CISCO SYSTEMS

Cisco Unified CallManager Release 5.0-PBX Interoperability: Nortel CS1000M Release 4.0 to a Cisco 3845 Gateway Using T1-QSIG with MGCP

Table of Contents

EDCS#523084 Rev #4

Introduction

This is an application note for connectivity of Nortel CS1000M Release 4.0 PBX with Cisco Unified CallManager Release 5.0 using Cisco 3845 T1 QSIG as MGCP gateway.

The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via 3845 T1 QSIG link as MGCP gateway.
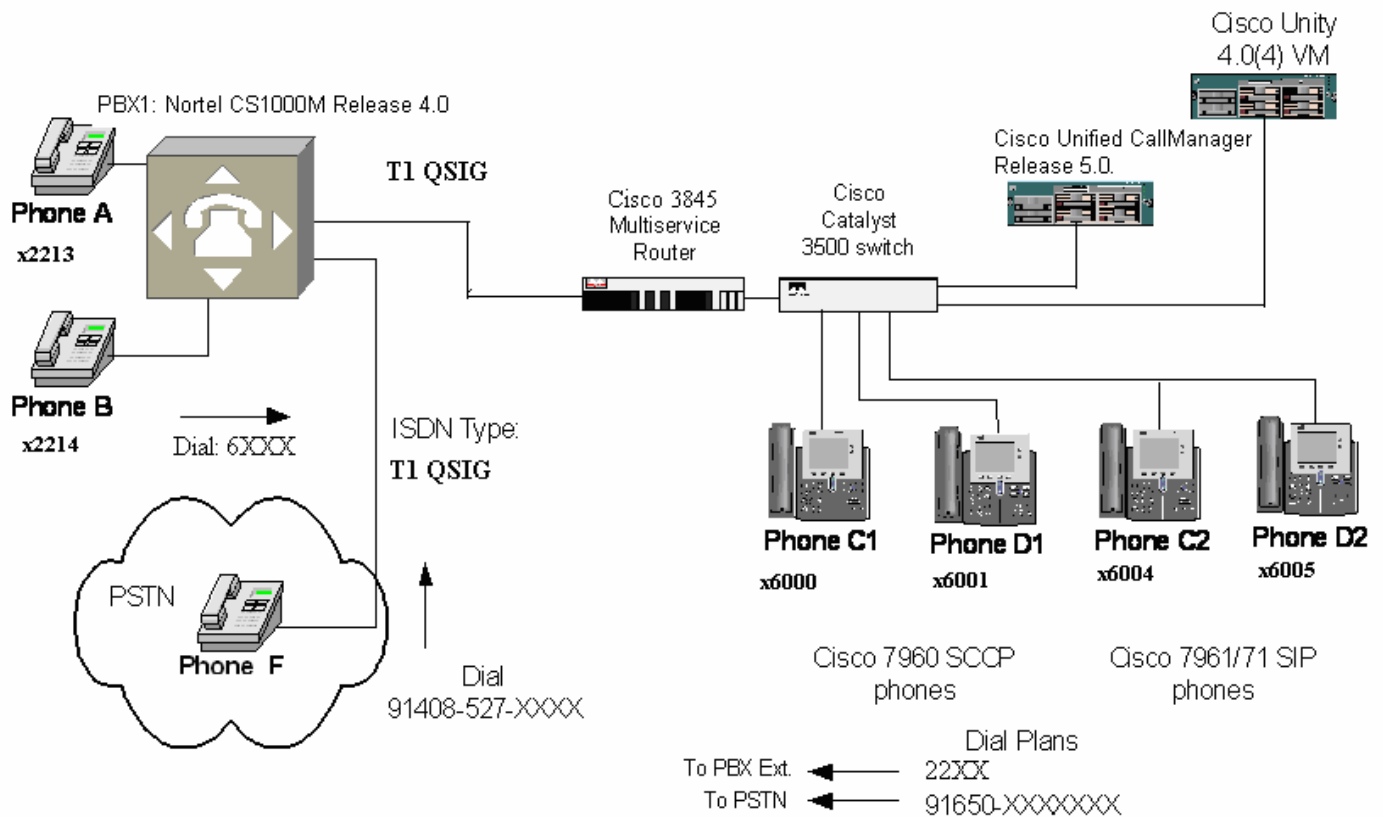
Connectivity is achieved by using the PRI QSIG T1 protocol type on the MGCP gateway and ISO QSIG switch type on the of Nortel CS1000M Release 4.0 PBX.

This Application Note uses the 3845 T1 voice gateway, however other Cisco voice gateways are also an option to use since Cisco Unified CallManager QSIG implementation does not depend on the physical interface.

Network Topology

Figure 1. Network Topology or Test Setup

Basic Call Setup End-to-End Configuration

Limitations

Call Forwarding (Diversion) by Reroute

The Nortel does not initiate a Call Diversion by Reroute to deflect a call that is meant for a local station programmed to forward all calls to another station within the network. Thus, although the call was completed, no Reroute was done during the call. The Nortel, however, will respond to a Call Reroute message sent by another node and respond by initiating a new SETUP message to an alternate route.

Call Completion to Busy Subscriber

As of the publication of this Application Note, call is not completed when callback is invoked from a Nortel station calling a busy Cisco Unified CallManager 5.0 station. This is a bug which has been addressed by Cisco and integrated in Release 005.001(000.9901.002) (See DDTS CSCse27145)

Call Completion on No Reply

As of the publication of this Application Note, call is not completed when callback is invoked from a Nortel station calling a Cisco Unified CallManager station which does not reply. This is a bug which has been addressed by Cisco and integrated in Release 005.001(000.9901.002) (See DDTS CSCse27145)

Path Replacement for Call Diversion by Forward

As of the publication of this Application Note, the Nortel CS1000M PBX Release 4.0 did not initiate Path Replacement Proposal for Call Diversion by Forward to optimize the path for a call that is meant for a Cisco Unified CallManager station programmed to forward all calls to another Nortel station within the network. Thus, although the call was completed, no Path Replacement Proposal was sent by Nortel during the call. The Nortel, however, will respond to a Path Replacement Proposal message sent by another node and respond by initiating a new SETUP message to an alternate route.

As a work around, in cases where the Path Replacement is not initiated by the PBX, Reroute for Call Diversion by Forward may be used on Cisco Unified CallManager 5.0 instead of Path Replacement for Call Diversion by Forward. This will enable the optimal use of path between the originating station and terminating station by using one call leg instead of two call legs.

Note: Path Replacement for Call Diversion by Forward did work in tests using Nortel Meridian 1 PBX Release 25.15, Nortel Meridian 1 PBX Release 25.40 and Cisco Unified CallManager 5.0. A call was placed from a station on Nortel Meridian 1 PBX Release 25.15 to station on Cisco Unified CallManager which forwarded to a station on Nortel Meridian 1 PBX Release 25.40. The Nortel Meridian 1 PBX Release 25.15 proposed Path Replacement and an optimized path was used for that call.

System Components

Hardware Requirements

Cisco Catalyst 3500

Cisco 3845 router with VWIC 1MFT-T1 on NM-HD-VE and VWIC2-2MFT-T1/E1 on NM-HDV

Cisco Unified CallManager Server

Nortel CS1000M PBX

Software Requirements

PBX Release 4.0

Cisco Unified CallManager 5.0

Features

Features Supported

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

Sending Alerting Name

CT-Call Transfer (by join)

CFU-Call Forwarding Unconditional (by join)

CFB-Call Forwarding Busy (by join)

CFNR-Call Forwarding No Reply (by join)

CFU-Call Forwarding Unconditional (by Reroute) – see Limitations Section

CFB-Call Forwarding Busy (by Reroute) – see Limitations Section

CFNR-Call Forwarding No Reply (by Reroute) – see Limitations Section

CCBS-Call Completion to Busy Subscriber – see Limitations Section

CCNR-Call Completion No Reply – see Limitations Section

ANF-PR-Additional Network Feature Path Replacement (for Call Transfer by join)

ANF-PR-Additional Network Feature Path Replacement (for Call Diversion by forward switching) – see Limitations Section

ANF-PR-Additional Network Feature Path Replacement (for Trombone connection)

MWI- Message Waiting Indication (lamp ON, lamp OFF)

Configuration

Configuring the Nortel Meridian 1 Option 11C PBX

Configure in the following sequence:

1. Configure common equipment

2. Configure the D-Channel

3. Configure the Route Data Block.

4. Configure the Trunk Data Block

5. Configure the Coordinated Dialing Plan

6. Configure the Digital Station Phone

Configuration Menus and Commands

Nortel Configuration

```
********************************
Common Equipment Configuration
********************************


>ld 22
PT2000

REQ  prt
TYPE cequ

CEQU
  MPED 8D
  SUPL  000  004  008  012
        016  032  036  040
        044  048  064  068
        072 V096 V100
  TDS   000
  CONF  029  030  031  062
        094  095

  DLOP   NUM DCH FRM TMDI LCMT YALM T1TE TRSH
   PRI  02   24  ESF NO   B8S  FDL  -    00
        05   24  ESF NO   B8S  FDL  -    00
        06   23  ESF NO   B8S  FDL  -    00
        07   23  ESF NO   B8S  FDL  -    00
  PRI2 04
  DTI2
  MISP

REQ

********************************
D-Channel Configuration
********************************
REQ  prt
TYPE adan dch 5

ADAN     DCH 5
  CTYP MSDL
  CARD 05
  PORT 1
  DES  appnote
  USR  PRI
  DCHL 5
  OTBF 32
  PARM RS422  DTE
  DRAT 64KC
  CLOK EXT
  IFC  ISGF
    PINX_CUST 0
```

```
   ISDN_MCNT 300
 CLID OPT0
 CO_TYPE  STD
 SIDE NET
 CNEG 1
 RLS  ID  **
 RCAP COLP NDI CCBI CCNI PRI DV3I CTI  QMWI
 PR_TRIGS DIV 2 3
         CNG 2 3
         CTR2 2 3
 PR_RTN NO
 MBGA NO
 OVLR NO
 OVLS NO
 T310 120
 T200 3
 T203 10
 N200 3
 N201 260
 K    7


********************************
Route Data Block Configuration
********************************

>ld 21
PT1000

REQ: prt
TYPE: rdb
CUST 0
ROUT 105

TYPE RDB
CUST 00
DMOD
ROUT 105
DES
TKTP TIE
NPID_TBL_NUM   0
ESN  NO
CNVT NO
SAT  NO
RCLS EXT
VTRK NO
NODE
DTRK YES
BRIP NO
DGTP PRI
ISDN YES
    MODE PRA
    IFC  ISGF
    SBN  NO
    PNI  00001
    NCNA NO
```

```
      NCRD NO
      CHTY BCH
      CTYP UKWN
      INAC NO
      ISAR NO
      CPFXS YES
      DAPC NO
      INTC NO
DSEL VOD
PTYP PRI
AUTO NO
DNIS NO
DCDR NO
ICOG IAO
SRCH RRB
TRMB YES
STEP
ACOD 505
TCPP NO
TARG 01
CLEN 1
BILN NO
OABS
INST
ANTK
SIGO STD
ICIS YES
TIMR ICF  512
     OGF  512
     EOD  13952
     NRD  10112
     DDL  70
     ODT  4096
     RGV  640
     GRD  896
     SFB  3
     NBS  2048
     NBL  4096

     IENB  5
     TFD   0


PAGE 002

     VSS  0
     VGD  6
DRNG NO
CDR  NO
VRAT NO
MUS  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
PLEV 2
ALRM NO
ART  0
SGRP 0
AACR NO

REQ:
********************************
Digital Station Configuration
********************************

REQ: prt
TYPE: 2616
TN   01 0 0 0
DATE
PAGE
DES

DES  CS101A
TN   001 0 00 00
TYPE 2616
CDEN 8D
CUST 0
AOM  0
FDN  2214
TGAR 1
LDN  NO
NCOS 0
SGRP 0
RNPG 0
SCI  0
SSU
XLST
CLS  CTD FBA WTA LPR MTD FND 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   2214
HUNT 2214
EHT   2214
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  5213
      04 AO6
      05 TRN
      06
      07
      08
      09
      10
      11
      12
      13 MIK
      14 MCK
      15 RGA
DATE 17 MAY 2006


NACT
*******************************
Route List Block COnfiguration
*******************************

REQ  prt
CUST 0
FEAT rlb
RLI  5

RLI  5
ENTR 0
LTER NO
ROUT 105
TOD  0 ON  1 ON  2 ON  3 ON
     4 ON  5 ON  6 ON  7 ON
```

```
VNS  NO
CNV  NO
EXP  NO
FRL  0
DMI  0
FCI  0
FSNI 0
SBOC NRR
IDBB DBD
IOHQ NO
OHQ  NO
CBQ  NO


ISET 0
NALT 5
MFRL 0
OVLL 0


MEM AVAIL: (U/P): 2818389    USED U P: 208053 70133    TOT: 3096575
DISK RECS AVAIL: 1152
REQ


********************************************************************
Coordinated Dialing Plac (CDP) configuration
********************************************************************


>ld 87
ESN000

MEM AVAIL: (U/P): 2818389    USED U P: 208053 70133    TOT: 3096575
DISK RECS AVAIL: 1152
REQ  prt
CUST 0
FEAT cdp
TYPE dsc
DSC  521
DSC  521
FLEN 0
DSP  LSC
RLI  5
NPA
NXX



MEM AVAIL: (U/P): 2818389    USED U P: 208053 70133    TOT: 3096575
DISK RECS AVAIL: 1152
REQ  prt
CUST 0
FEAT cdp
TYPE dsc
DSC  600
DSC  600
FLEN 0
```

```
DSP  LSC
RLI  6
NPA
NXX


*******************************
Software Release
*******************************


>ld 22
PT2000

REQ  iss

CALL SERVER/MAIN CAB
VERSION 2121
RELEASE 4
ISSUE 00 T  +
IDLE_SET_DISPLAY NORTEL



*******************************
Features / Packages Installed
*******************************


REQ  prt
TYPE pkg
OPTF                1
CUST                2
CDR                 4
CTY                 5
RAN                 7
TAD                 8
DNDI                9
EES                10
INTR               11
ANI                12
ANIR               13
BRTE               14
DNDG               16
MSB                17
SS25               18
DDSP               19
ODAS               20
DI                 21
CHG                23
CAB                24
BAUT               25
CASM               26
CASR               27
BQUE               28
NTRF               29
NCOS               32
CPRK               33
```

```
SSC                34
IMS                35
UST                35
UMG                35
ROA                36
NSIG               37
MCBQ               38
NSC                39
BACD               40
ACDB               41
ACDC               42
LMAN               43
MUS                44
ACDA               45
MWC                46
AAB                47
GRP                48
NFCR               49
LNK                51
FCA                52
SR                 53
AA                 54
HIST               55
AOP                56
BARS               57
NARS               58
CDP                59
PQUE               60
FCBQ               61



PAGE 001

OHQ                62
NAUT               63
SNR                64
NXFR               67
HOT                70
DHLD               71
LSEL               72
SS5                73
DRNG               74
PBXI               75
DLDN               76
CSL                77
OOD                79
SCI                80
CCOS               81
CDRQ               83
TENS               86
FTDS               87
DSET               88
TSET               89
```

```
LNR                 90
DLT2                91
PXLT                92
SUPV                93
CPND                95
DNIS                98
BGD                 99
RMS                 100
MR                  101
AWU                 102
PMSI                103
LLC                 105
MCT                 107
ICDR                108
APL                 109
TVS                 110
TOF                 111
IDC                 113
DCP                 115
PAGT                116
CBC                 117
CCDR                118
EMUS                119
PLDN                120
SCMP                121
FTC                 125
BKI                 127
DTI2                129
TBAR                132
ENS                 133
FFC                 139
DCON                140
MPO                 141
ISDN                145
PRA                 146
ISL                 147
NTWK                148
IEC                 149
DNXP                150
CDRE                151
FXS                 152



PAGE 002

IAP3P               153
PRI2                154
THF                 157
FGD                 158
NAS                 159
FNP                 160
ISDN_INTL_SUP       161
SAR                 162
```

```
MINT              163
LAPW              164
GPRI              167
ARIE              170
CPGS              172
ECCS              173
AAA               174
NMS               175
EOVF              178
HVS               179
DKS               180
SACP              181
VNS               183
OVLP              184
EDRG              185
POVR              186
SECL              191
ORC-RVQ           192
AINS              200
IPRA              202
XPE               203
XCT0              204
XCT1              205
MLWU              206
HSE               208
MLM               209
MAID              210
VAWU              212
EAR               214
ECT               215
BRI               216
IVR               218
MWI               219
MSDL              222
FC68              223
SSAU              229
BRIT              233
FCDR              234
BRIL              235
MCMO              240
MULTI_USER        242
ALRM_FILTER       243
SYS_MSG_LKUP      245
VMBA              246
CALL_ID           247
DPNA              250
SCDR              251
ARFW              253
PHTN              254
ADMINSET          256
ATX               258
CDRX              259
QSIG              263
```

PAGE 003

```
NI-2              291
IPEX              295
MAT               296
CPP               301
QSIGGF            305
CPRKNET           306
PAGENET           307
CPCI              310
TATO              312
OPEN_ALARM        315
QSIG-SS           316
NGEN              324
RANBRD            327
MUSBRD            328
ESA               329
ESA_SUPP          330
ESA_CLMP          331
CNUMB             332
CNAME             333
NI-2_CBC          334
MEET              348
MC32              350
DBA               351
FDID              362
NMCE              364
STS_MSG           380
CDIR              381
VIRTUAL_OFFICE    382
ATAN              384
NI2NAME           385
M3900_PROD_ENH    386
VIR_OFF_ENH       387
OAS               394
ICON              397
PCA               398
H323_VTRK         399
LOCX              400
PVQM              401
SIP               406
```

REQ

Cisco Unified CallManager Configuration

CCM Gateway Configuration (Screen 1)

CCM Gateway Configuration (Screen 2)

CCM Gateway Configuration (Screen 3)

CCM Gateway Configuration (Screen 4)

CCM Gateway Configuration (Screen 5)

CCM Gateway Configuration (Screen 6)

CCM 3845 Gateway Configuration (Screen 7)

Gateway Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   →   Search   Favorites   Media

Address https://172.20.235.254/ccmadmin/gatewayEdit.do?key=ed0e4343-bfe3-baac-4524-66881713cf07

Send Calling Name In Facility IE

☐ Interface Identifier Present**

Interface Identifier Value**   [0]

Connected Line ID Presentation (QSIG Inbound Call)* [Default ▼]

UUIE Configuration

☐ Passing Precedence Level Through UUIE

Security Access Level* [2]

Product Specific Configuration   ❓

Line Coding *   [B8ZS ▼]

Framing *   [ESF ▼]

Clock *   [External ▼]

Input Gain (-6..14 db) *   [0]

Output Attenuation (-6..14 db) * [0]

Echo Cancellation Enable *   [Enable ▼]

Echo Cancellation Coverage (ms) * [8 ▼]

[Save] [Delete] [Reset]

ⓘ *- indicates required item.

ⓘ **- applies to DMS-100 protocol only.

ⓘ ***- applies to DMS-100 protocol and DMS-250 protocol only.

ⓘ ****- may be required to force ringback from some PBXs.

ⓘ ****- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

Done   Local intranet

Start | Rou... | Clari... | Ava... | Qsig... | C:\D... | Pres... | Gat... | CCM... | untit... | Qsig...   10:32 AM

Phone Configuration for SCCP Phone (Screen 1)

Phone Configuration for SCCP Phone (Screen 2)

Phone Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   →   Search   Favorites   Media

Address   https://172.20.235.254/ccmadmin/phoneEdit.do?key=42b8a823-47da-4996-ac03-260ee9984a7d   Go

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] : [5] : [11] : [12]   (YYYY:MM:DD:HH)

Certificate Operation Status: None

MLPP Information
MLPP Domain   < None >

Local intranet

Start   4:58 PM

Phone Configuration for SCCP Phone (Screen 3)

Phone Configuration for SIP phone (Screen 1)

Phone Configuration for SIP Phone (Screen 2)

Phone Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

← Back ▾   → ▾   ⊗   ⟳   ⌂ | ⊘ Search   ⭐ Favorites   ⊕ Media   ⊗ | ⊡ ▾   ⊜   ⊠   ⊟

Address https://172.20.235.254/ccmadmin/phoneEdit.do?key=dd415d9b-02dc-4cd1-af3f-cf6f4c9aef9b   ▾   ⟳ Go

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	

☐ 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

Done   🔒 Local intranet

Start | ... | 5:05 PM

Phone Configuration for SIP Phone (Screen 3)

Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back → Search Favorites Media

Address https://172.20.235.254/ccmadmin/phoneEdit.do?key=dd415d9b-02dc-4cd1-af3f-cf6f4c9aef9b

☐ Unattended Port
☐ Require DTMF Reception

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 : 5 : 11 : 12 (YYYY:MM:DD:HH)

Certificate Operation Status: None

MLPP Information

MLPP Domain < None >

Done   Local intranet

Start   5:05 PM

Phone Configuration for SIP Phone (Screen 4)

Phone Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   →   Search   Favorites   Media

Address   https://172.20.235.254/ccmadmin/phoneEdit.do?key=dd415d9b-02dc-4cd1-af3f-cf6f4c9aef9b

Generate String	
Operation Completes By	2006 : 5 : 11 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status: None	

MLPP Information

MLPP Domain < None >

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
Span to PC Port*	Disabled
Logging Display*	PC Controlled
Load Server	

Save   Delete   Copy   Reset   Add New

Done   Local intranet

Start   5:08 PM

Directory Number Configuration for SCCP Phone (Screen 1)

Directory Number Configuration for SCCP Phone (Screen 2)

Directory Number Configuration for SCCP Phone (Screen 3)

Directory Number Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back ▾ → ▾ ⊗ ⊡ ⚘ | ⊚Search ☒Favorites ⊛Media ⊛ | ⊟▾ ⊜ ⊡ ⊟

Address ⊜ https://172.20.235.254/ccmadmin/directoryNumberEdit.do?key=63bb2216-321a-4fcb-9efa-765688d62a2a&mapkey=285c18b9-2d59-4f00-9f94-2e1319f470e2&devicekey=42b8a823- ▾   ⤴Go

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) [   ]

Line 1 on Device SEP00124362145B

Display (Internal Caller ID)   [SATURN-1   ]   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) [SATURN-1]

Line Text Label   [   ]

ASCII Line Text Label   [   ]

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 SEP00124362145B
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 SEP00124362145B
☑ Caller Name

Done   🔒 ⊞ Local intranet

Start | ⊞ ⊙ ⊞ ⊞ | ⊞A. ⊙R. ⊜D. ⊘C. ⊘T. ⊘n. ⊞T. ⊞C. ⊜a. ⊜L. ⊘t. ⊞Q. ⊘p. ⊞M. ⊞D. ⊞C. ⊞C. | V⊞◀ ⊞⊞ | 5:00 PM

Directory Number Configuration for SCCP Phone (Screen 4)

Directory Number Configuration for SIP phone (Screen 1)

Directory Number Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back • → • ⊗ ⊙ ⌂ | ⚲Search ⚙Favorites ⚙Media ⚙ | ⧨• ⌷ ⊡ ⊟

Address https://172.20.235.254/ccmadmin/directoryNumberEdit.do?key=e756119e-bbe5-4aee-a612-6269be6193ba&mapkey=6e68e8e8-3629-40aa-ae44-3407462d0a30&devicekey=dd415d9 ⌄   ⇒ Go

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*	6004
Route Partition	< None >
Description	6004 SIP
Alerting Name	SATURN-4 (Alert)
ASCII Alerting Name	SATURN-4 (Alert)

☑ Allow Control of Device from CTI

Associated Devices

SEP00170EEE3279   **Edit Device**

Edit Line Appearance

❤ ⌃

Dissociate Devices

Done   🔒 🖳 Local intranet

Start | 🏁 🔘 🖵 🖥 | 🗂A.. |🗂R.| 🗂D.. |🗂C..|🗂T..|🗂n..|🗂T..|🗂C..|🗂a..|🗂L..|🗂t..|🗂Q.|🗂p..|🗂M.|🗂D..|🗂C.|🗂C..| 🗂📶📶🗂 5:09 PM

Directory Number Configuration for SIP Phone (Screen 2)

Directory Number Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

⇐ Back ▾ ⇒ ▾ ⊗ 🔄 🏠 | 🔍 Search ⭐ Favorites 🎬 Media ⊛ | 🔄 ▾ ⛶ ⛶ ⛶

Address | https://172.20.235.254/ccmadmin/directoryNumberEdit.do?key=e756119e-bbe5-4aee-a612-6269be6193ba&mapkey=6e68e8e8-3629-40aa-ae44-3407462d0a30&devicekey=dd415d9 ▾   ⟶ Go

Dissociate Devices

Directory Number Settings

Voice Mail Profile	< None > ▾	(Choose <None> to use system default)
Calling Search Space	< None > ▾	
Presence Group*	Standard Presence group ▾	
AAR Group	< None > ▾	
User Hold Audio Source	< None > ▾	
Network Hold Audio Source	< None > ▾	
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 > ▾		

Done   🔒 🖧 Local intranet

🏁 Start | 🖼 🕐 🖳 🖳 | 🖥A.. �📺R.. ✉D.. 🌐C.. 🌐T.. 🌐n.. 📄T.. 🍀C.. ✉a.. ✉L.. 🌐t.. 🍀Q.. 🌐p.. 📧M.. 🔍D.. 🗂C.. 📄C.. | 📹◀🔊🏛Ⓥ 5:11 PM

Directory Number Configuration for SIP Phone (Screen 3)

Directory Number Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

←Back ▾ → ▾ ⊗ 🔄 🏠 | 🔍Search 📖Favorites 📺Media 🕘 | 🔄▾ 🖨 🖉 📄

Address https://172.20.235.254/ccmadmin/directoryNumberEdit.do?key=e756119e-bbe5-4aee-a612-6269be6193ba&mapkey=6e68e8e8-3629-40aa-ae44-3407462d0a30&devicekey=dd415d9 ▾ 🔁Go

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) [   ]

Line 1 on Device SEP00170EEE3279

Display (Internal   [SATURN-4   ]   Display text for a line appearance is intended for displaying text such as a name inst
Caller ID)   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   [SATURN-4   ]
(Internal Caller ID)

Line Text Label   [SATURN-4   ]

ASCII Line Text   [SATURN-4   ]
Label

External Phone   [   ]
Number Mask

Message Waiting   [Use System Policy   ▾]
Lamp Policy*

Ring Setting   [Ring   ▾]
(Phone Idle)*

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

Multiple Call/Call Waiting Settings on Device SEP00170EEE3279
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 SEP00170EEE3279
☑ Caller Name

Done   🔒 🖥Local intranet

Start | 🔲 🕐 🖳 🖥 | 📠A. ⓋTR. 📄D. 🗐C. 🗐T. 🗐n. 📠T. 🐾C. 🗐a. 🗐L. 🗐t. 🐾Q. 🗐p. 🗐M. 🗐D. 🗐C. 📠C. Ⓥ🔊🖧Ⓥ 5:12 PM

Directory Number Configuration for SIP Phone (Screen 4)

Directory Number Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   →   Search   Favorites   Media

Address https://172.20.235.254/ccmadmin/directoryNumberEdit.do?key=e756119e-bbe5-4aee-a612-6269be6193ba&mapkey=6e68e8e8-3629-40aa-ae44-3407462d0a30&devicekey=dd415d9   Go

---

Line 1 on Device SEP00170EEE3279

Display (Internal Caller ID)	SATURN-4

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)	SATURN-4
Line Text Label	SATURN-4
ASCII Line Text Label	SATURN-4
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 SEP00170EEE3279

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 SEP00170EEE3279

☑ Caller Name

☑ Caller Number

☑ Redirected Number

☑ Dialed Number

| Save | Delete | Copy | Reset | Add New |

ⓘ *- indicates required item.

Done   Local intranet

Start   5:12 PM

CallBack Softkey Template (Screen 1)

CallBack Softkey Template (Screen 2)

CallBack Softkey Template (Screen 3)

CallBack Softkey Template (Screen 4)

CallBack Softkey Template (Screen 5)

Softkey Template Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back ▾ → ▾ ⊗ ⊠ ⌂ | Search Favorites Media | ⊠▾ 🖨 🖃 📄

Address https://172.20.235.254/ccmadmin/softkeyTemplateLayoutEdit.do?key=2ccfd772-206d-2a91-cf58-49b0dbe383e4&callState=2

Navigation Cisco Unified CallManager Adminis⌄

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 ▾

Softkey Template Configuration   Related Links: Softkey Template Configu⌄

Status
ⓘ Status: Ready

Softkey Layout Configuration
Softkey Template: Standard User With Callback
Select a call state to configure On Hold ⌄

Unselected Softkeys   Selected Softkeys (ordered by position)**

Immediate Divert (iDivert)   **Resume (Resume)
Undefined (Undefined)   NewCall (NewCall)
                                           Direct Transfer (DirTrfr)
                                           Select (Select)
                                           Join (Join)

Save   Reset

Done   Local intranet

Start | ... | 8:58 AM

CallBack Softkey Template (Screen 6)

CallBack Softkey Template (Screen 7)

CallBack Softkey Template (Screen 8)

CallBack Softkey Template (Screen 9)

CallBack Softkey Template (Screen 10)

CallBack Softkey Template (Screen 11)

CallBack Softkey Template (Screen 12)

CallBack Softkey Template (Screen 13)

Service Parameters Configuration (Screen 1)

Service Parameters Configuration (Screen 2)

Service Parameters Configuration (Screen 3)

CTI Dial Digits Interval *	250	250
Retain Media on Disconnect with PI for Active Call *	False	False
Station and Backup Server KeepAlive Interval *	60	60
Station KeepAlive Interval *	30	30
Status Enquiry Poll Flag *	False	False
Strip # Sign from Called Party Number *	True	True
T301 Timer *	180000	180000
T302 Timer *	15000	15000
T303 Timer *	4000	4000
T304 Timer *	30000	30000
T305 Timer *	30000	30000
T306 Timer *	30000	30000
T308 Timer *	4000	4000
T309 Timer *	90000	90000
T310 Timer *	60000	60000
T313 Timer *	4000	4000
T316 Timer *	120000	120000
T317 Timer *	100000	100000
T321 Timer *	30000	30000
T322 Timer *	4000	4000
Tone on Hold Timer *	10	10
Unknown Caller ID Flag *	True	True

Service Parameters Configuration (Screen 4)

File   Edit   View   Favorites   Tools   Help

⇐ Back ▾ → ▾ ⊗ ⊡ ⚲ | ⚲ Search ⊡ Favorites ⊛ Media ⚲ | ⊟ ▾ ⊜ ⊠ ⊟

Address ⬰ https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0   ▾   ⬰ Go

T322 Timer *	4000	4000
Tone on Hold Timer *	10	10
Unknown Caller ID Flag *	True ▾	True
Call Classification *	OffNet ▾	OffNet

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

Clusterwide Parameters (Device - Phone)

Always Use Prime Line *	False ▾	False
Always Use Prime Line for Voice Message *	False ▾	False
Builtin Bridge Enable *	Off ▾	Off
Auto Answer Timer *	1	1
Extension Display on Cisco IP Phone Model 7910 *	False ▾	False
Alternate Idle Phone Auto Answer Behavior *	False ▾	False
Hold Type *	False ▾	False
Line State Update Enabled *	True ▾	True
Off-hook to First Digit Timer *	15000	15000
Override Auto Answer If Speaker Is Disabled *	True ▾	True
Out-of-Bandwidth Text *	Not Enough Bandwidth	Not Enough Bandwidth
Forced Authorization Code Prompt Text *	Enter Authorization Code	Enter Authorization Code
Client Matter Code Prompt Text *	Enter Client Matter Code	Enter Client Matter Code
AAR Network Congestion Rerouting Text *	Network Congestion. Rerouting.	Network Congestion. Rerouting.
Ring Setting of Busy Station Policy *	Only Apply Ring Setting of Busy Station When Incoming Call Arri ▾	Only Apply Ring Setting of Busy Stat Incoming Call Arrives
Transfer On-hook Enabled *	False ▾	False

⬰ | 🔒 🖳 Local intranet

🏁Start | ⓖ ⓞ ⊞ ⛱ | | 🖳A... | ⊙R... | ⬰Se... | ⬛T1... | 🔆Cl... | ⬰Lis... | ⬰te... | 🔆Q... | ⬰pa... | ⬛Mi... | ⬰D... | ⬰C:... | ⬛C... | V⬰⊹⬛Ⓥⓕ   9:06 AM

Service Parameters Configuration (Screen 5)

Service Parameter Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   ▾   ⇒   ▾   ⊗   ⟳   ⌂ | ⬁ Search   ⟨⭐⟩Favorites   ⟨⟩Media   ⟨⟩ | ⬀ ▾   ⬀   ⬀   ⬀

Address ⟨⟩ https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0   ▾   ⟋Go

	Network Congestion. Rerouting.	
Ring Setting of Busy Station Policy *	Only Apply Ring Setting of Busy Station When Incoming Call Arri ▾	Only Apply Ring Setting of Busy Stati Incoming Call Arrives
Transfer On-hook Enabled *	False ▾	False
Ring Setting of Busy Station *	Beep Only ▾	Beep Only
Ring Setting of Idle Station *	Ring ▾	Ring
Privacy Setting *	True ▾	True
SIP Station KeepAlive Interval *	120	120
SIP Station Realm *	ccmsipline	ccmsipline
Speed Dial Await Further Digits *	False ▾	False
Display CTI Route Point Name or DN *	False ▾	False

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

┌─ **Clusterwide Parameters (Device - PRI and MGCP Gateway)** ──────────

Calling Party Number Screening Indicator *	CallManager sets the screening indicator value - Default setting ▾	CallManager sets the screening indi - Default setting
Clear Calls Flag When Datalink Is Down *	True ▾	True
Device Status Poll Interval *	3000	3000
Disable Alerting Progress Indicator *	False ▾	False
Discard Non Inband Progress in Overlap Sending *	False ▾	False
Disable Resume from Shared-line MGCP FXS Port *	True ▾	True
DTMF Silence Tone Flag *	False ▾	False
Enable Display IE in Codeset 6 *	False ▾	False
Enable Sending PRI NI2 Service Message *	False ▾	False
Flash Hook Duration *	500	500

⟨⟩   🔒 ⟨⟩ Local intranet

Start | ⟨⟩ ⟨⟩ ⟨⟩ ⟨⟩ | ⟨⟩A... ⟨⟩R... ⟨⟩Se... ⟨⟩T1... ⟨⟩Cl... ⟨⟩Lis... ⟨⟩te... ⟨⟩Q... ⟨⟩pa... ⟨⟩Mi... ⟨⟩D... ⟨⟩C:... ⟨⟩C... | ⟨⟩ 9:07 AM

Service Parameters Configuration (Screen 6)

Service Parameters Configuration (Screen 7)

File   Edit   View   Favorites   Tools   Help

⟵ Back ▾ → ▾ ⊗ ⧄ ⌂ | ⚲Search ⭐Favorites ⬗Media ⟳ | ⊠▾ ⊜ ⊟ ⊟

Address ⬅ https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0   ▾   ⬀Go

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

Clusterwide Parameters (Device - H323)

Accept Unknown TCP Connection *	False ▾	False
BRQ Enabled *	False ▾	False
Call Present Disconnect Flag *	False ▾	False
H225 Block Setup Destination *	False ▾	False
H225 DB Retry Timer *	0	0
H225 Device Connect Timer *	0	0
H225 DTMF Duration *	100	100
H225 TspReg Retry *	2	2
H225 Intercluster Call Throttle Timer *	30 ▾	30
H225 T301 Timer *	180000	180000
H225 T302 Timer *	15000	15000
H225 T303 Timer *	4000	4000
H225 T304 Timer *	30000	30000
H225 T305 Timer *	30000	30000
H225 T310 Timer *	60000	60000
H225 TCP Timer *	5	5
H245 TCS Timeout *	10	10
H323 Calling Party Number Screening Indicator *	Calling number screened and passed ▾	Calling number screened and passe
Tone on Connect *	False ▾	False
RAS ARQ Timer *	3	3

🔒 🔳 Local intranet

🏁Start | ⬛ ⊙ ⬛ ⬛ | ⬛A... | ⊙R... | ⬛Se... | ⬛T1... | ⬛Cl... | ⬛Lis... | ⬛te... | ⬛Q... | ⬛pa... | ⬛Mi... | ⬛D... | ⬛C:... | ⬛C... | ⬛⬛⬛⬛⬛   9:07 AM

Service Parameters Configuration (Screen 8)

Service Parameters Configuration (Screen 9)

Service Parameter Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

⟸ Back ▾ → ▾ ⊗ � ⌂ | ⊗ Search ⧆ Favorites ⊛ Media ⊛ | ⧆ ▾ ⊜ ⊟ ⊟

Address ⬥ https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0   ▾   ∂ Go

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

Clusterwide Parameters (Device - SIP)

Retry Count for SIP Bye *	10	10
Retry Count for SIP Cancel *	10	10
Retry Count for SIP Invite *	6	6
Retry Count for SIP PRACK *	6	6
Retry Count for SIP Rel1XX *	10	10
Retry Count for SIP Response *	6	6
SIP Connect Timer *	500	500
SIP Disconnect Timer *	500	500
SIP Expires Timer *	180000	180000
SIP PRACK Timer *	500	500
SIP Rel1XX Timer *	500	500
SIP Trying Timer *	500	500
SIP Rel1XX Enabled *	False ▾	False
SIP Min-SE Value *	1800	1800
SIPS URI Handling *	Reject ▾	Reject
SIP statistics Periodic update Timer *	2	2
SIP Session Expires Timer *	1800	1800
SIP Trunk TspReg Retry *	2	2

Clusterwide Parameters (Feature - General)

Call Park Display Timer *	10	10

⬥   🔒 🖳 Local intranet

🏁Start | 🖸 🖸 🖳 🖳 | 🖳A... | ⊡R... | ⬥Se... | 🖼T1... | ⬥Cl... | ⬥Lis... | ⬥te... | ⬥Q... | ⬥pa... | 🖸Mi... | ⬥D... | 🖿C:... | 🖼C... | 🖳◁⬛🖳⊘ | 9:08 AM

Service Parameters Configuration (Screen 10)

Service Parameters Configuration (Screen 11)

Service Parameter Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back ▼ → ▼ ⊗ ⚙ ⌂ | ⊗Search ☆Favorites ⊕Media ⊗ | ⊗▼ ⊛ ⊠ ⊟

Address https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0

	False	False
Forward By Reroute Enabled *	False	False ► set True to enable Forward by Reroute
Transform Forward by Reroute Destination *	True	True
Always Forward Switch Voice Mail Calls *	True	True
Forward By Reroute T1 Timer *	10	10
Include Original Called Info for Q.SIG Call Diversions *	Only after the first diversion	Only after the first diversion

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

Clusterwide Parameters (Feature - Call Pickup)

Auto Call Pickup Enabled *	False	False
Call Pickup Locating Timer *	1	1
Call Pickup No Answer Timer *	12	12

Clusterwide Parameters (Feature - Refer)

Validate Refer-to URI *	Validate Except for Anonymous Users	Validate Except for Anonymous User

Clusterwide Parameters (Feature - Replaces)

Block OffNet To OffNet Replaces *	False	False

Clusterwide Parameters (Feature - Redirection [3xx])

Redirection Ring No Answer Reversion Timer *	24	24
Maximum Redirection Count *	70	70

Clusterwide Parameters (Feature - Multilevel Precedence and Preemption)

Locations-based MLPP Enable *	False	False
Executive Override Call Preemptable *	False	False

Clusterwide Parameters (Feature - Path Replacement)

Path Replacement Enabled *	True	False

Local intranet

Start | ... | 9:08 AM

Service Parameters Configuration (Screen 12)

Service Parameters Configuration (Screen 13)

Service Parameters Configuration (Screen 14)

Service Parameter Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back • → • ⊗ ⊘ ⌂ | ⊘Search ⊛Favorites ⊛Media ⊘ | ⊠• ⊜ ⊠ ⊟

Address https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0

Silence Suppression for Gateways	False	False
Strip G.729 Annex B (Silence Suppression) from Capabilities *	False	False

Clusterwide Parameters (System - General)

Always Use Dial Tone Setting *	Default	Default
Max Simultaneous Cisco CallManager Initializations *	0	0
Restart Cisco CallManager on Initialization Exception *	True	True
Call Control Initialization Timer *	90	90
Calling Search Space Initialization Timer *	900	900
Digit Analysis Initialization Timer *	900	900
Database Initialization Timer *	900	900
Device Initialization Timer *	360	360
Digit Analysis Timer *	6	6
Directory Initialization Timer *	90	90
Media Initialization Timer *	90	90
Route Plan Initialization Timer *	600	600
Supplementary Services Initialization Timer *	900	900
Statistics Enabled *	True	True
Time Of Day Initialization Timer *	900	900

There are hidden parameters in this group. Click on Advanced button to see hidden parameters.

Clusterwide Parameters (System - QOS)

Priority Class *	Normal Priority	Normal Priority
DSCP for Audio Calls *	EF DSCP (101110)	EF DSCP (101110)
DSCP for Video Calls *	AF41 DSCP (100010)	AF41 DSCP (100010)

Local intranet

Start | 🗗 🗐 🗐 🗐 | 🗗A... 📟R... 🗐Se... 🗐T1... 🗗Cl... 🗐Lis... 🗐te... 🗐Q... 🗐pa... 🗐Mi... 🗐D... 🗐C:... 🗐C... ⑨✦⑨Ⓥⓞ 9:09 AM

Service Parameters Configuration (Screen 15)

Service Parameter Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   Search   Favorites   Media

Address https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0

Clusterwide Parameters (System - QOS)

Priority Class *	Normal Priority	Normal Priority
DSCP for Audio Calls *	EF DSCP (101110)	EF DSCP (101110)
DSCP for Video Calls *	AF41 DSCP (100010)	AF41 DSCP (100010)
DSCP for Audio Calls when RSVP Fails *	default DSCP (000000)	default DSCP (000000)
DSCP for Video Calls when RSVP Fails *	default DSCP (000000)	default DSCP (000000)
DSCP for ICCP Protocol Links *	CS3(precedence 3) DSCP (011000)	CS3(precedence 3) DSCP (011000)

Clusterwide Parameters (System - SDL)

SDL Listening Port Number *	8002	8002
SDL Max Router Latency *	20	20
Suppress Debug Info for Router Death *	0	0

Clusterwide Parameters (System - Location and Region)

Enforce Millisecond Packet Size *	True	True
Locations Initialization Timer *	90	90
Locations Trace Details Enabled *	False	False
Preferred G711 Millisecond Packet Size *	20	20
Preferred G723 Millisecond Packet Size *	30	30
Preferred G729 Millisecond Packet Size *	20	20
Preferred GSM EFR Bytes Packet Size *	31	31
Regions Initialization Timer *	120	120
Intraregion Audio Codec Default *	G711	G711
Interregion Audio Codec Default *	G729	G729
Intraregion Video Call Bandwidth Default *	384	384

Local intranet

Start ... 9:09 AM

Service Parameters Configuration (Screen 16)

Intraregion Audio Codec Default *	G711	G711
Interregion Audio Codec Default *	G729	G729
Intraregion Video Call Bandwidth Default *	384	384
Interregion Video Call Bandwidth Default *	384	384

Clusterwide Parameters (System - CCM Automated Alternate Routing)

Automated Alternate Routing Enable *	False	False
AAR Groups Initialization Timer *	90	90

Clusterwide Parameters (System - RSVP)

Default inter-location RSVP Policy *	No Reservation	No Reservation
RSVP Retry Timer *	60	60
Mandatory RSVP Mid-call Retry Counter *	1	1
Mandatory RSVP mid call error handle option *	Call becomes best effort	Call becomes best effort
RSVP Video Tspec Burst Size Factor *	5	5
MLPP EXECUTIVE_OVERRIDE To RSVP Priority Mapping *	65535	65535
MLPP FLASH_OVERRIDE To RSVP Priority Mapping *	65534	65534
MLPP FLASH To RSVP Priority Mapping *	65533	65533
MLPP IMMEDIATE To RSVP Priority Mapping *	65532	65532
MLPP PL_PRIORITY To RSVP Priority Mapping *	65531	65531
MLPP PL_ROUTINE To RSVP Priority Mapping *	65530	65530
RSVP Audio Application ID *	AudioStream	AudioStream
RSVP Video Application ID *	VideoStream	VideoStream
QoS Policy Initialization Timer *	120	120

Service Parameters Configuration (Screen 17)

Service Parameter Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back | Search   Favorites   Media

Address   https://172.20.235.254/ccmadmin/serviceParamEdit.do?server=b01110c7-e283-4431-a46e-d18f87801b92&service=0

RSVP Audio Application ID *	AudioStream	AudioStream
RSVP Video Application ID *	VideoStream	VideoStream
QoS Policy Initialization Timer *	120	120
RSVP Session Manager Initialization Timer *	120	120
RSVP Response Timer *	2	2

TLS Packet Capture Configurations

| Packet Capture Enable * | False | False |
| Packet Capture Max File Size (MB) * | 2 | 2 |

Clusterwide Parameters(System - Presence)

Presence Subscription Throttling Threshold *	90000	90000
Presence Subscription Resume Threshold *	80	80
Default Inter-Presence Group Subscription *	Disallow Subscription	Disallow Subscription

Clusterwide Parameters (System - Dual Mode Mobility)

Integrated Dual-Mode Feature Enable *	False	False
H1 (Graceful) Handoff Number		
H1 Handoff Number Partition	< None >	
H2 Handoff Number		
H2 Handoff Number Partition	< None >	
Minimum Ring Timer *	2	2
Mobility Cisco CallManager Group	< None >	

Save   Set to Default   Advanced

Local intranet

Start | A...   R...   Se...   T1...   Cl...   Lis...   te...   Q...   pa...   Mi...   D...   C:...   C...   9:09 AM

Enbloc Route Pattern Configuration (Screen 1)

Route Pattern Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back ·   ·   Search   Favorites   Media

Address   https://172.20.235.254/ccmadmin/routePattern2Edit.do?key=3841ea08-7207-ca53-1a40-65d5d5156319

Navigation   Cisco Unified CallMana

Cisco Unified CallManager Administration   For Cisco IP Telecommunication Solutions   Logged i

System ▾   Call Routing ▾   Media Resources ▾   Voice Mail ▾   Device ▾   Application ▾   User Management ▾   Bulk Administration ▾   Help ▾

Route Pattern Configuration   Related Links: B

Status
ⓘ Status: Ready

Pattern Definition

Route Pattern*	22XX
Route Partition	< None >
Description	
Numbering Plan	-- Not Selected --
Route Filter	< None >
MLPP Precedence*	Default
Gateway/Route List *	S1/SU1/DS1-0@3845_West (Edit) Find
Route Option	● Route this pattern
	○ Block this pattern No Error
Call Classification*	OnNet

> Not checked for Enbloc Mode

☐ 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

Done   Local intran

Start

Enbloc Route Pattern Configuration (Screen 2)

Overlap Route Pattern Configuration (Screen 1)

Overlap Route Pattern Configuration (Screen 2)

Call Forward on Busy and Call Forward on No Reply (Screen 1)

Call Forward on Busy and Call Forward on No Reply (Screen 2)

Directory Number Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

Back   •   →   •   🅧   🔄   🏠 | 🔍 Search   🔖 Favorites   🎬 Media   🕘 | 🖾 •   🖨   📧   📄

Address https://172.20.235.254/ccmadmin/directoryNumberEdit.do?key=29b96465-52ad-45f7-498f-afa92513325a&mapkey=12354a6f-ac85-c2fc-69e9-2afa8bf773a0&devicekey=a27cced3-a ▼   ⮞ Go

Description

Alerting Name	SATURN-0 (Alert)
ASCII Alerting Name	SATURN-0 (Alert)

☑ Allow Control of Device from CTI

Associated Devices

SEP00124362B4C5

Edit Device

Edit Line Appearance

˅ ˄

Dissociate Devices

Directory Number Settings

Voice Mail Profile	< None > ▼	(Choose <None> to use system default)
Calling Search Space	< None > ▼	
Presence Group*	Standard Presence group ▼	
AAR Group	< None > ▼	
User Hold Audio Source	< None > ▼	
Network Hold Audio Source	< None > ▼	
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	6001	< None > ▼	

Done   🔒 📠 Local intranet

🏁 Start | 📷 🔘 🖳 🖥 || 📺 Router_Co... | 🌐 Directory ...   📁 C:\Docume... | 📷 Clarinet - M...   🌐 Microsoft O... | 📷 Qsig_mon_t...   📝 CCM screen... | 🔊◀📲 📨   10:14 AM

Call Forward on Busy and Call Forward on No Reply (Screen 3)

Call Forward on Busy and Call Forward on No Reply (Screen 4)

Translation Pattern Configuration – Connected Name and Number Restrictions, COLR, CONR (Screen 1)

Translation Pattern Configuration – Connected Name and Number Restrictions, COLR, CONR (Screen 2)

Calling Line/Name ID Restrictions - CLIR, CNIR (Screen 1)

Route Pattern Configuration - Microsoft Internet Explorer

File   Edit   View   Favorites   Tools   Help

← Back ▾ → ▾ ⊗ 🔄 🏠 | 🔍 Search 📑 Favorites 🎬 Media ⏱ | 🔽 ▾ 🖨 🖉 📄

Address 🔗 https://172.20.235.254/ccmadmin/routePattern2Edit.do?key=3841ea08-7207-ca53-1a40-65d5d5156319   ▾   🔗 Go   Links »

Navigation Cisco Unified CallManager Adminis ▾

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	
Numbering Plan	-- Not Selected -- ▾
Route Filter	< None > ▾
MLPP Precedence*	Default ▾
Gateway/Route List *	S1/SU1/DS1-0@3845_West ▾ (Edit) Find
Route Option	⦿ Route this pattern
	○ Block this pattern No Error ▾
Call Classification*	OnNet ▾

☐ 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

Done   🔒 🖧 Local intranet

Start | 🎨 🕐 💻 🖥 | 🅖 Mic... 🖼 Pre... 🌐 Ro... 🎛 Av... 📄 Re... 🌐 Cis... 🌐 Ro... 🔍 C:\... �W 415... �W Doc... 🗂 Sho... 🌐 Cis... | Ⓥ V◲◀ 🔲 🖥 3:16 PM

Calling Line/Name ID Restrictions -CLIR, CNIR (Screen 2)

Route Pattern Configuration - Microsoft Internet Explorer provided by Cisco Systems, Inc.

File   Edit   View   Favorites   Tools   Help

Back   Search   Favorites   Folders

Address https://172.25.67.149/ccmadmin/routePattern2Save.do   Go

☐ 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
☐ Use Calling Party's External Phone Number Mask
Calling Party Transform Mask   [   ]
Prefix Digits (Outgoing Calls)   [   ]
Calling Line ID Presentation*   [Restricted]   Calling Name and
Calling Name Presentation*   [Restricted]   Number Restrictions

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 >]

Done   Internet

start   98%   2:20 PM
Monday
10/23/2006

Cl...   4 M   Q...   u...   R...   3 M   ss...   2 N   S...   C:...

PSTN Route Pattern Configuration (Screen 1)

PSTN Configuration (Screen 2)

Voice Mail Profile Configuration (Screen 1)

Voice Mail Profile Configuration (Screen 2)

Voice Mail Pilot Configuration

Voice Mail Port Configuration (Screen 1)

Voice Mail Port Configuration (Screen 2)

Voice Mail Port Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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 ▾

Voice Mail Port Configuration   Related Links: | Back To Find/Li

Status
ⓘ Status: Ready

Device Information
Registration	Registered with Cisco Unified CallManager CM-SATURN
IP Address	172.20.239.252
Port Name*	SaturnUM1-VI1
Description	Cisco Unity VM
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*	6091
Partition	< None >
Calling Search Space	< None >
AAR Group	< None >
Internal Caller ID Display	VoiceMail
Internal Caller ID Display (ASCII format)	VoiceMail
External Number Mask	

Done   🔒 Local intranet

Page 4   Sec 1   4/4   At 5.5"   Ln 2   Col 31   REC TRK EXT OVR

Start | Voice Mail Port Config... | Untitled - Notepad | CS101_Nortel Configurati... | Document1 - Microsoft W... | 10:26 AM

Voice Mail Port Configuration (Screen 3)

MWI Configuration (Screen 1)

MWI Configuration (Screen 2)

MWI Configuration (Screen 3)

Cisco 3845 Configuration

```
3845_West# sh run
Building configuration...

Current configuration : 3773 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname 3845_West
!
boot-start-marker
boot system flash:c3845-ipvoice-mz.124-5.13.T2
boot-end-marker
!
card type t1 4 0
logging buffered 51200 warnings
enable secret 5 $1$MFhi$AqqpDsFeO4Sb/IkzkrcmO/
!
no aaa new-model
!
resource policy
!
no network-clock-participate slot 1
no network-clock-participate slot 4
voice-card 0
 no dspfarm
!
voice-card 1
 no dspfarm
!
voice-card 4
 dspfarm
!
ip cef
ip tcp synwait-time 13
!
!
!
!
no ip domain lookup
ip host CM-SATURN 172.20.235.254
ip name-server 172.20.235.254
isdn switch-type primary-4ess
!
!
no voice call carrier capacity active
!
!
voice class codec 1
 codec preference 2 g711ulaw
```

```
 codec preference 3 g711alaw
!
!
!
!
!
!
!
!
!
!
!
controller T1 1/1/0
 framing esf
 linecode b8zs
 pri-group timeslots 1-24 service mgcp
!
controller T1 4/0/0
 framing esf
 linecode b8zs
 pri-group timeslots 1-24 service mgcp
!
controller T1 4/0/1
 framing esf
 linecode b8zs
!
!
!
!
interface GigabitEthernet0/0
 description $ETH-LAN$$ETH-SW-LAUNCH$$INTF-INFO-GE 0/0$
 ip address 10.10.10.1 255.255.255.248
 shutdown
 duplex auto
 speed auto
 media-type rj45
 negotiation auto
!
interface GigabitEthernet0/1
 ip address 172.20.33.120 255.255.255.0
 duplex auto
 speed auto
 media-type rj45
 negotiation auto
!
interface Serial1/1/0:23
 no ip address
 encapsulation hdlc
 no logging event link-status
 isdn switch-type primary-qsig
 isdn incoming-voice voice
 isdn bind-l3 ccm-manager
 no cdp enable
!
```

```
interface Serial4/0/0:23
 no ip address
 encapsulation hdlc
 no logging event link-status
 isdn switch-type primary-qsig
 isdn protocol-emulate network
 isdn incoming-voice voice
 isdn T310 120000
 isdn bind-l3 ccm-manager
 no cdp enable
!
ip route 0.0.0.0 0.0.0.0 GigabitEthernet0/1
ip route 0.0.0.0 0.0.0.0 172.20.33.1
!
ip http server
ip http authentication local
!
!
!
!
control-plane
!
!
!
voice-port 0/1/0
!
voice-port 0/1/1
!
voice-port 1/1/0:23
!
voice-port 4/0/0:23
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server 172.20.235.254
ccm-manager config
!
mgcp
mgcp call-agent CM-SATURN 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
mgcp modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
no mgcp package-capability fxr-package
mgcp package-capability pre-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
```

```
!
dial-peer cor custom
!
!
!
dial-peer voice 1 pots
 service mgcpapp
 port 1/1/0:23
!
dial-peer voice 2 pots
 service mgcp
 port 1/1/0:23
!
dial-peer voice 3 pots
 service mgcp
 port 4/0/0:23
!
banner login ^C
-------------------------------------------------------------------
Cisco Router and Security Device Manager (SDM) is installed on this device. This

feature requires the one time use, initial credentials, of username "cisco"
with password "cisco".

Please change these publicly known initial credentials through SDM or IOS CLI.
Here's the Cisco IOS command:

no username cisco

NOTE: Please add a new username to be able to launch SDM for router management.

For more information about SDM please follow the instructions in the QUICK
START GUIDE for your router or at
http://www.cisco.com/go/sdm
-------------------------------------------------------------------
^C
!
line con 0
 stopbits 1
line aux 0
 stopbits 1
line vty 0 4
 privilege level 15
 login
 transport input telnet
line vty 5 15
 privilege level 15
 login local
 transport input telnet
!
scheduler allocate 20000 1000
!
end
```

PSTN Gateway (Cisco 3745) Configuration

```
3745E1#sh run
Building configuration...

Current configuration : 1778 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname 3745E1
!
boot-start-marker
boot system flash:c3745-ipvoice-mz.124-3.bin
boot system slot0:C3745-ipvoice-mz.shamu_p2_18
boot-end-marker
!
logging buffered 1000000 debugging
!
no aaa new-model
!
resource policy
!
no network-clock-participate slot 2
no network-clock-participate slot 3
no network-clock-participate slot 4
voice-card 2
 no dspfarm
!
voice-card 3
 dspfarm
!
voice-card 4
 dspfarm
!
ip subnet-zero
ip cef
ip tcp synwait-time 13
!
!
!
!
isdn switch-type primary-dms100
!
!
no voice call carrier capacity active
!
!
!
!
!
!
```

```
!
!
!
!
!
!
controller T1 4/0
 framing esf
 linecode b8zs
 pri-group timeslots 1-24
!
!
!
interface FastEthernet0/0
 ip address 172.20.33.52 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial4/0:23
 no ip address
 no logging event link-status
 isdn switch-type primary-dms100
 isdn protocol-emulate network
 isdn incoming-voice voice
 isdn channel-id invert extend-bit
 no cdp enable
!
ip classless
ip route 0.0.0.0 0.0.0.0 172.20.31.1
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 0.0.0.0 0.0.0.0 172.20.33.1
!
ip http server
!
!
!
!
control-plane
!
!
!
voice-port 2/0/0
 station-id name PSTN_PHONE
!
voice-port 2/0/1
!
voice-port 4/0:23
!
```

```
!
no mgcp package-capability res-package
no mgcp package-capability fxr-package
no mgcp timer receive-rtcp
!
!
!
dial-peer voice 1 pots
 destination-pattern 16503646325
 port 2/0/0
!
dial-peer voice 2 pots
 destination-pattern 91408527....
 direct-inward-dial
 port 4/0:23
 prefix 91408527
!
!
line con 0
line aux 0
line vty 0 4
 exec-timeout 0 0
 password CISCO
 login
!
!
end

3745E1#
```

Acronyms

Acronym	Definitions
ANF-PR	Additional Network Feature Path Replacement
CCM	Cisco CallManager
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
PSTN	Public Switched Telephone Network

Important Information

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE

WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO

BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE

FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR

INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA

ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN

ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

CISCO SYSTEMS

Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
      800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters

Cisco Systems International
BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters

Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 317 7777
Fax: +65 317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Web site at www.cisco.com/go/offices.

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe