



# Cisco Unified CallManager 5.0-PBX Interoperability: Ericsson MD110 BC12 SP5 to a Cisco 3845 gateway using E1 ISO-QSIG with MGCP

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## Introduction

. This is an application note for connectivity of Ericsson MD-110 Release BC12 PBX with Cisco Unified CallManager Release 5.0 via Cisco 3845 w/ VWIC-2MFT-E1 as MGCP gateway using ISO QSIG protocol.

The network topology diagram (Figure 1) shows the test setup for end-to-end interoperability with the Cisco Unified CallManager connected to the PBX via Cisco 3845 w/ VWIC-2MFT-E1 link as MGCP gateway. Connectivity is achieved by using the PRI QSIG E1 protocol type on the MGCP gateway with CallManager Service parameter QSIG variant of ISO and ISO switch type on the Ericsson MD-110 PBX.

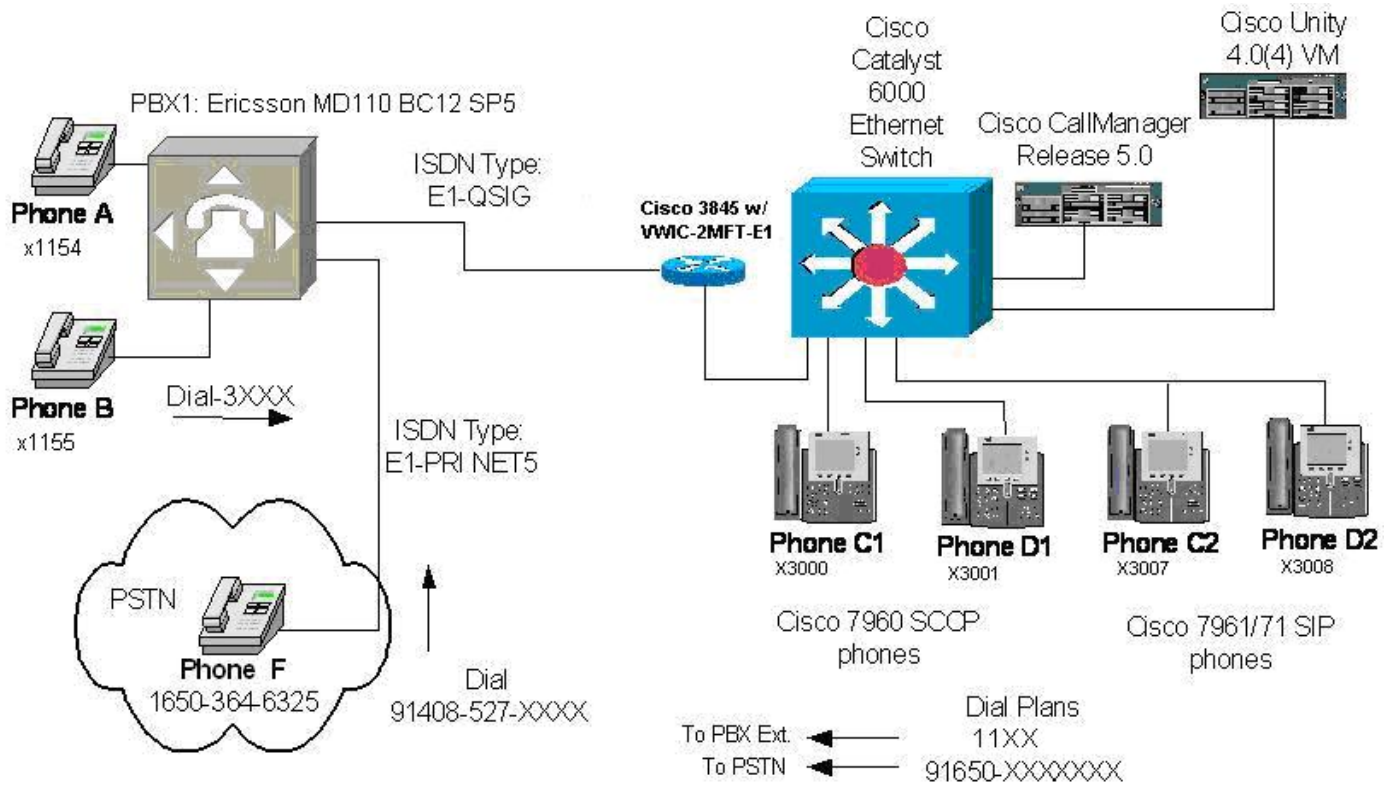
This Application Note uses the Cisco3845 w/ VWIC-2MFT-E1 voice gateway, however other Cisco voice gateways are also an option to use since CallManager QSIG implementation does not depend on the physical interface.



## Network Topology

Figure 1. Basic Call Setup

### Basic Call Setup End-to-End Configuration



## Limitations

### Calling/Connected Name Restrictions

Ericsson phone displayed Calling/Connected Name when Cisco CallManager sends it as restricted.

### ANF-PR-Additional Network Feature Path Replacement for Call Diversion by join

The Ericsson MD-110 PBX did not initiate Path Replacement proposal for a call that originated from the Ericsson PBX and was diverted from CallManager to another Ericsson MD-110 PBX node.

### SS-MWI

MWI LED's are not activated/deactivated when a message is left for a station not residing on the Message Centre PINX. The Ericsson MD-110 PBX did not utilize the standard QSIG-MWI code to activate/deactivate MWI LED's at the far-end PINX stations. The Ericsson MD110 utilized a Manufacturer Specific code across the QSIG connection to support this feature.



## System Components

### Hardware Requirements

#### Cisco Hardware

Cisco 3845 w/ VWIC-2MFT-E1

Cisco Unified CallManager Server

#### Ericsson MD110 PBX Hardware

Circuit card TL76/1, PRI-E1

Special cards, blades, or cables required

### Software Requirements

Cisco Unified CallManager version: 5.0

Ericsson MD110 software release: BC12 SP5

Cisco 3845 IOS release: 12.4

## Features

### Features Supported

CLIP-Calling Line (Number) Identification Presentation

CLIR-Calling Line (Number) Identification Restriction

CNIP-Calling Name Identification Presentation

COLP-Connected Line (Number) Identification Presentation

COLR- Connected Line (Number) Identification Restriction

CONP-Connected Name Identification Presentation

Sending Alerting Name

Call Back/Call Completion

CT-Call Transfer (by join)

CFU-Call Forwarding Unconditional

CFB-Call Forwarding Busy

CFNR-Call Forwarding No Reply

ANF-PR-Additional Network Feature Path Replacement (for Call Transfer by join)

ANF-PR-Additional Network Feature Path Replacement (for Trombone connection)

### Features Not Supported

Ericsson PBX did not honor CNIR-Calling Name Identification Restriction



Ericsson PBX did not honor CONR- Connected Name Identification Restriction

Ericsson PBX did not support Network Call Forwarding (CFU, CFB, CFNR) by join. It always invoked Reroute on every external CF.

Ericsson PBX did not support Q.SIG MWI- Message Waiting Indication (lamp ON, lamp OFF)



## Configuration

### Configuring the Ericsson MD-110 PBX

**Warning:** The Ericsson MD-110 PBX user interface is very precise. 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 and determine its meaning. It is therefore not advisable to make changes to an MD-110 PBX unless you know exactly what you are doing. A single number out of place in a command string can cause unusual behavior on the PBX.

Configure the Ericsson MD-110 PBX in the following sequence:

1. ROCAI Route Category Initiate
2. RODAI Route Data Initiate
3. ROEQI Route Equipment Initiate
4. RODDI Route External Destination

### Configuration Menus and Commands

#### Ericsson MD110 Configuration

##### Route Category Initiate

Setup internal characteristics for the route. Ex. Traffic direction, services, Bearer capabilities.

##### For Ericsson1 node

```
< ROCAP:ROU=100;  
ROUTE CATEGORY DATA
```

ROU SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
100	7110000000000001	5	2110030000	0	30	128	03151515	111110000031 111111

END

```
<ROCAP:ROU=101;  
ROUTE CATEGORY DATA
```

ROU SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
101	7110000000000001	5	2110030000	0	30	128	03151515	111110000031 111111

END

##### For Ericsson3 node

```
<ROCAP:ROU=1;  
ROUTE CATEGORY DATA
```

ROU SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
1	7110000000000001	5	3110000000	0	30	128	03151515	111110000031 111111

END

```
<ROCAP:ROU=3;  
ROUTE CATEGORY DATA
```

ROU SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
3	7110000000000001	5	3110000000	0	30	128	03151515	111110000031 111111

END



Route Data Initiate

**For Ericsson1 node**

E1-PRI QSIG Route Protocol Characteristics, protocol side "Network"

<RODAP:ROU=100;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
100	SL60	H'00000310	H'55440000	H'06300000	NO

END

E1-PRI QSIG Route Protocol Characteristics, protocol side "User"

<RODAP:ROU=101;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
101	SL60	H'00000310	H'55440000	H'06400000	NO

END

**For Ericsson3 node**

<RODAP:ROU=1;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
1	SL60	H'00000310	H'55440000	H'06400000	NO

END

<RODAP:ROU=3;

ROUTE DATA

ROU	TYPE	VARC	VARI	VARO	FILTER
3	SL60	H'00000310	H'55440000	H'06300000	NO

END

Route Equipment Initiate

**For Ericsson1 node**

E1-PRI QSIG trunk lines (B-channels)

< ROEDP:ROU=100,TRU=ALL;

ROUTE EQUIPMENT DATA

ROU CNTRL	TRU	EQU	SQU	INDDAT
100	001-1	001-0-30-01		H'000000000000
100	001-2	001-0-30-02		H'000000000000
100	001-3	001-0-30-03		H'000000000000



100	001-4	001-0-30-04	H'000000000000
100	001-5	001-0-30-05	H'000000000000
100	001-6	001-0-30-06	H'000000000000
100	001-7	001-0-30-07	H'000000000000
100	001-8	001-0-30-08	H'000000000000
100	001-9	001-0-30-09	H'000000000000
100	001-10	001-0-30-10	H'000000000000
100	001-11	001-0-30-11	H'000000000000
100	001-12	001-0-30-12	H'000000000000
100	001-13	001-0-30-13	H'000000000000
100	001-14	001-0-30-14	H'000000000000
100	001-15	001-0-30-15	H'000000000000
100	001-16	001-0-30-17	H'000000000000
100	001-17	001-0-30-18	H'000000000000
100	001-18	001-0-30-19	H'000000000000
100	001-19	001-0-30-20	H'000000000000
100	001-20	001-0-30-21	H'000000000000
100	001-21	001-0-30-22	H'000000000000
100	001-22	001-0-30-23	H'000000000000
100	001-23	001-0-30-24	H'000000000000
100	001-24	001-0-30-25	H'000000000000
100	001-25	001-0-30-26	H'000000000000
100	001-26	001-0-30-27	H'000000000000
100	001-27	001-0-30-28	H'000000000000
100	001-28	001-0-30-29	H'000000000000
100	001-29	001-0-30-30	H'000000000000
100	001-30	001-0-30-31	H'000000000000

END

<ROEDP:ROU=101,TRU=ALL;  
ROUTE EQUIPMENT DATA

ROU CNTRL	TRU	EQU	SQU	INDDAT
101	001-1	001-0-40-01		H'000000000000
101	001-2	001-0-40-02		H'000000000000
101	001-3	001-0-40-03		H'000000000000
101	001-4	001-0-40-04		H'000000000000
101	001-5	001-0-40-05		H'000000000000
101	001-6	001-0-40-06		H'000000000000
101	001-7	001-0-40-07		H'000000000000
101	001-8	001-0-40-08		H'000000000000
101	001-9	001-0-40-09		H'000000000000
101	001-10	001-0-40-10		H'000000000000
101	001-11	001-0-40-11		H'000000000000
101	001-12	001-0-40-12		H'000000000000
101	001-13	001-0-40-13		H'000000000000
101	001-14	001-0-40-14		H'000000000000
101	001-15	001-0-40-15		H'000000000000
101	001-16	001-0-40-17		H'000000000000
101	001-17	001-0-40-18		H'000000000000
101	001-18	001-0-40-19		H'000000000000
101	001-19	001-0-40-20		H'000000000000
101	001-20	001-0-40-21		H'000000000000
101	001-21	001-0-40-22		H'000000000000
101	001-22	001-0-40-23		H'000000000000
101	001-23	001-0-40-24		H'000000000000



101	001-24	001-0-40-25	H'000000000000
101	001-25	001-0-40-26	H'000000000000
101	001-26	001-0-40-27	H'000000000000
101	001-27	001-0-40-28	H'000000000000
101	001-28	001-0-40-29	H'000000000000
101	001-29	001-0-40-30	H'000000000000
101	001-30	001-0-40-31	H'000000000000

END

### For Ericsson3 node

<ROEDP:ROU=1,TRU=ALL;  
ROUTE EQUIPMENT DATA

ROU CNTRL	TRU	EQU	SQU	INDDAT
1	001-1	001-1-40-01		H'000000000000
1	001-2	001-1-40-02		H'000000000000
1	001-3	001-1-40-03		H'000000000000
1	001-4	001-1-40-04		H'000000000000
1	001-5	001-1-40-05		H'000000000000
1	001-6	001-1-40-06		H'000000000000
1	001-7	001-1-40-07		H'000000000000
1	001-8	001-1-40-08		H'000000000000
1	001-9	001-1-40-09		H'000000000000
1	001-10	001-1-40-10		H'000000000000
1	001-11	001-1-40-11		H'000000000000
1	001-12	001-1-40-12		H'000000000000
1	001-13	001-1-40-13		H'000000000000
1	001-14	001-1-40-14		H'000000000000
1	001-15	001-1-40-15		H'000000000000
1	001-16	001-1-40-17		H'000000000000
1	001-17	001-1-40-18		H'000000000000
1	001-18	001-1-40-19		H'000000000000
1	001-19	001-1-40-20		H'000000000000
1	001-20	001-1-40-21		H'000000000000
1	001-21	001-1-40-22		H'000000000000
1	001-22	001-1-40-23		H'000000000000
1	001-23	001-1-40-24		H'000000000000
1	001-24	001-1-40-25		H'000000000000
1	001-25	001-1-40-26		H'000000000000
1	001-26	001-1-40-27		H'000000000000
1	001-27	001-1-40-28		H'000000000000
1	001-28	001-1-40-29		H'000000000000
1	001-29	001-1-40-30		H'000000000000
1	001-30	001-1-40-31		H'000000000000

END

<ROEDP:ROU=3,TRU=ALL;  
ROUTE EQUIPMENT DATA

ROU CNTRL	TRU	EQU	SQU	INDDAT
3	001-1	001-1-50-01		H'000000000000
3	001-2	001-1-50-02		H'000000000000





```

3          001-3          001-1-50-03          H'000000000000
3          001-4          001-1-50-04          H'000000000000
3          001-5          001-1-50-05          H'000000000000
3          001-6          001-1-50-06          H'000000000000
3          001-7          001-1-50-07          H'000000000000
3          001-8          001-1-50-08          H'000000000000
3          001-9          001-1-50-09          H'000000000000
3          001-10         001-1-50-10         H'000000000000
3          001-11         001-1-50-11         H'000000000000
3          001-12         001-1-50-12         H'000000000000
3          001-13         001-1-50-13         H'000000000000
3          001-14         001-1-50-14         H'000000000000
3          001-15         001-1-50-15         H'000000000000
3          001-16         001-1-50-17         H'000000000000
3          001-17         001-1-50-18         H'000000000000
3          001-18         001-1-50-19         H'000000000000
3          001-19         001-1-50-20         H'000000000000
3          001-20         001-1-50-21         H'000000000000
3          001-21         001-1-50-22         H'000000000000
3          001-22         001-1-50-23         H'000000000000
3          001-23         001-1-50-24         H'000000000000
3          001-24         001-1-50-25         H'000000000000
3          001-25         001-1-50-26         H'000000000000
3          001-26         001-1-50-27         H'000000000000
3          001-27         001-1-50-28         H'000000000000
3          001-28         001-1-50-29         H'000000000000
3          001-29         001-1-50-30         H'000000000000
3          001-30         001-1-50-31         H'000000000000

```

END

### Route External Destination Data Initiate

#### For Ericsson1 node

Route and Access Code for the trunk Information- Note Route 100 & 101 are the PRI QSIG

< **RODDP:DEST=ALL;**

EXTERNAL DESTINATION ROUTE DATA

DEST	DRN	ROU	CHO	CUST	ADC	TRC	SRT	NUMACK	PRE
21		1			1225000000000250102001100	0	3	0	
25		100			0606100000000250006000000	0	3	0	
31		11			1005000000000250000000000	0	3	0	
35		11			0606000000000250106001100	0	3	0	
36		6			0115000000000250000000000	0	3	0	
38		8			0115000000000250000000000	0	3	0	
<b>30</b>		<b>101</b>			<b>1707000000000250107001101</b>	<b>0</b>	<b>1</b>	<b>0</b>	
<b>42</b>		<b>100</b>			<b>1707000000000250107001101</b>	<b>0</b>	<b>1</b>	<b>0</b>	
550		11			0606000000000250106001100	0	1	0	
<b>551</b>		<b>101</b>			<b>0707000000000250107001101</b>	<b>0</b>	<b>1</b>	<b>0</b>	
560		11			0606000000000250106001100	0	1	0	
<b>666</b>		<b>100</b>			<b>0707000000000250107001101</b>	<b>0</b>	<b>1</b>	<b>0</b>	
950		11			0606000000000250106001100	0	7	0	

END



**For Ericsson3 node**

Route and Access Code for the trunk Information- Note Route 1 & 3 are the PRI QSIG

**<RODDP:DEST=ALL;**

EXTERNAL DESTINATION ROUTE DATA

DEST	DRN	ROU	CHO	CUST	ADC	TRC	SRT	NUMACK	PRE
11		1			1707000000000250107001101	0	1	0	
21		1			1727000000000250107001100	0	1	0	
23		3			1727000000000250107001100	0	1	0	
31		11			1005200000000250100001000	0	3	0	
30		3			1707000000000250107001101	0	1	0	
50		11			0606000000000250106001100	0	1	0	
550		11			0606000000000250106001100	0	1	0	
551		3			0707100000000250107001101	0	1	0	
560		11			0606000000000250106001100	0	1	0	
60		11			0606000000000250106001100	0	1	0	
777		1			0707000000000250007001101	0	1	0	
950		11			0606000000000250106001100	0	7	0	

END

Overlap/Enbloc sending

**For Ericsson1 node**

First remove access code

**<NANLR:EXL=30;**

To do overlap sending

**<NANLS:EXL=30,MIN=2,MAX=4;**

To do Enbloc sending

**<NANLS:EXL=30,MIN=4,MAX=4;**

Key System Directory

**For Ericsson1 node**

**<KSDDP:DIR=1151;**

KEY SYSTEM DIRECTORY DATA

DIR	CUST	EQU	CAT	ADN	ODN	CALALT
1151		001-0-20-00	-			1

END

**<KSDDP:DIR=1152;**

KEY SYSTEM DIRECTORY DATA

DIR	CUST	EQU	CAT	ADN	ODN	CALALT
1152		001-0-20-01	-			1

END

**For Ericsson3 node**

**<KSDDP:DIR=4204&&4205;**



#### KEY SYSTEM DIRECTORY DATA

DIR	CUST	EQU	CAT	ADN	ODN	CALALT
4204		001-1-20-04	1			1
4205		001-1-20-05	1			1

#### Calling/Connected Name and Number Restrictions

To configure Calling/Connected Name and Number Restricted, use the following command:

```
<KSCAC:DIR=1154&&1155,ADC=0010013010000;
```

To configure Calling/Connected Name and Number Allowed, use the following command:

```
<KSCAC:DIR=1154&&1155,ADC=0010013010000;
```

To remove Name, use the following command:

```
<NIINE:DIR=1154;//REMOVE NAME
```

To add Name, use the following command:

```
<NIINI:DIR=1154,NAME1="BC12-1",NAME2="ONE",PRES=20; //ADD NAME
```

To print Station's Name, use the following command:

```
<NIINP:DIR=1154&&1155;  
EXTENSION NAMES
```

DIR	NAME1	NAME2	PRES	INFO
1151	BC12-1	ONE	20	
1152	BC12-1	TWO	20	

END

#### Path Replacement (Route Optimization)

To enable/disable Path Replacement, use the following command:

```
<ASPAC:PARNUM=66,PARVAL=1; //Route optimization allowed. --- FORWARD
```

```
<ASPAC:PARNUM=66,PARVAL=0; //Route optimization NOT allowed.
```

#### Call Diversion on Busy/No Reply

To enable/disable Diversion on Busy/No Reply, use the following command:

```
<CDINI:DIR=1151,DIV=4200; // CALL DIVERSION INDIVIDUAL NUMBER INITIATE
```

```
<CDINE:DIR=1151; // CALL DIVERSION INDIVIDUAL NUMBER END
```

#### Diversion Counter

```
<ASUVP:PARNUM=121; // check current setting for maximum number of hop diversions
```



```
<ASPAC:PARNUM=121,PARVAL= VALUE; // To set maximum number of hop diversions where VALUE range is
0-255
```

```
<ASUVP:PARNUM=121;
```

```
APPLICATION SYSTEM PARAMETER VALUES FOR UNIT
```

PARNUM	CHA	PARVAL	MINVAL	MAXVAL	UNIT	REMARK
121	YES	12	0	255	RMP	

```
END
```

## Network Services

```
<ASPAC:PARNUM=223,PARVAL=7; // Network Features: Standard SS-Call Forwarding, Standard SS-Call
Transfer, Path Replacement for route optimization.
```

## Ericsson MD-110 Software Version

### For Ericsson1 node

```
<cadap;
```

```
CALENDAR DATA
```

```
IDENTITY=ACM-1
```

```
VERSION=CXP1010101/2/BC12SP5/R2A
```

```
12:48:23
```

```
TUE 2 MAY 2006
```

```
END
```

### For Ericsson3 node

```
<cadap;
```

```
CALENDAR DATA
```

```
IDENTITY=DANDS-EURO
```

```
VERSION=CXP1010101/2/BC12SP5/R2A
```

```
12:48:43
```

```
TUE 2 MAY 2006
```

```
END
```



## Cisco Unified CallManager Configuration

### ISO Protocol Service Parameter

Service Parameter Configuration - Microsoft Internet Explorer

Address: https://172.20.8.254:8443/ccmadmin/serviceParamEdit.do?server=9a4c58d0-45dc-4862-87a9-306827d8bf53&service=0&showall=true

Unknown Number Prefix

**Clusterwide Parameters (Device - PRI and MGCP Gateway)**

ASN.1 ROSE OID Encoding *	Use Local Value	Use Local Value
QSIG Variant *	ISO (Protocol Profile 0x9F)	ISO (Protocol Profile 0x9F)

### CCM Gateway configuration

Gateway Configuration - Microsoft Internet Explorer

Address: https://172.20.8.254:8443/ccmadmin/gatewayEdit.do?key=95c9bd25-3c32-a15d-ec50-67a6190cb58e

Navigation: Cisco Unified CallManager Administration

Logged in as: CCMAdministrator

System | Call Routing | Media Resources | Voice Mail | Device | Application | User Management | Bulk Administration | Help | Log Off

**Gateway Configuration** Related Links: Back To Find/List

**Status**  
Status: Ready

**Gateway Details**

Product	Cisco 3845
Gateway	tony_3845
Protocol	MGCP
Domain Name *	tony_3845
Description	tony_3845
Cisco Unified CallManager Group *	Default

**Configured Slots, VICs and Endpoints**

Module in Slot 0	NM-4VWIC-MBRD	Subunit 0	VWIC-2MFT-T1	0/0/0	0/0/1
		Subunit 1	< None >		
		Subunit 2	< None >		
		Subunit 3	< None >		
Module in Slot 1	< None >				
Module in Slot 2	< None >				
Module in Slot 3	NM-HDV	Subunit 0	VWIC-2MFT-E1	3/0/0	3/0/1
Module in Slot 4	< None >				

**Product Specific Configuration**

Global ISDN Switch Type	4ESS
Switchback Timing *	Graceful
Switchback uptime-delay (min)	10
Switchback schedule (hh:mm)	12:00
Type Of DTMF Relay *	Current GW Config

Save Delete Reset Add New



Gateway Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media

Address <https://172.20.8.254:8443/ccadmin/gatewayEdit.do?key=57d0e84c-f807-4a5c-61c3-432e06252762>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Gateway Configuration Related Links: Back to MGCP Configuration Go

Status  
Status: Ready

Device Information

Product	Cisco MGCP E1 Port
Gateway	tony_3845
Device Protocol	Digital Access PRI
Registration	Registered with Cisco Unified CallManager CM-CHIVAS
IP Address	172.20.8.26
End-Point Name *	S3/SU0/DS1-0@tony_3845
Description	<input type="text" value="S3/SU0/DS1-0@tony_3845"/>
Device Pool*	<input type="text" value="Default"/>
Call Classification*	<input type="text" value="Use System Default"/>
NetworkLocale	<input type="text" value="&lt; None &gt;"/>
Media Resource Group List	<input type="text" value="&lt; None &gt;"/>
Location*	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="&lt; None &gt;"/>
Load Information	<input type="text" value=""/>

Transmit UTF-8 for Calling Party Name  
 V150 (subset)

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain	<input type="text" value="&lt; None &gt;"/>
MLPP Indication	Not available on this device
MLPP Preemption	Not available on this device



**Interface Information**

PRI Protocol Type*	PRI ISO QSIG E1
Protocol Side*	User
Channel Selection Order*	Top Down
Channel IE Type*	Timeslot 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  
 Unattended Port

**Call Routing Information - Inbound Calls**

Significant Digits*	All
Calling Search Space	incoming trunk
AAR Calling Search Space	< None >
Prefix DN	

**Call Routing Information - Outbound Calls**

Calling Party Presentation*	Default
Calling Party Selection*	Originator
Called party IE number type unknown*	National
Calling party IE number type unknown*	National
Called Numbering Plan*	Private
Calling Numbering Plan*	Private
Number of digits to strip*	0
Caller ID DN	
SMDI Base Port*	0



### PRI Protocol Type Specific Information

- Display IE Delivery
- Redirecting Number IE Delivery - Outbound
- Redirecting Number IE Delivery - Inbound
- Send Extra Leading Character in Display IE\*\*\*
- Setup non-ISDN Progress Indicator IE Enable\*\*\*\*
- MCDN Channel Number Extension Bit Set to Zero\*\*
- Send Calling Name In Facility IE
- Interface Identifier Present\*\*

Interface Identifier Value\*\*

Connected Line ID Presentation (QSIG Inbound Call)\*

### UUIE Configuration

- Passing Precedence Level Through UUIE

Security Access Level\*

### Route Group Membership

[QSIG-to-BC12-3](#)

### Product Specific Configuration

Line Coding \*

Framing \*

Clock \*

Input Gain (-6..14 db) \*

Output Attenuation (-6..14 db) \*

Echo Cancellation Enable \*

Echo Cancel Coverage (ms) \*

\*- indicates required item.

\*\* - applies to DMS-100 protocol only.

\*\*\* - applies to DMS-100 protocol and DMS-250 protocol only.

\*\*\*\* - may be required to force ringback from some PBXs.

\*\*\*\*\* - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.





## Partitions Configuration

Find and List Partitions - Microsoft Internet Explorer

Address: <https://172.20.8.254:8443/ccmadmin/partitionFindList.do?<%=reqParams%>&recCnt=0&colCnt=3>

Navigation: Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

### Find and List Partitions

Status: 2 records found

Search Options: Find partition where Partition Name begins with Find Search Within Results

Search Results:

Partition Name	Description
<input type="checkbox"/> Incoming Trunk	Incoming Trunk
<input type="checkbox"/> phones	phones

Add New Select All Clear All Delete Selected Rows per Page: 50

## Calling Search Space Configuration

Calling Search Space Configuration - Microsoft Internet Explorer

Address: <https://172.20.8.254:8443/ccmadmin/cssEdit.do?key=69e67ac1-4a7d-a9d8-c26f-cff015f46ff6>

Navigation: Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

### Calling Search Space Configuration

Status: Ready

Calling Search Space Information:

Name\*: incoming trunk  
Description:

Route Partitions for this Calling Search Space:

Available Partitions: phones

Selected Partitions (Ordered by highest priority): Incoming Trunk

Save Delete Copy Add New

\*- indicates required item.



Calling Search Space Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

Address: https://172.20.8.254:8443/ccmadmin/cssEdit.do?key=fe223db4-f40e-6b05-0321-32b1606696a2

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Calling Search Space Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Calling Search Space Information**

Name\*   
Description

**Route Partitions for this Calling Search Space**

Available Partitions

Selected Partitions (Ordered by highest priority)

\*- indicates required item.



Calling Search Space Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

Address <https://172.20.8.254:8443/ccadmin/cssEdit.do?key=5ca29d02-e7f5-70ce-c5d2-e6531981be96>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Calling Search Space Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Calling Search Space Information**  
Name\* PathReplacementCSS  
Description

**Route Partitions for this Calling Search Space**

Available Partitions

Selected Partitions (Ordered by highest priority)  
Incoming Trunk phones

Save Delete Copy Add New

\*- indicates required item.



## Enbloc Route Pattern Configuration

Route Pattern Configuration - Microsoft Internet Explorer

Address: <https://172.20.8.254:8443/ccmadmin/routePattern2Edit.do?key=7cf2df65-183d-2f34-c6ca-94612a0195ea>

Navigation: Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

### Route Pattern Configuration

Related Links: [Back To Find/List](#)

**Status**  
Status: Ready

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/Route List\*

Route Option  
 Route this pattern  
 Block this pattern

Call Classification\*

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code

Authorization Level\*

Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\*

Calling Name Presentation\*

**Connected Party Transformations**

Connected Line ID Presentation\*

Connected Name Presentation\*

**Called Party Transformations**

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol

Carrier Identification Code

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.



Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Print Mail Print Mail Print Mail

Address <https://172.20.8.254:8443/ccadmin/routePattern2Edit.do?key=a75e84e3-a8d8-a7fb-af61-593e5078dc48>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Pattern Definition**

Route Pattern\*

Route Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Gateway/Route List\*  (Edit) Find

Route Option  
 Route this pattern  
 Block this pattern

Call Classification\*

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code

Authorization Level\*

Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\*

Calling Name Presentation\*

**Connected Party Transformations**

Connected Line ID Presentation\*

Connected Name Presentation\*

**Called Party Transformations**

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol

Carrier Identification Code

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"/>

Save Delete Copy Add New

\*- indicates required item.





Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address <https://172.20.8.254:8443/ccadmin/routePattern2Edit.do?key=e717fab-03c7-8a76-57d2-1eb6d8a64ffe>

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: [Back To Find/List](#) [Go](#)

**Status**  
Status: Ready

**Pattern Definition**

Route Pattern\* 42XX

Route Partition < None >

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence\* Default

Gateway/Route List\* S3/SU0/DS1-1@tony\_3845 (Edit) Find

Route Option  
 Route this pattern  
 Block this pattern No Error

Call Classification\* OnNet

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code

Authorization Level\* 0

Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask 551XXXX

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\* Default

Calling Name Presentation\* Default

**Connected Party Transformations**

Connected Line ID Presentation\* Default

Connected Name Presentation\* Default

**Called Party Transformations**

Discard Digits < None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol -- Not Selected --

Carrier Identification Code

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

[Save](#) [Delete](#) [Copy](#) [Add New](#)



Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media

Address <https://172.20.8.254:8443/cmadmin/routePattern2Edit.do?key=b87c2d33-26db-89f1-f565-0fb7014755b5>

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

Status  
Status: Ready

Pattern Definition

Route Pattern\* 666XXXX

Route Partition < None >

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence\* Default

Gateway/Route List\* S3/SU0/DS1-1@tony\_3845 (Edit) Find

Route Option  
 Route this pattern  
 Block this pattern No Error

Call Classification\* OnNet

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority

Require Forced Authorization Code

Authorization Level\* 0

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask 551XXXX

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\* Default

Calling Name Presentation\* Default

Connected Party Transformations

Connected Line ID Presentation\* Default

Connected Name Presentation\* Default

Called Party Transformations

Discard Digits < None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol -- Not Selected --

Carrier Identification Code

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

Save Delete Copy Add New



## Overlap Sending Route Pattern

Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Refresh Print

Address: https://172.20.8.254:8443/ccadmin/routePattern2Edit.do?key=6b39564d-6d56-a9cb-15a1-9334ca592382

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

Status  
Status: Ready

Pattern Definition

Route Pattern\* 9.X

Route Partition < None >

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence\* Default

Gateway/Route List\* S3/SU0/DS1-0@tony\_3845 (Edit) Find

Route Option  
 Route this pattern  
 Block this pattern No Error

Call Classification\* OnNet

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority

Require Forced Authorization Code

Authorization Level\* 0

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask 551XXXX

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\* Default

Calling Name Presentation\* Default

Connected Party Transformations

Connected Line ID Presentation\* Default

Connected Name Presentation\* Default

Called Party Transformations

Discard Digits PreDot

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol -- Not Selected --

Carrier Identification Code

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

Save Delete Copy Add New





## PSTN Route Pattern Configuration

Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Refresh Print

Address: https://172.20.8.254:8443/ccadmin/routePattern2Edit.do?key=0b720645-56b2-5016-70c8-83902c546cb0

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Pattern Definition**

Route Pattern\* 650364XXXX

Route Partition < None >

Description PSTN Route Gateway

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence\* Default

Gateway/Route List \* S3/SU0/DS1-1@tony\_3845 (Edit) Find

Route Option  
 Route this pattern  
 Block this pattern No Error

Call Classification\* OnNet

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority

Require Forced Authorization Code

Authorization Level\* 0

Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls) 408527

Calling Line ID Presentation\* Default

Calling Name Presentation\* Default

**Connected Party Transformations**

Connected Line ID Presentation\* Default

Connected Name Presentation\* Default

**Called Party Transformations**

Discard Digits < None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol -- Not Selected --

Carrier Identification Code

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

Save Delete Copy Add New



## Translation Pattern for Incoming Calls

Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Refresh Print

Address <https://172.20.8.254:8443/ccadmin/translationEdit.do?key=ec898e0f-cf88-adcd-f67a-cd976de7a12c>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Translation Pattern Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Pattern Definition**

Translation Pattern

Partition

Description

Numbering Plan

Route Filter

MLPP Precedence\*

Calling Search Space

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 Line ID Presentation\*

Calling Name Presentation\*

**Connected Party Transformations**

Connected Line ID Presentation\*

Connected Name Presentation\*

**Called Party Transformations**

Discard Digits

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

\*- indicates required item.



## CLIR Route Pattern Configuration

Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address: https://172.20.8.254:8443/ccadmin/routePattern2Edit.do?key=7cf2df65-183d-2f34-c6ca-94612a0195ea

**Cisco Unified CallManager Administration** For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

**Route Pattern Configuration** Related Links: [Back To Find/List](#) [Go](#)

**Status**  
Status: Ready

**Pattern Definition**

Route Pattern\*   
Route Partition   
Description   
Numbering Plan   
Route Filter   
MLPP Precedence\*   
Gateway/Route List\*  (Edit) Find  
Route Option  
 Route this pattern  
 Block this pattern   
Call Classification\*   
 Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority  
 Require Forced Authorization Code  
Authorization Level\*   
 Require Client Matter Code

**Calling Party Transformations**

Use Calling Party's External Phone Number Mask  
Calling Party Transform Mask   
Prefix Digits (Outgoing Calls)   
Calling Line ID Presentation\*   
Calling Name Presentation\*

**Connected Party Transformations**

Connected Line ID Presentation\*   
Connected Name Presentation\*

**Called Party Transformations**

Discard Digits   
Called Party Transform Mask   
Prefix Digits (Outgoing Calls)

**ISDN Network-Specific Facilities Information Element**

Network Service Protocol   
Carrier Identification Code   
Network Service  Service Parameter Name  Service Parameter Value



## CNIR Route Pattern Configuration

Route Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address: https://172.20.8.254:8443/ccadmin/routePattern2Edit.do?key=7cf2df65-183d-2f34-c6ca-94612a0195ea

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Route Pattern Configuration Related Links: Back To Find/List Go

Status  
Status: Ready

Pattern Definition

Route Pattern\* 11XX

Route Partition < None >

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence\* Default

Gateway/Route List\* S3/SU0/DS1-0@tony\_3845 (Edit) Find

Route Option  
 Route this pattern  
 Block this pattern No Error

Call Classification\* OnNet

Allow Device Override  Provide Outside Dial Tone  Allow Overlap Sending  Urgent Priority

Require Forced Authorization Code

Authorization Level\* 0

Require Client Matter Code

Calling Party Transformations

Use Calling Party's External Phone Number Mask

Calling Party Transform Mask

Prefix Digits (Outgoing Calls)

Calling Line ID Presentation\* Default

Calling Name Presentation\* Restricted

Connected Party Transformations

Connected Line ID Presentation\* Default

Connected Name Presentation\* Default

Called Party Transformations

Discard Digits < None >

Called Party Transform Mask

Prefix Digits (Outgoing Calls)

ISDN Network-Specific Facilities Information Element

Network Service Protocol -- Not Selected --

Carrier Identification Code

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

Save Delete Copy Add New



## COLR Translation Pattern Configuration

Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address <https://172.20.8.254:8443/ccmadmin/translationEdit.do?key=ec898e0f-cf88-adcd-f67a-cd976de7a12c>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Translation Pattern Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Pattern Definition**

Translation Pattern: 30XX

Partition: Incoming Trunk

Description:

Numbering Plan: <None >

Route Filter: <None >

MLPP Precedence\*: Default

Calling Search Space: phones

Route Option:  
 Route this pattern  
 Block this pattern No Error

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 Line ID Presentation\*: Default

Calling Name Presentation\*: Default

**Connected Party Transformations**

Connected Line ID Presentation\*: Restricted

Connected Name Presentation\*: Default

**Called Party Transformations**

Discard Digits: <None >

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):

Save Delete Copy Add New





## CONR Route Pattern Configuration

Translation Pattern Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Refresh Print

Address: https://172.20.8.254:8443/ccadmin/translationEdit.do?key=ec898e0f-cf88-adcd-f67a-cd976de7a12c

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Translation Pattern Configuration Related Links: Back To Find/List Go

**Status**  
Status: Ready

**Pattern Definition**

Translation Pattern: 30XX

Partition: Incoming Trunk

Description:

Numbering Plan: < None >

Route Filter: < None >

MLPP Precedence\*: Default

Calling Search Space: phones

Route Option:  
 Route this pattern  
 Block this pattern No Error

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 Line ID Presentation\*: Default

Calling Name Presentation\*: Default

**Connected Party Transformations**

Connected Line ID Presentation\*: Default

Connected Name Presentation\*: Restricted

**Called Party Transformations**

Discard Digits: < None >

Called Party Transform Mask:

Prefix Digits (Outgoing Calls):

Save Delete Copy Add New

\*- indicates required item.



### CallBack Service Parameters

Clusterwide Parameters (Feature - Call Back)		
<a href="#">Call Back Enabled Flag *</a>	True	True
<a href="#">Call Back Notification Audio File Name *</a>	CallBack.raw	CallBack.raw
<a href="#">Connection Proposal Type *</a>	Connection Retention	Connection Retention
<a href="#">Connection Response Type *</a>	Default to Connection Retention	Default to Connection Retention
<a href="#">Call Back Request Protection T1 Timer *</a>	10	10
<a href="#">Call Back Recall T3 Timer *</a>	20	20
<a href="#">Call Back Calling Search Space</a>	< None >	
<a href="#">No Path Reservation *</a>	False	True
<a href="#">Set Private Numbering Plan for CallBack *</a>	True	False

Note: The field "Set Private Numbering Plan for CallBack" should only be set to 'True' when the MD110 PRI-QSIG trunk connecting to CallManager is set to "7" (ADC parameter under RODDI set to TON LevelRegional1, private). CallManager Gateway should be set to Number type 'National' and numbering plan 'Private'. If this is not set the Callback feature will not function properly.

### CallBack Softkey Configuration

The screenshot shows the Cisco Unified CallManager Administration web interface. The browser title is "Softkey Template Configuration - Microsoft Internet Explorer". The address bar shows the URL: https://172.20.8.254:8443/ccadmin/softkeyTemplateEdit.do?key=e879e0a1-b65c-48bd-b86a-223a38786641. The page header includes "Cisco Unified CallManager Administration" and "Logged in as: CCMAdministrator". The main content area is titled "Softkey Template Configuration" and shows a "Status: Ready" message. Below this, the "Softkey Template Information" section contains the following details:

- Name\*: Standard User CallBack
- Description: Standard Softkey Template for CallManager only
- Applications\*: Cisco CallManager

There are two buttons: "Add Application" and "Remove Application". At the bottom of the configuration area, there are buttons for "Save", "Delete", "Copy", "Add New", and "Reset". A legend at the bottom left indicates that an asterisk (\*) indicates a required item.



Softkey Template Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail Stop Taskbar

Address <https://172.20.8.254:8443/ccadmin/softkeyTemplateLayoutEdit.do?key=e879e0a1-b65c-48bd-b86a-223a38786641>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Softkey Template Configuration Related Links: Softkey Template Configuration Go

**Status**  
Status: Ready

**Softkey Layout Configuration**  
Softkey Template: Standard User CallBack  
Select a call state to configure: On Hook

Unselected Softkeys	Selected Softkeys (ordered by position)**
Conference List (ConfList)	Redial (Redial)
Direct Transfer (DirTrfr)	**NewCall (NewCall)
Group Pick Up (GPickUp)	End Call (EndCall)
Immediate Divert (iDiver)	Forward All (CfwdAll)
Join (Join)	Call Back (CallBack)
Meet Me (MeetMe)	
Other Pickup (oPickup)	
Pick Up (PickUp)	
Quality Report Tool (QRT)	
Remove Last Conference Party (RmLstC)	
Select (Select)	
Undefined (Undefined)	
Video Mode Command (VidMode)	

Save Reset

**i** \*- indicates required item.  
**i** \*\*- indicates mandatory fields





Softkey Template Configuration - Microsoft Internet Explorer  
File Edit View Favorites Tools Help  
Back Forward Stop Home Search Favorites Media Print Mail Stop Taskbar  
Address <https://172.20.8.254:8443/ccmadmin/softkeyTemplateLayoutEdit.do?key=e879e0a1-b65c-46bd-b86a-223a38786641&callState=8>

Navigation Cisco Unified CallManager Administration Go  
Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator  
System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Softkey Template Configuration Related Links: Softkey Template Configuration Go

Status  
Status: Ready

**Softkey Layout Configuration**  
Softkey Template: Standard User CallBack  
Select a call state to configure Ring Out

Unselected Softkeys	Selected Softkeys (ordered by position)**
Undefined (Undefined)	Undefined (Undefined) **End Call (EndCall) Call Back (CallBack)

Save Reset

- \*- indicates required item.
- \*\* - indicates mandatory fields



### Path Replacement Service Parameter

Clusterwide Parameters (Feature - <b>Path</b> Replacement)		
<a href="#">Path Replacement Enabled</a> *	False	False
<a href="#">Path Replacement on Tromboned Calls</a> *	True	True
<a href="#">Start Path Replacement Minimum Delay Time</a> *	2	0
<a href="#">Start Path Replacement Maximum Delay Time</a> *	4	0
<a href="#">Path Replacement T1 Timer</a> *	30	30
<a href="#">Path Replacement T2 Timer</a> *	15	15
<a href="#">Path Replacement PINX ID</a>	551	
<a href="#">Path Replacement Calling Search Space</a>	PathReplacementCSS	



Call Pickup Group Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Refresh Print

Address <https://172.20.8.254:8443/cmadmin/callPickupGroupEdit.do?key=39abebe6-3bb4-0a91-39d7-671d2b0afa68>

Navigation Cisco Unified CallManager Administration

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as:CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Call Pickup Group Configuration Related Links:

**Status**  
Status: Ready

**Call Pickup Group Information**

Call Pickup Group Name\*   
Call Pickup Group Number\*   
Description   
Partition

**Associated Call Pickup Group Information**

**Find Pickup Numbers by Numbers/Partition**

Partition   
Call Pickup Group Numbers Contain   
  
Available Call Pickup Groups  
(No Matches Found)

**Current Associated Call Pickup Groups**

Selected Call Pickup Groups     
   
Removed Call Pickup Groups  
(to be removed when you click Save)

**i** \*- indicates required item.



### MWI lamp On/Off Configuration

**Note:** Not Applicable. Standard QSIG SS-MWI is not supported on Ericsson MD110 BC12 SP5

### Forward by Reroute Service Parameter

Clusterwide Parameters (Feature - Forward)		
<a href="#">Forward Maximum Hop Count *</a>	<input type="text" value="12"/>	12
<a href="#">Forward No Answer Timer *</a>	<input type="text" value="12"/>	12
<a href="#">Max Forward Hops to DN *</a>	<input type="text" value="12"/>	12
<a href="#">Retain Forward Information *</a>	<input type="text" value="False"/>	False
<a href="#">Forward By Reroute Enabled *</a>	<input checked="" type="text" value="True"/>	False
<a href="#">Transform Forward by Reroute Destination *</a>	<input type="text" value="True"/>	True
<a href="#">Always Forward Switch Voice Mail Calls *</a>	<input type="text" value="True"/>	True
<a href="#">Forward By Reroute T1 Timer *</a>	<input type="text" value="10"/>	10
<a href="#">Include Original Called Info for Q.SIG Call Diversions *</a>	<input type="text" value="Only after the first diversion"/>	Only after the first diversion



## IP Phone Configuration

Phone Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address: <https://172.20.8.254:8443/ccmadmin/phoneEdit.do?key=afc5d87c-1a71-4183-8712-0e80a5efa070>

Navigation Cisco Unified CallManager Administration Go

Cisco Unified CallManager Administration For Cisco IP Telecommunication Solutions Logged in as: CCMAdministrator

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help Log Off

Phone Configuration Related Links: Back To Find/List Go

Status  
Status: Ready

**Association Information**  
Modify Button Items

- Line [1] - 3000 in phones
- Add a new SD
- Unassigned Associated Items -----
- Line [2] - Add a new DN
- Add a new SD
- Add a new SURL
- Add a new BLF SD
- Privacy
- None

**Phone Type**  
Product Type: Cisco 7940  
Device Protocol: SCCP

**Device Information**

Registration	Registered with Cisco Unified CallManager CM-CHIVAS
IP Address	172.20.8.11
MAC Address*	000C303B28F4
Description	Auto 3000
Device Pool*	Default
Phone Button Template*	Standard 7940 SCCP
Softkey Template	Standard User CallBack
Common Phone Profile*	Standard Common Phone Profile
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*	Hub_None
User Locale	< None >
Network Locale	< None >
Built In Bridge*	Default
Privacy*	Default
Owner User ID	< None >
Phone Load Name	

Retry Video Call as Audio  
 Ignore Presentation Indicators (internal calls only)  
 Allow Control of Device from CTI



**Protocol Specific Information**

Packet Capture Mode*	None
Packet Capture Duration	0
Presence Group*	Standard Presence group
SCCP Phone Security Profile*	Standard SCCP Profile for Auto Registration
SUBSCRIBE Calling Search Space	< None >
<input type="checkbox"/> Unattended Port	
<input type="checkbox"/> Require DTMF Reception	
<input type="checkbox"/> RFC2833 Disabled	

**External Data Locations Information (Leave blank to use default)**

Information	
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	

**Extension Information**

<input type="checkbox"/> Enable Extension Mobility	
Log Out Profile	-- Not Selected --
Login in User ID	< None >
Log in Time	< None >
Log out Time	< None >



#### Certification Authority Proxy Function (CAPF) Information

Certificate Operation*	No Pending Operation
Authentication String	<input type="text"/>
<input type="button" value="Generate String"/>	
Operation Completes By	2006 : 5 : 13 : 12 (YYYY:MM:DD:HH)
Certificate Operation Status:	None


#### MLPP Information

MLPP Domain	< None >
MLPP Indication*	Default
MLPP Preemption*	Default

#### Secure Shell Information

Secure Shell User	<input type="text"/>
Secure Shell Password	<input type="text"/>

#### Product Specific Configuration Layout

	
<input type="checkbox"/> Disable Speakerphone	
<input type="checkbox"/> Disable Speakerphone and Headset	
PC Port *	Enabled
Settings Access*	Enabled
Gratuitous ARP*	Enabled
PC Voice VLAN Access*	Enabled
Video Capabilities*	Disabled
Auto Line Select*	Disabled
Web Access*	Enabled

 \*- indicates required item.

 \*\*- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.



Directory Number Configuration - Microsoft Internet Explorer

Address: https://172.20.8.254:8443/ccmadmin/directoryNumberEdit.do?key=1d9c88cf-549e-d47b-199d-6a7f3ea1b424&mapkey=3da3f835-cadc-8ad4-b339-dabdf8a9a605&devicekey=af5d87c-1a71-4183-8712-0e80a5efa070&index=1

Navigation Cisco Unified CallManager Administration Logged in as: CCMAdmin

System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Directory Number Configuration Related Links: Back To Find/List

Status: Ready

Note: Changes to Line or Directory Number settings require restart.

**Directory Number Information**

Directory Number*	3000
Route Partition	phones
Description	
Alerting Name	Bofo Bautista
ASCII Alerting Name	Bofo Bautista

Allow Control of Device from CTI

Associated Devices

SEP000C303B28F4	<a href="#">Edit Device</a>
-----------------	-----------------------------

[Edit Line Appearance](#)

Dissociate Devices

**Directory Number Settings**

Voice Mail Profile	< None >	(Choose <None> to use system default)
Calling Search Space	phones	
Presence Group*	Standard Presence group	
AAR Group	< None >	
User Hold Audio Source	< None >	
Network Hold Audio Source	< None >	
Auto Answer*	Auto Answer Off	





**Call Forward and Call Pickup Settings**

	Voice Mail Destination	Calling Search Space
Forward All	<input type="checkbox"/> or	phones
Secondary Calling Search Space for Forward All		< None >
Forward Busy Internal	<input type="checkbox"/> or	phones
Forward Busy External	<input type="checkbox"/> or	phones
Forward No Answer Internal	<input type="checkbox"/> or	phones
Forward No Answer External	<input type="checkbox"/> or	phones
Forward No Coverage Internal	<input type="checkbox"/> or	< None >
Forward No Coverage External	<input type="checkbox"/> or	< None >
Forward on CTI Failure	<input type="checkbox"/> or	< None >
No Answer Ring Duration (seconds)		
Call Pickup Group	< None >	

**MLPP Alternate Party Settings**

Target (Destination)

MLPP Calling Search Space < None >

MLPP No Answer Ring Duration (seconds)

**Line 1 on Device SEP000C303B28F4**

Display (Internal Caller ID)  Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.

ASCII Display (Internal Caller ID)

Line Text Label

ASCII Line Text Label

External Phone Number Mask

Message Waiting Lamp Policy\*

Ring Setting (Phone Idle)\*

Ring Setting (Phone Active)  Applies to this line when any line on the phone has a call in progress.

**Multiple Call/Call Waiting Settings on Device SEP000C303B28F4**

Note: The range to select the Max Number of calls is: 1-200

Maximum Number of Calls\*

Busy Trigger\*  (Less than or equal to Max. Calls)

**Forwarded Call Information Display on Device SEP000C303B28F4**

Caller Name

Caller Number

Redirected Number

Dialed Number

\* - indicates required item.



## Cisco 3845 w/ VWIC-2MFT-E1 Configuration

```
tony_3845#sh ver
Cisco IOS Software, 3800 Software (C3845-ENTSERVICESK9-M), Version 12.3(14)T6,
RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Thu 05-Jan-06 02:57 by dchih
```

ROM: System Bootstrap, Version 12.3(11r)T2, RELEASE SOFTWARE (fc1)

```
tony_3845 uptime is 2 hours, 21 minutes
System returned to ROM by reload at 18:34:34 UTC Thu May 4 2006
System image file is "flash:c3845-entservicesk9-mz.123-14.T6.bin"
```

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

A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>

If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).

```
Cisco 3845 (revision 1.0) with 486400K/37888K bytes of memory.
Processor board ID FTX0933A1JA
2 Gigabit Ethernet interfaces
62 Serial interfaces
2 Channelized E1/PRI ports
2 Channelized T1/PRI ports
DRAM configuration is 64 bits wide with parity enabled.
479K bytes of NVRAM.
125184K bytes of ATA System CompactFlash (Read/Write)
```

Configuration register is 0x2102

```
tony_3845#sh run
Building configuration...
```

```
Current configuration : 3246 bytes
!
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname tony_3845
!
boot-start-marker
boot system flash:c3845-entservicesk9-mz.123-14.T6.bin
boot-end-marker
!
```



```
logging buffered 100000000 debugging
enable password cisco
!
no aaa new-model
!
resource policy
!
no network-clock-participate slot 3
no network-clock-participate wic 0
voice-card 0
no dspfarm
!
voice-card 3
dspfarm
!
ip subnet-zero
ip cef
!
!
no ip dhcp use vrf connected
!
!
no ip domain lookup
ip host CM-BARZA 172.20.110.254
ip host CM-CHIVAS 172.20.8.254
no ftp-server write-enable
isdn switch-type primary-4ess
!
!
!
controller T1 0/0/0
framing esf
linecode b8zs
!
controller T1 0/0/1
framing esf
linecode b8zs
!
controller E1 3/0/0
pri-group timeslots 1-31 service mgcp
!
controller E1 3/0/1
pri-group timeslots 1-31 service mgcp
!
!
!
interface GigabitEthernet0/0
ip address 172.20.8.26 255.255.255.0
duplex auto
speed auto
media-type rj45
negotiation auto
!
interface GigabitEthernet0/1
no ip address
shutdown
duplex auto
speed auto
media-type rj45
```



```
negotiation auto
!
interface Serial3/0/0:15
no ip address
isdn switch-type primary-qsig
isdn protocol-emulate network
isdn incoming-voice voice
isdn T310 120000
isdn bind-13 ccm-manager
no cdp enable
!
interface Serial3/0/1:15
no ip address
isdn switch-type primary-qsig
isdn incoming-voice voice
isdn bind-13 ccm-manager
no cdp enable
!
ip default-gateway 172.20.8.1
ip classless
ip route 0.0.0.0 0.0.0.0 172.20.8.1
!
!
ip http server
no ip http secure-server
!
!
!
control-plane
!
!
!
voice-port 3/0/0:15
!
voice-port 3/0/1:15
!
ccm-manager mgcp
ccm-manager music-on-hold
ccm-manager config server CM-CHIVAS
ccm-manager config
!
mgcp
mgcp call-agent CM-CHIVAS 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 modem passthrough voip mode nse
mgcp package-capability rtp-package
no mgcp package-capability res-package
mgcp package-capability sst-package
no mgcp package-capability fxr-package
mgcp package-capability pre-package
no mgcp timer receive-rtcp
mgcp sdp simple
mgcp fax t38 inhibit
mgcp rtp payload-type g726r16 static
!
mgcp profile default
!
```



```
!  
!  
!  
line con 0  
password cisco  
stopbits 1  
line aux 0  
stopbits 1  
line vty 0 4  
password cisco  
login  
!  
scheduler allocate 20000 1000  
!  
end  
  
tony_3845#
```

## Acronyms

CellHeading font is F12,Shift+T. CellBody is F12, T

Acronym	Definitions
ANF-PR	Additional Network Feature Path Replacement
AOC Advice-of-charge	Information element is sent with the connection setup information for incoming Euro-ISDN connections. The AOC IE is used for call charge calculation
CCM	Cisco Unified Call Manager
CCBS	Call Completion to Busy Subscriber
CCNR	Call Completion on No Reply
CFB	Call Forwarding on Busy
CFNR	Call Forwarding No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line (Number) Identification Presentation
CLIR	Calling Line (Number) Identification Restriction
CNIP	Calling Name Identification Presentation
CNIR	Calling Name Identification Restriction
COLP	Connected Line (Number) Identification Presentation
COLR	Connected Line (Number) Identification Restriction
CONP	Connected Name Identification Presentation
CONR	Connected Name Identification Restriction
CT	Call Transfer
MWI	Message Waiting Indicator



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