



OpenScape Business V1

Tutorial

Networking with HiPath 4000

Version 1.0.

Definitions

HowTo

An OpenScape Business HowTo describes the configuration of an OpenScape Business feature within the OpenScape Office administration. It addresses primarily trained administrators of OpenScape Business.

Tutorial

Within the OpenScape Business tutorials procedures for installation, administration and operation of specific devices, applications or systems, which are connected to OpenScape Business, are described. The tutorial addresses primarily trained administrators of OpenScape Business.

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Table of History

Date	Version	Changes
2013-08-26	1.0	Initial Creation

1. OpenScape Business Settings:

Configuring SIP connections to HiPath 4000 (four in this case)

The screenshot shows the 'Expert mode - Telephony Server' interface. On the left, a tree view under 'Trunks/Routing' shows 'Port 5 SIP Interconnection 2' selected, with sub-items 7843 0-5-43 through 7846 0-5-46. The main area displays a table of trunks:

Trunk	Box-SI-PT-LI	Code	Route	Status	Type
Line 43	LAN 1-0-5-1	7843	H4k SIP	active	SIP Interconnection 2
Line 44	LAN 1-0-5-2	7844	H4k SIP	active	SIP Interconnection 2
Line 45	LAN 1-0-5-3	7845	H4k SIP	active	SIP Interconnection 2
Line 46	LAN 1-0-5-4	7846	H4k SIP	active	SIP Interconnection 2

Assign a route

The screenshot shows the 'Expert mode - Telephony Server' interface with the 'Route' configuration window open. The left tree view shows 'Route' selected, with 'H4k SIP' highlighted. The main area shows the configuration for the 'H4k SIP' route:

Route Name: H4k SIP
Seizure code:
CO code (2nd trunk code): 0

Gateway Location
Country code: 43
Local area code: 1
PABX number: 7101111

PABX number-incoming
Country code:
Local area code:
PABX number:
Location number:

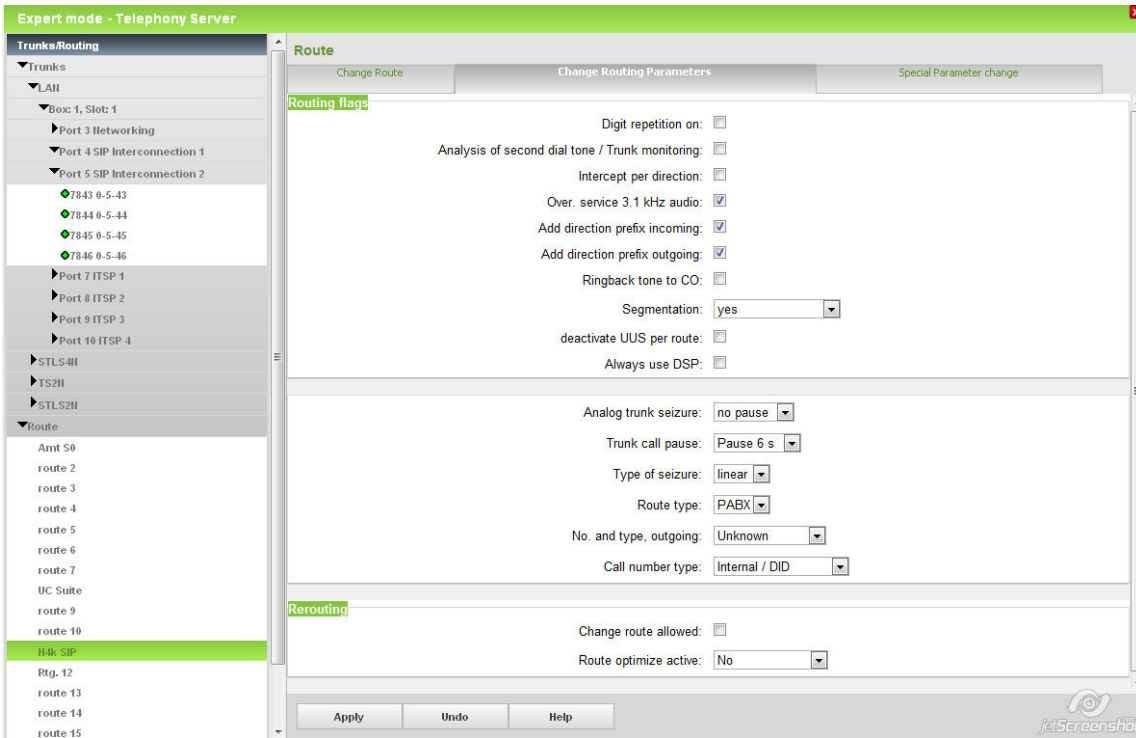
PABX number-outgoing
Country code:
Local area code:
PABX number:
Suppress station number:

Overflow route
Overflow route: None

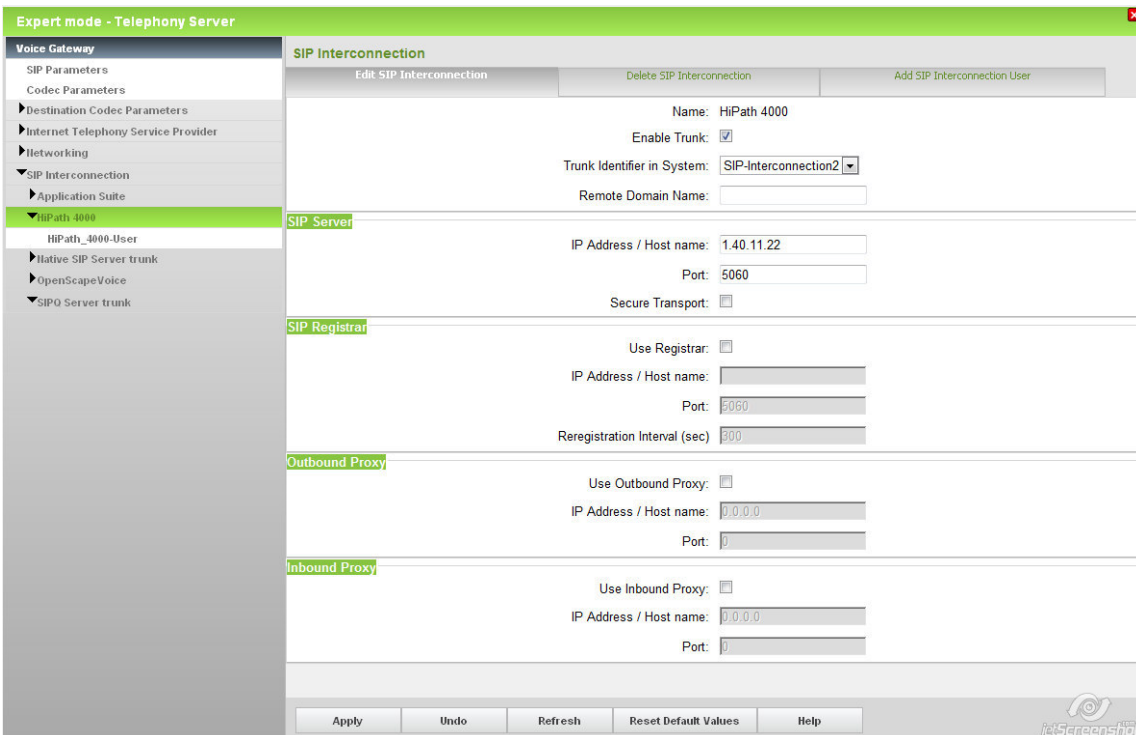
Digit transmission
Digit transmission: Digit-by-digit

Buttons: Apply, Undo, Help

Modify routing parameters if necessary (depends on HiPath 4000 settings)



Activate SIP Interconnection to HiPath 4000. 1.40.11.22 is the IP address of HiPath 4000.



Create Dial Plan. If the HiPath 4000 is your main PSTN access use standard rule 0CZ and routing table 1

Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency
1	Emergency call	0C112	1		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
14			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
15			1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Standard	0CZ	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Standard	0C1Z	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>
18	Standard	0CNZ	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Create Routing Table

Index	Route	Dial Rule	min. COS	Warning	Dedicated Gateway	GW Node ID
1	H4k SIP	H4k SIP	15	None	No	
2	None	None	15	None	No	
3	None	None	15	None	No	

Create Dial Rule. No. 16 in this example

Rule Name	Dial rule format	Network access	Type
1	CO	Main network supplier	Unknown
2	SIP	Main network supplier	Unknown
3	SIP local	Main network supplier	Unknown
4	MEB	Corporate Network	PABX number
5	IP-Network	Corporate Network	Unknown
6	Multi-Location	Corporate Network	Unknown
7	Gateway call	Corporate Network	Unknown
8	COInternat	Main network supplier	Unknown
9		Unknown	Unknown
10		Unknown	Unknown
11		Unknown	Unknown
12		Unknown	Unknown
13		Unknown	Unknown
14		Unknown	Unknown
15		Unknown	Unknown
16	H4k SIP	Corporate Network	Unknown

2. HiPath 4000 Settings:

```
<dis-buend:40;  
DIS-BUEND:40;  
H500: AMO BUEND STARTED
```

```
+----- FORMAT = L -----+  
| TGRP NUMBER :    40   TGRP NAME   : IP_TRUNKING       MAXIMUM NO.   :   30|  
|                                     CHARCON      : NEUTRAL                                     |  
| SUBGROUP NO.:     1   DEVICE TYPE : HG3550IP         TRACENO       :    0|  
| SEARCH MODE  : DESCENDING                                     ACD THRESHOLD :   *|  
| NUMBER OF ASSOCIATED ROUTES : 3                       PRIORITY      :    2|  
| TDDRFLAG    :    ON   TDDRTHRESHOLD: 3                SOURCEGROUPIDX :   18|  
| GDTRRULE   :     0     ACDPMGRP  : 0                  |  
| THE FOLLOWING TRUNKS (LTG-LTU-SLOT-CCT) HAVE BEEN ALLOCATED: |  
+-----+  
| 1-18- 4-0      1 | 1-18- 4-0      2 | 1-18- 4-0      3|  
| 1-18- 4-0      4 | 1-18- 4-0      5 | 1-18- 4-0      6|  
| 1-18- 4-0      7 | 1-18- 4-0      8 | 1-18- 4-0      9|  
| 1-18- 4-0     10 | 1-18- 4-0     11 | 1-18- 4-0     12|  
| 1-18- 4-0     13 | 1-18- 4-0     14 | 1-18- 4-0     15|  
| 1-18- 4-0     16 | 1-18- 4-0     17 | 1-18- 4-0     18|  
| 1-18- 4-0     19 | 1-18- 4-0     20 | 1-18- 4-0     21|  
| 1-18- 4-0     22 | 1-18- 4-0     23 | 1-18- 4-0     24|  
| 1-18- 4-0     25 | 1-18- 4-0     26 | 1-18- 4-0     27|  
| 1-18- 4-0     28 | 1-18- 4-0     29 | 1-18- 4-0     30|  
+-----+  
AMO-BUEND-111          TRUNK GROUP  
DISPLAY COMPLETED;
```

<dis-tdcsu:1-18-4-0;

DIS-TDCSU:1-18-4-0;

H500: AMO TDCSU STARTED

```
----- DIGITAL TRUNK (FORMAT=L) -----
| DEV      = HG3550IP      PEN      = 1-18-004-0  TGRP      = 40
|-----|
| PROTVAR  = ECMAV2        INS       = Y          SRCHMODE  = DSC
| COTNO    = 38            COPNO    = 36          DPLN      = 0
| ITR      = 0             COS       = 1          LCOSV     = 7
| LCOSD    = 7            CCT       = IP_TR.     DESTNO    = 0
| SEGMENT  = 8            DEDSCC  =          DEDSVC    = NONE
| FACILITY =              DITIDX  =          SRTIDX    =
| TRTBL    = GDTR         SIDANI   = N          ATNTYP    = TIE
| CBMATTR  = NONE        NWMUXTIM = 10         TCHARG    = N
| SUPPRESS = 0           DGTPR   =          CHIMAP    = N
| ISDNIP   = 00          ISDNNP  = 0
| PNPL2P   =             PNPL1P  =          PNPAC     =
| TRACOUNT = 31          SATCOUNT = MANY      NNO       = 1  -2  -499
| ALARMNO  = 0           FIDX    = 1          CARRIER  = 1
| ZONE     = EMPTY      COTX    = 38         FWDX     = 10
| DOMTYPE  =            DOMAINNO =          TPROFNO  =
| INIGHT   =            CCHDL   = SIDEA
| UUSCCX   = 16          UUSCCY  = 8          FNIDX    = 1
| CLASSMRK = EC          & G711  SRCGRP   = ( )
| TCCID    = IP TR      SECLEVEL = TRADITIO
| H MUSIC  = 0
|-----|
| BCNEG    = N           BCGR     = 1          LWPAR     = 1
| LWPP     = 0           LWLT    = 0          LWPS     = 0
| LWR1     = 0           LWR2    = 0
| DMCALLWD = Y           VNNO     =
| SVCDOM   =
| BCHAN    = 1 && 30
|-----|
```

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

AMO-TDCSU-111 DIGITAL TRUNKS
DISPLAY COMPLETED;

<dis-cot:38;

DIS-COT:38;

H500: AMO COT STARTED

COT: 38 INFO: 38: S0/2 QUER ECMA2 HIPATH 4000 MIT HIPATH 4000

DEVICE: S2CONN SOURCE: DB

PARAMETER:

PRIORITY FOR AC WILL BE DETERMINED FROM MESSAGE	PRI
RECALL IF USER HANGS UP IN CONSULTATION CALL	RCL
TRUNK SIGNALING ANSWER	ANS
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
NETWORKWIDE CALL FORWARDING PERMITTED	FWDN
NETWORKWIDE FORWARDING NO-ANSWER	FNAN
DON'T RELEASE CALL TO BUSY HUNT GROUP	BSHT
END-OF-DIAL FOR BLOCK IS SET	BLOC
ACTIVATE TRANSIT COUNTER ADMINISTRATION FOR S0/S2 LINE	ATRS
CONNECTION TO ROUTE OPTIMIZATION NODE	ROPT
TSC-SIGNALING FOR NETWORKWIDE FEATURES (MANDATORY)	TSCS
TRUNK SENDS CALL CHARGES TO ORIGINATING NODE NUMBER	TRSC
CALL FORWARDING PROGRAMING FOR OTHER SUBSCRIBERS	CFOS
CALL FORWARDING VALIDATION PROCEDURES POSSIBLE	CFVA
PIN NETWORKWIDE POSSIBLE	PINR
AOC PER CALL (AUTOMATICAL OR ON REQUEST), MAND. CORNET-NQ	AOCC
B-CHANNEL NEGOTIATION (PREV. PREFERRED-PREFERRED COLLISION)	BCNE
NO TONE	NTON

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

<dis-cop:36;

DIS-COP:36;

H500: AMO COP STARTED

COP: 36 INFO: 36: S0/2 QUER ECMA2 AB V3.0

DEVICE: S2CONN SOURCE: DB

PARAMETER:

CO TRUNK ACCESS:

TRUNK ACCESS

TA

TOLL ACCESS:

TRUNK ACCESS

TA

AMO-COP -111 CLASS OF PARAMETER FOR DEVICE HANDLER

DISPLAY COMPLETED;

```
<dis-cgwb:18,4;
DIS-CGWB:18,4;
H500: AMO CGWB STARTED
```

```
-----
| CGW BOARD DATA |
-----
| SIP HG3550 |
-----
| LTU = 18 SLOT = 4 SMODE = NORMAL POOLNO: 0 |
-----
```

GLOBAL DATA AND ETHERNET INTERFACE DATA - CONFIGURABLE VALUES:

```
-----
IPADR = 1 .40 .11 .22 TCPP = (4060)
NETMASK = 255.0 .0 .0 VLAN = NO (NO)
DEFRT = 1 .255.255.254 (0.0.0.0 = NOT CONFIGURED)
BITRATE = 100MBFD (AUTONEG) VLANID = 0 (0)
PATTERN = 213 (213)
TRPRSIP = 0 (0)
TRPRSIPQ = 30 (0)
TRPRH323 = 0 (0)
TPRH323A = 0 (0)
TLSP = 4061 (4061)
```

GLOBAL DATA - CONSTANT VALUES:

```
-----
AMO INTERFACE VERSION: 0 OPMODE: 1 DATA_VALID: YES
```

```
DNSIPADR = 0.0.0.0
DNSIPADR2 = 0.0.0.0
```

SERVICE INTERFACE

```
-----
LOGINTRM = "TRM" (TRM)
PASSW = *****
```

ASC DATA - CONFIGURABLE VALUES:

```
-----
TOSPL = 184 (184) TOSSIGNL = 104 (104)
UDPPRTLO = 29100 (29100) UDPPRTHI = 30099 (30099)
T38FAX = YES (YES) REDRFTN = YES (YES)
RFCFMOIP = NO (NO) RFCDTMF = YES (YES)
```

```
PRI01 : CODEC = G711A VAD = NO RTP-SIZE = 30
PRI02 : CODEC = G729A VAD = NO RTP-SIZE = 20
PRI03 : CODEC = G723 VAD = NO RTP-SIZE = 30
PRI04 : CODEC = NONE VAD = NO RTP-SIZE = 20
PRI05 : CODEC = NONE VAD = NO RTP-SIZE = 20
PRI06 : CODEC = NONE VAD = NO RTP-SIZE = 20
PRI07 : CODEC = G729AB VAD = YES RTP-SIZE = 20
```

DSP CONFIGURATION DATA

```
-----
JITBUFD = 60 (60) (PARAMETER IS NOT USED ANYMORE)
```

PRIMARY AND SECONDARY GATEKEEPER

```
-----
PRIGKIP = (0.0.0.0)
PRIGKPN = 1719 (1719)
PRIGKID1 = PRIMARYRASMANAGERID
```

(PRIMARYRASMANAGERID)
PRIGKID2 =
SECGKIP = (0.0.0.0)
SECGKPN = 1719 (1719)
SECGKID1 = SECONDARYRASMANAGERID
(SECONDARYRASMANAGERID)
SECGKID2 =
TIMTOLIVE = 120 (120)

MANAGEMENT STATION AND BACK-UP SERVER

MGNTIP = (0.0.0.0)
MGNTPN = 8000 (8000)
BUSIP = (0.0.0.0)
BUSPN = 443 (443)
UIMODE = CLASSIC (CLASSIC)

DMC DATA

DMCCONN = 0 (0)

WBM LOGIN DATA

LOGINWBM = HP4K-DEVEL ROLE = ENGR (ADMIN)
LOGINWBM = HP4K-SU ROLE = SU (ADMIN)
LOGINWBM = HP4K-ADMIN ROLE = ADMIN (ADMIN)
LOGINWBM = HP4K-READER ROLE = READONLY (ADMIN)

GATEWAY DATA

GWID1 = PRIMARYRASMANAGERID
GWID2 =

H.235 SECURITY DATA

GLOBID1 = siemensGateway2003
(siemensGateway2003)
GLOBID2 =
TIMEWIN = 100 (100)
SECSUBS = NO (NO)
SECTRNK = NO (NO)
GLOBPW =
242-191-30-119-188-83-173-161-43-0-70-36-218-74-169-221-78-102-174-170

LEGK DATA

GWNO = 40 (0)
GWDIRNO = 49999
REGEXTGK = NO (NO)

SIP TRUNKING DATA FOR ERH

GWAUTREQ = NO (NO)
GWSECRET = *****
GWUSERID =
GWREALM =

SIP TRUNKING DATA FOR SSA

SIPREG = NO (NO)

```
REGIP1      = 0.0.0.0 (0.0.0.0)
PORTTCP1    = 5060 (5060)
PORTTLS1    = 5061 (5061)
REGIP2      = 0.0.0.0 (0.0.0.0)
PORTTCP2    = 5060 (5060)
PORTTLS2    = 5061 (5061)
REGTIME     = 120 (300)
```

DLS DATA

```
-----
DLSIPADR    = 1.41.41.41
DLSPORT     = 18443
DLSACPAS    = YES
```

JB DATA - CONFIGURABLE VALUES:

```
-----
JBMODE      = 2
AVGDLYV    = 40 (40)
MAXDLYV    = 120 (120) MINDLYV = 20 (20)
PACKLOSS   = 4 (4)
AVGDLYD    = 60 (60) MAXDLYD = 200 (200)
```

IP CONFIGURATION

```
-----
IPMODE      = IPV4 (IPV4)
DHCPV4     = NO (NO)
DHCPV6     = NO (NO)
```

MANAGEMENT LAN INTERFACE DATA - CONFIGURABLE VALUES:

```
-----
MIPADR      = 0 .0 .0 .0          MNETMASK    = 0 .0 .0 .0
MVLAN       = NO (NO)          MVLANID     = 0 (0)
MDEFRT      = 0 .0 .0 .0          (0.0.0.0 = NOT CONFIGURED)
```

```
AMO-CGWB -111      CONFIGURATION OF HG3500 BOARD
DISPLAY COMPLETED;
```

<dis-gkreg:50; → 1.71.74.95 is the OpenScape Business IP address

DIS-GKREG:50;

H500: AMO GKREG STARTED

```
+-----+
| GWNO      50          GWATTR  EXTGW   HG3550V2 SIPQ
| GWIPADDR  1  .71 .74 .95          GWDIRNO 19991
| DIPLNUM   0          DPLN  0
| LAUTH     1
| GATEWAY REGISTERED: NO
| IP GATEWAY IS CONFIGURED BY GKREG
| INFO:
| SECLEVEL: TRADITIO
+-----+
```

AMO-GKREG-111 GATEKEEPER REGISTRY
DISPLAY COMPLETED;

<dis-gkreg:40;

DIS-GKREG:40;

H500: AMO GKREG STARTED

```
+-----+
| GWNO      40          GWATTR  INTGW   REGGW   HG3550V2 SIPQ
| GWIPADDR  1  .40 .11 .22          GWDIRNO 49999
| DIPLNUM   0          DPLN  0
| LAUTH     1
| GATEWAY REGISTERED: YES
| IP GATEWAY IS CONFIGURED BY GKREG
| INFO:
| SECLEVEL: TRADITIO
+-----+
```

AMO-GKREG-111 GATEKEEPER REGISTRY
DISPLAY COMPLETED;

<dis-ldpln:ldp,0,6;

DIS-LDPLN:LDP,0,6;

H500: AMO LDPLN STARTED

+-----+			
	DIPLNUM: 0		
	LDPNO :6	LDP : 60-X	
		SPC : 22	
		FDSFIELD : 0	SDSFIELD : 0
		PINDP : N	
+-----+			
	DPLN	LROUTE	LAUTH
+-----+			
	0	12	1
	1	12	1
	2	12	1
	3	12	1
	4	12	1
	5	12	1
	6	12	1
	7	12	1
	8	12	1
	9	12	1
	10	12	1
	11	12	1
	12	12	1
	13	12	1
	14	12	1
	15	12	1
+-----+			

AMO-LDPLN-111 ADMINISTRATION LCR DIALPLAN
DISPLAY COMPLETED;

<dis-ldat:lcr,12;

DIS-LDAT:LCR,12;

H500: AMO LDAT STARTED

```
-----+
| LROUTE = 12      LDPLN          NAME =                               SERVICE = ALL|
| TYPE = LCR                                DNNO OF ROUTE = 1 -10 -100 |
| SERVICE INFO =                               |
+-----+-----+-----+-----+-----+-----+-----+-----+
|          |          |          |          | SCHEDULE | CARRIER |          |          |          |
| LRTEL   | LVAL  | TGRP  | ODR  | LAUTH  | ABCDEFGH | ZONE  | LATTR | LDSRT |COTIDX
+-----+-----+-----+-----+-----+-----+-----+-----+
|          1|          1|          40|          8| 1  | ***** | 1  | EMPTY|          NONE |          | 0
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
|          |          |          |          |          |          |          |          |          |
+-----+-----+-----+-----+-----+-----+-----+-----+
```

AMO-LDAT -111 LCR-DIRECTIONS
DISPLAY COMPLETED;

<dis-lodr:8;

DIS-LODR:8;

H500: AMO LODR STARTED

```
-----+
| ODR      POSITION  CMD          PARAMETER |
+-----+-----+-----+-----+
|      8    |      1    | ECHO    |      2    |
|          |      2    | END     |          |
+-----+-----+-----+-----+
```

H03: THE NEXT FREE ODR IS 2

AMO-LODR -111 ADMINISTRATION OF LCR OUTDIAL RULES
DISPLAY COMPLETED;

<dis-richt:lrte,12;

DIS-RICT:LRTE,12;

H500: AMO RICHT STARTED

```
-----+
| LRTE = 12      NAME =                               (NEUTRAL)  LSVC = ALL  |
| DNNO =1 -10 -100 PDNNO =                            0          |
| ROUTOPT = YES  REROUT = YES  PLB = YES  FWDBL = NO          |
| DTMFCNV = WITHOUT DTMFDSP = WITHOUT DTMFTEXT =          |
| DTMFPULS =          BUGS = LIN  ROUTATT = NO          MAINGRP = 9  |
| EMCYRTT = NO    CONFTONE = NO  RERINGRP = NO  RTENO = 9  |
| INFO =                                                |
| NOPRCFWD = NO                                       |
| NITO = NO                                           |
| CLNAMEDL = NO                                       |
| FWDSWTCH = NO                                       |
| LINFEMER = NO                                       |
| NOINTRTE = NO                                       |
-----+
| TGRP = 40  LDAT  IP_TRUNKING          (NEUTRAL)  SUBGROUP = 1  |
-----+
```

AMO-RICT-111 TRUNK ROUTING

DISPLAY COMPLETED;

<

About Unify

Unify is one of the world's leading communications software and services firms, providing integrated communications solutions for approximately 75 percent of the Fortune Global 500. Our solutions unify multiple networks, devices and applications into one easy-to-use platform that allows teams to engage in rich and meaningful conversations. The result is a transformation of how the enterprise communicates and collaborates that amplifies collective effort, energizes the business, and enhances business performance. Unify has a strong heritage of product reliability, innovation, open standards and security.

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