

Application Note

ascom

Ascom US Inc.

Product: Ascom VoIP Gateway

Purpose: Information that maybe used as a guide to configure the Siemens PBX to Ascom VoIP

Date: 6/25/2008

Ascom VoIP Gateway System to the Siemens PBX

Overview

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

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

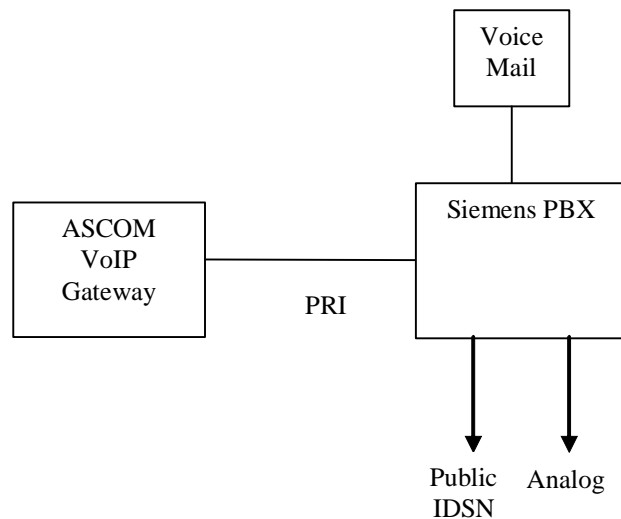


Figure 1

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1. Technical Discussion

Note: The following is specific to the Siemens HiPath 4000 v2 using T1 card DIU2U and should be used only as a guideline.

Connections to T1 Q-SIG

Ascom VoIP Gateway connection to the Siemens HiPath 4000 v2 PBX (QSIG T1).

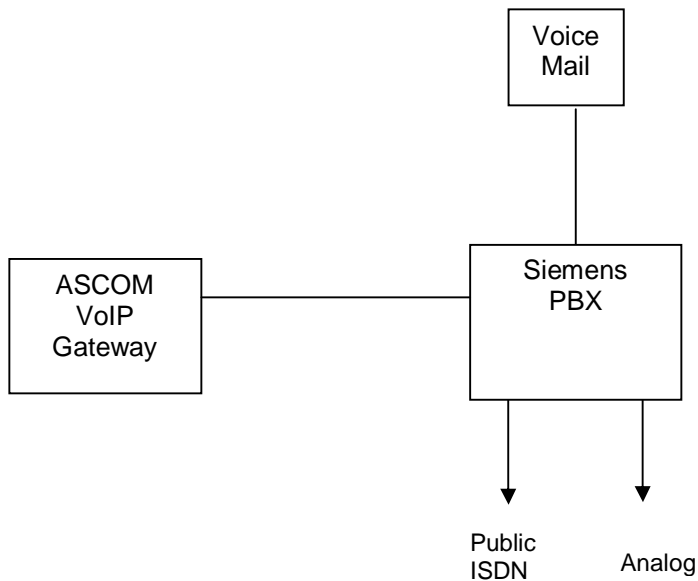


Figure 2

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SIEMENS HARDWARE REQUIREMENTS

Interface board DIU2U (in the design it looks like this **Q2216-X DIU2U-M**).

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 Siemens PBX. The settings are:

PHYSICAL

NT Mode	Ticked = Ascom is NET, Siemens is USR Unticked = AScom is USR, Siemens 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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Siemens Configuration for QSIG T-1

ASCOM QSIG CONFIGURATION (Siemens HiPath 4K V2)

In this example, we start with building the trunk-group 27. Again, this is example. Trunk group numbers, etc... may differ.

DIS-BUEND:27,;
H500: AMO BUEND STARTED

```
+-----+
|-----+
| TGRP NUMBER : 27 TGRP NAME : ASCOM WIRELESS MAXIMUM NO. : 23 |
| CHARCON : NEUTRAL |
| SUBGROUP NO.: 4 DEVICE TYPE : S1CONN TRACENO : 0 |
| SEARCH MODE : DESCENDING ACD THRESHOLD : * |
| NUMBER OF ASSOCIATED ROUTES : 1 PRIORITY : 1 |
| TDDRFLAG : ON TDDRTHRESHOLD: 2 SOURCEGROUPIDX : 1 |
| GDTRRULE : 0 ACDPMGRP : 0 |
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED: |
+-----+
| 1-10- 79-0 1 | 1-10- 79-0 2 | 1-10- 79-0 3 |
| 1-10- 79-0 4 | 1-10- 79-0 5 | 1-10- 79-0 6 |
| 1-10- 79-0 7 | 1-10- 79-0 8 | 1-10- 79-0 9 |
| 1-10- 79-0 10 | 1-10- 79-0 11 | 1-10- 79-0 12 |
| 1-10- 79-0 13 | 1-10- 79-0 14 | 1-10- 79-0 15 |
| 1-10- 79-0 16 | 1-10- 79-0 17 | 1-10- 79-0 18 |
| 1-10- 79-0 19 | 1-10- 79-0 20 | 1-10- 79-0 21 |
| 1-10- 79-0 22 | 1-10- 79-0 23 | |
+-----+
```

DIS-TDCSU:1-10-79-0,;
H500: AMO TDCSU STARTED

```
+-----+
|-----+
| DEV = S1CONN PEN = 1-10-079-0 TGRP = 27 |
+-----+
| PROTVAR = ECMAV2 INS = Y SRCHMODE = DSC |
| COTNO = 27 COPNO = 27 DPLN = 0 |
| ITR = 0 COS = 39 LCOSV = 8 |
| LCOSD = 8 CCT = ASCOM PRI DESTNO = 0 |
| SEGMENT = 1 DEDSCC = DEDSVC = NONE |
| FACILITY = DITIDX = SRTIDX = |
| TRTBLL = GDTR SIDANI = Y ATNTYP = TIE |
| CBMATTR = NONE NWMUXTIM = 10 TCHARG = N |
| SUPPRESS = 0 DGTPR = CHIMAP = N |
| ISDNIP = ISDNNP = |
| PNPL2P = PNPL1P = PNPAC = |
+-----+
```

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```
| TRACOUNT = 31      SATCOUNT = MANY      NNO      = 1 -1 -27 |
| ALARMNO = 2       FIDX   = 1      CARRIER = 1      |
| ZONE   = EMPTY   COTX   = 27     FWDX   = 5      |
| DOMTYPE =        DOMAINNO =      TPROFNO =          |
| INIGHT =          CCHDL  =          |
| UUSCCX = 16      UUSCCY = 8      FNIDX  = 0      |
| CLASSMRK = EC    & G711          SRCGRP =          |
| TCCID  =          |
|-----|
| BCNEG  = N       BCGR   = 1      LWPAR  = 27     |
| LWPP   =        LWLT  =        LWPS  =          |
| LWR1   =        LWR2  =          |
| DMCALLWD =      DMCSEC =          VNNO  =          |
| SVCDOM =          |
| BCHAN  = 1 && 23          |
|-----|
```

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 23

DIS-COSSU: COS,39,;

H500: AMO COSSU STARTED

```
+-----+
| COS | VOICE | FAX | DTE |
+-----+
| 39 |>39-TRUNKS
|   | TA   | NOCO | NOCO |
|   | TNOTCR | NOTIE | NOTIE |
|   | CDRATN |      |      |
|   | CDRS  |      |      |
|   | CDRC  |      |      |
|   | CDRINT |      |      |
|   | VCE   |      |      |
|   | TTT   |      |      |
+-----+
```

DIS-COT:27,;

H500: AMO COT STARTED

COT: 27 INFO: ASCOM QSIG PRI

DEVICE: INDEP SOURCE: DB

PARAMETER:

```
PRIORITY FOR AC WILL BE DETERMINED FROM MESSAGE      PRI
RECALL IF USER HANGS UP IN CONSULTATION CALL        RCL
TRUNK CALL TRANSFER                                XFER
CHANGEOVER FROM HOLD TO RING TONE                   CHRT
KNOCKING OVERRIDE POSSIBLE                          KNOR
CALL EXTEND FOR BUSY, RING OR CALL STATE            CEBC
```

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NETWORKWIDE AUTOMATIC CALLBACK ON BUSY	CBBN
NETWORKWIDE AUTOMATIC CALLBACK ON FREE	CBFN
REGISTRATION OF IMPLAUSIBLE EVENTS	IEVT
DON'T RELEASE CALL TO BUSY HUNT GROUP	BSHT
END-OF-DIAL FOR BLOCK IS SET	BLOC
DESTINATION NUMBER WITH PREFIX DIGITS TO CDR	DPRE
EMERGENCY OVERRIDE/DISCONNECT VIA S0/S2 LINE	PROV
ACTIVATE TRANSIT COUNTER ADMINISTRATION FOR S0/S2 LINE	ATRS
CONNECTION TO ROUTE OPTIMIZATION NODE	ROPT
TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)	TSCS
INCOMING CDR ACTIVATE PER TRUNK	ICZO
TRUNK SENDS CALL CHARGES TO ORIGINATING NODE NUMBER	TRSC
CALL FORWARDING PROGRAMING FOR OTHER SUBSCRIBERS	CFOS
CALL FORWARDING VALIDATION PROCEDURES POSSIBLE	CFVA
PIN NETWORKWIDE POSSIBLE	PINR
AOC PER CALL (AUTOMATICAL OR ON REQUEST), MAND. CORNET-NQ	AOCC
CDR FOR BREAK OUT TO CARRIER	CDBO
CALL CHARGE DISPLAY	CDRD
AUTOM.DTMF CONVERSION ON INCOM.CALL WHILE IN TALK STATE	AMFC
SEND DIGITS VIA IN.BAND DTMF BEFORE ANSWER	IBBA
NO TONE	NTON

DIS-COP:27,;

H500: AMO COP STARTED

COP: 27 INFO: ASCOM QSIG PRI

DEVICE: INDEP SOURCE: DB

PARAMETER:

REGISTRATION OF LAYER 3 ADVISORIES

L3AR

REFLECT RESTART INDICATOR AND B-CHANNEL BY RESTART

RRST

DIS-SDSU:ALL,,PEN,PER3,1,10,79,0;

H500: AMO SDSU STARTED

LTG1 (PERIPHERY)

MOUNTING LOCATION MODULE NAME BDL BD(#=ACT) STATUS

----- LTG 1 ----- READY

-LTUW-----SG 1 LTU 10 ----- READY

** .LTG 1.LTU10.079 DIU2U-M A Q2216-X READY

CCT LINE STNO SI BUS TYPE

000 5643 PP NW READY

MULTLINE 30READY

000 NO CONN

001 NETWORK SUBUNIT . TMD CONN ISDN READY

(ALT_ROUT: N) (S1CONN)

LINE: 5643 STNO: SI:

001 TMD CONN ISDN READY

002 NETWORK SUBUNIT . TMD CONN ISDN READY

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```
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
003 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
004 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
005 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
006 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
007 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
008 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
009 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
010 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
011 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
012 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
013 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
014 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
```

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```
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
015 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
016 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
017 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
018 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
019 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
020 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
021 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
022 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
023 NETWORK SUBUNIT . TMD CONN ISDN READY
(ALT_ROUT: N) (S1CONN )
LINE: 5643 STNO: SI:
001 . . . . . TMD CONN ISDN READY
024 NO CONN
025 NO CONN
026 NO CONN
027 NO CONN
028 NO CONN
029 NO CONN
030 NO CONN
```

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Reference

<http://enterprise.siemens.com>

Related Documents

<http://www.ascomwireless.com/pd/pdf/guide/freenetTPM/05d-voipGatewayInstallationGuide.pdf>

Additional Information

If you have any questions or need additional information, please contact Ascom Technical Assistance Center at 1-877-71-ASCOM, option 3.