

TECHNICAL WHITE PAPER

Avaya Communication Server 1000 Calling and Called number Modification

Abstract

Calling Line ID (CLID) tables in the CS 1000 portfolio determine the CLID sent for the various types of call setups originating from both stations and calls tandemed via an inbound trunk. Specific configuration must be considered to present the appropriate CLID on various call types across both private and public network trunk facilities. In many areas around the world, CLID is also a key component for Emergency Services (911, 112, etc.) call routing and termination to the appropriate Public Safety Answer Point or PSAP. This document will cover the most common scenarios for CLID table creation

Topics

CLID Table

Flexible CLID Manipulation table

Examples

CS 1000 Calling Line ID Configuration

Calling Line ID (CLID) tables in the CS 1000 portfolio determine the CLID sent for the various types of call setups originating from both stations and calls tandemed via inbound trunks. Specific configurations must be considered to present the appropriate CLID on various call types across both private and public network trunk facilities. In many areas around the world, CLID is also a key component for Emergency Services (911, 112, etc.) call routing and termination to the appropriate Public Safety Answer Point or PSAP. This document will cover the most common scenarios for CLID table creation and is designed to serve as an extension to the ISDN Primary Rate Interface Features and Fundamentals NTP NN43001-569-B2. ISDN trunking is required in order to transmit CLID with a call setup over a digital facility such as a PRI or PRI2 (E1). Analog trunks do not have the ability to transmit a CLID to the network. The only exception to this is a CAMA trunk, typically used only in the US, and becoming rarer with the open availability of ISDN digital facilities. CAMA facilities are used are used in some cases for E911 implementations, as they do transmit CLID information in the form of MF digits in-band with the dialed destination. A complete list of supported interfaces is shown in Table 1.

	Euro ISDN	MCDN	Q.SIG	BRI Phones	DPNSS	MFC	DTI2	Analog
Calling Line ID Support	YES	YES	YES	YES	YES	NO	NO	NO

Table 1: Trunk Interfaces Supporting CLID



LD 15 - Enable CLID Tables for a Customer

CLID Tables are defined in Overlay 15 in the NET_DATA block. By default, the CS 1000 will support up to 256 CLID tables; however, this can be expanded by increasing the LD 15 SIZE prompt to any number up to 4000 as shown in Figure 1 below.

```
>LD 15
REQ: CHG
TYPE: NET
TYPE NET_DATA
CUST 0
OPT
AC2
FNP
CLID YES
  SIZE 4000
                       < Denotes maximum numbers of CLID tables available
  INTL
  ENTRY
ISDN
  VPNT
  PNT
  PINX_DN
  MRG
  BSGC
  PFX1
  PFX2
```

Figure 1: Command Line Interface CLID Table Configuration in LD 15

LD 15 - Creating CLID Tables

Once the CLID table function has been enabled for a customer, individual CLID tables to be used by stations and trunks must then be created. CLID tables are numbered from 0 to 4000, or the maximum number defined in the previous step. Once created, CLID tables are assigned to keys on each telephone TN. When provisioning DNs on telephones, if no CLID table is specified, the default CLID table of '0' will be used. Because of this, Nortel strongly recommends that CLID Table 0 be defined to send the Main Billing Number of the customer with no DID number conversion. This will prevent sending an invalid CLID to the PSTN on non-DID telephones where the installer fails to provision a specific CLID table number on a key as well as provide a fail-safe solution for 911 calls.



BEST PRACTICE

Configure the default CLID Table '0' to send the main Billing Number for PSTN and Emergency Services Calls. This will prevent sending an invalid CLID to the network in the event a CLID is omitted on a particular phone.

Specific scenarios for CLID configurations will be covered later in this document. CLID Tables apply to all DN keys on all phone types including analog and ACD agent phones.



```
REQ: CHG
TYPE: NET
TYPE NET_DATA
CUST 0
OPT
AC2
FNP
CLID YES
                        < CLID Gate Opener
 SIZE
 TNTI
 ENTRY 0
                        < CLID Table to be modified/created
                       < All Calls - NPA (Area Code)
   HNTN 972
   ESA_HLCL 362
                       < Emergency Calls - NXX (Local Exchange)
   < Emergency Calls - Include NPA on CLID
   HLCL 362
                       < Normal Calls - NXX (Local Exchange)
   DIDN YES/NO
                       < Normal Calls - Include DN on CLID
   HLOC 442
                       < UDP Calls - Home Location Code
   LSC 2
                         < CDP Call - Local Steering Code (if used)
```

Detailed Prompt Explanations

Detailed explanations for the prompts and responses are shown in the table below

Prompt	Response	Descrip	Description					
HNTN	0-999999 X		National code (Area Code) for home national number (1-6 digits). Using X deletes digits when making a change to an existing table.					
HLCL	0-9999 X		Local code for home local number or Listed Directory Number (1-12 digits). Using X deletes digits when making a change to an existing table.					
		YES	The default. The CLID is constructed using the digits defined in HLCL followed by the DN of the active key.					
DIDN	(YES) NO	NO	Construct the CLID using the digits defined in HLCL.					
	SRCH	SRCH	Search on the phone, from key 0 - upwards, to find a CLID entry which has the DIDN set to YES. Use the found CLID to construct the local number.					
HLOC	0-9999999 X		ocation code (ESN), 1-7 digits. I deletes digits when making a change to an existing table.					
LSC	0-9999999 X		teering code, 1-7 digits. It deletes digits when making a change to an existing table.					



Understanding CLID Table

Print your CLID table by going into LD 21.

>LD 21

REQ: PRT

TYPE: CLID

CUST 0

You will see something like this:

```
ENTRY 0 <-- DNs using CLID 0
```

HNTN 414 <-- Display this as the NPA. (Do not include the 1 in the NPA)

ESA_HLCL

ESA INHN NO

ESA APDN YES

HLCL 280 <-- Display this as an NXX

DIDN YES <-- This means: YES, append the DN on the end of the NPA&NXX.

HLOC

LSC

ENTRY 1 <-- DNs using CLID 1

HNTN 414 <-- Display this as the NPA. (Do not include the 1 in the NPA)

ESA_HLCL

ESA_INHN NO

ESA_APDN YES

HLCL 2802000 <-- Display this as an NXX

DIDN NO <-- This means: NO, don't append the DN to the NPA&NXX

HLOC



LSC

Using the Entry 0 and Entry 1 examples from above:

```
key 0 SCR 2879 0 <-- will send 414-280-2879 key 0 SCR 2879 1 <-- will send 414-280-2000
```

When you make "rollover" DNs; make their CLID entry "D" (without the quotes) to tell the system to "DIG" back a key until it finds a real CLID table reference. Otherwise if your users make calls out on their rollover key, the person receiving the call will see a wrong number as your users CLID.

key 8 SCR 4289 D <-- the switch will 'dig' back to the first real CLID reference and use it (not 4289)

Doing this does not change the internally displayed number.

LD 10 - Assign CLID to analog phones

CLID tables are assigned to analog devices in Overlay 10 using a field added after the DN in the DN prompt in the TNB. Since analog devices can only have a single DN, only one CLID table can be assigned to these devices.

LD 11 - Assign CLID to Digital and IP Phones

CLID tables are assigned to digital and IP telephones in Overlay 11 using a field added after the DN in the DN prompt in the TNB. Due to the fact that digital and IP telephones may support multiple DN appearances CLID table assignment must be carefully planned to prevent an invalid CLID from being sent to the network, potentially jeopardizing emergency response.

Multiple DNs on a Single Device

In many cases, multiline telephones have several DNs appearing on them, most commonly rollover lines or internal soft numbers that are not DIDs. If the same CLID table were used for DID DN keys on the phone as rollover keys, an invalid CLID would be sent to the network since in most cases the rollover DN range is not part of the normal DID range. To solve this issue, a special CLID Table identifier of 'D' can be set on all other DN appearances other than the Primary DN. This special CLID identifier causes the Call Server to start searching all keys on the phone starting at Key 0 for a valid CLID table to use. The CLID is then assembled as if the call were placed from the PDN key. In the example below, CLID table 2 would be used along with the DN of 5745 regardless if the call were made from Key 0 or Key 1. This



configuration is critical for Emergency Services calling, where the CLID determines the proper routing and termination to the appropriate PSAP.

```
REQ: NEW
TYPE: 2XXX / 39XX / I200X / I2050
TN 4 0 6 0
DES 8B369G
                             < CLID Table 2 is used for calls on this key
KEY 0 SCR 5745 2
 MARP
  CPND
  VMB
  ANIE
KEY 1 SCR 2225745 D
                              < DEFAULT Table is used for calls on this key
  MARP
  CPND
  VMB
  ANIE
```

LD 16 - Assign CLID to Trunk Routes

CLID tables can also be assigned to trunk routes to provide a CLID on inbound non-PRI facilities such as TIE lines. Although the CLID cannot be assigned to the station level of the remotely connected Call Server, the CLID can be configured to indicate the entire remote site as a whole. This CLID table can also be used for PRI trunk routes when the originating Call Server fails to compile and send a CLID with a call setup

Prefix CLID to Call Log

How do I insert the 9 (Access Code or AC1 or AC2) if I want to return a call that was missed? DAPC (Dial Access Prefix on CLID) is used to create table for adding a leading digit to an incoming CLID and assign it to a route.

First, create a table with the desired prefix (9)

>LD 15 CHG FTR_DATA DAPC YES



TBL 1 NPI E164 TON NATL PREF 9

Then, assign it to a route:

>LD 16 DAPC YES TBL 1

Incoming call on this route will show a 9 in front of the CLID in order to save it in the Personal Directory without editing it. It also gives the capability to redial it from the Call Log

Flexible CLID Manipulation Table:

Use the Flexible CLID manipulation table to configure matching rules and replacement rules linked to an incoming route and outgoing RLI for the Calling Line Identification (CLID). If all conditions in the matching rule of the first tuple in the Flexible CLID manipulation table are satisfied, the CLID is modified according to the corresponding replacement rule. If all conditions in the matching rule are not satisfied, the next tuple is examined in an attempt to match its matching rule. If there are no configured tuples for which all conditions in the matching rule are satisfied, the CLID is left unchanged.

Benefits: Improves interop with third party Call Servers, PSTN, OCS and other applications, Caters to select countries/regions specific Contact Center requirements

Why Flexible CLID Manipulation

1) Convert Unknown format to local, National, International E.164

- a) Select interfaces (analog /DTI/DPNSS/DASS etc) that do not have the capability to support NPI/TON (that specify the called & calling numbering format).
- b) When a call is received on any of these interfaces, the CO default the numbering format to "unknown".
- c) In many cases the PSTN adds the local, national, international prefix to the E.164 calling number and sends this to CS 1K in unknown format.
- d) Some applications like OCS expect the calling number in E.164 local, natl or intl format and expect the CS1K to perform conversion
- 2) Manipulate Calling digits, NPI, TON to improve interop behavior

Ability to manipulate CLID for interop with 3rd party PBXs, PSTN and select Applications.

3) Send a default configurable CLID on an outgoing route basis

 Select regulatory requirements which stipulate that the CLID displayed for a call from an Outbound Contact Center must be a dial-able number.



b) Create default configurable CLID to be built & sent on a outgoing route basis for calls received on analog interfaces that do not have capability to carry CLID

Overview:-

- This feature allows CS1K users to configure a flexible CLID table with Matching & Replacement rules which can be linked to Incoming Route and Outgoing RLI.
- > For any Incoming/Outgoing trunk calls, the CLID is matched with the rules configured under table.
- > The CLID is matched with the Matching Rule of the first tuple. If all condition satisfies, CLID will be modified according to the Replacement Rule. If not, it will move to the next tuple and try matching till a Matching rule is found. If no matching rule is found in any of the configured tuple, the CLID is left unchanged.

Configuration:-

The Flexible CLID Manipulation Feature will be configurable through overlays. New table called CMDB (CLID Manipulation Data Block) was introduced to configure Flexible CLID Table in LD 86. Example of a Tuple of the CLID manipulation table Structure with Matching and Replacement rules:

<RULENUM> <MNUM > <MID> <MNPI> <MTON> <MNOD> <INST> <RNPI> <RTON>

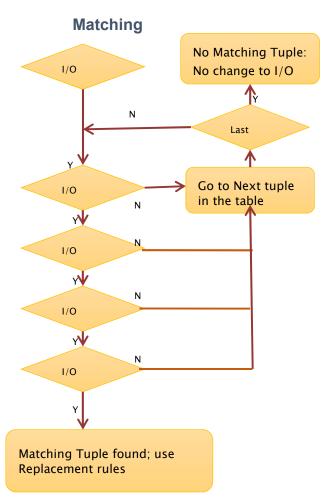
Each customer can configure up to 256 CLID manipulation tables and each table can have a maximum of 16 tuples. Each table can be associated with incoming route or outgoing route.

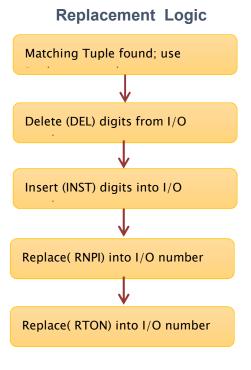
Prompt	Response	Description	Prompt	Response	Description
MNUM	CLNG (Calling number), DC (Don't Care). CONN* (Connected number), REDN* (Redirecting number)	Matching Number type	INST	X-XXXXXXX where value of X is from 0 to 9 and can be up to 8 digits in length, NCHG (No change)	Insert initial digits
MID	X-XXXXXXX digits where value of X is from 0 to 9 and can be up to 8 digits in length, DC = don't Care	Matching Initial Digits	DEL	1-32 digits, NCHG (NO change)	Delete initial digits



MNPI	E164,PRIV,E163,TELE,X121,NATL, DC (don't Care)	Matching Numbering Plan Indicator	MNOD	0-32, DC (don't Care)	Matching number of digits
MTON	As per Q.931 depending on NPI	Matching Type of Number	RTON	As per Q.931 depending on NPI.	Replacement Type of Number
MDR	GT (greater than), EQ (equal to), LT (lesser than), DC (don't Care)	Matching Digit Relation	RNPI	E164, PRIV, E163, TELE, X121, NATL, NCHG (NO change)	Replacement Numbering Plan Indicator.

Matching & Replacement Logic for 7.5







Limitation

- With Release 7.5 this CLID Enhancement was supported for Calling numbers CLNG only.
 - All other types of numbers are not supported :
 - Connected number "CONN", and
 - Redirecting Number "REDN", and
 - Originally Called Number "OCN" were not supported
- ▶ This feature is applicable for Incoming Route or Outgoing RLI of UIPE, Non-UIPE and DASS/DPNSS calling numbers.
- The number of tables configured per customer is limited to 256 (1-256)
- ▶ The number of Tuples configured per each table is limited to 16 (0-15)
 - The CLID Manipulation Data Block (CMDB) feature is not supported for Local Termination (LTER).

With Rls 7.6 this feature will be supported only for :

- Calling numbers **CLNG**
- Originally called number OCN (new Rls 7.6)
- Maximum size of MID field in CMDB is extended: from 8 to 16 digits
- Maximum size of INST field in CMDB is extended: from 8 to 16 digits

Limitations:

- Connected number CONN & redirecting number REDN, are not supported reserved in CLID manipulation table for future use.
- Tandem calls are supported with the following limitations:
- Need to be careful what OCN is displayed (not REDN).

Note: ARDN Must be set to "NO" in LD 16 for the incoming route.

- OCN is updated only for network call forward.

Note: Forwarding Set must be configured with CLS CFXA

Configuration 7.6

Prompt Response	Description	Prompt	Response	Description
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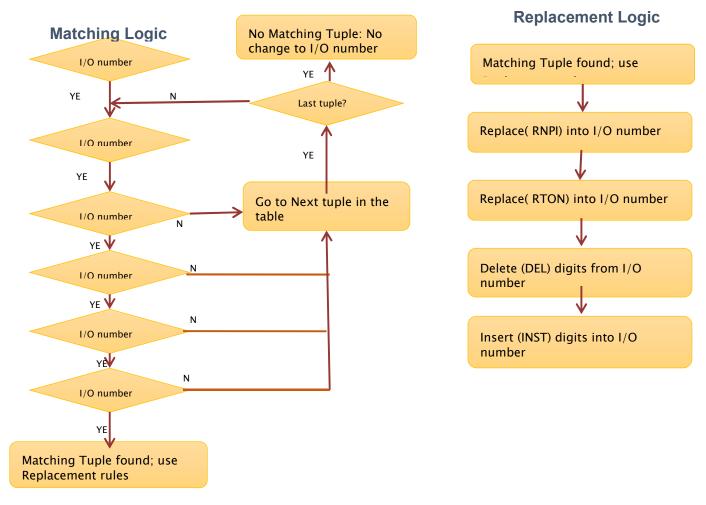
MNUM	CLNG (Calling number), DC (Don't Care). OCN (Original Called Number) CONN* (Connected number), REDN* (Redirecting number) Note*:not supported; will be handled in subsequent releases.	Matching Number type	INST	X-XXXXXXX where value of X is from 0 to 9 and can be up to 16 digits in length, NCHG (No change)	Insert initial digits
MID	X-XXXXXXX digits where value of X is from 0 to 9 and can be up to 16 digits In length, DC = don't Care	Matching Initial Digits	DEL	1-32 digits, NCHG (NO change)	Delete initial digits
MNPI	E164,PRIV,E163,TELE,X121,NATL, DC (don't Care)	Matching Numbering Plan Indicator	MNOD	0-32, DC (don't Care)	Matching number of digits
MTON	As per Q.931 depending on NPI	Matching Type of Number	RTON	As per Q.931 depending on NPI.	Replacement Type of Number
MDR	GT (greater than), EQ (equal to), LT (lesser than), DC (don't Care)	Matching Digit Relation	RNPI	E164, PRIV, E163, TELE, X121, NATL, NCHG (NO change)	Replacement Numbering Plan Indicator.

Example of a Tuple of the CLID manipulation table Structure with Matching and Replacement rules:

 $<\!\!RULENUM\!\!><\!\!MNUM\!\!><\!\!MID\!\!><\!\!MNPI\!\!><\!\!MTON\!\!><\!\!MNOD\!\!><\!\!DEL\!\!><\!\!INST\!\!><\!\!RNPI\!\!><\!\!RTON\!\!>$



Rls.7.6 Matching & Replacement Logic



Example of a Tuple of the CLID manipulation table Structure with Matching and Replacement rules:

<RULENUM> <MNUM > <MID> <MNPI> <MTON> <MNOD> <INST> <RNPI> <RTON>

Rls.7.6 feature interactions

- > ACD Agent should displays CLNG/OCN numbers modified accordingly to CMDB rules.
- ➤ IP Soft-Phone (2050PC) displays CLNG/OCN numbers modified accordingly to CMDB rules.
- Attendant console (2250) displays CLNG/OCN numbers modified accordingly to CMDB rules.
- > OCS Phone-set in RCC mode displays CLNG/OCN numbers modified accordingly to CMDB rules.
- > PCA forwarding call does **Not** display OCN.
- ACD agent acquired by CCMS does **Not** display OCN



- Note: there is no OCN field on Phone-set Displays configuration on CCMS

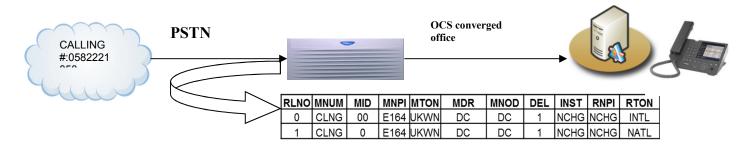
Example #1:- PSTN incoming call to OCS with unknown numbering format



- <u>Issue:</u>
- ▶ Incoming call to CS 1000 over Euro ISDN from PSTN has unknown numbering format.
- ▶ OCS does not handle unknown number formats Calling numbers very well and the OCS user ends up getting two pop ups for the same call.

Requirement:

- ▶ CLID with prefix 0 to be converted to National by removing the prefix 0
- ▶ CLID with prefix 00 to be converted to International by removing the prefix 00

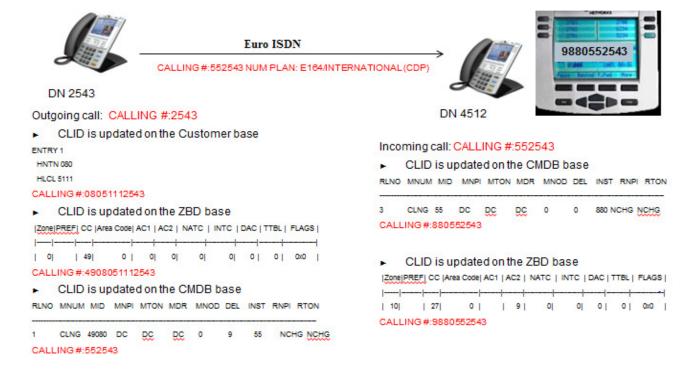


Solution:

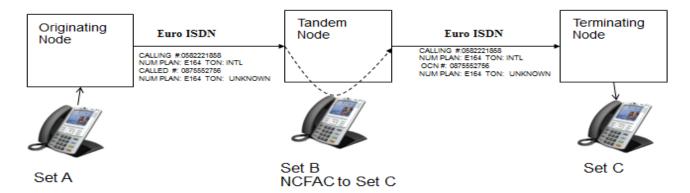
- ▶ Define a CLID manipulation table and associate this with incoming route
- ► If incoming CLID has 00 as prefix and unknown type of number, this will find match with first tupe and using the replacement logic gets converted to international format
- ► If incoming CLID has 0 as prefix and unknown type of number, this will find match with first tupe and using the replacement logic gets converted to national format



Example #2 :- CMDB & ZBD interaction (CLNG number)



Example #3 PSTN incoming call to Terminating Node couldn't be recalled to OCN number



Issue:

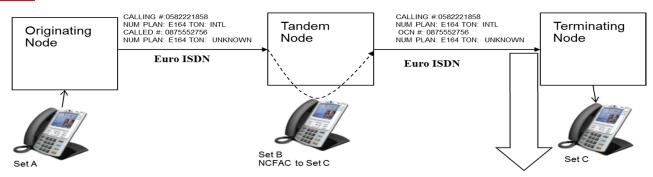
- ▶ Incoming tandem call to CS 1000 over Euro ISDN from PSTN has incorrect Originally Called Number.
- ▶ Set C cannot recall Set A or Set B via received numbers.

Requirement:

- ▶ OCN with prefix 0 to be converted to National by removing the prefix 0
- ▶ OCN with prefix 00 to be converted to International by removing the prefix 00

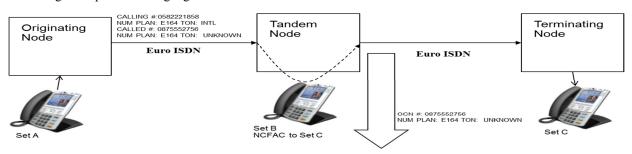


Solution:



RLNO	MNUM	MID	MNPI	MTON	MDR	MNOD	DEL	INST	RNPI	RTON
0	OCN	00	E164	UKWN	DC	DC	1	NCHG	NCHG	INTL
1	OCN	0	E164	UKWN	DC	DC	1	NCHG	NCHG	NATL

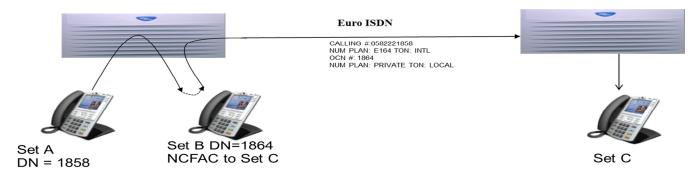
- ▶ Define a CLID manipulation table and associate this with incoming route on Terminating Node
- ► If incoming CLID has 00 as prefix and unknown type of number, this will find match with first tupe and using the replacement logic gets converted to international format
- ► If incoming CLID has 0 as prefix and unknown type of number, this will find match with first tupe and using the replacement logic gets converted to national format
- ▶ Define a CLID manipulation table and associate this with outgoing RLI on Tandem Node
- ▶ If incoming CLID has 00 as prefix and unknown type of number, this will find match with first tupe and using the replacement logic gets converted to international format
- ► If incoming CLID has 0 as prefix and unknown type of number, this will find match with first tupe and using the replacement logic gets converted to national format



RLNO	MNUM	MID	MNPI	MTON	MDR	MNOD	DEL	INST	RNPI	RTON
0	OCN	00	E164	UKWN	DC	DC	1	NCHG	NCHG	INTL
1	OCN	0	E164	UKWN	DC	DC	1	NCHG	NCHG	NATL



Example #4 PSTN incoming call with incorrect OCN format



Problem:

- ▶ Incoming network forwarded call to CS 1000 over Euro ISDN has incorrect Originally Called Number.
- Set C cannot recall Set B via received number.

Requirement:

- ▶ OCN with prefix 0 to be converted to National by removing the prefix 0
- ▶ OCN with prefix 00 to be converted to International by removing the prefix 00

Solution:

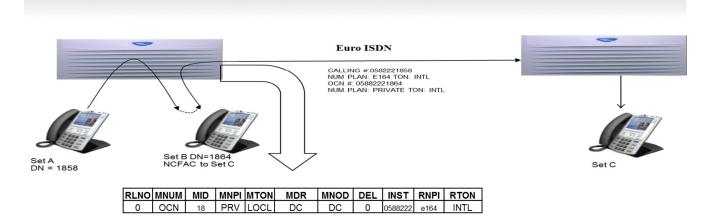
- ▶ Define a CLID manipulation table and associate this with incoming route on Terminating Node
- ► If incoming OCN has 18 as prefix , PRIVATE plan and LOCAL type of number , this will find match with first tupe and using the replacement logic gets converted to international format



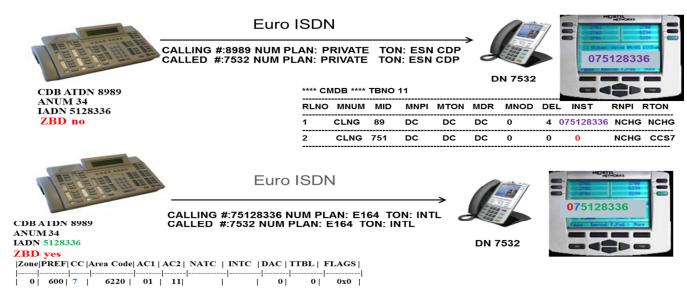
RLNO	MNUM	MID	MNPI	MTON	MDR	MNOD	DEL	INST	RNPI	RTON
0	OCN	18	E164	UKWN	DC	DC	0	0588222	e164	INTL

- ▶ Define a CLID manipulation table and associate this with outgoing RLI on Originating Node
- ► If incoming OCN has 18 as prefix, PRIVATE plan and LOCAL type of number, this will find match with first tupe and using the replacement logic gets converted to international format





Example #5 Attendant interaction with ZBD and CMDB features



Note: Only CLID table 0 (in CDB) is used to build CLID Attendant before ZBD update

Example #6 Dialable CLID from outbound contact center - Regulatory Requirement

Requirement:

- ▶ Requirement to allow an administrator to set the CLID of an outgoing call from the CS1000 on a perroute basis.
- There is a new legal requirement in countries like Germany, which stipulates that the CLID displayed for a call from an Outbound Contact Center must be a dial-able number.
- This is to allow an end customer to call back in the event that they have been the recipient of an outbound call from the contact Centre.

Note: With Rls.7.5 the above requirement was introduced via: MPLR26986 ACT Patch (Optional upon request only) With Rls.7.6 the functionality is supported based on Flexible CLID Manipulation Table.



Existing CLID building for outgoing campaigns







Example: ACD User DN Key 1 (5500)

Outgoing campaign -1 caller list Trunk access code : 9 080 41305164 080 4130......

Existing SPN Entry Table for translation To PSTN
AC2 =9
00 -> (RLI X -> ROUTE X) -> DMI Internatl
0-> (RLI Y -> ROUTE X) -> DMI National
2 -> (RLI Z -> ROUTE Y) -> DMI Local
3-> (RLI Z-> ROUTE Y) -> DMI Local
4 -> (RLI Z -> ROUTE Y) -> DMI Local
.

Outgoing campaign -2 caller list Trunk access code : 9 080 41305164 080 4130......

Existing CLID table
Index 1
(HNTN= 080
HLCL = 5111
DIDN =y)
.
.

Example of Replacing the entire number using SPN Prefix (MPLR26986 Rls.7.5)

Enhanced CLID building for outgoing campaigns using SPN Prefix



Example: ACD User DN Key 1 (5500)

Outgoing campaign -1 caller list
Trunk access code : 9 8001
080 41305164
080 4130.....

Existing SPN Entry Table for translation
To PSTN
AC2 = 9

NEW SPN Entries
AC2 =0
8001 -> (RLI 901 -> LTER Y) -> DMI NATL DEL 4 -> CLID
entry 901
8002 -> (RLI 902 -> LTER Y) -> DMI NATL DEL 4 -> CLID
entry 902
8090 -> (RLI 909 -> LTER Y) -> DMI NATL DEL 4 -> CLID
entry 999

Outgoing campaign -2 caller list Trunk access code: 9 8002 080 41305164 080 4130......

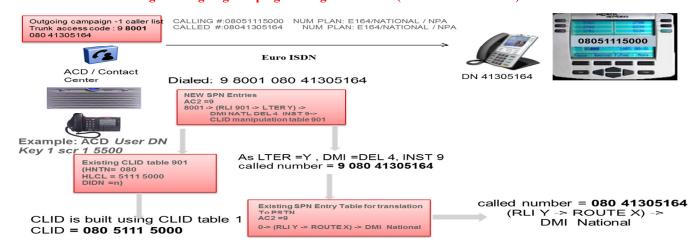
Existing CLID table 1 (HNTN= 080 HLCL = 5111 DIDN =y)

NEW CLID entries
Table 901
(HNTN= 080
HLCL = 5111 5000
DIDN = N)

Table 902
(HNTN= 080
HLCL = 5111 6000
DIDN = N)

Table 902
(HNTN= 080
HLCL = 5111 9900
DIDN = N)

Enhanced CLID building for outgoing campaigns using SPN Prefix (MPLR26986 Rls.7.5)





Example of Replacing the entire number using TSC Prefix (MPLR26986 Rls.7.5)

Enhanced CLID building for outgoing campaigns using TSC Prefix





CLID is built using CLID table 1

CLID = 080 5111 5000

Example: ACD User DN Key 1 (5500)

Outgoing campaign -1 caller list Trunk access code: **8001** 080 41305164 080 4130.

Existing SPN Entry Table for translation AC2 =9 00 -> (RLI X -> ROUTE X) -> DMI Internati 0-> (RLIY -> ROUTEX) -> DMI National 2 -> (RLI Z -> ROUTE Y) -> DMI Local 3-> (RLI Z-> ROUTE Y) -> DMI Local 4 -> (RLI Z -> ROUTE Y) -> DMI Local

NEW TSC Entries AC2 = 9
8001 -> (RLI 901 -> LTER Y) -> DMI NATL DEL 4 INST 9> CLID manipulation table 901
8002 -> (RLI 902 -> LTER Y) -> DMI NATL DEL 4 INST 9 > CLID manipulation table 902 . 8099 -> (RLI 999 -> LTER Y) -> DMI NATL DEL 4 INST 9 > CLID manipulation table 999

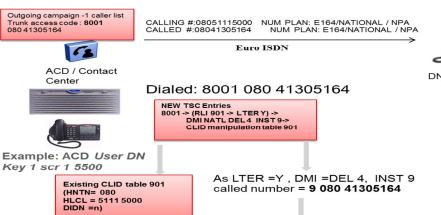
Outgoing campaign -2 caller list Trunk access code: **8002** 080 41305164 080 4130..

Existing CLID table 1 (HNTN= 080 HLCL = 5111 DIDN =y)

NEW CLID entries Table 901 (HNTN= 080 HLCL = 5111 5000 DIDN = N)

Table 902 (HNTN= 080 HLCL = 5111 6000 DIDN = N)

(HNTN= 080 HLCL = 5111 9900 DIDN = N







called number = 080 41305164 (RLI Y -> ROUTE X) -> **DMI** National

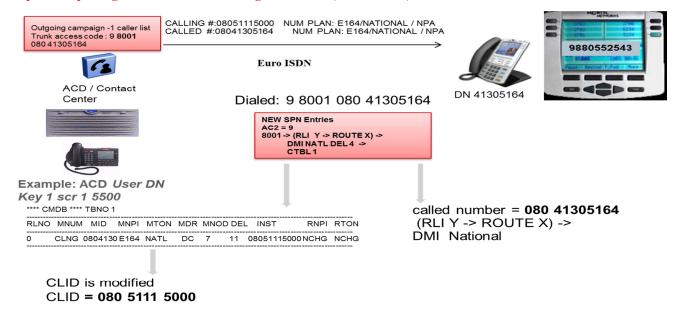
called number = 9 080 41305164

Existing SPN Entry Table for translation To PSTN AC2 =9

0-> (RLIY -> ROUTEX) -> DMI National



Example of Replacing the entire number using SPN Prefix (With Rls.7.6)



Example of Replacing the entire number using TSC Prefix (With Rls.7.6)

