

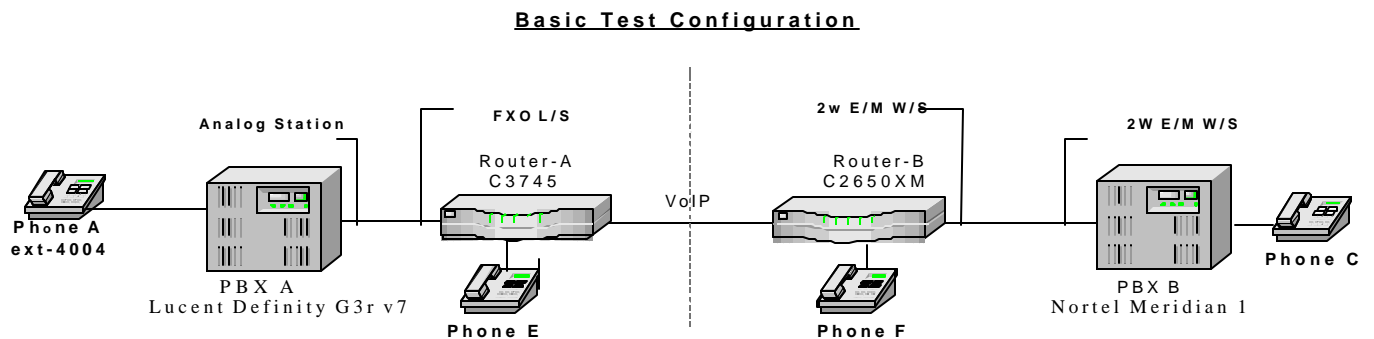
Cisco 2650XM Gateway - PBX Interoperability: Nortel Meridian Opt 11C PBX using Analog E&M Interfaces to an H.323 Gateway

Introduction

- This note describes the interoperability between the Nortel Meridian PBX using analog E&M interfaces to a Cisco 2650XM H.323 gateway.
- The Network Topology diagram shows the end-to-end interoperability.

Network Topology

Figure 1. Network Topology



Limitations

- None noted.

System Components

Hardware Requirements

- Cisco 2650XM Router
- Nortel Meridian 1- Option11C PBX
- VIC-VG- 2E/M

Software Requirements

- Cisco IOS Software Release 12.2(15)ZJ
- PBX Software, Release 24



Configuration

Configuring the Nortel Meridian 1

Configuring the Route Data Block

*****ROUTE DATA BLOCK CONFIGURATION*****

REQ: prtTYPE: rdbCUST 0ROUT 108

TYPE RDB

CUST 00

DMOD

ROUT 108

DES EANDM

TKTP TIE

NPID_TBL_NUM 0

ESN NO

CNVT NO

SAT NO

RCLS EXT

DTRK NO

ISDN NO

PTYP ATT

AUTO NO

DNIS NO

ICOG IAO

SRCH LIN

TRMB YES

STEP

ACOD 708

TARG 01

CLEN 1

BILN NO

OABS

INST

ANTK

SIGO STD

STYP SDAT

TIMR ICF 512

OGF 512

EOD 13952

DSI 34944

NRD 10112

DDL 70

ODT 4096

RGV 640

GRD 896

SFB 3

TFD 0

SST 5 0



NEDC ETH
FEDC ETH
CPDC NO
DLTN NO
HOLD 02 02 40
SEIZ 02 02
SVFL 02 02
DRNG NO
CDR NO
MUS NO
MANO NO
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TTBL 0
OHTD NO
PLEV 2
ALRM NO
ART 0
SGRP 0
AACR NO

Configuring the Trunk Data

*****TRUNK DATA BLOCK CONFIGURATION*****

REQ: prtTYPE: tnb
TN 8 0 0 0DATE PAGE DES
TN 008 0 00 00
TYPE TIE
CDEN 4D
CUST 0
XTRK XEM
TIMP 600
TRK ANLG
NCOS 0
RTMB 108 1
TGAR 0
SIGL EAM
STRI/STRO WNK WNK
SUPN YES
AST NO
IAPG 0
CLS UNR DTN CND WTA LPR APN THFD SPCD
P10 NTC
TKID
DATE 30 MAY 2003



Configuring the Digital Station Phone

*****DIGITAL STATION PHONE CONFIGURATION*****

>ld 11SL1000

MARP NOT ACTIVATED

MEM AVAIL: (U/P): 1282668 USED U P: 76500 33471 TOT: 1392639

DISK RECS AVAIL: 481

TNS AVAIL: 101 USED: 99 TOT: 200

ACD AGENTS AVAIL: 300 USED: 0 TOT: 300

AST AVAIL: 100 USED: 0 TOT: 100

DATA PORTS AVAIL: 2500 USED: 0 TOT: 2500

DIGITAL TELEPHONES AVAIL: 2496 USED: 4 TOT: 2500

INTERNET TELEPHONES AVAIL: 6 USED: 0 TOT: 6

REQ: prtTYPE: 2616

MARP NOT ACTIVATED

TN 001 0 0 0DATE PAGE DES

DES TEST1

TN 001 0 00 00

TYPE 2616

CDEN 8D

CUST 0

AOM 0

FDN 2602

TGAR 0

LDN NO

NCOS 0

SGRP 0

RNPG 0

SCI 0

SSU

XLST

CLS CTD FBD WTA LPR MTD FNA HTD ADD HFD

MWD LMPN RMMD SMWD AA

D IMD XHD IRD NID OLD VCE DRG1

POD DSX VMD CMSD CCSD SWD LND CNDA

CFTA SFD MRD DDV CNIA CDCA MSID DAPA BFED RCB

ICDD CDMD LLCN MCTD CLBD AUTU

GPUD DPUD DNDA CFXA ARHD CLTD ASCD

CPFA CPTA ABDD CFHD FICA NAID BUZZ AHD

DDGA NAMA

DRDD EXR0

USMD USRD ULAD RTDD RBDD RBHD PGND FLXD FTTC DNDY DNO3 MCBN

CPND_LANG ENG

RCO 0

EFD

HUNT

EHT

PLEV 02



```
AST
IAPG 0
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
DNDR 0
KEY 00 SCR 2601 0  MARP
  CPND
  NAME BIG BIRD
  XPLN 13
  DISPLAY_FMT FIRST, LAST
01 SCR 2611 0  MARP
02
03 CFW 12 7042003
04 AO6
05 TRN
06 DSP
07
08 ADL 16
09 ADL 16
10 ADL 16
11 ADL 16
12 ADL 16
13 ADL 16
14 ADL 16
15 RGA
```

Configuring the PBX Software

```
PBX SOFTWARE RELEASE
```

```
>ld 22PT2000
MARP NOT ACTIVATED
```

```
REQ iss
VERSION 2111
RELEASE 25
ISSUE 15 +
PSWV VERSION: PSWV 33
```

```
FEATURE PACKAGES INSTALLED
```

```
REQ prtTYPE pkgOPTF 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
ACDD	50
LNK	51
FCA	52
SR	53
AA	54
HIST	55
AOP	56
BARS	57
NARS	58
CDP	59
PQUE	60
FCBQ	61
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
AUXS	114
DCP	115
PAGT	116
CBC	117
CCDR	118
EMUS	119
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
IAP3P 153
PRI2 154
ACNT 155
THF 157
FGD 158
FNP 160
ISDN INTL SUP 161
SAR 162
LAPW 164
GPRI 167
ARIE 170
CPGS 172
ECCS 173
AAA 174
NMS 175
EOVF 178
HVS 179
DKS 180
SACP 181
OVL P 184
EDRG 185
POVR 186
SECL 191
ORC-RVQ 192
AINS 200
IPRA 202
XPE 203
XCT0 204
XCT1 205
MLWU 206
NACD 207
HSE 208
MLM 209
MAID 210
VAWU 212
EAR 214
ECT 215
BRI 216
IVR 218
MWI 219
MSDL 222
FC68 223
M911 224
CWNT 225
SSAU 229
BRIT 233
FCDR 234
BRIL 235
MCMO 240
MULTI_USER 242
ALRM_FILTER 243
VMBA 246
CALL ID 247



M911 ENH 249
DPNA 250
SCDR 251
ARFW 253
PHTN 254
ADMINSET 256
ATX 258
QSIG 263
NI-2 291
MAT 296
MQA 297
CPP 301
QSIGGF 305
CPRKNET 306
PAGENET 307
CPCI 310
NGCC 311
TATO 312
OPEN ALARM 315
QSIG-SS 316
QTN 321
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

Configuring the Cisco 2650XM Router

The following sample output shows the router configuration for interoperability with the PBX.

```
C2651XM#sho run
Building configuration...

Current configuration : 1645 bytes
!
version 12.2
service timestamps debug datetime msec
service timestamps log uptime
no service password-encryption
!
hostname C2651XM
```



```
!  
boot system flash:c2600-jsx-mz-v122_15_zj_throttle.0.5.0  
logging queue-limit 100  
logging buffered 1000000 debugging  
!  
ip subnet-zero  
ip tcp synwait-time 13  
!  
no ip domain lookup  
!  
mpls ldp logging neighbor-changes  
!  
voice-card 1  
!  
!  
voice call carrier capacity active  
!  
no voice hpi capture buffer  
no voice hpi capture destination  
!  
!  
mta receive maximum-recipients 0  
!  
interface FastEthernet0/0  
 ip address 100.1.1.2 255.255.255.0  
 no ip mroute-cache  
 duplex auto  
 speed 100  
!  
interface FastEthernet0/1  
 ip address 172.20.8.30 255.255.255.0  
 no ip mroute-cache  
 duplex auto  
 speed auto  
!  
ip http server  
ip classless  
ip route 0.0.0.0 0.0.0.0 FastEthernet0/1  
!  
!  
!  
dialer-list 1 protocol ip permit  
!  
!  
call rsvp-sync  
!  
voice-port 1/0/0  
!  
voice-port 1/0/1  
!  
voice-port 1/1/0  
!  
voice-port 1/1/1  
 signal groundStart  
!  
mgcp profile default  
!  
dial-peer cor custom
```



```
!  
dial-peer voice 2 voip  
  destination-pattern 20..  
  session target ipv4:100.1.1.1  
!  
dial-peer voice 1 voip  
  destination-pattern 3000  
  session target ipv4:100.1.1.1  
!  
dial-peer voice 3 pots  
  destination-pattern 26..  
  port 1/0/0  
  prefix 26  
!  
dial-peer voice 4 pots  
  destination-pattern 4000  
  port 1/1/0  
!  
dial-peer voice 5 pots  
  destination-pattern 4004  
  port 1/1/1  
!  
dial-peer voice 10 voip  
  destination-pattern 240..  
  session target ipv4:100.1.1.1  
!  
gatekeeper  
  shutdown  
!  
line con 0  
  exec-timeout 0 0  
line aux 0  
  exec-timeout 0 0  
line vty 0 4  
  exec-timeout 0 0  
  password c  
  no login  
line vty 5 15  
  no login  
!  
end
```



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