Configuración y resolución de problemas de la señalización E1 R2

Contenido

Introducción

En este documento se muestran los comandos que deben ingresarse progresivamente para implementar la señalización E1 R2. Este documento también ofrece información de Troubleshooting con los comandos debug.

Nota: Antes de utilizar este documento, se recomienda leer primero Teoría de señalización E1 R2.

Prerequisites

Requirements

Antes de intentar esta configuración, asegúrese de cumplir estos requisitos previos:

- La señalización R2 sólo se aplica a E1.
- La señalización R2 no se soporta en el router Cisco MC3810.
- Para ejecutar la señalización R2 en los Cisco 2600/3600 Series Routers, se requiere este hardware:VWIC-1MFT-E1 o VWIC-2MFT-E1 o VWIC-2MFT-E1-DI junto con uno de estos módulos de densidad de voz: NM-HDV (módulo de red de voz de alta densidad) o NM-HD-

2VE (módulo de red de voz/fax de comunicaciones IP de 2 ranuras) .
- Defina el comando **ds0-group** (o **cas-group**, según la versión de Cisco IOS®) en los controladores E1 (AS5x00, Cisco 2600/3600 Routers).
- Utilice el comando **cas-custom** para personalizar las variantes E1 R2 para diferentes países o regiones.

Componentes Utilizados

La información de este documento se basa en esta versión de software y hardware:

- Cisco AS5300 con Cisco IOS Software Release 12.0.7T

Nota: La señalización E1 R2 fue introducida en los Cisco 2600/3600 Series Routers en Cisco IOS Software Releases 12.1.2XH y 12.1(3)T.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Convenciones

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

Configurar

Esta sección le presenta la información que puede utilizar para configurar E1 R2.

Nota: Para encontrar información adicional sobre los comandos que utiliza este documento, refiérase a la Command Lookup Tool (sólo clientes registrados) .

AS5300: Compatibilidad del software Cisco IOS con la tarjeta de función de voz (VFC)

Antes de implementar la señalización E1 R2 en un router Cisco AS5300, asegúrese de que su versión del software Cisco IOS sea compatible con Cisco VCware en el módulo E1. Para verificar la compatibilidad del software Cisco IOS, consulte la Matriz de Compatibilidad de Cisco VCWare para Cisco AS5300. Si las versiones son incompatibles, los módulos del procesador de señales digitales (DSP) de la tarjeta de voz no se cargan y no se produce el procesamiento de señales de voz.

Normalmente, si la versión de Cisco VCWare es incompatible con el software Cisco IOS, puede ingresar el comando **show vfc *slot_number* interface** para ver esto como se muestra en este ejemplo.

```
eefje#show vfc 1 interface
Rx: in ptr 18, outptr 0
Tx: in ptr 14  outptr  14
0 in hw queue, 0 queue head , 0 queue tail
Hardware is VFC out-of-band channel
Interface : state RESET DSP instance (0x61048284)
dsp_number 0, Channel ID 0
```

```
TX outstanding 0, max TX outstanding 0
Received 18 packets, 1087 bytes, 0 giant packets
0 drops, 0 no buffers, 0 input errors
121 bytes output, 14 frames output
0 bounce errors 0

DSP module 1 is not installed
DSP module 2 is not installed
DSP module 3 is not installed
DSP module 4 is not installed
DSP module 5 is not installed
```

En el primer ejemplo de salida del comando **show vfc *slot_number* interface**, las sentencias `número de módulo DSP no está instalado` muestran que las versiones son incompatibles para ese número de módulo.

Este segundo conjunto de resultados es un ejemplo de los módulos DSP que tienen la versión correcta de Cisco VCWare cargada:

```
eefje#show vfc 1 interface
Rx: in ptr 24, outptr 0
TX: in ptr 15  outptr  15
0 in hw queue, 0 queue head , 0 queue tail
Hardware is VFC out-of-band channel
Interface : state RESET DSP instance (0x618C6088)
dsp_number 0, Channel ID 0
TX outstanding 0, max TX outstanding 0
Received 283288 packets, 15864278 bytes, 0 giant packets
0 drops, 0 no buffers, 0 input errors
1416459 bytes output,  141647 frames output
0 bounce errors 0

Slot 1, DSPM 1 (C542), DSP 1, Channel 1
State RESET, DSP instance (0x61914BDC)
TX outstanding 0, max TX outstanding 8
Received 0 packets, 0 bytes, 0 giant packets
0 drops, 0 no buffers, 0 input errors
0 bytes output,  0 frames output
0 bounce errors 0

Slot 1, DSPM 1 (C542), DSP 2, Channel 1
State RESET, DSP instance (0x6191510C)
TX outstanding 0, max TX outstanding 8
Received 0 packets, 0 bytes, 0 giant packets
0 drops, 0 no buffers, 0 input errors
0 bytes output,  0 frames output
0 bounce errors 0
```

Para verificar la versión instalada de Cisco VCWare, ingrese el comando **show vfc *slot_number* version vcware**, como se muestra en este ejemplo:

```
eefje#show vfc 1 version vcware
Voice Feature Card in Slot 1:

VCware Version : 4.10
ROM Monitor Version : 1.2
DSPware Version :
Technology :  C542
```

Nota: Asegúrese de que la versión de tecnología Cisco VCWare (c549 o c542) coincida con la tecnología VFC DSP instalada (DSPM-542: soporte de voz de una densidad o DSPM-549:

soporte de voz de alta densidad).

Configurar E1 R2

Complete estos pasos para configurar E1 R2:

1. Configure el controlador E1 que se conecta al switch o la centralita automática privada (PBX).Asegúrese de que el entramado y la codificación de línea del E1 estén correctamente configurados.
2. Para la alineación de tramas E1, elija **CRC** o **no CRC**.
3. Para la codificación de línea E1, elija **HDB3** o **AMI**.
4. Para el origen de reloj E1, elija **internal** o **line**. Tenga en cuenta que los diferentes PBX tienen diferentes requisitos en la fuente de reloj.
5. Configure la señalización de línea.
6. Configure la señalización entre registros.
7. Personalice la configuración con el comando **cas-custom**.

Configuración de la señalización de línea

Utilice esta secuencia de comandos para definir la señalización de línea.

```
 eefje(config)#controller E1 0
 eefje(config-controller)#ds0-group 1 timeslots 1-15 type ?
...
r2-analog        R2 ITU Q411
r2-digital       R2 ITU Q421
r2-pulse         R2 ITU Supplement 7
...
```

Ésta es la secuencia de comandos para la versión 11.3 del software del IOS de Cisco.

```
 eefje(config)#controller E1 0
 eefje(config-controller)#cas-group 1 timeslot 1-15 type ?
...
```

Nota: Si actualiza de Cisco IOS Software Release 11.3 a 12.0, el nuevo comando reemplaza automáticamente al anterior.

Configuración de la señalización entre registros

Este ejemplo de secuencia de comandos ilustra cómo configurar los diferentes tipos de señalización entre registros:

```
 eefje(config)#controller E1 0
 eefje(config-controller)#ds0-group 1 timeslots 1-15 type r2-digital ?
dtmf               DTMF tone signaling
r2-compelled       R2 Compelled Register Signaling
r2-non-compelled   R2 Non Compelled Register Signaling
r2-semi-compelled  R2 Semi Compelled Register Signaling
```

La implementación de Cisco de la señalización R2 tiene la compatibilidad con el servicio de identificación de número marcado (DNIS) habilitada de forma predeterminada. Si activa la opción de identificación automática de números (ANI), la recopilación de información de DNIS se seguirá

realizando. La especificación de la opción ANI no inhabilita la colección DNIS. DNIS es el número al que se llama. ANI es el número de la persona que llama. Por ejemplo, si configura un router llamado A para llamar a un router llamado B, entonces el número DNIS se asigna al router B y el número ANI se asigna al router A. ANI es similar al ID de la persona que llama.

Personalización de los enlaces E1 R2 con el comando cas-custom

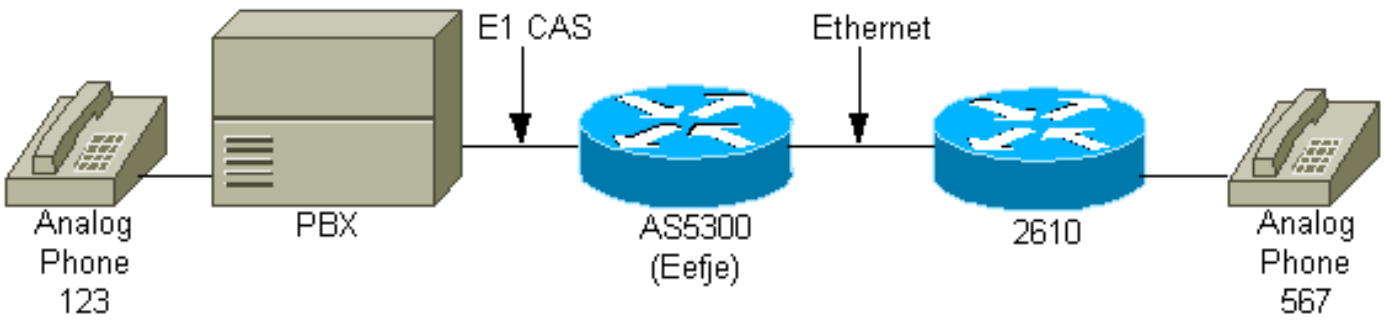
Los subcomandos bajo el comando **cas-custom** se utilizan para acomodar las variantes del país. También se utilizan para personalizar los parámetros de señalización asociada al canal (CAS). Esta secuencia de comandos ilustra cómo puede ver todas las opciones de comando **cas-custom**.

```
eefje(config)#controller E1 0
eefje(config-controller)#cas-custom 1
eefje(config-ctrl-cas)#?
CAS custom commands:
  ani-digits           Expected number of ANI digits
  ani-timeout          Timeout for ANI digits
  answer-guard-time    Wait Between Group-B Answer Signal And Line Answer
  answer-signal        Answer signal to be used
  caller-digits        Digits to be collected before requesting CallerID
  category             Category signal
  country              Country Name
  debounce-time        Debounce Timer
  default              Set a command to its defaults
  dnis-complete        Send I-15 after DNIS digits for dial-out
  dnis-digits          Expected number of DNIS digits
  exit                 Exit from cas custom mode
  groupa-callerid-end  Send Group-A Caller ID End
  invert-abcd          invert the ABCD bits before TX and after rx
  ka                   kA Signal
  kd                   KD Signal
  metering             R2 network is sending metering signal
  nc-congestion        Non Compelled Congestion signal
  no                   Negate a command or set its defaults
  proceed-to-send      Suppress proceed-to-send signal for pulsed line signaling
  release-ack          Send Release Acknowledgment to Clear Forward
  release-guard-time   Release Guard Timer
  request-category     DNIS Digits to be collected before requesting category
  seizure-ack-time     Seizure to Acknowledge timer
  unused-abcd          Unused ABCD bit values
```

Para obtener más información sobre los parámetros del comando **cas-custom**, consulte Personalización de E1 R2 con el **comando cas-custom**.

Diagrama de la red

Este documento utiliza esta configuración de red:



Configuraciones

A los efectos de este documento, estas son las tres configuraciones R2 diferentes que se muestran a través de la interfaz E1:

- R2 Digital No Obligatorio
- Digital semi-compelgado R2
- ANI con tecnología digital R2

Las configuraciones se han modificado para mostrar solamente la información que este documento discute.

eefje configurado para R2 digital no compatible

```
hostname eefje
!
controller E1 0
 clock source line primary
 dso-group 1 timeslots 1-15 type r2-digital r2-non-
compelled
 cas-custom 1
!--- For more information on these commands !--- refer
to ds0-group  and cas-custom.

!
voice-port 0:1
 cptone BE
!--- The cptone command is country specific. For more !-
-- information on this command, refer to cptone .

!
dial-peer voice 123 pots
 destination-pattern 123
 direct-inward-dial
 port 0:1
 prefix 123
!
dial-peer voice 567 voip
 destination-pattern 567
 session target ipv4:2.0.0.2
!
```

eefje configurado para semiconductor digital R2

```
hostname eefje
!
controller E1 0
 clock source line primary
 ds0-group 1 timeslots 1-15 type r2-digital r2-semi-
compelled
 cas-custom 1
!--- For more information on these commands !--- refer
to ds0-group  and cas-custom .

!
voice-port 0:1
 cptone BE
!--- The cptone command is country specific. For more !-
-- information on this command, refer to cptone .
```

```
dial-peer voice 123 pots
 destination-pattern 123
 direct-inward-dial
 port 0:1
 prefix 123
!
dial-peer voice 567 voip
 destination-pattern 567
 session target ipv4:2.0.0.2
!
```

eefje configurado para ANI con tecnología digital R2

```
hostname eefje
! controller E1 0 clock source line primary ds0-group
1 timeslots 1-15 type r2-digital r2-compelled ani cas-
custom 1
!--- For more information on these commands !--- refer
to ds0-group  and cas-custom .

voice-port 0:1 cptone BE
!--- The cptone command is country specific. For more !-
-- information on this command, refer to cptone .

dial-peer voice 123 pots destination-pattern 123 direct-
inward-dial port
0:1 prefix 123
!
dial-peer voice 567 voip destination-pattern 567 session
target ipv4:2.0.0.2
!
```

Verificación

Actualmente, no hay un procedimiento de verificación disponible para esta configuración.

Troubleshoot

En esta sección encontrará información que puede utilizar para solucionar problemas de configuración.

Resolución de problemas de fallas E1 R2

Esta es la información de troubleshooting relevante para esta configuración. Siga estas instrucciones para resolver problemas de configuración.

1. Verifique que el controlador E1 0 esté activo.Si no funciona, verifique la alineación de tramas, la codificación de línea, la fuente del reloj, las alarmas, reemplace el cable, vuelva a colocar la tarjeta, etc. Utilice el documento Personalización E1 R2 con el Comando cas-custom como referencia.
2. Si utiliza un AS5300, verifique que los DSP estén correctamente instalados con el comando **show vfc** *slot number* **interface**.
3. Configure la marcación entrante directa (DID) en el par de servicio telefónico antiguo (POTS) sencillo, de modo que los dígitos recibidos se utilicen para elegir un par saliente.

4. Especifique cptone (**cptone** es específico para su país) en los puertos de voz.Se debe configurar un comando *cptonecountry para que coincida con el comando* ***cas-custom*** *country*. El parámetro `cptone` establece los tonos de progreso de la llamada para un país en particular y, lo que es más importante, establece la codificación en una ley o ley u, que depende del país. La codificación predeterminada para Estados Unidos es u-law.
5. Coincida con las disposiciones de señalización de línea y registro en la configuración del switch.
6. Active algunas de las **depuraciones** mostradas en este documento y estudie los resultados.
7. Verifique la comunicación entre el router y la PBX o el switch:¿La línea está fija?¿El router recibe/envía dígitos?Descubra qué lado borra la llamada.Si es posible, utilice las últimas versiones de software del IOS de Cisco disponibles en Cisco.com.

Comandos debug y show

La herramienta Output Interpreter (sólo para clientes registrados) permite utilizar algunos comandos “show” y ver un análisis del resultado de estos comandos.

Nota: Antes de ejecutar **comandos debug**, consulte la Información Importante sobre Comandos Debug.

Nota: Para Cisco IOS Software Release 12.0, use estas **depuraciones**:

- **debug cas** - Para señalización de línea.
- **debug csm voice** - Para señalización entre registros.
- **debug vtsp all** - Para que el resultado de todos los mensajes (dígitos) se intercambie entre el PBX y el router.

Para Cisco IOS Software Release IOS 11.3, utilice estos comandos:

- **modem-mgmt csm debug-rbs** - Para señalización de línea (Debe especificar **servicio interno** en el modo de configuración primero.)
- **debug csm voice** - Para señalización entre registros.
- **debug vtsp all** - Para que el resultado de todos los mensajes (dígitos) se intercambie entre el PBX y el router.

Para las plataformas AS5400 y AS5350, utilice estos debugs:

- **debug sigsm r2** - Para señalización entre registros
- **debug vtsp all** - Para que el resultado de todos los mensajes (dígitos) se intercambie entre el PBX y el router.

Ejemplo de resultado del comando debug

Dado que anteriormente se mostraron tres configuraciones diferentes en este documento, aquí hay tres **depuraciones** diferentes:

R2 Digital No Obligatorio: Llamada entrante a 567

Para entender mejor este resultado **de debug**, consulte Teoría de Señalización E1 R2.

```
eefje#show debug
CAS:
 Channel Associated Signaling debugging is on
CSM Voice:
Voice Call Switching Module debugging is on
Voice Telephony session debugging is on
Voice Telephony dsp debugging is on
Voice Telephony error debugging is on
eefje#
eefje#
eefje#
Jan 6 10:41:28.677: from NEAT(0): (0/0): Rx SEIZURE (ABCD=0001)
Jan 6 10:41:28.717: VDEV_ALLOCATE: failed to allocate a device
Jan 6 10:41:28.717: VDEV_ALLOCATE: 1/28 is allocated
Jan 6 10:41:28.721: csm_vtsp_init_tdm (voice_vdev=0x620BF874)
Jan 6 10:41:28.721: csm_vtsp_init_tdm: dsprm_tdm_allocate: tdm slot 2,
dspm 1, dsp 5, dsp_channel 1
Jan 6 10:41:28.721: csm_vtsp_init_tdm: dsprm_tdm_allocate: tdm stream 5,
channel 3, bank 1, bp_channel 4, BP_stream 255
Jan 6 10:41:28.721: CSM_RX_CAS_EVENT_FROM_NEAT:(cid0018): EVENT_CALL_DIAL_IN
at slot 2 and port 16
Jan 6 10:41:28.721: CSM_PROC_IDLE: CSM_EVENT_START_DIGIT_COLLECT at slot 2,
 port 16
Jan 6 10:41:28.721: csm_vtsp_start_digit_collect (voice_vdev=0x620BF874)
Jan 6 10:41:28.721:  Enter csm_connect_pri_vdev function
Jan 6 10:41:28.721: csm_connect_pri_vdev:tdm_allocate_BP_ts()call. BP TS allocated
 at BP_stream0, BP_Ch28,vdev_common 0x6 20BF8E4
Jan 6 10:41:28.721: to NEAT:(cid0018) EVENT_CHANNEL_LOCK for slot0 ctlr0 chan0
Jan 6 10:41:28.721: vtsp_do_call_setup_ind
Jan 6 10:41:28.721: vtsp_do_call_setup_ind: Call ID=65681, guid=61FAF610
Jan 6 10:41:28.721: vtsp_do_call_setup_ind: type=0, under_spec=0, name=, id0=0,
id1=0, id2=0, calling=, called=
Jan 6 10:41:28.721: vtsp_do_call_setup_ind: redirect DN = reason =
 0vtsp_open_voice_and_set_params
Jan 6 10:41:28.721: dsp_close_voice_channel: [0:1:0] packet_len=8 channel_id
 =8529 packet_id=75
Jan 6 10:41:28.721: dsp_open_voice_channel_20: [0:1:0] packet_Len=16 channel_id
 =8529 packet_id=74 alaw_ulaw_select=1 associated_signaling_channel=0 time_slot=0
 serial_port=0
Jan 6 10:41:28.721: dsp_encap_config_20: [0:1:0] packet_Len=24 channel_id=8529
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 6 10:41:28.721: dsp_set_playout: [0:1:0] packet_Len=18 channel_id=8529
 packet_id=76 mode=1 initial=60 min=4 max=200 fax_nom=300
Jan 6 10:41:28.721: dsp_echo_canceller_control: [0:1:0] packet_Len=10
channel_id=8529 packet_id=66 flags=0x0
Jan 6 10:41:28.721: dsp_set_gains: [0:1:0] packet_Len=12 channel_id=8529
packet_id=91 in_gain=0 out_gain=0
Jan 6 10:41:28.721: dsp_vad_enable: [0:1:0] packet_Len=10 channel_id=8529
packet_id=78 thresh=-38
Jan 6 10:41:28.721: dsp_voice_mode: [0:1:0] packet_Len=24 channel_id=8529
packet_id=73 coding_type=1 voice_field_size=80 V AD_flag=0 echo_length=64
comfort_noise=1 inband_detect=1 digit_relay=2
AGC_flag=0vtsp_do_r2_start_digit(): dsp_dtmf_mode()
 dsp_dtmf_mode(VTSP_TONE_R2_MF_FORWARD_MODE)
Jan 6 10:41:28.725: dsp_dtmf_mode: [0:1:0] packet_Len=10 channel_id=8529
 packet_id=65 dtmf_or_mf=1vtsp_do_r2_start_digit():fsm_push(vtsp_r2_state_table)
Jan 6 10:41:28.725: csm_vtsp_call_setup_resp (vdev_info=0x620BF874,
vtsp_cdb=0x621C5F3C)
Jan 6 10:41:28.725: csm_vtsp_call_setup_resp:vdev_common BP TS allocatedat
BP_stream0,BP_Ch28
Jan 6 10:41:28.725: csm_vtsp_call_setup_resp:dst_tdm_chnl call. BP TS allocatedat
 stream 5, chan 3,BP_stream 255, BP_ch 4
```

```
Jan 6 10:41:28.725: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 5, chan 3,BP_stream 0, BP_ch 28
Jan 6 10:41:28.725: CSM_PROC_IC1_COLLECT_ADDR_INFO: CSM_EVENT_MODEM_OFFHOOK
 (DNIS=, ANI=) at slot 2, port 16
Jan 6 10:41:28.725: R2 Incoming Voice(2/16): DSX (E1 0:0): STATE: R2_IN_IDLE R2
 Got Event R2_START
Jan 6 10:41:28.821: CSM_RX_CAS_EVENT_FROM_NEAT:(0018):EVENT_START_RX_TONE at slot 2
 and port 16
Jan 6 10:41:28.821: from NEAT(0): (0/0): TX SEIZURE_ACK (ABCD=1101)
!--- Digit 5 is sent: Forward Signal Group I-5. Jan 6 10:41:29.233: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_BEGIN: digit=5,
 rtp_timestamp=0x0CA95D43 dc_digit_up
Jan 6 10:41:29.233: csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C) received digit (5)
Jan 6 10:41:29.233: CSM voice (2/16): Rcvd Digit detected(5)
Jan 6 10:41:29.233: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE: R2_IN_COLLECT_DNIS R2
 Got Event 5
Jan 6 10:41:29.365: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=5,
 duration=8321dc_digit
Jan 6 10:41:29.365: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C) received digit (5)
Jan 6 10:41:29.365: CSM voice (2/16): Rcvd Digit detected(5)
Jan 6 10:41:29.365: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
!--- Digit 6 is sent: Forward Signal Group I-6. Jan 6 10:41:29.593: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_BEGIN: digit=6,
 rtp_timestamp=0x0CA95D43 dc_digit_up
Jan 6 10:41:29.593: csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C) received digit (6)
Jan 6 10:41:29.593: CSM voice (2/16): Rcvd Digit detected(6)
Jan 6 10:41:29.593: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE: R2_IN_COLLECT_DNIS R2
 Got Event 6
Jan 6 10:41:29.725: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=6,
 duration=8321dc_digit
Jan 6 10:41:29.725: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C) received digit (6)
Jan 6 10:41:29.725: CSM voice (2/16): Rcvd Digit detected(6)
Jan 6 10:41:29.725: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE: R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
!--- Digit 7 is sent: Forward Signal Group I-7. Jan 6 10:41:29.953: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_BEGIN:
digit=7, rtp_timestamp=0x0CA95D43 dc_digit_up
Jan 6 10:41:29.953: csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C)
received digit (7)
Jan 6 10:41:29.953: CSM voice (2/16): Rcvd Digit detected(7)
Jan 6 10:41:29.953: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event 7
Jan 6 10:41:30.085: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF:
digit=7, duration=8321dc_digit
Jan 6 10:41:30.085: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C)received digit (7)
Jan 6 10:41:30.085: CSM voice (2/16): Rcvd Digit detected(7)
Jan 6 10:41:30.085: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE: R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
!--- Timeout: 3 seconds (default timer - AS5300 assumes DNIS is finished). Jan 6 10:41:32.953:
R2 Incoming Voice(2/16): DSX (E1 0:0): STATE: R2_IN_COLLECT_DNIS R2 Got Event R2_TONE_TIMER
!--- Send digit 6: Backward Signal Group B-6 (subscriber's line free-charge). Jan 6
10:41:32.953: vtsp_r2_generate_digits: vdev_common=0x620BF8E4, string=567dc_dial()
vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = 6#

Jan 6 10:41:32.953: dsp_dtmf_dialing: [0:1:0] packet_Len=36 channel_id=8529
packet_id=90 string=6# digits=2, time_on=150, time_off=30
Jan 6 10:41:32.953:&   digit=e, components=2, freq_of_first=900,
```

```
freq_of_second=780, amp_of_first=8192, amp_of_second=8192
Jan 6 10:41:32.953:    digit=o, components=2, freq_of_first=0,
freq_of_second=0, amp_of_first=1, amp_of_second=1
Jan 6 10:41:33.313: vtsp_process_dsp_message:
MSG_TX_DIALING_DONE dc_dialing_done()
Jan 6 10:41:33.313: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE:R2_IN_ANSWER_PULSE R2
 Got Event R2_DIGITS_GENR2_ALERTING
Jan 6 10:41:34.313: R2 Incoming Voice(2/16): DSX (E1 0:0):
STATE: R2_IN_ANSWER_PULSE R2
 Got Event R2_TONE_TIMER
Jan 6 10:41:34.313:  R2_IN_IDLE:2 r2_in_connect called
Jan 6 10:41:34.313: CSM_PROC_IC1_COLLECT_ADDR_INFO:
 CSM_EVENT_ADDR_INFO_COLLECTED (DNIS=567, ANI=) at slot 2, port 16
Jan 6 10:41:34.313: vtsp_tsp_call_accept_check (sdb=0x61B8F0E0, calling_number=
 called_number=567): peer_tag=0
Jan 6 10:41:34.313: VDEV_ALLOCATE: failed to allocate a device
Jan 6 10:41:34.313: VDEV_ALLOCATE_ALMOST_READY: failed to allocate a non-idle modem
Jan 6 10:41:34.313: VDEV_ALLOCATE: failed to allocate a device
Jan 6 10:41:34.313: VDEV_ALLOCATE_ALMOST_READY: failed to allocate a non-idle modem
Jan 6 10:41:34.313: VDEV_ALLOCATE: failed to allocate a device
Jan 6 10:41:34.313: VDEV_ALLOCATE_ALMOST_READY: failed to allocate a non-idle modem
Jan 6 10:41:34.313: CSM_PROC_IC3_WAIT_FOR_RES_RESP: CSM_EVENT_RESOURCE_OK at slot 2,
 port 16
Jan 6 10:41:34.313: vtsp_ic_switch : (voice_vdev= 0x620BF874)
Jan 6 10:41:34.313: vtsp_tsp_call_switch_ind (cdb=0x621C5F3C, tsp_info=0x620BF874,
 calling_number= called_number=567 redir ect_number=):
peer_tag=123dc_switch: fsm_pop()
Jan 6 10:41:34.313: vtsp_do_call_setup_ind
Jan 6 10:41:34.313: vtsp_do_call_setup_ind: Call ID=65683, guid=61FAF610
Jan 6 10:41:34.313: vtsp_do_call_setup_ind: type=0, under_spec=0,
 name=ab^Lx, id0=1, id1=0, id2=0, calling=123, called=567
Jan 6 10:41:34.317: dsp_cp_tone_off: [] packet_Len=8 channel_id=8529 packet_id=71
Jan 6 10:41:34.317: dsp_idle_mode: [] packet_Len=8 channel_id=8529 packet_id=68
Jan 6 10:41:34.317: dsp_close_voice_channel: [] packet_Len=8 channel_id=8529
packet_id=75
Jan 6 10:41:34.317: vtsp_timer_stop: 67475758
Jan 6 10:41:34.317: csm_vtsp_call_setup_resp (vdev_info=0x620BF874,
 vtsp_cdb=0x621C5F3C)
Jan 6 10:41:34.317: csm_vtsp_call_setup_resp:vdev_common
BP TS allocatedat BP_stream0,
 BP_Ch28
Jan 6 10:41:34.317: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 5, chan 3,BP_stream 0, BP_ch 28
Jan 6 10:41:34.317: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 5, chan 3,BP_stream 0, BP_ch 28vt sp_open_voice_and_set_params
Jan 6 10:41:34.317: dsp_close_voice_channel: [0:1 (54)] packet_Len=8 channel_id=8529
 packet_id=75
Jan 6 10:41:34.317: dsp_open_voice_channel_20: [0:1 (54)] packet_Len=16
channel_id=8529
 packet_id=74 alaw_ulaw_select=1 associated_signaling_channel=0 time_slot=0
serial_port=0
Jan 6 10:41:34.317: dsp_encap_config_20: [0:1 (54)] packet_Len=24 channel_id=8529
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 6 10:41:34.317: dsp_set_playout: [0:1 (54)] packet_Len=18 channel_id=8529
 packet_id=76 mode=1 initial=60 min=4 max=200 fax_nom=300
Jan 6 10:41:34.317: dsp_echo_canceller_control: [0:1 (54)] packet_Len=10
channel_id=8529
 packet_id=66 flags=0x0
Jan 6 10:41:34.317: dsp_set_gains: [0:1 (54)] packet_Len=12
channel_id=8529 packet_id=91
 in_gain=0 out_gain=0
Jan 6 10:41:34.317: dsp_vad_enable: [0:1 (54)] packet_Len=10
channel_id=8529 packet_id=78
```

```
 thresh=-38act_proceeding
Jan 6 10:41:34.321: csm_vtsp_call_proceeding:DST_tdm_chnl call.
BP TS allocatedstream 5,
 chan 3,BP_stream 0, BP_ch 28act_alert
Jan 6 10:41:34.345: vtsp_ring_noan_timer_start: 67475761
Jan 6 10:41:34.345: csm_vtsp_call_alert (vtsp_cdb=0x621C5F3C)act_bridge act_caps_ind
Jan 6 10:41:34.589: act_caps_ind:Encap 1, Vad 2, Codec 0x4, CodecBytes 20,
    FaxRate 2, FaxBytes 20 SignalType 0
    DtmfRelay 1, Modem 1act_caps_ack
Jan 6 10:41:34.589: dsp_idle_mode: [0:1 (54)] packet_Len=8
channel_id=8529 packet_id=68
Jan 6 10:41:34.589: act_caps_ack: codec = 15, ret = 1
Jan 6 10:41:34.589: dsp_cp_tone_off: [0:1 (54)] packet_Len=8 channel_id=8529
  packet_id=71
Jan 6 10:41:34.589: dsp_idle_mode: [0:1 (54)] packet_Len=8
channel_id=8529 packet_id=68
Jan 6 10:41:34.589: dsp_encap_config_20: [0:1 (54)] packet_Len=24 channel_id=8529
  packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 6 10:41:34.589: dsp_voice_mode: [0:1 (54)] packet_Len=24 channel_id=8529
 packet_id=73 coding_type=20 voice_field_size=20 VAD_flag=1 echo_length=64
 comfort_noise=1 inband_detect=1 digit_relay=2 AGC_flag=0act_alert_connect
Jan 6 10:41:36.857: vtsp_ring_noan_timer_stop: 67476012
Jan 6 10:41:36.857: dsp_cp_tone_off: [0:1 (54)] packet_Len=8 channel_id=8529
  packet_id=71
Jan 6 10:41:36.857: csm_vtsp_call_connect (vtsp_cdb=0x621C5F3C,
voice_vdev=0x620BF874)
Jan 6 10:41:36.857: CSM_IC5_WAIT_FOR_SWITCH_OVER: CSM_EVENT_MODEM_OFFHOOK
  at slot 2, port 16
Jan 6 10:41:36.917: CSM_RX_CAS_EVENT_FROM_NEAT:(0018):  EVENT_CHANNEL_CONNECTED
  at slot 2 and port 16
Jan 6 10:41:36.917: CSM_PROC_IC6_WAIT_FOR_CONNECT: CSM_EVENT_DSX0_CONNECTED
  at slot 2, port 16
Jan 6 10:41:36.921: from NEAT(0): (0/0): TX ANSWERED(ABCD=0101)
eefje#
```

Digital semi-compelgado R2: Llamada entrante a 567

Para entender mejor este **resultado de debug**, consulte Teoría de Señalización E1 R2.

```
eefje#show debug
CAS:
 Channel Associated Signaling debugging is on
CSM Voice:
Voice Call Switching Module debugging is on
Voice Telephony session debugging is on
Voice Telephony dsp debugging is on
Voice Telephony error debugging is on
eefje#
eefje#
eefje#
Jan  6 09:53:42.389: from NEAT(0): (0/2): Rx SEIZURE(ABCD=0001)
Jan 6 09:53:42.433: VDEV_ALLOCATE: failed to allocate a device
Jan 6 09:53:42.433: VDEV_ALLOCATE: 1/27 is allocated
Jan 6 09:53:42.433: csm_vtsp_init_tdm (voice_vdev=0x620BF320)
Jan 6 09:53:42.433: csm_vtsp_init_tdm: dsprm_tdm_allocate: tdm slot 2, dspm 1,
 dsp 4, dsp_channel 4
Jan 6 09:53:42.433: csm_vtsp_init_tdm: dsprm_tdm_allocate: tdm stream 7, channel 0,
 bank 4, BP_channel 3, BP_stream 255
Jan 6 09:53:42.433: CSM_RX_CAS_EVENT_FROM_NEAT:(cid0017): EVENT_CALL_DIAL_IN
 at slot 2 and port 15
Jan 6 09:53:42.433: CSM_PROC_IDLE: CSM_EVENT_START_DIGIT_COLLECT
 at slot 2, port 15
```

Jan 6 09:53:42.433: csm_vtsp_start_digit_collect (voice_vdev=0x620BF320)
Jan 6 09:53:42.433: Enter csm_connect_pri_vdev function
Jan 6 09:53:42.433: csm_connect_pri_vdev:tdm_allocate_BP_Ts()call. BP TS allocated
 at BP_stream0, BP_Ch27,vdev_common 0x6 20BF390
Jan 6 09:53:42.433: to NEAT:(cid0017) EVENT_CHANNEL_LOCK for slot0 ctlr0 chan2
Jan 6 09:53:42.433: vtsp_do_call_setup_ind
Jan 6 09:53:42.433: vtsp_do_call_setup_ind: Call ID=65675, guid=61FAF610
Jan 6 09:53:42.433: vtsp_do_call_setup_ind: type=0, under_spec=0, name=, id0=0,
 id1=0, id2=0, calling=, called=
Jan 6 09:53:42.433: vtsp_do_call_setup_ind: redirect DN = reason =
 0vtsp_open_voice_and_set_params
Jan 6 09:53:42.433: dsp_close_voice_channel: [0:1:2] packet_Len=8 channel_id=8516
 packet_id=75
Jan 6 09:53:42.433: dsp_open_voice_channel_20: [0:1:2] packet_Len=16
channel_id=8516
 packet_id=74 alaw_ulaw_select=1 associated_signaling_channel=0
time_slot=1 serial_port=1
Jan 6 09:53:42.433: dsp_encap_config_20: [0:1:2] packet_Len=24 channel_id=8516
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 6 09:53:42.433: dsp_set_playout: [0:1:2] packet_Len=18 channel_id=8516
 packet_id=76 mode=1 initial=60 min=4 max=200 fax_nom=300
Jan 6 09:53:42.433: dsp_echo_canceller_control: [0:1:2]
packet_Len=10 channel_id=8516
 packet_id=66 flags=0x0
Jan 6 09:53:42.437: dsp_set_gains:[0:1:2] packet_Len=12
channel_id=8516 packet_id=91
 in_gain=0 out_gain=0
Jan 6 09:53:42.437: dsp_vad_enable: [0:1:2] packet_Len=10 channel_id=8516
 packet_id=78 thresh=-38
Jan 6 09:53:42.437: dsp_voice_mode: [0:1:2] packet_Len=24 channel_id=8516
 packet_id=73 coding_type=1 voice_field_size=80 VAD_flag=0 echo_length=64
 comfort_noise=1 inband_detect=1 digit_relay=2 AGC_flag=0vtsp_do_r2_start_digit():
 dsp_dtmf_mode() dsp_dtmf_mode(VTSP_TONE_R2_MF_FORWARD_MODE)
Jan 6 09:53:42.437: dsp_dtmf_mode: [0:1:2] packet_Len=10 channel_id=8516
 packet_id=65 dtmf_or_mf=1vtsp_do_r2_start_digit(): fsm_push(vtsp_r2_state_table)
Jan 6 09:53:42.437: csm_vtsp_call_setup_resp (vdev_info=0x620BF320,
vtsp_cdb=0x621C5F3C)
Jan 6 09:53:42.437: csm_vtsp_call_setup_resp:vdev_common BP
TS allocatedat BP_stream0,
 BP_Ch27
Jan 6 09:53:42.437: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 7, chan 0,BP_stream 255, BP_ch 3
Jan 6 09:53:42.437: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 7, chan 0,BP_stream 0, BP_ch 27
Jan 6 09:53:42.437: CSM_PROC_IC1_COLLECT_ADDR_INFO: CSM_EVENT_MODEM_OFFHOOK
 (DNIS=, ANI=) at slot 2, port 15
Jan 6 09:53:42.437: R2 Incoming Voice(2/15): DSX (E1 0:2): STATE:R2_IN_IDLE R2
 Got Event R2_START
Jan 6 09:53:42.533: CSM_RX_CAS_EVENT_FROM_NEAT:(0017):EVENT_START_RX_TONE
 at slot 2 and port 15
Jan 6 09:53:42.533: from NEAT(0): (0/2): **TX SEIZURE_ACK (ABCD=1101)**
!--- Digit 5 is sent: Forward Signal Group I-5. Jan 6 09:53:42.641: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_BEGIN: digit=5, rtp_timestamp=0x9330B42B dc_digit_up Jan 6 09:53:42.641:
csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C) received digit (5) Jan 6 09:53:42.641: CSM voice
(2/15): Rcvd Digit detected(5) Jan 6 09:53:42.641: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event 5
*!--- Digit 1 sent (pulse): Backward Signal Group A-1 (Send next digit) !--- "#" this indicates
that it is a pulse).* Jan 6 09:53:42.641: vtsp_r2_generate_digits: vdev_common=0x620BF390,
string=5dc_dial() vtsp_dial_nopush **dsp_dtmf_dialing(): dial_string = 1#**

Jan 6 09:53:42.641: dsp_dtmf_dialing: [0:1:2] packet_Len=36 channel_id=8516
 packet_id=90 string=1# digits=2, time_on=150, time_off=30
Jan 6 09:53:42.641:   digit=`, components=2, freq_of_first=1020,

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freq_of_second=1140,
 amp_of_first=8192, amp_of_second=8192
Jan 6 09:53:42.641:    digit=o, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
Jan 6 09:53:42.741: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=5,
 duration=8291dc_digit
Jan 6 09:53:42.741: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C) received digit (5)
Jan 6 09:53:42.741: CSM voice (2/15): Rcvd Digit detected(5)
Jan 6 09:53:42.741: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
!--- Digit 6 is sent: Forward Signal Group I. Jan 6 09:53:42.881: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_BEGIN: digit=6, rtp_timestamp=0x9330B42B dc_digit_up Jan 6 09:53:42.881:
csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C)received digit (6) Jan 6 09:53:42.881: CSM voice
(2/15): Rcvd Digit detected(6) Jan 6 09:53:42.881: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2  Got Event 6
!--- Digit 1 sent (pulse): Backward Signal Group A-1. (Send next digit.) Jan 6 09:53:42.881:
vtsp_r2_generate_digits: vdev_common=0x620BF390, string=56dc_dial() vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 1#

Jan 6 09:53:42.881: dsp_dtmf_dialing: [0:1:2] packet_Len=36 channel_id=8516
 packet_id=90 string=1# digits=2, time_on=150, time_off=30
Jan 6 09:53:42.881:    digit=`, components=2, freq_of_first=1020,
freq_of_second=1140,
 amp_of_first=8192, amp_of_second=8192
Jan 6 09:53:42.881:    digit=o, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
Jan 6 09:53:42.981: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=6,
 duration=8291dc_digit
Jan 6 09:53:42.981: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C) received digit (6)
Jan 6 09:53:42.981: CSM voice (2/15): Rcvd Digit detected(6)
Jan 6 09:53:42.981: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
!--- Digit 7 is sent: Forward Signal Group I-7. Jan 6 09:53:43.121: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_BEGIN:
 digit=7, rtp_timestamp=0x9330B42B dc_digit_up
Jan 6 09:53:43.121: csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C)received digit (7)
Jan 6 09:53:43.121: CSM voice (2/15): Rcvd Digit detected(7)
Jan 6 09:53:43.121: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event 7
!--- Send digit 1 (pulse): Backward Signal Group A-1. Jan 6 09:53:43.121:
vtsp_r2_generate_digits: vdev_common=0x620BF390, string=567dc_dial() vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 1#

Jan 6 09:53:43.121: dsp_dtmf_dialing: [0:1:2] packet_Len=36 channel_id=8516
 packet_id=90 string=1# digits=2, time_on=150, time_off=30
Jan 6 09:53:43.121:    digit=`, components=2, freq_of_first=1020,
freq_of_second=1140,
 amp_of_first=8192, amp_of_second=8192
Jan 6 09:53:43.121:    digit=o, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
Jan 6 09:53:43.221: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=7,
 duration=8291dc_digit
Jan 6 09:53:43.221: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C) received digit (7)
Jan 6 09:53:43.221: CSM voice (2/15): Rcvd Digit detected(7)
Jan 6 09:53:43.221: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
Jan 6 09:53:43.489: vtsp_process_dsp_message: MSG_TX_DIALING_DONEdc_dialing_done()
!--- Timeout is 3 seconds. Jan 6 09:53:46.121: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_TIMER
```

!--- Digit 3 sent(pulse): Backward Signal Group A-3. !--- (Address-complete, changeover to reception of Group-B signals). Jan 6 09:53:46.121: vtsp_r2_generate_digits: vdev_common=0x620BF390, string=567dc_dial() vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = 3# Jan 6 09:53:46.121: dsp_dtmf_dialing: [0:1:2] packet_Len=36 channel_id=8516 packet_id=90 string=3# digits=2, time_on=150, time_off=30 Jan 6 09:53:46.121: digit=b, components=2, freq_of_first=1020, freq_of_second=900, amp_of_first=8192, amp_of_second=8192 Jan 6 09:53:46.121: digit=o, components=2, freq_of_first=0, freq_of_second=0, amp_of_first=1, amp_of_second=1 *!--- Digit 1 is sent: Forward Signal Group II-1 !--- (subscriber without priority).* Jan 6 09:53:46.361: vtsp_process_dsp_message: **MSG_TX_DTMF_DIGIT_BEGIN: digit=1**, rtp_timestamp=0x9330B42B dc_digit_up
Jan 6 09:53:46.361: csm_vtsp_digit_ready_up (vtsp_cdb=0x621C5F3C)
received digit (1)
Jan 6 09:53:46.361: CSM voice (2/15): Rcvd Digit detected(1)
Jan 6 09:53:46.361: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_CATEGORY R2
Got Event 1
Jan 6 09:53:46.361: r2_comp_category:R2_ALERTING
!--- Digit 6 sent (pulse): Backward Signal Group B-6 !--- (the subscriber line free of charge).
Jan 6 09:53:46.361: vtsp_r2_generate_digits: vdev_common=0x620BF390, string=567dc_dial()
vtsp_dial_nopush **dsp_dtmf_dialing(): dial_string = 6#**

Jan 6 09:53:46.361: dsp_dtmf_dialing: [0:1:2] packet_Len=36 channel_id=8516
packet_id=90 string=6# digits=2, time_on=150, time_off=30
Jan 6 09:53:46.361: digit=e, components=2, freq_of_first=900,
freq_of_second=780,
amp_of_first=8192, amp_of_second=8192
Jan 6 09:53:46.361: digit=o, components=2, freq_of_first=0, freq_of_second=0,
amp_of_first=1, amp_of_second=1
Jan 6 09:53:46.461: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF:digit=1,
duration=8291dc_digit
Jan 6 09:53:46.461: csm_vtsp_digit_ready (vtsp_cdb=0x621C5F3C)received digit (1)
Jan 6 09:53:46.461: CSM voice (2/15): Rcvd Digit detected(1)
Jan 6 09:53:46.461: R2 Incoming Voice(2/15): DSX (E1 0:2): STATE:R2_IN_COMPLETE R2
Got Event R2_TONE_OFF
Jan 6 09:53:46.729: vtsp_process_dsp_message: MSG_TX_DIALING_DONEdc_dialing_done()
Jan 6 09:53:47.461: R2 Incoming Voice(2/15): DSX (E1 0:2):
STATE:R2_IN_WAIT_GUARD R2
Got Event R2_TONE_TIMER
Jan 6 09:53:47.461: R2_IN_IDLE:2 r2_in_connect called
Jan 6 09:53:47.461: CSM_PROC_IC1_COLLECT_ADDR_INFO: CSM_EVENT_ADDR_INFO_COLLECTED
(DNIS=567, ANI=) at slot 2, port 15
Jan 6 09:53:47.461: vtsp_tsp_call_accept_check (sdb=0x61B8F0E0,calling_number=
called_number=567): peer_tag=0
Jan 6 09:53:47.461: VDEV_ALLOCATE: failed to allocate a device
Jan 6 09:53:47.461: VDEV_ALLOCATE_ALMOST_READY: failed to allocate a non-idle modem
Jan 6 09:53:47.461: VDEV_ALLOCATE: failed to allocate a device
Jan 6 09:53:47.461: VDEV_ALLOCATE_ALMOST_READY: failed to allocate a non-idle modem
Jan 6 09:53:47.461: VDEV_ALLOCATE: failed to allocate a device
Jan 6 09:53:47.461: VDEV_ALLOCATE_ALMOST_READY: failed to allocate a non-idle modem
Jan 6 09:53:47.461: CSM_PROC_IC3_WAIT_FOR_RES_RESP: CSM_EVENT_RESOURCE_OK at slot 2,
port 15
Jan 6 09:53:47.461: vtsp_IC_switch : (voice_vdev= 0x620BF320)
Jan 6 09:53:47.461: vtsp_tsp_call_switch_ind (cdb=0x621C5F3C,tsp_info=0x620BF320,
calling_number= called_number=567 redirect_number=):
peer_tag=123dc_switch: fsm_pop()
Jan 6 09:53:47.461: vtsp_do_call_setup_ind
Jan 6 09:53:47.461: vtsp_do_call_setup_ind: Call ID=65677, guid=61FAF610
Jan 6 09:53:47.461: vtsp_do_call_setup_ind: type=0, under_spec=0, name=AB^Lo, id0=3,
id1=0, id2=0, calling=123, called=567
Jan 6 09:53:47.465: dsp_cp_tone_off: [] packet_Len=8 channel_id=8516 packet_id=71
Jan 6 09:53:47.465: dsp_idle_mode: [] packet_Len=8 channel_id=8516 packet_id=68
Jan 6 09:53:47.465: dsp_close_voice_channel: [] packet_Len=8 channel_id=8516
packet_id=75
Jan 6 09:53:47.465: vtsp_timer_stop: 67189073

```
Jan 6 09:53:47.465: csm_vtsp_call_setup_resp (vdev_info=0x620BF320,
 vtsp_cdb=0x621C5F3C)
Jan 6 09:53:47.465: csm_vtsp_call_setup_resp:vdev_common
BP TS allocatedat BP_stream0,
 BP_Ch27
Jan 6 09:53:47.465: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 7, chan 0,BP_stream 0, BP_ch 27
Jan 6 09:53:47.465: csm_vtsp_call_setup_resp:DST_tdm_chnl call. BP TS allocatedat
 stream 7, chan 0,BP_stream 0, BP_ch 27vtsp_open_voice_and_set_params
Jan 6 09:53:47.465: dsp_close_voice_channel: [0:1 (52)] packet_Len=8 channel_id=8516
 packet_id=75
Jan 6 09:53:47.465: dsp_open_voice_channel_20: [0:1 (52)]
packet_Len=16 channel_id=8516
 packet_id=74 alaw_ulaw_select=1 associated_signaling_channel=0
time_slot=1 serial_port=1
Jan 6 09:53:47.465: dsp_encap_config_20: [0:1 (52)] packet_Len=24
channel_id=8516
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 6 09:53:47.465: dsp_set_playout: [0:1 (52)] packet_Len=18 channel_id=8516
 packet_id=76 mode=1 initial=60 min=4 max=200  fax_nom=300
Jan& 6 09:53:47.465: dsp_echo_canceller_control: [0:1 (52)] packet_Len=10
channel_id=8516
 packet_id=66 flags=0x0
Jan 6 09:53:47.465: dsp_set_gains: [0:1 (52)] packet_Len=12 channel_id=8516
 packet_id=91 in_gain=0 out_gain=0
Jan 6 09:53:47.465: dsp_vad_enable: [0:1 (52)] packet_Len=10 channel_id=8516
 packet_id=78 thresh=-38act_proceeding
Jan 6 09:53:47.469: csm_vtsp_call_proceeding:DST_tdm_chnl call. BP TS
allocatedstream 7,
 chan 0,BP_stream 0, BP_ch 27act_alert
Jan 6 09:53:47.493: vtsp_ring_noan_timer_start: 67189076
Jan 6 09:53:47.493: csm_vtsp_call_alert (vtsp_cdb=0x621C5F3C)
act_bridge act_caps_ind
Jan 6 09:53:47.737: act_caps_ind:Encap 1, Vad 2, Codec 0x4, CodecBytes 20,
 FaxRate 2, FaxBytes 20 SignalType 0
 DtmfRelay 1, Modem 1act_caps_ack
Jan 6 09:53:47.737: dsp_idle_mode: [0:1 (52)] packet_Len=8 channel_id=8516
packet_id=68
Jan 6 09:53:47.737: act_caps_ack: codec = 15, ret = 1
Jan 6 09:53:47.737: dsp_cp_tone_off: [0:1 (52)] packet_Len=8 channel_id=8516
 packet_id=71
Jan 6 09:53:47.737: dsp_idle_mode: [0:1 (52)] packet_Len=8 channel_id=8516
 packet_id=68
Jan 6 09:53:47.737: dsp_encap_config_20: [0:1 (52)] packet_Len=24 channel_id=8516
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 6 09:53:47.737: dsp_voice_mode: [0:1 (52)] packet_Len=24 channel_id=8516
 packet_id=73 coding_type=20 voice_field_size= 20 VAD_flag=1 echo_length=64
 comfort_noise=1 inband_detect=1 digit_relay=2 AGC_flag=0act_alert_connect
Jan 6 09:53:49.461: vtsp_ring_noan_timer_stop: 67189273
Jan 6 09:53:49.461: dsp_cp_tone_off: [0:1 (52)] packet_Len=8 channel_id=8516
  packet_id=71
Jan 6 09:53:49.461: csm_vtsp_call_connect (vtsp_cdb=0x621C5F3C,
voice_vdev=0x620BF320)
Jan 6 09:53:49.461: CSM_IC5_WAIT_FOR_SWITCH_OVER: CSM_EVENT_MODEM_OFFHOOK
  at slot 2, port 15
Jan 6 09:53:49.617: CSM_RX_CAS_EVENT_FROM_NEAT:(0017):  EVENT_CHANNEL_CONNECTED
  at slot 2 and port 15
Jan 6 09:53:49.617: CSM_PROC_IC6_WAIT_FOR_CONNECT: CSM_EVENT_DSX0_CONNECTED
  at slot 2, port 15
Jan 6 09:53:49.621: from NEAT(0): (0/2): TX ANSWERED(ABCD=0101)
eefje#
eefje#
```

[ANI Digital Obligado R2: Llamada entrante a 567]

Para entender mejor este resultado **de debug**, consulte Teoría de Señalización E1 R2.

```
eefje#debug csm voice
Voice Call Switching Module debugging is on
eefje#debug cas
Channel Associated Signaling debugging is on
Jan 7 10:00:02.907: from NEAT(0): debug-cas is on
Jan 7 10:00:02.907: from NEAT(0): special debug-cas is offg vtsp all
Voice telephony call control all debugging is on
eefje#
eefje#
Jan 7 10:00:23.883: from NEAT(0): (0/8): Rx SEIZURE (ABCD=0001)
Jan 7 10:00:23.927: VDEV_ALLOCATE: failed to allocate a device
Jan 7 10:00:23.927: VDEV_ALLOCATE: 1/2 is allocated
Jan 7 10:00:23.927: csm_vtsp_init_tdm (voice_vdev=0x61F19688)
Jan 7 10:00:23.927: csm_vtsp_init_tdm: dsprm_tdm_allocate: tdm slot 1,
dspm 3, dsp 4,
 dsp_channel 1
Jan 7 10:00:23.927: csm_vtsp_init_tdm: dsprm_tdm_allocate: tdm stream 5,
channel 13,
 bank 0, BP_channel 15, BP_stream 255
Jan 7 10:00:23.927: CSM_RX_CAS_EVENT_FROM_NEAT:(cid0007):
EVENT_CALL_DIAL_IN at slot 1
 and port 60
Jan 7 10:00:23.927: CSM_PROC_IDLE: CSM_EVENT_START_DIGIT_COLLECT at slot 1, port 60
Jan 7 10:00:23.927: csm_vtsp_start_digit_collect (voice_vdev=0x61F19688)
Jan 7 10:00:23.927:  Enter csm_connect_pri_vdev function
Jan 7 10:00:23.927: csm_connect_pri_vdev:tdm_allocate_BP_Ts() call. BP
TS allocated at BP_stream0, BP_Ch8,vdev_common 0x6205E5F8
Jan 7 10:00:23.927: to NEAT:(cid0007) EVENT_CHANNEL_LOCK for slot0 ctlr0 chan8
Jan 7 10:00:23.927: vtsp_do_call_setup_ind
Jan 7 10:00:23.927: vtsp_do_call_setup_ind: Call ID=65579, guid=62031A88
Jan 7 10:00:23.927: vtsp_do_call_setup_ind: type=0, under_spec=0,
name=, id0=0, id1=0,id2=0, calling=, called=
Jan 7 10:00:23.927: vtsp_do_call_setup_ind: redirect DN =  reason =
 0vtsp_do_r2_start_digit(): fsm_push(vtsp_r2_state_table)

Jan 7 10:00:23.927: csm_vtsp_call_setup_resp (vdev_info=0x61F19688,
vtsp_cdb=0x61B5BFF8)
Jan 7 10:00:23.927: csm_vtsp_call_setup_resp:vdev_common
BP TS allocatedat BP_stream0,
 BP_Ch8
Jan 7 10:00:23.927: csm_vtsp_call_setup_resp:DST_tdm_chnl call.
BP TS allocatedat stream
 5, chan 13,BP_stream 255, BP_ch 15
Jan 7 10:00:23.927: csm_vtsp_call_setup_resp:DST_tdm_chnl call.
BP TS allocatedat stream
 5, chan 13,BP_stream 0, BP_ch 8
Jan 7 10:00:23.927: CSM_PROC_IC1_COLLECT_ADDR_INFO: CSM_EVENT_MODEM_OFFHOOK
(DNIS=, ANI=) at slot 1, port 60

Jan 7 10:00:23.931: R2 Incoming Voice(1/60): DSX (E1 0:8): STATE: R2_IN_IDLE
R2 Got Event R2_START
Jan 7 10:00:24.027: CSM_RX_CAS_EVENT_FROM_NEAT:(0007):  EVENT_START_RX_TONE
at slot 1 and port 60
Jan 7 10:00:24.027: from NEAT(0): (0/8): TX SEIZURE_ACK
(ABCD=1101)dc_init_dsp
 vtsp_open_voice_and_set_params
Jan 7 10:00:24.151: dsp_close_voice_channel: [0:1:8] packet_Len=8 channel_id=4929
 packet_id=75
Jan 7 10:00:24.151: dsp_open_voice_channel_20: [0:1:8] packet_Len=16
channel_id=4929
```

```
 packet_id=74 alaw_ulaw_select=1 associated_signaling_channel=0
time_slot=0 serial_port=0
Jan 7 10:00:24.151: dsp_encap_config_20: [0:1:8] packet_Len=24 channel_id=4929
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0 r_vpxcc=0x0
Jan 7 10:00:24.151: dsp_set_playout: [0:1:8] packet_Len=18 channel_id=4929
 packet_id=76 mode=1 initial=60 min=4 max=200 fax_nom=300
Jan 7 10:00:24.151: dsp_echo_canceller_control: [0:1:8]
packet_Len=10 channel_id=4929
 packet_id=66 flags=0x0
Jan 7 10:00:24.151: dsp_set_gains: [0:1:8] packet_Len=12
channel_id=4929 packet_id=91
 in_gain=0 out_gain=0
Jan 7 10:00:24.151: dsp_vad_enable: [0:1:8] packet_Len=10
channel_id=4929 packet_id=78
 thresh=-38
Jan 7 10:00:24.151: dsp_voice_mode: [0:1:8] packet_Len=24
channel_id=4929 packet_id=73
 coding_type=1 voice_field_size=80 VAD_flag=0 echo_length=64
comfort_noise=1
inband_detect=1 digit_relay=2 AGC_flag=0dsp_dtmf_mode
(VTSP_TONE_R2_MF_FORWARD_MODE)

Jan 7 10:00:24.151: dsp_dtmf_mode: [0:1:8] packet_Len=10 channel_id=4929
packet_id=65dtmf_or_mf=1
!--- Digit 5 is sent: Forward Signal Group I-5 (First DNIS digit). Jan 7 10:00:24.203:
vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN: digit=5,
 rtp_timestamp=0x04030000 dc_digit_up
Jan 7 10:00:24.203: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)received digit (5)
Jan 7 10:00:24.203: CSM voice (1/60): Rcvd Digit detected(5)
Jan 7 10:00:24.203: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_PRE_CALLERID R2
 Got Event 5
!--- Send Backward Signal Group A-5 (caller category request). Jan 7 10:00:24.203:
vtsp_r2_generate_digits: vdev_common=0x6205E5F8, string=5dc_dial()vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 5
Jan 7 10:00:24.203: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929packet_id=90
 string=5 digits=1, time_on=65435, time_off=30
Jan 7 10:00:24.203:    digit=, components=2, freq_of_first=1020,
freq_of_second=780,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:24.303: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF:digit=5,
 duration=30dc_digit
Jan 7 10:00:24.303: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8) received digit (5)
Jan 7 10:00:24.303: CSM voice (1/60): Rcvd Digit detected(5)
Jan 7 10:00:24.303: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event R2_TONE_OFF

Jan 7 10:00:24.303: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=5dc_dial()
 vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:24.303: dsp_dtmf_dialing: [0:1:8] packet_Len=24 channel_id=4929
 packet_id=90 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:24.303:    digit=, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
!--- Caller Category Forward Signal Group II-1 is sent. Jan 7 10:00:24.403:
vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN: digit=1,
 rtp_timestamp=0x001E0010 dc_digit_up
Jan 7 10:00:24.403: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)received
digit (1)
Jan 7 10:00:24.403: CSM voice (1/60): Rcvd Digit detected(1)
Jan 7 10:00:24.403: R2 Incoming Voice(1/60): DSX (E1 0:8): STATE:R2_IN_CALLERID R2
 Got Event 1
```

```
!--- Send Backward Signal Group A-5 (Caller ID request). Jan 7 10:00:24.403:
vtsp_r2_generate_digits: vdev_common=0x6205E5F8, string=5dc_dial() vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 5
Jan 7 10:00:24.403: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=5 digits=1, time_on=65435, time_off=30
Jan 7 10:00:24.403:    digit=, components=2, freq_of_first=1020, freq_of_second=780,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:24.503: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=1,
 duration=30dc_digit
Jan 7 10:00:24.503: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8) received digit (1)
Jan 7 10:00:24.503: CSM voice (1/60): Rcvd Digit detected(1)
Jan 7 10:00:24.503: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event R2_TONE_OFF
Jan 7 10:00:24.503: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=5dc_dial()
 vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:24.503: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:24.503:    digit=, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
!--- First ANI digit is sent: Forward Signal Group I-1. Jan 7 10:00:24.603:
vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN:
digit=1, rtp_timestamp=0x001E0010 dc_digit_up
Jan 7 10:00:24.603: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8) received digit (1)
Jan 7 10:00:24.603: CSM voice (1/60): Rcvd Digit detected(1)
Jan 7 10:00:24.603: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event 1
!--- Send Backward Signal Group A-5 (Caller ID request). Jan 7 10:00:24.603:
vtsp_r2_generate_digits: vdev_common=0x6205E5F8, string=5dc_dial()vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 5

Jan 7 10:00:24.603: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=5 digits=1, time_on=65435, time_off=30
Jan 7 10:00:24.603:    digit=, components=2, freq_of_first=1020,
freq_of_second=780,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:24.703: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=1,
 duration=30dc_digit
Jan 7 10:00:24.703: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8) received digit (1)
Jan 7 10:00:24.703: CSM voice (1/60): Rcvd Digit detected(1)
Jan 7 10:00:24.703: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event R2_TONE_OFF
Jan 7 10:00:24.703: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
 string=5dc_dial()vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:24.703: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:24.703:    digit=, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
!--- Second ANI digit is sent: Forward Signal Group I-2. Jan 7 10:00:24.803:
vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN:digit=2,
 rtp_timestamp=0x001E0010 dc_digit_up
Jan 7 10:00:24.803: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)
received digit (2)
Jan 7 10:00:24.803: CSM voice (1/60): Rcvd Digit detected(2)
Jan 7 10:00:24.803: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event 2
```

!--- Send Backward Signal Group A-5 (Caller ID request). Jan 7 10:00:24.803:
vtsp_r2_generate_digits: vdev_common=0x6205E5F8, string=5dc_dial()vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 5

Jan 7 10:00:24.803: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929packet_id=90
 string=5 digits=1, time_on=65435, time_off=30
Jan 7 10:00:24.803:   digit=, components=2, freq_of_first=1020,
freq_of_second=780,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:24.903: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=2,
 duration=30dc_digit
Jan 7 10:00:24.903: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8) received digit (2)
Jan 7 10:00:24.903: CSM voice (1/60): Rcvd Digit detected(2)
Jan 7 10:00:24.903: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID
 R2 Got Event R2_TONE_OFF
Jan 7 10:00:24.903: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
 string=5dc_dial()vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:24.903: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:24.903:   digit=, components=2, freq_of_first=0,
freq_of_second=0,
 amp_of_first=1, amp_of_second=1
!--- Third ANI digit is sent: Forward Signal Group I-3. Jan 7 10:00:25.003:
vtsp_process_dsp_message: **MSG_TX_DTMF_DIGIT_BEGIN: digit=3,**
 rtp_timestamp=0x001E0010 dc_digit_up
Jan 7 10:00:25.003: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)
received digit (3)
Jan 7 10:00:25.003: CSM voice (1/60): Rcvd Digit detected(3)
Jan 7 10:00:25.003: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event 3
!--- Send Backward Signal Group A-5 (Caller ID request). Jan 7 10:00:25.003:
vtsp_r2_generate_digits: vdev_common=0x6205E5F8, string=5dc_dial()vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 5

Jan 7 10:00:25.003: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=5 digits=1, time_on=65435, time_off=30
Jan 7 10:00:25.003:   digit=, components=2, freq_of_first=1020,
freq_of_second=780,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:25.103: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF:digit=3,
 duration=30dc_digit
Jan 7 10:00:25.103: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8) received digit (3)
Jan 7 10:00:25.103: CSM voice (1/60): Rcvd Digit detected(3)
Jan 7 10:00:25.103: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_CALLERID R2
 Got Event R2_TONE_OFF
Jan 7 10:00:25.103: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
 string=5dc_dial()vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:25.103: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:25.103:   digit=, components=2, freq_of_first=0,
freq_of_second=0,
 amp_of_first=1, amp_of_second=1
!--- Digit 15 is sent: Forward Signal Group I-15 (end of ANI digit). Jan 7 10:00:25.203:
vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN: digit=15, rtp_timestamp=0x001E0010
dc_digit_up Jan 7 10:00:25.203: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8) received digit (*)
Jan 7 10:00:25.203: CSM voice (1/60): Rcvd Digit detected(*) Jan 7 10:00:25.203: R2 Incoming
Voice(1/60): DSX (E1 0:8): **STATE:R2_IN_CALLERID R2**

Got Event 15
!--- Send Backward Signal Group A-1 (next DNIS digit). Jan 7 10:00:25.203:
vtsp_r2_generate_digits: vdev_common=0x6205E5F8, string=5dc_dial()vtsp_dial_nopush
dsp_dtmf_dialing(): dial_string = 1
Jan 7 10:00:25.203: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
string=1 digits=1, time_on=65435, time_off=30
Jan 7 10:00:25.203: digit=, components=2, freq_of_first=1020,
freq_of_second=1140,
amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:25.303: vtsp_process_dsp_message:
MSG_TX_DTMF_DIGIT_OFF: digit=15, duration=30dc_digit Jan 7 10:00:25.303: csm_vtsp_digit_ready
(vtsp_cdb=0x61B5BFF8) received digit (*) Jan 7 10:00:25.303: CSM voice (1/60): Rcvd Digit
detected(*) Jan 7 10:00:25.303: R2 Incoming Voice(1/60): DSX (E1 0:8): **STATE:R2_IN_COLLECT_DNIS
R2**
Got Event R2_TONE_OFF
Jan 7 10:00:25.303: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=5dc_dial()vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:25.303: dsp_dtmf_dialing: [0:1:8] packet_Len=24 channel_id=4929
packet_id=90 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:25.303: digit=, components=2, freq_of_first=0, freq_of_second=0,
amp_of_first=1, amp_of_second=1
!--- Second DNIS digit is sent: Forward Signal Group I-6. Jan 7 10:00:25.391:
vtsp_process_dsp_message: **MSG_TX_DTMF_DIGIT_BEGIN: digit=6,**
rtp_timestamp=0x001E0010 dc_digit_up
Jan 7 10:00:25.391: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)
received digit (6)
Jan 7 10:00:25.391: CSM voice (1/60): Rcvd Digit detected(6)
Jan 7 10:00:25.391: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_COLLECT_DNIS
R2 Got Event 6
!--- Send Backward Signal Group A-1. Jan 7 10:00:25.391: vtsp_r2_generate_digits:
vdev_common=0x6205E5F8, string=56dc_dial() vtsp_dial_nopush **dsp_dtmf_dialing(): dial_string = 1**

Jan 7 10:00:25.391: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
string=1 digits=1, time_on=65435, time_off=30
Jan 7 10:00:25.391: digit=, components=2, freq_of_first=1020,
freq_of_second=1140,
amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:25.491: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF:digit=6,
duration=30dc_digit
Jan 7 10:00:25.491: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8) received digit (6)
Jan 7 10:00:25.491: CSM voice (1/60): Rcvd Digit detected(6)
Jan 7 10:00:25.491: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE: R2_IN_COLLECT_DNIS R2
Got Event R2_TONE_OFF
Jan 7 10:00:25.491: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=56dc_dial() vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:25.491: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:25.491: digit=, components=2, freq_of_first=0,
freq_of_second=0,
amp_of_first=1, amp_of_second=1
!--- Third DNIS digit is sent: Forward Signal Group I-7. Jan 7 10:00:25.583:
vtsp_process_dsp_message: **MSG_TX_DTMF_DIGIT_BEGIN: digit=7,**
rtp_timestamp=0x001E0010 dc_digit_up
Jan 7 10:00:25.583: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)
received digit (7)
Jan 7 10:00:25.583: CSM voice (1/60): Rcvd Digit detected(7)
Jan 7 10:00:25.583: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_COLLECT_DNIS R2
Got Event 7

!--- Send Backward Signal Group A-1. Jan 7 10:00:25.583: vtsp_r2_generate_digits:
vdev_common=0x6205E5F8, string=567dc_dial()vtsp_dial_nopush **dsp_dtmf_dialing(): dial_string = 1**

Jan 7 10:00:25.583: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=1 digits=1, time_on=65435, time_off=30
Jan 7 10:00:25.583:   digit=, components=2, freq_of_first=1020,
freq_of_second=1140,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:25.683: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=7,
 duration=30dc_digit
Jan 7 10:00:25.683: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8)
received digit (7)
Jan 7 10:00:25.683: CSM voice (1/60): Rcvd Digit detected(7)
Jan 7 10:00:25.683: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_OFF
Jan 7 10:00:25.683: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
 string=567dc_dial()vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:25.683: dsp_dtmf_dialing: [0:1:8] packet_Len=24
channel_id=4929 packet_id=90
 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:25.683:   digit=, components=2, freq_of_first=0,
freq_of_second=0,
 amp_of_first=1, amp_of_second=1
Jan 7 10:00:25.835: vtsp_process_dsp_message: MSG_TX_DIALING_DONEdc_dialing_done()
!--- Timeout is 3 seconds. Jan 7 10:00:28.583: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE:R2_IN_COLLECT_DNIS R2
 Got Event R2_TONE_TIMER
!--- Send Backward Signal Group A-3: address-complete, changeover !--- to reception of group-B signal. Jan 7 10:00:28.583: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=567dc_dial()vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = 3# Jan 7 10:00:28.583:
dsp_dtmf_dialing: [0:1:8] packet_Len=36
channel_id=4929 packet_id=90
 string=3# digits=2, time_on=150, time_off=30
Jan 7 10:00:28.583:   digit=, components=2, freq_of_first=1020,
freq_of_second=900,
 amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:28.583:   digit=, components=2, freq_of_first=0, freq_of_second=0,
 amp_of_first=1, amp_of_second=1
!--- Forward Signal Group II-1 is sent: subscriber without priority. Jan 7 10:00:28.831:
vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN: digit=1, rtp_timestamp=0x001E0003 dc_digit_up
Jan 7 10:00:28.831: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8) received digit (1) Jan 7
10:00:28.831: CSM voice (1/60): Rcvd Digit detected(1) Jan 7 10:00:28.831: R2 Incoming
Voice(1/60): DSX (E1 0:8): STATE:R2_IN_CATEGORY R2 **Got Event 1**
Jan 7 10:00:28.831: CSM_PROC_IC1_COLLECT_ADDR_INFO:
CSM_EVENT_ADDR_INFO_COLLECTED
(DNIS=567, ANI=123) at slot 1, port 60
Jan 7 10:00:28.831: vtsp_tsp_call_accept_check (sdb=0x61DADEE0,
calling_number=123
 called_number=567): peer_tag=0
Jan 7 10:00:28.835: VDEV_ALLOCATE: failed to allocate a device
Jan 7 10:00:28.835: VDEV_ALLOCATE_ALMOST_READY: failed to allocate
 a non-idle modem
Jan 7 10:00:28.835: VDEV_ALLOCATE: failed to allocate a device
Jan 7 10:00:28.835: VDEV_ALLOCATE_ALMOST_READY: failed to allocate
a non-idle modem
Jan 7 10:00:28.835: VDEV_ALLOCATE: failed to allocate a device
Jan 7 10:00:28.835: VDEV_ALLOCATE_ALMOST_READY: failed to allocate
a non-idle modem
Jan 7 10:00:28.835: CSM_PROC_IC3_WAIT_FOR_RES_RESP: CSM_EVENT_RESOURCE_OK
at slot 1,
 port 60
Jan 7 10:00:28.835: vtsp_IC_switch : (voice_vdev= 0x61F19688)

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Jan 7 10:00:28.835: vtsp_tsp_call_switch_ind (cdb=0x61B5BFF8,
tsp_info=0x61F19688,
 calling_number=123 called_number=567 redirect_number=):
peer_tag=123dc_switch: fsm_pop()
Jan 7 10:00:28.835: vtsp_do_call_setup_ind
Jan 7 10:00:28.835: vtsp_do_call_setup_ind: Call ID=65581,
guid=62031A88
Jan 7 10:00:28.835: vtsp_do_call_setup_ind: type=0, under_spec=0,
name=b`, id0=9,
 id1=0, id2=0, calling=123, called=567
Jan 7 10:00:28.835: dsp_cp_tone_off: [] packet_Len=8 channel_id=4929
packet_id=71
Jan 7 10:00:28.835: dsp_idle_mode: [] packet_Len=8 channel_id=4929
packet_id=68
Jan 7 10:00:28.835: dsp_close_voice_channel: [] packet_Len=8
channel_id=4929 packet_id=75
Jan 7 10:00:28.835: vtsp_timer_stop: 7063006
Jan 7 10:00:28.839: csm_vtsp_call_setup_resp (vdev_info=0x61F19688,
vtsp_cdb=0x61B5BFF8)
Jan 7 10:00:28.839: csm_vtsp_call_setup_resp:vdev_common BP TS
allocatedat BP_stream0,
 BP_Ch8
Jan 7 10:00:28.839: csm_vtsp_call_setup_resp:DST_tdm_chnl call.
 BP TS allocatedat stream 5, chan 13,BP_stream 0, BP_ch 8
Jan 7 10:00:28.839: csm_vtsp_call_setup_resp:DST_tdm_chnl call.
 BP TS allocatedat stream 5, chan 13,BP_stream 0, BP_ch
8vtsp_open_voice_and_set_params
Jan 7 10:00:28.839: dsp_close_voice_channel: [0:1 (17)]
packet_Len=8 channel_id=4929
 packet_id=75
Jan 7 10:00:28.839: dsp_open_voice_channel_20: [0:1 (17)] packet_Len=16
channel_id=4929
 packet_id=74 alaw_ulaw_select=1 associated_signaling_channel=0
time_slot=0 serial_port=0
Jan 7 10:00:28.839: dsp_encap_config_20: [0:1 (17)] packet_Len=24
channel_id=4929
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0t_vpxcc=0x0
r_vpxcc=0x0
Jan 7 10:00:28.839: dsp_set_playout: [0:1 (17)] packet_Len=18
channel_id=4929 packet_id=76 mode=1 initial=60 min=4 max=200 fax_nom=300
Jan 7 10:00:28.839: dsp_echo_canceller_control: [0:1 (17)]
packet_Len=10 channel_id=4929
 packet_id=66 flags=0x0
Jan 7 10:00:28.839: dsp_set_gains: [0:1 (17)] packet_Len=12
channel_id=4929 packet_id=91
 in_gain=0 out_gain=0
Jan 7 10:00:28.839: dsp_vad_enable: [0:1 (17)] packet_Len=10
channel_id=4929 packet_id=78
 thresh=-38act_proceeding
Jan 7 10:00:28.839: csm_vtsp_call_proceeding:DST_tdm_chnl call.
BP TS allocatedstream 5,
 chan 13,BP_stream 0, BP_ch 8act_alert
Jan 7 10:00:28.867: vtsp_ring_noan_timer_start: 7063009
Jan 7 10:00:28.867: csm_vtsp_call_alert (vtsp_cdb=0x61B5BFF8)
Jan 7 10:00:28.867:  csm_vtsp_call_alert: CSM_EVENT_ALERTING_RECEIVED
Jan 7 10:00:28.867: CSM_IC5_WAIT_FOR_SWITCH_OVER:  at slot 1, port 60
Jan 7 10:00:28.867: CSM_EVENT_ALERTING_RECEIVED:
Jan 7 10:00:28.867:  calling alerting_start_event
!--- Note: For modems, Backward Signal !--- Group B-6 (subscriber's line free, charge) !--- is
sent immediately. !--- For voice, it is delayed until alerting is received. !--- Notice that
"R2_REJECT" is printed instead of R2_ALERTING. !--- This printing issue is solved in Cisco IOS
Software Release 12.1T.

Jan 7 10:00:28.867: R2 Incoming Voice(1/60): DSX (E1 0:8):
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STATE:R2_IN_IDLE R2
Got Event R2_REJECT
Jan 7 10:00:28.867: **R2_ALERTING**: r2_comp_idle
Jan 7 10:00:28.867: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=567act_bridge
Jan 7 10:00:28.867: dsp_voice_mode: [0:1 (17)] packet_Len=24
channel_id=4929 packet_id=73
coding_type=1 voice_field_size=80 VAD_flag=0 echo_length=64
comfort_noise=1
inband_detect=1 digit_relay=2 AGC_flag=0dsp_dtmf_mode
(VTSP_TONE_R2_MF_FORWARD_MODE)
!--- Answer signal (B-6) is sent after alerting is received. !--- Send Backward Signal Group B6 signal (Subscriber's line free, charge). Jan 7 10:00:28.871: dsp_dtmf_mode: [0:1 (17)]
packet_Len=10 channel_id=4929 packet_id=65 dtmf_or_mf=1vtsp_r2_dial vtsp_r2_dial():
fsm_push(vtsp_r2_state_table) **dsp_dtmf_dialing(): dial_string = 6**

Jan 7 10:00:28.871: dsp_dtmf_dialing: [0:1 (17)] packet_Len=24
channel_id=4929
packet_id=90 string=6 digits=1, time_on=65435, time_off=30
Jan 7 10:00:28.871: digit=, components=2, freq_of_first=900,
freq_of_second=780,
amp_of_first=8192, amp_of_second=8192
Jan 7 10:00:28.923: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_BEGIN: digit=1,
rtp_timestamp=0x001E0006 dc_digit_up
Jan 7 10:00:28.923: csm_vtsp_digit_ready_up (vtsp_cdb=0x61B5BFF8)
received digit (1)
Jan 7 10:00:28.923: CSM voice (1/60): Rcvd Digit detected(1)
Jan 7 10:00:28.923: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE: R2_IN_COMPLETE
R2 Got Event 1
Jan 7 10:00:28.971: vtsp_process_dsp_message: MSG_TX_DTMF_DIGIT_OFF: digit=1,
duration=30dc_digit
Jan 7 10:00:28.971: csm_vtsp_digit_ready (vtsp_cdb=0x61B5BFF8)
received digit (1)
Jan 7 10:00:28.971: CSM voice (1/60): Rcvd Digit detected(1)
Jan 7 10:00:28.971: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE: R2_IN_COMPLETE R2
Got Event R2_TONE_OFF
Jan 7 10:00:28.971: vtsp_r2_generate_digits: vdev_common=0x6205E5F8,
string=567dc_dial()
vtsp_dial_nopush dsp_dtmf_dialing(): dial_string = #
Jan 7 10:00:28.971: dsp_dtmf_dialing: [0:1 (17)] packet_Len=24
channel_id=4929
packet_id=90 string=# digits=1, time_on=150, time_off=30
Jan 7 10:00:28.975: digit=, components=2, freq_of_first=0,
freq_of_second=0,
amp_of_first=1, amp_of_second=1ds_dialing_defaultds_dialing_default
Jan 7 10:00:29.127: vtsp_process_dsp_message:
MSG_TX_DIALING_DONEdc_dialing_done()
Jan 7 10:00:29.971: R2 Incoming Voice(1/60): DSX (E1 0:8):
STATE: R2_IN_WAIT_GUARD R2
Got Event R2_TONE_TIMER
Jan 7 10:00:29.971: R2_IN_IDLE:2 r2_in_connect called
Jan 7 10:00:29.971: R2_IN_CONNECT: call end dial
Jan 7 10:00:29.971: pop the dial state machine
Jan 7 10:00:29.971: vtsp_r2_end_dial: vdev_common=0x6205E5F8,
string=567ds_end_dial():
fsm_pop() act_caps_ind
Jan 7 10:00:29.971: act_caps_ind:Encap 1, Vad 2, Codec 0x4,
CodecBytes 20, FaxRate 2,
FaxBytes 20 SignalType 0 DtmfRelay 1, Modem 1act_caps_ack
Jan 7 10:00:29.971: dsp_idle_mode: [0:1 (17)] packet_Len=8
channel_id=4929 packet_id=68
Jan 7 10:00:29.971: act_caps_ack: codec = 15, ret = 1

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Jan 7 10:00:29.971: dsp_cp_tone_off: [0:1 (17)] packet_Len=8
channel_id=4929 packet_id=71
Jan 7 10:00:29.971: dsp_idle_mode: [0:1 (17)] packet_Len=8
channel_id=4929 packet_id=68
Jan 7 10:00:29.971: dsp_encap_config_20: [0:1 (17)] packet_Len=24
channel_id=4929
 packet_id=92 TransportProtocol 2 t_ssrc=0x0 r_ssrc=0x0 t_vpxcc=0x0
r_vpxcc=0x0
Jan 7 10:00:29.971: dsp_voice_mode: [0:1 (17)] packet_Len=24
channel_id=4929 packet_id=73
 coding_type=19 voice_field_size=20 VAD_flag=1 echo_length=64
comfort_noise=1
 inband_detect=1 digit_relay=2 AGC_flag=0act_alert_connect
Jan 7 10:00:30.255: vtsp_ring_noan_timer_stop: 7063148
Jan 7 10:00:30.255: dsp_cp_tone_off: [0:1 (17)] packet_Len=8
channel_id=4929 packet_id=71
Jan 7 10:00:30.255: csm_vtsp_call_connect (vtsp_cdb=0x61B5BFF8,
voice_vdev=0x61F19688)
Jan 7 10:00:30.255: CSM_IC5_WAIT_FOR_SWITCH_OVER:
CSM_EVENT_MODEM_OFFHOOK at slot 1,
 port 60
Jan 7 10:00:30.607: CSM_RX_CAS_EVENT_FROM_NEAT:(0007):
EVENT_CHANNEL_CONNECTED at slot 1
 and port 60
Jan 7 10:00:30.607: CSM_PROC_IC6_WAIT_FOR_CONNECT:
CSM_EVENT_DSX0_CONNECTED at slot 1,
 port 60
Jan 7 10:00:30.607: from NEAT(0): (0/8): TX ANSWERED (ABCD=0101)
eefje#
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Información Relacionada

- Señalización E1 R2 para voz sobre IP en el servidor de acceso Cisco AS5300
- Señalización E1 R2 para los routers de las series 3620 y 3640 de Cisco
- Personalización de los enlaces E1 R2 con el comando cas-custom
- Configuración de señalización asociada a canales y E1 R2
- Señalización E1 R2 para los servidores de acceso Cisco AS5300 y Cisco AS5200
- Soporte de tecnología de voz
- Soporte de Productos de Voice and Unified Communications
- Troubleshooting de Cisco IP Telephony
- Soporte Técnico y Documentación - Cisco Systems