

Application Note



Ascom® Wireless Solutions Inc.

Title: T1 CAS Integration for Siemens HICOM 9006.6
Product: Freeset DCT1900 Standalone
Purpose: How to configure for T1 CAS
Date: 9/7/2004

Purpose

The purpose of this document is to assist Ascom certified technicians with the integration of the Ascom Freeset DCT1900 system with a Siemens HICOM 9006.6 PBX using T1 CAS.

Prerequisites

As a prerequisite for this integration the Ascom certified technician should have thorough knowledge of Extended Superframe (D5) and Superframe (D4) framing formats. The technician should also be well versed with the associated line coding techniques (B8ZS and AMI) and have a complete understanding of Robbed Bit Signaling (RBS). The PBX administrator must be capable of setting up a T1CAS link and assigning the mentioned parameters.

Reference Information

- Ascom TPM LZB 119 2663
- EMMML Reference and Config Manual HICOM 300 ECS, Version 6.4, Volume 1 and 2.
- T1 Signaling (B8ZS/AMI, SF/ESF and RBS)

Associated Equipment

Ascom:

- DTU T1 CAS. REX-BRD0021 or 2/ROFNB 157 13/2
- Cordless System Manager (CSM). REX-MTC9023
- Features and Phonebook Tool (FPT). AWS1092

Siemens:

- TND24 (96100A) or newer TNDN 97451

Freeset Parameters

When initializing the DCT1900 system include the following specific parameters:

- T1 CAS
- Extended Super Frame
- B8ZS
- Ring Cadence

Cadences	Millisec On	Millisec Off	Millisec On	Millisec Off
Internal	1060	2960		
External	700	560	760	2000
Call Back	1000	1000		

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- Set FPT tool to load PBX 9751 (9006) when loading features and phonebook to portable telephones.

PBX Configuration Information

The following information is a snap shot from a properly configured PBX.

```
<dis-bcsu
```

```
TYPE = tmd
```

```
LTG = 1
```

```
LTU = 5
```

```
SLOT = 079;
```

```
DIS-BCSU:TMD,1,5,079;
```

```
H500: AMO BCSU STARTED
```

```
-----  
| DETAILS OF TMD BOARD AT ADDRESS  
(LTG.LTU.SLOT) = 1. 5. 79 |
```

```
| CABTYP = 3          TIMTYP = SYST  
SIGTYP = CAS        |  
| FRAME = ESF        TABS = NO  
FCTID = 1           |  
| BI8SUB = YES       BIVDET = NO
```

```
-----  
| RDRATIO = 6        RDTH = 2500  
RDQUAL = 15000      |  
| YLSEND = 5000      YLTH = 400  
YLQUAL = 100        |  
| LOS = 150          AOS = 4000
```

```
| SESDISTH = 10      SESREQTH = 10
```

```
| OESDISTH = 30      OESDISIN = 24-00-00
```

```
| OESREQTH = 4       OESREQIN = 04-00-00
```

```
-----  
| NETUSR =          ACKTIM =  
DLVTIM =           |
```

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```
|      OCTMAX =          RETMAX =  
WINDOW =          |  
|      CRIDC  =          TTSC  =  
NSFIV  =          |  
|      NSFTSC =          PFDGT =  
|  
|-----|  
|-----|  
|      IGN  =          IID  =  
|
```

```
-----  
AMO-BCSU -111          BOARD CONFIGURATION,  
SWITCHING UNIT  
DISPLAY COMPLETED;  
STATUS = all
```

LINK = and

TYPE = pen

LEVEL = per3

LTG = 1

LTU = 5

```
SLOT = 079;  
DIS-SDSU:ALL,AND,PEN,PER3,1,5,079;  
H500: AMO SDSU STARTED
```

```
LTG1 (PERIPHERY)  
-----  
MOUNTING LOCATION    MODULE NAME    NOM.  
BD(#=ACT) STATUS  
-----  
----- LTG 1 -----  
----- READY  
----- LTU 5 -----  
----- READY  
** .LTG 1.LTU 5. 79 TMDN  
Q2474-X          READY  
CCT  LINE    STNO  SI  
BUS TYPE  
1 1715 3875 VOICE  
READY  
ELEM DEV. . . . . ANALOG  
TERM          READY  
CCT  LINE    STNO  SI  
BUS TYPE
```

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```

                2   1716   3876 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                3   1717   3877 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                4   1718   3878 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                5   1719   3879 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                6   1720   3880 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                7   1721   3885 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                8   1722   3886 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
                9   1723   3887 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT   LINE   STNO  SI
BUS TYPE
```

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```

                10    1724    3888 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                11    1725    3889 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                12    1726    3890 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                13    1727    3892 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                14    1728    3893 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                15    1729    3894 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                16    1730    3897 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
                17    1731    3898 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT    LINE    STNO  SI
BUS TYPE
```

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```

                18      1732      3899 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                19      1733      4384 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                20      1734      4385 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                21      1735      4386 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                22      1736      4387 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                23      1737      4388 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                24      1738      8335 VOICE
READY
                ELEM DEV. . . . . ANALOG
TERM          READY
                CCT      LINE      STNO  SI
BUS TYPE
                25      1739
READY
AMO-SDSU -111      STATUS DISPLAY IN
SWITCHING UNIT
DISPLAY COMPLETED;
<dis-scsu
```

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STNO = 3875&3876

TYPE = all

DIS-SCSU:3875&3876,ALL;

H500: AMO SCSU STARTED

STNO 3875 NAME O B WIRELESS

ACT DEV

COS1	20	COSX	1	DIAL	DTMF
DLIDX	-	DEVFUNC	OPST1		
COS2	20	SPDC1	-	DPLN	0
TA	N	PEN	1-5-79-1		
LRCOSV1	20	SPDC2	-	H TLNIDX	-
TADLIDX	-	PUBSCR	5743723875		
LRCOSV2	20	SPDI	10	ITR	0
TAINS	-	ACTCDE	000000000000		

LRCOSD1	1	HANDSFR	-	SPECL	-
ACCLASS	-	NTYPE	-		
LRCOSD2	1	INS	Y	PUGRP	19
QPRIOR	-	RPTYPE			
DSSALERT	-	DTS	N	STD	-
FAXSERV	N/A	HDSTYPE			
NWBALNO	-	CDIDX	-	WINKOFF	-
SEIZE	-	DTE DL VER			
CFWDV	N	CFWDD	N	DND	N
CALLWAIT	N	VCE DL VER	0		
VCP	-	MSGWLMP	-	PHONMAIL	N
COMGRP	-	DNIDSP	-		
MAINO	-	CUI	-	KEYM	-
TSI	-	LOCODE	-		
DCFWBUSY	N	API	-	EVMS	N
EVMSIDX	0	OPTITYPE	-		
TATYPE	-			TATYPE2	-
FLASH	-				
PATTERN	-	TFAGROUP	-	ATMADDR	-
SPKALERT	-				
RELTEST	N				
FIXED CFW1	-		FIXED CFW2	-	
VAR CFW	-				
STATION-HUNT	N				
UCD-HUNT	N				
PILOT-HUNT	N				
NIGHTVARIANT	N				

STNO 3876 NAME O B WIRELESS
ACT DEV

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COS1	20	COSX	1	DIAL	DTMF
DLIDX	-	DEVFUNC	OPST1		
COS2	20	SPDC1	-	DPLN	0
TA	N	PEN	1-5-79-2		
LRCOSV1	20	SPDC2	-	HTLNIDX	-
TADLIDX	-	PUBSCR	5743723876		
LRCOSV2	20	SPDI	10	ITR	0
TAINS	-	ACTCDE	000000000000		
LRCOSD1	1	HANDSFR	-	SPECL	-
ACCLASS	-	NTYPE	-		
LRCOSD2	1	INS	Y	PUGRP	19
QPRIOR	-	RPTYPE			
DSSALERT	-	DTS	N	STD	-
FAXSERV	N/A	HDSTYPE			
NWBALNO	-	CDIDX	-	WINKOFF	-
SEIZE	-	DTE DL VER			
CFWDV	N	CFWDD	N	DND	N
CALLWAIT	N	VCE DL VER	0		
VCP	-	MSGWLMP	-	PHONMAIL	N
COMGRP	-	DNIDSP	-		
MAINO	-	CUI	-	KEYM	-
TSI	-	LOCODE	-		
DCFWBUSY	N	API	-	EVMS	N
EVMSIDX	0	OPTITYPE	-		
TATYPE	-			TATYPE2	-
FLASH	-				
PATTERN	-	TFAGROUP	-	ATMADDR	-
SPKALERT	-				
RELTEST	N				
FIXED CFW1	-		FIXED CFW2	-	
VAR CFW	-				
STATION-HUNT	N				
UCD-HUNT	N				
PILOT-HUNT	N				
NIGHTVARIANT	N				

Troubleshooting

Problem.

Portable telephones sometime do not ring when called but if the called phone goes off-hook the call will be answered.

Solution.

Be sure PBX Frame = ESF; BI8SUB = Yes and SIGTYPE = CAS. Check grounding to RE. Also insure that the Radio Exchange is correctly set to sync from PBX.

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Additional Information

If you have any questions about this application please contact the Ascom Technical Support team 1-877 71ASC0M, Option 3.