

Cisco VG200-PBX Interoperability: Siemens Hicom 330E with ISDN PRI Signaling

Introduction

This document describes the interoperability and configuration of Cisco CallManager 3.3 with a Siemens Hicom 330E PBX using ISDN PRI QSIG signaling.

Network Topology

Figure 1 represents the configuration used for testing: a Siemens Hicom 330E PBX connected to a Cisco VG200 voice gateway via an E1 PRI connection.

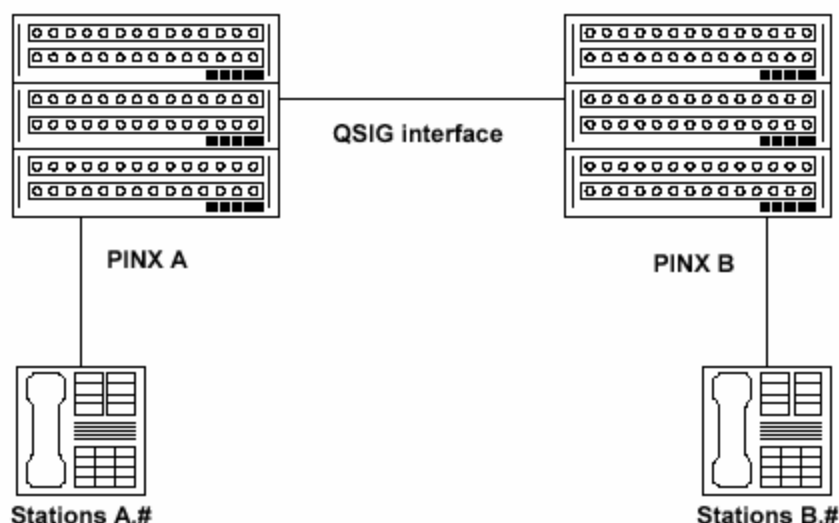


Figure 1 Configuration for Basic Call Setup and Name Test Cases

Limitations

- The Cisco VG200 gateway with ISDN protocol type setting of PRI-EURO supports both protocol sides by selecting “Network/User” in the protocol side field when configuring the gateway via CallManager.
- The Siemens Hicom 330E supports both “USER” (slave) and “NETWORK” (master) protocol sides.
- The following options are of particular interest:
 - Trunk **interface type** must be set to **PRA2**.
 - Network/User options are set in the Board/Digital Access Options menu. **Network mode** must be set to **Yes** for (Master/Network) or **No** (Slave/User).



– **Access Type** must be set to **T2**.

– **Q931 signal variant** is used to determine Protocol type. This option was set to **ISDN all countries**.

- If AOC is enabled on the Siemens, the Setup message from the Siemens will contain a Facility IE to request Charging for the call. Since Cisco CallManager does not handle multiple Facility IE, the Calling Name will not be displayed on the IP phone. The AOC should be disabled on Siemens to get the Calling Name to work.
- Cisco CallManager 3.3 QSIG implementation does not depend on the physical interface. Cisco CallManager can terminate on either T1 or E1 interface on different Cisco voice gateways. Since MGCP backhaul mechanism is used, there is no difference between Cisco IOS or Cisco non-IOS gateways as far as layer 3 is concerned. This test report is based on test results for Cisco non-IOS gateway - 6608-E1 and Cisco IOS gateway - VG200 E1, however using other Cisco MGCP voice gateways on either E1 or T1 interfaces will have same results.
- The Cisco CallManager gateway configuration with ISDN protocol type of PRI ISO QSIG supports both protocol sides by selecting “Network/User” in the protocol side field when configuring the gateway via Cisco CallManager.
- The Siemens Hicom 330 E PBX, when set to ECMA1, ECMAV2, or PSS1V2, supports both “user” and “Network” protocol sides. This USER/NETWORK choice is made on the Siemens Hicom 330 E PBX by deactivating the B channels/D-channel (<dea-dssu). A change command is then issued to the Reference clock (<cha-refta) to get to the Master/Slave selection (Pri=0 for Master, 11 for slave). Now the trunk is changed (<cha-tdcsu) to get to Device type prompt (Dev=s2conn), (Bcgrp=1), and loadware parameters (Lwpar=1 for Slave, 4 for Master). The D-channel, and B-channels are then reactivated (<act-dssu), after the settings are changed.
- The Siemens Hicom 330 E PBX provides clocking on the interface, so Cisco gateway configuration needs to be set to derive its clock from the incoming Siemens line (clock field set to External).
- Overlap Receiving on Siemens Hicom 330 E PBX will not work if the Cisco gateway configuration is using the default parameter “Cisco Callmanager” for the field **Called Numbering Plan**. In order to support Overlap Sending on Cisco CallManager 3.3, make sure the Cisco gateway configuration is not using “Cisco CallManager” as an option for Called Numbering Plan field. All other options like ISDN, National Standard, Private, Unknown, will work.

System Components

Hardware Requirements

- Cisco hardware—Cisco VG200 with
- PBX hardware—version 6.5

Software Requirements

- Cisco IOS software release—Cisco IOS Release 12.2(7)
- PBX software release—3.1
- Cisco CallManager release—3.3

Configuration

Configuring the Siemens Hicom 330E

DPLN

<dis-wabe

TYPE = gen

CD =

DPLN = 0;



DIS-WABE:GEN,,0;
H500: AMO WABE STARTED

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE 1 11111 11112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE		
001 - 002	*	NETRTE	R		
11	 *	MBKY			
3001	 *	STN	R		
			DESTNO	0	
			DNNO	1- 1-150*	
3007	 *	MBKY			
3007	 *	STN			
			DESTNO	0	
			DNNO	1- 1-150*	
4100 - 4500	 *	STN	R		
			DESTNO	72	
			DNNO	0- 0- 0	

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE 1 11111 11112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE		
5000 - 5007	 *	STN	DESTNO 0		
			DNNO 1- 1-150*		
5008 - 5009	 *	STN	R		
			DESTNO	99	
			DNNO	0- 0- 0	
5010	 *	ATNDIND			
800	 *	ATNDDID			
854	 *	NETW	R		
			DESTNO	2	
			DNNO	0- 0- 0	
*66	 *	SIGNON			

DIGIT INTERPRETATION		VALID FOR ALL DIAL PLANS			
CODE	CALL PROGRESS STATE 1 11111 11112 22 0 12345 67890 12345 67890 12	DIGIT ANALYSIS RESULT	RESERVED/CONVERT DNI/ADD-INFO *=OWN NODE		
*91	 *	MBOFF			
#66	 *	SIGNOFF			
#91	 *	MBON			
##22	 *	DAKY			
##24	 *	DSSKY			



##25	 *	..	FWDKY	
##26	 *	..	HTKY	
##27	 *	..	KNOVRKY	
##28	 *	..	MBKY	
##29	 *	..	MSGRKY	
##35	 *	..	TIMEKY	
##36	 *	..	VCKY	

DIGIT INTERPRETATION	VALID FOR ALL DIAL PLANS
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CODE	CALL PROGRESS STATE		DIGIT	RESERVED/CONVERT
	1 11111 11112 22		ANALYSIS	DNI/ADD-INFO
	0 12345 67890 12345 67890 12		RESULT	*=OWN NODE

##37	 *	..	VCRKY	
##38	 *	..	CCKY	
##39	 *	..	CONFKY	
##41	 *	..	NAMEKY	
##42	 *	..	PARKKY	
##43	 *	..	REMKY	
##44	 *	..	STKY	
##45	 *	..	CBKKY	
##46	 *	..	CONSKY	
##47	 *	..	DNDKY	
##48	 *	..	EXHOLDKY	
##49	 *	..	HOLDKY	

DIGIT INTERPRETATION	VALID FOR ALL DIAL PLANS
----------------------	--------------------------

CODE	CALL PROGRESS STATE		DIGIT	RESERVED/CONVERT
	1 11111 11112 22		ANALYSIS	DNI/ADD-INFO
	0 12345 67890 12345 67890 12		RESULT	*=OWN NODE

##50	 *	..	IUSEKY	
##51	 *	..	LNRKY	
##52	 *	..	PRIVKY	
##53	 *	..	RLSKY	
##54	 *	..	SNRKY	
##55	 *	..	TRNSKY	
##56	 *	..	RCTOFFKY	
##57	 *	..	TOGGLEKY	

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE		DIGIT	RESERVED/CONVERT
	1 11111 11112 22		ANALYSIS	DNI/ADD-INFO
	0 12345 67890 12345 67890 12		RESULT	*=OWN NODE

0	 *	..	ATNDDID	
0	 *	..	ATND	
150	 *	..	OWNNODE	
2	 *	..	TIE	
31	 *	..	TIE	



33		. ***** **	TIE	
37	- 38	. ***** **	TIE	
40		. ***** **	TIE	
702		. ***** **	TIE	R
9		. ***** **	CO	
*0		. * *	ACBK	
*10		 * . . . *	CCMANS	R

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE				DIGIT	RESERVED/CONVERT
	1 1111 1112 22				ANALYSIS	DNI/ADD-INFO
	0	12345	67890	12345 67890 12	RESULT	*=OWN NODE
*11	 *		 *		AFWDVCE	
*12	 *		 *		AFWDDTE	
*13	 *				AFWDDWD	
*14	. *****	*****	** . *		AFWDREM	
						CFREMVAR CFU
						CFREMSE VOICE
*15	. * . . . *				APRIV	
*16	 *				PUGDIS	
*17	. *			 *	SPLIT	
*18	. *				TRACE	
*19	 *		 *		AREM	
*20	 **				NOPT	

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE				DIGIT ANALYSIS	RESERVED/CONVERT DNI/ADD-INFO
	1 1111 1112 22					
	0	12345	67890	12345 67890 12	RESULT	*=OWN NODE
*21	 *		 *		AFFWDVCE	
*22	 *		 *		AFFWDDTE	
*23	. * . . *				CALLPARK	
*24	 *				DISUON	
*3	. *****				PUDIR	
*40	 *	 *	 *		CCANS	R
*41			 *		CCDIS	
*43	. *** *	 *	 *		DTE	
*44	. *****	. *****	 *		FWDREM	
						CFREMVAR CFU
						CFREMSE VOICE
*45			 *		CCMEETME	

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE				DIGIT ANALYSIS	RESERVED/CONVERT DNI/ADD-INFO
	1 1111 1112 22					
	0 12345 67890 12345 67890 12					
*46	. ***** * . *** *				CCSCD	R
*47	 *				CCSURG	



*48	 *	CCVCE	
*49	 *	ACOSX	
*50	 * . **	FWDIGNOR	
*51	 *	ADND	
*52	 *	AHTVCE	
*53	. ***** * . *** **	CCMSURG	R
*54	 *	SPD	
*55	. * . . . *	BABYLSNG	
*56	. ***** * . *** **	CCMS	R
*57	 *	CCS	

DIGIT INTERPRETATION DPLN 0

CODE	CALL PROGRESS STATE	DIGIT ANALYSIS	RESERVED/CONVERT
	1 11111 11112 22		DNI/ADD-INFO
	0 12345 67890 12345 67890 12	RESULT	*=OWN NODE

*58	. ***** * . *** **	CCSN	R
*59	 *	CCSTN	
*60	. *	KNOVR	
*61	. ***** . *** **	SPDC1	
*62	. ***** . *** **	SPDC2	
*63	. *** * . ***	SPDI	
*64	 * *	SPDIPROG	
*69	. * . . . *	EOVR	
*7	. * . . . *	LNR	
*81	 * . ***	APIN1	
*82	 * . ***	APIN2	
*83	 * . ***	APIN3	

DIGIT INTERPRETATION DPLN 0

CODE	CALL PROGRESS STATE	DIGIT ANALYSIS	RESERVED/CONVERT
	1 11111 11112 22		DNI/ADD-INFO
	0 12345 67890 12345 67890 12	RESULT	*=OWN NODE

*84	 * . **	APIN4	
*85	 * . **	APIN5	
*88	. . . ** . . . *	CTLS	
*89	. . * . . * . . *	TESTLN	
*9	. * . . . *	CONF3	
**	 *	PU	
*#50	. * . . . *	ACDLOGON	
*#51	. * . . . *	ACDAV	
*#52	. * . . . *	ACDWORK	
*#53	. * . . . *	ACC	
*#54	 *	MONSLNT	
*#55	 *	MONTONE	

DIGIT INTERPRETATION DPLN 0

CODE	CALL PROGRESS STATE	DIGIT ANALYSIS	RESERVED/CONVERT
	1 11111 11112 22		DNI/ADD-INFO
	0 12345 67890 12345 67890 12	RESULT	*=OWN NODE



*#60	. * . . . *			ACDPGS	
*#61	. * . . . *			ACDPQS	
*#62	 *			ACDEMMSG	
*#63	 *			ACDSHMSG	
*#71	. * . . . *			CAFAV	
*#72	. * . . . *			CAFGRV	
*#74	. * . . . *			CAFAFWD	
#0	 *			DCBK	
#11	 *			DFWDVCE	
#12	 *			DFWDDTE	

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE	DIGIT	RESERVED/CONVERT
	1 11111 11112 22	ANALYSIS	DNI/ADD-INFO
	0 12345 67890 12345 67890 12	RESULT	*=OWN NODE

#14				DFWDREM	
					CFREVMAR CFU
					CFREMSE VOICE
#15	. * . . . *			DPRIV	
#19	 *			DREM	
#21	 *			DFFDVCE	
#22	 *			DFFDTE	
#24	 *			DISUOFF	
#49	 *			DCOSX	
#51	 *			DDND	
#52	 *			DHTVCE	
#74	 *			DIGIDAT	

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE	DIGIT	RESERVED/CONVERT
	1 11111 11112 22	ANALYSIS	DNI/ADD-INFO
	0 12345 67890 12345 67890 12	RESULT	*=OWN NODE

#8	 *		 *	DPIN	
#92	 *	 *		MBOFF	
*#50	. * . . . *		 *	ACDLOGOF	
*#51	. * . . . *		 *	ACDNAV	
*#60	. * . . . *			ACDSGS	
*#61	. * . . . *			ACDSQS	
*#70	. * . . . *			CAFLOGOF	
*#71	. * . . . *			CAFNAV	
*#72	. * . . . *			CAFGRNAV	
*#73	. * . . . *			CAFGRUFF	
*#74	. * . . . *			CAFDFWD	
##1			 *	KYPROG	

DIGIT INTERPRETATION	DPLN 0
----------------------	--------

CODE	CALL PROGRESS STATE	DIGIT	RESERVED/CONVERT
	1 11111 11112 22	ANALYSIS	DNI/ADD-INFO



	0 12345 67890 12345 67890 12	RESULT	*=OWN NODE	
##40	 * ..	NAKYLO		
##7	 * * ..	MBON		
##8	 * * ..	MBOFF		

AM0-WABE -162 DIALLING PLANS, FEATURE ACCESS CODES

DISPLAY COMPLETED;

Access Code for Enbloc Sending dial plan, DPLN

<dis-ldpln

TYPE = ldp

M40: APPLICABLE GROUP CONDITION: MAXIMUM OF 1 OUT OF 2 PARAMETERS

LDPNO = 47;

DIS-LDPLN:LDP,47;

H500: AMO LDPLN STARTED

+-----+-----+-----+-----+-----+-----+-----+-----+							
	LDPNO :	47		LDP :	37-XXXX		
				SPC :	6		
+-----+-----+-----+-----+-----+-----+-----+-----+							
		DPLN		LRTE		LAUTH	
		+-----+		+-----+		+-----+	
		0		37		1	
		1				8	
		2				9	
		3				10	
		4				11	
		5				12	
		6				13	
		7				14	
						15	
+-----+-----+-----+-----+-----+-----+-----+-----+							

AM0-LDPLN-196 ADMINISTRATION LCR DIALPLAN

DISPLAY COMPLETED;

Access Code for Overlap Sending dial plan, DPLN

<dis-ldpln

TYPE = ldp



M40: APPLICABLE GROUP CONDITION: MAXIMUM OF 1 OUT OF 2 PARAMETERS

LDPNO = 43;

DIS-LDPLN:LDP,43;

H500: AMO LDPLN STARTED

+-----+-----+-----+-----+-----+-----+-----+-----+							
LDPNO : 43		LDP : 38-X					
		SPC : 22					
+-----+-----+-----+-----+-----+-----+-----+-----+							
		DPLN	LRTE	LAUTH	DPLN	LRTE	LAUTH
+-----+-----+-----+-----+-----+-----+-----+-----+							
		0	38	1	8		
		1			9		
		2			10		
		3			11		
		4			12		
		5			13		
		6			14		
		7			15		
+-----+-----+-----+-----+-----+-----+-----+-----+							

AMO-LDPLN-237 ADMINISTRATION LCR DIALPLAN

DISPLAY COMPLETED;

BCSU

<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 -162 BOARD CONFIGURATION, SWITCHING UNIT									

DISPLAY COMPLETED;

Class of Trunk, COT

<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

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

DON'T RELEASE CALL TO BUSY HUNT GROUP

END-OF-DIAL FOR BLOCK IS SET

SEND NO NODE NUMBER TO PARTNER

INCOMING CIRCUIT FROM SYSTEM WITHOUT LCR

TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)

INCOMING CDR BY ZONE OR FROM LINE

INCOMING CIRCUIT FROM SYSTEM WITHOUT LCR (DATA)

INTERWORKING CALLBACK - NO ANSWER AND MAILBOX CALLBACK

CONTROLLED TRUNK AND LINE SELECTION

NO TONE

PRI

RCL

XFER

ANS

CHRT

KNOR

CEBC

CBBN

CBFN

BSHT

BLOC

LWNC

NLCR

TSCS

ICZL

NLRD

IWCB

CTLS

NTON

AMO-COT -162 CLASS OF TRUNK FOR CALL PROCESSING

DISPLAY COMPLETED;

Class of Parameter for device handler, COP

<disp-cop

COPNO = 4;

DISP-COP:4;

H500: AMO COP STARTED

COP: 4 INFO: 4:Q931

DEVICE: INDEP SOURCE: DB

PARAMETER:

LINE WITH END-OF-DIAL

SPECIAL MODE

CODE CALLING RELEASE AFTER EVERY TASK

REGISTRATION OF LAYER 3 ADVISORIES

EOD

SFRM

CCR

L3AR

AMO-COP -162 CLASS OF PARAMETER FOR DEVICE HANDLER

DISPLAY COMPLETED;

Class of Service, COSSU

<dis-cossu



TYPE = cos

COS = 32;

DIS-COSSU: COS, 32;

H500: AMO COSSU STARTED

COS	VOICE	FAX	TTX	VTX	DTE
32	>32: TRUNKS				
	TA	NOCO	NOCO	NOCO	TA
	TNOTCR	NOTIE	NOTIE	NOTIE	TNOTCR
					BASIC
					MSN
					CDRINT
					MULTRA

AMO-COSSU-162 CLASSES OF SERVICE, SWITCHING UNIT

DISPLAY COMPLETED;

<dis-
cos

TYPE = lcos

LCOS = 31;

DIS-COSSU: LCOS, 31;

H500: AMO COSSU STARTED

THE LCR CLASSMARKS ARE CONTAINED IN THE FOLLOWING LCOS:

LCOS	LCOSV	LCOSD
12345678901234567890123456789012	12345678901234567890123456789012	12345678901234567890123456789012
>SERVICE INFORMATION		
31	XX	XX

AMO-COSSU-162 CLASSES OF SERVICE, SWITCHING UNIT

DISPLAY COMPLETED;

Trunk group access code for Enbloc Sending, BUEND

<dis-
buend

TGRP = 37;

DIS-BUEND: 37;

H500: AMO BUEND STARTED

FORMAT = L			
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      : 2             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-162 TRUNK GROUP

DISPLAY COMPLETED;

Trunk group access code for Overlap Sending, BUEND

<dis-buend

TGRP = 1-1-73-1

TGRP = 38;

DIS-BUEND:38,L;

H500: AMO BUEND STARTED

```
+-----+
| TGRP NUMBER : 38   TGRP NAME  : PRI MWI           MAXIMUM NO.   : 30 |
| SUBGROUP NO.: 9    DEVICE TYPE: S2CONN           TRACENO       : 0 |
| RESERVED      : N   SEARCH MODE: CIRCULAR         ACD THRESHOLD : * |
| NUMBER OF ASSOCIATED ROUTES      : 1             PRIORITY      : 2 |
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED: |
```

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

AMO-BUEND-143 TRUNK GROUP

DISPLAY COMPLETED;



Trunk Configuration, TDCSU

For Master side configuration

<dis-tdcsu

PEN1 = 1-1-73-0;

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	= PSS1V2	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-162 DIGITAL TRUNKS

DISPLAY COMPLETED;

<dis-lwpar

INFOPAT = 4

FORMAT = 1

DEV = ;

DIS-LWPAR:4,L,;

H500: AMO LWPAR STARTED



```
+-----+
| LOADWARE PARAMETERS      CIRCUIT TYPE: DIUS2  SOURCE:DB    BLOCK:    4 |
+-----+
| LNTYPE   = COPPER          VERSION   = S2             QUAL     = ON      |
| MASTER   = Y              DCHAN1    = 16             DCHAN2    = 0      |
| PATTERN  = D5H            QUAL1     = 10 SEC.        QUAL2     = 10 MIN. |
| SMD      = Y              PERMACT   = Y             FCBAB    = DFH      |
| CDG      = Y              FIXEDTEI  = 0             CNTRNR   = 255     |
| TEIVERIF = N              CRC4REP   = N              |
| DEV      = INDEP          |
| INFO     = 4:COPPER-MASTER CLOCK(DPNSS A-END)      |
+-----+
```

AM0-LWPAR-162 LOADWARE PARAMETERS FOR NETWORKING MODULES

DISPLAY COMPLETED;

For Slave side configuration

<dis-tdcsu

PEN1 = 1-1-73-0;

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

H500: AM0 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  = PSS1V2     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    = 1
| LWPP     = 0          LWLT     = 0           LWPS     = 0
| LWR1     = 0          LWR2     = 0
| BCHAN    1 && 30
+-----+
```



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

AM0-TDCSU-162 DIGITAL TRUNKS
DISPLAY COMPLETED;

<dis-lwpar

INFOPAT = 1

FORMAT = 1

DEV = ;

DIS-LWPAR:1,L,;
H500: AMO LWPAR STARTED

+-----+-----+-----+-----+-----+-----+-----+-----+								
LOADWARE PARAMETERS		CIRCUIT TYPE: DIUS2		SOURCE:DB		BLOCK: 1		
+-----+-----+-----+-----+-----+-----+-----+-----+								
LNTYPE	=	COPPER	VERSION	=	S2	QUAL	=	ON
MASTER	=	N	DCHAN1	=	16	DCHAN2	=	0
PATTERN	=	D5H	QUAL1	=	10 SEC.	QUAL2	=	10 MIN.
SMD	=	N	PERMACT	=	Y	FCBAB	=	DFH
CDG	=	N	FIXEDTEI	=	0	CNTRNR	=	255
TEIVERIF	=	N	CRC4REP	=	N			
DEV	=	INDEP						
INFO	=	1:COPPER-DERIVE CLOCK FROM LINE(I421)						
+-----+-----+-----+-----+-----+-----+-----+-----+								

AM0-LWPAR-162 LOADWARE PARAMETERS FOR NETWORKING MODULES

DISPLAY COMPLETED;

Reference Clock Configuration, REFTA

For Master side configuration

<dis-refta

TYPE = circuit

PEN = 1-1-73-0;

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	17575	N		N



```
+-----+-----+-----+-----+-----+-----+-----+
AM0-REFTA-162      REFERENCE CLOCK TABLE
DISPLAY COMPLETED;
```

For Slave side configuration

```
<dis-refta
```

```
TYPE = circuit
```

```
PEN = 1-1-73-0;
```

```
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	11	17575	N		N

```
AM0-REFTA-162      REFERENCE CLOCK TABLE
DISPLAY COMPLETED;
```

Trunk Least Cost Routing Configuration:

LDAT

```
<dis-ldat
```

```
TYPE = lcr
```

```
LROUTE = 37;
```

```
DIS-LDAT:LCR,37;
H500:  AMO LDAT  STARTED
```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											
LROUTE = 37		LDPLN		NAME = PRI TEST				SERVICE = ALL			
TYPE = LCR		DNN 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	
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+											

```
AM0-LDAT -162      LCR-DIRECTIONS
DISPLAY COMPLETED;
```




RIGHT

<dis-richt

MODE = lrte

LRTE = 37;

DIS-RIGHT:LRTE,37;

H500: AMO RIGHT STARTED

```
+-----+
| LRTE = 37      NAME = PRI TEST                SRVC = ALL |
| DNNNO = 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 |
+-----+
```

AMO-RIGHT-162 TRUNK ROUTING
DISPLAY COMPLETED;

LCR Out-dial Rules, LODR
<dis-lodr

ODR = 1

INFOPAT = ;

DIS-LODR:1,;

H500: AMO LODR STARTED

```
+-----+
| ODR   POSITION  CMD      PARAMETER |
+-----+
| 1     1      ECHO      2          |
|      2      END          |
+-----+
| INFO:PSTN |
+-----+
```

H03: THE NEXT FREE ODR IS 4

AMO-LODR -162 ADMINISTRATION OF LCR OUTDIAL RULES
DISPLAY COMPLETED;

Station Configuration, SBCSU
<dis-sbcusu

STNO = 5000

TYPE = termdata



DIS-SBCSU:5000,TERMDATA;
H500: AMO SBCSU STARTED

```
----- USER DATA -----
STNO    =5000    OPT    =OPTI    COS1    =7      DPLN    =0      SPDI    =Y
MAIN0    =5000    CONN    =DIR    COS2    =7      ITR     =0      SPDC1   =0
PEN      = 1- 1- 79- 1      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-83 STATION AND S0-BUS CONFIGURATION OF SWITCHING UNIT

DISPLAY COMPLETED;

<dis-persi

TYPE = name

STNO = 5000;

DIS-PERSI:NAME,5000;
H500: AMO PERSI STARTED

```
+-----+-----+
| STNO | CHRISTIAN AND SURNAME | ORGANIZATIONAL UNIT |
+-----+-----+
| 5000 | DIGITAL TEST 1*      |                      |
|      |                        |                      |
+-----+-----+
```



AM0-PERSI-83 PERSONAL IDENTIFICATION DATA

DISPLAY COMPLETED;

Configuring Cisco CallManager

6608-E1 Gateway Configuration

Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites History Print

Address <http://klinton/CCMAdmin/gatewayconfig.asp?pkid={0A44992F-90D3-4798-A3FB-2E87255CC7ED}&type=2> Go Links »

Cisco CallManager Administration
For Cisco IP Telephony Solutions

CISCO SYSTEMS

Gateway Configuration

[Back to Find/List Gateways](#)

Product : Cisco Catalyst 6000 E1 VoIP Gateway
Gateway : S0/DS1-0@SDA000164122280
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager 10.10.10.10
IP Address: [10.10.10.106](#)

Status: Ready

Device Information

MAC Address*	000164122280
Description	SDA000164122280
Device Pool*	Default
Network Locale*	United States
Media Resource Group List	< None >
Network Hold Audio Source	< None >
User Hold Audio Source	< None >
Location	< None >
AAR Group	< None >
Load Information	

Interface Information

PRI Protocol Type*	PRI ISO QSIG E1
--------------------	--

Done Local intranet



Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History

Address <http://klingon/CCMAdmin/gatewayconfig.asp?pkid={0A44992F-90D3-4798-A3FB-2E87255CC7ED}&type=2> Go Links »

Protocol Side*	User
Channel Selection Order*	Top Down
Channel IE Type*	Number
PCM Type*	A-law
Delay for first restart (1/8 sec ticks)	32
Delay between restarts (1/8 sec ticks)	4
☒ Inhibit restarts at PRI initialization	
☐ Enable status poll	

Call Routing Information

Inbound Calls

Significant Digits*	23
Calling Search Space	< None >
AAR Calling Search Space	< None >
Prefix DN	

Outbound Calls

Calling Party Presentation*	Allowed
Calling Party Selection*	Originator
Called party IE number type unknown*	Cisco CallManager
Calling party IE number type unknown*	Cisco CallManager
Called Numbering Plan*	Private
Calling Numbering Plan*	Cisco CallManager
Number of digits to strip*	0
Caller ID DN	

Done Local intranet



Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <http://kingon/CCMAdmin/gatewayconfig.asp?pkid={0A44992F-90D3-4798-A3FB-2E87255CC7ED}&type=2> Go Links

PRI Protocol Type Specific Information

- ☐ Display IE Delivery
- ☐ Redirecting Number IE Delivery - Outbound
- ☐ Redirecting Number IE Delivery - Inbound
- ☒ Send Extra Leading Character In DisplayIE***
- ☐ Setup non-ISDN Progress Indicator IE Enable****
- ☐ MCDN Channel Number Extension Bit Set to Zero**
- ☐ Interface Identifier Present**

Interface Identifier Value**

Product Specific Configuration

i

Clock Reference*	Network
Framing*	CRC4
Audio Signal Adjustment into IP Network*	NoDbPadding
Audio Signal Adjustment from IP Network*	NoDbPadding
Zero Suppression*	HDB3
Digit On Duration(50-500ms)*	100
Interdigit Duration(50-500msec)*	100
Adaptive Gain Control Enable*	☒
SNMP Community String	public

Fax Parameters

Fax Relay Enable*	☒
Fax Error Correction Mode Override*	☒

Done Local intranet



Cisco VG200 E1 Gateway Configuration

Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <http://klington/CCMAdmin/mgcpconfig.asp?IMGCP={1594632D-B905-43A5-B5C0-0091C305E953}> Go Links »

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Gateway Configuration [Back to Find/List Gateways](#)

Product: Cisco VG200
MGCP : VG200_E1

Status: Ready

Domain Name*

Description

Cisco CallManager Group*

Installed Voice Interface Cards		Endpoint Identifiers	
Module in Slot	NM-HDV		
Subunit	VVIC-2MFT-E1	(1/0)	(1/1)

Product Specific Configuration

Global ISDN Switch Type

Switchback Timing*

Done Local intranet



VG200 ISDN PRI Configuration

Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address [BD3F7F-3C82-4E25-A89D-E48D6696C247}&Action=Update&Type=55&MGCP={1594632D-B905-43A5-B5C0-0091C305E953}](#) Go Links »

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Gateway Configuration

[Back to MGCP Configuration](#)
[Back to Find/List Gateways](#)

Product : Cisco VG200
Gateway : S1/DS1-0@VG200_E1
Device Protocol: Digital Access PRI
Registration: Registered with Cisco CallManager 10.10.10.10
IP Address: 10.10.10.110

Status: Ready

Device Information

End-Point Name*	S1/DS1-0@VG200_E1
Description	S1/DS1-0@VG200_E1
Device Pool*	Default
Network Locale*	<input "="" type="text" value=" < None > "/>
Media Resource Group List	<input "="" type="text" value=" < None > "/>
Network Hold Audio Source	<input "="" type="text" value=" < None > "/>
Location	<input "="" type="text" value=" < None > "/>

Reset succeeded.

Local intranet



Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address [BD3F7F-3C82-4E25-A89D-E48D6696C247}&Action=Update&Type=55&MGCP={1594632D-B905-43A5-B5C0-0091C305E953}](#) Go Links »

AAR Group

Load Information

Interface Information

PRI Protocol Type*

Protocol Side*

Channel Selection Order*

Channel IE Type*

Delay for first restart (1/8 sec ticks)

Delay between restarts (1/8 sec ticks)

☒ Inhibit restarts at PRI initialization

☐ Enable status poll

Call Routing Information

Inbound Calls

Significant Digits*

Calling Search Space

AAR Calling Search Space

Prefix DN

Outbound Calls

Calling Party Presentation*

Local intranet



Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites History Print

Address [E25-A89D-E48D6696C247}&Status=US&Action=Update&Type=55&MGCP={1594632D-B905-43A5-B5C0-0091C305E953}](#) Go Links >>

Calling Party Selection*	Originator
Called party IE number type unknown*	Cisco CallManager
Calling party IE number type unknown*	Cisco CallManager
Called Numbering Plan*	Private
Calling Numbering Plan*	Cisco CallManager
Number of digits to strip*	0
Caller ID DN	

PRI Protocol Type Specific Information

☐ Display IE Delivery

☐ Redirecting Number IE Delivery - Outbound

☐ Redirecting Number IE Delivery - Inbound

☒ Send Extra Leading Character In DisplayIE***

☐ Setup non-ISDN Progress Indicator IE Enable****

☐ MCDN Channel Number Extension Bit Set to Zero**

☐ Interface Identifier Present**

Interface Identifier Value** 0

Product Specific Configuration

Line Coding* HDB3

Framing* CRC4

Clock* External

* indicates required item

** applicable to DMS-100 protocol only

Reset succeeded.

Local intranet



Enbloc Sending Route Pattern for VG200 E1

Cisco CallManager 3.3 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <http://klingon/CCMAdmin/routepatternconfig.asp?pkid={20FBBABE-251D-4E9F-BB51-AC7FF0C1DDC5}> Go Links »

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 7.XXXX
Status: Ready
Note: Any update to this route pattern automatically resets the associated gateway/route list

Copy Update Delete

Pattern Definition

Route Pattern*	7XXXX
Partition	< None >
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Gateway/Route List*	S1/DS1-0@VG200_E1 (Edit)
Route Option	☒ Route this pattern ☐ Block this pattern
☒ Provide Outside Dial Tone	☐ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Done Local intranet



Cisco CallManager 3.3 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address http://klingon/CCMAdmin/routepatternconfig.asp?pkid={20FBBABE-251D-4E9F-BB51-AC7FF0C1DDC5} Go Links »

Numbering Plan* North American Numbering Plan

Route Filter < None >

Gateway/Route List* S1/DS1-0@VG200_E1 (Edit)

Route Option
☒ Route this pattern ☐ Block this pattern

☒ Provide Outside Dial Tone ☐ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Party Presentation Default

Called Party Transformations

Discard Digits PreDot

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Carrier Identification Code

Network Service Protocol — Not Selected —

Network Service — Not Selected — Service Parameter Name < Not Exist > Service Parameter Value

* indicates required item.

Done Local intranet



Enbloc Sending Route Pattern for 6608_E1

Cisco CallManager 3.3 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites History Print

Address <http://klington/CCMAdmin/routepatternconfig.asp?pkid={6294CFA3-B099-4C88-A5DE-1D9756D2E7AB}> Go Links >>

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 6.XXXX

Status: Ready
Note: Any update to this route pattern automatically resets the associated gateway/route list

Copy Update Delete

Pattern Definition

Route Pattern*	6.XXXX
Partition	< None >
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Gateway/Route List*	S0/DS1-0@SDA000164122280 (Edit)
Route Option	☒ Route this pattern ☐ Block this pattern
☒ Provide Outside Dial Tone	☐ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	
Prefix Digits (Outgoing Calls)	
Calling Party Presentation	Default

Called Party Transformations

Discard Digits	PreDot
Called Party Transform Mask	

Done Local intranet



Cisco CallManager 3.3 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <http://klingon/CCMAdmin/routepatternconfig.asp?pkid={6294CFA3-B099-4C88-A5DE-1D9756D2E7AB}> Go Links »

Prefix Digits (Outgoing Calls)

Calling Party Presentation

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Carrier Identification Code

Network Service Protocol

Network Service	Service Parameter Name	Service Parameter Value
— Not Selected —	< Not Exist >	

* indicates required item.

Local intranet



Overlap Sending Route Pattern for 6608_E1

Cisco CallManager 3.3 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address: http://klingon/CCMAdmin/routepatternconfig.asp?pkid={D676A9B4-AE3A-4E41-9CFD-796307A28392} Go Links

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Route Pattern Configuration

[Add a New Route Pattern](#)
[Back to Find/List Route Patterns](#)

Route Pattern: 9.X
Status: Ready
Note: Any update to this route pattern automatically resets the associated gateway/route list

Copy Update Delete

Pattern Definition

Route Pattern* 9.X

Partition <None>

Numbering Plan* North American Numbering Plan

Route Filter <None>

Gateway/Route List* S0/DS1-0@SDA000164122280 (Edit)

Route Option
☒ Route this pattern ☐ Block this pattern

☒ Provide Outside Dial Tone ☐ Urgent Priority

Calling Party Transformations

☐ Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Party Presentation Default

Called Party Transformations

Discard Digits PreDot

Called Party Transform Mask

Done Local intranet



Cisco CallManager 3.3 Administration - Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History

Address <http://klingon/CCMAdmin/routepatternconfig.asp?pkid={6294CFA3-B099-4C88-A5DE-1D9756D2E7AB}> Go Links »

Prefix Digits (Outgoing Calls)

Calling Party Presentation

Called Party Transformations

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Carrier Identification Code

Network Service Protocol

Network Service	Service Parameter Name	Service Parameter Value
— Not Selected —	< Not Exist >	

* indicates required item.

Local intranet



7960 IP phone Configuration

Cisco CallManager 3.3 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites History Print

Address http://klingon/CCMAdmin/phoneconfig.asp?pkid={65F9F760-6270-438B-8328-5D14DF805017} Go Links

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Phone Configuration

[Add a new phone](#)
[Add/Update Speed Dials](#)
[Subscribe/Unsubscribe Services](#)
[Back to Find/List Phones](#)

Directory Numbers

Base Phone

Line 1 - 2000
Line 2 - Add new DN

Phone: SEP00024BCCE045 (Auto 2000)
Registration: Registered with Cisco CallManager 10.10.10.10
IP Address: **10.10.10.111**
Status: Ready

Copy Update Delete Reset Phone

Phone Configuration (Model = Cisco 7960)

Device Information

MAC Address* 00024BCCE045

Description Auto 2000

Device Pool* Default (View details)

Calling Search Space < None >

AAR Calling Search Space < None >

Media Resource Group List < None >

User Hold Audio Source < None >

Network Hold Audio Source < None >

Location < None >

User Locale English United States

Network Locale United States

Consecutive Ring Setting Use System Default

Phone Button and Expansion Module Template Information

Done Local intranet



Cisco CallManager 3.3 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print

Address <http://kingon/CCMAdmin/phoneconfig.asp?pkid={65F9F760-6270-438B-8328-5D14DF805017}> Go Links »

Phone Button Template* ([View button list](#))

Expansion Module 1 View button list)

Expansion Module 2 View button list)

Softkey Template Information

Softkey Template

Firmware Load Information (leave blank to use default)

Phone Load Name

Module 1 Load Name (Module 1 Template required)

Module 2 Load Name (Module 2 Template required)

Cisco IP Phone - External Data Locations (leave blank to use default)

Information

Directory

Messages

Services

Authentication Server

Proxy Server

Idle

Idle Timer (seconds)

Extension Mobility (Device Profile) Information

☐ Enable Extension Mobility Feature

Log Out Profile

Log In User ID

Log In Time

Log Out Time

Done Local intranet



Cisco CallManager 3.3 Administration - Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites History Print

Address <http://klington/CCMAdmin/phoneconfig.asp?pkid={65F9F760-6270-438B-8328-5D14DF805017}> Go Links »

Module 2 Load Name (Module 2 Template required)

Cisco IP Phone - External Data Locations (leave blank to use default)

Information

Directory

Messages

Services

Authentication Server

Proxy Server

Idle

Idle Timer (seconds)

Extension Mobility (Device Profile) Information

☐ Enable Extension Mobility Feature

Log Out Profile

Log In User ID

Log In Time

Log Out Time

Product Specific Configuration

Disable Speakerphone ☐

Disable Speakerphone and Headset ☐

Forwarding Delay*

PC Port*

SRS Telephony Enable*

* indicates a required item.

[Back to top of page](#)
[Back to Find/List Phones](#)

Done Local intranet



Cisco CallManager 3.3 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print

Address <http://kingon/CCMAdmin/directorynumber.asp?NumPlanMapID={7AC31A25-9819-4DCF-ABE6-2B89344E58A8}> Go Links »

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration
For Cisco IP Telephony Solutions

Directory Number Configuration [Configure Device \(SEP00024BCCE045\)](#)

Devices using this Directory Number

SEP00024BCCE045
7960 (Line 1)

Directory Number: 2000
Status: Ready

Update Delete Reset Devices

Directory Number

Directory Number* 2000

Partition <None>

Directory Number Settings

Voice Mail Profile <None>
(Choose <None> to use default)

Calling Search Space <None>

AAR Group <None>

User Hold Audio Source <None>

Network Hold Audio Source <None>

Call Waiting Default

Auto Answer Auto Answer Off

Call Forward and Pickup Settings

	Voice Mail	Destination	Calling Search Space
Forward All	☐		<None>
Forward Busy	☐		<None>
Forward No Answer	☐		<None>

Done Local intranet



Cisco CallManager 3.3 Administration - Directory Number Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print

Address <http://kingon/CCMAdmin/directorynumber.asp?NumPlanMapID={7AC31A25-9819-4DCF-ABE6-2B89344E58A8}> Go Links »

Calling Search Space <None>

AAR Group <None>

User Hold Audio Source <None>

Network Hold Audio Source <None>

Call Waiting Default

Auto Answer Auto Answer Off

Call Forward and Pickup Settings

	Voice Mail	Destination	Calling Search Space
Forward All	☐		<None>
Forward Busy	☐		<None>
Forward No Answer	☐		<None>

Call Pickup Group <None>

Line Settings for this Device

	Value
Display (Internal Caller ID)	BOB DOE
External Phone Number Mask	
Message Waiting Lamp Policy	Use System Policy
Ring Setting on This Line	Use System Default
Line Text Label	

* indicates required item; changes to Line or Directory Number settings require restart.

Note:
If you are using a language other than English for Display (Internal Caller ID) or Line Text Label text, make sure the correct character set (shown below) is selected. Text displays incorrectly if the wrong character set is selected. (English characters are included in all character sets.)

Character Set Western European (Latin)

Done Local intranet

Configuring the Cisco VG200

```
VG200_E1#show running-configuration
```

```
Building configuration...
```

```
Current configuration : 1490 bytes
```

```
!
```

```
version 12.2
```

```
no parser cache
```

```
no service pad
```



```
service timestamps debug datetime msec
service timestamps log uptime
no service password-encryption
!
hostname VG200_E1
!
!
voice-card 1
!
ip subnet-zero
!
!
isdn switch-type primary-net5
!
!
!
!
!
!
no voice hpi capture buffer
no voice hpi capture destination
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server 10.10.10.10
ccm-manager config
!
controller E1 1/0
  pri-group timeslots 1-31 service mgcp
!
controller E1 1/1
!
!
interface FastEthernet0/0
  ip address 10.10.10.110 255.255.255.0
  speed auto
  full-duplex
!
interface Serial1/0:15
  no ip address
  no logging event link-status
  isdn switch-type primary-qsig
  isdn incoming-voice voice
  isdn bind-l3 ccm-manager
  no cdp enable
!
ip default-gateway 10.1.1.1
ip classless
```



```
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
no ip http server
ip pim bidir-enable
!
!
call rsvp-sync
!
voice-port 1/0:15
!
mgcp
mgcp call-agent 10.10.10.10 2427 service-type mgcp version 0.1
mgcp dtmf-relay voip codec all mode out-of-band
mgcp rtp unreachable timeout 1000 action notify
mgcp package-capability rtp-package
mgcp package-capability sst-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
!
mgcp profile default
!
dial-peer voice 1 pots
  application mgcpapp
!
dial-peer voice 9991015 pots
  application mgcpapp
  port 1/0:15
!
!
line con 0
  exec-timeout 0 0
line aux 0
line vty 0 4
  login
line vty 5 15
  login
!
end

VG200_E1#
```

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