



Cisco 7206 Series Router-PBX Interoperability: Ericsson MD-110 PBX and VXC-2TE1+ Port Adapter Card with E1 ISDN PRI Signaling

This document describes the interoperability and configuration of a Cisco 7200 series router with an Ericsson MD-110 PBX using E1 ISDN PRI signaling. It includes the following sections:

- System Components
- Configuration Tasks
- Caveats

System Components

PBX Model	Ericsson MD-110
PBX Release	ASB50104-R6-SES-R9-BC90D/CNI80
Telephony Signaling	E1 ISDN PRI
Voice Gateway	Cisco 7206 Series Routers
Gateway Release	Cisco IOS™ (C7200-JS-M), Version 12.2(1)
VoX Protocol	H.323

Configuration Tasks

See the following sections for configuration tasks for this feature:

- Set Up
- Ericsson MD-110 PBX Configuration
- Cisco 7206 Series Router Configuration

Set Up

This section includes the following information:

- Connectivity Diagrams
- Set Up Notes

Connectivity Diagrams

Figure 1: Test Configuration

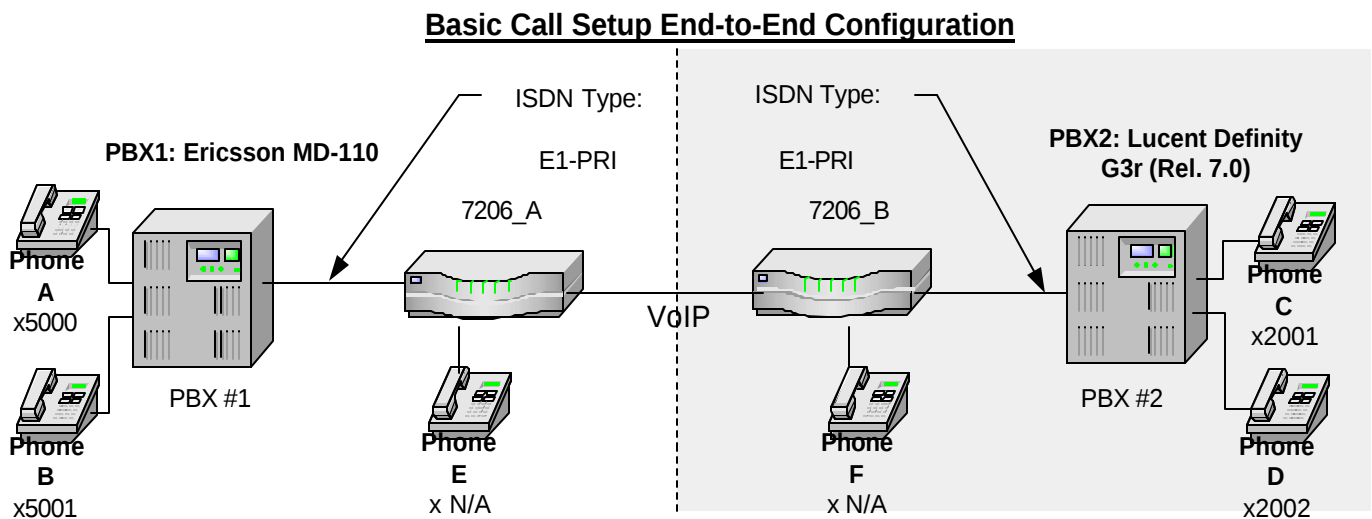


Figure 1 represents the configuration used for testing: an Ericsson MD-110 PBX was connected via an ISDN E1 PRI link to a Cisco 7206 series router.

Set Up Notes

- The Cisco 7206 series router with ISDN switch type setting of **primary-net5** supports both protocol sides by using the “**isdn protocol-emulate network/user**” command.
- Configuring the Ericsson operation to be Master (or Network) side sets the Layers 2 & 3 protocol side setting to master as well. Therefore, the Cisco 7206_A router should be set to Slave protocol side by issuing the command: “**isdn protocol-emulate user**”.
- Similarly, if the Ericsson operation is set for Slave (or user) side, layers 2 & 3 protocol side are set for slave side. The Cisco 7206_A router is set to Master protocol side by issuing the command: “**isdn protocol-emulate network**”.
- The Ericsson MD-110 supports both “**USER**” (peer-slave) and “**NETWORK**” (peer-master) protocol sides by using **RODAI** command.
- The Ericsson MD-110 uses a command line interface where many switch features are changed with a single command. The PBX documentation must be consulted to make changes. Physical layer parameters (along with many other features) are controlled by using **RODAI** command.

Ericsson MD-110 PBX Configuration

Ericsson MD-110 PBX Version Information

- Software: Version ASB50104-R6-SES-R9-BC90D/CNI80
- Hardware: MD-110.

Ericsson MD-110 PBX Sample Configuration

Use the following sample configuration to configure the Ericsson MD-110 PBX.

Note: The Ericsson MD-110 PBX user interface is very cryptic. All parameters and options are mapped to position-dependent numeric fields within the various commands listed below. The user must have the correct revision of the Ericsson MD-110 PBX Administration manual to be able to decipher each field position to determine its meaning. Therefore, it is advised not to make changes to an Ericsson MD-110 PBX unless you experienced in such. A single number out of place in a command string can cause unusual behavior on the PBX.

```
-----Ericsson PBX switch version-----
< CADAP;
CALENDAR DATA

IDENTITY=CISCO-SYSTEMS
VERSION=ASB50104-R6-SES-R9-BC90D/CNI80

CALENDAR TIME NOT VALID
03:32:31
TUE 15 MAY 2001
END

-----Class of Service and Class of Restriction-----

Route Information- Note PRI uses Route 9

< RODDP:DEST=ALL;
EXTERNAL DESTINATION ROUTE DATA

DEST  DRN  ROU  CHO  CUST  ADC                      TRC  SRT  NUMACK  PRE
2      9      1005000000000025000 0    1    0
30     1      1005000000000025000 0    3    0
31     2      1005000000000025000 0    3    0
32     3      1005000000000025000 0    3    0
33     4      1005000000000025000 0    3    0
34     5      1005000000000025000 0    3    0
35     6      0005000000000025000 0    3    0
36     7      0005000000000025000 0    3    0
37     8      0005000000000025000 0    3    0
39     10     1005000000000025000 0    3    0
40     11     1005000000000025000 0    3    0

END

-----E1-PRI D-channel Signaling parameters-----

Route Category Data

< ROCAP:ROU=9;
ROUTE CATEGORY DATA
```

```

ROU SEL          TRM SERV          NODG DIST DISL TRAF          SIG          BCAP
9   711000000000 7   3110000010 0   5   20   03151515 211100000031 111111

```

END

-----E1-PRI B-channel physical parameters-----

< ROEDP:ROU=9, TRU=ALL;
ROUTE EQUIPMENT DATA

ROU	TRU	EQU	SQU	INDDAT
9	001-1	001-1-40-01		H'000000000000
9	001-2	001-1-40-02		H'000000000000
9	001-3	001-1-40-03		H'000000000000
9	001-4	001-1-40-04		H'000000000000
9	001-5	001-1-40-05		H'000000000000
9	001-6	001-1-40-06		H'000000000000
9	001-7	001-1-40-07		H'000000000000
9	001-8	001-1-40-08		H'000000000000
9	001-9	001-1-40-09		H'000000000000
9	001-10	001-1-40-10		H'000000000000
9	001-11	001-1-40-11		H'000000000000
9	001-12	001-1-40-12		H'000000000000
9	001-13	001-1-40-13		H'000000000000
9	001-14	001-1-40-14		H'000000000000
9	001-15	001-1-40-15		H'000000000000
9	001-17	001-1-40-17		H'000000000000
9	001-18	001-1-40-18		H'000000000000
9	001-19	001-1-40-19		H'000000000000
9	001-20	001-1-40-20		H'000000000000
9	001-21	001-1-40-21		H'000000000000
9	001-22	001-1-40-22		H'000000000000
9	001-23	001-1-40-23		H'000000000000
9	001-24	001-1-40-24		H'000000000000
9	001-25	001-1-40-25		H'000000000000
9	001-26	001-1-40-26		H'000000000000
9	001-27	001-1-40-27		H'000000000000
9	001-28	001-1-40-28		H'000000000000
9	001-29	001-1-40-29		H'000000000000
9	001-30	001-1-40-30		H'000000000000
9	001-31	001-1-40-31		H'000000000000

END

-----E1-PRI Trunk status-----

< SUSIP:ROU=9, TRU=ALL;
STATUS INFORMATION AT 00:00:00 01JAN00

ROU	TRU	TYPE	TRAFFIC	STATE/PTR	LINE	STATE/PTR	ADD INFO
9	001-1	TL60	IDLE	#009B	FREE	#0061	
9	001-2	TL60	IDLE	#009A	FREE	#0060	
9	001-3	TL60	IDLE	#0099	FREE	#005F	
9	001-4	TL60	IDLE	#0098	FREE	#005E	
9	001-5	TL60	IDLE	#0097	FREE	#005D	
9	001-6	TL60	IDLE	#0096	FREE	#005C	
9	001-7	TL60	IDLE	#0095	FREE	#005B	
9	001-8	TL60	IDLE	#0094	FREE	#005A	
9	001-9	TL60	IDLE	#0093	FREE	#0059	
9	001-10	TL60	IDLE	#0092	FREE	#0058	
9	001-11	TL60	IDLE	#0091	FREE	#0057	
9	001-12	TL60	IDLE	#0090	FREE	#0056	
9	001-13	TL60	IDLE	#008F	FREE	#0055	

```

9      001-14  TL60  IDLE      #008E  FREE      #0054
9      001-15  TL60  IDLE      #008D  FREE      #0053
9      001-17  TL60  IDLE      #007D  FREE      #0070
9      001-18  TL60  IDLE      #007C  FREE      #006F
9      001-19  TL60  IDLE      #007B  FREE      #006E
9      001-20  TL60  IDLE      #007A  FREE      #006D
9      001-21  TL60  IDLE      #0079  FREE      #006C
9      001-22  TL60  IDLE      #0078  FREE      #006B
9      001-23  TL60  IDLE      #0077  FREE      #006A
9      001-24  TL60  IDLE      #0076  FREE      #0069
9      001-25  TL60  IDLE      #0075  FREE      #0068
9      001-26  TL60  IDLE      #0074  FREE      #0067
9      001-27  TL60  IDLE      #0073  FREE      #0066
9      001-28  TL60  IDLE      #0072  FREE      #0065
9      001-29  TL60  IDLE      #0071  FREE      #0064
9      001-30  TL60  IDLE      #0070  FREE      #0063
9      001-31  TL60  IDLE      #006F  FREE      #0062
END

```

-----Telephone COS, Restrictions, Naming conventions, etc.-----

```

< KSCAP:DIR=ALL;
KEY SYSTEM CATEGORY PRINT

```

DIR	TRAF	SERV	CDIV	ROC	ITYPE	TRM	ADC
5000	03151515	02001207	011151111	7237	21	1	00100013010
5001	03151515	02001207	011151111	7237	21	1	00100013010
5002	03151515	02001207	011151111	7237	21	1	00100013010
5003	03151515	02001207	011151111	7237	21	1	00100013010
5006	03151515	02001207	011151111	7237	21	1	00100013010
5007	03151515	02001207	011151111	7237	21	1	00100013010

END

-----Telephone Key Mapping Table-----

```

< KSFKP:DIR=ALL;
KEY SYSTEM FUNCTION KEY DATA PRINT

```

DIR = 5000

KEY	KTYPE	VALUE	DIG
00	PGM		
01	FCN	TNS	
02	FCN	TNS	
03	FCN	CNF	
04	SKI	F1	
05	SKI	F2	
06	SKI	F3	
07	SKI	F4	
08	SKI	MENU	
09	ODN	5000	
10	ODN	5000	
11	ODN	5000	
13	FCN	TNS	
14	FCN	CAD	
15	FCN	TNS	
16	FCN	TNS	
17	FCN	TNS	
18	FCN	TNS	
19	FCN	TNS	
20	FCN	TNS	
21	FCN	TNS	
22	FCN	TNS	
23	FCN	TNS	

24	FCN	TNS
25	FCN	TNS
26	FCN	TNS
27	FCN	TNS
28	FCN	TNS
29	FCN	TNS
30	FCN	TNS
31	FCN	TNS
32	FCN	TNS
33	FCN	TNS
34	FCN	TNS
35	FCN	TNS
36	FCN	TNS
37	FCN	TNS
38	FCN	TNS
39	FCN	TNS
40	FCN	TNS

DIR = 5001

KEY	KTYPE	VALUE	DIG
00	PGM		
01	FCN	TNS	
02	FCN	TNS	
03	FCN	CNF	
04	SKI	F1	
05	SKI	F2	
06	SKI	F3	
07	SKI	F4	
08	SKI	MENU	
09	ODN	5001	
10	ODN	5001	
11	ODN	5001	
13	FCN	TNS	
14	FCN	CAD	
15	FCN	TNS	
16	FCN	TNS	
17	FCN	TNS	
18	FCN	TNS	
19	FCN	TNS	
20	FCN	TNS	
21	FCN	TNS	
22	FCN	TNS	
23	FCN	TNS	
24	FCN	TNS	
25	FCN	TNS	
26	FCN	TNS	
27	FCN	TNS	
28	FCN	TNS	
29	FCN	TNS	
30	FCN	TNS	
31	FCN	TNS	
32	FCN	TNS	
33	FCN	TNS	
34	FCN	TNS	
35	FCN	TNS	
36	FCN	TNS	
37	FCN	TNS	
38	FCN	TNS	
39	FCN	TNS	
40	FCN	TNS	

DIR = 5002

KEY	KTYPE	VALUE	DIG
00	PGM		
01	FCN	TNS	
02	FCN	TNS	
03	FCN	CNF	
04	SKI	F1	
05	SKI	F2	
06	SKI	F3	
07	SKI	F4	
08	SKI	MENU	
09	ODN	5002	
10	ODN	5002	
11	ODN	5002	
13	FCN	TNS	
14	FCN	CAD	
15	FCN	TNS	
16	FCN	TNS	
17	FCN	TNS	
18	FCN	TNS	
19	FCN	TNS	
20	FCN	TNS	
21	FCN	TNS	
22	FCN	TNS	
23	FCN	TNS	
24	FCN	TNS	
25	FCN	TNS	
26	FCN	TNS	
27	FCN	TNS	
28	FCN	TNS	
29	FCN	TNS	
30	FCN	TNS	
31	FCN	TNS	
32	FCN	TNS	
33	FCN	TNS	
34	FCN	TNS	
35	FCN	TNS	
36	FCN	TNS	
37	FCN	TNS	
38	FCN	TNS	
39	FCN	TNS	
40	FCN	TNS	

END

-----E1-PRI Route Data Blk, protocol side "User"-----

< RODAP:ROU=9;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
9	SL60	H'00000010	H'05400000	H'06110000	NO

END

-----E1-PRI Route Data Blk, protocol side "Network"-----

< RODAP:ROU=9;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
9	SL60	H'00000010	H'05400000	H'06310000	NO

END

-----List of board/equipment in MD-110 PBX-----

< SYEDP:LIM=1;

SYSTEM EQUIPMENT DATA

EQU	BOARDID	TYPE	DIR	ROU/TRU
001-0-00-00	71	SL 63		1/001-01
001-0-00-01	71	SL 63		1/001-02
001-0-00-02	71	SL 63		1/001-03
001-0-00-03	71	SL 63		1/001-04
001-0-00-04	71	SL 63		1/001-05
001-0-00-05	71	SL 63		1/001-06
001-0-00-06	71	SL 63		1/001-07
001-0-00-07	71	SL 63		1/001-08
001-0-00-08	71	SL 63		1/001-09
001-0-00-09	71	SL 63		1/001-10
001-0-00-10	71	SL 63		1/001-11
001-0-00-11	71	SL 63		1/001-12
001-0-00-12	71	SL 63		1/001-13
001-0-00-13	71	SL 63		1/001-14
001-0-00-14	71	SL 63		1/001-15
001-0-00-15	71	SL 63		1/001-16
001-0-00-16	71	SL 63		1/001-17
001-0-00-17	71	SL 63		1/001-18
001-0-00-18	71	SL 63		1/001-19
001-0-00-19	71	SL 63		1/001-20
001-0-00-20	71	SL 63		1/001-21
001-0-00-21	71	SL 63		1/001-22
001-0-00-22	71	SL 63		1/001-23
001-0-00-23	71	-		
001-0-10-00	102	AD 0		
001-0-10-01	102	AD 0		
001-0-10-02	102	AD 0		
001-0-10-03	102	AD 0		
001-0-10-04	102	AD 0		
001-0-10-05	102	AD 0		
001-0-10-06	102	AD 0		
001-0-10-07	102	AD 0		
001-0-10-08	102	AD 0		
001-0-10-09	102	AD 0		
001-0-10-10	102	AD 0		
001-0-10-11	102	AD 0		
001-0-10-12	102	AD 0		
001-0-10-13	102	AD 0		
001-0-10-14	102	AD 0		
001-0-10-15	102	AD 0		
001-0-10-16	102	AD 0		
001-0-10-17	102	AD 0		
001-0-10-18	102	AD 0		
001-0-10-19	102	AD 0		
001-0-10-20	102	AD 0		
001-0-10-21	102	AD 0		
001-0-10-22	102	AD 0		
001-0-10-23	102	AD 0		
001-0-10-24	102	AD 0		
001-0-10-25	102	AD 0		
001-0-10-26	102	AD 0		
001-0-10-27	102	AD 0		
001-0-10-28	102	AD 0		
001-0-10-29	102	AD 0		
001-0-10-30	102	AD 0		
001-0-10-31	102	AD 0		

001-0-20-00	71	SL 63	2/001-01
001-0-20-01	71	SL 63	2/001-02
001-0-20-02	71	SL 63	2/001-03
001-0-20-03	71	SL 63	2/001-04
001-0-20-04	71	SL 63	2/001-05
001-0-20-05	71	SL 63	2/001-06
001-0-20-06	71	SL 63	2/001-07
001-0-20-07	71	SL 63	2/001-08
001-0-20-08	71	SL 63	2/001-09
001-0-20-09	71	SL 63	2/001-10
001-0-20-10	71	SL 63	2/001-11
001-0-20-11	71	SL 63	2/001-12
001-0-20-12	71	SL 63	2/001-13
001-0-20-13	71	SL 63	2/001-14
001-0-20-14	71	SL 63	2/001-15
001-0-20-15	71	SL 63	2/001-16
001-0-20-16	71	SL 63	2/001-17
001-0-20-17	71	SL 63	2/001-18
001-0-20-18	71	SL 63	2/001-19
001-0-20-19	71	SL 63	2/001-20
001-0-20-20	71	SL 63	2/001-21
001-0-20-21	71	SL 63	2/001-22
001-0-20-22	71	SL 63	2/001-23
001-0-20-23	71	-	
001-0-30-00	71	SL 63	3/001-01
001-0-30-01	71	SL 63	3/001-02
001-0-30-02	71	SL 63	3/001-03
001-0-30-03	71	SL 63	3/001-04
001-0-30-04	71	SL 63	3/001-05
001-0-30-05	71	SL 63	3/001-06
001-0-30-06	71	SL 63	3/001-07
001-0-30-07	71	SL 63	3/001-08
001-0-30-08	71	SL 63	3/001-09
001-0-30-09	71	SL 63	3/001-10
001-0-30-10	71	SL 63	3/001-11
001-0-30-11	71	SL 63	3/001-12
001-0-30-12	71	SL 63	3/001-13
001-0-30-13	71	SL 63	3/001-14
001-0-30-14	71	SL 63	3/001-15
001-0-30-15	71	SL 63	3/001-16
001-0-30-16	71	SL 63	3/001-17
001-0-30-17	71	SL 63	3/001-18
001-0-30-18	71	SL 63	3/001-19
001-0-30-19	71	SL 63	3/001-20
001-0-30-20	71	SL 63	3/001-21
001-0-30-21	71	SL 63	3/001-22
001-0-30-22	71	SL 63	3/001-23
001-0-30-23	71	-	
001-0-40-00	52	TL 45	4/001-01
001-0-40-01	52	TL 45	4/001-02
001-0-40-02	52	TL 45	4/001-03
001-0-40-03	52	TL 45	4/001-04
001-0-40-04	52	TL 45	4/001-05
001-0-40-05	52	TL 45	4/001-06
001-0-40-06	52	TL 45	4/001-07
001-0-40-07	52	TL 45	4/001-08
001-0-40-08	52	TL 45	4/001-09
001-0-40-09	52	TL 45	4/001-10
001-0-40-10	52	TL 45	4/001-11
001-0-40-11	52	TL 45	4/001-12
001-0-40-12	52	TL 45	4/001-13
001-0-40-13	52	TL 45	4/001-14
001-0-40-14	52	TL 45	4/001-15
001-0-40-15	52	TL 45	4/001-16
001-0-40-16	52	TL 45	4/001-17
001-0-40-17	52	TL 45	4/001-18

001-0-40-18	52	TL 45		4/001-19
001-0-40-19	52	TL 45		4/001-20
001-0-40-20	52	TL 45		4/001-21
001-0-40-21	52	TL 45		4/001-22
001-0-40-22	52	TL 45		4/001-23
001-0-40-23	52	TL 45		4/001-24
001-0-50-00	31	OL 1	5011	
001-0-60-00	69	-		
001-0-60-01	69	-		
001-0-60-02	69	-		
001-0-60-03	69	-		
001-0-70-00	42	-		
001-0-70-01	42	-		
001-0-70-02	42	-		
001-0-70-03	42	-		
001-0-70-04	42	-		
001-0-70-05	42	-		
001-0-70-06	42	-		
001-0-70-07	42	-		
001-0-70-08	42	-		
001-0-70-09	42	-		
001-0-70-10	42	-		
001-0-70-11	42	-		
001-0-70-12	42	-		
001-0-70-13	42	-		
001-0-70-14	42	-		
001-0-70-15	42	-		
001-0-70-16	42	-		
001-0-70-17	42	-		
001-0-70-18	42	-		
001-0-70-19	42	-		
001-0-70-20	42	-		
001-0-70-21	42	-		
001-0-70-22	42	-		
001-0-70-23	42	-		
001-0-70-24	42	-		
001-0-70-25	42	-		
001-0-70-26	42	-		
001-0-70-27	42	-		
001-0-70-28	42	-		
001-0-70-29	42	-		
001-0-70-30	42	-		
001-0-70-31	42	-		
001-1-00-00	52	TL 45		5/001-01
001-1-00-01	52	TL 45		5/001-02
001-1-00-02	52	TL 45		5/001-03
001-1-00-03	52	TL 45		5/001-04
001-1-00-04	52	TL 45		5/001-05
001-1-00-05	52	TL 45		5/001-06
001-1-00-06	52	TL 45		5/001-07
001-1-00-07	52	TL 45		5/001-08
001-1-00-08	52	TL 45		5/001-09
001-1-00-09	52	TL 45		5/001-10
001-1-00-10	52	TL 45		5/001-11
001-1-00-11	52	TL 45		5/001-12
001-1-00-12	52	TL 45		5/001-13
001-1-00-13	52	TL 45		5/001-14
001-1-00-14	52	TL 45		5/001-15
001-1-00-15	52	TL 45		5/001-16
001-1-00-16	52	TL 45		5/001-17
001-1-00-17	52	TL 45		5/001-18
001-1-00-18	52	TL 45		5/001-19
001-1-00-19	52	TL 45		5/001-20
001-1-00-20	52	TL 45		5/001-21
001-1-00-21	52	TL 45		5/001-22
001-1-00-22	52	TL 45		5/001-23

001-1-00-23	52	TL 45	5/001-24
001-1-10-00	102	AD 0	
001-1-10-01	102	AD 0	
001-1-10-02	102	AD 0	
001-1-10-03	102	AD 0	
001-1-10-04	102	AD 0	
001-1-10-05	102	AD 0	
001-1-10-06	102	AD 0	
001-1-10-07	102	AD 0	
001-1-10-08	102	AD 0	
001-1-10-09	102	AD 0	
001-1-10-10	102	AD 0	
001-1-10-11	102	AD 0	
001-1-10-12	102	AD 0	
001-1-10-13	102	AD 0	
001-1-10-14	102	AD 0	
001-1-10-15	102	AD 0	
001-1-10-16	102	AD 0	
001-1-10-17	102	AD 0	
001-1-10-18	102	AD 0	
001-1-10-19	102	AD 0	
001-1-10-20	102	AD 0	
001-1-10-21	102	AD 0	
001-1-10-22	102	AD 0	
001-1-10-23	102	AD 0	
001-1-10-24	102	AD 0	
001-1-10-25	102	AD 0	
001-1-10-26	102	AD 0	
001-1-10-27	102	AD 0	
001-1-10-28	102	AD 0	
001-1-10-29	102	AD 0	
001-1-10-30	102	AD 0	
001-1-10-31	102	AD 0	
001-1-20-00	77	KL 1	5000
001-1-20-01	77	KL 1	5001
001-1-20-02	77	KL 1	5002
001-1-20-03	77	KL 1	5003
001-1-20-04	77	KL 1	5006
001-1-20-05	77	KL 1	5007
001-1-22-00	87	EL 6	5004
001-1-22-01	87	EL 6	5005
001-1-30-00	27	-	
001-1-30-01	27	TL 30	11/001-01
001-1-30-02	27	TL 30	11/001-02
001-1-30-03	27	TL 30	11/001-03
001-1-30-04	27	TL 30	11/001-04
001-1-30-05	27	TL 30	11/001-05
001-1-30-06	27	TL 30	11/001-06
001-1-30-07	27	TL 30	11/001-07
001-1-30-08	27	TL 30	11/001-08
001-1-30-09	27	TL 30	11/001-09
001-1-30-10	27	TL 30	11/001-10
001-1-30-11	27	TL 30	11/001-11
001-1-30-12	27	TL 30	11/001-12
001-1-30-13	27	TL 30	11/001-13
001-1-30-14	27	TL 30	11/001-14
001-1-30-15	27	TL 30	11/001-15
001-1-30-17	27	TL 30	11/001-16
001-1-30-18	27	TL 30	11/001-17
001-1-30-19	27	TL 30	11/001-18
001-1-30-20	27	TL 30	11/001-19
001-1-30-21	27	TL 30	11/001-20
001-1-30-22	27	TL 30	11/001-21
001-1-30-23	27	TL 30	11/001-22
001-1-30-24	27	TL 30	11/001-23
001-1-30-25	27	TL 30	11/001-24

001-1-30-26	27	TL 30	11/001-25
001-1-30-27	27	TL 30	11/001-26
001-1-30-28	27	TL 30	11/001-27
001-1-30-29	27	TL 30	11/001-28
001-1-30-30	27	TL 30	11/001-29
001-1-30-31	27	TL 30	11/001-30
001-1-40-00	57	-	
001-1-40-01	57	SL 60	9/001-01
001-1-40-02	57	SL 60	9/001-02
001-1-40-03	57	SL 60	9/001-03
001-1-40-04	57	SL 60	9/001-04
001-1-40-05	57	SL 60	9/001-05
001-1-40-06	57	SL 60	9/001-06
001-1-40-07	57	SL 60	9/001-07
001-1-40-08	57	SL 60	9/001-08
001-1-40-09	57	SL 60	9/001-09
001-1-40-10	57	SL 60	9/001-10
001-1-40-11	57	SL 60	9/001-11
001-1-40-12	57	SL 60	9/001-12
001-1-40-13	57	SL 60	9/001-13
001-1-40-14	57	SL 60	9/001-14
001-1-40-15	57	SL 60	9/001-15
001-1-40-17	57	SL 60	9/001-17
001-1-40-18	57	SL 60	9/001-18
001-1-40-19	57	SL 60	9/001-19
001-1-40-20	57	SL 60	9/001-20
001-1-40-21	57	SL 60	9/001-21
001-1-40-22	57	SL 60	9/001-22
001-1-40-23	57	SL 60	9/001-23
001-1-40-24	57	SL 60	9/001-24
001-1-40-25	57	SL 60	9/001-25
001-1-40-26	57	SL 60	9/001-26
001-1-40-27	57	SL 60	9/001-27
001-1-40-28	57	SL 60	9/001-28
001-1-40-29	57	SL 60	9/001-29
001-1-40-30	57	SL 60	9/001-30
001-1-40-31	57	SL 60	9/001-31
001-1-50-00	57	-	
001-1-50-01	57	SL 60	10/001-01
001-1-50-02	57	SL 60	10/001-02
001-1-50-03	57	SL 60	10/001-03
001-1-50-04	57	SL 60	10/001-04
001-1-50-05	57	SL 60	10/001-05
001-1-50-06	57	SL 60	10/001-06
001-1-50-07	57	SL 60	10/001-07
001-1-50-08	57	SL 60	10/001-08
001-1-50-09	57	SL 60	10/001-09
001-1-50-10	57	SL 60	10/001-10
001-1-50-11	57	SL 60	10/001-11
001-1-50-12	57	SL 60	10/001-12
001-1-50-13	57	SL 60	10/001-13
001-1-50-14	57	SL 60	10/001-14
001-1-50-15	57	SL 60	10/001-15
001-1-50-17	57	SL 60	10/001-17
001-1-50-18	57	SL 60	10/001-18
001-1-50-19	57	SL 60	10/001-19
001-1-50-20	57	SL 60	10/001-20
001-1-50-21	57	SL 60	10/001-21
001-1-50-22	57	SL 60	10/001-22
001-1-50-23	57	SL 60	10/001-23
001-1-50-24	57	SL 60	10/001-24
001-1-50-25	57	SL 60	10/001-25
001-1-50-26	57	SL 60	10/001-26
001-1-50-27	57	SL 60	10/001-27
001-1-50-28	57	SL 60	10/001-28
001-1-50-29	57	SL 60	10/001-29

001-1-50-30	57	SL 60	10/001-30
001-1-50-31	57	SL 60	10/001-31
001-1-60-00	7	TL 1	7/001-01
001-1-60-01	7	TL 1	7/001-02
001-1-60-02	7	TL 1	7/001-03
001-1-60-03	7	TL 1	7/001-04
001-1-62-00	8	TL 12	6/001-01
001-1-62-01	8	TL 12	6/001-02
001-1-62-02	8	TL 12	6/001-03
001-1-62-03	8	TL 12	6/001-04
001-1-63-00	26	TL 22	8/001-01
001-1-63-01	26	TL 22	8/001-02
001-1-63-02	26	TL 22	8/001-03

END

Cisco 7206 Series Router Configuration

The following is the configuration of the Cisco 7206 series router connected to the Lucent Definity G3r PBX E1 ISDN PRI interface.

Cisco 7206 Series Router Version Information

- Cisco IOS™ (C7200-JS-M), Version 12.2(1).
- Cisco 7206VXR (NPE300) processor (revision D) with 122880K/40960K bytes of memory.

Cisco 7206 Series Router Sample Configuration

The following is the configuration of the Cisco 7206 series router directly connected to an Ericsson MD-110 PBX ISDN PRI interface.

```
7206VXR#sh ver
Cisco Internetwork Operating System Software
IOS (tm) 7200 Software (C7200-JS-M), Version 12.2(1), RELEASE SOFTWARE (fc2)
Copyright (c) 1986-2001 by cisco Systems, Inc.
Compiled Thu 26-Apr-01 22:10 by cmong
Image text-base: 0x60008960, data-base: 0x616B0000

ROM: System Bootstrap, Version 12.0(19990210:195103) [12.0XE 105], DEVELOPMENT SOFTWARE
BOOTFLASH: 7200 Software (C7200-B00T-M), Version 12.0(9)S, EARLY DEPLOYMENT RELEASE
SOFTWARE (fc1)

7206VXR uptime is 2 days, 1 hour, 8 minutes
System returned to ROM by power-on
System image file is "slot0:c7200-js-mz.122-1"

cisco 7206VXR (NPE300) processor (revision D) with 122880K/40960K bytes of memory.
Processor board ID 16075926
R7000 CPU at 262Mhz, Implementation 39, Rev 1.0, 256KB L2, 2048KB L3 Cache
6 slot VXR midplane, Version 2.0

Last reset from power-on
Bridging software.
X.25 software, Version 3.0.0.
SuperLAT software (copyright 1990 by Meridian Technology Corp).
TN3270 Emulation software.
Primary Rate ISDN software, Version 1.1.
Channelized E1, Version 1.0.
4 Ethernet/IEEE 802.3 interface(s)
1 FastEthernet/IEEE 802.3 interface(s)
31 Serial network interface(s)
2 Channelized E1/PRI port(s)
```

1 Voice resource(s)
125K bytes of non-volatile configuration memory.

4096K bytes of Flash internal SIMM (Sector size 256K).
Configuration register is 0x0

7206VXR#

7206VXR#sh diag

Slot 0:

Fast-ethernet on C7200 I/O card with MII or RJ45 Port adapter, 1 port
Port adapter is analyzed
Port adapter insertion time 2d01h ago
EEPROM contents at hardware discovery:
Hardware revision 2.1 Board revision B0
Serial number 15788289 Part number 73-4092-03
Test history 0x0 RMA number 00-00-00
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 83 02 01 00 F0 E9 01 49 0F FC 03 00 00 00 00
0x30: 58 00 00 00 00 04 16 00 00 00 FF FF FF FF FF FF

Slot 1:

VXC-2TE1+ Port adapter, 2 ports
Port adapter is analyzed
Port adapter insertion time 2d01h ago
EEPROM contents at hardware discovery:
Hardware Revision : 0.2
PCB Serial Number : MIC05012P67
Part Number : 73-5340-03
Board Revision : A0
RMA Test History : 00
RMA Number : 0-0-0-0
RMA History : 00
Deviation Number : 0-0
Product Number : PA-VXC-2T1E1+
Top Assy. Part Number : 8034-08469-01
EEPROM format version 4
EEPROM contents (hex):
0x00: 04 FF 40 02 11 41 00 02 C1 8B 4D 49 43 30 35 30
0x10: 31 32 50 36 37 82 49 14 DC 03 42 41 30 03 00 81
0x20: 00 00 00 00 04 00 80 00 00 00 00 CB 94 50 41 2D
0x30: 56 58 43 2D 32 54 31 45 31 2B 20 20 20 20 20 20
0x40: 20 C0 46 1F 62 00 21 15 01 FF FF FF FF FF FF FF
0x50: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x60: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
0x70: FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF

Slot 6:

Ethernet Port adapter, 4 ports
Port adapter is analyzed
Port adapter insertion time 2d01h ago
EEPROM contents at hardware discovery:
Hardware revision 1.14 Board revision A0
Serial number 11530208 Part number 73-1556-08
Test history 0x0 RMA number 00-00-00
EEPROM format version 1
EEPROM contents (hex):
0x20: 01 02 01 0E 00 AF EF E0 49 06 14 08 00 00 00 00
0x30: 50 00 00 00 99 01 16 00 FF FF FF FF FF FF FF FF

7206VXR#

7206VXR#sh controllers e1/0

% Invalid input detected at '^' marker.

7206VXR#sh contr

7206VXR#sh controllers e1 1/0

E1 1/0 is up.

Applique type is Channelized E1 - balanced

```
No alarms detected.
alarm-trigger is not set
Framing is CRC4, Line Code is HDB3, Clock Source is Internal.
International Bit: 1, National Bits: 11111
Active xconns: 0
Data in current interval (155 seconds elapsed):
    0 Line Code Violations, 0 Path Code Violations
    0 Slip Secs, 0 Fr Loss Secs, 0 Line Err Secs, 0 Degraded Mins
    0 Errored Secs, 0 Bursty Err Secs, 0 Severely Err Secs, 0 Unavail Secs
7206VXR#
```

```
7206VXR#sh conf
Using 1505 out of 129016 bytes
!
version 12.2
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname 7206VXR
!
card type e1 1
logging rate-limit console 10 except errors
!
frame-clock-select 1 E1 1/0
dspint DSPfarm1/0
!
ip subnet-zero
!
!
no ip finger
!
no ip dhcp-client network-discovery
isdn switch-type primary-net5
call rsvp-sync
!
!
!
!
!
!
controller E1 1/0
    clock source internal
    pri-group timeslots 1-31
!
controller E1 1/1
    shutdown
!
!
interface FastEthernet0/0
    ip address 18.0.0.1 255.255.255.0
    no ip mroute-cache
    duplex full
    fair-queue
!
interface Serial1/0:15
    no ip address
    no logging event link-status
    isdn switch-type primary-net5
    isdn protocol-emulate network
    isdn incoming-voice modem
    isdn guard-timer 3000
    isdn T203 30000
    isdn T310 60000
    isdn bchan-number-order ascending
    no cdp enable
!
interface Ethernet6/0
```

```
ip address dhcp
duplex half
!
interface Ethernet6/1
no ip address
shutdown
duplex half
!
interface Ethernet6/2
no ip address
shutdown
duplex half
!
interface Ethernet6/3
no ip address
shutdown
duplex half
!
ip kerberos source-interface any
ip classless
no ip http server
!
!

!
voice-port 1/0:15
!
dial-peer voice 1 pots
destination-pattern 5...
direct-inward-dial
port 1/0:15
prefix 5
!
dial-peer voice 2 voip
destination-pattern 2...
session target ipv4:18.0.0.2
!
!
gatekeeper
shutdown
!
!
line con 0
transport input none
line aux 0
line vty 0 4
login
line vty 5 15
login
!
end

7206VXR#
```

Caveats

- The Ericsson PRI interface currently does not support “Calling Name” presentation feature.
- The Ericsson MD-110 PBX user interface is very cryptic. All parameters and options are mapped to position-dependent numeric fields within the various commands. The user must have the correct revision of the Ericsson MD-110 PBX Administration manual to be able to decipher each field position to determine its meaning. Therefore, it is advised not to make changes to an Ericsson MD-110 PBX unless you are experienced at such. A single number out of place in a command string can cause unusual behavior on the PBX.