

# E1 R2 シグナリングの設定とトラブルシューティング

## 内容

[概要](#)

[前提条件](#)

[要件](#)

[使用するコンポーネント](#)

[表記法](#)

[設定](#)

[AS5300 : Cisco IOS : 音声フィーチャ カード \( VFC \) ソフトウェアの互換性](#)

[E1 R2 の設定](#)

[ネットワーク図](#)

[設定](#)

[確認](#)

[トラブルシュート](#)

[E1 R2 の障害のトラブルシューティング](#)

[debug コマンドと show コマンド](#)

[debug 出力例](#)

[関連情報](#)

## 概要

このドキュメントでは、E1 R2 シグナリングを実装するために必要なコマンド エントリについて段階的に説明します。このドキュメントでは、debug コマンドを使ったトラブルシューティングについても説明します。

注：このドキュメントを使用する前に、「[E1 R2 Signaling Theory](#)」を読むことをお勧めします。

## 前提条件

### 要件

この設定を実施するには、次の前提条件を満たしている必要があります。

- R2 シグナリングは E1 にのみ適用されます。
- Cisco MC3810 ルータでは、R2 シグナリングはサポートされていません。
- R2 シグナリングを Cisco 2600/3600 シリーズ ルータ上で実行するには、次のハードウェアが必要です。VWIC-1MFT-E1、VWIC-2MFT-E1、または VWIC-2MFT-E1-DI と、次の音声密度モジュールの 1 つ。[NM-HDV \( 高密度音声ネットワーク モジュール \)](#) または [NM-HD-](#)

## [2VE \( 2 スロット IP 通信音声/ファクス ネットワーク モジュール \)。](#)

- E1 コントローラ ( AS5x00、Cisco 2600/3600 ルータ ) 上で、コマンド `ds0-group` ( または `cas-group`、Cisco IOS® のバージョンに応じる ) を定義します。
- さまざまな国と地域向けに E1 R2 バリエーションをカスタマイズするには、`cas-custom` コマンドを使用します。

## [使用するコンポーネント](#)

このドキュメントの情報は、このソフトウェアとハードウェアのバージョンに基づいています。

- Cisco IOS ソフトウェア リリース 12.0.7T がある Cisco AS5300

注：E1 R2シグナリングは、Cisco IOSソフトウェアリリース12.1.2XHおよび12.1(3)TのCisco 2600/3600シリーズルータに導入されました。

このドキュメントの情報は、特定のラボ環境にあるデバイスに基づいて作成されました。このドキュメントで使用するすべてのデバイスは、初期 ( デフォルト ) 設定の状態から起動しています。対象のネットワークが実稼働中である場合には、どのようなコマンドについても、その潜在的な影響について確実に理解しておく必要があります。

## [表記法](#)

ドキュメント表記の詳細は、「[シスコ テクニカル ティップスの表記法](#)」を参照してください。

## [設定](#)

このセクションでは、E1 R2 の設定に使用できる情報を説明しています。

注：このドキュメントで使用するコマンドの詳細については、[Command Lookup Tool](#)(登録ユーザ専用)を参照してください。

## [AS5300 : Cisco IOS : 音声フィーチャ カード \( VFC \) ソフトウェアの互換性](#)

Cisco AS5300 ルータで E1 R2 シグナリングを実装する前に、Cisco IOS ソフトウェアのバージョンが、E1 モジュールの Cisco VCware と互換性があることを確認します。Cisco IOSソフトウェアの互換性を確認するには、『[Cisco VCWare Compatibility Matrix for the Cisco AS5300](#)』を参照してください。バージョンに互換性がない場合、音声カードのデジタル信号プロセッサ (DSP)モジュールはロードされず、音声信号処理はされません。

通常、Cisco VCWare のバージョンが Cisco IOS ソフトウェアと非互換の場合、`show vfc slot_number interface` コマンドを入力して、以下の例に表示されているような出力を確認できます。

```
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
```

最初の例は **show vfc slot\_number interface** コマンドの出力であり、DSP module number is not installed

出力の 2 番目のセットは、正しい Cisco VCWare バージョンがロードされている DSP モジュールの例です。

```
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
```

インストールされている Cisco VCWare のバージョンを確認するには、次の例に示すように、**show vfc slot\_number version vcware** コマンドを入力します。

```
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
```

注：Cisco VCWareテクノロジーバージョン ( c549またはc542 ) が、インストールされている VFC DSPテクノロジー(DSPM-542:単密度音声サポートまたは DSPM-549：高密度音声サポート ) と一致していることを確認します。

## E1 R2 の設定

E1 R2 を設定するには、次の手順を実行します。

1. コントローラ E1 を、自動構内交換式 ( PBX ) またはスイッチに接続するように設定します。  
。E1 のフレーミングとラインコーディングが正しく設定されていることを確認します。
2. E1 フレーミングの場合は、CRC または non-CRC のいずれかを選択します。
3. E1 ラインコーディングの場合は、HDB3 または AMI のいずれかを選択します。
4. E1 クロック ソースの場合は、internal または line のいずれかを選択します。クロック ソースではさまざまな PBX にそれぞれの要件があることに留意してください。
5. [ライン シグナリングの設定を行います。](#)
6. [レジスタ間シグナリングの設定を行います。](#)
7. cas-custom を使用して、設定をカスタマイズします。

## 回線シグナリングの設定

ライン シグナリングを定義するには、このコマンド シーケンスを使用します。

```
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
...
```

これは Cisco IOS ソフトウェア リリース 11.3 のコマンド シーケンスです。

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

注 : Cisco IOS ソフトウェア リリース 11.3 から 12.0 にアップグレードする場合、新しいコマンドによって古いコマンドが自動的に置き換えられます。

## レジスタ間シグナリングの設定

このコマンド シーケンス例は、さまざまなタイプのレジスタ間シグナリングを設定する方法を示しています。

```
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
```

シスコ実装の R2 シグナリングには、デフォルトで有効になっている着信番号識別サービス ( DNIS ) サポートがあります。自動番号識別 ( ANI ) オプションを有効にしても、DNIS 情報の収集は引き続き実行されます。ANI オプションを指定しても、DNIS 収集は無効になりません。DNIS は、呼び出された番号です。ANI は発信者の番号です。たとえば、A というルータで B というルータを呼び出すように設定する場合、DNIS 番号はルータ B に割り当てられ、ANI 番号はルータ A に割り当てられます。ANI は発信者 ID と似ています。

## [cas-custom コマンドを使用する E1 R2 カスタマイゼーション](#)

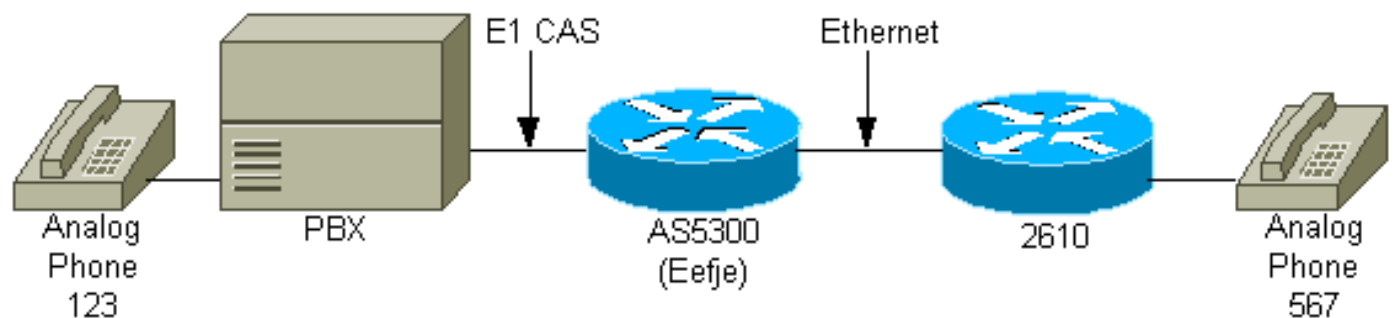
コマンド `cas-custom` の下のサブコマンドは、国のバリエーションを提供するために使用されます。それらは、個別線信号方式 (CAS) パラメータをカスタマイズするためにも使用されます。このコマンドシーケンスは、すべての `cas-custom command` オプションを表示する方法を示しています。

```
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
```

`cas-custom` コマンド パラメータの詳細については、「[cas-custom コマンドを使用する E1 R2 カスタマイゼーション](#)」 [英語] を参照してください。

## [ネットワーク図](#)

このドキュメントでは、次のネットワーク設定を使用します。



## [設定](#)

このドキュメントの目的に合わせて、E1 インターフェイスには次の 3 つの異なる R2 設定が表示

されています。

- [R2 Digital Non-Compelled](#)
- [R2 Digital Semi-Compelled](#)
- [R2 Digital Compelled ANI](#)

このドキュメントの論点となっている情報のみが表示されるように、設定は変更されています。

#### R2 Digital Non-Compelled 用に設定された eefje

```
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
!
```

#### R2 Digital Semi-Compelled 用に設定された eefje

```
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
!
```

## R2 Digital Compelled ANI 用に設定された eefje

```
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
!
```

## 確認

現在、この設定に使用できる確認手順はありません。

## トラブルシューティング

ここでは、設定のトラブルシューティングに使用できる情報を示します。

### E1 R2 の障害のトラブルシューティング

この設定に関連するトラブルシューティング情報を次に示します。設定のトラブルシューティングをするには、次の手順を実行します。

1. コントローラ E1 0 が起動していることを確認します。これがダウンしている場合は、フレーミング、ラインコーディング、クロックソース、アラームを検査したり、ケーブルを交換したり、カードを差し込み直してみたりしてください。リファレンスとして、「[cas-custom コマンドを使用する E1 R2 カスタマイゼーション](#)」[英語] を利用してください。
2. AS5300 を使用している場合は、DSP が正しくインストールされていることを `show vfc slot number interface command` コマンドで確認します。
3. ダイヤルイン方式 ( DID ) を単純な旧式の電話サービス ( POTS ) ピア上で設定し、受信したディジットを使用して発信ピアを選択します。
4. 音声ポートで、cptone ( cptone は国により異なります ) を指定します。cptonecountry コマンドは、cas-custom country コマンドと一致するように設定する必要があります。cptone A-law u-law 米国のデフォルトのエンコーディングは、u-law です。
5. 回線とレジスタ シグナリングのプロビジョンを、スイッチの設定に一致させます。
6. このドキュメントに示されているいくつかの debug をオンにして、出力を確認します。
7. ルータと PBX またはスイッチの間の通信を検査します。回線は捕捉されているか。ルータ

はディジットを受信/送信しているか。コールをクリアする側を特定します。可能であれば、Cisco.com で入手できる最新の Cisco IOS ソフトウェア リリースを使用します。

## debug コマンドと show コマンド

一部の show コマンドは [アウトプット インタープリタ ツールによってサポートされています \(登録ユーザ専用\)](#)。このツールを使用することによって、show コマンド出力の分析結果を表示できます。

注：debugコマンドを発行する前に、『[debugコマンドの重要な情報](#)』を参照してください。

注：Cisco IOSソフトウェアリリース12.0の場合は、次のデバッグを使用します。

- debug cas：ライン シグナリング用。
- debug csm voice：レジスタ間シグナリング用。
- debug vtsp all：PBX とルータとの間で交換されるすべてのメッセージ (ディジット) の出力用。

Cisco IOS ソフトウェア リリース IOS 11.3 の場合、以下のコマンドを使用します。

- modem-mgmt csm debug-rbs：ライン シグナリング用 (まずコンフィギュレーション モードで service internal を指定する必要があります)。
- debug csm voice：レジスタ間シグナリング用。
- debug vtsp all：PBX とルータとの間で交換されるすべてのメッセージ (ディジット) の出力用。

AS5400 および AS5350 プラットフォームの場合、以下の debug を使用します。

- debug sigsm r2：レジスタ間シグナリング用
- debug vtsp all：PBX とルータとの間で交換されるすべてのメッセージ (ディジット) の出力用。

## debug 出力例

このドキュメントでは 3 つの異なる設定を取り上げてきたため、ここでは 3 つの異なる debug を説明しています。

### R2 Digital Non-Compelled : 567 への着信

このデバッグ出力の理解をさらに深めるには、『[E1 R2 シグナル理論](#)』を参照してください。

```
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 ctrl0 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\_src=0x0 r\_src=0x0 t\_vpxcc=0x0 r\_vpxcc=0x0  
Jan 6 10:41:28.721: dsp\_set\_payout: [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\_src=0x0 r\_src=0x0 t\_vpxcc=0x0 r\_vpxcc=0x0  
Jan 6 10:41:34.317: dsp\_set\_payout: [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 lact\_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#
```

## [R2 Digital Semi-Compelled : 567 への着信](#)

このデバッグ出力の理解をさらに深めるには、「[E1 R2 シグナル理論](#)」を参照してください。

```
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 ctrl0 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\_src=0x0 r\_src=0x0 t\_vpxcc=0x0 r\_vpxcc=0x0  
Jan 6 09:53:42.433: dsp\_set\_payout: [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=0 vtsp\_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=1 vtsp\_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 allocated at BP\_stream0,  
BP\_Ch27  
Jan 6 09:53:42.437: csm\_vtsp\_call\_setup\_resp:DST\_tdm\_chnl call. BP TS allocated at  
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 allocated at  
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,  
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_payout: [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 lact_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#
```

## [R2 Digital Compelled ANI : 567 への着信](#)

このデバッグ出力の理解をさらに深めるには、「[E1 R2 シグナル理論](#)」を参照してください。

```
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 ctrl0 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\_payout: [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)  
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

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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_payout: [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):
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

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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_defaultsds_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
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
```



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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#
```

## 関連情報

- [Cisco AS5300 Access Server 上での Voice over IP 用の E1 R2 シグナリング \[英語\]](#)
- [Cisco 3620 および 3640 シリーズ ルータの E1 R2 シグナリング](#)
- [cas-custom コマンドを使用する E1 R2 カスタマイゼーション](#)
- [E1 R2 および個別線信号方式の設定 \[英語\]](#)
- [Cisco AS5300 および AS5200 アクセス サーバの E1 R2 シグナリング](#)
- [音声に関する技術サポート](#)
- [音声とユニファイド コミュニケーションに関する製品サポート](#)
- [Cisco IP Telephony のトラブルシューティング](#)
- [テクニカル サポートとドキュメント - Cisco Systems](#)