

E1 R2 シグナリングの設定とトラブルシューティング

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概要

このドキュメントでは、E1 R2 シグナリングの実装に必要なコマンド 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、さらに、debug コマンドによるトラブルシューティング情報も提供しています。

注: このドキュメントを使用する前に、『[E1 R2 シグナル理論](#)』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 にだけ適用されます。
- 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。
- Cisco 2600/3600 シリーズ ルータで R2 シグナリングを実行するには、次のハードウェアが必要です。VWIC-1MFT-E1 または VWIC-2MFT-E1 または VWIC-2MFT-E1-DI で、次のいずれかの音声密度モジュールが必要。 [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 コミュニケーション音声/ファックス ネットワーク モジュール)。

- ds0-group コマンド (Cisco IOS(R) のバージョンによっては cas-group コマンド) を E1 コントローラ (AS5x00、Cisco 2600/3600 ルータ) で定義します。
- E1 R2 の国別または地域別のバリエーションをカスタマイズするには、コマンド cas-custom 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、次のソフトウェアとハードウェアのバージョンに基づくものです。

- Cisco IOS ソフトウェア リリース 12.0.7T が動作する Cisco AS5300

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

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たものです。このドキュメントで使用するすべてのデバイスは、クリアな (デフォルト) 設定で作業を開始しています。ネットワークが稼働中の場合は、コマンドが及ぼす潜在的な影響を十分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提供しています。

注: このドキュメントで使用しているコマンドの詳細を調べるには、[Command Lookup Tool](#) ([登録ユーザ専用](#)) を参照してください。

AS5300 : Cisco IOS - Voice Feature Card (VFC) ソフトウェア互換性

Cisco AS5300 ルータに 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てください。Cisco IOS ソフトウェアの互換性を確認するには、『[Cisco AS5300 用 Cisco VCWare 互換性マトリクス](#)』を参照してください。バージョンに互換性がない場合は、音声カードの Digital Signal Processor (DSP; デジタル信号プロセッサ) モジュールにロードされず、音声信号処理が行われません。

通常は、Cisco VCWare のバージョンが Cisco IOS ソフトウェアと互換性がない場合、次の例のように show vfc slot_number interface コマンドを入力することによって確認できます。

```
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
show vfc slot_number interface コマンドの最初の出力例では、DSP module number is not
```

installed ステートメントで、このバージョンにはモジュール番号に対する互換性がないことが示されています。

次の出力セットは、DSP モジュールに適切な Cisco VCWare のバージョンがロードされている例です。

```
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 のバージョンをチェックするには、次の例のように、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 バージョンが (c549 か c542) インストール済み VFC DSP テクノロジー (DSPM-542 と一致することを確認して下さい: 単一密度音声サポートか DSPM-549: 高密度音声サポート)。

E1 R2 の設定

次の手順を実行して、E1 R2 を設定します。

1. Private automatic Branch eXchange (PBX; 構内交換機) またはスイッチに接続されたコントローラ E1 をセットアップします。E1 のフレーミングおよび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 フレーミングに、CRC または non-CRC を選択します。
3. E1 ラインコーディングに、HDB3 または AMI を選択します。
4. E1 クロック ソースに、internal または line を選択します。PBX が異なると、クロック ソースに対する必要条件も異なることに注意してください。
5. [回線シグナリングを設定します。](#)
6. [レジスタ間シグナリングを設定します。](#)
7. cas-custom コマンドで、コンフィギュレーションをカスタマイズします。

回線シグナリングの設定

次のコマンド シーケンスを使用して、回線シグナリングを定義します。

```
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 ...
```

Cisco IOS ソフトウェア リリース 11.3 の場合は、次のコマンド シーケンスを使用します。

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

注: Cisco IOS ソフトウェアをリリース 11.3 からリリース 12.0 にアップグレードすると、古いコマンドが新しいコマンドによって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

次のコマンドシーケンスの例は、さまざまなタイプのレジスタ間シグナリングの設定を示しています。

```
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
```

シスコの R2 シグナリング実装では、Dialed Number Identification Service (DNIS; 着信番号識別サービス) のサポートがデフォルトで有効になります。Automatic Number Identification (ANI; 自動番号識別) オプションを有効にした場合も、DNIS 情報の収集は実行されます。ANI オプションを指定しても、DNIS 情報の収集がディセーブルにされることはありません。DNIS は受信者の番号です。ANI は発信者の番号です。たとえばルータを B と呼ばれて呼出すために A と呼ばれるルータを設定すればそして DNIS 番号はルータ B に割り当てられ、ANI 数はルータ A. ANI にです発信者ID に類似した割り当てられます。

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

cas-custom コマンドの下にあるサブコマンドは、国別のバリエーションへ対応するために使用されます。また、Channel Associated Signaling (CAS; 個別線信号方式) パラメータのカスタマイズにも使用されます。次のコマンドシーケンスは、すべての cas-custom コマンド 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 コマンドの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』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、次のネットワーク構成を使用しています。

[設定](#)

このドキュメントの目的に従い、E1 インターフェイスを経由する 3 種類の R2 コンフィギュレーションを次に示します。

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

コンフィギュレーションは、このドキュメントで説明する情報だけを示すように変更されています。

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

```
hostname eefje
!
controller E1 0
  clock source line primary
  ds0-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役立つ情報について説明します。

[E1 R2 障害のトラブルシューティング](#)

ここで示すのは、このコンフィギュレーションに関連するトラブルシューティング情報です。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 E10 がアップしていることを確認します。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、およびアラームのチェック、ケーブルの交換、カードの再装着などを行います。参考資料として、『[cas-custom コマンドを使用する E1 R2 カスタマイゼーション](#)』ドキュメントを使用してください。
2. AS5300 を使用している場合は、show vfc slot number interface コマンドを使用して、DSP が正しくインストールされていることをチェックします。
3. 受信したディジットが発信ピアの選択に使用されるように、Plain Old Telephone Service (POTS; 一般電話サービス) ピアで Direct Inward Dial (DID) を設定します。
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 のパラメータにより、国別のコールプログレストーン、および国によって異なる a-law または u-law への符号化 (こちらがより重要です) を設定します。米国のデフォルトの符号化は u-law です。
5. 回線およびレジスタのシグナリングプロビジョンを、スイッチの設定と一致させます。
6. このドキュメントに示された debug のいくつかをオンにして、出力を調べます。
7. ルータと PBX またはスイッチの間の通信をチェックします。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。どちらの側がコールをクリアしているか。可能であれば、Cisco.com から入手可能な最新の 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](#)

特定の show コマンドは、[Output Interpreter Tool \(登録ユーザ専用 \)](#) によってサポートされています。このツールを使用すると、show コマンド出力の分析を表示できます。

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 debug コマンドを使用します。

- debug cas - 回線シグナリング用。
- debug csm voice - レジスタ間シグナリング用。
- debug vtsp all - PBX とルータの間でのすべてのメッセージ (デジジット) 交換の出力が表示されます。

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

- modem-mgmt csm debug-rbs - 回線シグナリング用 (最初に、設定モードで 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 とルータの間でのすべてのメッセージ (デジジット) 交換の出力が表示されます。

AS5400 と AS5350 のプラットフォームでは、次の debug コマンドを使用します。

- debug sigsm r2 - レジスタ間シグナリング用。
- debug vtsp all - PBX とルータの間でのすべてのメッセージ (デジジット) 交換の出力が表示されます。

debug 出力例

このドキュメントでは、前に 3 つの異なったコンフィギュレーションが示されているので、ここでは、3 つの異なった debug コマンドを示します。

R2 Digital Non-compelled : 567 への着信コール

この debug 出力について、詳細に理解するためには、『[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_ssrc=0x0 r_ssrc=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=0, 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:


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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#
```

[R2 Digital Semi-compelled : 567 への着信コール](#)

この debug 出力について、詳細に理解するためには、『[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_ssrc=0x0 r_ssrc=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=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, 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#

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

この debug 出力について、詳細に理解するためには、『[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:
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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_DONE**dc_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 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): **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_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 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 アクセス サーバでの Voice over IP 用 E1 R2 シグナリング](#)
- [Cisco 3620 および 3640 シリーズ ルータ用の 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 およびチャネル連携信号の設定](#)
- [Cisco AS5300 および Cisco AS5200 アクセス サーバのための E1 R2 シグナリング](#)
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