

# Application Note

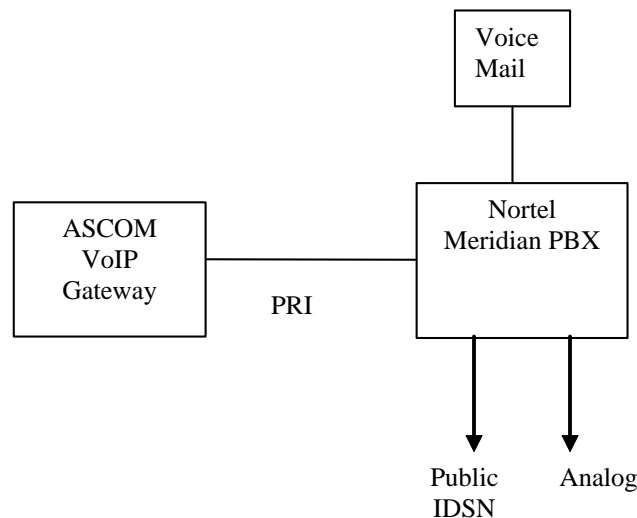
Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

## Ascom VoIP Gateway System to the Nortel Meridian PBX

### 1.0 Overview

Intended Audience: Nortel PBX System Administrators or persons having extensive knowledge of the Nortel Meridian PBX.

This document contains configuration information that may be used as a guide to configure the Ascom VoIP system to the Nortel Meridian PBX. Figure 1 below provides an overview of a generic connection between the Ascom system and a Nortel Meridian PBX.



**Figure 1**

The following configuration sections are provided in this document:	
Notes	See Section 1.1
Connections to T1 5ESS ( <b>Options 11C, 81C</b> )	See Section 2.1
Connections to T1 Q-SIG ( <b>Options 11C, 81C</b> )	See Section 2.2
Connections to E-1 Q-SIG ( <b>Option 81C</b> )	See section 2.3
Connections to T1 NI2 ( <b>Options 11C, 81C</b> )	See Section 2.4
Connections to T1 E&M Wink Start	See Section 2.5
Coordinated Dialing Plan	See section 2.6
References	See section 3
Known Issues	See Section 4

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## 1.1 Notes

- a.) Coordinated Dialing Plan (CDP) is an optional package in the Nortel Meridian that allows calls to be routed to the Ascom system as DIDs. The customer **needs** to purchase this SW in order to properly integrate with Ascom.
- b.) If 5ESS is the protocol used, the PBX delivers the calls as Public and National instead of Private and Local. The PBX will also not route extension numbers beginning with 0 and 1 across the link to Ascom. QSIG is preferred for this reason.
- c.) **Shared D-Channels are not allowed.** Each PRI needs it's own D-Channel.
- d.) If you have setup the PBX call routing to Ascom using CDP then by default CDP uses CLID table 0. CDP can only use CLID table 0. If you have the HNTN (Area Code) and HLCL (NSX) values set in CLID Table 0 then you will see a 10 digit number show up on the Ascom phone from calls made from PBX desk phones. This is because calls routed to Ascom from the PBX are being routed through CDP. CDP can only use CLID table 0 and thus the HNTN and HLCL values are being appended to the extension number.

One possible work around would be to build another CLID table and assign PBX users to this new CLID table. Then go back and modify CLID table 0, which CDP uses, and remove the values for the HNTN and HLCL. Note: This change will affect all users that are using CDP.

An easier work around is to change the incoming CLID using the Ascom Gateway capabilities in this area. The Ascom system will allow you to change the CLID on both incoming and outgoing calls. The actual numbers and call types can both be manipulated from the Gateway.

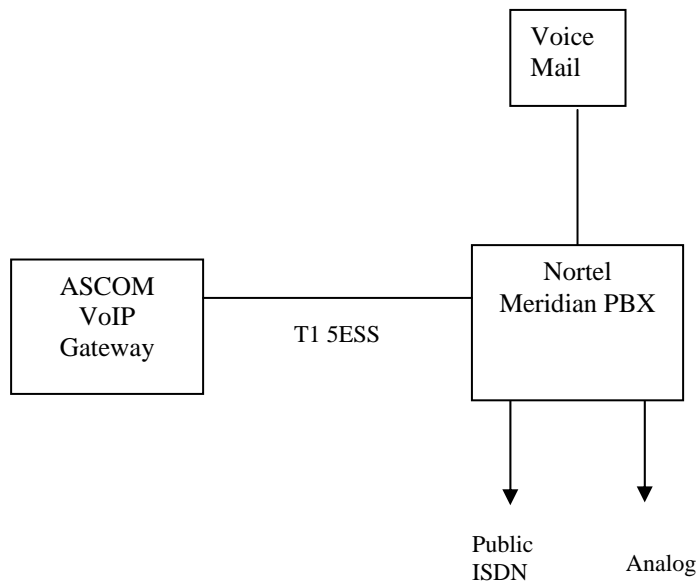
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## 2. Technical Discussion

### 2.1 Connections to T1 5ESS

Ascom VoIP Gateway connection to the Nortel Meridian PBX (5ESS T1)



**Figure 2**

### NORTEL MERIDIAN HARDWARE REQUIREMENTS

Combinations of the following board types may be found in the Meridian PBX.

#### Option 11C

- **NTRB21** - 1.5Mb DTI/PRI Card with downloadable D-channel (TMDI)
- **NTAK09** - 1.5Mb DTI/PRI Card
- **NTAK20** - Clock Controller daughter board
- **NTAK93** - D-channel Handler Interface daughter board
- **NTBK51** - Downloadable D-Channel daughter board

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## Option 81C

- **NT5D12** - Dual port 1.5Mb DTI/PRI card
- **NTBK51AA** - Downloadable D-Channel daughter board
- **NT6D80 MSDL**- Multipurpose Serial Data Link

**NOTE: The Ascom System only supports ESF, B8ZS, with FDL on all T-1 connections**

## CONFIGURATION OF T1 5ESS IN ASCOM GATEWAY

In the ASCOM Gateway, navigate the GUI to the PRI settings (located on the left menu tree) connected to the Meridian PBX. The settings are:

### PHYSICAL

NT Mode	Ticked = Ascom is NET, Meridian is USR Unticked = AScom is USR, Meridian is NET
Clock Mode	Select Slave
Do Not Use for Sync	unticked
Swap TX/RX	Select as needed. This will swap the TX and RX leads
u-Law	ticked
T-1	ticked
All other settings	unticked

### PROTOCOL

	Select 5ESS
Assign Channels from Top	Ticked = Ascom goes from top down Unticked = Ascom goes from bottom up

### INTEROP

CR Length	Select "1"
-----------	------------

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### Description 1

The following are the parameter settings in the Nortel to set up the routes. In order to set up the routes in the Nortel you must build both D-channel settings and route database. Numbering plans will need to be provisioned to match current dialing plan.

#### // T-1 5ess ////

ADAN **DCH 10**

CTYP **MSDL** (DCHI) Note: can be either type of D-channel card for 5ESS PRI

CARD **03**

PORT 1

DES **ASCOM**

USR **PRI**

DCHL 3

OTBF 32

PARM RS422 DTE Note: this option is only needed if using MSDL (CTYP)

DRAT 64KC

CLOK EXT

NASA NO

IFC **ESS5**

SIDE **USR** Note: Option 11 can only be USR for 5ESS

CNEG 1

RLS ID \*\*

RCAP ND2

MBGA NO

OVLN NO

OVLS NO

T200 3

T203 10

N200 3

N201 260

K 7

---(May not appear depending on the software release and packages)

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**// RDB 5ess ///** --- (Route)  
TYPE RDB  
CUST 00  
DMOD 23 --- (Opt. 11C only)  
ROUT 26  
DES **ASCOM**  
TKTP TIE  
ESN NO  
CNVT NO  
SAT NO  
RCLS INT  
**DTRK YES**  
**DGTP PRI**  
**ISDN YES**  
MODE PRA  
IFC ESS5  
SBN NO  
PNI 00000  
SRVC NNSF  
NCNA YES  
NCRD NO  
CHTY BCH  
CTYP CDP  
INAC NO  
ISAR NO  
TGAR 0 --- (Site Dependent)  
BCOT 0  
**DSEL 3VCE** --- See the note on page 9.  
PTYP PRI  
AUTO NO  
DNIS NO  
DCDR NO --- (Site Dependent)  
ICOG **IAO**  
SRCH **LIN** LIN sends calls from bottom up. RRB cycles through channels.  
**TRMB NO** Turn Tromboning OFF  
STEP  
ACOD 206  
TCPP NO  
PII NO  
TARG 01 --- (Site Dependent)  
CLEN 10 --- (Site Dependent)  
BILN NO  
OABS  
INST

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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  
    TFD 0  
DRNG NO  
CDR NO                   --- (Site Dependent)           CDR is OFF  
MUS NO  
EQAR 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  
PLEV 2  
ALRM NO  
ART 0  
SGRP 0  
AACR NO

## Application Note

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Date: 1/10/2008

### Trunk Channel Setting For 5ESS

(Load 14)

TN 114 1  
**TYPE TIE**  
CDEN SD  
CUST 0  
TRK PRI  
PDCA 1  
**PCML MU**                    Set to MU-law for T1 circuits  
**NCOS 6**                    Should be set to equal the highest extension NCOS!  
RTMB 26 1                --- (Site Dependent)  
B-CHANNEL SIGNALING  
TGAR 1                    --- (Site Dependent)  
AST NO  
IAPG 0  
CLS **CTD DTN** CND WTA LPR APN THFD HKD  
P10 VNL  
TKID

Note: If you are experiencing any of the below problems, then you will need to change the DSEL setting to VCE, 3VCE, or VOD depending on your PBX configuration.

- Calls from certain locations, to Ascom phones, terminate in the PBX with a D Channel error of 42 however, most other calls work fine.
- Calls from your local area to Ascom phones terminate in your PBX with a D Channel error of 42 however, long distance calls into the Ascom work fine.

D Channel error 42 is a switch congestion error and usually means that not enough bandwidth has been designated for the PRI links.

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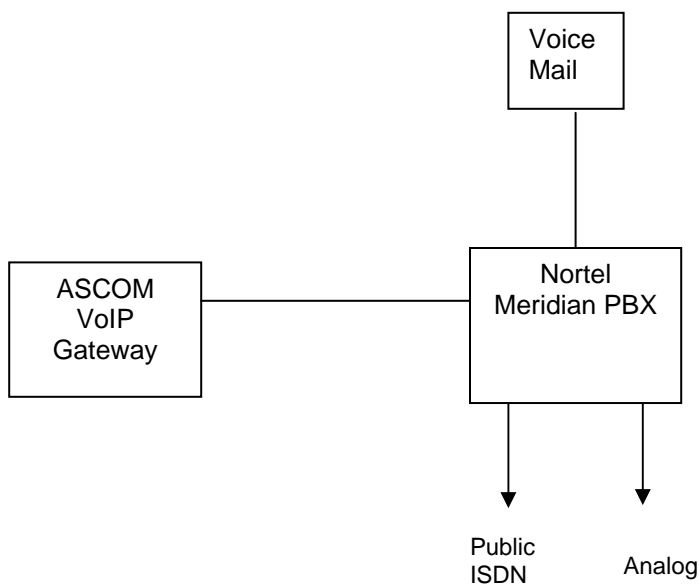
Product: Ascom VoIP gateway

Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.

Date: 1/10/2008

## 2.2. Connections to T1 Q-SIG

Ascom VoIP gateway connection to the Nortel Meridian PBX (QSIG T1).



**Figure 3**

# Application Note

Product: Ascom VoIP gateway

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Date: 1/10/2008

## **NORTEL MERIDIAN HARDWARE REQUIREMENTS**

Combinations of the following board types may be found in the Meridian PBX.

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### **Option 81C**

- **NT5D12** - Dual port 1.5Mb DTI/PRI card
- **NTBK51AA** - Downloadable D-Channel daughter board
- **NT6D80 MSDL-** Multipurpose Serial Data Link

## Application Note

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Date: 1/10/2008

### CONFIGURATION OF T1 QSIG IN ASCOM GATEWAY

In the ASCOM Gateway, navigate the GUI to the PRI settings (located on the left menu tree) connected to the Meridian PBX. The settings are:

#### PHYSICAL

NT Mode	Ticked = Ascom is NET, Meridian is USR Unticked = AScom is USR, Meridian is NET
Clock Mode	Select Slave
Do Not Use for Sync	unticked
Swap TX/RX	Select as needed. This will swap the TX and RX leads
u-Law	ticked
T-1	ticked
All other settings	unticked

#### PROTOCOL

	Select QSIG ECMA2
Assign Channels from Top	Ticked = Ascom goes from top down Unticked = Ascom goes from bottom up

Navigate to the Ascom Gateway GUI : Gateway → Routes. For each Route and Route Map, make sure the Interworking (QSIG) icon is ticked.

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### Description 2

#### **Nortel Configuration for QSIG T-1**

##### D-CHANNEL SETTINGS

ADAN DCH 14

CTYP MSDL Note: This card must be a MSDL in order to support Q\_SIG (downloadable D-channel)

CARD 02

PORT 1

DES ASCOM

**USR PRI**

DCHL 2

OTBF 32

PARM RS422 DTE

DRAT 64KC

CLOK EXT

NASA NO

**IFC ESGF or ISGF** Note: If PBX supports ISGF, then select that as the IFC.

PINX\_CUST 0

ISDN\_MCNT 300

CLID OPT0

CO\_TYPE STD

SIDE USR

CNEG 1

RLS ID \*\*

RCAP COLP NDS CCBS CCNR Note: Use CCBO, CCNO, NDO, etc if possible

MBGA NO

OVL R YES

DIDD 0

OVL S YES

OVL T 0

T310 120

T200 3

T203 10

N200 3

N201 260

K 7

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## ROUTE DATA BASE

TYPE RDB  
CUST 00  
DMOD  
ROUT 21  
DES ASCOM  
**TKTP TIE**  
ESN NO  
CNVT NO  
SAT NO  
RCLS EXT  
**DTRK YES**  
**DGTP PRI**  
**ISDN YES**  
    **MODE PRA**  
    **IFC ESGF (or ISGF, according to D-Channel)**  
    SBN NO  
    PNI 00000  
    NCNA NO  
    NCRD NO  
    CHTY BCH  
    CTYP UKWN  
    INAC NO  
    ISAR NO  
    TGAR 0  
    CPFXS YES  
    ADDP NO  
    INTC NO  
DSEL 3VCE  
PTYP DTT  
AUTO NO  
DNIS NO  
DCDR NO  
ICOG **IAO**  
SRCH LIN  
**TRMB NO**  
STEP  
ACOD 202  
TCPP NO  
TARG 01  
CLEN 1  
BILN NO  
OABS

**Set Tromboning OFF**

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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  
    TFD 0  
DRNG NO  
CDR NO  
MUS NO  
EQAR 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  
PLEV 2  
ALRM NO  
ART 0  
SGRP 0  
AACR NO

## Application Note

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### Trunk Channel Settings

(Load 14)

TN 114 1

**TYPE TIE**

CDEN SD

CUST 0

TRK PRI

PDCA 1

**PCML MU**

Set to MU-law for T1 circuits

**NCOS 6**

Should be set to equal the highest extension NCOS!

RTMB 26 1 --- (Site Dependent)

B-CHANNEL SIGNALING

TGAR 1 --- (Site Dependent)

AST NO

IAPG 0

CLS **CTD DTN** CND WTA LPR APN THFD HKD

P10 VNL

TKID

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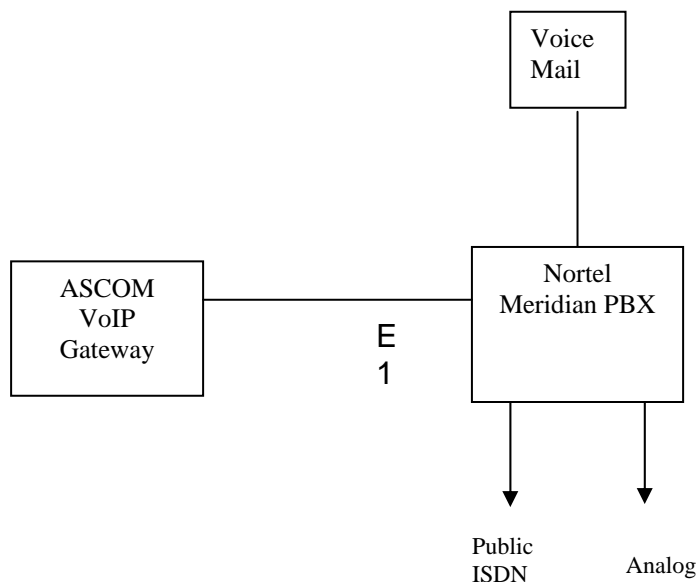
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## 2.3 E-1 QSIG (Option 81C)

### MERIDIAN 1 NORTEL PABX SYSTEM

SYSTEM TYPE : OPT81C  
RELEASE : 23.37  
VERSION : 1911

Ascom VoIP Gateway connection to the Nortel Meridian PBX (E1 QSIG)



**Figure 4**

### HARDWARE REQUIREMENT

- **NTCK43** - 2.048 MBIT DUAL PRIMARY RATE ACCESS CARD
- **NTBK51** - DOWNLOADABLE D-CHANNEL DAUGHTERBOARD

## Application Note

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Date: 1/10/2008

### CONFIGURATION OF E1 QSIG IN ASCOM GATEWAY

In the ASCOM Gateway, navigate the GUI to the PRI settings (located on the left menu tree) connected to the Meridian PBX. The settings are:

#### PHYSICAL

NT Mode	Ticked = Ascom is NET, Meridian is USR Unticked = AScom is USR, Meridian is NET
Clock Mode	Select Slave
Do Not Use for Sync	unticked
Swap TX/RX	Select as needed. This will swap the TX and RX leads
u-Law	unticked
T-1	unticked
All other settings	unticked

#### PROTOCOL

Assign Channels from Top	Select QSIG ECMA2 or ECMA1 Ticked = Ascom goes from top down Unticked = Ascom goes from bottom up
--------------------------	---

Navigate to the Ascom Gateway GUI : Gateway → Routes. For each Route and Route Map, make sure the Interworking (QSIG) icon is ticked.

# Application Note

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## Description 3

### **Nortel Configuration for QSIG T-1**

#### **D-CHANNEL SETTING**

ADAN DCH 34  
CTYP MSDL  
GRP 1  
DNUM 8  
PORT 0  
DES ASCOM  
USR PRI  
**DCHL 34**  
OTBF 32  
PARM RS422 DTE  
DRAT 64KC  
CLOK EXT  
NASA NO  
**IFC ESGF**  
PINX\_CUST 0  
ISDN\_MCNT 300  
CLID OPT0  
CO\_TYPE STD  
**SIDE USR**  
CNEG 1  
RLS ID \*\*  
RCAP **COLP NDS CCBS CCNR**  
**OVLR YES**  
**DIDD 0**  
**OVLS YES**  
**OVLT 0**  
T310 120  
T200 3  
T203 10  
N200 3  
N201 260  
K 7

#### **QSIG ROUTE DATA SETTING FOR D-CHANNEL 34**

TYPE RDB  
CUST 00  
ROUT 34  
DES ASCOM  
**TKTP TIE**  
ESN NO  
CNVT NO  
SAT NO  
RCLS EXT

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DTRK YES  
BRIP NO  
**DGTP PRI2**  
**ISDN YES**  
MODE PRA  
IFC ESGF  
SBN NO  
PNI 00000  
NCNA NO  
NCRD NO  
CTYP UKWN  
INAC NO  
ISAR NO  
TGAR 0  
CPFXS YES  
ADDP NO  
INTC NO  
**DSEL 3VCE**  
PTYT DTT  
AUTO NO  
DNIS NO  
DCDR NO  
**ICOG IAO**  
SRCH LIN  
**TRMB NO**  
STEP  
ACOD 7134  
TCPP NO  
TARG  
BILN NO  
OABS  
INST  
IDC NO  
DCNO 0 \*  
NDNO 0  
DEXT NO  
ANTK  
SIGO STD  
MFC NO  
ICIS YES  
OGIS YES  
TIMR ICF 512  
OGF 512  
EOD 13952  
NRD 10112  
DDL 70  
ODT 4096  
RGV 640  
GTO 896

**Set Tromboning OFF**

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GTI 896  
SFB 3  
NBS 2048  
NBL 4096  
TFD 0  
DTD NO  
SCDT NO  
2 DT NO  
DRNG NO  
CDR YES  
INC NO  
LAST NO  
QREC NO  
OAL YES  
AIA YES  
OAN YES  
OPD YES  
NDP EXC 0  
CDRX NO  
NATL YES  
SSL  
CFWR NO  
IDOP NO  
MUS NO  
PANS YES  
RACD NO  
EQAR 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  
TDET NO  
**TTBL 1**  
PLEV 2  
OPR NO  
ALRM NO  
ART 0  
PECL NO  
DCTI 0  
SGRP 0  
AACR NO

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## TRUNK CHANNEL SETTING FOR QSIG

TN 034 01  
TYPE TIE  
CDEN SD  
CUST 0  
TRK PRI2  
PDCA 1  
PCML A *Set to A-law for E1 Qsig*  
NCOS 0 *Set this to equal the highest extension NCOS!*  
RTMB 34 1  
B-CHANNEL SIGNALING  
TGAR 0  
AST NO  
IAPG 0  
CLS **CTD DTN** WTA LPR APN THFD BARD  
P10 VNL  
TKID

## LOOP TIMER SETTING FOR LOOP 34

TYPE PRI2  
FEAT LPTI  
  
LOOP 34  
MFF **CRC**  
ACRC NO  
ALRM REG  
RAIE NO  
G1OS YES  
SLP 5 24 H 30 1 H  
BPV 128 122  
CRC 201 97  
FAP 28 1  
RATS 10  
GP2 20 100 S 12 S 12 S 4 S  
MNG1 15 M  
NCG1 15 M  
OSG1 15 M  
MNG2 15 S  
NCG2 15 S  
OSG2 15 S  
PERS 50  
CLRS 50  
OOSC 5

## Application Note

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### 2.4 CONFIGURATION OF T1 NI2 IN ASCOM GATEWAY

In the ASCOM Gateway, navigate the GUI to the PRI settings (located on the left menu tree) connected to the Meridian PBX. The settings are:

#### PHYSICAL

NT Mode	Ticked = Ascom is NET, Meridian is USR Unticked = AScom is USR, Meridian is NET
Clock Mode	Select Slave
Do Not Use for Sync	unticked
Swap TX/RX	Select as needed. This will swap the TX and RX leads
u-Law	ticked
T-1	ticked
All other settings	unticked

#### PROTOCOL

Assign Channels from Top	Select NI2 Ticked = Ascom goes from top down Unticked = Ascom goes from bottom up
--------------------------	---

Navigate to the Ascom Gateway GUI : Gateway → Routes. For each Route and Route Map, make sure the Interworking (QSIG) icon is ticked.

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Date: 1/10/2008

## Description 4

### **Nortel Configuration for T-1NI2**

#### D-CHANNEL SETTINGS

ADAN DCH 14

CTYP MSDL Note: This card must be a MSDL in order to support Q\_SIG (downloadable D-channel)

CARD 02

PORT 1

DES ASCOM

**USR PRI**

DCHL 2

OTBF 32

PARM RS422 DTE

DRAT 64KC

CLOK EXT

NASA NO

**IFC NI2**

ISDN\_MCNT 300

CLID OPT0

CO\_TYPE STD

SIDE **USR (or NET)**

CNEG 1

RLS ID \*\*

RCAP COLP NDS CCBS CCNR

Note: Use CCBO, CCNO, NDO, CTO, etc if possible

MBGA NO

OVLN YES

DIDD 0

OVLN YES

OVLN 0

T310 120

T200 3

T203 10

N200 3

N201 260

K 7

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## ROUTE DATA BASE

TYPE RDB  
CUST 00  
DMOD  
ROUT 21  
DES ASCOM  
**TKTP DID**  
ESN NO  
CNVT NO  
SAT NO  
RCLS EXT  
**DTRK YES**  
**DGTP PRI**  
**ISDN YES**  
**MODE PRA**  
**IFC NI2**  
SBN NO  
PNI 00000  
NCNA NO  
NCRD NO  
CHTY BCH  
CTYP UKWN  
INAC NO  
ISAR NO  
TGAR 0  
CPFXS YES  
ADDP NO  
INTC NO  
DSEL **3VCE**  
PTYP DTT  
AUTO NO  
DNIS NO  
DCDR NO  
ICOG **IAO**  
SRCH LIN  
**TRMB NO**  
STEP  
ACOD 202  
TCPP NO  
TARG 01  
CLEN 1  
BILN NO  
OABS  
INST  
ANTK  
SIGO STD  
ICIS YES

**Set Tromboning OFF**

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Product: Ascom VoIP gateway

Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.

Date: 1/10/2008

TIMR ICF 512  
OGF 512  
EOD 13952  
NRD 10112  
DDL 70  
ODT 4096  
RGV 640  
GRD 896  
SFB 3  
NBS 2048  
NBL 4096  
TFD 0  
DRNG NO  
CDR NO  
MUS NO  
EQAR 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  
PLEV 2  
ALRM NO  
ART 0  
SGRP 0  
AACR NO

# Application Note

Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

## Trunk Channel Settings

(Load 14)

TN 114 1  
**TYPE DID**  
CDEN SD  
CUST 0  
TRK PRI  
PDCA 1  
**PCML MU**                    Set to MU-law for T1 circuits  
**NCOS 6**                      Should be set to equal the highest extension NCOS!  
RTMB 26 1                    --- (Site Dependent)  
B-CHANNEL SIGNALING  
TGAR 1                        --- (Site Dependent)  
AST NO  
IAPG 0  
CLS **CTD DTN** CND WTA LPR APN THFD HKD  
P10 VNL  
TKID

## Application Note

Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

### 2.5 Configuration of T-1 E&M Wink Start

#### ASCOM Gateway SETTINGS

Navigate the Ascom GUI to

PRI → Physical

NT Mode = unchecked/checked (does not matter)

**Clock Mode = Slave**

Swap TX/RX = **as needed**

Do Not use for Sync = unchecked

u-law = checked

T-1 = Checked

CAS = checked

**All other settings = off/default**

Configuration → PRI → Protocol

Protocol = T-1 WINK START

Assign Channels from Top = unchecked if Meridian = RRB

= checked if Meridian = LIN

Channelbank Mode = Off

#### Description 5

#### Nortel Configuration for T-1NI2

LD 16/LD 21

**Route Settings**

TYPE RDB

CUST 00

DMOD

ROUT 5

DES ASCOM

**TKTP TIE**

NPID\_TBL\_NUM 0

ESN NO

CNVT NO

SAT NO

**RCLS INT**

**DTRK YES**

BRIP NO

DGTP DTI

**ISDN NO**

**DSEL 3VCE**

PTYP DTT

AUTO NO

DNIS NO

**Rev. A**

# Application Note

Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

## ICOG IAO

**SRCH LIN** (*Set either RRB or LIN. Your Choice.*) *LIN goes bottom up, set IGWP opposite*

## TRMB NO

STEP

ACOD 8005

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

EQAR 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

**Rev. A**

# Application Note

Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

TTBL 0  
OHTD NO  
PLEV 2  
ALRM NO  
ART 0  
SGRP 0  
AACR NO

## **LD 14/20** **Trunks**

TN 005 01 *thru 5 24*  
**TYPE TIE**  
CUST 0  
TRK DTI  
**PDCA 1**  
**PCML MU**  
NCOS 0  
**RTMB 5 1**  
A/B BIT SIGNALING  
TGAR 1  
**SIGL EM4**  
**STRI/STRO WNK WNK**  
**SUPN YES**  
AST NO  
IAPG 0  
CLS CTD **DTN** CND ECD WTA LPR APN THFD HKD  
P10 VNL  
TKID  
DATE 14 SEP 2006

## Application Note

Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

### 2.6. Coordinated Dialing Plan

**Note:** CDP is an optional package that allows calls to be routed to the PWT MOB SERVER system as DIDs. The customer **needs** to purchase this SW in order to properly integrate to the PWT MOB SERVER.

#### CDP entry routing 7300 through 7399 to Ascom

**LD 87**  
**CDP Entry**

FEAT **cdp**  
TYPE **dsc**  
DSC **73**  
FLEN 4  
DSP **LSC**  
RLI 9

Note: this table points the numbers starting with 73 toward the RLI 9 (route list 9)

**LD 86**  
**RLB Entry**

RLI 9  
ENTR **0**  
LTER NO  
ROUT **26 (Ascom route number)**  
TOD 0 ON 1 ON 2 ON 3 ON  
4 ON 5 ON 6 ON 7 ON  
CNV NO  
EXP NO  
FRL 0  
DMI **2 (if Digit manipulation is needed)**  
FCI 0  
FSNI 0  
OHQ NO  
CBQ NO  
  
ISET 0  
MFRL 0  
OVLL 0

**Note:** this RLI9 table points the calls toward route 26 (Ascom) as the 1<sup>st</sup> option using DMI table 2.

# Application Note

Product: Ascom VoIP gateway  
Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.  
Date: 1/10/2008

## LD 86

### DMI table 2

FEAT dgt  
DMI 2

DMI 2  
DEL 0  
INST 0  
CTYP NXX

**Note: This is DMI if using 5ESS**

CUST 0  
FEAT DGT  
DMI 2

DMI 2  
DEL 1  
INST 7  
CTYP LOC

**Note: This is the DMI if using QSIG or NI2**

### OPTIONAL

CUST 0  
FEAT dgt  
DMI 3

DMI 3  
DEL 5  
INST 4001  
CTYP UKWN

*Note: as displayed this deletes all 5 digits dialed and sends 4001 (an extension). It can be configured to delete only the 1<sup>st</sup> part of the number thus allowing a desk phone to be called that has a consistent number with the Ascom gateway. I.e.: 73001 (Ascom number) delete (2), insert (4), which modifies 73001 to be 4001 if the span is down and that allows calls to the intended desk phone. All personal numbers and desk extensions would need to conform to this numbering scheme. The DMI would need to be referenced in the RLB table from LD 86.*

## 3. Reference

Nortel Meridian X11 Administration Input/Output Guide 553-3001-311  
Nortel Meridian ISDN Primary Rate Interface Installation Guide 553-2901-201  
Nortel Meridian Option 11C 1.5Mb DTI/PRI 553-3011-310

# Application Note

Product: Ascom VoIP gateway

Purpose: Information that maybe used as a guide to configure the Ascom VoIP Gateway system to the Nortel Meridian PBX.

Date: 1/10/2008

## 4 Known issues

### Account/Authorization Codes:

If the Meridian is using Auth Codes for LD calls, the Gateway may experience problems allowing the DTMF to be sent for the AUTH code.

### For 5ESS:

If the "CONNECT" message is not received and the Gateway is not running 1.2.1, then no DTMF will be sent from the handsets, and AUTH codes will not work.

### For QSIG:

If the "CONNECT" message is not received and the Gateway is not running 1.2.1, then no DTMF will be sent from the handsets, and AUTH codes will not work. Further, the i75 handsets must be at release 1.2.21, else the DTMF will not be sent during the setup phase.

The incoming trunk on the Meridian must have an NCOS value set high enough to allow the particular type of dialing received from the VoIP Gateway. For example, using NCOS 5 allows local, Toll Free, and LD dialing. If any VoIP user needs to dial IDDD (011), then the trunk group must have the proper NCOS to allow the call to proceed. The VoIP Gateway can restrict calls based on dialed digits in a similar manner.