

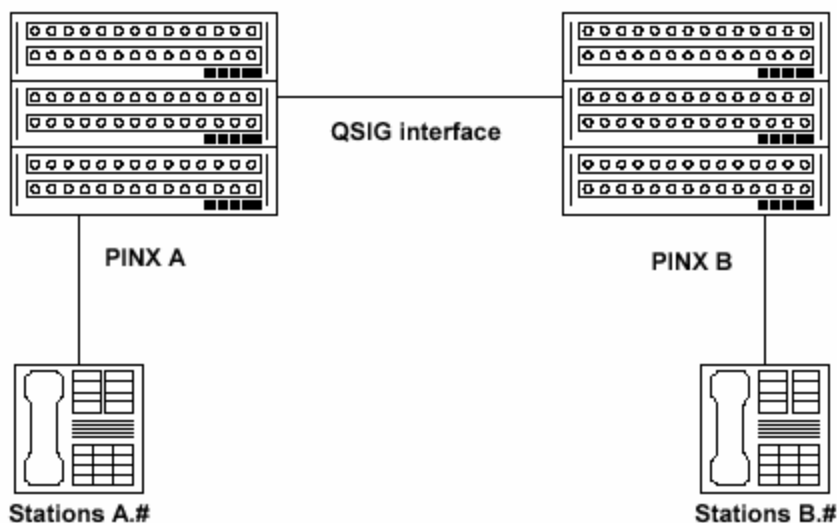
# Cisco VG200-PBX Interoperability: Siemens Hicom 330E with ISDN PRI Signaling

## 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-refa) 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	RESERVED/CONVERT		
		ANALYSIS	DNI/ADD-INFO		
		RESULT	*=OWN NODE		
001 - 002	* . . . . .	NETRTE	R		
11	. . . . . *	MBKY			
3001	. ***** ** . . . . .	STN	R		
			DESTNO	0	
			DNNO	1- 1-150*	
3007	. . . . . *	MBKY			
3007	. ***** ** . . . . .	STN	R		
			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	RESERVED/CONVERT		
		ANALYSIS	DNI/ADD-INFO		
		RESULT	*=OWN NODE		
5000 - 5007	. ***** ** . . . . .	STN	R		
			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	RESERVED/CONVERT		
		ANALYSIS	DNI/ADD-INFO		
		RESULT	*=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

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	. . . . .	* ..	LNRY
##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	. . . . .	*****	*****	** . . . . .	<b>TIE</b>
40		. . . . .	*****	*****	** . . . . .	TIE
702		. . . . .	*****	*****	** . . . . .	TIE R
9		. . . . .	*****	*****	** . . . . .	CO
*0		. *	. . . . .	. *	. . . . .	ACBK
*10		. . . . .	* . . . .	* . . . .	** . . . . .	CCMANS R

DIGIT INTERPRETATION DPLN 0

CODE	CALL PROGRESS STATE				DIGIT	RESERVED/CONVERT
	0	1	2	3		
	12345	67890	12345	67890	12	DNI/ADD-INFO
						*=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	RESERVED/CONVERT
	0	1	2	3		
	12345	67890	12345	67890	12	DNI/ADD-INFO
						*=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	RESERVED/CONVERT
	0	1	2	3		
	12345	67890	12345	67890	12	DNI/ADD-INFO
						*=OWN NODE

*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 1 11111 11112 22	DIGIT ANALYSIS	RESERVED/CONVERT 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 1 11111 11112 22	DIGIT ANALYSIS	RESERVED/CONVERT 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 1 11111 11112 22	DIGIT ANALYSIS	RESERVED/CONVERT 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	CFREMVAR CFU CFREMSE VOICE
#15	. *...* .***. .... ..	DPRIV	
#19	. ....* ..... ..	DREM	
#21	. ....* ..... ..	DFWWDVCE	
#22	. ....* ..... ..	DFWDDTE	
#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	

AMO-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	DPLN	LRTE	LAUTH
0	37	1	8		
1			9		
2			10		
3			11		
4			12		
5			13		
6			14		
7			15		

AMO-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	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
END-OF-DIAL FOR BLOCK IS SET	BLOC
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
INTERWORKING CALLBACK - NO ANSWER AND MAILBOX CALLBACK	IWCB
CONTROLLED TRUNK AND LINE SELECTION	CTLS
NO TONE	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	EOD
SPECIAL MODE	SFRM
CODE CALLING RELEASE AFTER EVERY TASK	CCR
REGISTRATION OF LAYER 3 ADVISORIES	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 TNOTCR	NOCO NOTIE	NOCO NOTIE	NOCO NOTIE	TA TNOTCR BASIC MSN CDRINT MULTRA

AMO-COSSU-162 CLASSES OF SERVICE, SWITCHING UNIT

DISPLAY COMPLETED;

<dis-cossu

TYPE = lcos

LCOS = 31;

DIS-COSSU: LCOS, 31;

H500: AMO COSSU STARTED

THE LCR CLASSMARKS ARE CONTAINED IN THE FOLLOWING LCOS:

LCOS	LCOSV	LCOSD
31	12345678901234567890123456789012	12345678901234567890123456789012
	>SERVICE INFORMATION	
	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	TGRP NAME	PRI	MAXIMUM NO.
37			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
<b>PROTVAR = PSS1V2</b>	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) |
+-----+
```

AMO-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: 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   = 1      |
| 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 = 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) |
+-----+

```

AMO-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

```

+-----+
| REFERENCE CLOCK CIRCUITS |
+-----+
| PEN      | MODULE | DEVICE | PRI | ERROR | BLOCK | SUPP. | READY |
|          |        |        |     |        |        |        | BUT   |
|          |        |        |     |        |        |        | ASYN. |
+-----+
| 1- 1- 73- 0 | DIU-N2 | S2CONN | 0   | 17575 | N     |        | N     |
+-----+

```



```

+-----+-----+-----+-----+-----+-----+-----+
AMO-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

```

AMO-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 =										
LRTEL	LVAL	TGRP	ODR	LAUTH	SCHEDULE ABCDEFGH	CARRIER ZONE	BAND WIDTH	LATTR		
1	1	37	1	1	*****	1 EMPTY	1	NONE		

```

AMO-LDAT -162      LCR-DIRECTIONS
DISPLAY COMPLETED;

```





## RICHT

<dis-richt

MODE = lrte

LRTE = 37;

DIS-RICHT:LRTE,37;

H500: AMO RICHT STARTED

```

+-----+
| 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 |
+-----+

```

AMO-RICHT-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-sbcsu

STNO = 5000

TYPE = termdata



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

```

----- USER DATA -----
STNO   =5000   OPT    =OPTI   COS1   =7     DPLN   =0     SPDI   =Y
MAINO  =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*	



AMO-PERSI-83

PERSONAL IDENTIFICATION DATA

DISPLAY COMPLETED;

## Configuring Cisco CallManager

### 6608-E1 Gateway Configuration

The screenshot shows the Cisco CallManager 3.3 Administration interface for Gateway Configuration. The browser window title is "Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer". The address bar shows the URL: <http://klingon/CCMAdmin/gatewayconfig.asp?pkid={0A44992F-90D3-4798-A3FB-2E87255CC7ED}&type=2>. The page header includes the Cisco CallManager Administration logo and the Cisco Systems logo. The main heading is "Gateway Configuration" with a link to "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

Update Delete Reset Gateway

**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
--------------------	-----------------



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/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
<input checked="" type="checkbox"/> Inhibit restarts at PRI initialization	
<input type="checkbox"/> 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

Clock Reference*	<input type="text" value="Network"/>
Framing*	<input type="text" value="CRC4"/>
Audio Signal Adjustment into IP Network*	<input type="text" value="NoDbPadding"/>
Audio Signal Adjustment from IP Network*	<input type="text" value="NoDbPadding"/>
Zero Suppression*	<input type="text" value="HDB3"/>
Digit On Duration(50-500ms)*	<input type="text" value="100"/>
Interdigit Duration(50-500msec)*	<input type="text" value="100"/>
Adaptive Gain Control Enable*	<input checked="" type="checkbox"/>
SNMP Community String	<input type="text" value="public"/>

### Fax Parameters

Fax Relay Enable*	<input checked="" type="checkbox"/>
Fax Error Correction Mode Override*	<input checked="" type="checkbox"/>

Done Local intranet



## Cisco VG200 E1 Gateway Configuration

The screenshot displays the Cisco CallManager 3.3 Administration interface for Gateway Configuration. The browser window title is "Cisco CallManager 3.3 Administration - Gateway Configuration - Microsoft Internet Explorer". The address bar shows the URL: `http://klington/CCMAdmin/mgcpconfig.asp?IMGCP={1594632D-B905-43A5-B5C0-0091C305E953}`. The navigation menu includes System, Route Plan, Service, Feature, Device, User, Application, and Help. The main header features the Cisco CallManager Administration logo and the Cisco Systems logo.

### Gateway Configuration

[Back to Find/List Gateways](#)

**Product: Cisco VG200**  
**MGCP : VG200\_E1**

Status: Ready

Update Delete Reset Gateway

Domain Name\*

Description

Cisco CallManager Group\*

Installed Voice Interface Cards		Endpoint Identifiers	
Module in Slot	<input type="text" value="NM-HDV"/>		
Subunit	<input type="text" value="VWIC-2MFT-E1"/>	(1/0)	(1/1)

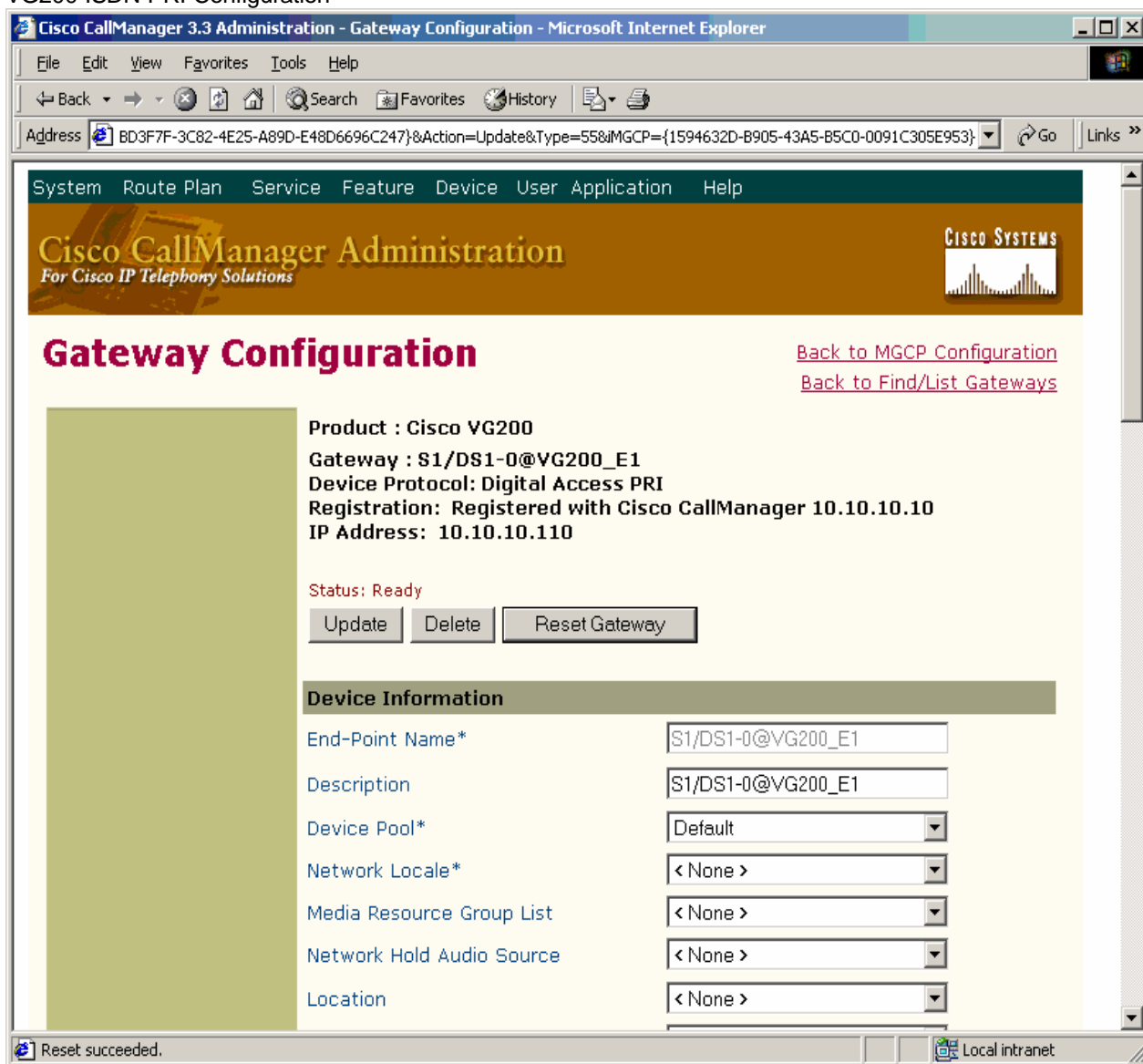
#### Product Specific Configuration

Global ISDN Switch Type

Switchback Timing\*



## 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

CISCO SYSTEMS

## 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*	<input type="text" value="S1/DS1-0@VG200_E1"/>
Description	<input type="text" value="S1/DS1-0@VG200_E1"/>
Device Pool*	<input type="text" value="Default"/>
Network Locale*	<input type="text" value="&lt; None &gt;"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
Network Hold Audio Source	<input type="text" value="&lt; None &gt;"/>
Location	<input type="text" value="&lt; None &gt;"/>

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

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\*\*

**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

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

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*	<input type="text" value="7.XXXX"/>
Partition	< None >
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Gateway/Route List*	S1/DS1-0@VG200_E1 (Edit)
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> 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 Service Parameter Name Service Parameter Value

- Not Selected - < Not Exist >

\* indicates required item.

Done Local intranet



## Enbloc Sending Route Pattern for 6608\_E1

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

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

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	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> 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

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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
<input type="text" value="-- Not Selected --"/>	<input type="text" value="&lt; Not Exist &gt;"/>	<input type="text"/>

\* indicates required item.

Local intranet



## Overlap Sending Route Pattern for 6608\_E1

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

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

System Route Plan Service Feature Device User Application Help

### Cisco CallManager Administration

For Cisco IP Telephony Solutions

CISCO SYSTEMS

## 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*	<input type="text" value="9.X"/>
Partition	< None >
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
Gateway/Route List*	S0/DS1-0@SDA000164122280 (Edit)
Route Option	<input checked="" type="radio"/> Route this pattern <input type="radio"/> Block this pattern
<input checked="" type="checkbox"/> Provide Outside Dial Tone	<input type="checkbox"/> Urgent Priority

#### Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask	<input type="text"/>
Prefix Digits (Outgoing Calls)	<input type="text"/>
Calling Party Presentation	Default

#### Called Party Transformations

Discard Digits	PreDot
Called Party Transform Mask	<input type="text"/>

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
<input type="text" value="-- Not Selected --"/>	<input type="text" value="&lt; Not Exist &gt;"/>	<input type="text"/>

\* indicates required item.

Local intranet



## 7960 IP phone Configuration

The screenshot shows the Cisco CallManager Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: `http://klingon/CCMAdmin/phoneconfig.asp?pkid={65F9F760-6270-438B-8328-5D14DF805017}`. The page title is "Cisco CallManager Administration - Phone Configuration".

The main navigation menu includes: System, Route Plan, Service, Feature, Device, User, Application, Help.

The page header features the Cisco CallManager Administration logo and the Cisco Systems logo.

### Phone Configuration

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

**Directory Numbers**

**Base Phone**

- 7718 7719 Line 1 - 2000
- 7718 7719 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

**Phone Configuration (Model = Cisco 7960)**

**Device Information**

MAC Address*	<input type="text" value="00024BCCE045"/>
Description	<input type="text" value="Auto 2000"/>
Device Pool*	<input type="text" value="Default"/> <a href="#">(View details)</a>
Calling Search Space	<input type="text" value="&lt; None &gt;"/>
AAR Calling Search Space	<input type="text" value="&lt; None &gt;"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
User Hold Audio Source	<input type="text" value="&lt; None &gt;"/>
Network Hold Audio Source	<input type="text" value="&lt; None &gt;"/>
Location	<input type="text" value="&lt; None &gt;"/>
User Locale	<input type="text" value="English United States"/>
Network Locale	<input type="text" value="United States"/>
Consecutive Ring Setting	<input type="text" value="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

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

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

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

Address: http://klingon/CCMAdmin/directorynumber.asp?NumPlanMapID={7AC31A25-9819-4DCF-ABE6-2B89344E58A8}

System Route Plan Service Feature Device User Application Help

# Cisco CallManager Administration

For Cisco IP Telephony Solutions

CISCO SYSTEMS

## Directory Number Configuration

[Configure Device \(SEP00024BCCE045\)](#)

**Devices using this Directory Number**

- SEP00024BCCE045 (Line 1) 7960

**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	<input type="checkbox"/>		<None>
Forward Busy	<input type="checkbox"/>		<None>
Forward No Answer	<input type="checkbox"/>		<None>

Done Local intranet



The screenshot shows the Cisco CallManager 3.3 Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: `http://klingon/CCMAdmin/directorynumber.asp?NumPlanMapID={7AC31A25-9819-4DCF-ABE6-2B89344E58A8}`. The page content is as follows:

- 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	<input type="checkbox"/>	<input type="text"/>	< None >
Forward Busy	<input type="checkbox"/>	<input type="text"/>	< None >
Forward No Answer	<input type="checkbox"/>	<input type="text"/>	< None >

Call Pickup Group: < None >

**Line Settings for this Device**

	Value
Display (Internal Caller ID)	BOB DOE
External Phone Number Mask	<input type="text"/>
Message Waiting Lamp Policy	Use System Policy
Ring Setting on This Line	Use System Default
Line Text Label	<input type="text"/>

\* 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)

## 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-13 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#
```

### Important Information

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