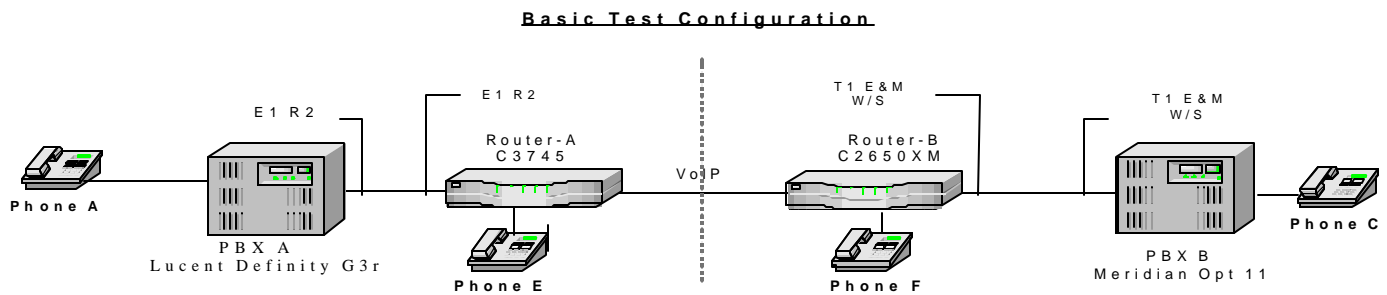


Cisco 2650XM Gateway-PBX Interoperability: Nortel Meridian Opt 11C PBX Using T1 E&M Wink Start Interfaces to an H.323 Gateway

Introduction

- This note describes the connectivity or interoperability of a Nortel Meridian Option 11C PBX to a Cisco 2650XM router.
- The network topology diagram shows the set up for end-to-end interoperability between PBXs.

Network Topology



System Components

Hardware Requirements

- Cisco Hardware
Cisco 2650XM router with dual multifrequency trunk (MFT) E1 interfaces
- PBX Hardware.
Nortel Meridian 1 Option 11C PBX



Software Requirements

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

Configuration

Configuring the Nortel Meridian 1 – Option 11C PBX

ROUTE DATA BLOCK CONFIGURATION

```
>ld 21PT1000
```

```
REQ: prtTYPE: rdbCUST 0ROUT 104
```

```
TYPE RDB
```

```
CUST 00
```

```
DMOD
```

```
ROUT 104
```

```
DES T1_CAS3
```

```
TKTP TIE
```

```
NPID_TBL_NUM 0
```

```
ESN NO
```

```
CNVT NO
```

```
SAT NO
```

```
RCLS EXT
```

```
DTRK YES
```

```
BRIP NO
```

```
DGTP DTI
```

```
ISDN NO
```

```
DSEL VCE
```

```
PTYP DTT
```

```
AUTO NO
```

```
DNIS NO
```

```
ICOG IAO
```

```
SRCH RRB
```

```
TRMB YES
```

```
STEP
```



ACOD 704
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 ORG
FEDC ORG
CPDC NO
DLTN NO
HOLD 02 02 40
SEIZ 02 02
SVFL 02 02
DRNG NO
CDR NO
MUS NO



MANO NO
EQAR NO
OHQ NO
OHQT 00
CBQ NO
AUTH NO
TTBL 0
OHTD NO
PLEV 2
ALRM NO
ART 0
SGRP 0
AACR NO
>ld 2-0
DTA300 3

TRUNK CONFIGURATION

>ld 20
PT0000
REQ: prtTYPE: tnbTN 4 lDATE PAGE DES
TN 004 01
TYPE TIE
CUST 0
TRK DTI
PDCA 1
PCML MU
NCOS 0
RTMB 104 1
A/B BIT SIGNALING
TGAR 0
SIGL EM4
STRI/STRO WNK WNK



SUPN YES
AST NO
IAPG 0
CLS UNR DTN CND ECD WTA LPR APN THFD HKD
P10 VNL
TKID
DATE 5 MAY 2003

DIGITAL STATION PHONE CONFIGURATION

>ld 11SL1000

MEM AVAIL: (U/P): 1278887 USED U P: 79300 34452 TOT: 1392639

DISK RECS AVAIL: 479

TNS AVAIL: 81 USED: 119 TOT: 200

ACD AGENTS AVAIL: 300 USED: 0 TOT: 300

AST AVAIL: 100 USED: 0 TOT: 100

DATA PORTS AVAIL: 2499 USED: 1 TOT: 2500

DIGITAL TELEPHONES AVAIL: 2498 USED: 2 TOT: 2500

INTERNET TELEPHONES AVAIL: 6 USED: 0 TOT: 6

REQ: prtTYPE: 2616

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 AAD 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

PBX SOFTWARE RELEASE/VERSION

>ld 22PT2000

REQ iss

VERSION 2111

RELEASE 25

ISSUE 15 +

PSW VERSION: PSW 33

LAYER 1 CONFIGURATION

REQ prtTYPE cequ

CEQU

MPED 8D

SUPL 000 004 008 012

016 032 036 040

044 048 064 068

072



XCT 000
CONF 029 030 031 062
094 095
DLOP NUM DCH FRM LCMT YALM T1TE TRSH
PRI 004 24 ESF B8S FDL - 00
007 24 ESF B8S FDL 0 00
008 23 ESF B8S FDL - 00
PRI2 03 05
DTI2
MISP 002

PBX FEATURE PACKAGES INSTALLED

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 |
| OVLP | 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 2651XM Router

Building configuration...

Current configuration : 1654 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  
isdn switch-type primary-net5  
!  
voice-card 1  
!  
voice call carrier capacity active  
voice rtp send-recv  
!  
no voice hpi capture buffer  
no voice hpi capture destination  
!
```




```
mta receive maximum-recipients 0

!
controller T1 1/0
    framing esf
    linecode b8zs
!
controller T1 1/1
    framing esf
    linecode b8zs
    ds0-group 1 timeslots 1-24 type e&m-wink-start
!
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 1/1/0
!
voice-port 1/1/1
!
voice-port 1/1:1
!
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 1/1:1
  prefix 26
!
dial-peer voice 4 pots
  destination-pattern 4000
  port 1/1/0
!
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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