



Trazas en Plataformas C&C08 y NGN Huawei



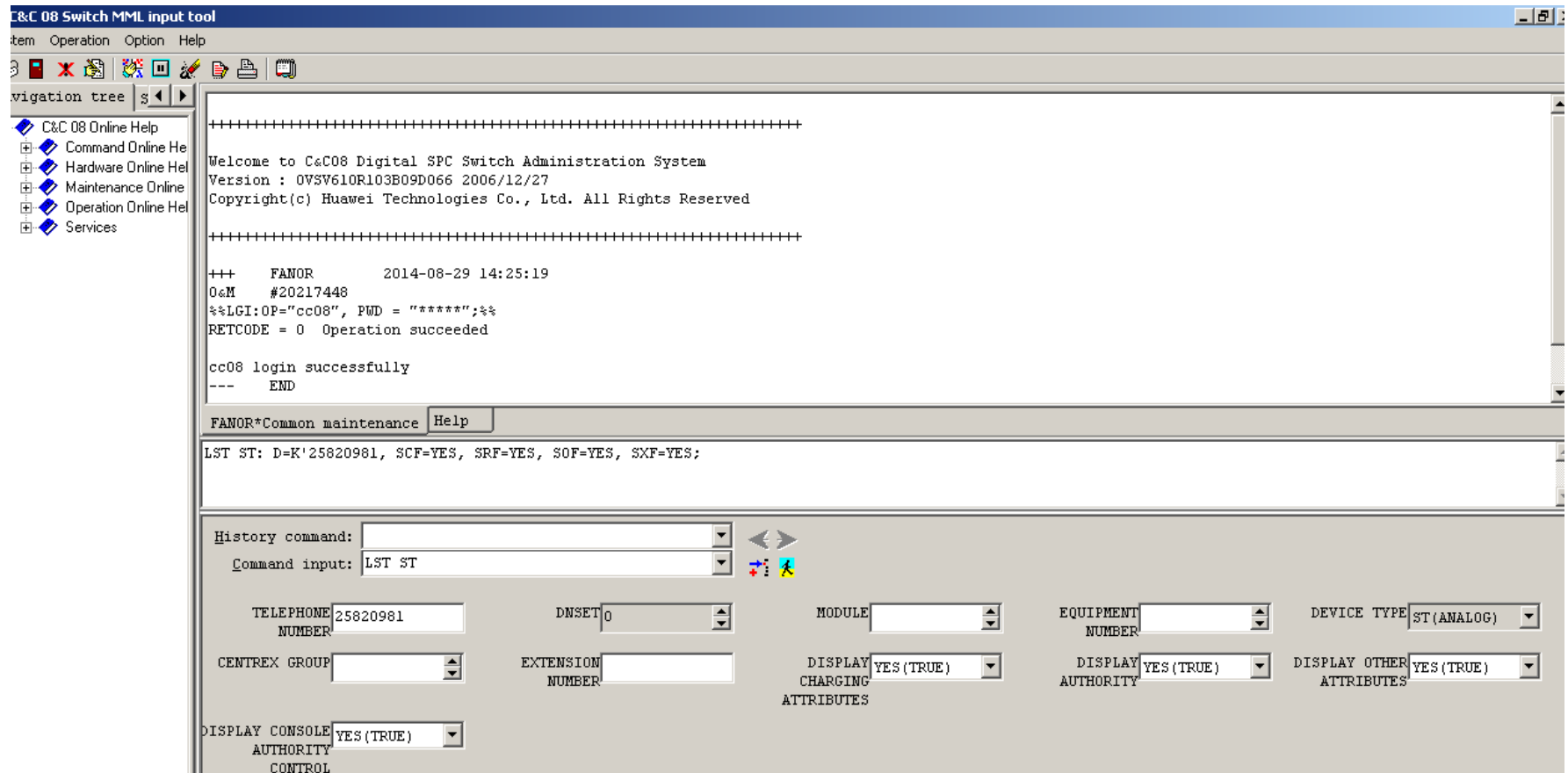
Con Claro
es posible

Temario

- Trazas en C&C08.
 - Traza por número de origen línea
 - Traza por trama E1 (PRA)
 - Traza por Calling Number
- Trazas en NGN.
 - Traza por numero de línea perteneciente a IAD
 - Traza por trama E1 (PRA)
 - Traza por Calling Number (Sentido PSTN hacia NGN)
 - Traza SIP
 - Traza de ruta SIP
 - Traza por numero de origen ruta SIP

Trazas C&C08 : Linea

Para poder listar una línea se ejecuta en programa **“C&C08 Switch Client”** el comando **“LST ST”**, en donde nos pide como parámetros obligatorios, el **“Telephone Number”** y el **“DNSET”**. Se debe ingresar siempre el numero sin el código de área, y todos los campos de Display en **“YES”**



The screenshot shows the 'C&C08 Switch MML input tool' window. The main text area displays the following output:

```

+++++
Welcome to C&C08 Digital SPC Switch Administration System
Version : 0VSV610R103B09D066 2006/12/27
Copyright(c) Huawei Technologies Co., Ltd. All Rights Reserved
+++++

+++ FANOR 2014-08-29 14:25:19
0&M #20217448
%%LGI:OP="cc08", PWD = "*****";%%
RETCODE = 0 Operation succeeded

cc08 login successfully
--- END
  
```

Below the text area, there is a status bar showing 'FANOR*Common maintenance' and a 'Help' button. The command input section shows 'LST ST: D=K'25820981, SCF=YES, SRF=YES, SOF=YES, SXF=YES;'. The bottom section contains various input fields for the command parameters:

History command:					
Command input:	LST ST				
TELEPHONE NUMBER	25820981	DNSET	0	MODULE	
EQUIPMENT NUMBER		DEVICE TYPE	ST(ANALOG)		
CENTREX GROUP		EXTENSION NUMBER		DISPLAY CHARGING ATTRIBUTES	YES(TRUE)
DISPLAY AUTHORITY	YES(TRUE)	DISPLAY OTHER ATTRIBUTES	YES(TRUE)		



Trazas C&C08 : Linea

%%LST ST: D=K'25820981, SCF=YES, SRF=YES, SOF=YES, SXF=YES;%%
RETCODE = 0 Operation succeeded

Subscriber attribute

Telephone number = 25820981
Module = 31
Equipment number = 1
Device type = DID_AS_L
CENTREX group = None
Extension number = <NULL>
Number state = Normal
Subscriber type = Ordinary
Subscriber status = Normal
Additional status = Ordinary
Call source = 44
PBX group number = None

Charging attribute

Charging source code = 0
Called charging source = NONE
Pulse index = 0
Charge pulse = 16KHZ
Charging complaint = FALSE
Charging category = Period

User authority

Call-out authority = Intra-office
= Local
= Local toll
= National toll
= International toll
= CENTREX intra-group
= CENTREX out-group
= Custom callout right1
= Custom callout right2
= Custom callout right3
= Custom callout right4
= Custom callout right5
= Custom callout right6
= Custom callout right7
= Custom callout right8
= Custom callout right9

Numero de equipo

Call-in authority = Intra-office

= Local
= Local toll
= National toll
= International toll
= CENTREX intra-group
= CENTREX out-group
= Custom callin right1
= Custom callin right2
= Custom callin right3
= Custom callin right4
= Custom callin right5
= Custom callin right6
= Custom callin right7
= Custom callin right8
= Custom callin right9

Permisos de entrada

Supplementary service = CFU

= DDI
= CLIP

Servicios Suplementarios

Call barring group = None
Anti fraud right = <NULL>

Other attribute

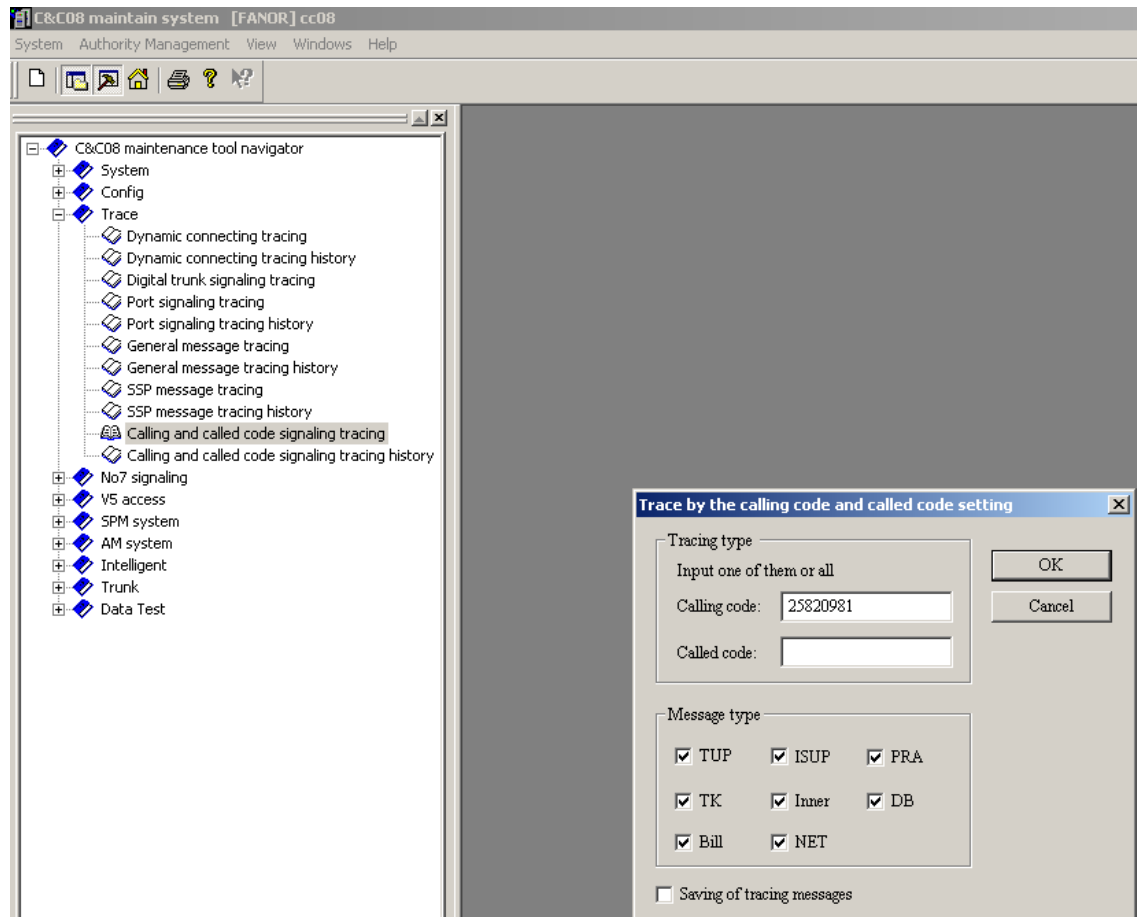
Call pickup = None
Number receiving = Automatic
Ring mode = Normal
ISDN index = 0
Incomplete callwatch = No watch
Call watch flag = FALSE
Custom subscriber type = None custom subscriber type
Place Number = 255
User name = <NULL>
CLIP sending mode = Build-in FSK
MCT config index = 0
Port type = ST
User access mode = Ordinary subscriber
Telephone Number Validity = TRUE

Frame&Slot

Frame number = 2
Slot number = 2
--- END


Trazas C&C08 : Linea

Si se tiene el dato del numero de linea origen, con el programa “**C&C08 Switch Maintenance**” es posible poder trazar mediante “Calling and called code signalling tracing”, ingresar el ani sin el código de área en el campo “Calling Code”. Esta traza si aceptamos al cerrar la ventana, queda guardada por defecto en el directorio **C:\CC08\TRACE\Sig**



Trazas C&C08 : TG PRA

- LST TG : Comando que nos permite conocer los parámetros básicos de una ruta. Se ejecuta en programa **“C&C08 Switch Client”**

History command: <input type="text"/>				
Command input: LST TG				
TRUNK GROUP <input type="text" value="910"/>	TRUNK GROUP TITLE <input type="text" value="ANY TITLE"/>	DISPLAY SUB-ROUTE <input type="text" value="YES (TRUE)"/>	DISPLAY ROUTE <input type="text" value="YES (TRUE)"/>	DISPLAY OFFICE DIRECTION <input type="text" value="YES (TRUE)"/>
DISPLAY BEARER <input type="text" value="YES (TRUE)"/>	DISPLAY CIRCUIT LAYOUT <input type="text" value="YES (TRUE)"/>	DISPLAY SIGNALING <input type="text" value="YES (TRUE)"/>	DISPLAY OTHER INFORMATION <input type="text" value="YES (TRUE)"/>	DISPLAY DISCRIMINATION INFORMATION <input type="text" value="YES (TRUE)"/>



%LST TG: TG=910, SSR=YES, SRT=YES, SOF=YES, SL=YES, SC=YES, SS=YES, SOT=YES, CLRDSP=YES;%%
 RETCODE = 0 Operation succeeded

Basic parameter

 Group number = 910
 Title = ING-MONS_SANZ1-1
 Circuit type = PRA
 Group direction = Bidirectional trunk
 Circuit selection = Cyclic
 Call-out authority = Intra-office

= Local
 = Local toll
 = National toll
 = International toll
 = Custom callout right1
 = Custom callout right2
 = Custom callout right3
 = Custom callout right4
 = Custom callout right5
 = Custom callout right6
 = Custom callout right7
 = Custom callout right8
 = Custom callout right9

Call-in authority = Intra-office

= Local
 = Local toll
 = National toll
 = International toll
 = Custom callin right1
 = Custom callin right2
 = Custom callin right3
 = Custom callin right4
 = Custom callin right5
 = Custom callin right6
 = Custom callin right7
 = Custom callin right8
 = Custom callin right9

Atributos de entrada y salida

sub-route

 Trunk group = 910
 Sub-route number = 910
 Sub-route title = ING-MONS_SANZ1-1
 Priority = 0
 Availability = 255

route of relative sub-route

Sub-route number	Route number	Route title
910	910	ING-MONS_SANZ1-1

Subruta

route of relative sub-route

 Sub-route number = 910
 Office direction = 100
 Office direction title = PRA-GENERAL

Circuit distribution

Trunk group	Start circuit	End circuit	Module	Circuit type
910	2496	2527	6	PRA

Modulo y circuitos

PRA signaling parameter

 Ecm information = No restrict echo
 ECP index = 1023
 Enbloc Send CLD = FALSE
 Special process CLI and CLD = FALSE
 Send Process Indicator = TRUE
 Caller number change index = No change

Other parameter

 Reserved circuit for ordinary priority = 0
 Reserved circuit for priority of insert = 0
 Link to satellite circuit = FALSE
 Echo suppress = 255
 International call = FALSE
 Number incomplete = FALSE
 Name valid = FALSE
 Signaling type = DSS1 subscriber side
 Call source = 44
 DOD2 = FALSE
 Incoming CLIR = No
 Outgoing no CLIR = No
 Initial tone = FALSE
 Initial tone type = Record0
 Abnormal send tone = FALSE
 Abnormal tone type = Record0
 Charging source code = 0
 Outgoing trunk charging source = 255
 Use opposite pulse = FALSE
 Charging complaint = TRUE
 CAMA = FALSE
 Soft para of service CTRL = <NULL>
 Minimum caller number length = 0
 CLI provision mode = Default number
 Default caller number = 26595400
 Call barring group = 65535
 Signaling link = 134
 Occupancy upper threshold = 0
 Occupancy lower threshold = 0
 Network management source code = None
 Idle circuits for weak call restriction = 0
 Idle circuits for forced call restriction = 0
 Trunk name = ING-MONS_SANZ1-1
 Block the blocker = FALSE
 Incomplete callwatch = No watch

Numero cabecera

Número de PRA link

Caller Number discrimination information

 Default connect = TRUE
 Connecting without or with invalid caller number = TRUE
 Need black and white destination code analysis = TRUE

--- FND

Comprobando si servicio está operativo



Para el caso anterior también podemos darnos cuenta que hay un problema, realizando un despliegue del estado del PRA LINK, con el comando DSP PRALNK, se necesitan los datos de “modulo” y “numero de pralink” que se obtiene en el comando LST TG que vimos anteriormente

A screenshot of a terminal window. At the top, there are two input fields: 'History command:' and 'Command input:'. The 'Command input:' field contains the text 'DSP PRALNK'. Below these fields, there are two more input fields: 'MODULE' with the value '6' and 'LINK NUMBER' with the value '134'. To the right of the input fields, there are several icons: a blue arrow pointing left, a blue arrow pointing right, a red plus sign, a green minus sign, and a yellow person icon.

Cuyo resultado, nos arroja el “link status” o estado del D-CHANNEL o señalizador. En este caso como la E1 está alarmada, obviamente el señalizador también lo está.

```
%%DSP PRALNK: MN=6, LNK=134;%%  
RETCODE = 0 Operation succeeded
```

```
PRA Link query result
```

```
-----
```

```
Module number = 6  
Link number = 134  
Activated status = Active  
Link status = Service break
```

```
--- END
```


Trazas C&C08 : TG PRA

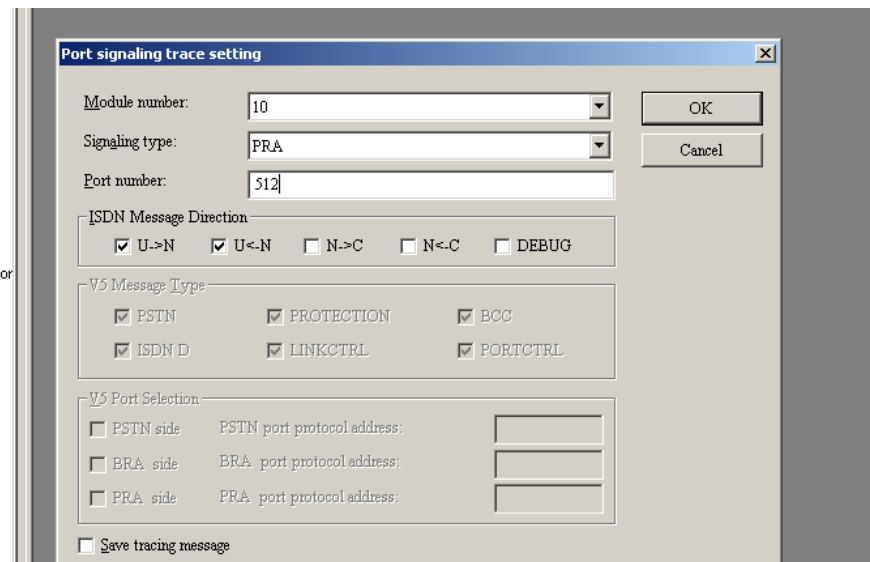
Veamos un ejemplo en que sabemos que la E1 y el D-CANNEL está operativos y queremos ver traza de una llamada mediante el programa “C&C08 Switch Maintenance”, opción **Port Signaling Tracing**

```
%%LST TKC: TG=614;%%
RETCODE = 0 Operation succeeded
```

Circuit distribution

Trunk group	Start circuit	End circuit	Module	Circuit type
614	512	543	10	PRA

Necesitamos el Modulo y Start Circuit

Trazas C&C08 : TG PRA

C&C08 maintain system [FANOR] cc08 - [Module 10--Port 512--PRA]

System Authority Management View Windows Help

CR	Tracing time	Direction	Message type	Message context
65535	16:33:01-09/01	U->N	SETUP	0A 1F 0A 16 2C 00 00 02 36 01 00 08 02 0
2262	16:33:01-09/01	U<-N	CALL_PROCEEDING	0A 16 0A 1F 0F 00 00 02 31 01 00 08 02 8
2262	16:33:02-09/01	U<-N	DISCONNECT	0A 16 0A 1F 12 00 00 02 31 01 00 08 02 8
2262	16:33:09-09/01	U->N	RELEASE	0A 1F 0A 16 0A 00 00 02 36 01 00 08 02 0
2262	16:33:09-09/01	U<-N	RELEASE_COMPLETE	0A 16 0A 1F 0A 00 00 02 31 01 00 08 02 8

C&C08 maintenance tool navigator

- System
 - Dynamic connecting tracing
 - Dynamic connecting tracing history
- Config
 - Digital trunk signaling tracing
 - Port signaling tracing
- Trace
 -

En esta traza La columna direction nos indica en que sentido viene la señalización, por ejemplo la mensajería SETUP viene de U (User) a N (Network), vale decir es una llamada proveniente de la PBX. Es importante identificar que los formatos de Calling o ANI el Called o DNI estén correctos. En este ejemplo claramente el cliente no está enviando correctamente el ANI.

Message context

```

-----
01101100 : IE_NAME( CALLING_PARTY_NUMBER)
00001001 : IE_Length(9 bytes)
0----- : EXT(0/1)
-000---- : Type_of_Number(Ton Unknown)
----0000 : Number_Plan_ID(NPI Unknown)
1----- : EXT(1)
-00----- : PI(Presentation Allowed)
---000-- : Backup
-----00 : Screen Indicator(User provided,Not verified)
          : Number 7982400
-----
01110000 : IE_NAME(CALLED_PARTY_NUMBER)
00001010 : IE_Length(10 bytes)
1----- : EXT(1)
-000---- : Type of Number(Ton Unknown)
----0000 : Number_Plan_ID(NPI Unknown)
          : Number 322239474
-----
  
```

OK

Trazas C&C08 : TG PRA

C&C08 maintain system [FANOR] cc08 - [Module 10--Port 512--PRA]

System Authority Management View Windows Help

C&C08 maintenance tool navigator

- System
- Config
- Trace
 - Dynamic connecting tracing
 - Dynamic connecting tracing history
 - Digital trunk signaling tracing
 - Port signaling tracing

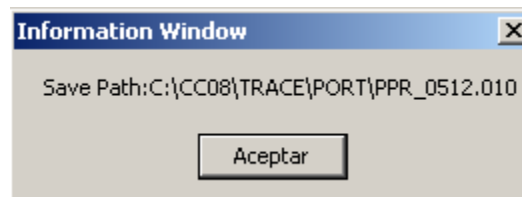
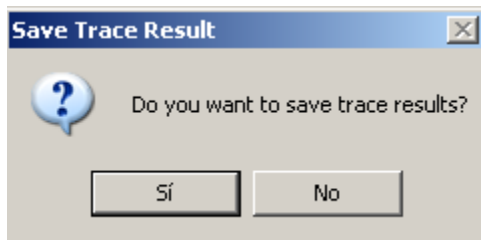
CR	Tracing time	Direction	Message type	Message context
65535	16:33:01-09/01	U->N	SETUP	0A 1F 0A 16 2C 00 00 02 36 01 00 08 02 0
2262	16:33:01-09/01	U<-N	CALL_PROCEEDING	0A 16 0A 1F 0F 00 00 02 31 01 00 08 02 8
2262	16:33:02-09/01	U<-N	DISCONNECT	0A 16 0A 1F 12 00 00 02 31 01 00 08 02 8
2262	16:33:09-09/01	U->N	RELEASE	0A 1F 0A 16 0A 00 00 02 36 01 00 08 02 0
2262	16:33:09-09/01	U<-N	RELEASE_COMPLETE	0A 16 0A 1F 0A 00 00 02 31 01 00 08 02 8

Si queremos guardar la traza, cerramos la ventana de traceo y el programa nos pregunta si queremos guardar esta.
Si aceptamos la guarda por defecto en el directorio **C:\CC08\TRACE\PORT**

Module 10--Port 512--PRA

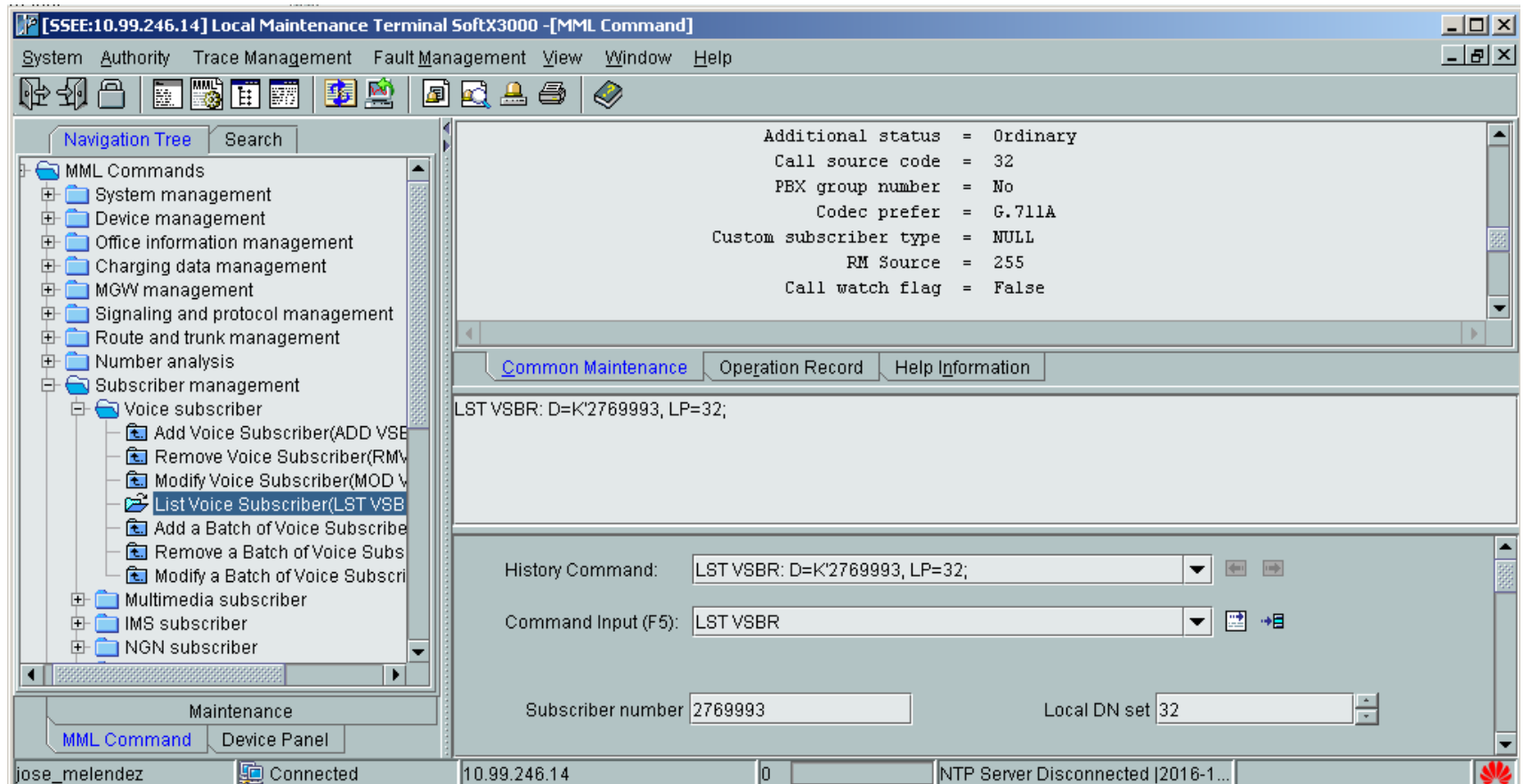
CR	Tracing time	Direction	Message type	Message context
START PORT TRACING SUCCEEDED !				
65535	16:39:45-09/01	U->N	SETUP	0A 1F 0A 16 2F 00
425	16:39:45-09/01	U<-N	CALL_PROCEEDING	0A 16 0A 1F 0F 00
425	16:39:45-09/01	U<-N	ALERTING	0A 16 0A 1F 12 00

Cerrar



Trazas NGN : Linea IAD

Los datos de una linea que pertenece a un IAD viene dado por el parámetro «Subscriber Number» y «Local DN set».



The screenshot displays the 'Local Maintenance Terminal SoftX3000' interface. The title bar indicates the IP address [SSEE:10.99.246.14]. The menu bar includes System, Authority, Trace Management, Fault Management, View, Window, and Help. The left sidebar shows a 'Navigation Tree' with categories like MML Commands, System management, Device management, Office information management, Charging data management, MGW management, Signaling and protocol management, Route and trunk management, Number analysis, and Subscriber management. Under 'Subscriber management', 'Voice subscriber' is expanded, showing options like 'Add Voice Subscriber(ADD VSB)', 'Remove Voice Subscriber(RMV)', 'Modify Voice Subscriber(MOD V)', 'List Voice Subscriber(LST VSB)', 'Add a Batch of Voice Subscriber', 'Remove a Batch of Voice Subscriber', and 'Modify a Batch of Voice Subscriber'. The main panel shows the details for the command 'LST VSBR: D=K'2769993, LP=32;'. The details include: Additional status = Ordinary, Call source code = 32, PBX group number = No, Codec prefer = G.711A, Custom subscriber type = NULL, RM Source = 255, and Call watch flag = False. Below this, there are tabs for 'Common Maintenance', 'Operation Record', and 'Help Information'. The 'Common Maintenance' tab is active, showing the command history and input fields. The 'History Command' field contains 'LST VSBR: D=K'2769993, LP=32;'. The 'Command Input (F5)' field contains 'LST VSBR'. At the bottom, there are input fields for 'Subscriber number' (2769993) and 'Local DN set' (32). The status bar at the bottom shows the user 'jose_melendez', connection status 'Connected', IP address '10.99.246.14', a status indicator '0', and a message 'NTP Server Disconnected |2016-1...'. A Huawei logo is visible in the bottom right corner.

[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 -[MML Command]

System Authority Trace Management Fault Management View Window Help

Navigation Tree Search

- MML Commands
 - System management
 - Device management
 - Office information management
 - Charging data management
 - MGW management
 - Signaling and protocol management
 - Route and trunk management
 - Number analysis
 - Subscriber management
 - Voice subscriber
 - Add Voice Subscriber(ADD VSB)
 - Remove Voice Subscriber(RMV)
 - Modify Voice Subscriber(MOD V)
 - List Voice Subscriber(LST VSB)
 - Add a Batch of Voice Subscriber
 - Remove a Batch of Voice Subscriber
 - Modify a Batch of Voice Subscriber
 - Multimedia subscriber
 - IMS subscriber
 - NGN subscriber

Additional status = Ordinary
Call source code = 32
PBX group number = No
Codec prefer = G.711A
Custom subscriber type = NULL
RM Source = 255
Call watch flag = False

Common Maintenance Operation Record Help Information


LST VSBR: D=K'2769993, LP=32;

History Command: LST VSBR: D=K'2769993, LP=32;

Command Input (F5): LST VSBR

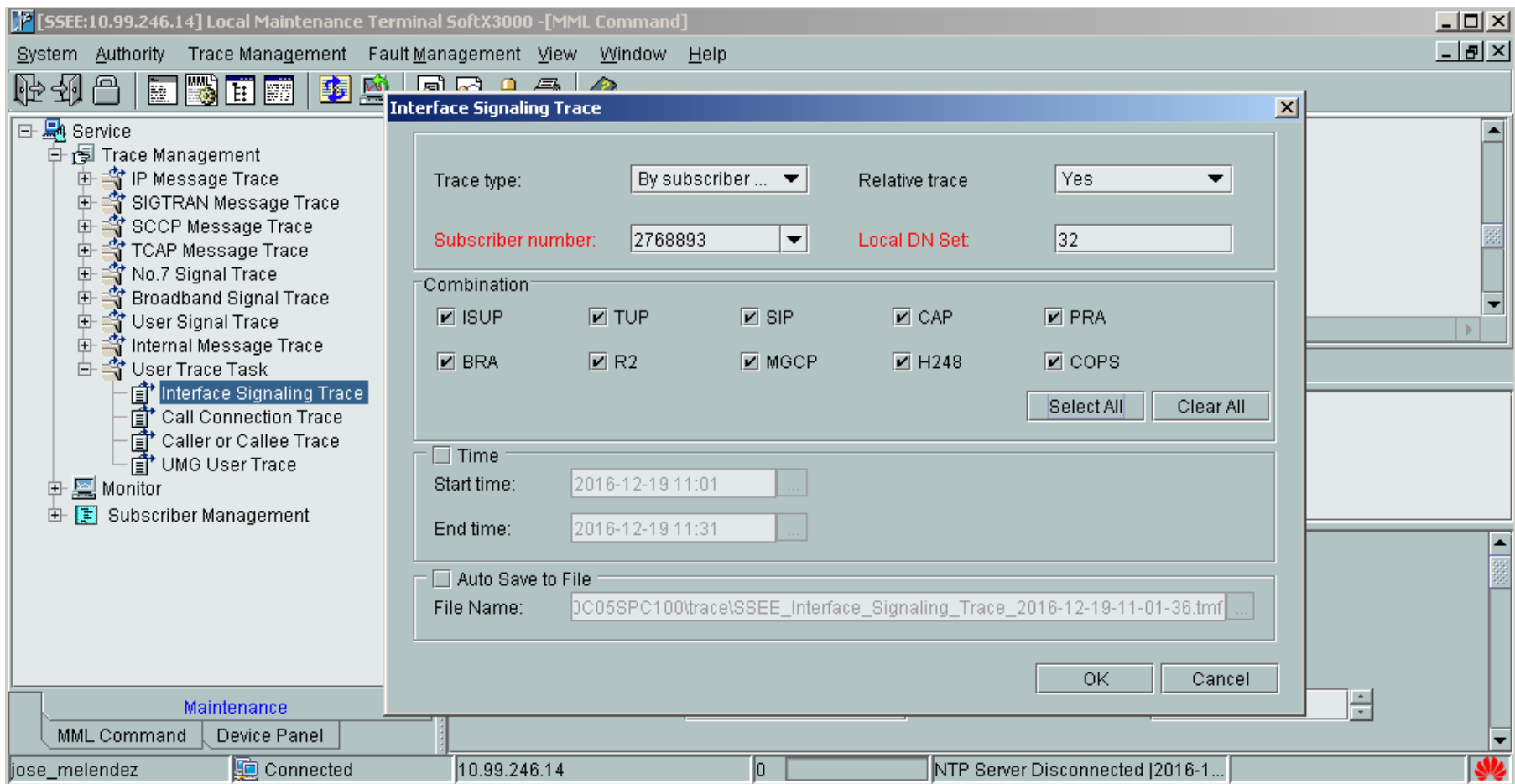
Subscriber number 2769993 Local DN set 32

Maintenance MML Command Device Panel

jose_melendez Connected 10.99.246.14 0 NTP Server Disconnected |2016-1... 

Trazas NGN : Linea IAD

Para abrir traza debemos abrir LMT lengüeta Maintenance y abrir árbol **Service->Trace Management->Interface Signalling Trace**. Se abre un Pop-Up en donde seleccionamos: Trace Type= «By subscriber»(, «Subscriber Number» numero de linea iad sin código area) y «Local DN Set»(código area), Select All. Y damos OK



The screenshot shows the LMT interface with the 'Interface Signalling Trace' window open. The window is titled '[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 -[MML Command]'. The left sidebar shows the tree structure: Service > Trace Management > Interface Signalling Trace. The main window contains the following configuration options:

- Trace type:** By subscriber ...
- Relative trace:** Yes
- Subscriber number:** 2768893
- Local DN Set:** 32
- Combination:**
 - ☒ ISUP ☒ TUP ☒ SIP ☒ CAP ☒ PRA
 - ☒ BRA ☒ R2 ☒ MGCP ☒ H248 ☒ COPS
- Time:**
 - ☐ Time
 - Start time:** 2016-12-19 11:01
 - End time:** 2016-12-19 11:31
- Auto Save to File:**
 - ☐ Auto Save to File
 - File Name:** JC05SPC100\trace\SSEE_Interface_Signaling_Trace_2016-12-19-11-01-36.tmf

Buttons: Select All, Clear All, OK, Cancel.

The bottom status bar shows: Maintenance, MML Command, Device Panel, jose_melendez, Connected, 10.99.246.14, 0, NTP Server Disconnected |2016-1...

Trazas NGN : Linea IAD

En este ejemplo la linea generó un llamado hacia PSTN, por lo tanto veremos dos protocolos MGCP e ISUP

[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 -[Interface Signaling Trace;Subscriber number =2769993;Local DN Set=32]

System Authority Trace Management Fault Management View Window Help

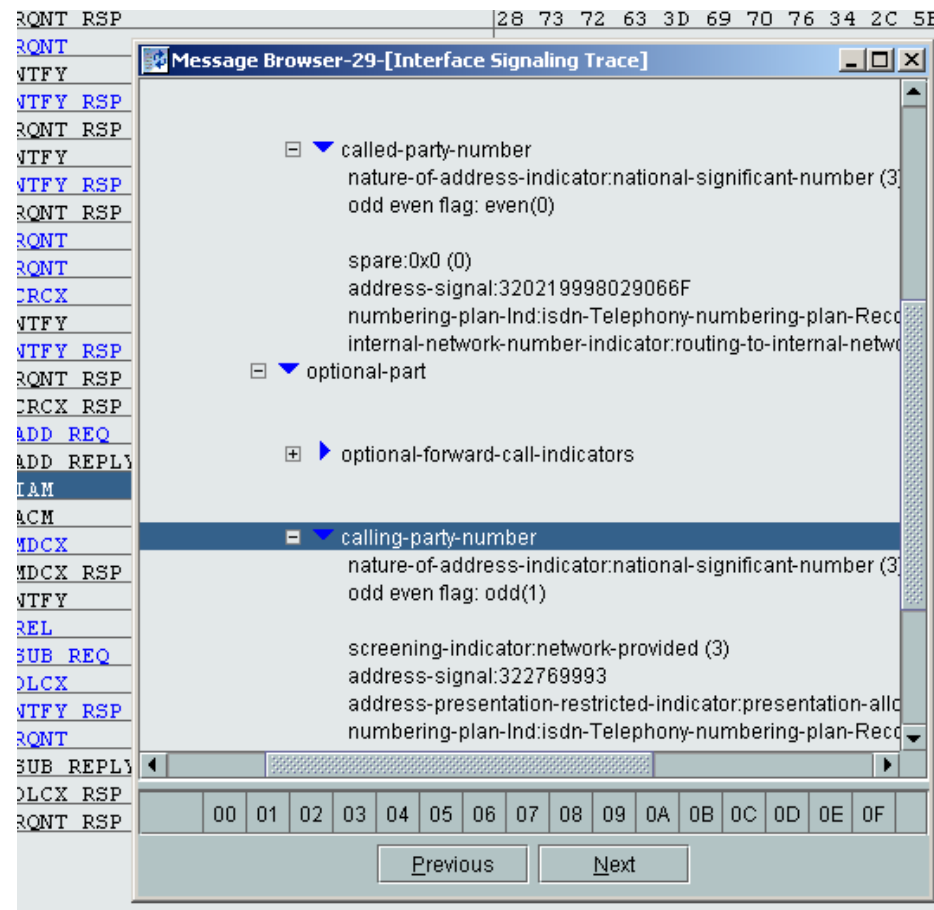
Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - Internal Message Trace
 - User Trace Task
 - Interface Signaling Trace
 - Call Connection Trace
 - Caller or Callee Trace
 - UMG User Trace
- Monitor
- Subscriber Management

No.	TimeStamp	Direction	Msg Interface	Msg
1	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
2	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
3	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
4	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP
5	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
6	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
7	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
8	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP
9	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
10	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
11	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
12	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP
13	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
14	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
15	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
16	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP
17	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
18	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
19	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP
20	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
21	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
22	2016-12-19 11:...	SEND	TRC MT TO MGCP	CRCX
23	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
24	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
25	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP
26	2016-12-19 11:...	RECV	TRC MT FROM MGCP	CRCX RSP
27	2016-12-19 11:...	SEND	TRC MT TO H248	ADD REQ
28	2016-12-19 11:...	RECV	TRC MT FROM H248	ADD REPLY
29	2016-12-19 11:...	SEND	TRC MI TO ISUP	IAM
30	2016-12-19 11:...	RECV	TRC MI FROM ISUP	ACM
31	2016-12-19 11:...	SEND	TRC MT TO MGCP	MDCX
32	2016-12-19 11:...	RECV	TRC MT FROM MGCP	MDCX RSP
33	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY
34	2016-12-19 11:...	SEND	TRC MI TO ISUP	REL
35	2016-12-19 11:...	SEND	TRC MT TO H248	SUB REQ
36	2016-12-19 11:...	SEND	TRC MT TO MGCP	DLCX
37	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP
38	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT
39	2016-12-19 11:...	RECV	TRC MT FROM H248	SUB REPLY
40	2016-12-19 11:...	RECV	TRC MT FROM MGCP	DLCX RSP
41	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP

Trazas NGN : Linea IAD

El mensaje en IAM en protocolo ISUP nos entrega los números de origen (calling party number) y de destino (called party number) del flujo de la llamada



Message Browser-29-[Interface Signaling Trace]

- called-party-number
 - nature-of-address-indicator:national-significant-number (3)
 - odd even flag: even(0)
 - spare:0x0 (0)
 - address-signal:320219998029066F
 - numbering-plan-Ind:isdn-Telephony-numbering-plan-Recd
 - internal-network-number-indicator:routing-to-internal-network
- optional-part
- optional-forward-call-indicators
- calling-party-number
 - nature-of-address-indicator:national-significant-number (3)
 - odd even flag: odd(1)
 - screening-indicator:network-provided (3)
 - address-signal:322769993
 - address-presentation-restricted-indicator:presentation-allowed
 - numbering-plan-Ind:isdn-Telephony-numbering-plan-Recd

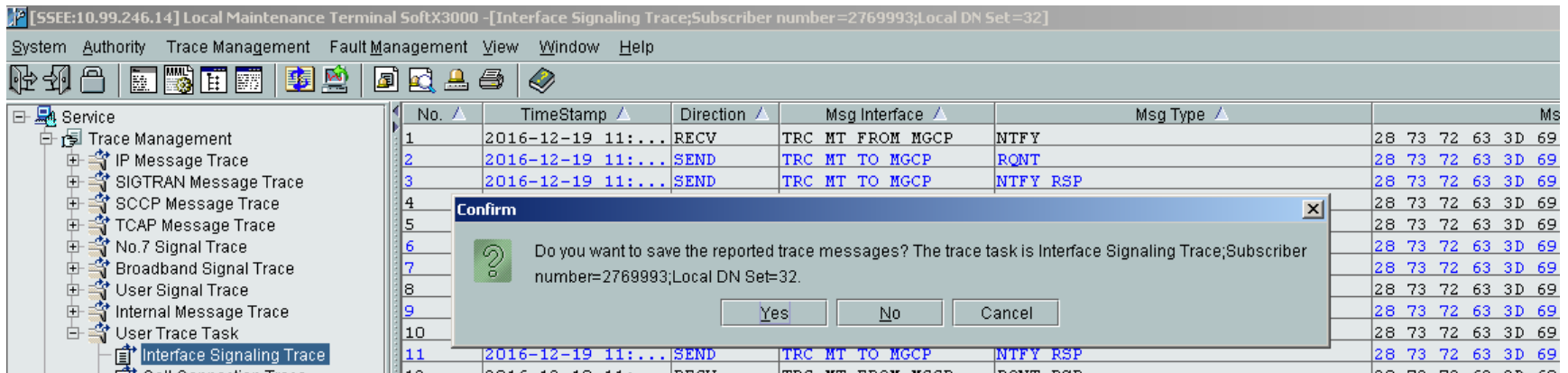
00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F

Previous Next

Trazas NGN : Linea IAD

Para guardar la traza basta con cerrar la ventana de traza y aparece el pop-up, y quedará guardada esta en path que se elija o por defecto es

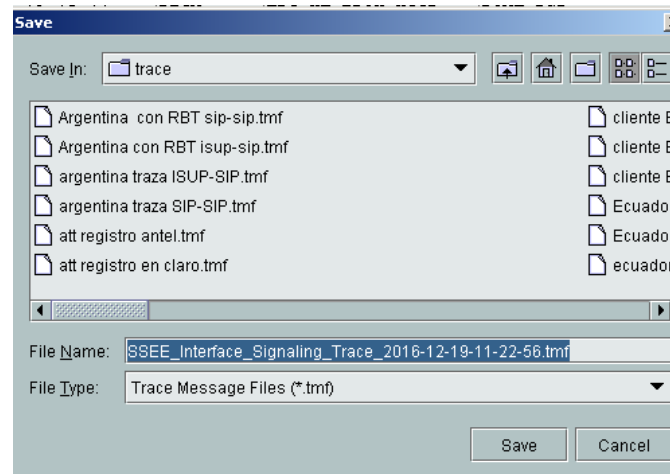
C:\imt\client\output\SoftX3000\SoftX3000 V300R010C05SPC100\trace



The screenshot shows the 'Local Maintenance Terminal SoftX3000' interface. The title bar indicates the window is for 'Interface Signaling Trace;Subscriber number=2769993;Local DN Set=32'. The menu bar includes System, Authority, Trace Management, Fault Management, View, Window, and Help. The left pane shows a tree view of services, with 'Interface Signaling Trace' selected. The main pane displays a table of trace messages:

No.	TimeStamp	Direction	Msg Interface	Msg Type	Ms
1	2016-12-19 11:...	RECV	TRC MT FROM MGCP	NTFY	28 73 72 63 3D 69
2	2016-12-19 11:...	SEND	TRC MT TO MGCP	RQNT	28 73 72 63 3D 69
3	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP	28 73 72 63 3D 69
4					28 73 72 63 3D 69
5					28 73 72 63 3D 69
6					28 73 72 63 3D 69
7					28 73 72 63 3D 69
8					28 73 72 63 3D 69
9					28 73 72 63 3D 69
10					28 73 72 63 3D 69
11	2016-12-19 11:...	SEND	TRC MT TO MGCP	NTFY RSP	28 73 72 63 3D 69
12	2016-12-19 11:...	RECV	TRC MT FROM MGCP	RQNT RSP	28 73 72 63 3D 69

A 'Confirm' dialog box is overlaid on the table, asking: 'Do you want to save the reported trace messages? The trace task is Interface Signaling Trace;Subscriber number=2769993;Local DN Set=32.' The dialog has 'Yes', 'No', and 'Cancel' buttons.



The screenshot shows a 'Save' dialog box. The 'Save In' field is set to 'trace'. The file list shows several files, including 'Argentina con RBT sip-sip.tmf', 'Argentina con RBT isup-sip.tmf', 'argentina traza ISUP-SIP.tmf', 'argentina traza SIP-SIP.tmf', 'att registro antel.tmf', and 'att registro en claro.tmf'. The 'File Name' field is set to 'SSEE_Interface_Signaling_Trace_2016-12-19-11-22-56.tmf'. The 'File Type' is set to 'Trace Message Files (*.tmf)'. The dialog has 'Save' and 'Cancel' buttons.

RUTAS PRI

GENERALIDADES

- Como saber si es una ruta PRI
 - Tan simple como realizar un listado en el softx300 es posible certificar si es una ruta PRI.
- Las rutas PRI en la central NGN físicamente nacen desde un TMG o UMG.
 - TMG y UMG son equipos Media Gateway que convierten IP en TDM
- Poseen un DCHANNEL que en primera instancia nos indicará si la operatividad esta activa o no.
- Es posible monitorear y hacer una traza desde el softx3000.
- Cuando el ANI viene correcto

¿Como saber si lo reclamado por cliente es una ruta PRI?

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 -[MML Command]

System Authority Trace Management Fault Management View Window Help

Navigation Tree Search

- Sub-route
- Route
- Time index
- Route analysis
 - Add Route Analysis(ADD RTANA)
 - Remove Route Analysis(RMV RTANA)
 - Modify Route Analysis(MOD RTANA)
 - List Route Analysis(LST RTANA)
- Trunk group
 - SIP trunk group
 - SIP trunk group ip pair
 - H323 trunk group
 - No7 trunk group
 - R2 trunk group
 - PRA trunk group
 - AT0 trunk group
 - Add AT0 Trunk Group(ADD AT0TG)
 - Remove Trunk Group(RMV TG)
 - Modify AT0 Trunk Group(MOD AT0TG)
 - List Trunk Group(LST TG)
 - Display Trunk Group Call Count(DSP TG)
- V5 trunk group
 - Trunk group bearer configuration
 - Trunk group append configuration
 - Trunk group caller category transform
 - Trunk group cause value convert
 - Trunk group maintenance
- Trunk circuit
- Number analysis
- Caller codec configuration
- Service prefix configuration
 - Add Called Number Analysis(ADD CNACLD)
 - Remove Called Number Analysis(RMV CNACLD)
 - Modify Called Number Analysis(MOD CNACLD)
 - List Called Number Analysis(LST CNACLD)

```

+++ HW-SoftX      2014-09-01 09:32:35
O&M #38730073
%%LST CNACLD: LP=58, PFX=K'2355;%%
RETCODE = 0 Operation succeeded

Call Prefix service attribute information
-----
Local DN set = 58
Call prefix = 2355
Service category = Basic service
Service attribute = National toll
Minimum number length = 7
Maximum number length = 7
RM Source = 255
Route selection code = 11
Release mode = Calling party release
Auxiliary signaling flag = True
Call prefix special process flag = False
Caller number analysis flag = False
Emergency call observation flag = False
Query area code = False
  
```

Common Maintenance Operation Record Help Information

LST CNACLD: LP=58, PFX=K'2355;

History Command: LST CNACLD: LP=58, PFX=K'2355;

Command Input (F5): LST CNACLD

Local DN set: 58 Call prefix: 2355 Destination:

Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

¿Como saber si lo reclamado por cliente es una ruta PRI?

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 - [MML Command]

System Authority Trace Management Fault Management View Window Help

Navigation Tree Search

- MML Commands
 - System management
 - Device management
 - Office information management
 - Charging data management
 - MGW management
 - Signaling and protocol management
 - Route and trunk management
 - Location server
 - Office direction
 - Sub-route
 - Route
 - Time index
 - Route analysis
 - Trunk group
 - SIP trunk group
 - SIP trunk group ip pair
 - H323 trunk group
 - No7 trunk group
 - R2 trunk group
 - PRA trunk group
 - AT0 trunk group
 - Add AT0 Trunk Group(ADD)
 - Remove Trunk Group(RM)
 - Modify AT0 Trunk Group(M)
 - List Trunk Group(LST TG)
 - Display Trunk Group Call
 - V5 trunk group
 - Trunk group bearer configurat
 - Trunk group append configura
 - Trunk group caller category tra
 - Trunk group cause value conv
 - Trunk group maintenance
 - Trunk circuit
 - Number analysis

+++ HW-SoftX 2014-09-01 09:27:04
 0&M #38729697
 %%LST TG: TG=11;%%
 RETCODE = 0 Operation succeeded

Basic Information

Trunk group number = 11
 Trunk group name = ARIC_BECH
 Equipment ID = 10.99.254.194:2944
 Circuit type = PRA
 Signalling link = 11
 Default caller number = 2355400
 Group direction = Bi-directional trunk
 Circuit selection mode = Cyclic
 Call-out authority = Intra-office
 = Local
 = Local toll
 = National toll
 = International toll
 = Intra national toll
 = Intra international toll

Common Maintenance Operation Record Help Information

LST TG: TG=11;

History Command: LST TG: TG=11;

Command Input (F5): LST TG

Trunk group number 11 Trunk group name Any name Display sub-route NO(False)

Display route NO(False) Display office direction NO(False) Display bearer NO(False)

Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

La importancia del DCHANNEL

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 -[MML Command]

System Authority Trace Management Fault Management View Window Help

Navigation Tree Search

- Commands
- Item management
- Service management
- Service information management
- Signaling data management
- VPN management
- Routing and protocol management
- IP stack
- Bearer control protocol
- SIP protocol
- H323 protocol
- STUN protocol
- M2UA protocol
- M3UA protocol
- V5UA protocol
- IUA protocol
- SCTP protocol
- MTP signaling
- SCCP signaling
- TCAP signaling
- INAP signaling
- V5 signaling
- DSS1 signaling
- PRA link
 - PRA maintenance
 - Display PRA Link Status(DSP PRALNK)
 - Active PRA Link(ACT PRALNK)
 - Deactive PRA Link(DEA PRALNK)
- CAS signaling
- Line and trunk management
- Number analysis
- Subscriber management
- Service management
- Set management
- Performance measurement

Common Maintenance Operation Record Help Information

DSP PRALNK: LNK=11;

History Command: DSP PRALNK: LNK=11;

Command Input (F5): DSP PRALNK

PRA link number 11

```

+++ HW-SoftX 2014-09-01 15:40:54
0&M #38737935
%%DSP PRALNK: LNK=11;%%
RETCODE = 0 Operation succeeded

SoftSwitch Dual-Home Work Mode
-----
DH Work Mode

Assist Deactive

PRA Link Status Information
-----

PRA link No. = 11
PRA link status = PRA Link is established.
TEI Value = 0
Master/Slave Flag = Master

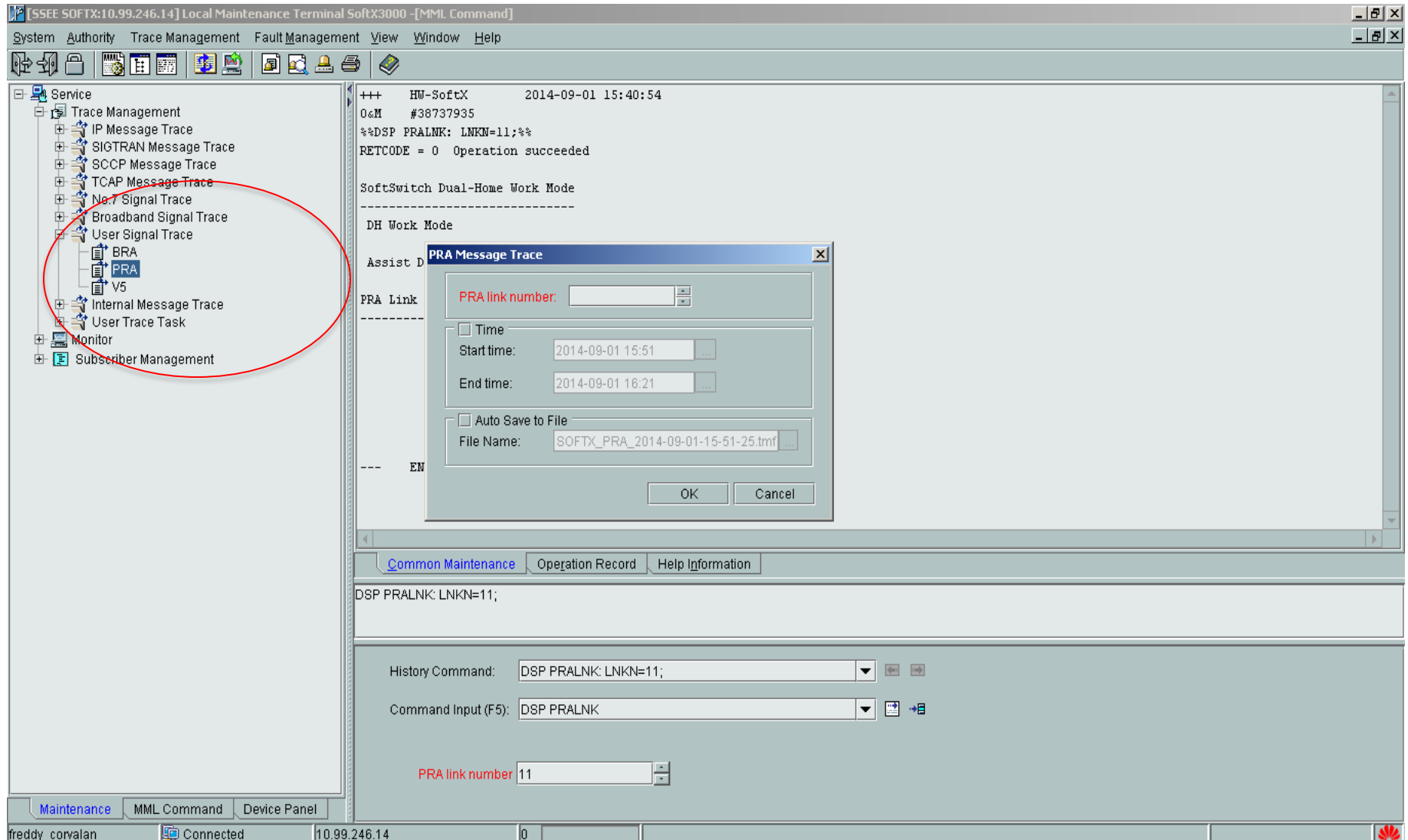
--- END
    
```

Maintenance

MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

Monitoreo y traza de una PRI



The screenshot displays the Huawei MML Command interface for monitoring and tracing a PRI. The left sidebar shows the 'Trace Management' tree, with 'PRA' selected under 'User Signal Trace'. The main window shows the command execution results for 'DSP PRALNK: LNK=11;'. A dialog box titled 'PRA Message Trace' is open, showing the 'PRA Link' field set to '11', the 'Start time' as '2014-09-01 15:51', and the 'End time' as '2014-09-01 16:21'. The 'Auto Save to File' checkbox is checked, and the 'File Name' is 'SOFTX_PRA_2014-09-01-15-51-25.tmf'. The 'History Command' field shows 'DSP PRALNK: LNK=11;', and the 'Command Input (F5)' field shows 'DSP PRALNK'. The 'PRA link number' field is set to '11'.

+++ HW-SoftX 2014-09-01 15:40:54
 0&M #38737935
 %%DSP PRALNK: LNK=11;%%
 RETCODE = 0 Operation succeeded

SoftSwitch Dual-Home Work Mode

DH Work Mode

Assist D

PRA Link

PRA link number: 11

☐ Time

Start time: 2014-09-01 15:51

End time: 2014-09-01 16:21

☒ Auto Save to File

File Name: SOFTX_PRA_2014-09-01-15-51-25.tmf

--- EN

Common Maintenance Operation Record Help Information

DSP PRALNK: LNK=11;

History Command: DSP PRALNK: LNK=11;

Command Input (F5): DSP PRALNK

PRA link number 11

Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

Monitoreo y traza de una PRI

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 - [PRA Message Trace;PRA link num

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - BRA
 - PRA**
 - V5
 - Internal Message Trace
 - User Trace Task
- Monitor
- Subscriber Management

•Si está en azul es una llamada hacia el cliente
•Si esta en negro, viene del cliente.

No.	TimeStamp	Dir	CR No.	Ticks	Msg Name	Hex Ms
24	2014-09-01 15:...	SEND	5430	165502...	DISCONNECT	00 00 00 16 00 00 00
25	2014-09-01 15:...	RECV	5430	165502...	RELEASE	00 00 00 88 00 00 00
26	2014-09-01 15:...	SEND	5430	165502...	RELEASE COMPLETE	00 00 00 16 00 00 00
27	2014-09-01 15:...	RECV	5503	165502...	SETUP	00 00 00 1A 00 00 00
28	2014-09-01 15:...	SEND	5503	165502...	SETUP	00 00 00 16 00 00 00
29	2014-09-01 15:...	RECV	5503	165502...	CALL PROCEEDING	00 00 00 88 00 00 00
30	2014-09-01 15:...	RECV	5503	165502...	ALERTING	00 00 00 88 00 00 00
31	2014-09-01 15:...	RECV	5503	165502...	CONNECT	00 00 00 88 00 00 00
32	2014-09-01 15:...	SEND	5503	165502...	STATUS	00 00 00 16 00 00 00
33	2014-09-01 15:...	SEND	5503	165502...	CONNECT ACKNOWLEDGE	00 00 00 16 00 00 00
34	2014-09-01 15:...	SEND	5503	165502...	ALERTING	00 00 00 16 00 00 00
35	2014-09-01 15:...	RECV	5503	165502...	STATUS	00 00 00 88 00 00 00
36	2014-09-01 15:...	SEND	5503	165502...	DISCONNECT	00 00 00 16 00 00 00
37	2014-09-01 15:...	RECV	5503	165502...	RELEASE	00 00 00 88 00 00 00
38	2014-09-01 15:...	SEND	5503	165502...	RELEASE COMPLETE	00 00 00 16 00 00 00
39	2014-09-01 15:...	RECV	5485	165503...	DISCONNECT	00 00 00 88 00 00 00
40	2014-09-01 15:...	SEND	5485	165503...	RELEASE	00 00 00 16 00 00 00
41	2014-09-01 15:...	RECV	65535	165503...	RELEASE COMPLETE	00 00 00 88 00 00 00
42	2014-09-01 15:...	RECV	5417	165503...	DISCONNECT	00 00 00 88 00 00 00
43	2014-09-01 15:...	SEND	5417	165503...	RELEASE	00 00 00 16 00 00 00
44	2014-09-01 15:...	RECV	5417	165503...	RELEASE COMPLETE	00 00 00 88 00 00 00
45	2014-09-01 15:...	RECV	65535	165503...	SETUP	00 00 00 88 00 00 00
46	2014-09-01 15:...	SEND	5530	165503...	CALL PROCEEDING	00 00 00 16 00 00 00
47	2014-09-01 15:...	SEND	5530	165503...	ALERTING	00 00 00 16 00 00 00
48	2014-09-01 15:...	RECV	5530	165503...	DISCONNECT	00 00 00 88 00 00 00
49	2014-09-01 15:...	SEND	5530	165503...	RELEASE	00 00 00 16 00 00 00
50	2014-09-01 15:...	RECV	5530	165503...	RELEASE COMPLETE	00 00 00 88 00 00 00
51	2014-09-01 15:...	SEND	5500	165503...	DISCONNECT	00 00 00 16 00 00 00
52	2014-09-01 15:...	RECV	5500	165503...	RELEASE	00 00 00 88 00 00 00
53	2014-09-01 15:...	SEND	5500	165503...	RELEASE COMPLETE	00 00 00 16 00 00 00
54	2014-09-01 15:...	RECV	65535	165503...	SETUP	00 00 00 88 00 00 00
55	2014-09-01 15:...	SEND	5545	165503...	CALL PROCEEDING	00 00 00 16 00 00 00
56	2014-09-01 15:...	SEND	5545	165503...	ALERTING	00 00 00 16 00 00 00
57	2014-09-01 15:...	SEND	5545	165503...	CONNECT	00 00 00 16 00 00 00
58	2014-09-01 15:...	RECV	5545	165503...	CONNECT ACKNOWLEDGE	00 00 00 88 00 00 00
59	2014-09-01 15:...	RECV	5603	165504...	SETUP	00 00 00 16 00 00 00
60	2014-09-01 15:...	SEND	5603	165504...	SETUP	00 00 00 16 00 00 00
61	2014-09-01 15:...	RECV	5603	165504...	CALL PROCEEDING	00 00 00 88 00 00 00
62	2014-09-01 15:...	RECV	5603	165504...	ALERTING	00 00 00 88 00 00 00
63	2014-09-01 15:...	RECV	5611	165504...	SETUP	00 00 00 16 00 00 00
64	2014-09-01 15:...	SEND	5611	165504...	SETUP	00 00 00 16 00 00 00

Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

Monitoreo y traza de una PRI

Message Browser-5-[PRA]

```

-00101110      channelNum-or-map:0x16 (22)
1-----      ext:0x1 (1)
00011110  T
00000010  I

    progress-indicator
      location:public-network-serving-the-local-user (2)
      spare:0x0 (0)
      coding-standard:itu-T-standardized-coding (0)
      ext:0x1 (1)
      progress-description:call-is-not-end-to-end-ISDN-further-call-progress-information-may-be-available-in-band (1)
      ext1:0x1 (1)

01101100  T
00001011  I

    calling-party-number
      octet-3
        num-plan-id:isdn-or-telephony-numbering-plan (1)
        type-of-num:national-number (2)
        ext:0x0 (0)
      octet-3a
        screening-indicator:network-provided (3)
        spare:0x0 (0)
        presentation-ind:presentation-allowed (0)
        ext1:0x1 (1)
        number:32 32 35 38 32 35 33 36 37

01110000  T
00001000  I

    called-party-number
      octet-3
        num-plan-id:isdn-or-telephony-numbering-plan (1)
        type-of-num:subscriber-number (4)
        ext:0x1 (1)
        number:32 33 35 35 30 30 30 30
  
```

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	00	00	16	00	00	00	BC	00	00	00	16	00	00	00	B3
0010	00	00	00	3B	00	0B	01	90	02	47	55	48	00	F1	3F	94
0020	02	31	01	00	08	02	15	6D	05	A1	04	03	90	90	A3	18
0030	03	A1	83	96	1E	02	82	81	6C	0B	21	83	32	32	35	38
0040	32	35	33	36	37	70	08	C1	32	33	35	35	30	30	30	30

Previous Next

Monitoreo y traza de una PRI

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 -[MML Command]

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - BRA
 - PRA**
 - V5
 - Internal Message Trace
 - User Trace Task
- Monitor
- Subscriber Management

```

---  END
+++  HW-SoftX      2014-09-01 16:52:06
O&M  #38738705
%%DSP PRALNK: LNK=311;%%
RETCODE = 0  Operation succeeded

SoftSwitch Dual-Home Work Mode

-----
DH Work Mode

Assist Deactive

PRA Link Status Information
-----

PRA link No. = 311
PRA link status = PRA Link is not established.
TEI Value = 0
Master/Slave Flag = Master

---  END
  
```

Common Maintenance Operation Record Help Information

DSP PRALNK: LNK=311;

History Command: DSP PRALNK: LNK=311;

Command Input (F5): DSP PRALNK

PRA link number 311

Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

Monitoreo y traza de una PRI

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 - [PRA Message Trace;PRA link number=311]

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - BRA
 - PRA**
 - V5
 - Internal Message Trace
 - User Trace Task
- Monitor
- Subscriber Management

No.	TimeStamp	Direction	Msg Type	CR No.	Ticks	Msg Name	Hex Ms
9	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
10	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
11	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
12	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
13	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
14	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
15	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
16	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
17	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
18	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
19	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
20	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
21	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
22	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
23	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
24	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
25	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
26	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
27	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
28	2014-09-01 16:...	SEND	IUA MSG	65535	165537...	DL ESTABLISH REQ	00 00 00 17 00 00 00
29	2014-09-01 16:...	RCV	IUA MSG	65535	165537...	DL RELEASE IND	00 00 00 8A 00 00 00
30	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
31	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
32	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
33	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
34	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
35	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
36	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
37	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
38	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
39	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
40	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
41	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
42	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
43	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
44	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
45	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
46	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00
47	2014-09-01 16:...	RCV	IUA MSG	65535	165538...	DL RELEASE IND	00 00 00 8A 00 00 00
48	2014-09-01 16:...	SEND	IUA MSG	65535	165538...	DL ESTABLISH REQ	00 00 00 17 00 00 00

Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0

Verificar ANI correcto

[SSEE SOFTX:10.99.246.14] Local Maintenance Terminal SoftX3000 -[MML Command]

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - BRA
 - PRA**
 - V5
 - Internal Message Trace
 - User Trace Task
- Monitor
- Subscriber Management

```

---  END

+++  HW-SoftX      2014-09-01 17:05:57
0&M  #38738814
%%LST TKDNSEG: TGNO=11;%%
RETCODE = 0  Operation succeeded

Query result is empty

---  END

+++  HW-SoftX      2014-09-01 17:06:04
0&M  #38738815
%%LST TKDNSEG: TGNO=13;%%
RETCODE = 0  Operation succeeded

Trunk caller number segment
-----
Trunk group number  Start number in number segment  End number in number segment  Master/Slave type
13                  582351700                      582351799                      Master

---  END
  
```

Common Maintenance Operation Record Help Information

LST TKDNSEG: TGNO=13;

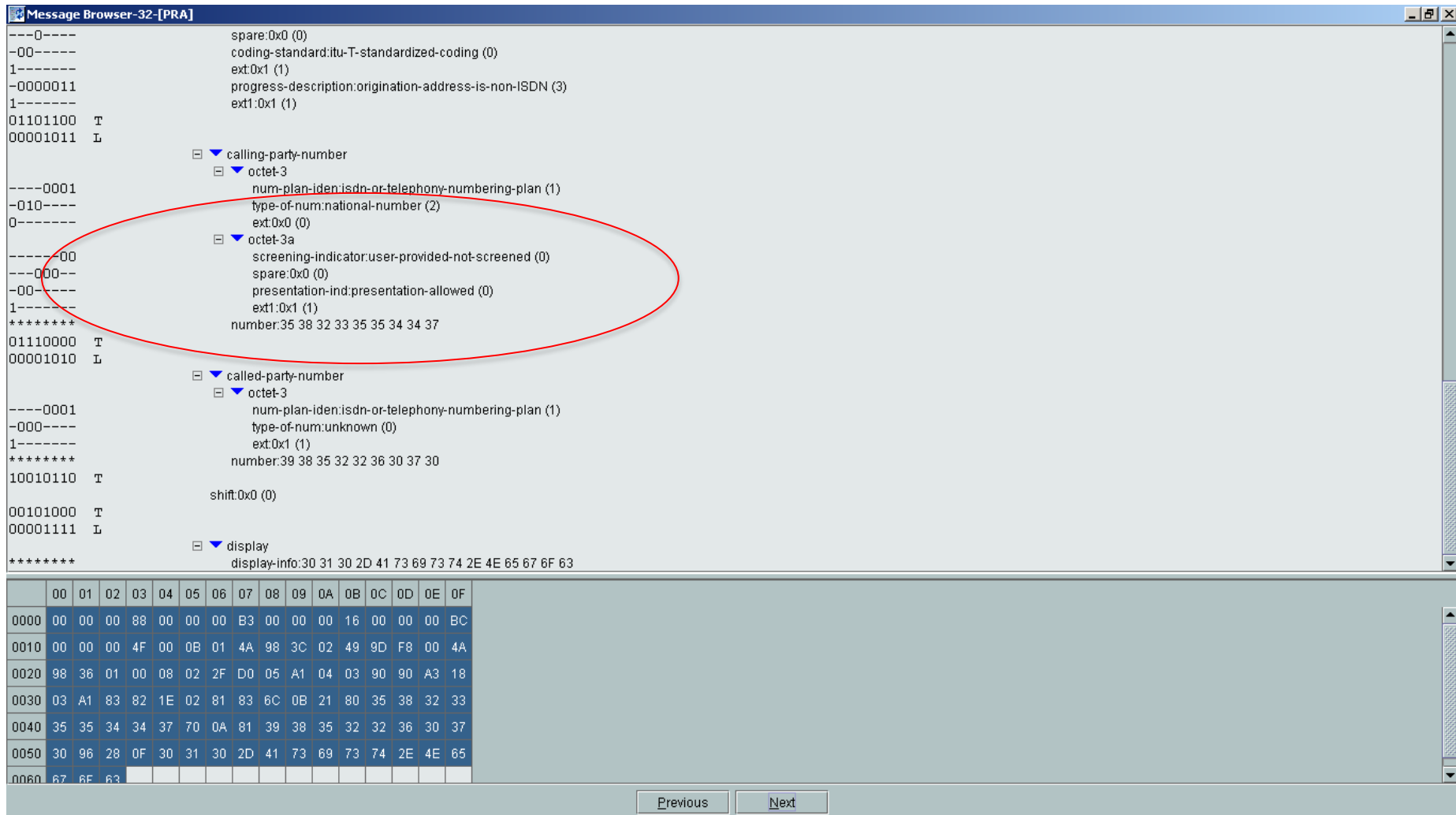
History Command: LST TKDNSEG: TGNO=13;

Command Input (F5): LST TKDNSEG

Trunk group number 13 Master/Slave flag ALL(All)

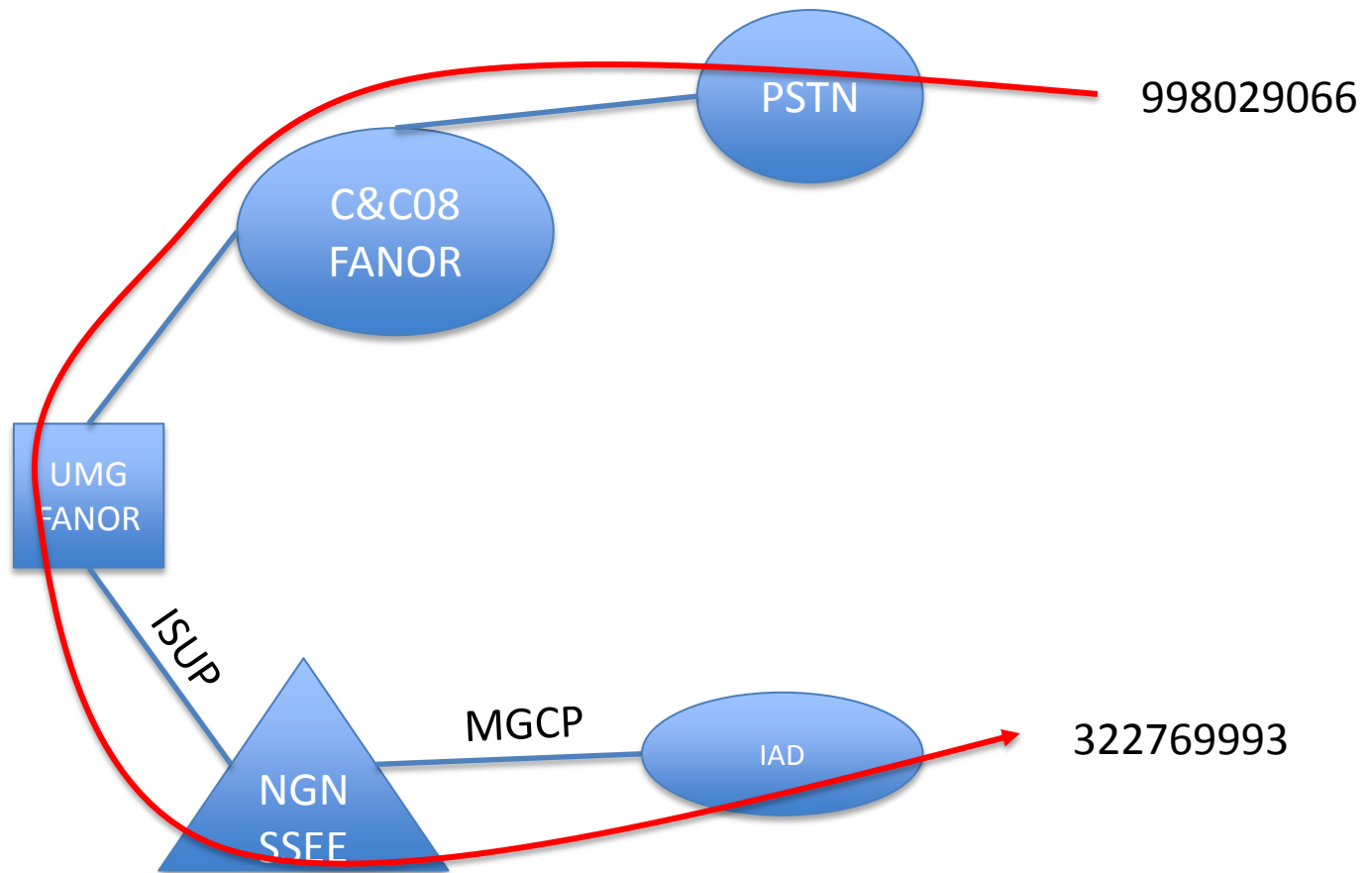
Maintenance MML Command Device Panel

freddy_corvalan Connected 10.99.246.14 0



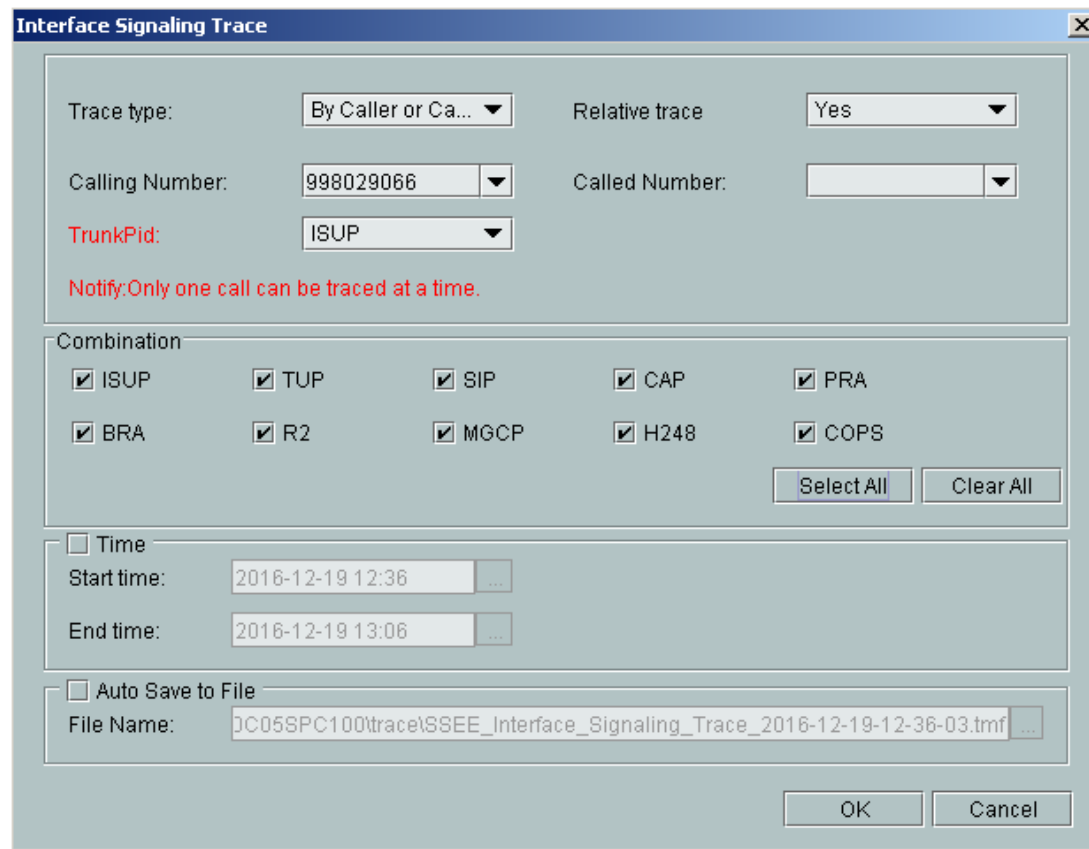
Trazas NGN : Por Calling Number

Este caso se da cuando queremos saber si está entrando una llamada desde la PSTN hacia un cliente SSEE, ya sea troncal o iad. Ej.: nuestro origen es un teléfono móvil (998029066) ingresando a una linea iad (322769993).



Trazas NGN : Por Calling Number

Para abrir traza debemos abrir LMT lengüeta Maintenance y abrir árbol **Service->Trace Management->Interface Signalling Trace**. Se abre un Pop-Up en donde seleccionamos: Trace Type= «By Caller or Callee», «Calling Number» (numero de origen de PSTN, Select All. Y damos OK



Interface Signaling Trace

Trace type: By Caller or Ca... Relative trace: Yes

Calling Number: 998029066 Called Number:

TrunkPid: ISUP

Notify: Only one call can be traced at a time.

Combination

☒ ISUP ☒ TUP ☒ SIP ☒ CAP ☒ PRA

☒ BRA ☒ R2 ☒ MGCP ☒ H248 ☒ COPS

Select All Clear All

☐ Time

Start time: 2016-12-19 12:36

End time: 2016-12-19 13:06

☐ Auto Save to File

File Name: JC058PC100\trace\SSSEE_Interface_Signaling_Trace_2016-12-19-12-36-03.tmf

OK Cancel

Trazas NGN : Por Calling Number

Esta es una traza tipo desde PSTN hacia una iad, se tienen dos protocolos: ISUP y MGCP. Si tuviésemos como punto final un enlace SIP, la traza sería ISUP-SIP, y si fuese PRA la traza sería ISUP-PRA

[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 -[Interface Signaling Trace;Calling Number=998029066;TrunkPid=ISUP]

System Authority Trace Management Fault Management View Window Help

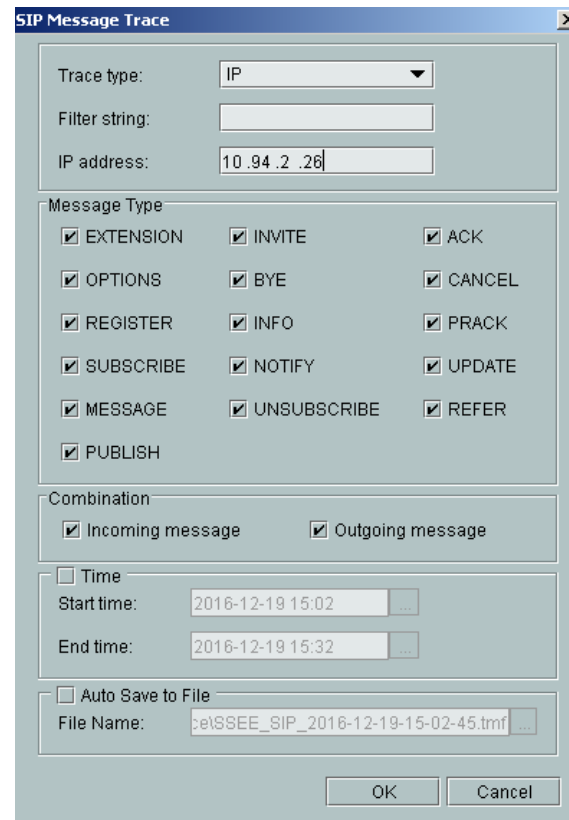
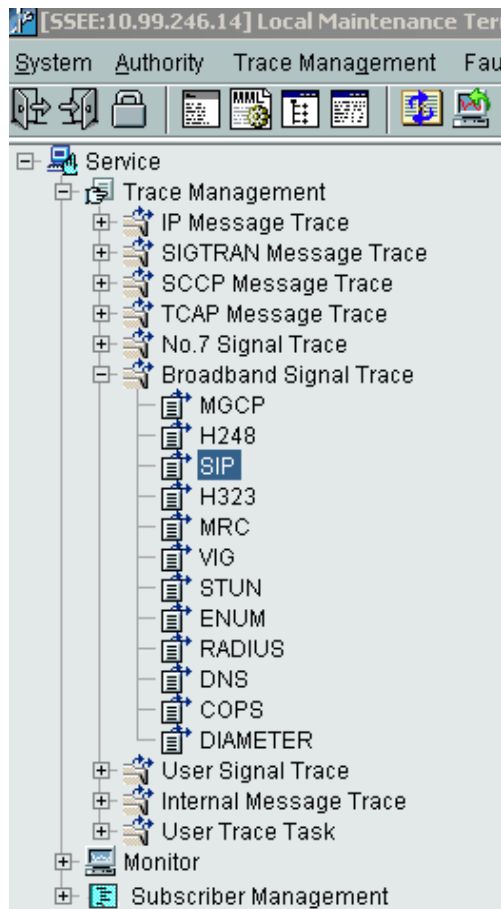
Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - Internal Message Trace
 - User Trace Task
 - Interface Signaling Trace
 - Call Connection Trace
 - Caller or Callee Trace
 - UMG User Trace
- Monitor
- Subscriber Management

No.	TimeStamp	Direction	Msg Interface	Msg
1	2016-12-19 14:...	RECV	TRC MI FROM ISUP	IAM
2	2016-12-19 14:...	SEND	TRC MT TO H248	ADD REQ
3	2016-12-19 14:...	RECV	TRC MT FROM H248	ADD REPLY
4	2016-12-19 14:...	SEND	TRC MT TO MGCP	CRCX
5	2016-12-19 14:...	SEND	TRC MI TO ISUP	ACM
6	2016-12-19 14:...	SEND	TRC MT TO H248	MOD REQ
7	2016-12-19 14:...	RECV	TRC MT FROM MGCP	CRCX RSP
8	2016-12-19 14:...	RECV	TRC MT FROM MGCP	RQNT RSP
9	2016-12-19 14:...	SEND	TRC MT TO MGCP	RQNT
10	2016-12-19 14:...	RECV	TRC MT FROM H248	MOD REPLY
11	2016-12-19 14:...	RECV	TRC MI FROM ISUP	REL
12	2016-12-19 14:...	RECV	TRC MT FROM MGCP	DLCX RSP
13	2016-12-19 14:...	SEND	TRC MT TO MGCP	RQNT
14	2016-12-19 14:...	SEND	TRC MT TO MGCP	DLCX
15	2016-12-19 14:...	SEND	TRC MI TO ISUP	RLC
16	2016-12-19 14:...	RECV	TRC MT FROM H248	SUB REPLY
17	2016-12-19 14:...	RECV	TRC MT FROM MGCP	RQNT RSP
18	2016-12-19 14:...	SEND	TRC MT TO H248	SUB REQ

Trazas NGN : Por ruta SIP

Si conocemos la ruta SIP y su IP, es posible obtener la traza de troncal SIP ubicada en la lengüeta Maintenance y abrir árbol **Service->Trace Management->Broadband Signal Trace->SIP**. Se abre un Pop-Up en donde ingresamos el IP address de la ruta SIP. Y damos OK



Trazas NGN : Por ruta SIP

Esta traza permite visualizar todos los mensajes SIP de los flujos de llamados entrantes y salientes de la troncal,. En la columna Direction podemos apreciar el sentido del mensaje, este puede ser: SEND (desde NGN a PBX) o RECV (desde PBX a NGN)

[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 - [SIP Message Trace;IP address=10.94.2.26]

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - MGCP
 - H248
 - SIP**
 - H323
 - MRC
 - VIG
 - STUN
 - ENUM
 - RADIUS
 - DNS
 - COPS
 - DIAMETER
 - User Signal Trace
 - Internal Message Trace
 - User Trace Task
- Monitor
- Subscriber Management

No.	TimeStamp	Direction	Msg Name	Module No	Local Address	Remote Address
1	2016-12-19 15:...	SEND	183	133	10.99.250.10:5060	10.94.2.26:5060
2	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
3	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
4	2016-12-19 15:...	RECV	CANCEL	133	10.99.250.10:5060	10.94.2.26:5060
5	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
6	2016-12-19 15:...	SEND	487	133	10.99.250.10:5060	10.94.2.26:5060
7	2016-12-19 15:...	RECV	ACK	133	10.99.250.10:5060	10.94.2.26:5060
8	2016-12-19 15:...	SEND	BYE	135	10.99.250.10:5062	10.94.2.26:5060
9	2016-12-19 15:...	RECV	200	135	10.99.250.10:5062	10.94.2.26:5060
10	2016-12-19 15:...	RECV	INVITE	208	10.99.250.10:5060	10.94.2.26:5060
11	2016-12-19 15:...	SEND	100	208	10.99.250.10:5060	10.94.2.26:5060
12	2016-12-19 15:...	SEND	180	208	10.99.250.10:5060	10.94.2.26:5060
13	2016-12-19 15:...	RECV	PRACK	208	10.99.250.10:5060	10.94.2.26:5060
14	2016-12-19 15:...	SEND	200	208	10.99.250.10:5060	10.94.2.26:5060
15	2016-12-19 15:...	RECV	INVITE	133	10.99.250.10:5060	10.94.2.26:5060
16	2016-12-19 15:...	SEND	100	133	10.99.250.10:5060	10.94.2.26:5060
17	2016-12-19 15:...	RECV	BYE	133	10.99.250.10:5060	10.94.2.26:5060
18	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
19	2016-12-19 15:...	SEND	180	133	10.99.250.10:5060	10.94.2.26:5060
20	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
21	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
22	2016-12-19 15:...	RECV	BYE	135	10.99.250.10:5062	10.94.2.26:5060
23	2016-12-19 15:...	SEND	200	135	10.99.250.10:5062	10.94.2.26:5060
24	2016-12-19 15:...	RECV	BYE	209	10.99.250.10:5060	10.94.2.26:5060
25	2016-12-19 15:...	SEND	200	209	10.99.250.10:5060	10.94.2.26:5060
26	2016-12-19 15:...	RECV	INVITE	133	10.99.250.10:5060	10.94.2.26:5060
27	2016-12-19 15:...	SEND	100	133	10.99.250.10:5060	10.94.2.26:5060
28	2016-12-19 15:...	RECV	INVITE	133	10.99.250.10:5060	10.94.2.26:5060
29	2016-12-19 15:...	SEND	100	133	10.99.250.10:5060	10.94.2.26:5060
30	2016-12-19 15:...	SEND	CANCEL	133	10.99.250.10:5061	10.94.2.26:5060
31	2016-12-19 15:...	RECV	200	133	10.99.250.10:5061	10.94.2.26:5060
32	2016-12-19 15:...	RECV	487	133	10.99.250.10:5061	10.94.2.26:5060
33	2016-12-19 15:...	SEND	ACK	133	10.99.250.10:5061	10.94.2.26:5060
34	2016-12-19 15:...	SEND	200	208	10.99.250.10:5060	10.94.2.26:5060
35	2016-12-19 15:...	RECV	ACK	208	10.99.250.10:5060	10.94.2.26:5060
36	2016-12-19 15:...	SEND	180	133	10.99.250.10:5060	10.94.2.26:5060
37	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
38	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
39	2016-12-19 15:...	SEND	180	133	10.99.250.10:5060	10.94.2.26:5060
40	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
41	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
42	2016-12-19 15:...	SEND	INVITE	135	10.99.250.10:5062	10.94.2.26:5060
43	2016-12-19 15:...	RECV	100	135	10.99.250.10:5062	10.94.2.26:5060
44	2016-12-19 15:...	RECV	180	135	10.99.250.10:5062	10.94.2.26:5060
45	2016-12-19 15:...	SEND	PRACK	135	10.99.250.10:5062	10.94.2.26:5060
46	2016-12-19 15:...	RECV	200	135	10.99.250.10:5062	10.94.2.26:5060
47	2016-12-19 15:...	SEND	BYE	135	10.99.250.10:5062	10.94.2.26:5060
48	2016-12-19 15:...	RECV	200	135	10.99.250.10:5062	10.94.2.26:5060

Trazas NGN : Por ruta SIP

El mensaje INVITE es el mensaje de inicio de una llamada, indica el numero de origen y destino, como IP de origen y destino respectivamente.

[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 - [SIP Message Trace;IP address=10.94.2.26]

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIOTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - MGCP
 - H248
 - SIP
 - H323
 - MRC
 - VIG
 - STUN
 - ENUM
 - RADIUS
 - DNS
 - COPS
 - DIAMETER
 - User Signal Trace
 - Internal Message Trace
 - User Trace Task
- Monitor
- Subscriber Management

No.	TimeStamp	Direction	Msg Name	Module No	Local Address	Remote Address
1	2016-12-19 15:...	SEND	183	133	10.99.250.10:5060	10.94.2.26:5060
2	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
3	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
4	2016-12-19 15:...	RECV	CANCEL	133	10.99.250.10:5060	10.94.2.26:5060
5	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
6	2016-12-19 15:...	SEND	487	133	10.99.250.10:5060	10.94.2.26:5060
7	2016-12-19 15:...	RECV	ACK	133	10.99.250.10:5060	10.94.2.26:5060
8	2016-12-19 15:...	SEND	BYE	135	10.99.250.10:5062	10.94.2.26:5060
9	2016-12-19 15:...	RECV	200	135	10.99.250.10:5062	10.94.2.26:5060
10	2016-12-19 15:...	RECV	INVITE	208	10.99.250.10:5060	10.94.2.26:5060
11	2016-12-19 15:...	SEND	100	208	10.99.250.10:5060	10.94.2.26:5060
12	2016-12-19 15:...	SEND	180	208	10.99.250.10:5060	10.94.2.26:5060
13	2016-12-19 15:...	RECV	PRACK	208	10.99.250.10:5060	10.94.2.26:5060
14	2016-12-19 15:...	SEND	200	208	10.99.250.10:5060	10.94.2.26:5060
15	2016-12-19 15:...	RECV	INVITE	133	10.99.250.10:5060	10.94.2.26:5060
16	2016-12-19 15:...	SEND	100	133	10.99.250.10:5060	10.94.2.26:5060
17	2016-12-19 15:...	RECV	BYE	133	10.99.250.10:5060	10.94.2.26:5060
18	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
19	2016-12-19 15:...	SEND	180	133	10.99.250.10:5060	10.94.2.26:5060
20	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
21	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
22	2016-12-19 15:...	RECV	BYE	135	10.99.250.10:5062	10.94.2.26:5060
23	2016-12-19 15:...	SEND	200	135	10.99.250.10:5062	10.94.2.26:5060
24	2016-12-19 15:...	RECV	BYE	209	10.99.250.10:5060	10.94.2.26:5060
25	2016-12-19 15:...	SEND	200	209	10.99.250.10:5060	10.94.2.26:5060
26	2016-12-19 15:...	RECV	INVITE	133	10.99.250.10:5060	10.94.2.26:5060
27	2016-12-19 15:...	SEND	100	133	10.99.250.10:5060	10.94.2.26:5060
28	2016-12-19 15:...	RECV	INVITE	133	10.99.250.10:5060	10.94.2.26:5060
29	2016-12-19 15:...	SEND	100	133	10.99.250.10:5060	10.94.2.26:5060
30	2016-12-19 15:...	SEND	CANCEL	133	10.99.250.10:5061	10.94.2.26:5060
31	2016-12-19 15:...	RECV	200	133	10.99.250.10:5061	10.94.2.26:5060
32	2016-12-19 15:...	RECV	487	133	10.99.250.10:5061	10.94.2.26:5060
33	2016-12-19 15:...	SEND	ACK	133	10.99.250.10:5061	10.94.2.26:5060
34	2016-12-19 15:...	SEND	200	208	10.99.250.10:5060	10.94.2.26:5060
35	2016-12-19 15:...	RECV	ACK	208	10.99.250.10:5060	10.94.2.26:5060
36	2016-12-19 15:...	SEND	180	133	10.99.250.10:5060	10.94.2.26:5060
37	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
38	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
39	2016-12-19 15:...	SEND	180	133	10.99.250.10:5060	10.94.2.26:5060
40	2016-12-19 15:...	RECV	PRACK	133	10.99.250.10:5060	10.94.2.26:5060
41	2016-12-19 15:...	SEND	200	133	10.99.250.10:5060	10.94.2.26:5060
42	2016-12-19 15:...	SEND	INVITE	135	10.99.250.10:5062	10.94.2.26:5060
43	2016-12-19 15:...	RECV	100	135	10.99.250.10:5062	10.94.2.26:5060
44	2016-12-19 15:...	RECV	180	135	10.99.250.10:5062	10.94.2.26:5060
45	2016-12-19 15:...	SEND	PRACK	135	10.99.250.10:5062	10.94.2.26:5060
46	2016-12-19 15:...	RECV	200	135	10.99.250.10:5062	10.94.2.26:5060
47	2016-12-19 15:...	SEND	BYE	135	10.99.250.10:5062	10.94.2.26:5060
48	2016-12-19 15:...	RECV	200	135	10.99.250.10:5062	10.94.2.26:5060

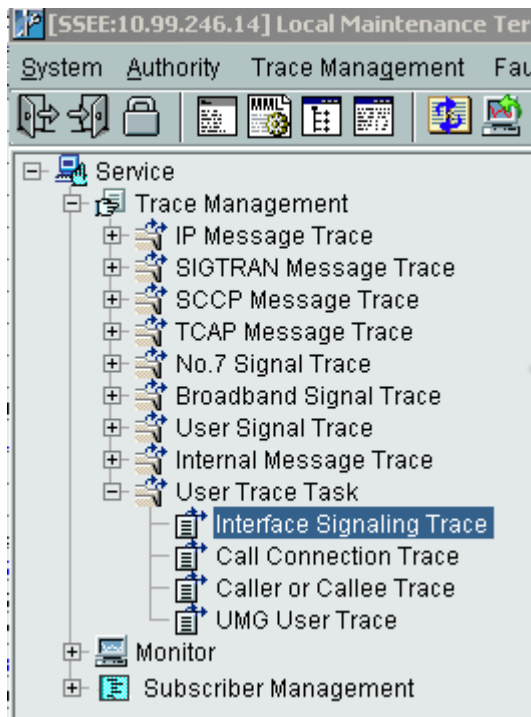
INVITE sip:9942164136@10.99.250.10:5060 SIP/2.0
 Via: SIP/2.0/UDP 10.94.2.26:5060;branch=z9hG4bKepltn005oegdt44s271.1
 Remote-Party-ID: "Francisca Perez"
 <sip:225810029@10.39.145.4>;party=calling;screen=yes;privacy=off
 From: "Francisca Perez" <sip:225810029@10.94.2.26:5060>;tag=901D7F40-1305
 To: <sip:9942164136@10.99.250.10:5060>
 Date: Mon, 19 Dec 2016 18:07:28 GMT
 Call-ID: D630B489-C54C11E6-978BFE60-83FBB16F@10.39.145.4
 Supported: 100rel,timer,resource-priority,replaces,sdp-anat
 Min-SE: 1800
 Cisco-Guid: 4281562496-0000065536-0000050142-0261170954
 User-Agent: Cisco-SIPGateway/IOS-12.x
 Allow: INVITE, OPTIONS, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY, INFO,
 REGISTER
 CSeq: 101 INVITE
 Timestamp: 1482170848
 Contact: <sip:225810029@10.94.2.26:5060>;transport=udp>
 Expires: 180
 Allow-Events: telephone-event
 Max-Forwards: 68
 Session-Expires: 1800
 Content-Type: application/sdp
 Content-Disposition: session;handling=required
 Content-Length: 303

v=0
 o=CiscoSystemsSIP-GW-UserAgent 6593 3563 IN IP4 10.94.2.26
 s=SIP Call
 c=IN IP4 10.94.2.26
 t=0 0
 m=audio 34710 RTP/AVP 8 4 18 0 101
 c=IN IP4 10.94.2.26
 a=rtpmap:8 PCMA/8000
 a=rtpmap:4 G723/8000
 a=rtpmap:18 G729/8000
 a=rtpmap:0 PCMU/8000
 a=rtpmap:101 telephone-event/8000
 a=fmtp:101 0-15

Trazas NGN : Traza por numero de origen ruta SIP



Si conozco el numero de origen que viene por una ruta SIP, ejemplo: 225825344 de TG SIP 2192, IP 10.94.2.26. Entonces no dirigimos a lengüeta Maintenance y abrir árbol **Service->Trace Management->Interface Signalling Trace**. Se abre un Pop-Up en donde seleccionamos: Trace Type= «By subscriber»(, «Subscriber Number» numero de origen a 9 digitos que viene de PBX) y «Local DN Set»(65534), Select All. Y damos OK



Interface Signalling Trace

Trace type: By subscriber ... Relative trace: Yes

Subscriber number: 225825344 Local DN Set: 65534

Combination

<input checked="" type="checkbox"/> ISUP	<input checked="" type="checkbox"/> TUP	<input checked="" type="checkbox"/> SIP	<input checked="" type="checkbox"/> CAP	<input checked="" type="checkbox"/> PRA
<input checked="" type="checkbox"/> BRA	<input checked="" type="checkbox"/> R2	<input checked="" type="checkbox"/> MGCP	<input checked="" type="checkbox"/> H248	<input checked="" type="checkbox"/> COPS

Select All Clear All

☐ Time

Start time: 2016-12-19 15:17 ...

End time: 2016-12-19 15:47 ...

☐ Auto Save to File

File Name: JC05SPC100\trace\SSEE_Interface_Signalling_Trace_2016-12-19-15-17-02.tmf ...

OK Cancel

Trazas NGN : Traza por numero de origen ruta SIP



Esta traza nos permite tener una visión del tránsito de una llamada SIP, hacia algun otro protocolo, en este caso el destino es ISUP. Pero podría ser MGCP, PRA, o SIP.

[SSEE:10.99.246.14] Local Maintenance Terminal SoftX3000 -[Interface Signaling Trace;Subscriber number=225825344;Local DN Set=65534]

System Authority Trace Management Fault Management View Window Help

Service

- Trace Management
 - IP Message Trace
 - SIGTRAN Message Trace
 - SCCP Message Trace
 - TCAP Message Trace
 - No.7 Signal Trace
 - Broadband Signal Trace
 - User Signal Trace
 - Internal Message Trace
 - User Trace Task
 - Interface Signaling Trace
 - Call Connection Trace
 - Caller or Callee Trace
 - UMG User Trace
- Monitor
- Subscriber Management

No.	TimeStamp	Direction	Msg Interface	Msg Type
1	2016-12-19 15:...	SEND	TRC MT TO H248	ADD REQ
2	2016-12-19 15:...	RECV	TRC MT FROM H248	ADD REPLY
3	2016-12-19 15:...	SEND	TRC MI TO ISUP	IAM
4	2016-12-19 15:...	SEND	TRC MI TO ISUP	SAM
5	2016-12-19 15:...	RECV	TRC MI FROM ISUP	ACM
6	2016-12-19 15:...	SEND	TRC MI TO SIP	180
7	2016-12-19 15:...	RECV	TRC MI FROM SIP	PRACK
8	2016-12-19 15:...	SEND	TRC MI TO SIP	200
9	2016-12-19 15:...	RECV	TRC MI FROM ISUP...	ACM
10	2016-12-19 15:...	SEND	TRC MI TO ISUP	REL
11	2016-12-19 15:...	SEND	TRC MT TO H248	SUB REQ
12	2016-12-19 15:...	SEND	TRC MI TO SIP	487
13	2016-12-19 15:...	RECV	TRC MI FROM SIP	ACK
14	2016-12-19 15:...	RECV	TRC MT FROM H248	SUB REPLY