



Siemens HiPath 4000 Release 3.0 to Cisco IAD880 using BRI-Q.SIG with SIP

Initial Version, February 25, 2009

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Introduction

- This application note provides interoperability information and documented configurations for a solution using Cisco IAD880 BRI Voice Gateways tunneling QSIG over SIP between two Siemens PBXs. The integration consists of two Cisco IAD880 BRI Voice Gateways connecting to the Siemens HiPath 4000 Release 3.0 on both ends using BRI QSIG trunks. The IOS gateways establish the QSIG connection between the two PBXs via SIP. An end-to-end connection is thus established between Siemens PBXs. This BRI QSIG connection uses Siemens proprietary network-to-network information elements (NNIEs). The SIP protocol used between Cisco IOS Voice Gateways “tunnels” the QSIG with Siemens proprietary NNIEs, resulting in a connection similar to connecting the PBXs directly. Figure 1 shows the integration topology.
- The following basic call and supplementary services features were verified: proper establishing and disconnecting of calls (see limitations section); calling name and number presentation and restriction; alerting name; call transfer (consultation and early-attended); call forwarding (all, busy, and no reply)with reroute; callback; path replacement on trombone call; and voicemail access with MWI activation and deactivation. Please note that this document does not address performance and scalability, which are part of broader criteria for a deployment-ready solution.
- This application note uses the Cisco IAD881 BRI Voice Gateways. However, the implementation is not platform-dependent, so you may also choose other Cisco IOS Voice Gateways. Be careful when selecting a voice gateway platform and consider the capacity and capability required for the intended deployment.

[Cisco IAD880 Series Integrated Access Devices](#)

Network Topology

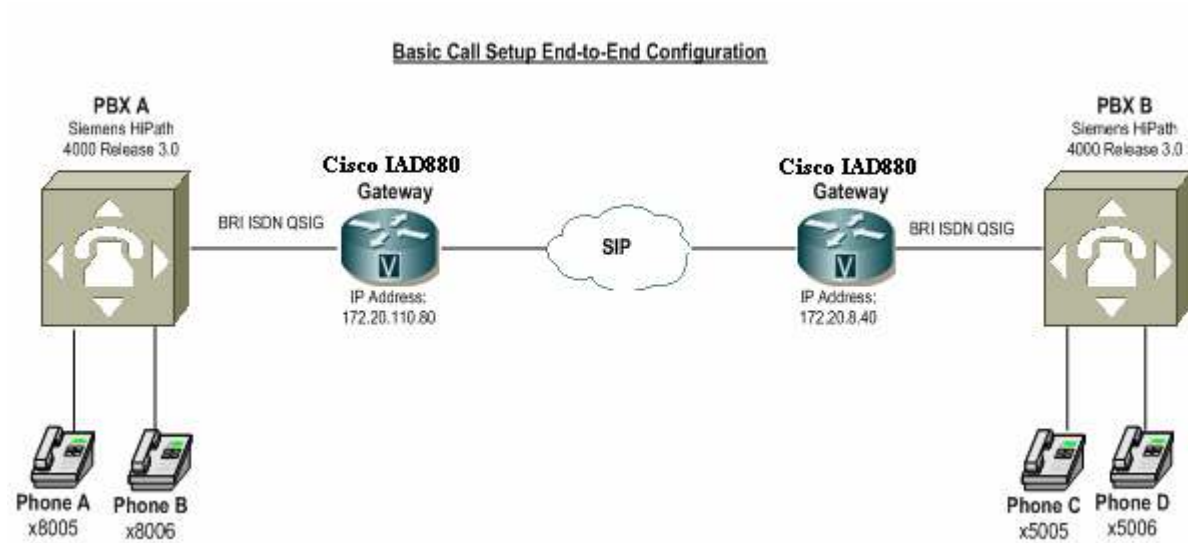


Figure 1. Network Topology

Limitations

- Siemens HiPath Limitation: Originating phones calling name and number not displayed on final destination during blind network/external call transfers.
- Siemens HiPath Limitation: During external call conferencing, name and number are not passed to remaining conferee, when the conferencing phone drops.

System Components

Hardware Components

- 2 Cisco IAD880 BRI
- 2 Siemens PBX's (HiPath 4000 Release 3.0)
- 4 Siemens digital phones (Optiset E Advance plus)
- 1 Cisco Catalyst Switch (CAT6500)

Software Requirements

- Cisco IOS Release: c880voice-universalk9-mz.124-20.T.bin
- Siemens Hipath 4000 Release 3.0



Features

This section lists supported and unsupported features with respect to IAD881.

Features Supported

- Basic calls (ENBLOC)
- Basic calls (Overlap sending)
- CLIP-Calling line (Number) identification presentation
- CNIP-Calling name identification presentation
- CLIR-Calling line (Number) identification restriction
- CNIR-Calling name identification restriction
- COLP-Connected line (Number) identification presentation
- CONP-Connected name identification presentation
- COLR- Connected line (Number) identification restriction
- CONR- Connected name identification restriction
- Call Waiting
- Alerting Name presentation
- Consultation transfer – Local and Network/External
- Blind transfer – Local and Network/External
- Call forward unconditional by join – Local and Network/External
- Call forward busy by join – Local and Network/External
- Call forward no reply by join – Local and Network /External
- Call hold and resume
- Call conferencing – Local and Network/External

Features Not Supported

- No non-supported features found during testing



Configuration

Configuring the Siemens HiPath 4000 Release 3.0 PBX

1. Display of physical board BCSU
2. Display trunk group BUEND
3. BRI Trunk Grp 1
4. Trunk COT parameters
5. Trunk COP parameters
6. Trunk COSSU parameters
7. Dial plan configuration for 8000 & 8050 + Netre (003) for closed number dialing
8. Closed number RICHT configuration for Trunk Grp 1
9. LDAT for closed number 8000 && 8050 dialing
10. Clock configuration for Tgp 1



Display of physical Board BCSU

```
<DISPLAY-BCSU:TYPE=PEN,LTG=1,LTU=1,SLOT=67;
DISPLAY-BCSU:TYPE=PEN,LTG=1,LTU=1,SLOT=67;
H500: AMO BCSU STARTED
```

PEN	STATUS	DEVTYPE	COFIDX
1. 1. 67. 0	CONNECTED		
1. 1. 67. 1	CONNECTED		
1. 1. 67. 2	CONNECTED		
1. 1. 67. 3	CONNECTED		
1. 1. 67. 4	NOT CONNECTED		
1. 1. 67. 5	NOT CONNECTED		
1. 1. 67. 6	NOT CONNECTED		
1. 1. 67. 7	NOT CONNECTED		

```
AMO-BCSU -111 BOARD CONFIGURATION, SWITCHING UNIT
DISPLAY COMPLETED;
<
```

Display Trunk Group BUEND

```
<DISPLAY-BUEND:TGRP=1;
DISPLAY-BUEND:TGRP=1;
H500: AMO BUEND STARTED
```

```
-----+-----
| TGRP NUMBER : 1 TGRP NAME : BRI ST1 MAXIMUM NO. : 20
| CHARCON : NEUTRAL
| SUBGROUP NO.: 1 DEVICE TYPE : S0CONN TRACENO : 0
| SEARCH MODE : CIRCULAR ACD THRESHOLD : *
| NUMBER OF ASSOCIATED ROUTES : 3 PRIORITY : 2
| TDDRFLAG : ON TDDRTHRESHOLD: 1 SOURCEGROUPIDX : 1
| GDTRRULE : 0 ACDPMGRP : 0
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED:
|-----+-----
| 1- 1- 67-0 1 | 1- 1- 67-0 2 |
|-----+-----
```

```
AMO-BUEND-111 TRUNK GROUP
DISPLAY COMPLETED;
<
```

BRI Trunk Grp 1:

```
<DISPLAY-TDCSU:PEN1=1-1-67-0;
DISPLAY-TDCSU:PEN1=1-1-67-0;
H500: AMO TDCSU STARTED
```

```
-----+-----
| DEV = S0CONN PEN = 1-01-067-0 TGRP = 1
|-----+-----
| PROTVAR = PSS1V2 INS = Y SRCHMODE = CIR
| COTNO = 21 COPNO = 21 DPLN = 0
| ITR = 1 COS = 10 LCOSV = 1
| LCQSD = 1 CCT = BRI ST1 DESTNO = 100
| SEGMENT = 1 DEDSCC = DEDSVC = NONE
| FACILITY = DITIDX = SRTIDX =
| TRTBL = GDTR SIDANI = N ATNTYP = TIE
| CBMATTR = NONE NWMUXTIM = 10 TCHARG = N
| SUPPRESS = 0 DGTPR = CHIMAP = N
| ISDNIP = ISDNIP =
| PNPL2P = PNPL1P = PNPAC =
|-----+-----
```



```

| TRACOUNT = 31          SATCOUNT = MANY          NNO          = 1
| ALARMNO  = 0          FIDX          = 1          CARRIER    = 1
| ZONE     = EMPTY     COTX          = 21         FWDX        = 1
| DOMTYPE  =           DOMAINNO =           TPROFNO    =
| INIGHT   =           UUSCCY   = 8           CCHDL       =
| UUSCCX   = 16        & G711    & G729OPT    FNIDX       = 1
| CLASSMRK = EC        & G711    & G729OPT    SRCGRP      =
| TCCID    =
+-----+
| MASTER   = Y          SMD          = Y          CNTRNR      = 0
| BCNEG    = N
+-----+

```

AMOUNT OF B-CHANNELS IN THIS DISPLAY-OUTPUT: 2

AMO-TDCSU-111 DIGITAL TRUNKS
 DISPLAY COMPLETED;

Trunk COT Parameters

<dis-cot:21;
 DIS-COT:21;
 H500: AMO COT STARTED

```

COT: 21 INFO:
DEVICE: INDEP          SOURCE: DB
PARAMETER:
  PRIORITY FOR AC WILL BE DETERMINED FROM MESSAGE
  RECALL IF USER HANGS UP IN CONSULTATION CALL
  TRUNK CALL TRANSFER
  TRUNK SIGNALING ANSWER
  CHANGEOVER FROM HOLD TO RING TONE
  KNOCKING OVERRIDE POSSIBLE
  CALL EXTEND FOR BUSY, RING OR CALL STATE
  NETWORKWIDE AUTOMATIC CALLBACK ON BUSY
  NETWORKWIDE AUTOMATIC CALLBACK ON FREE
  NETWORKWIDE CALL FORWARDING PERMITTED
  NETWORKWIDE FORWARDING NO-ANSWER
  DON'T RELEASE CALL TO BUSY HUNT GROUP
  CONNECTION TO ROUTE OPTIMIZATION NODE
  TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)
  INCOMING CDR BY ZONE OR FROM LINE
  AOC PER CALL (AUTOMATICAL OR ON REQUEST), MAND. CORNET-NQ
  LINE WITH IMPLICIT NUMBERS
  NO TONE
  PRI
  RCL
  XFER
  ANS
  CHRT
  KNOR
  CEBC
  CBBN
  CBFN
  FWDN
  FNAN
  BSHT
  ROPT
  TSCS
  ICZL
  AOCC
  LINO
  NTON

```

AMO-COT -111 CLASS OF TRUNK FOR CALL PROCESSING
 DISPLAY COMPLETED;

Trunk COP Parameters

<DISPLAY-COP:COPNO=21;
 DISPLAY-COP:COPNO=21;
 H500: AMO COP STARTED

```

COP: 21 INFO:
DEVICE: INDEP          SOURCE: DB
PARAMETER:
  LINE WITH END-OF-DIAL
  SPECIAL MODE
  CODE CALLING RELEASE AFTER EVERY TASK
  REGISTRATION OF LAYER 3 ADVISORIES
  MAKE/BREAK RATIO FOR DTMF 1 (PULSE=80MS,PAUSE=80MS)
  EOD
  SFRM
  CCR
  L3AR
  DTM1

CO TRUNK ACCESS:
  TRUNK ACCESS
  TA

TOLL ACCESS:

```



TRUNK ACCESS

TA

AMO-COP -111 CLASS OF PARAMETER FOR DEVICE HANDLER
 DISPLAY COMPLETED;

Trunk COSSU Parameters

<DISPLAY-COSSU:TYPE=COS,COS=10;
 DISPLAY-COSSU:TYPE=COS,COS=10;
 H500: AMO COSSU STARTED

COS	VOICE	FAX	DTE
10	> TA TSUID TNOTCR CDRS CDRC CDRINT RKOABS COSXCD CFNR VCE FWDNWK MSN CFB FWDECA FWDEXT	NOCO NOTIE	NOCO NOTIE

AMO-COSSU-111 CLASSES OF SERVICE
 DISPLAY COMPLETED;

<DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;
 DISPLAY-COSSU:TYPE=LCOSV,LCOSV=1;
 H500: AMO COSSU STARTED

LCOS	1	2	3	4	5	6	COPIN
V	123456789012345678901234567890123456789012345678901234						
	>SERVICE INFORMATION						
1	X.....						0
	>LCR ATTENDANT FOR VOICE						

AMO-COSSU-111 CLASSES OF SERVICE
 DISPLAY COMPLETED;

<DISPLAY-COSSU:TYPE=LCOSD;
 DISPLAY-COSSU:TYPE=LCOSD;
 H500: AMO COSSU STARTED

LCOS	1	2	3	4	5	6	COPIN
D	123456789012345678901234567890123456789012345678901234						
	>SERVICE INFORMATION						
1	XX						.

AMO-COSSU-111 CLASSES OF SERVICE
 DISPLAY COMPLETED;



Dial Plan Configuration for 8000 && 8050 + Netre (003) for closed number dialing

```
<dis-wabe:gen;
DIS-WABE:GEN;
H500: AMO WABE STARTED
```

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO		
	1 1111 11112 22		*=OWN NODE		
0	0 12345 67890 12345 67890 12				
001 - 010	. ***** ..*** **...	CO	R		
111	*	NETRTE			
1150 - 1159	. ***** ..*** **...	TIE			
		STN			
			DESTNO 111		
			DNNO 0- 0-111		
			PDNNO 0- 0-111		
12 - 14	. ***** ..*** **...	TIE			
21	. ..... .....	KNOVRKY			
22	. ..... .....	DNDKY			
222	. ***** ..*** **...	TIE			
23	. ..... .....	FWDKY			
24	. ..... .....	MBKY			
25	. ..... .....	MSGRKY			
26	. ..... .....	DAKY			
26	. ..... *	DFWDVCE			
27	. ..... .....	DSSKY			

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO		
	1 1111 11112 22		*=OWN NODE		
	0 12345 67890 12345 67890 12				
27	. ....* .....	AFWDVCE			
28	. ....* .....	VCRKY			
28	. ....* .....	DFWDVCE			
29	. ....* .....	VCKY			
30	. ....* .....	CONFKY			
3000 - 3010	. ***** ..*** **...	STN			
			DESTNO 30		
			DNNO 0- 0- 30		
			PDNNO 0- 0-222		
3011 - 3020	. ***** ..*** **...	STN			
			DESTNO 31		
			DNNO 0- 0- 31		
			PDNNO 0- 0- 31		
3021 - 3030	. ***** ..*** **...	STN			
			DESTNO 32		
			DNNO 0- 0- 32		
			PDNNO 0- 0- 32		

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO		
	1 1111 11112 22		*=OWN NODE		
	0 12345 67890 12345 67890 12				
3031 - 3040	. ***** ..*** **...	STN			
			DESTNO 33		
			DNNO 0- 0- 33		
			PDNNO 0- 0- 33		
3041 - 3050	. ***** ..*** **...	STN			
			DESTNO 35		
			DNNO 0- 0- 35		
			PDNNO 0- 0- 35		
31	. ..... .....	NAMEKY			
32	. ..... .....	PARKKY			
33	. ..... .....	CCKY			



34		. . . . . * . .	HTKY
35		. . . . . * . .	STKY
36	- 37	. **** . *** ** *	CO
38		. . . . . * . .	TIMEKY
39		. **** * * * * * ** *	TIE

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE		DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO
	1 11111 11112 22	0 12345 67890 12345 67890 12		
4000 - 4050	. . **** * * * * * ** *		STN	DESTNO 111 DNNO 0- 0-111 PDNNO 0- 0-111
4051 - 4566	. . **** * * * * * ** *		STN	DESTNO 222 DNNO 0- 0-222 PDNNO 0- 0-222
4567	. . **** * * * * * ** *		STN	DESTNO 34 DNNO 0- 0- 34 PDNNO 0- 0-200
4568 - 4599	. . **** * * * * * ** *		STN	DESTNO 222 DNNO 0- 0-222 PDNNO 0- 0-222

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE		DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO
	1 11111 11112 22	0 12345 67890 12345 67890 12		
4600 - 4650	. . **** * * * * * ** *		STN	DESTNO 80 DNNO 0- 0- 80 PDNNO 0- 0- 80
4651 - 4999	. . **** * * * * * ** *		STN	DESTNO 222 DNNO 0- 0-222 PDNNO 0- 0-222
5000 - 5009	. . **** * * * * * ** *		STN	DESTNO 0 DNNO 0- 0-555*
5010 - 5020	. . **** * * * * * ** *		STN	R DESTNO 0 DNNO 0- 0-555*
5021 - 5040	. . **** * * * * * ** *		STN	DESTNO 0 DNNO 0- 0-555*

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE		DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO
	1 11111 11112 22	0 12345 67890 12345 67890 12		
5100 - 5109	. . **** * * * * * ** *		STN	DESTNO 0 DNNO 0- 0-555*
5500 - 5501	. . **** * * * * * ** *		STN	DESTNO 56 DNNO 0- 0-560 PDNNO 0- 0-560
555	. . **** * * * * * ** *		OWNNODE	
560	. . **** * * * * * ** *		TIE	
570	. . **** * * * * * ** *		TIE	
578	. . **** * * * * * ** *		TIE	
59	. . **** * * * * * ** *		TIE	



6000 - 6009	. **** * *	STN	DESTNO 111 DNNO 0- 0-111 PDNNO 0- 0-111
-------------	--------------------	-----	---

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 1111 1112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
------	---	-----------------------	---

6123	. **** * *	STN	R DESTNO 0 DNNO 0- 0-555*
62	. . . . *	AFFWDVCE	
7000 - 7002	. **** * *	STN	DESTNO 56 DNNO 0- 0-560 PDNNO 0- 0-560
8000 - 8050	. **** * *	STN	DESTNO 222 DNNO 0- 0-222 PDNNO 0- 0-222
8060	. **** * *	TIE	
8070	. **** * *	TIE	
8080	. **** * *	TIE	
8088	. **** * *	TIE	

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 1111 1112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
------	---	-----------------------	---

8100 - 8109	. **** * *	STN	DESTNO 32 DNNO 0- 0- 32 PDNNO 0- 0- 32
8200 - 8209	. **** . ** *	PARK	
83	. **** . *** ** *	SPDC1	
84	. **** . *** ** *	SPDC2	
88	. . . . * . . . . *	SCONSI	R
89	. . . . * . . . . *	SCONSCO	R
9	. **** * *	TIE	
*13	. . . . * . . . . *	AHTVCE	
*15	. * . . . ** *	SPLIT	
*16	. . . . * . . . . *	AREM	
*17	. * . . . ** *	TRACE	
*18	. . . . * . . . . *	ACOSX	
*19	. * *	KNOVR	
*20	. . . . * . . . . *	ADND	

DIGIT INTERPRETATION VALID FOR ALL DIAL PLANS

CODE	CALL PROGRESS STATE 1 1111 1112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE
------	---	-----------------------	---

*25	. . . . * . . . . *	FWDTERM	
*26	. . . . * . . . . *	DFWDVCE	
*27	. . . . * . . . . *	AFWDVCE	
*28	. . . . * . . . . *	DFWDVCE	
*29	. . . . * . . . . *	AFFWDVCE	
*91	. . . . * . . . . *	MBOFF	
*31	. . . . * . . . . *	AFFWDVCE	
#91	. . . . * . . . . *	MBON	
##27	. **** . ** *	MWACT	
##28	. . . . * . . . . *	MWANS	
##29	. . . . * . . . . *	MWCAN	
##30	. **** * *	MWCANORI	
##40 - ##49	. **** . ** *	PARK	



AMO-WABE -111 DIALLING PLANS, FEATURE ACCESS CODES

Closed Number RICHT configuration for Trunk Grp 1

```
<DISPLAY-RICHT:MODE=CD,CD=003;
DISPLAY-RICHT:MODE=CD,CD=003;
H500: AMO RICHT STARTED
```

ROUTES FOR ALL DPLN										SVC = VCE	
CODE	NAME, CQMAX, DESTNO AND CPS	TGRP CCNO	P L	DTMF			LRTE	CPAR	F W D B		
				B	CNV	DSP				TEXT	PULS PAUSE
003	..... 1 111112 12345 67890 123452	26 1		W	W			777			
	DNNO: 222 PDNNO: 222 DESTNO :222 REROUT :YES										
ROUTES FOR ALL DPLN										SVC = FAX	
CODE	NAME, CQMAX, DESTNO AND CPS	TGRP CCNO	P L	DTMF			LRTE	CPAR	F W D B		
				B	CNV	DSP				TEXT	PULS PAUSE
003	..... 1 111112 12345 67890 123452	26 1						777			
	DNNO: 222 PDNNO: 222 DESTNO :222 REROUT :YES										
ROUTES FOR ALL DPLN										SVC = DTE	
CODE	NAME, CQMAX, DESTNO AND CPS	TGRP CCNO	P L	DTMF			LRTE	CPAR	F W D B		
				B	CNV	DSP				TEXT	PULS PAUSE
003	..... 1 111112 12345 67890 123452	26 1						777			
	DNNO: 222 PDNNO: 222 DESTNO :222 REROUT :YES										

LDAT for Closed Number 8000 &&8050 dialing

```
AMO-RICHT-111            TRUNK ROUTING
DISPLAY COMPLETED;
<DISPLAY-LDAT:LROUTE=777;
DISPLAY-LDAT:LROUTE=777;
H500: AMO LDAT STARTED
```

LROUTE = 777	NAME =	SERVICE = ALL
TYPE = NWLCR	DNNO OF ROUTE =	222
SERVICE INFO =		



LRTEL	LVAL	TGRP	ODR	LAUTH	SCHEDULE ABCDEFGH	CARRIER ZONE	LATTR	LDSRT	COTIDX
1	1	26	1	1	*****	1 EMPTY	NONE		0
2	1	1	1	1	*****	1 EMPTY	NONE		0
DNNNO =		222							

AMO-LDAT -111 LCR-DIRECTIONS
 DISPLAY COMPLETED;

Clock Configuration for Tgp 1

<DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-1-67-0;
 DISPLAY-REFTA:TYPE=CIRCUIT,PEN=1-1-67-0;
 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.	SRCGRP	
1- 1- 67- 0	STMD	SOCONN	0	0	N		N	1	

AMO-REFTA-111 REFERENCE CLOCK TABLE
 DISPLAY COMPLETED;



Cisco IAD Configuration

Cisco IAD880 Configuration

IAD_PBXB#show version

Cisco IOS Software, C880 Software (C880VOICE-UNIVERSALK9-M), Version 12.4(20)T, RELEASE SOFTWARE (fc3)

Technical Support: <http://www.cisco.com/techsupport>

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Compiled Fri 11-Jul-08 06:46 by prod_rel_team

ROM: System Bootstrap, Version 12.4(15r)XZ2, RELEASE SOFTWARE (fc1)

IAD881BBRI_2 uptime is 5 weeks, 4 days, 4 hours, 51 minutes
System returned to ROM by reload at 19:52:32 UTC Fri Jan 16 2009
System image file is "flash:c880voice-universalk9-mz.124-20.T.bin"
Last reload reason: Reload Command

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:

<http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to export@cisco.com.

Cisco IAD881BB (MPC8300) processor (revision 0x100) with 249856K/12288K bytes of memory.

Processor board ID FHK123429DN

5 FastEthernet interfaces

2 ISDN Basic Rate interfaces

1 DSP, 16 Voice resources

256K bytes of non-volatile configuration memory.

253008K bytes of ATA CompactFlash (Read/Write)

License Information for 'c880-iad'

License Level: advsecurity Type: Permanent

Next reboot license Level: advsecurity

Configuration register is 0x2102

IAD_PBXB# show run

Building configuration...

Current configuration : 2603 bytes



```
!  
version 12.4  
no service pad  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname IAD_PBXB  
!  
boot-start-marker  
boot system flash c880voice-universalk9-mz.124-20.T.bin  
boot-end-marker  
!  
logging message-counter syslog  
logging buffered 10000000  
no logging console  
!  
no aaa new-model  
network-clock-participate wic 0  
!  
ip source-route  
!  
ip cef  
no ip domain lookup  
!  
isdn switch-type basic-qsig  
!  
voice service voip  
  signaling forward rawmsg  
  sip  
!  
voice-card 0  
!  
archive  
  log config  
  hidekeys  
!  
interface BRI2  
no ip address  
isdn switch-type basic-qsig  
isdn overlap-receiving  
isdn point-to-point-setup  
isdn incoming-voice voice  
isdn global-disconnect  
isdn static-tei 0  
!  
interface FastEthernet0  
!  
interface FastEthernet1  
!  
interface FastEthernet2  
!  
interface FastEthernet3  
!  
interface FastEthernet4  
  ip address 172.20.8.40 255.255.255.0  
  duplex auto
```



```
speed auto
!
interface Vlan1
no ip address
!
ip forward-protocol nd
ip route 0.0.0.0 0.0.0.0 172.20.8.1
no ip http server
no ip http secure-server
!
control-plane
!
voice-port 1
!
voice-port 2
compand-type a-law
!
dial-peer voice 8000 voip
description to Siemens PBXA
destination-pattern 800.
signaling forward rawmsg
session protocol sipv2
session target ipv4:172.20.110.80
incoming called-number 500.
dtmf-relay rtp-nte
!
dial-peer voice 5000 pots
description to Siemens HiPath
destination-pattern 500.
incoming called-number 800.
direct-inward-dial
port 2
forward-digits all
!
sip-ua
!
line con 0
password cisco
login
no modem enable
line aux 0
line vty 0 4
exec-timeout 0 0
password cisco
login
!
exception data-corruption buffer truncate
scheduler max-task-time 5000
end
```



Acronyms

Acronym	Definitions
IAD	Integrated Access Device
SIP	Session Initiation Protocol



Important Information

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