



Cisco 3640 Series Gateway-PBX Interoperability: Siemens Hicom 330E PBX with E1-PRI Signaling

This document describes the interoperability and configuration of a Cisco 3640 Series voice gateway with a Siemens Hicom 330E PBX using E1-PRI signaling. It includes the following sections:

- System Components
- Configuration Tasks
- Caveats

System Components

PBX Model	Siemens Hicom 330E
PBX Release	Version 3.1
Telephony Signaling	E1-PRI
Voice Gateway	Cisco 3640
Gateway Release	IOS™ 12.2(1)T
VoX Protocol	H.323

Configuration Tasks

See the following sections for configuration tasks for this feature:

- Set Up
- Siemens Hicom PBX Configuration
- Cisco 3640 Gateway Configuration

Set Up

This section includes the following information:

- Connectivity Diagrams
- Set Up Notes

Connectivity Diagrams

Figure 1: *Test Configuration*

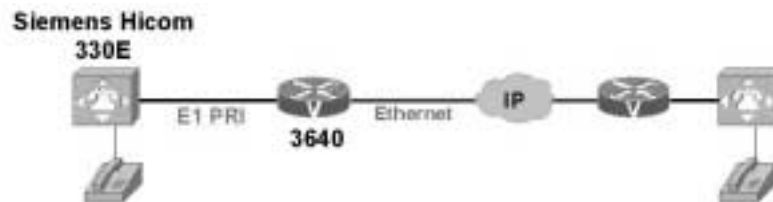


Figure 1 represents the configuration used for testing. A Siemens Hicom 330E PBX connected to a Cisco 3640 voice gateway via an E1 PRI NET5 connection

Set Up Notes

- The Cisco 3640 gateway with ISDN switch type setting of **isdn switch-type primary-net5** supports both Network and User protocol sides by using the **isdn protocol-emulate network/user** command.
- Configuring the Siemens Hicom 330E operation to be Network side sets the Layers 2 & 3 protocol side setting to Network as well. Therefore, the Cisco 3640 gateway should be set to User protocol side by issuing the command: **isdn protocol-emulate user**.

Siemens Hicom PBX Configuration

TRUNK CONFIGURATION

```
<dis-tdcsu

PEN1 = 1-1-73-0

PEN2 = ;

DIS-TDCSU:1-1-73-0,;

H500: AMO TDCSU STARTED

+----- DIGITAL TRUNK (FORMAT=L) -----+
|          DEV = S2CONN          PEN = 1-01-073-0          |
+-----+
| COTNO    = 4          COPNO    = 4          DPLN    = 0          |
```

```

| ITR      = 0          COS      = 32          LCOSV     = 31          |
| LCOSD    = 31        CCT       = PRI        DESTNO    = 99          |
| PROTVAR  = ETSI      SEGMENT  = 1          TCHARG    = N          |
| SUPPRESS = 0          DGTPR    =            CHIMAP   = N          |
| ISDNCC   =            ISDNAC   =            ISDNLC   =          |
| ISDNIP   =            ISDNNP   =          |
| PNPL2C   =            PNPL1C   =            PNPLC   =          |
| PNPL2P   =            PNPL1P   =            PNPAC   =          |
| TRACOUNT = 31        SATCOUNT = MANY      NNO      = 1 -1 -999 |
| ALARMNO  = 2          FIDX     = 1          CARRIER  = 1          |
| ZONE     = EMPTY     COTX     = 4          FWDX     = 10         |
| DOMTYPE  =            DOMAINNO =          TPROFNO  =          |
| INIGHT   =          |
| CCHDL    =            UUSCCX   = 16        UUSCCY   = 8          |
+-----+
| TGRP     = 37        SRCHMODE = CIR        BCNEG     = N          |
| BCGR     = 1          INS       = Y          LWPAR    = 4          |
| LWPP     = 0          LWLT     = 0          LWPS     = 0          |
| LWR1     = 0          LWR2     = 0          |
| BCHAN    1 && 30     |
|          |
+-----+

```

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 30

AMO-TDCSU-210 DIGITAL TRUNKS

DISPLAY COMPLETED;

<dis-buend

TGRP = 37

FORMAT = 1

DIS-BUEND:37,L;

H500: AMO BUEND STARTED

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| TGRP NUMBER :    37   TGRP NAME   : PRI                               MAXIMUM NO.   :    30 |
| SUBGROUP NO. :    10   DEVICE TYPE : S2CONN                         TRACENO        :     0 |
| RESERVED     :     N   SEARCH MODE : CIRCULAR                       ACD THRESHOLD :    * |
| NUMBER OF ASSOCIATED ROUTES           :     1                       PRIORITY      :     1 |
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED:      |

```

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 1- 73-0  B-CHL:  1 | 1- 1- 73-0  B-CHL:  2 | 1- 1- 73-0  B-CHL:  3 |
| 1- 1- 73-0  B-CHL:  4 | 1- 1- 73-0  B-CHL:  5 | 1- 1- 73-0  B-CHL:  6 |
| 1- 1- 73-0  B-CHL:  7 | 1- 1- 73-0  B-CHL:  8 | 1- 1- 73-0  B-CHL:  9 |
| 1- 1- 73-0  B-CHL: 10 | 1- 1- 73-0  B-CHL: 11 | 1- 1- 73-0  B-CHL: 12 |
| 1- 1- 73-0  B-CHL: 13 | 1- 1- 73-0  B-CHL: 14 | 1- 1- 73-0  B-CHL: 15 |
| 1- 1- 73-0  B-CHL: 16 | 1- 1- 73-0  B-CHL: 17 | 1- 1- 73-0  B-CHL: 18 |
| 1- 1- 73-0  B-CHL: 19 | 1- 1- 73-0  B-CHL: 20 | 1- 1- 73-0  B-CHL: 21 |
| 1- 1- 73-0  B-CHL: 22 | 1- 1- 73-0  B-CHL: 23 | 1- 1- 73-0  B-CHL: 24 |
| 1- 1- 73-0  B-CHL: 25 | 1- 1- 73-0  B-CHL: 26 | 1- 1- 73-0  B-CHL: 27 |
| 1- 1- 73-0  B-CHL: 28 | 1- 1- 73-0  B-CHL: 29 | 1- 1- 73-0  B-CHL: 30 |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-BUEND-210 TRUNK GROUP

DISPLAY COMPLETED;

<dis-refta

TYPE = circuit

PEN = 1-1-73-0

KIND = ;

DIS-REFTA:CIRCUIT,1-1-73-0,;

H500: AMO REFTA STARTED

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|           R E F E R E N C E   C L O C K   C I R C U I T S           |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| PEN          | MODULE | DEVICE | PRI | ERROR | BLOCK | SUPP. | READY |
|              |        |        |    |       |       |       |       |
|              |        |        |    |       |       |       | BUT   |

```

```

|          |          |          |          |          |          |          | ASYN. |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1- 1- 73- 0 | DIU-N2 | S2CONN | 0 | 65535 | N |          | N |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-REFTA-210 REFERENCE CLOCK TABLE

DISPLAY COMPLETED;

ROUTE CONFIGURATION

<dis-richt

MODE = all

DIS-RICT:ALL;

H500: AMO RICHT STARTED

```

+-----+
| LRTE = 1      NAME = CENTRAL OFFICE          SRVC = ALL |
| DNNO = 1 -1 -999 DESTNO = 99                |
| ROUTOPT = NO  REROUT = YES  PLB = NO  FWDBL = NO |
| MFV: CNV=FIX  DSP=WITHOUT TEXT=              PULS=PP300 |
| ROUTENO =     6 BUGS = LIN                    MAINGROUP = 6 |
| INFO =                                             |
+-----+
| TGRP = 30  LDAT  ANALOG TRUNKS              SUBGROUP = 3 |
+-----+
| LRTE = 37      NAME = PRI TEST                SRVC = ALL |
| DNNO = 1 -1 -999                                |
| ROUTOPT = NO  REROUT = YES  PLB = NO  FWDBL = NO |
| MFV: CNV=FIX  DSP=WITHOUT TEXT=              PULS=PP300 |
| ROUTENO =     4 BUGS = LIN                    MAINGROUP = 4 |
| INFO =                                             |
+-----+
| TGRP = 37  LDAT  PRI                          SUBGROUP = 10 |
| TGRP = 38  LDAT  QSIG                          SUBGROUP = 9 |

```

```

+-----+
| LRTE = 39      NAME = BRISLAVE                SRVC = ALL  |
| DNNO = 1 -1  -1                               |
| ROUTOPT = NO   REROUT = YES  PLB = NO   FWDBL = NO |
| MFV: CNV=WITHOUT DSP=WITHOUT TEXT=           PULS= |
| ROUTENO =      7 BUGS = LIN                   MAINGROUP = 7 |
| INFO =                                             |
+-----+
| TGRP = 39      BRI                            SUBGROUP = 8  |
+-----+
| LRTE = 40      NAME = BRI TRUNK                SRVC = ALL  |
| DNNO = 1 -1  -999 DESTNO = 99                 |
| ROUTOPT = NO   REROUT = YES  PLB = NO   FWDBL = NO |
| MFV: CNV=FIX   DSP=WITHOUT TEXT=             PULS=PP300 |
| ROUTENO =      3 BUGS = LIN                   MAINGROUP = 3 |
| INFO =                                             |
+-----+
| TGRP = 40  LDAT  BRI MASTER                   SUBGROUP = 13 |
+-----+
+-----+

```

```

AMO-RICHT-210      TRUNK ROUTING
DISPLAY COMPLETED;

```

BOARD CONFIGURATION

```

<dis-bcsu

TYPE = tbl

LTG = 1

LTU = 1

SLOT = 73

DIS-BCSU:TBL,1,1,73;

```

H500: AMO BCSU STARTED

ADDRESS : LTG 1 LTU 1

```

-----+-----+-----+-----+-----+-----+-----+-----+-----+
      | ASSIGNED | MODULE | FCT|HWY| | INSERTED | | | | MODULE | |
PEN | MODULE | TYPE | ID |BDL| | MODULE | |STATE| HW-INFO| STATUS | |
-----+-----+-----+-----+-----+-----+-----+-----+-----+
      73 | Q2196-X   | DIU-N2 | 1  A | | Q2196-X   | | 1 | -04 - | READY | |
  
```

AMO-BCSU -210 BOARD CONFIGURATION, SWITCHING UNIT

DISPLAY COMPLETED;

STATION PHONE CONFIGURATION

<dis-sbcusu

STNO = 5001

TYPE = termdata

DIS-SBCSU:5001,TERMDATA;

H500: AMO SBCSU STARTED

```

----- USER DATA -----
STNO   =5001   OPT    =OPTI   COS1   =7     DPLN   =0     SPDI   =Y
MAIN0  =5001   CONN   =DIR     COS2   =7     ITR    =0     SPDC1  =0
PEN    = 1- 1- 79- 2          LCOSV1 =31   COSX   =0     SPDC2  =1
INS    =Y      STD    =3      LCOSV2 =31   SERVID =0     CBKBMAX=5
          SECR   =N      LCOSD1 =31   DSSTNA =N     RCBKB  =N
SSTNO  =N      DIGNODIS=N   LCOSD2 =31   DSSTNB =Y     RCBKNA =N
TRACE  =N      HFREE  =      ASYNCT =500  PERMACT=     CBKNAMB=Y
ALARMNO =0     HMUSIC =0     API     =N     TEXTSEL=ENGLISH
EXTBUS =      REP    =0     OPTICOM=N   OPTISPA:0     DLAUT  =
CALLOG =NONE  IDCR   =N     OPTICA  =0     OPTIS0A:0     DLMAN  =
          HEADSET =N     OPTIDA  =0     OPTIABA:0     PRIO   =
          HSKEY  =NORMAL  ATMADDR=     VPI    =
  
```

```

DFSVCANA=          TFAGRP =          PATTERN=          VCI          =
DVCFIG =OPTISET TSI      =1          SOPTIDX=          SPROT =
                                DOPTIDX=          DPROT =
                                FOPTIDX=          FPROT =
                                TOPTIDX=          TPROT =
                                VOPTIDX=          VPROT =

```

----- ACTIVATION IDENTIFIERS FOR FEATURES -----

```

FWDS   :N          FWDT   :N          FWDV   :N          FWDF   :N          FWDD   :N
HTOS   :N          HTOT   :N          HTOV   :N          HTOF   :N          HTOD   :N
DND    :N          VCP    :Y          CWT    :N          TCLOGIN:N

```

----- FEATURES AND GROUP MEMBERSHIPS -----

```

ESSTN   :
PUGR    :          HUNTING GROUP   : N
KEYSYS  :N          NIGHT OPTION   : N          ASSOCIATED STN          : N

```

----- SUBSCRIBER ATTRIBUTES (AMO SDAT) -----

NONE

AMO-SBCSU-210 STATION AND S0-BUS CONFIGURATION OF SWITCHING UNIT
 DISPLAY COMPLETED;

LEAST COST ROUTING CONFIGURATION

```

<dis-ldat

TYPE = lcr

LROUTE = ;

DIS-LDAT:LCR, ;

H500: AMO LDAT STARTED

+-----+-----+-----+-----+-----+-----+-----+-----+
| LROUTE = 1      LDPLN      NAME = CENTRAL OFFICE      SERVICE = ALL |
| TYPE = LCR                                           DNNO OF ROUTE = 1 -1 -999 |
| SERVICE INFO =                                         |
+-----+-----+-----+-----+-----+-----+-----+-----+

```



```

|          |          |          |          |          | SCHEDULE | CARRIER | BAND |          |
| LRTEL | LVAL | TGRP | ODR | LAUTH | ABCDEFGH |          | ZONE | WIDTH | LATTR |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|    1 |    1 |   30 |   1 |   1 | ***** |   1 | EMPTY |   1 |  NONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LROUTE = 31   LDPLN           NAME = E&M                SERVICE = VCE |
| TYPE = LCR                                     DNNO OF ROUTE = 1 -1 -999 |
| SERVICE INFO =                               |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|          |          |          |          |          | SCHEDULE | CARRIER | BAND |          |
| LRTEL | LVAL | TGRP | ODR | LAUTH | ABCDEFGH |          | ZONE | WIDTH | LATTR |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|    1 |    1 |   31 |   1 |   1 | ***** |   1 | EMPTY |   1 |  NONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LROUTE = 37   LDPLN           NAME = PRI TEST            SERVICE = ALL |
| TYPE = LCR                                     DNNO OF ROUTE = 1 -1 -999 |
| SERVICE INFO =                               |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|          |          |          |          |          | SCHEDULE | CARRIER | BAND |          |
| LRTEL | LVAL | TGRP | ODR | LAUTH | ABCDEFGH |          | ZONE | WIDTH | LATTR |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|    1 |    1 |   37 |   1 |   1 | ***** |   1 | EMPTY |   1 |  NONE |
|    2 |    1 |   38 |   1 |   1 | ***** |   1 | EMPTY |   1 |  NONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| LROUTE = 40   LDPLN           NAME = BRI TRUNK           SERVICE = ALL |
| TYPE = LCR                                     DNNO OF ROUTE = 1 -1 -999 |
| SERVICE INFO =                               |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|          |          |          |          |          | SCHEDULE | CARRIER | BAND |          |
| LRTEL | LVAL | TGRP | ODR | LAUTH | ABCDEFGH |          | ZONE | WIDTH | LATTR |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|    1 |    1 |   40 |   1 |   1 | ***** |   1 | EMPTY |   1 |  NONE |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

AMO-LDAT -210 LCR-DIRECTIONS
DISPLAY COMPLETED;

CLASS OF SERVICE

```
<dis-cot  
  
COTNO = 4;  
  
DIS-COT:4;  
H500: AMO COT STARTED  
  
COT: 4 INFO: 4:Q931 EXTERNAL  
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  
TRUNK SIGNALING ANSWER ANS  
CHANGEOVER FROM HOLD TO RING TONE CHRT  
KNOCKING OVERRIDE POSSIBLE KNOR  
CALL EXTEND FOR BUSY, RING OR CALL STATE CEBC  
NETWORKWIDE AUTOMATIC CALLBACK ON BUSY CBBN  
NETWORKWIDE AUTOMATIC CALLBACK ON FREE CBFN  
DON'T RELEASE CALL TO BUSY HUNT GROUP BSHT  
SEND NO NODE NUMBER TO PARTNER LWNC  
INCOMING CIRCUIT FROM SYSTEM WITHOUT LCR NLCR  
TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY) TSCS  
INCOMING CDR BY ZONE OR FROM LINE ICZL  
INCOMING CIRCUIT FROM SYSTEM WITHOUT LCR (DATA) NLRD  
AOC PER CALL (AUTOMATIC OR ON REQUEST), MAND. CORNET-NQ AOCC  
CONTROLLED TRUNK AND LINE SELECTION CTLS  
NO TONE NTON  
  
AMO-COT -210 CLASS OF TRUNK FOR CALL PROCESSING
```

DISPLAY COMPLETED;

<dis-cop

COPNO = 4;
DIS-COP:4;

H500: AMO COP STARTED

COP: 4 INFO: 4:Q931

DEVICE: INDEP SOURCE: DB

PARAMETER:

SPECIAL MODE SFRM

REGISTRATION OF LAYER 3 ADVISORIES L3AR

AMO-COP -210 CLASS OF PARAMETER FOR DEVICE HANDLER

DISPLAY COMPLETED;

<dis-cossu

TYPE = cos

COS = 3

FORMAT = ;

DIS-COSSU: COS,3,;

H500: AMO COSSU STARTED

COS	VOICE	FAX	TTX	VTX	DTE
3	>3:STANDARD - FWDBSY				
	TA	NOCO	NOCO	NOCO	TA
	TSUID	NOTIE	NOTIE	NOTIE	TNOTCR
	TNOTCR				BASIC
	CDRINT				MSN
	CDRS				CDRINT
	CDRC				MULTRA
	COSXCD				
	VCE				

	DATA				
	FWDNWK				
	MSN				
	FWDBSY				
	FWDEXT				

+-----+-----+-----+-----+-----+-----+

AMO-COSSU-210 CLASSES OF SERVICE, SWITCHING UNIT

DISPLAY COMPLETED;

<dis-cossu
TYPE = cos

COS = 7;

DIS-COSSU: COS, 7;

H500: AMO COSSU STARTED

+-----+-----+-----+-----+-----+-----+

COS	VOICE	FAX	TTX	VTX	DTE
-----	-------	-----	-----	-----	-----

+-----+-----+-----+-----+-----+-----+

7	>7: STANDARD/FWDNWK - NOANSA&FWDBSY				
	TA	NOCO	NOCO	NOCO	TA
	TSUID	NOTIE	NOTIE	NOTIE	TNOTCR
	TNOTCR				BASIC
	CDRINT				MSN
	CDRS				CDRINT
	CDRC				MULTRA
	COSXCD				
	VCE				
	DATA				
	NOANSA				
	FWDNWK				
	MSN				
	FWDBSY				
	FWDECA				
	FWDEXT				


```
| DB SUSY'S: |
| SWITCH NUMBER : L31900Q2999A00001 |
| LOCATION      : CUSTOMER |
| BAPPL        : 6ECXM48 |
| DBAPPL       : 6ECXM48 |
| SYSTEM_ID    : PKP091000 |
```

+-----+

AMO-DBC -210 DATABASE CONFIGURATION

DISPLAY COMPLETED;

Cisco 3640 Gateway Configuration

The following is the configuration of the Cisco 3640 gateway connected to the Siemens Hicom 330E PBX E1-PRI interface.

Cisco 3640 Voice Gateway Version Information

```
3640_A#sho ver
Cisco Internetwork Operating System Software
IOS (tm) 3600 Software (C3640-JS-M), Version 12.2(1), RELEASE SOFTWARE (fc2)
Copyright (c) 1986-2001 by cisco Systems, Inc.
Compiled Fri 27-Apr-01 05:00 by cmong
Image text-base: 0x60008950, data-base: 0x61492000

ROM: System Bootstrap, Version 11.1(7)AX [kuong (7)AX], EARLY DEPLOYMENT RELEASE SOFTWARE
(fc2)

3640_A uptime is 1 hour, 8 minutes
System returned to ROM by power-on
System image file is "flash:c3640-js-mz.122-1"

cisco 3640 (R4700) processor (revision 0x00) with 59392K/6144K bytes of memory.
Processor board ID 05247801
R4700 CPU at 100Mhz, Implementation 33, Rev 1.0
Channelized E1, Version 1.0.
Bridging software.
X.25 software, Version 3.0.0.
SuperLAT software (copyright 1990 by Meridian Technology Corp).
TN3270 Emulation software.
Primary Rate ISDN software, Version 1.1.
Basic Rate ISDN software, Version 1.1.
Ethernet/IEEE 802.3 interface(s)
31 Serial network interface(s)
2 ISDN Basic Rate interface(s)
2 Channelized E1/PRI port(s)
2 Voice FXS interface(s)
4 Voice NT or TE BRI interface(s)
DRAM configuration is 64 bits wide with parity disabled.
125K bytes of non-volatile configuration memory.
16384K bytes of processor board System flash (Read/Write)
```

Cisco 3640 Voice Gateway Sample Configuration

```
sho run
Building configuration...

Current configuration : 2124 bytes
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
no service dhcp
!
hostname 3640_A
!
boot system flash
logging rate-limit console 10 except errors
!
voice-card 1
!
ip subnet-zero
!
```

```
!  
no ip finger  
no ip domain-lookup  
ip host danube 171.69.17.14  
ip host dirt 171.69.1.129  
ip host whiz 171.69.1.162  
!  
no ip dhcp-client network-discovery  
isdn switch-type primary-net5  
call rsvp-sync  
cns event-service server  
!  
!  
!  
!  
!  
!  
controller E1 1/0  
  shutdown  
  framing NO-CRC4  
  ds0-group 1 timeslots 1 type r2-analog r2-compelled  
  cas-custom 1  
!  
controller E1 1/1  
  pri-group timeslots 1-31  
!  
  
interface Tunnell  
  no ip address  
!  
interface Ethernet0/0  
  ip address 100.100.100.1 255.255.255.0  
  no ip mroute-cache  
  half-duplex  
  no cdp enable  
!  
interface Ethernet0/1  
  ip address 171.69.231.23 255.255.255.0  
  no ip mroute-cache  
  half-duplex  
  no cdp enable  
!  
interface Serial1/1:15  
  no ip address  
  no logging event link-status  
  isdn switch-type primary-net5  
  isdn protocol-emulate network  
  isdn incoming-voice voice  
  isdn T203 30000  
  isdn T310 60000  
  isdn bchan-number-order ascending  
  no cdp enable  
!  
!  
ip kerberos source-interface any  
ip classless  
no ip http server  
!  
no cdp run  
!  
!  
voice-port 1/0:1  
!  
voice-port 1/1:15  
!  
voice-port 2/0/0  
!  
voice-port 2/0/1  
!  
voice-port 3/0/0  
  compand-type a-law
```



```
!  
voice-port 3/0/1  
!  
dial-peer cor custom  
!  
!  
!  
dial-peer voice 3 voip  
  destination-pattern 3...  
  session target ipv4:100.100.100.2  
  
dial-peer voice 16 pots  
  destination-pattern 5...  
  direct-inward-dial  
  port 1/1:15  
  prefix 5  
!  
dial-peer voice 8 pots  
  destination-pattern 6000  
  port 2/0/0  
!  
dial-peer voice 9 voip  
  destination-pattern 9000  
  session target ipv4:100.100.100.2  
!  
!  
line con 0  
  transport input none  
line aux 0  
line vty 0 4  
  no login  
!  
end
```

Caveats

- The Siemens Hicom PBX does not support Overlap Signaling.