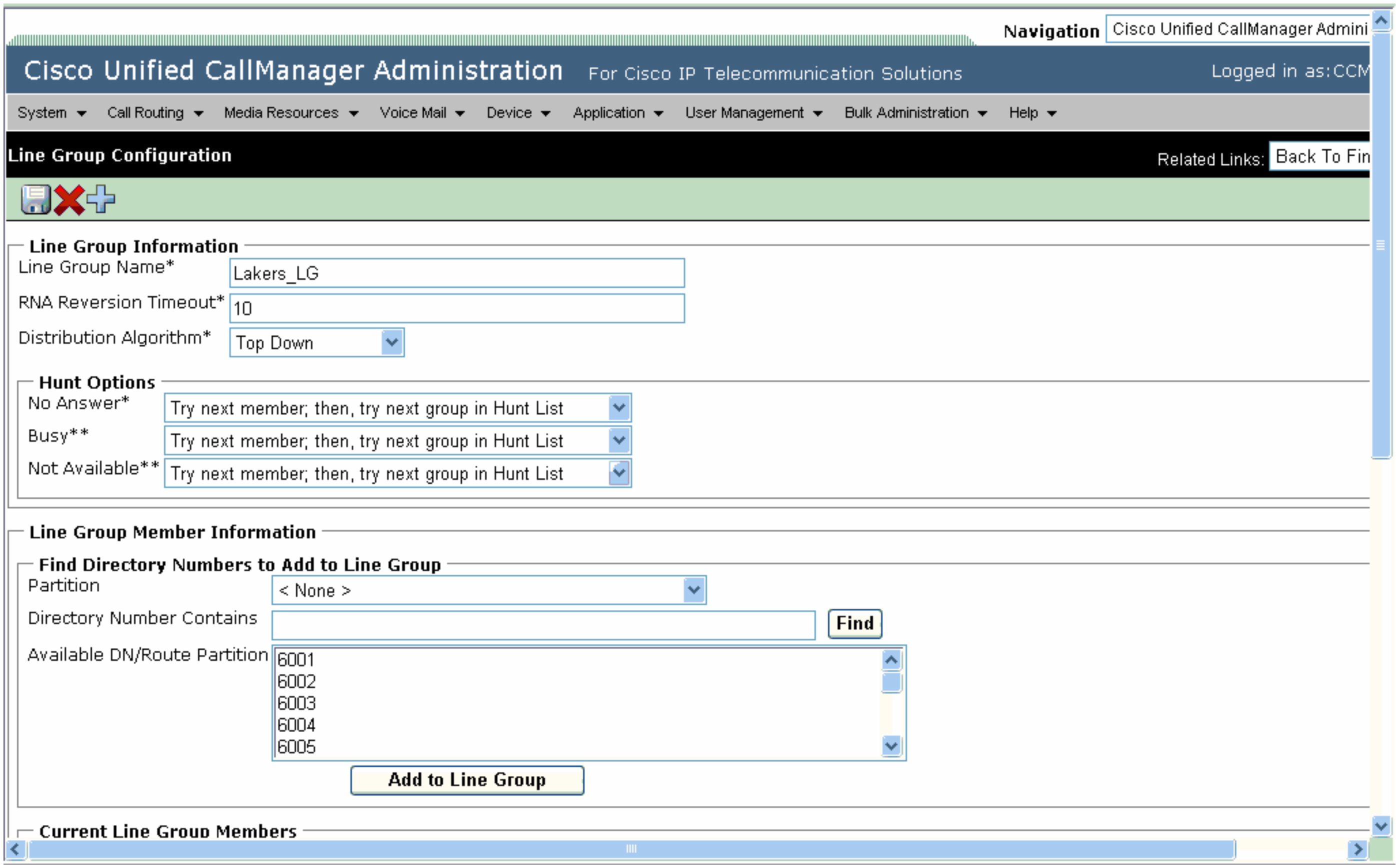
Cisco Unified CallManager SIP Phone Directory Number (Ext 6008) Level Configuration

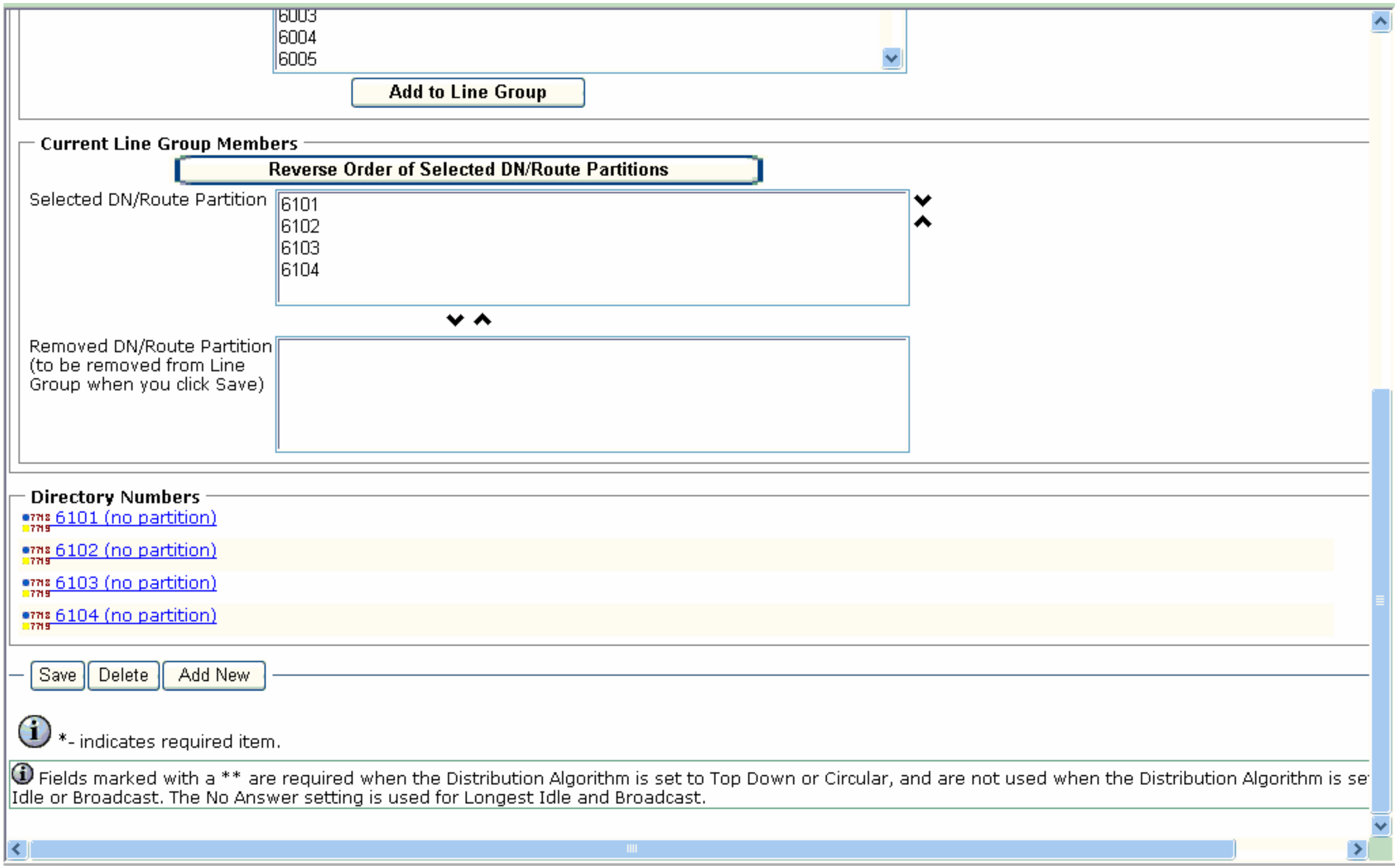



Directory Number Settings
Voice Mail Profile
Default
(Choose <None> to use system default)
Calling Search Space
< None >
Presence Group*
Standard Presence group
AAR Group
< None >
User Hold Audio Source
1-SampleAudioSource
Network Hold Audio Source
1-SampleAudioSource
Auto Answer*
Auto Answer Off
Call Forward and Call Pickup Settings
Voice Mail
Destination
Calling Search Space
Forward All
or
< None >
Secondary Calling Search Space for Forward All
< None >
Find
Forward Busy Internal
or
< None >
Forward Busy External
or
< None >
Forward No Answer Internal
or
< None >
Forward No Answer External
or
< None >
Forward No Coverage Internal
or
< None >
Forward No Coverage External
or
< None >
Forward on CTI Failure
or
< None >
No Answer Ring Duration (seconds)
Call Pickup Group
< None >
MLPP Alternate Party Settings
Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)

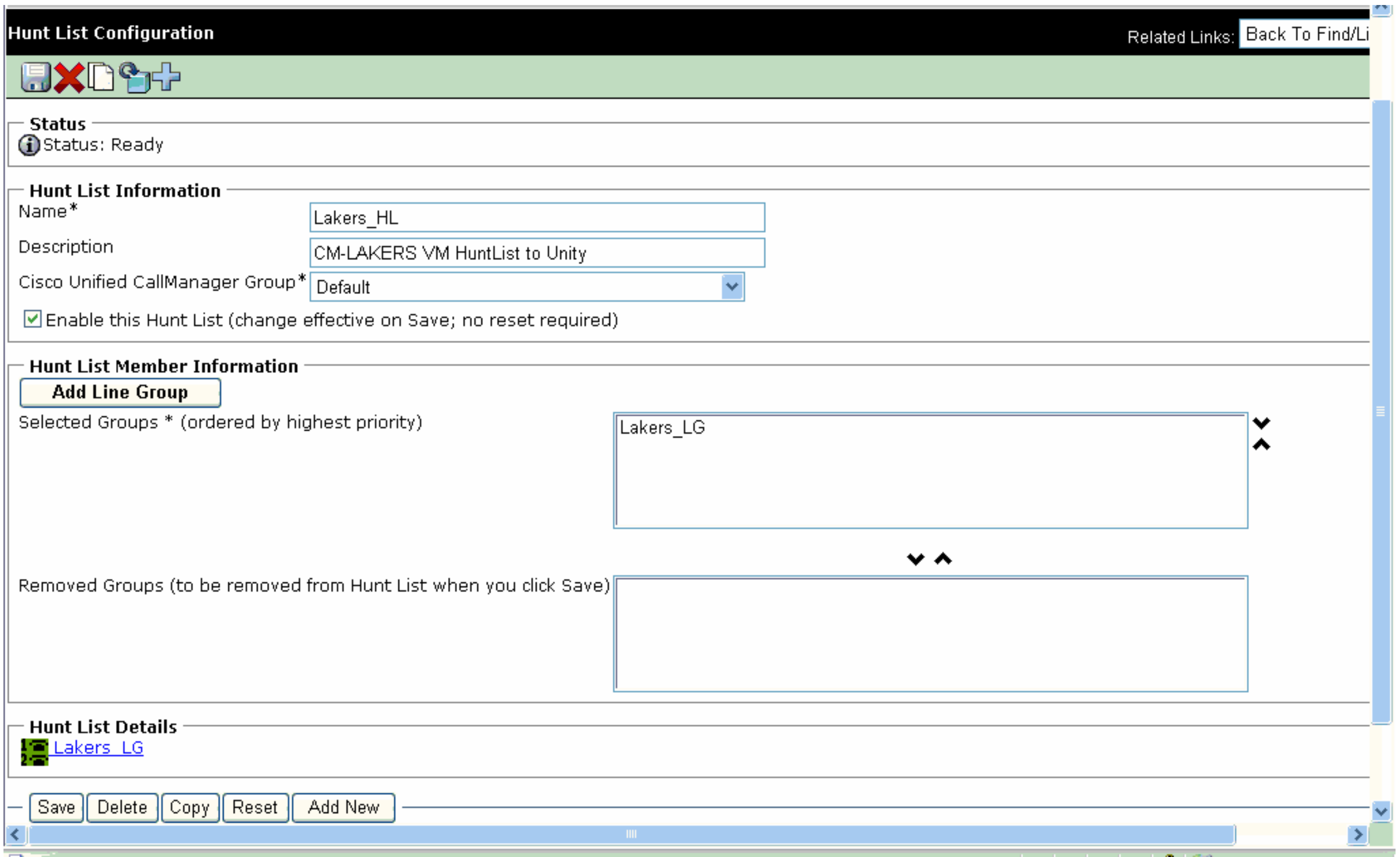

Target (Destination)
MLPP Calling Search Space
< None >
MLPP No Answer Ring Duration (seconds)
Line 1 on Device SEP00115C0E55D4
Display (Internal Caller ID)
SIP_6008
Display text for a line appearance is intended for displaying text such as a name inste
directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)
SIP_6008
Line Text Label
SIP_6008
ASCII Line Text Label
SIP_6008
External Phone Number Mask
Message Waiting Lamp Policy*
Use System Policy
Ring Setting (Phone Idle)*
Ring
Ring Setting (Phone Active)
Use System Default
Applies to this line when any line on the phone has a call in progress.
Multiple Call/Call Waiting Settings on Device SEP00115C0E55D4
Note:The range to select the Max Number of calls is: 1-50
Maximum Number of Calls*
4
Busy Trigger*
1
(Less than or equal to Max. Calls)
Forwarded Call Information Display on Device SEP00115C0E55D4
Caller Name
Caller Number
Redirected Number
Dialed Number
Save
Delete
Copy
Reset
Add New

Cisco Unified CallManager Line Group for Unity Voice Mail Configuration

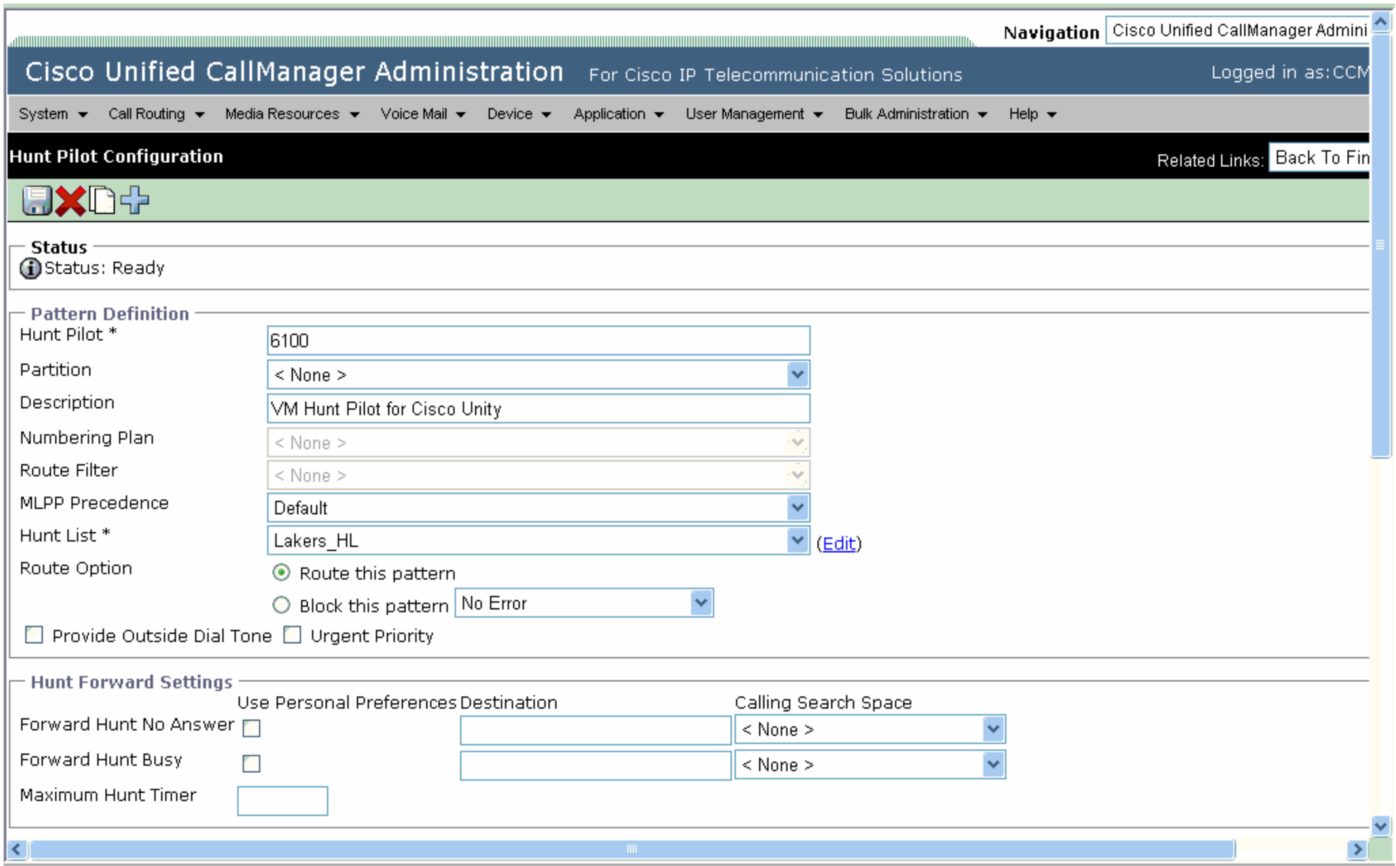


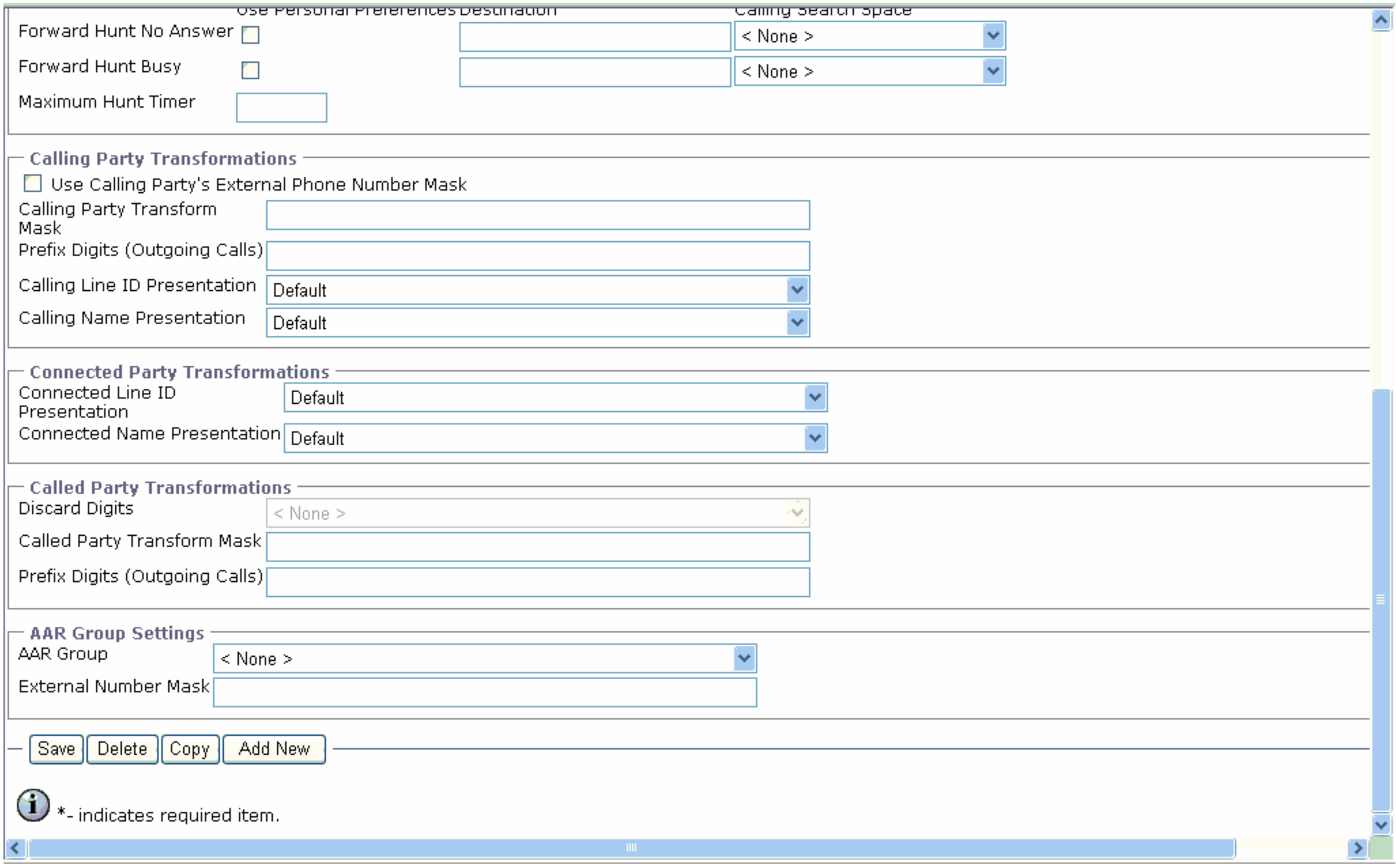

6003
6004
6005
Add to Line Group
Current Line Group Members
Reverse Order of Selected DN/Route Partitions
Selected DN/Route Partition
6101
6102
6103
6104
Removed DN/Route Partition (to be removed from Line Group when you click Save)
Directory Numbers
6101 (no partition)
6102 (no partition)
6103 (no partition)
6104 (no partition)
Save
Delete
Add New
*- indicates required item.
Fields marked with a ** are required when the Distribution Algorithm is set to Top Down or Circular, and are not used when the Distribution Algorithm is se
Idle or Broadcast. The No Answer setting is used for Longest Idle and Broadcast.

Cisco Unified CallManager Hunt List for Unity Voice Mail Configuration

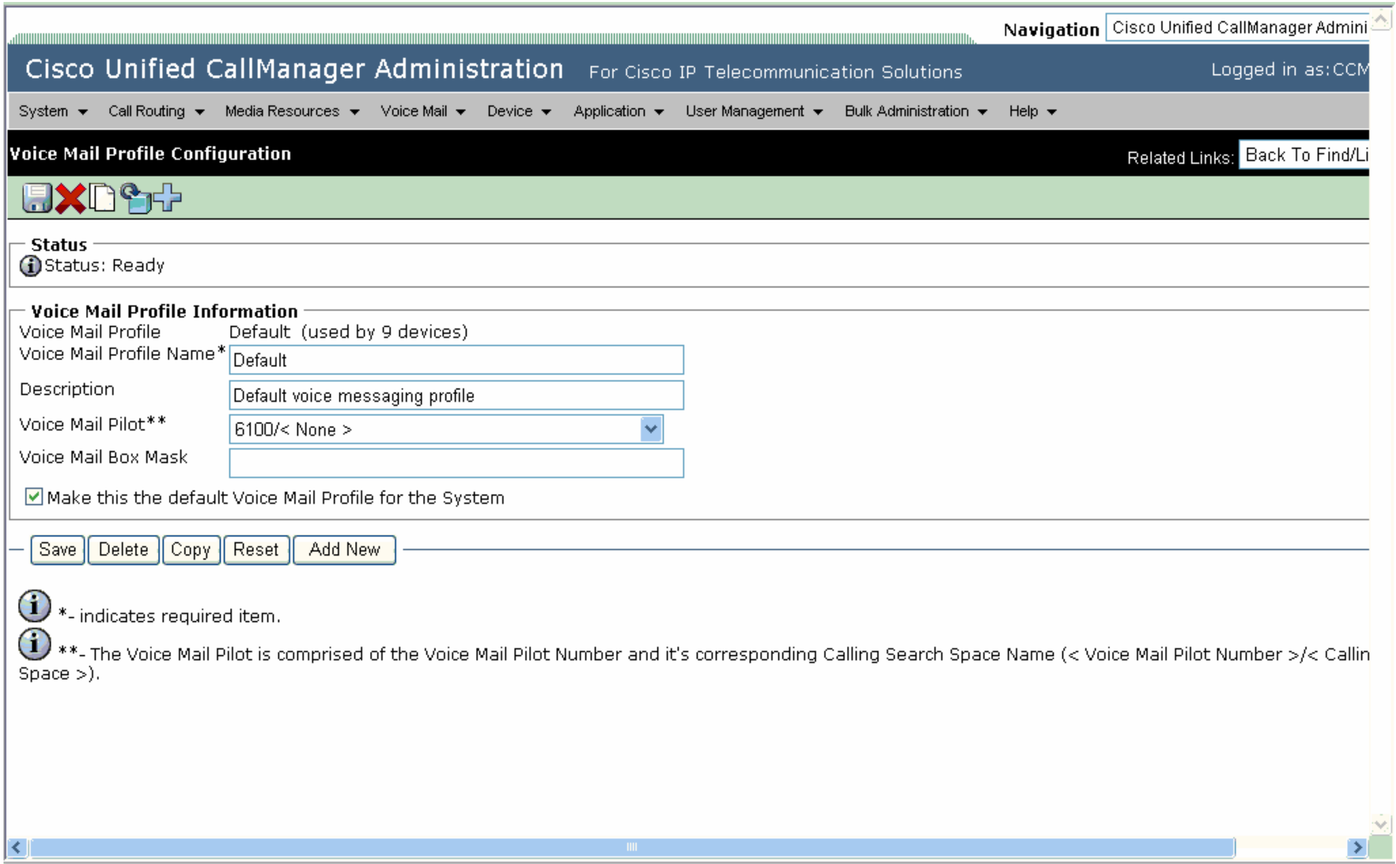


Cisco Unified CallManager Hunt Pilot for Unity Voice Mail Configuration

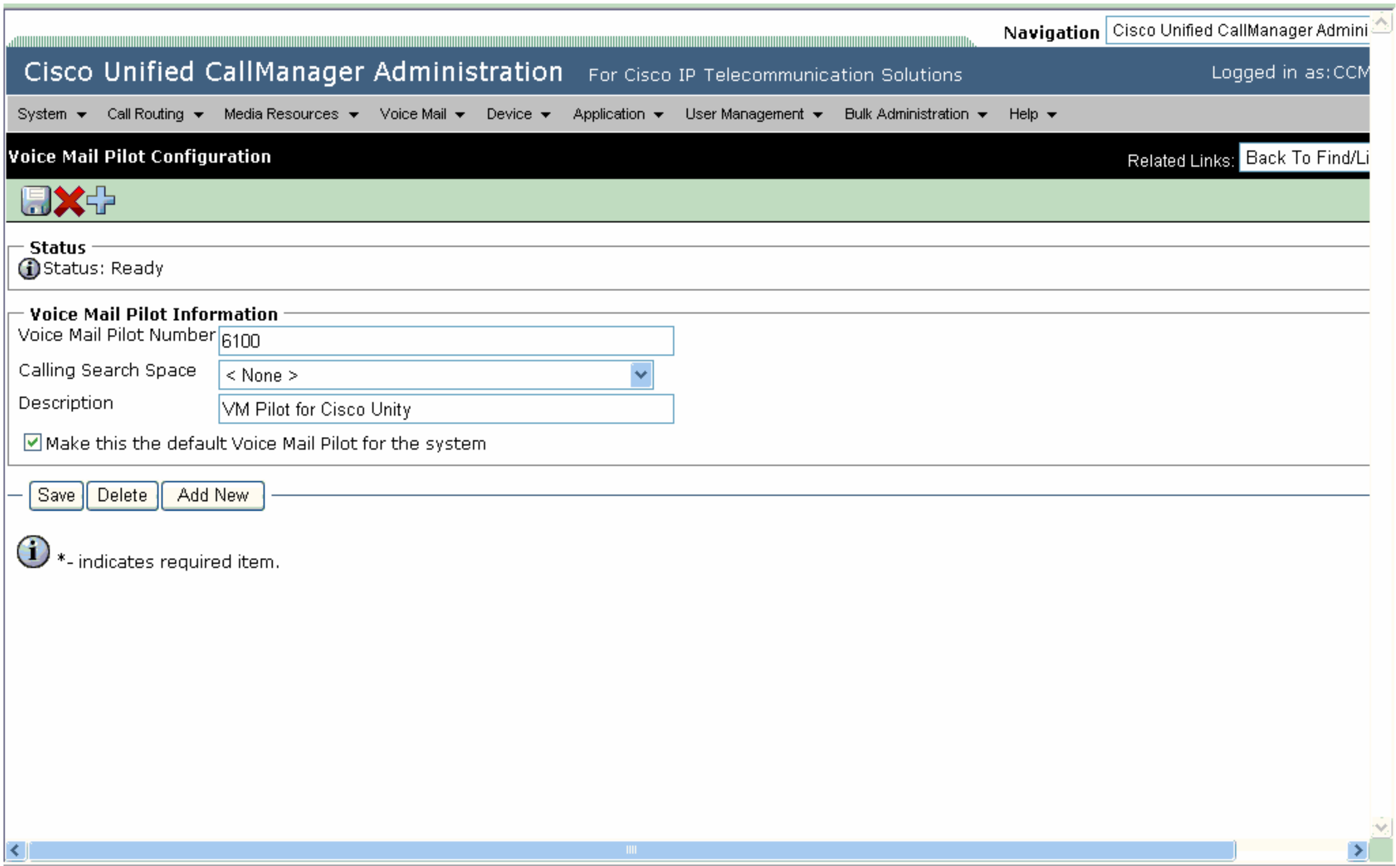



Use Personal Preferences Destination
Calling Search Space
Forward Hunt No Answer
< None >
Forward Hunt Busy
< None >
Maximum Hunt Timer
Calling Party Transformations
Use Calling Party's External Phone Number Mask
Calling Party Transform Mask
Prefix Digits (Outgoing Calls)
Calling Line ID Presentation
Default
Calling Name Presentation
Default
Connected Party Transformations
Connected Line ID Presentation
Default
Connected Name Presentation
Default
Called Party Transformations
Discard Digits
< None >
Called Party Transform Mask
Prefix Digits (Outgoing Calls)
AAR Group Settings
AAR Group
< None >
External Number Mask
Save
Delete
Copy
Add New
*- indicates required item.

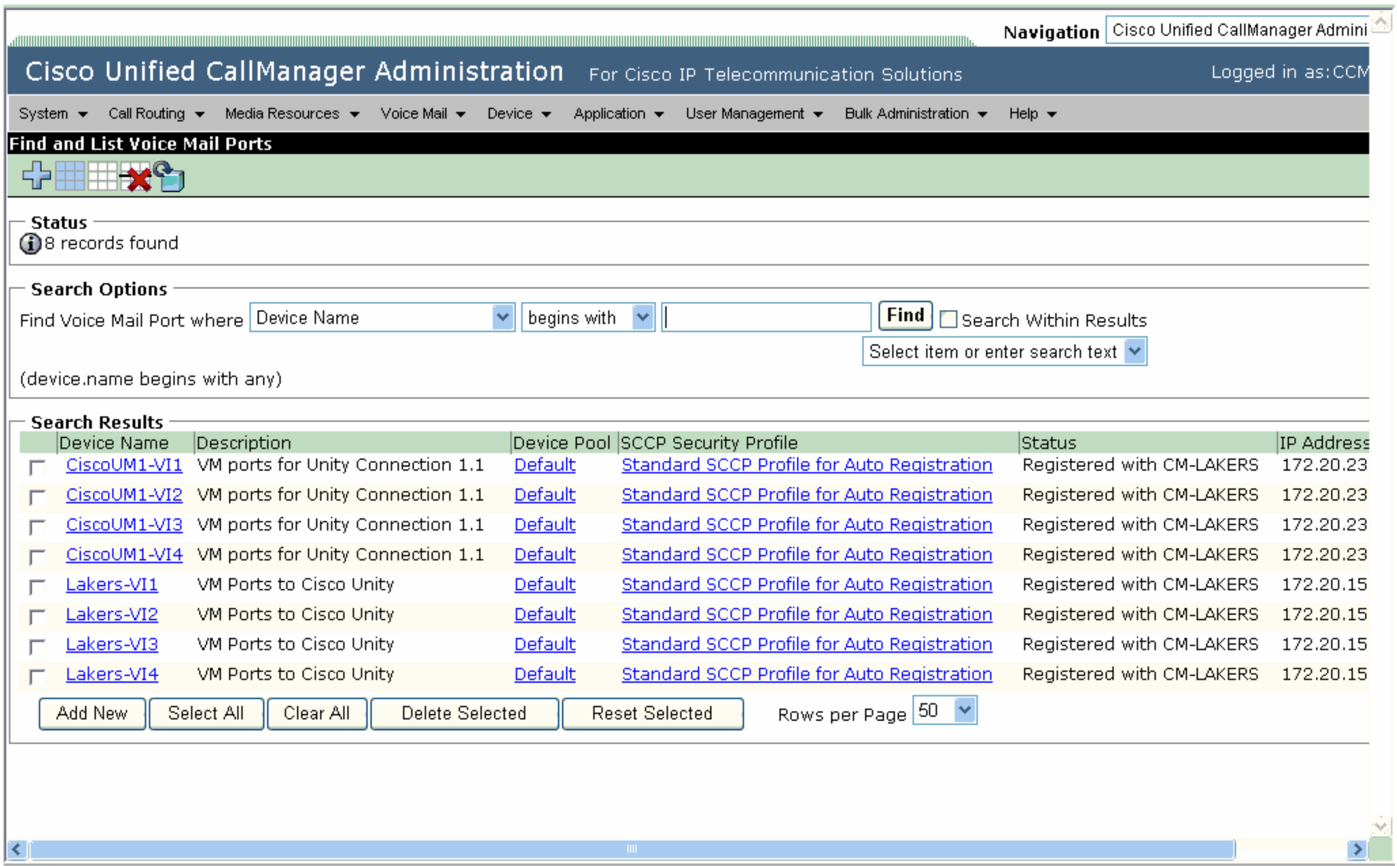
Cisco Unified CallManager Voice Mail Profile Configuration



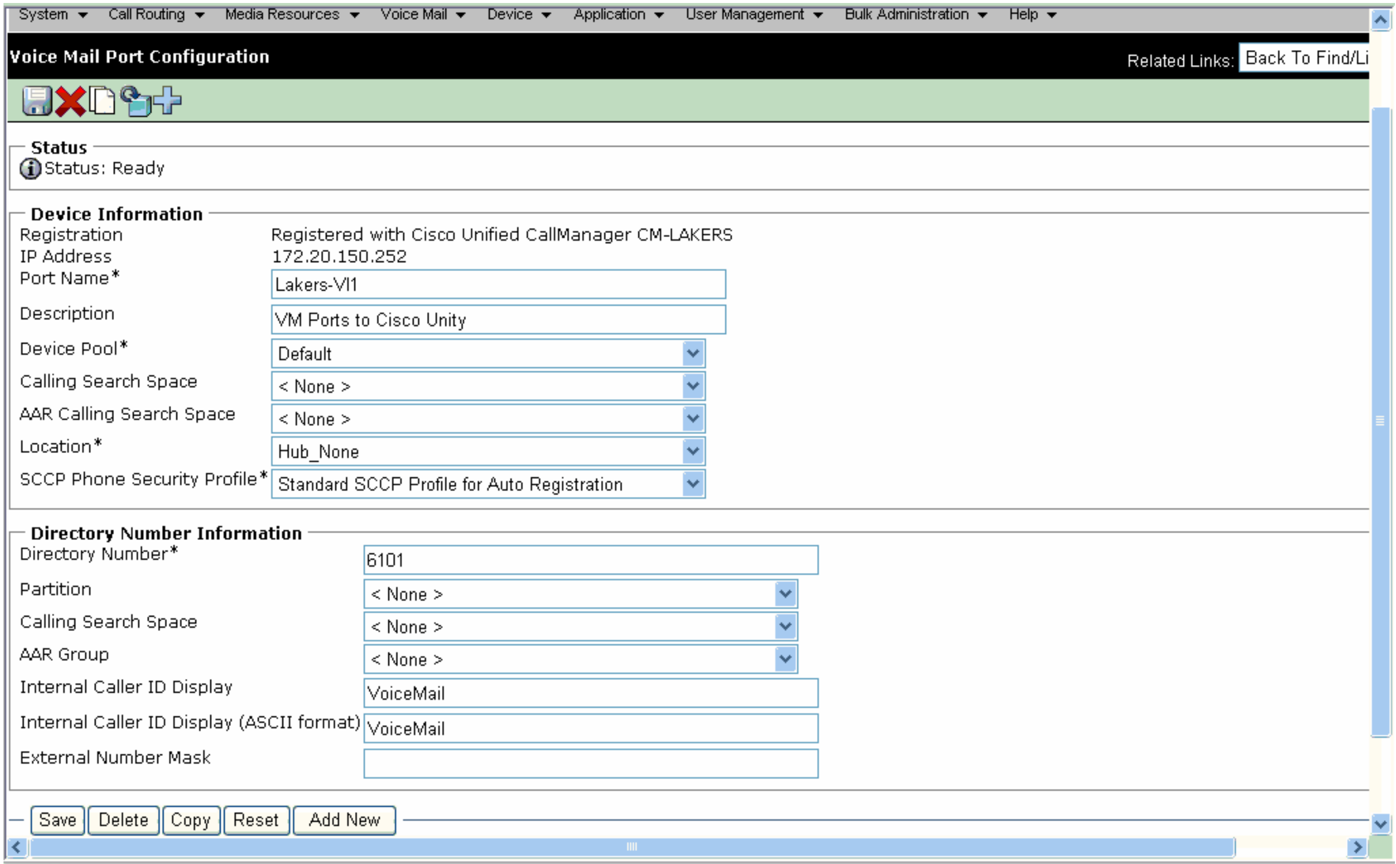
Cisco Unified CallManager Voice Mail Pilot Configuration

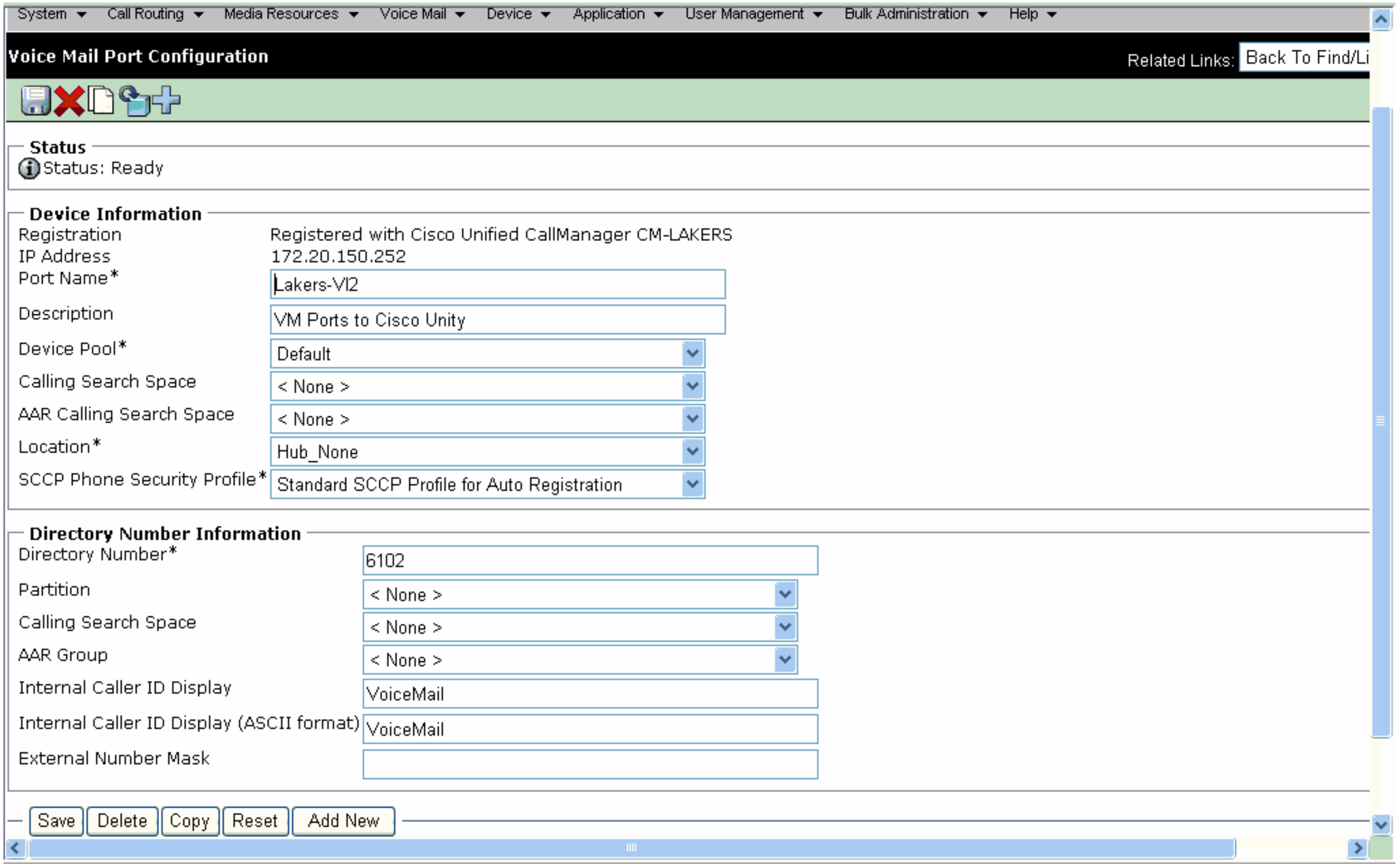


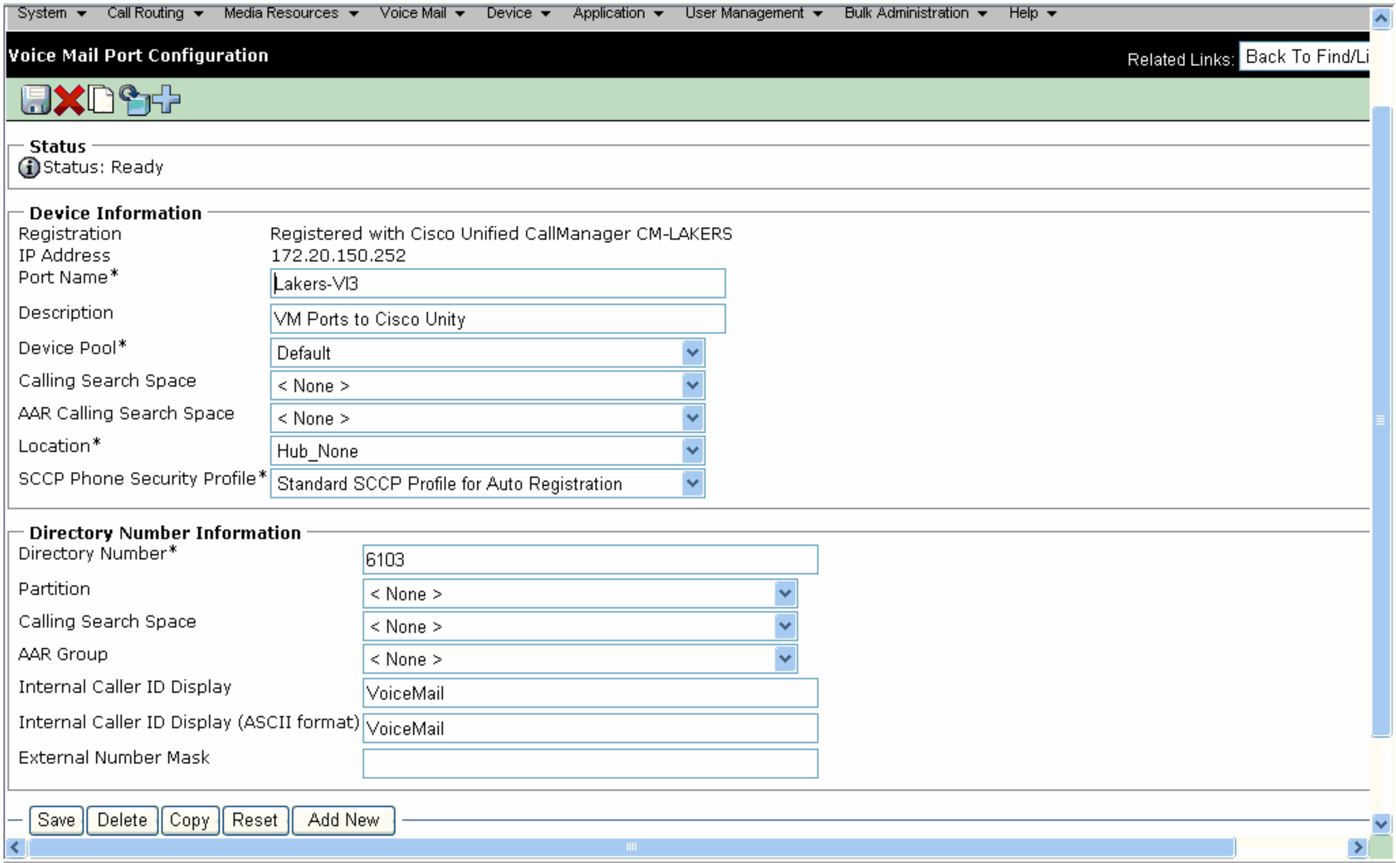
Cisco Unified CallManager Voice Mail Ports List Configuration (Lakers-VI)

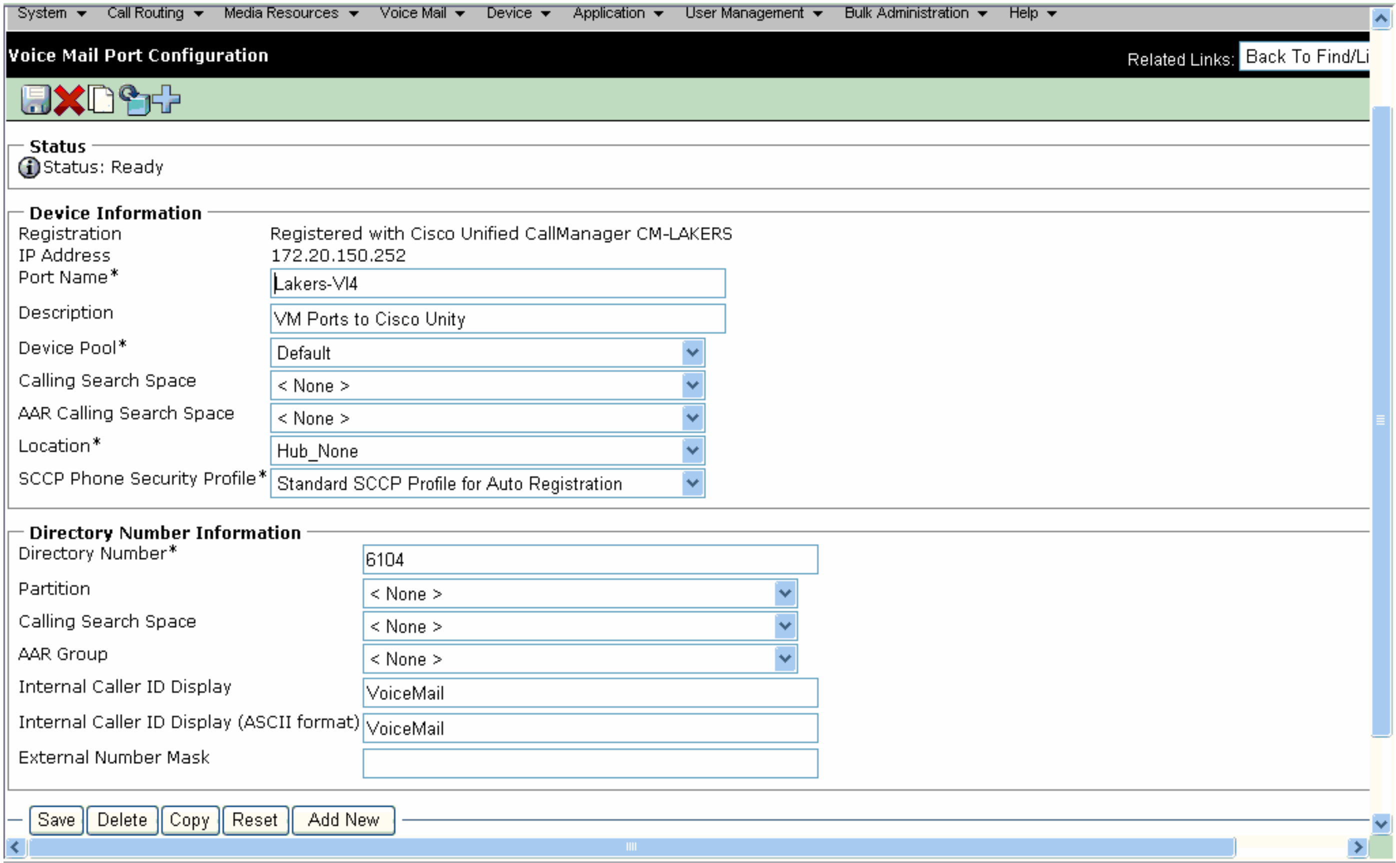


Cisco Unified CallManager Voice Mail Ports Configuration (4 VM Ports)

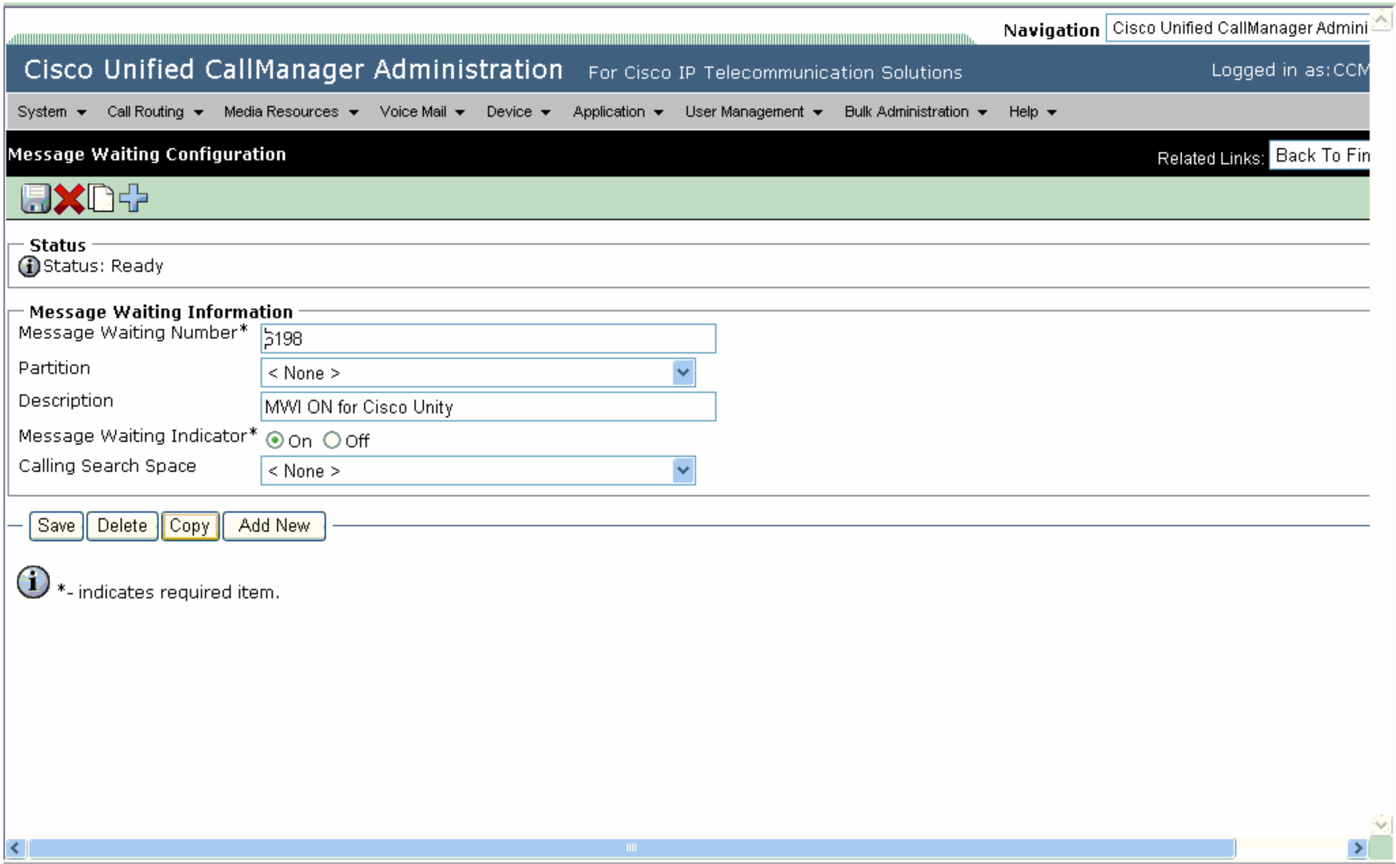

System
Call Routing
Media Resources
Voice Mail
Device
Application
User Management
Bulk Administration
Help
Voice Mail Port Configuration
Related Links: Back To Find/Li
Status
Status: Ready
Device Information
Registration
Registered with Cisco Unified CallManager CM-LAKERS
IP Address
172.20.150.252
Port Name*
Lakers-VI1
Description
VM Ports to Cisco Unity
Device Pool*
Default
Calling Search Space
< None >
AAR Calling Search Space
< None >
Location*
Hub_None
SCCP Phone Security Profile*
Standard SCCP Profile for Auto Registration
Directory Number Information
Directory Number*
6101
Partition
< None >
Calling Search Space
< None >
AAR Group
< None >
Internal Caller ID Display
VoiceMail
Internal Caller ID Display (ASCII format)
VoiceMail
External Number Mask
Save
Delete
Copy
Reset
Add New


System
Call Routing
Media Resources
Voice Mail
Device
Application
User Management
Bulk Administration
Help
Voice Mail Port Configuration
Related Links: Back To Find/Li
Status
Status: Ready
Device Information
Registration
Registered with Cisco Unified CallManager CM-LAKERS
IP Address
172.20.150.252
Port Name*
Lakers-VI2
Description
VM Ports to Cisco Unity
Device Pool*
Default
Calling Search Space
< None >
AAR Calling Search Space
< None >
Location*
Hub_None
SCCP Phone Security Profile*
Standard SCCP Profile for Auto Registration
Directory Number Information
Directory Number*
6102
Partition
< None >
Calling Search Space
< None >
AAR Group
< None >
Internal Caller ID Display
VoiceMail
Internal Caller ID Display (ASCII format)
VoiceMail
External Number Mask
Save
Delete
Copy
Reset
Add New

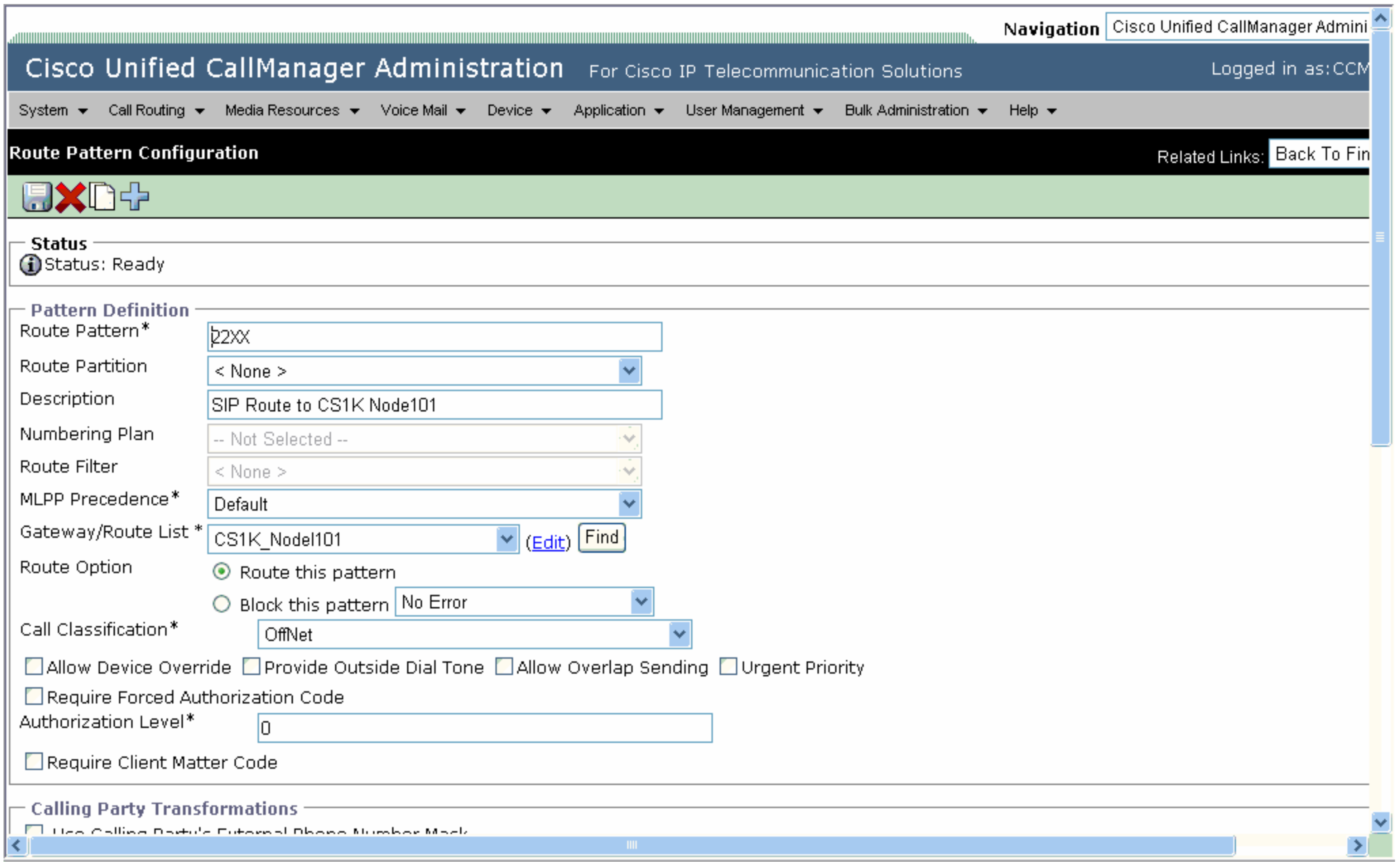

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help
Voice Mail Port Configuration
Related Links: Back To Find/Li
Status
Status: Ready
Device Information
Registration Registered with Cisco Unified CallManager CM-LAKERS
IP Address 172.20.150.252
Port Name* Lakers-VI3
Description VM Ports to Cisco Unity
Device Pool* Default
Calling Search Space < None >
AAR Calling Search Space < None >
Location* Hub_None
SCCP Phone Security Profile* Standard SCCP Profile for Auto Registration
Directory Number Information
Directory Number* 6103
Partition < None >
Calling Search Space < None >
AAR Group < None >
Internal Caller ID Display VoiceMail
Internal Caller ID Display (ASCII format) VoiceMail
External Number Mask
Save Delete Copy Reset Add New

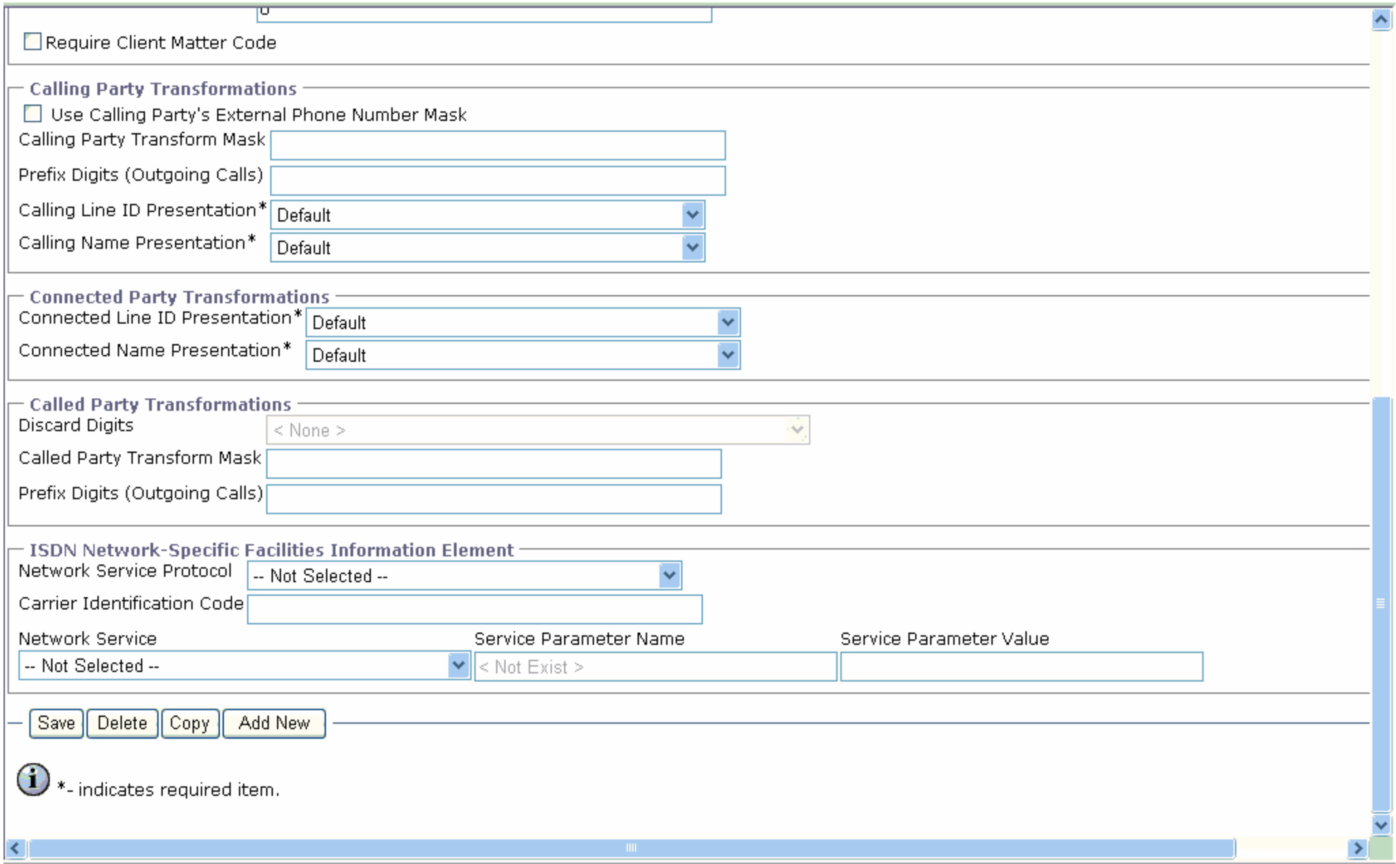


Cisco Unified CallManager Voice Mail MWI ON and OFF Configuration

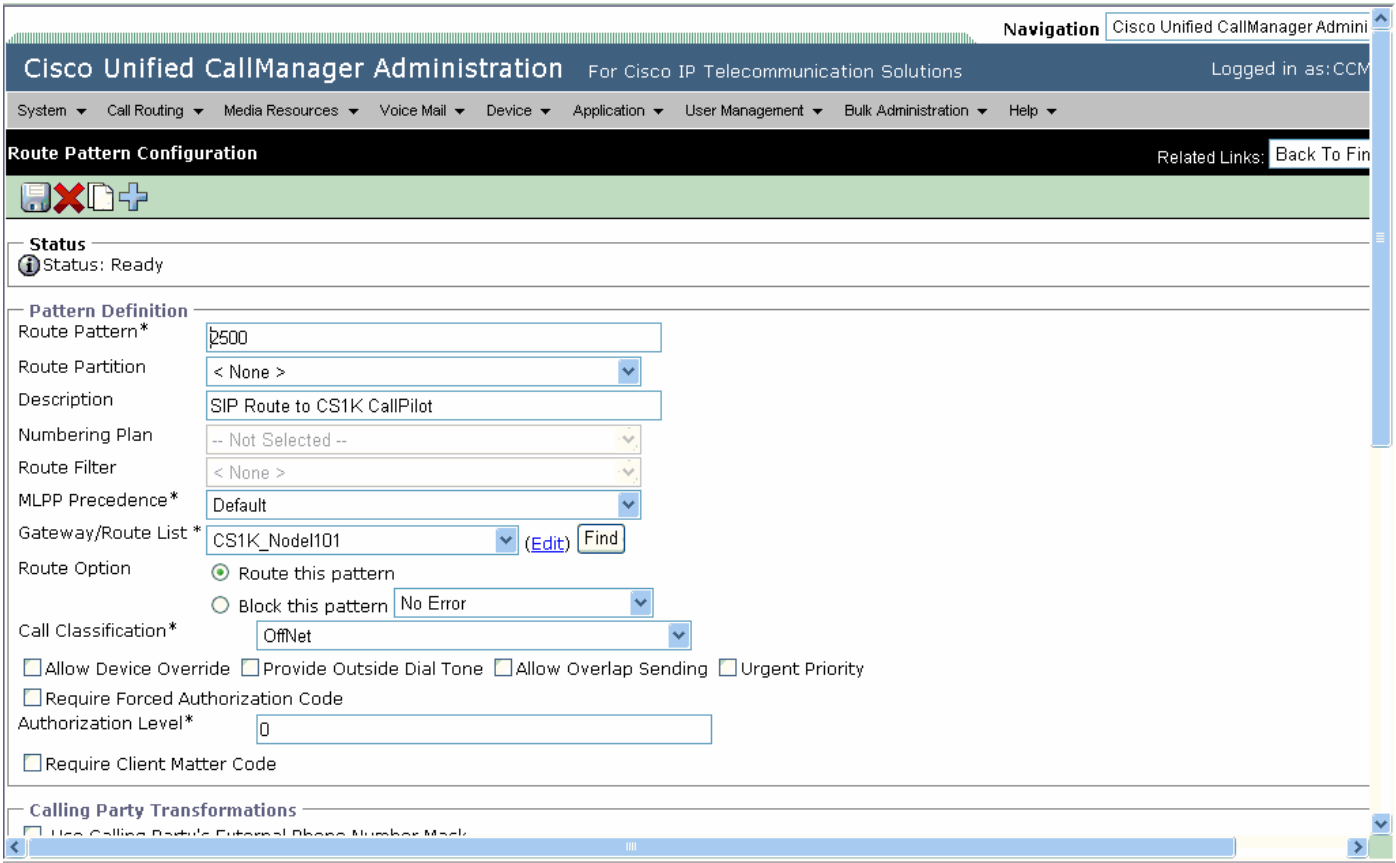


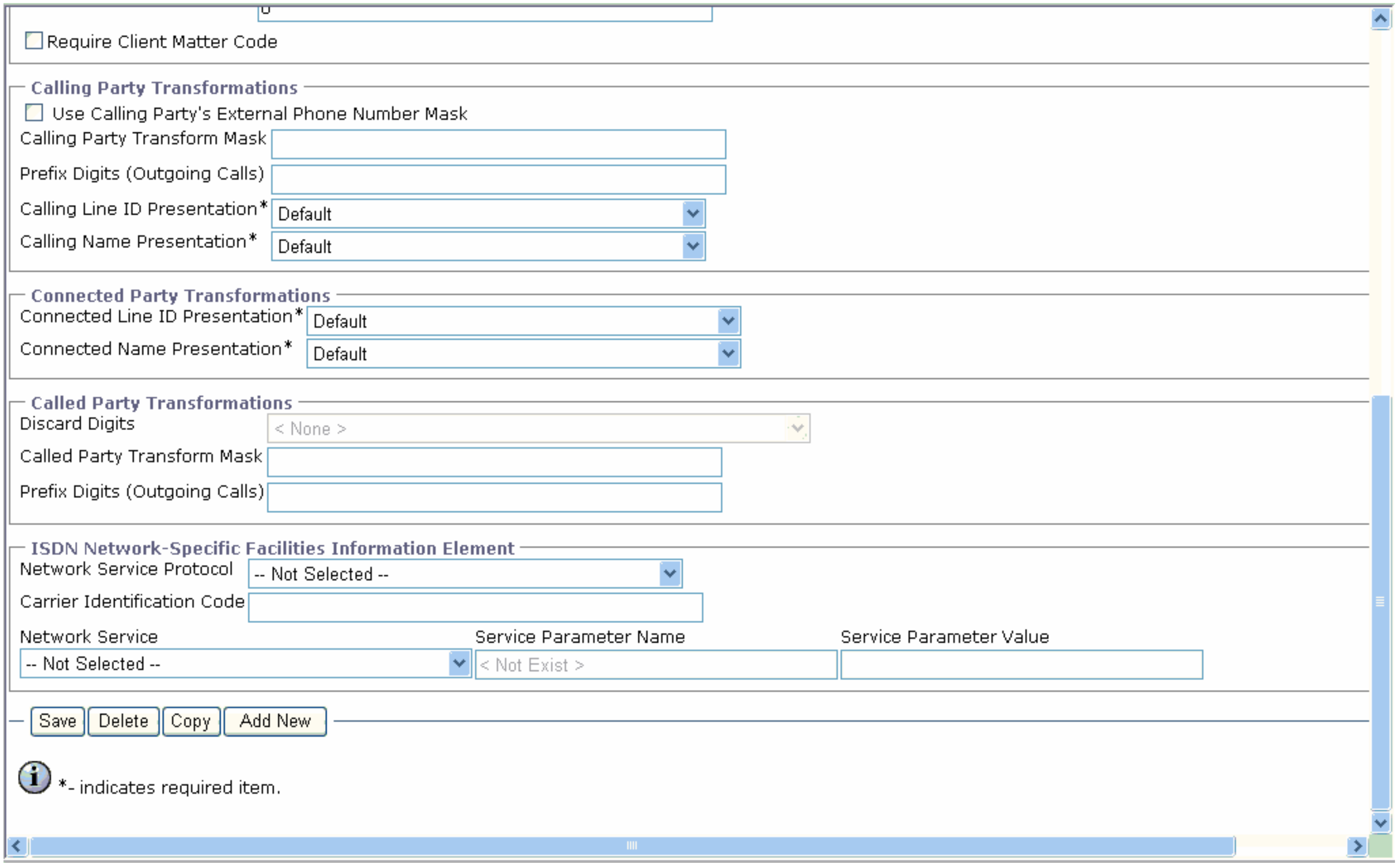
Cisco Unified CallManager Route Pattern (22XX) to Nortel PBX extensions Configuration


Navigation
Cisco Unified CallManager Admini
Cisco Unified CallManager Administration
For Cisco IP Telecommunication Solutions
Logged in as:CCM
System
Call Routing
Media Resources
Voice Mail
Device
Application
User Management
Bulk Administration
Help
Route Pattern Configuration
Related Links:
Back To Fin
Status
Status: Ready
Pattern Definition
Route Pattern*
22XX
Route Partition
< None >
Description
SIP Route to CS1K Node101
Numbering Plan
-- Not Selected --
Route Filter
< None >
MLPP Precedence*
Default
Gateway/Route List *
CS1K_Node101
(Edit)
Find
Route Option
Route this pattern
Block this pattern
No Error
Call Classification*
OffNet
Allow Device Override
Provide Outside Dial Tone
Allow Overlap Sending
Urgent Priority
Require Forced Authorization Code
Authorization Level*
0
Require Client Matter Code
Calling Party Transformations


Require Client Matter Code
Calling Party Transformations
Use Calling Party's External Phone Number Mask
Calling Party Transform Mask
Prefix Digits (Outgoing Calls)
Calling Line ID Presentation*
Default
Calling Name Presentation*
Default
Connected Party Transformations
Connected Line ID Presentation*
Default
Connected Name Presentation*
Default
Called Party Transformations
Discard Digits
< None >
Called Party Transform Mask
Prefix Digits (Outgoing Calls)
ISDN Network-Specific Facilities Information Element
Network Service Protocol
-- Not Selected --
Carrier Identification Code
Network Service
Service Parameter Name
Service Parameter Value
-- Not Selected --
< Not Exist >
Save
Delete
Copy
Add New
*- indicates required item.

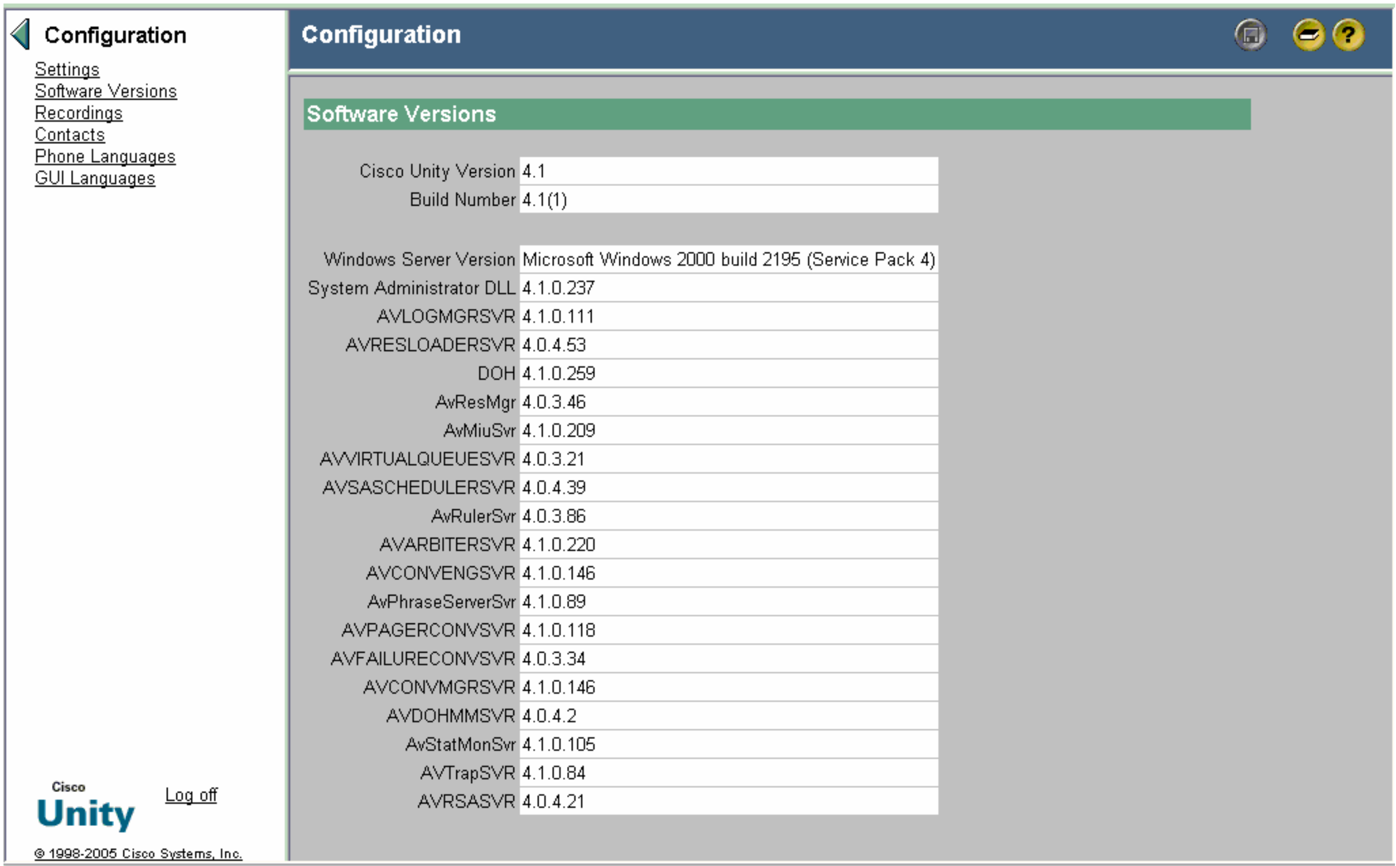
Cisco Unified CallManager Route Pattern (2500) to Nortel Call Pilot VM Pilot Number Configuration



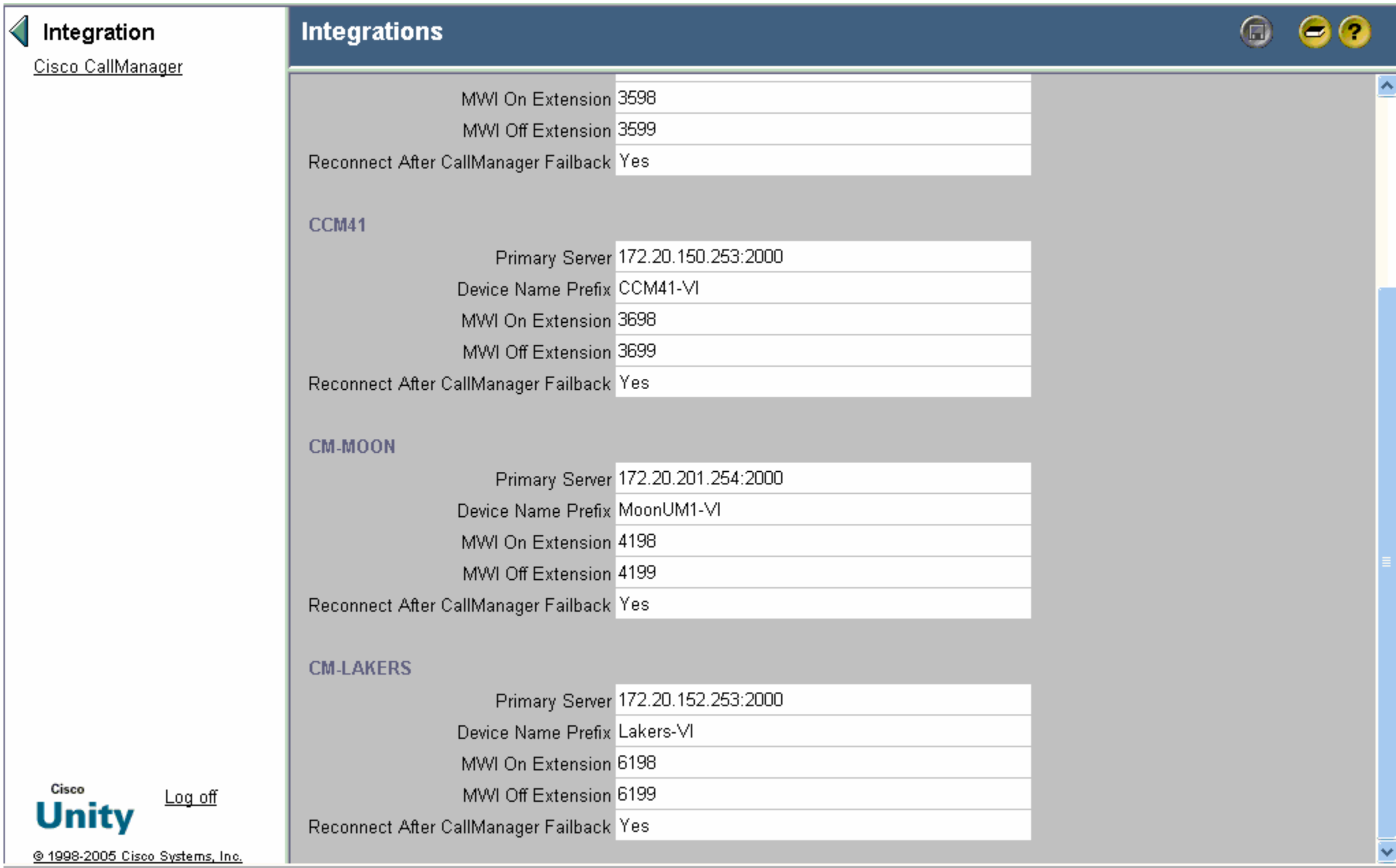

Require Client Matter Code
Calling Party Transformations
Use Calling Party's External Phone Number Mask
Calling Party Transform Mask
Prefix Digits (Outgoing Calls)
Calling Line ID Presentation*
Default
Calling Name Presentation*
Default
Connected Party Transformations
Connected Line ID Presentation*
Default
Connected Name Presentation*
Default
Called Party Transformations
Discard Digits
< None >
Called Party Transform Mask
Prefix Digits (Outgoing Calls)
ISDN Network-Specific Facilities Information Element
Network Service Protocol
-- Not Selected --
Carrier Identification Code
Network Service
-- Not Selected --
Service Parameter Name
< Not Exist >
Service Parameter Value
Save
Delete
Copy
Add New
*- indicates required item.

Cisco Unity Configuration

Cisco Unity Software Version



Cisco Unity Integration (CM-LAKERS)


Integration
Cisco CallManager
Integrations
MWI On Extension 3598
MWI Off Extension 3599
Reconnect After CallManager Failback Yes
CCM41
Primary Server 172.20.150.253:2000
Device Name Prefix CCM41-VI
MWI On Extension 3698
MWI Off Extension 3699
Reconnect After CallManager Failback Yes
CM-MOON
Primary Server 172.20.201.254:2000
Device Name Prefix MoonUM1-VI
MWI On Extension 4198
MWI Off Extension 4199
Reconnect After CallManager Failback Yes
CM-LAKERS
Primary Server 172.20.152.253:2000
Device Name Prefix Lakers-VI
MWI On Extension 6198
MWI Off Extension 6199
Reconnect After CallManager Failback Yes
Cisco Unity
Log off
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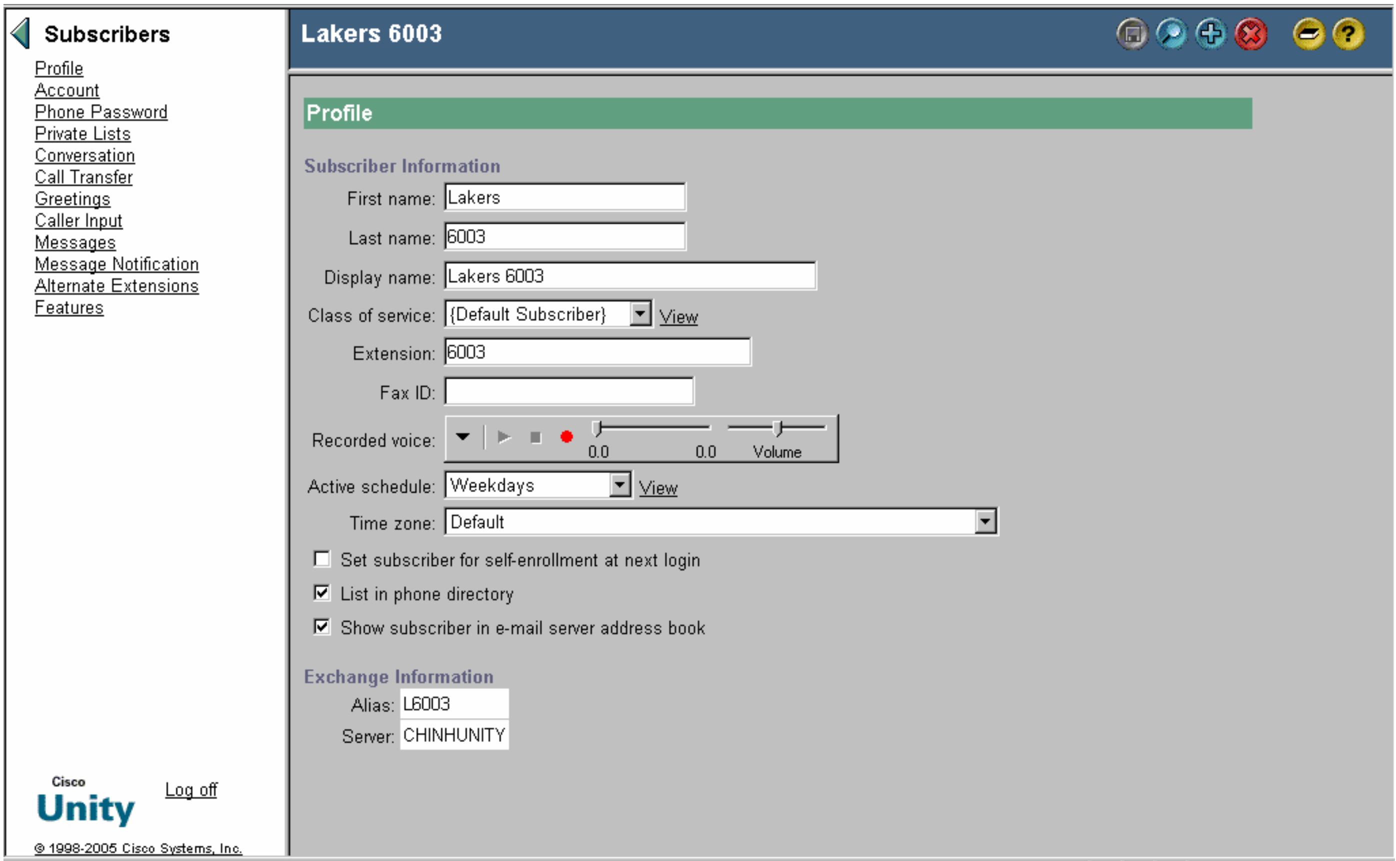
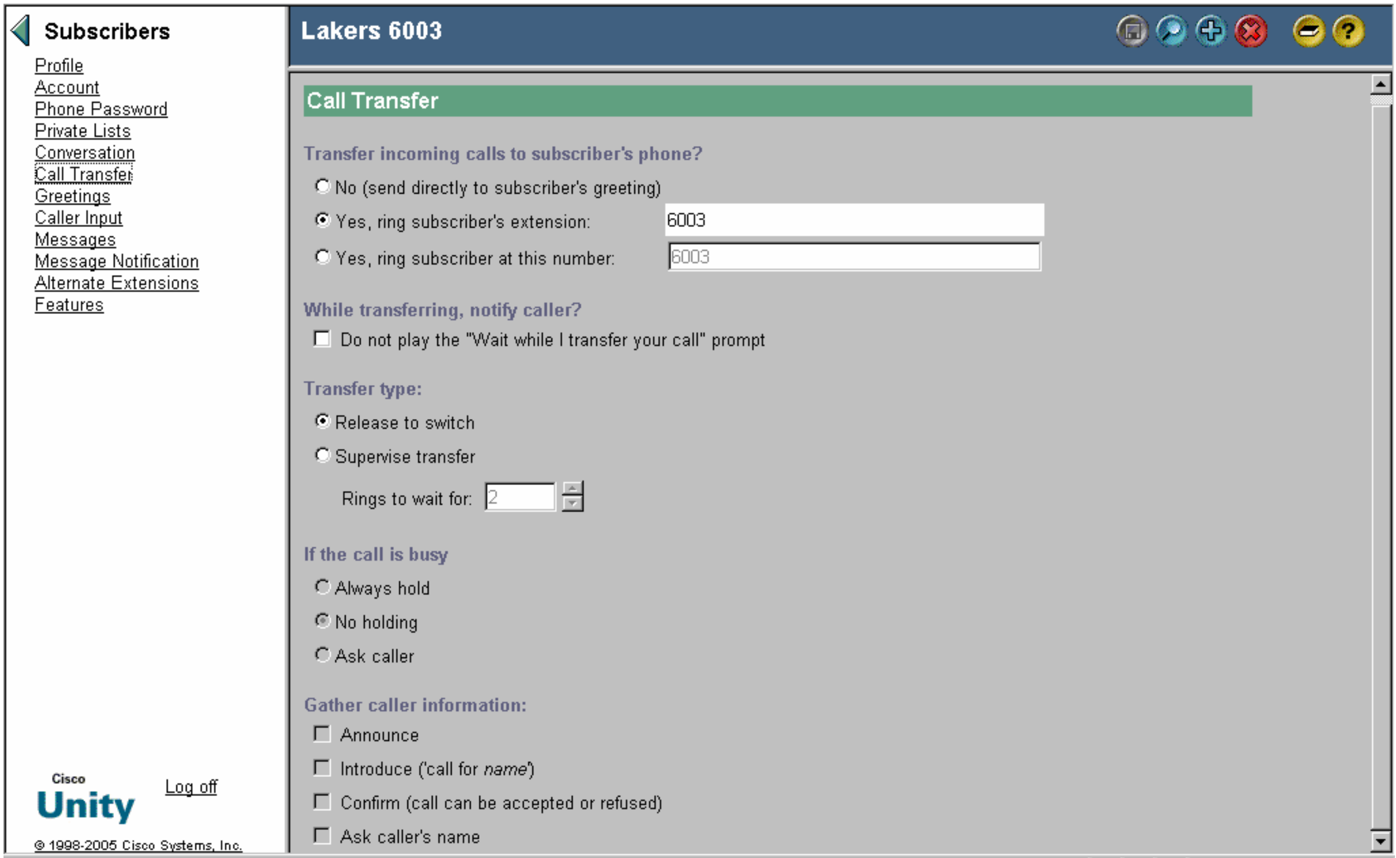
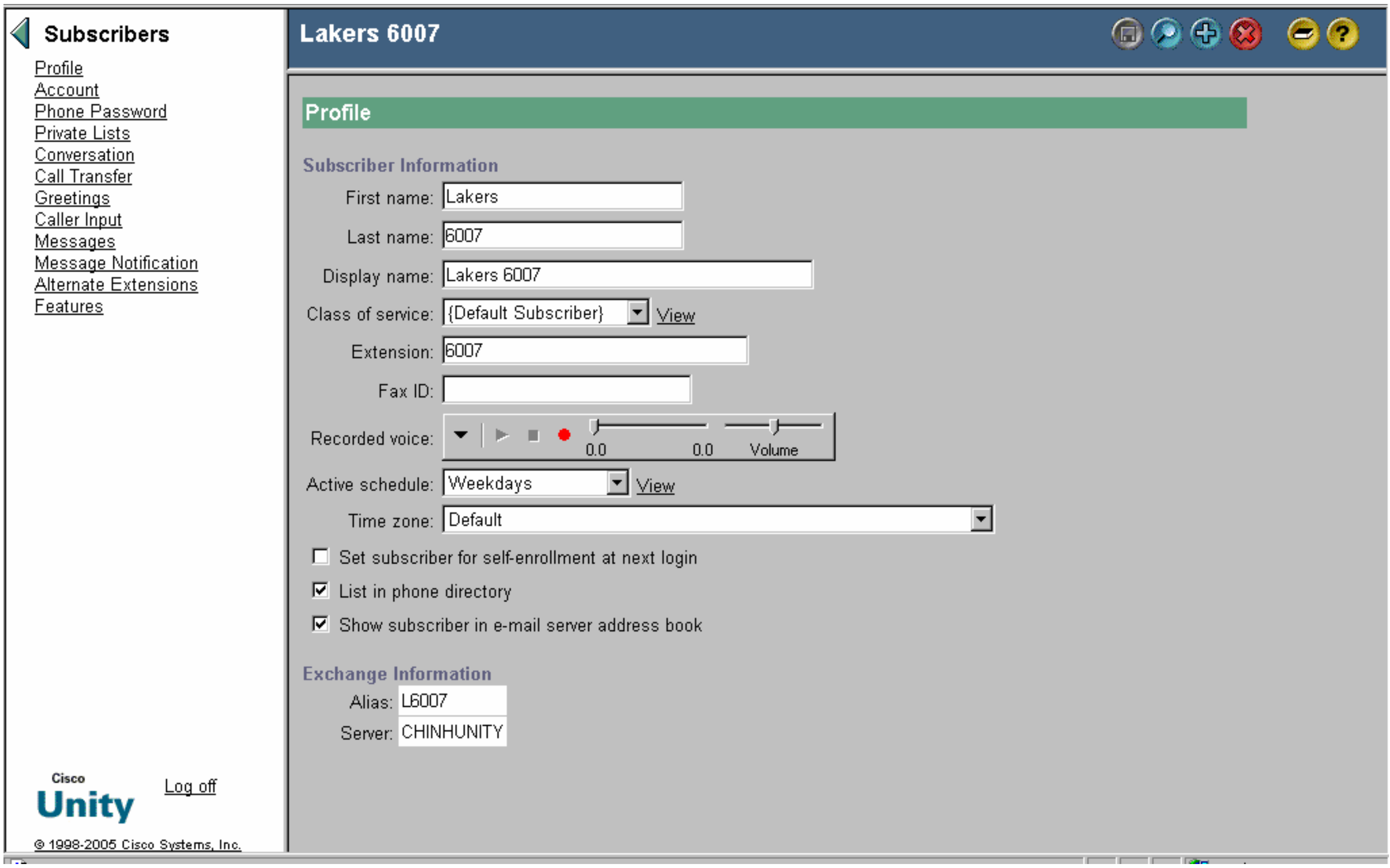
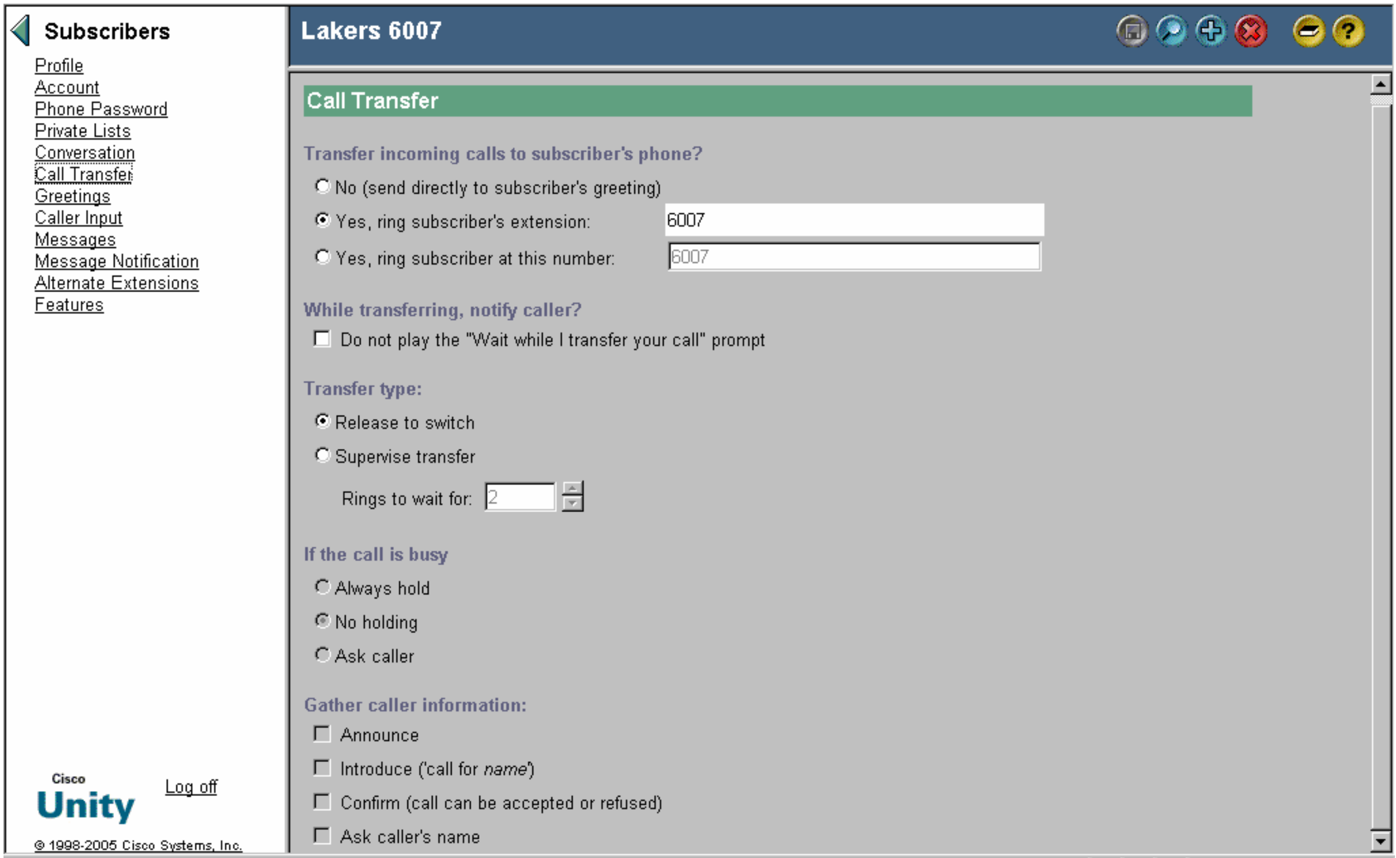
Cisco Unity Subscriber (SCCP 6003) Configuration




Subscribers
Profile
Account
Phone Password
Private Lists
Conversation
Call Transfer
Greetings
Caller Input
Messages
Message Notification
Alternate Extensions
Features
Cisco
Unity
Log off
© 1998-2005 Cisco Systems, Inc.
Lakers 6003
Call Transfer
Transfer incoming calls to subscriber's phone?
No (send directly to subscriber's greeting)
Yes, ring subscriber's extension:
6003
Yes, ring subscriber at this number:
6003
While transferring, notify caller?
Do not play the "Wait while I transfer your call" prompt
Transfer type:
Release to switch
Supervise transfer
Rings to wait for:
2
If the call is busy
Always hold
No holding
Ask caller
Gather caller information:
Announce
Introduce ('call for *name*')
Confirm (call can be accepted or refused)
Ask caller's name

Cisco Unity Subscriber (SIP 6007) Configurations




Subscribers
Profile
Account
Phone Password
Private Lists
Conversation
Call Transfer
Greetings
Caller Input
Messages
Message Notification
Alternate Extensions
Features
Cisco
Unity
Log off
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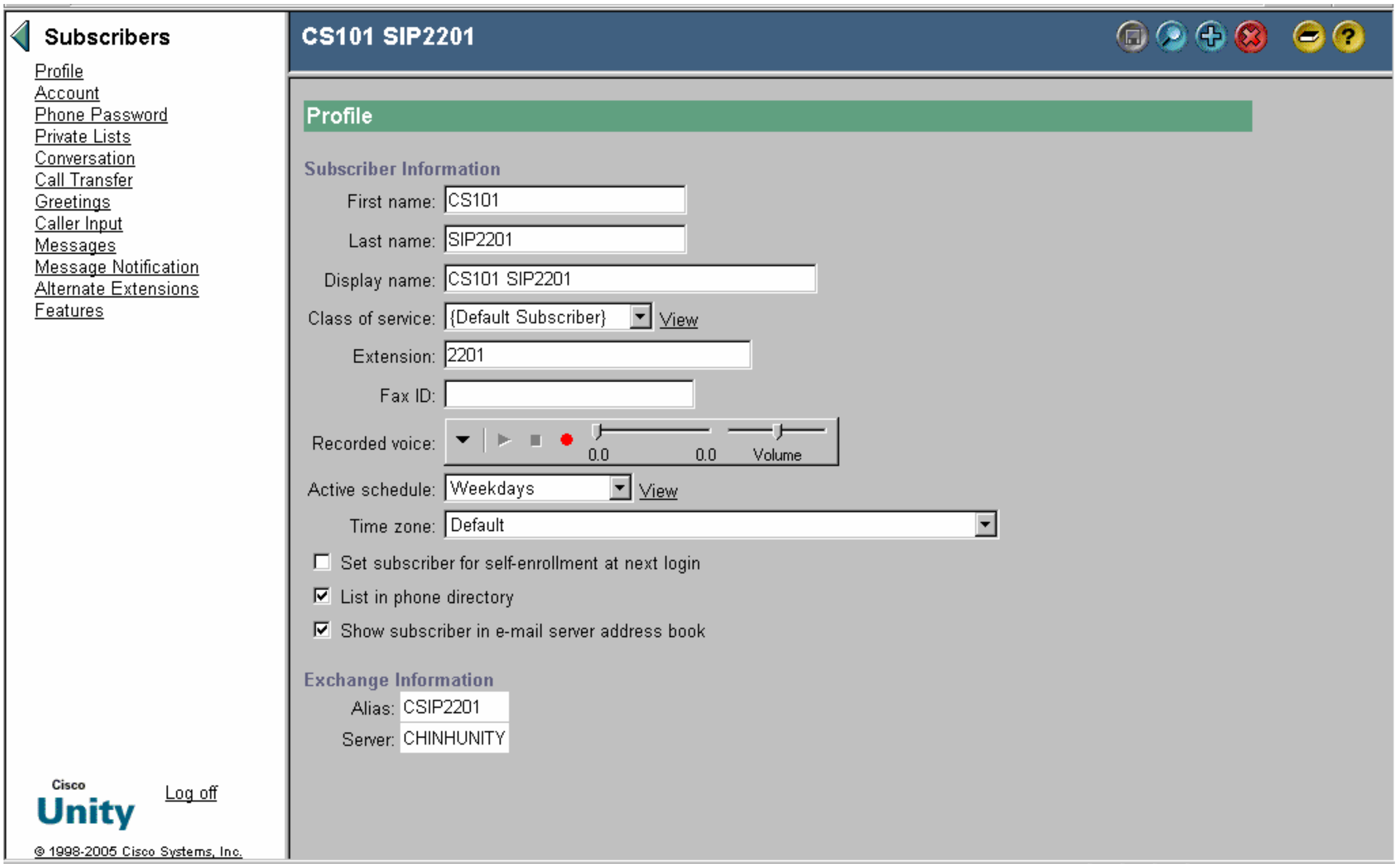
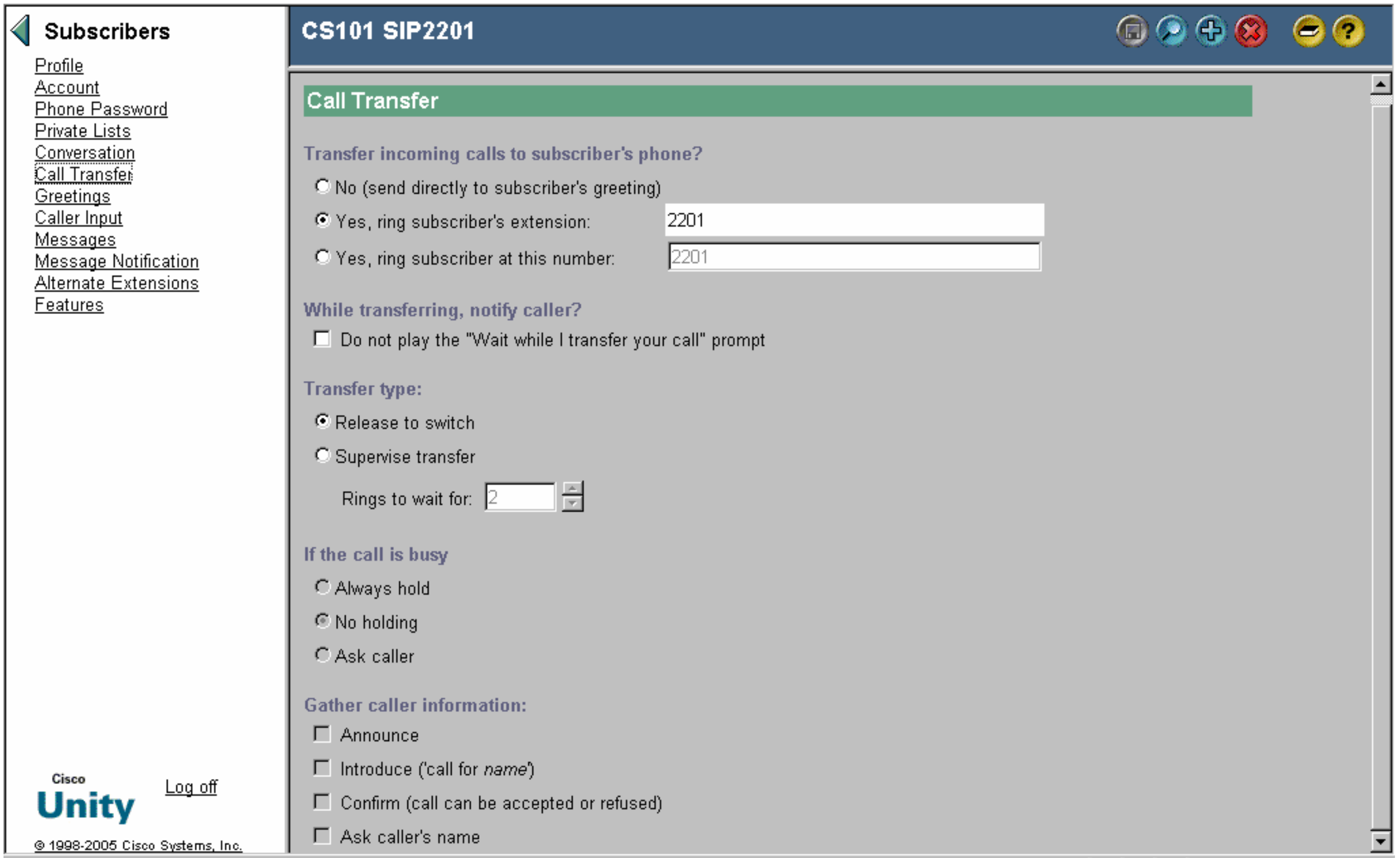
Lakers 6007
Call Transfer
Transfer incoming calls to subscriber's phone?
No (send directly to subscriber's greeting)
Yes, ring subscriber's extension:
6007
Yes, ring subscriber at this number:
6007
While transferring, notify caller?
Do not play the "Wait while I transfer your call" prompt
Transfer type:
Release to switch
Supervise transfer
Rings to wait for:
2
If the call is busy
Always hold
No holding
Ask caller
Gather caller information:
Announce
Introduce ('call for name')
Confirm (call can be accepted or refused)
Ask caller's name

Cisco Unity Subscriber (Nortel ext. 2201) Configurations




Subscribers
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Greetings
Caller Input
Messages
Message Notification
Alternate Extensions
Features
Cisco Unity
Log off
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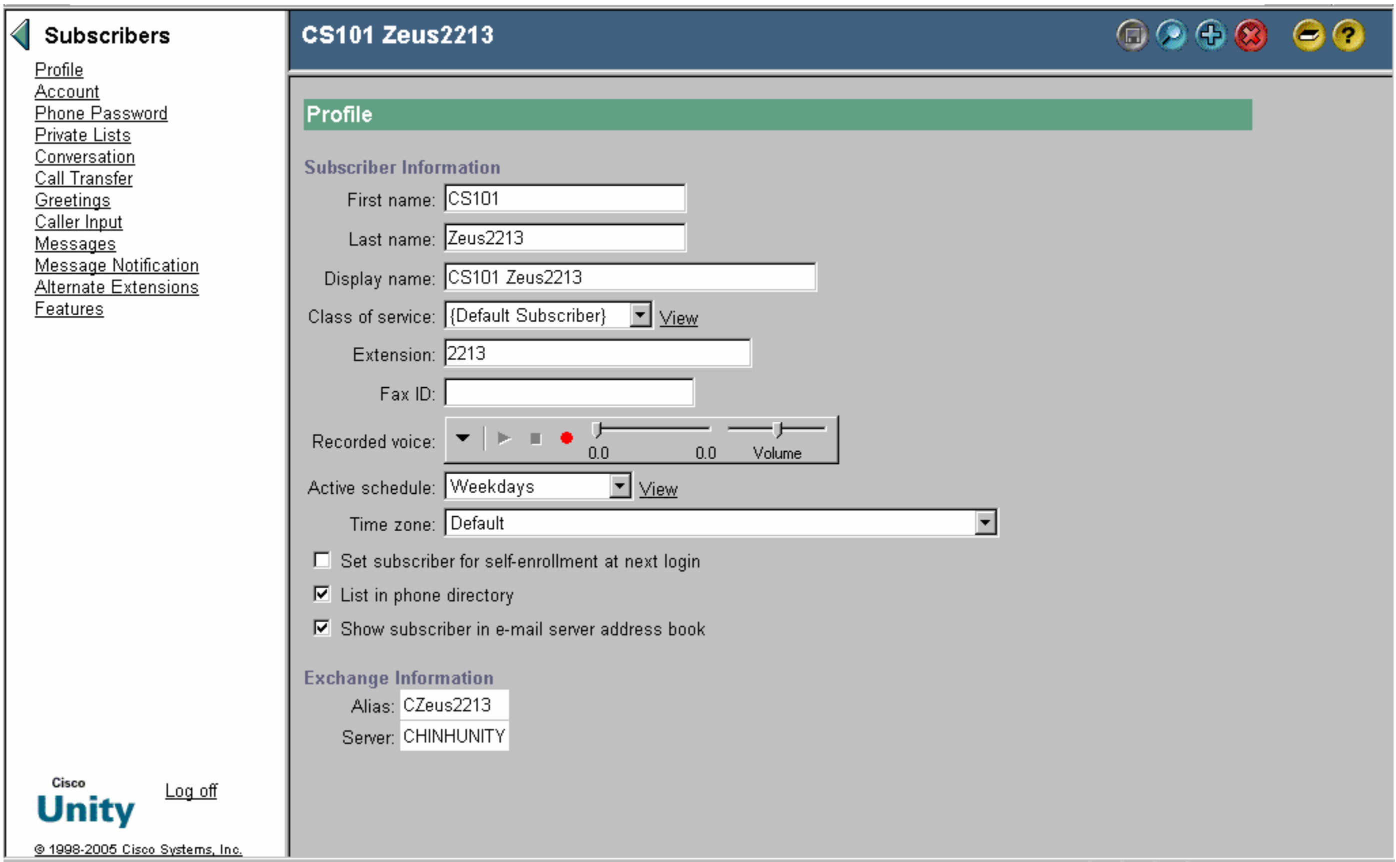
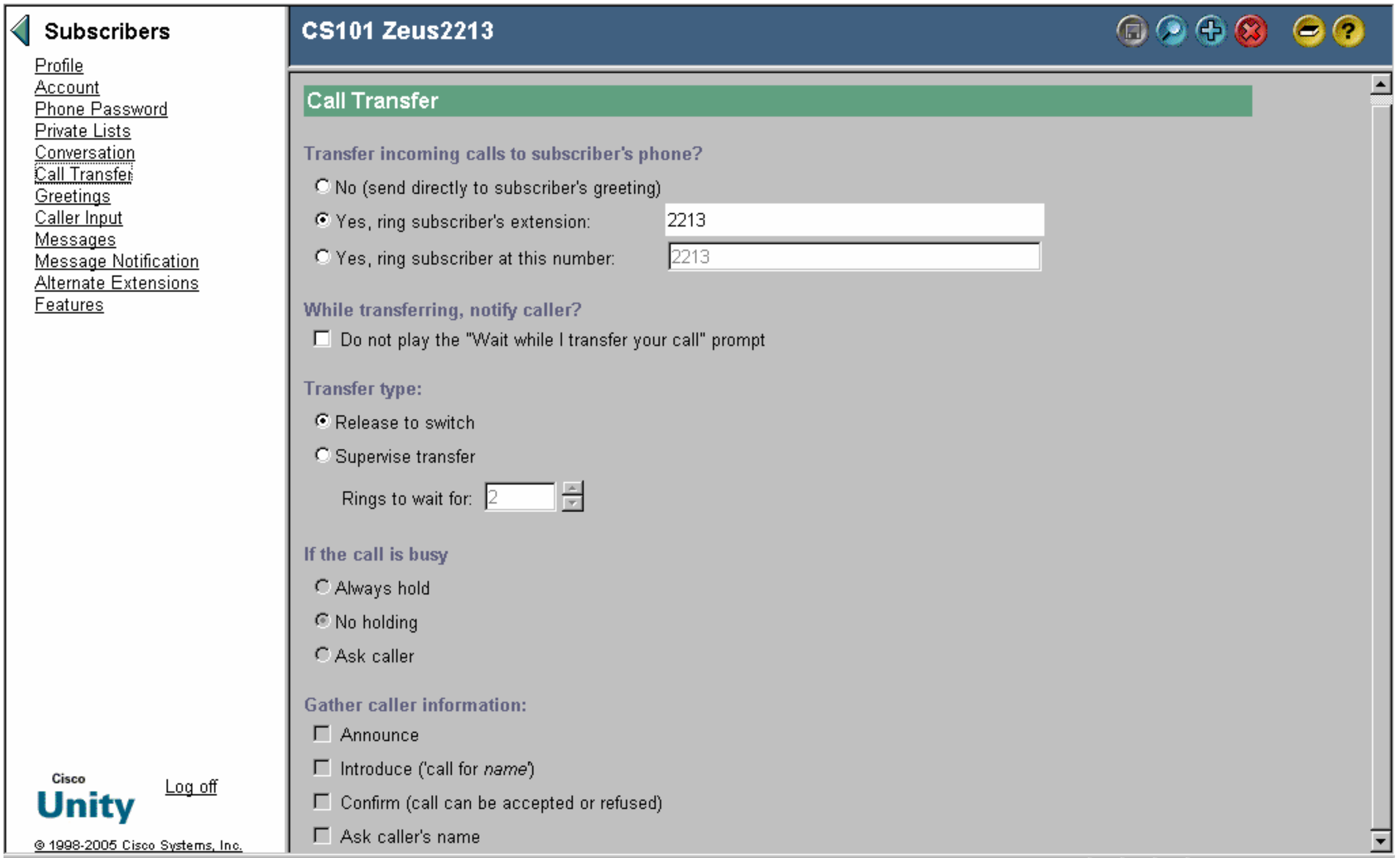
CS101 SIP2201
Call Transfer
Transfer incoming calls to subscriber's phone?
No (send directly to subscriber's greeting)
Yes, ring subscriber's extension:
2201
Yes, ring subscriber at this number:
2201
While transferring, notify caller?
Do not play the "Wait while I transfer your call" prompt
Transfer type:
Release to switch
Supervise transfer
Rings to wait for:
2
If the call is busy
Always hold
No holding
Ask caller
Gather caller information:
Announce
Introduce ('call for name')
Confirm (call can be accepted or refused)
Ask caller's name

Cisco Unity Subscriber (Nortel ext. 2213) Configurations





Acronyms

Acronym	Definitions
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

Acronym	Definitions
CUCM	Cisco Unified CallManager
DNS	Domain Name Server
FQDN	Fully Qualified Domain Name
MWI	Message Waiting Indicator
PSTN	Public Switched Telephone Network
SIP	Session Initiated Protocol

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