



Nortel CS1000E release 5.0 using QSIG to Cisco Unity Express Release 3.2.1 via Cisco IOS gateway using SIP

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Introduction

- This is an application note for connectivity between Nortel CS1000E and Cisco Unity Express (voice mail) using T1 QSIG-to-SIP inter-working achieved by a Cisco IOS gateway.
- The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with Nortel CS1000E connected to Cisco IOS gateway using PRI-QSIG and Cisco IOS gateway integrated to Cisco Unify Express (CUE) via SIP trunk. Voice mail diverted calls and MWI signaling notifications between Nortel CS1000E and Unity Express are handled by the Cisco IOS gateway. The gateway performs the inter-working between QSIG and SIP signaling. Calls were made to test voice mailbox access, proper voice mailbox access during call-forward all, busy and no answer, auto-attended call-transfer, and MWI. Note testing was performed using the basic auto-attended scripts available on CUE out of the box. A customer can create a customized auto-attendant script that will meet the functional needs of their business. See the link below.

http://www.cisco.com/en/US/docs/voice_ip_comm/unity_exp/rel3_2/administrator/script/cuescripteditor.html

- This application note uses one Cisco 3845 ISR voice gateway. However, the use of other Cisco voice gateways is also an option. The gateway families listed below can run Cisco IOS gateway functionality, but each has its own VoIP capacity and capability. Please check the product specifications to ensure that you are using the proper device to support your intended VoIP deployment.

[Cisco 2801 Integrated Services Router](#)

[Cisco 2811 Integrated Services Router](#)

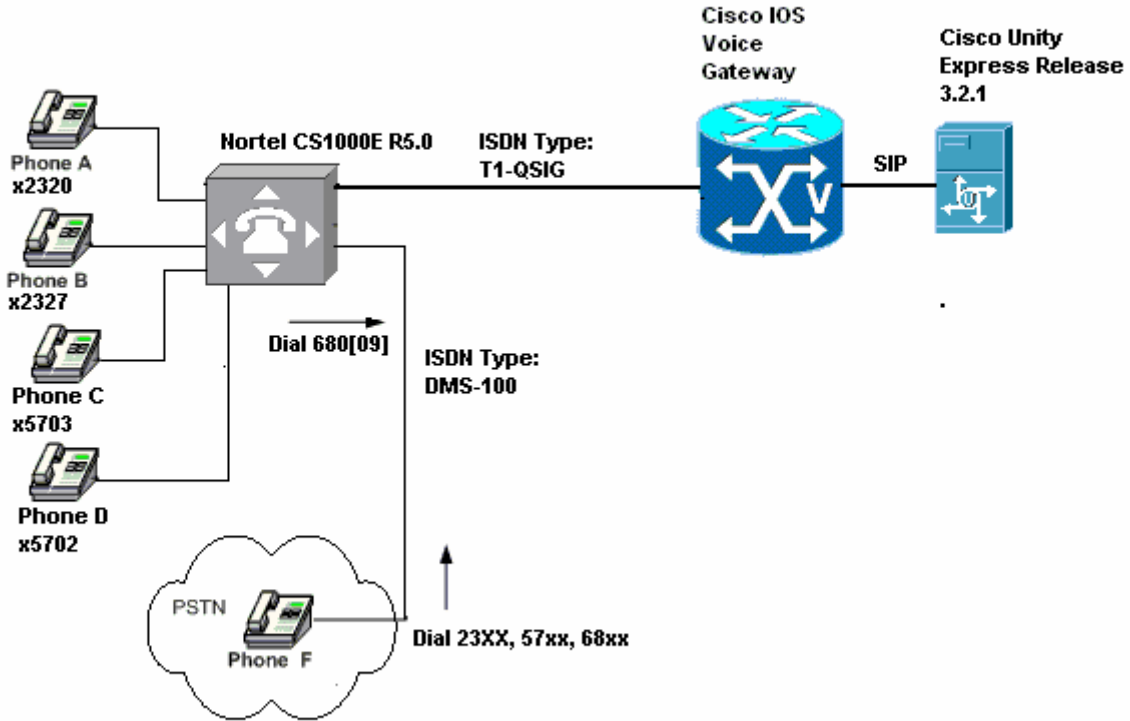
[Cisco 2821 Integrated Services Router](#)

[Cisco 2851 Integrated Services Router](#)

[Cisco 3800 Integrated Services Router](#)

Network Topology

Figure 1. Call Setup



Limitations

- None

System Components

Hardware Requirements

The following hardware is required:

- Cisco Catalyst 3500
- Cisco Unity Express (NME-CUE) Module
- Cisco 3845 router with VWIC2-2MFT-T1/E1 on NM-HDV
- Nortel CS 1000E PBX



- Nortel IP phone M2004
- Nortel Digital phone M2616

Software Requirements

The following software is required:

- CUE Release 3.2.1
- Nortel CS 1000E PBX Release 5.0
- Cisco IOS Release 12.4 (with voice feature set; ipvoice, ipvoicek9)

Features

This section lists supported and unsupported features.

Features Supported

- QSIG-to-SIP inter-working to achieve unified message system integration
- SIP-to-QSIG MWI: Message Waiting Indication (lamp ON, lamp OFF).
- Call Forward all, busy and no answer send calling party into the correct voicemail box
- Voicemail attendant and auto-attended navigation using DTMF
- Call-transfer from auto-attendant to a requested subscriber



Configuration

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

Configuring the Nortel CS 1000E PBX with Software Release 5.0

Configure in the following sequence:

1. The common equipment.
2. The D-channel.
3. The route data block.
4. The trunk data block.
5. The coordinated dialing plan.
6. The digital station phone.

Configuring the Nortel CS 1000E IP PBX

COMMON EQUIPMENT CONFIGURATION (LD 17)

>ld 22

PT2000

REQ prt

TYPE cequ

CEQU

MPED 8D

TERM

REMO

TERD

REMD

TERQ

REMQ

SUPL V000 V020

SUPC

SUPF

XCT

CONF

MGTDSD IPMG IPMG_TYPE

100 000 0 MGC

102 000 0 MGC

MGCONF IPMG PORTS IPMG_TYPE

101 000 0 30 MGC

103 000 0 30 MGC

MFSD * 100 * 102

DLOP NUM DCH FRM TMDI LCMT YALM T1TE TRSH MG_CARD

PRI 011 24 ESF NO B8S FDL - 00 000 0 01

012 24 ESF NO B8S FDL - 00 000 0 02

PRI2 MG_CARD

014 000 0 04



DTI2 MG_CARD
MISP MG_CARD
EXT0 3PE
EXT1 3PE
MCFN 011 MB

D-CHANNEL CONFIGURATION (LD 17)

LD 22
REQ prt
TYPE adan
ADAN DCH 12
CTYP MSDL
MG_CARD 000 0 02
PORT 1
DES T1QSIG
USR PRI
DCHL 12
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
OVLN YES
DIDD 0
OVLS NO
T310 120
T200 3
T203 10
N200 3
N201 260
K 7

REQ

ROUTE DATA BLOCK CONFIGURATION (LD 16)

>LD 21
PT1000

REQ: PRT
TYPE: RDB



CUST 0
ROUT 102

TYPE RDB

CUST 00
ROUT 102
DES T1QSIG
TKTP TIE
M911P NO
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 705
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
VSS 0

PAGE 002

VGD 6
DRNG NO
CDR NO
VRAT NO
MUS NO
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TDET NO
TTBL 0
ATAN NO
PLEV 2
ALRM NO
ART 0
SGRP 0
ARDN NO
AACR NO

REQ:

TRUNK DATA BLOCK CONFIGURATION (LD 14)
> ld 20

PT0000
REQ: prt
TYPE: tnb
TN 012 1
DATE
PAGE
DES

DES T1QSIG
TN 012 01 VIRTUAL
TYPE TIE
CDEN SD



CUST 0
TRK PRI
PDCA 1
PCML MU
NCOS 0
RTMB 102 1
B-CHANNEL SIGNALING
TGAR 1
AST NO
IAPG 0
CLS UNR DTN CND ECD WTA LPR APN THFD HKD SPCD
P10 VNL
TKID
AACR NO
DATE 6 JUN 2008

NACT

ROUTE LIST BLOCK (LD 86)
>ld 86
ESN000

MEM AVAIL: (U/P): 99165874 USED U P: 5049349 54598 TOT: 104269821
DISK SPACE NEEDED: 47 KBYTES
REQ prt
CUST 0
FEAT rib
RLI 2

RLI 2
ENTR 0
LTER NO
ROUT 102
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): 99165874 USED U P: 5049349 54598 TOT: 104269821
DISK SPACE NEEDED: 47 KBYTES
REQ

COORDINATED DIALING PLAN (LD 87)

>LD 87
ESN000

MEM AVAIL: (U/P): 99166898 USED U P: 5049015 53908 TOT: 104269821
DISK SPACE NEEDED: 46 KBYTES

REQ PRT
CUST 0
FEAT CDP
TYPE DSC
DSC 570
DSC 570
FLEN 0
DSP LSC
RLI 2
NPA
NXX

MEM AVAIL: (U/P): 99166898 USED U P: 5049015 53908 TOT: 104269821
DISK SPACE NEEDED: 46 KBYTES

REQ prt
CUST 0
FEAT cdp
TYPE dsc
DSC 680
DSC 680
FLEN 0
DSP LSC
RLI 2
NPA
NXX

STATION PHONE CONFIGURATION (LD 11)

>ld 11
SL1000

MEM AVAIL: (U/P): 99166898 USED U P: 5049015 53908 TOT: 104269821
DISK SPACE NEEDED: 46 KBYTES

DIGITAL TELEPHONES AVAIL: 5 USED: 3 TOT: 8
IP USERS AVAIL: 18 USED: 6 TOT: 24
BASIC IP USERS AVAIL: 7 USED: 1 TOT: 8
TEMPORARY IP USERS AVAIL: 0 USED: 0 TOT: 0
ACD AGENTS AVAIL: 10 USED: 0 TOT: 10
PCA AVAIL: 4 USED: 1 TOT: 5
AST AVAIL: 4 USED: 1 TOT: 5
SIP CONVERGED DESKTOPS AVAIL: 0 USED: 0 TOT: 0



SIP CTI TR87 AVAIL: 4 USED: 1 TOT: 5
TNS AVAIL: 32549 USED: 211 TOT: 32760
DATA PORTS AVAIL: 32760 USED: 0 TOT: 32760

IP Phone line
REQ: prt
TYPE: 2004p2

TN 020 0 00 03
DATE
PAGE
DES
MODEL_NAME
EMULATED
KEM_RANGE

DES CS2320
TN 020 0 00 03 VIRTUAL
TYPE 2004P2
CDEN 8D
CTYP XDLC
CUST 0
NUID
NHTN
CFG_ZONE 000
CUR_ZONE 000
ERL 0
ECL 0
FDN 3503
TGAR 0
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
XLST

CLS UNR FBA WTA LPR MTD FNA HTA TDD HFA CRPD
MWA LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
POD DSX VMD SLKD CCSD SWD LND CNDA
CFTD SFD MRD DDV CNID CDCA MSID DAPA BFED RCBF
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
USMD USRD ULAD RTDD RBDD RBHD PGND FLXD FTTC DNDN DNO3 MCBN
VOLA VOUD CDMR ICRD MCDD T87D KEM2 MSNV FRA PKCH
CPND_LANG ENG
RCO 0
HUNT 3503
LHK 0
PLEV 02



DANI NO
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
MLNG ENG
DNDR 0
KEY 00 SCR 2320 0 MARP
CPND
NAME test20
XPLN 13
DISPLAY_FMT FIRST, LAST

- 01
- 02
- 03
- 04
- 05
- 06
- 07
- 08
- 09
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17 TRN
- 18 AO6
- 19 CFW 16 3502
- 20 RGA
- 21 PRK
- 22 RNP
- 23
- 24 PRS
- 25 CHG
- 26 CPN
- 27
- 28
- 29
- 30
- 31

DATE 14 AUG 2008
NACT

DIGITAL LINES
REQ: prt
TYPE: 2616
TN 000 0 07 00
DATE



PAGE
DES

DES T5702
TN 000 0 07 00 VIRTUAL
TYPE 2616
CDEN 8D
CTYP XDLC
CUST 0
AOM 0
ERL 0
FDN 5702
TGAR 1
LDN NO
NCOS 0
SGRP 0
RNPG 0
SCI 0
SSU
XLST
CLS CTD FBA WTA LPR MTD FNA HTD ADD HFD
MWA LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
POD DSX VMD SLKD CCSD SWD LND CNDA
CFTD SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
ICDD CDMD LLCN MCTD CLBD AUTU
GPUD DPUD DNDD CFXA ARHD CLTD ASCD
CPFA CPTA ABDD CFHD FICD NAID BUZZ AGRD MOAD
AHD DDGA NAMA
DRDD EXR0
USMD USRD ULAD RTDD RBDD RBHD PGND FLXD FTTC DNDY DNO3 MCBN
CDMR MCDD T87D PKCH
CPND_LANG ENG
RCO 0
HUNT 5702
LHK 0
PLEV 02
DANI NO
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 5702 0 MARP
CPND
NAME test2335
XPLN 13
DISPLAY_FMT FIRST, LAST
01
02
03 CFW 4 3502
04 AO6



05 TRN
06
07
08
09
10
11
12
13
14
15
DATE 14 AUG 2008
NACT

SOFTWARE RELEASE (LD 22)
>ld 22
PT2000

REQ iss

VERSION 4021
RELEASE 5
ISSUE 00 W +
IDLE_SET_DISPLAY NORTEL

IPMG	TYPE	CSP/SW	MSP	APP	FPGA	BOOT	DBL1	DBL2
0 0	MGC	AD31	AA06	AA04	AA12	AD27	DSP1AA07	N/A

Configuring the Cisco Unified IOS Gateway 3845 and Cisco Unity Express

Cisco Gateway Configurations

Ri_103#sh ver
Cisco IOS Software, 3800 Software (C3845-IPVOICEK9-M), Version 12.4(22)T1, RELEASE SOFTWARE (fc5)
Technical Support: <http://www.cisco.com/techsupport>
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Fri 27-Feb-09 01:32 by prod_rel_team

ROM: System Bootstrap, Version 12.3(11r)T1, RELEASE SOFTWARE (fc1)

Ri_103 uptime is 22 hours, 28 minutes
System returned to ROM by reload at 23:14:46 UTC Wed Mar 25 2009
System image file is "flash:c3845-ipvoicek9-mz.124-22.T1.bin"

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for



compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Cisco 3845 (revision 1.0) with 216064K/46080K bytes of memory.
Processor board ID FHK0847F0W7
2 Gigabit Ethernet interfaces
48 Serial interfaces
1 terminal line
2 Channelized/Clear T1/PRI ports
2 Voice FXS interfaces
1 cisco Integrated Service Engine(s)
Cisco Unity Express 3.2.1 in slot 4
DRAM configuration is 64 bits wide with parity enabled.
479K bytes of NVRAM.
62720K bytes of ATA System CompactFlash (Read/Write)

Configuration register is 0x2102

Ri_103#sh run
Building configuration...

```
Current configuration : 3729 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname Ri_103
!
boot-start-marker
boot-end-marker
!
card type t1 0 0
logging message-counter syslog
logging buffered 10000000
no logging console
enable password cisco
!
no aaa new-model
no network-clock-participate slot 3
network-clock-participate wic 0
network-clock-select 1 T1 0/0/0
!
```




```
hidekeys
!
!
controller T1 0/0/0
cablelength long 0db
pri-group timeslots 1-24
!
controller T1 0/0/1
clock source internal
cablelength long 0db
pri-group timeslots 1-24 service mgcp
!
!
!
!
interface GigabitEthernet0/0
ip address 172.20.192.103 255.255.255.0
duplex auto
speed auto
media-type rj45
no keepalive
!
interface GigabitEthernet0/1
no ip address
shutdown
duplex auto
speed auto
media-type rj45
!
interface Serial0/0/0:23
no ip address
encapsulation hdlc
isdn switch-type primary-qsig2
isdn incoming-voice voice
isdn bchan-number-order ascending
no cdp enable
!
interface Serial0/0/1:23
no ip address
encapsulation hdlc
isdn switch-type primary-qsig
isdn timer T310 120000
isdn overlap-receiving
isdn protocol-emulate network
isdn incoming-voice voice
isdn bind-l3 ccm-manager
isdn send-alerting
no cdp enable
!
interface Integrated-Service-Engine4/03
```

² QSIG interface trunk configuration



```
ip unnumbered GigabitEthernet0/0
service-module ip address 172.20.192.199 255.255.255.0
service-module ip default-gateway 172.20.192.103
no keepalive
!
ip default-gateway 172.20.192.1
no ip forward-protocol nd
ip route 0.0.0.0 0.0.0.0 172.20.192.1
ip route 172.20.192.199 255.255.255.255 Integrated-Service-Engine4/03
!
ip http server
no ip http secure-server
!
!
!
!
!
!
control-plane
!
!
!
voice-port 0/0/0:23
  mwi4
!
voice-port 0/0/1:23
!
voice-port 3/0/0
!
voice-port 3/0/1
  station-id name RI-NGUYEN
  station-id number 6901
  caller-id enable
!
ccm-manager fax protocol cisco
!
no mgcp timer receive-rtcp
mgcp fax t38 ecm
!
!
!
dial-peer voice 2320 pots
  destination-pattern 232.5
  incoming called-number ....
  no digit-strip
  direct-inward-dial
  port 0/0/0:23
  forward-digits all
```

³ Cisco Unity Express Interface configuration

⁴ MWI command for QSIG port

⁵ Dial_peers to Nortel PBX



```
!  
dial-peer voice 6900 pots  
destination-pattern 690.  
incoming called-number ....  
no digit-strip  
direct-inward-dial  
port 3/0/1  
forward-digits all  
!  
dial-peer voice 6888 voip  
destination-pattern 680[09]6  
session protocol sipv2  
session target ipv4:172.20.192.199  
incoming called-number 6800  
dtmf-relay rtp-nte  
codec g711ulaw  
no vad  
!  
dial-peer voice 5702 pots  
destination-pattern 570.5  
incoming called-number ....  
no digit-strip  
direct-inward-dial  
port 0/0/0:23  
forward-digits all  
!  
!  
sip-ua  
mwi-server ipv4:172.20.192.199 expires 3600 port 5060 transport udp unsolicited7  
!  
!  
line con 0  
exec-timeout 0 0  
password cisco  
login  
line aux 0  
line 258  
no activation-character  
no exec  
transport preferred none  
transport input all  
transport output pad telnet rlogin lapb-ta mop udptn v120 ssh  
line vty 0 4  
exec-timeout 0 0  
password cisco  
login  
line vty 5 10  
exec-timeout 0 0  
password cisco  
login
```

⁶ Dial_peer to Cisco Unity Express voice mail pilot and Auto attendant

⁷ MWI command for SIP interface



```
!  
scheduler allocate 20000 1000  
end
```

Cisco Unity Express configuration

```
Ri_103# service-module integrated-Service-Engine 4/0 session  
Trying 172.20.192.103, 2258 ... Open  
se-172-20-192-199>  
se-172-20-192-199> en  
Password:  
se-172-20-192-199# sh run  
Generating configuration:
```

```
clock timezone America/Los_Angeles
```

```
hostname se-172-20-192-199
```

```
ip domain-name pbxlab.org
```

```
system language preferred "en_US"
```

```
software download server url "ftp://127.0.0.1/ftp" credentials hidden "6u/dKTN/h  
sEuSAEfw40XIF2eFHnZfyUTSd8ZZNgd+Y9J3xIk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xIk2B35j0nfG  
WTYHfmPSd8ZZNgd+Y9J3xIk2B35j0nfGWTYHfmP"
```

```
log trace local enable
```

```
site name local  
end site
```

```
groupname Administrators create  
groupname Broadcasters create
```

```
username cisco create8  
username user01 create  
username user02 create  
username user03 create  
username user04 create  
username user05 create  
username user01 phonenumber "5702"  
username user02 phonenumber "2327"  
username user03 phonenumber "2320"  
username user05 phonenumber "5703"
```

```
groupname Administrators member cisco  
groupname Administrators privilege ManagePrompts  
groupname Administrators privilege broadcast  
groupname Administrators privilege local-broadcast  
groupname Administrators privilege ManagePublicList  
groupname Administrators privilege ViewPrivateList  
groupname Administrators privilege vm-imap
```

⁸ Create user configuration



```
groupname Administrators privilege ViewHistoricalReports
groupname Administrators privilege ViewRealTimeReports
groupname Administrators privilege superuser
groupname Broadcasters privilege broadcast
```

```
restriction msg-notification create
restriction msg-notification min-digits 1
restriction msg-notification max-digits 30
restriction msg-notification dial-string preference 1 pattern * allowed
```

```
backup server url "ftp://127.0.0.1/ftp" credentials hidden "EWITygcMhYmjazXhE/VN
XHCKplVV4KjescbDaLa4fI4WLSPFv1rWUnfGWTYHfmPSd8ZZNgd+Y9J3xIk2B35j0nfGWTYHfmPSd8Z
ZNgd+Y9J3xIk2B35j0nfGWTYHfmP"
```

```
calendar biz-schedule systemschedule
open day 1 from 00:00 to 24:00
open day 2 from 00:00 to 24:00
open day 3 from 00:00 to 24:00
open day 4 from 00:00 to 24:00
open day 5 from 00:00 to 24:00
open day 6 from 00:00 to 24:00
open day 7 from 00:00 to 24:00
end schedule
```

```
ccn application autoattendant aa
description "CiscoAA"
enabled
maxsessions 3
script "aa.aef"
parameter "busClosedPrompt" "AABusinessClosed.wav"
parameter "holidayPrompt" "AAHolidayPrompt.wav"
parameter "welcomePrompt" "AAWelcome.wav"
parameter "disconnectAfterMenu" "false"
parameter "dialByFirstName" "false"
parameter "allowExternalTransfers" "true"
parameter "MaxRetry" "3"
parameter "dialByExtnAnytime" "true"
parameter "busOpenPrompt" "AABusinessOpen.wav"
parameter "businessSchedule" "systemschedule"
parameter "dialByExtnAnytimeInputLength" "4"
parameter "operExtn" "6809"9
end application
```

```
ccn application ciscomwiapplication aa
description "ciscomwiapplication"
enabled
maxsessions 8
script "setmwi.aef"
parameter "CallControlGroupID" "0"
parameter "strMWI_OFF_DN" "8001"
parameter "strMWI_ON_DN" "8000"
```

⁹ Command for Auto-Attendant number



```
end application
```

```
ccn application msgnotification aa
description "msgnotification"
enabled
maxsessions 8
script "msgnotify.aef"
parameter "logoutUri" "http://localhost/voicemail/vxmlscripts/mbxLogout.jsp"
parameter "DelayBeforeSendDTMF" "1"
end application
```

```
ccn application promptmgmt aa
description "promptmgmt"
enabled
maxsessions 1
script "promptmgmt.aef"
end application
```

```
ccn application voicemail aa
description "voicemail"
enabled
maxsessions 8
script "voicebrowser.aef"
parameter "logoutUri" "http://localhost/voicemail/vxmlscripts/mbxLogout.jsp"
parameter "uri" "http://localhost/voicemail/vxmlscripts/login.vxml"
end application
```

```
ccn engine
end engine
```

```
ccn reporting historical
database local
description "se-172-20-192-199"
end reporting
```

```
ccn subsystem sip
gateway address "172.20.192.103"
dtmf-relay rtp-nte
mwi sip unsolicited10
end subsystem
```

```
ccn trigger http urlname msgnotifytrg
application "msgnotification"
enabled
maxsessions 2
end trigger
```

```
ccn trigger http urlname mwiapp
application "ciscomwiapplication"
enabled
maxsessions 1
```

¹⁰ This command must be added for MWI SIP unsolicited



```
end trigger
```

```
ccn trigger sip phonenumber 6800  
application "voicemail"  
enabled  
maxsessions 4  
end trigger
```

```
ccn trigger sip phonenumber 6809  
application "autoattendant"  
enabled  
maxsessions 3  
end trigger
```

```
security password history depth 10  
security password lockout policy temp-lock  
security pin lockout policy temp-lock  
service phone-authentication  
end phone-authentication
```

```
service voiceview  
enable  
end voiceview
```

```
voicemail default mailboxsize 3000  
voicemail broadcast recording time 300  
voicemail default messagesize 240  
voicemail notification restriction msg-notification  
voicemail operator telephone 100  
voicemail capacity time 3000  
voicemail mailbox owner "user01" size 3000  
description "nortel2325"  
expiration time 10  
messagesize 120  
zerooutnumber "100"  
end mailbox
```

```
voicemail mailbox owner "user02" size 300  
description "nortel2327"  
expiration time 10  
messagesize 120  
end mailbox
```

```
voicemail mailbox owner "user03" size 300  
description "nortel2326"  
expiration time 10  
messagesize 120  
end mailbox
```

```
voicemail mailbox owner "user04" size 300  
description "nortel2320"  
expiration time 10  
messagesize 120
```



end mailbox

voicemail mailbox owner "user05" size 300
description "fxsport"
expiration time 21
end mailbox

end
se-172-20-192-199#

Acronyms

Acronym	Definition
CUE	Cisco Unity Express
PSTN	Public switched telephone network
MWI	Message Waiting Indication
PBX	Private branch exchange
PRI	Primary Rate Interface
QSIG	Q Signaling
VWIC	Voice/WAN Interface Card



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