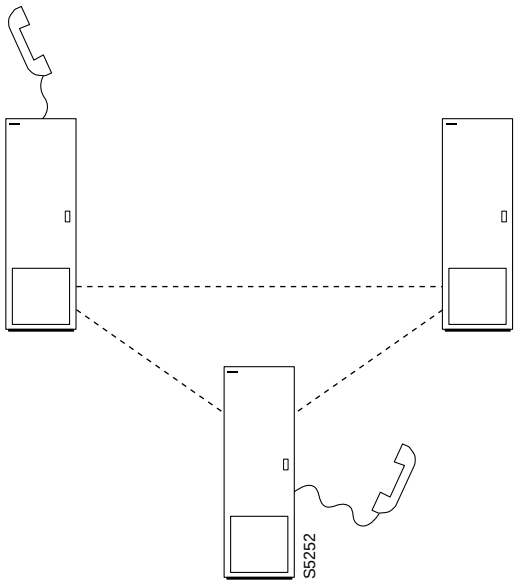
CHAPTER 7

Voice Connections



The voice commands apply to the setting up, configuring, and statistical reporting for voice connections. (including FAX). Voice connections exist as ports on circuit lines that are supported by either a CDP in an IPX or a CVM in an IGX. The associated back card is either a BC-T1, BC-E1, or BC-J1. In addition to the command descriptions, this chapter describes how to set up the voice connection, configure voice redundancy, use VAD, and configure voice channel utilization.

Setting Up a Voice Connection

The following explains how to set up a voice connection:

Step 1 First configure the voice channel at each end of the connection. The channel is expressed as card slot.channel. For example, 6.3 is channel 3 in card slot 6. The configurable parameters and their associated commands are as follows.

- **cnfchadv** Configures the channel for Adaptive Voice (ADV). This command enables or disables adaptive voice compression for one or a range of voice channels. The feature must be configured at both ends of the channel.
- **cnfchdl** Configures the dial type for the channel. The options are inband (default), pulse and user configured.

- **cnfchec** Configure the echo canceller for the channel. The command enables or disable the echo canceller for a range of voice channel, sets the echo return loss to high or low and enables/disables the tone disabler, convergence and non-linear processing.
- **cnfchgn** Configures the channel gain. This command allows the amount of gain inserted in a voice channel to be specified within the range of -8dB to +6dB.
- **cnfcond** Configures a conditioning template for the channel. This command permits a named conditioning template to be configured that specifies binary strings and A, B, C, and D bit transmission in the event of a channel failure.
- **cnfcondsc** Configures a connection descriptor for the channel.
- **cnfrcvsig** Configures receive signalling for the channel.
- **cnfxmtsig** Configures transmit signalling for the channel.
- **cnfvchtp** Configures a voice interface type for the channel.
- **cnfchutl** Configures the channel utilization (refer to Chapter 11, “Optimizing Traffic Routing and Bandwidth”).
- **addyred** Enables voice channel redundancy.

Step 2 Add the connection with the **addcon** command. The above configuration must have been completed at each end before the connection can be added.

Configuring Voice Channel Redundancy

Voice channels can be configured for redundancy by installing two identical sets of data front and back card pairs in adjacent slots and connecting to the customer’s line through a Y-cable.

- Use the **addyred** command to establish the redundant connection between the two card sets.
- Use the **delyred** command to remove redundancy from a redundant pair.

Using VAD and Configuring Voice Channel Utilization

Bandwidth savings from using VAD will not be realized to the fullest extent unless the utilization of the voice channels is set to a reasonable value. The utilization for voice channels is configured using the **cnfchutl** command.

Summary of Commands

The following list shows the full command name and starting page for the description of each voice command.

Table 7-1

Mnemonic	Description	Page
addcon	Add connection	7-4
cnfchadv	Configure channel adaptive voice	7-7
cnfchdl	Configure channel dial type	7-9
cnfchec	Configure channel echo canceller	7-12
cnfchgn	Configure channel gain insertion	7-14
cnfcond	Configure conditioning template	7-16
cnfcondsc	Configure connection description	7-18
cnfrcvsig	Configure receive signalling	7-20
cnfvchtp	Configure voice channel interface type	7-22
cnfxmtsig	Configure transmit signalling	7-26
delcon	Delete connection	7-28
dspchcnf	Display channel configuration	7-30
dspchdlcnf	Display channel dial type configuration	7-32
dspchec	Display channel echo canceller	7-34
dspcon	Display connection	7-36
dspcond	Display conditioning template	7-38
dspcons	Display connections	7-40
dspconst	Display connection state	7-43
dspsigqual	Display signal qualifiers	7-45
dspsvcst	Display voice SVC statistics	7-47
prtchcnf	Print channel configuration	7-49
prtchdlcnf	Printdial type configuration	7-50
prtcons	Print connections	7-51

addcon

Establishes the channel connections between nodes in the network. Connections can be added to any node slot equipped with a CDP or CVM. Before adding the connection, determine the compression type to be used for the connection. The table in this command definition delineates each compression type.

When connecting sets of voice channels, you do not have to specify the full channel set for this end of the connection. You only have to designate the first channel in the set. For example, to connect channels 13.1-10 at alpha to channels 12.5-14 at beta, you could enter "addcon 13.1-10 beta 12.5". In this example, channel 13.1 is connected to channel 12.5, channel 13.2 is connected to channel 12.6 and so on.

Connections are added with default "class of service" (COS) values, which may be changed using the **cnfcos** command. The default values are: COS = 8 for **c**, **v**, and **a** connections, COS = 0 for **t** and **p** connections. Entering "***s**" to avoid routing a voice connection over a satellite path avoids the long delays typical with these connections. The other choices for route avoidance are not generally useful for voice connections. The following are possible connections:

Table 7-2

Card	Conn	Compression	Description
CDP or CVM	a32 a24 a16	ADPCM only	Uses ADPCM only. Can select 32 Kbps, 24 Kbps, or 16 Kbps compression. Compressed code avoids all zeros and can be used on lines with no other zero code suppression techniques. Modified 16 Kbps compression.
	a16z	ADPCM on zero suppressed lines	Standard 16 Kbps ADPCM only. Compressed code can have strings of zeros and must be used on lines that do not use ZCS (for example, that use B8ZS).
	a32d c32d	ADPCM for FAX	Specifies 32 Kbps specially optimized for FAX. c32d incorporates Voice Activity Detection (VAD).
	c32 c24 c16	VAD and ADPCM on zero suppressed lines	Uses both ADPCM and VAD. Can select 32 Kbps, 24 Kbps, or 16 Kbps ADPCM compression. Compressed code avoids all zeros and can be used on lines with no other zero code suppression techniques. 16 Kbps compression is non-standard.
	c16z	VAD and ADPCM	Uses a standard 16 Kbps ADPCM compression and Voice Activity Detection. Similar to a16z. Compressed code can have strings of zeros and must be used on lines that do not use ZCS (for example, that use B8ZS).
	p	PCM only	A p-type connection carries 64 Kbps PCM voice and supports A-law or mu-law encoding and conversion, level adjustment (gain/loss), and signalling.
	v	PCM and VAD.	No ADPCM compression but VAD enabled. Approximately 2:1 compression.
	t	Transparent	Connection carrying 64 Kbps clear channel data traffics.

The difference between a PCM (p) connection and a transparent (t) connection is that the D4 frame signalling bits are identified and processed as signalling information with PCM connections. PCM connections permit gain adjustment to be applied to the connection. Transparent connections treat all bits, including signalling bits, as data bits and disables any gain adjustment conversion that may be specified.

The number contained in the CDP or CVM type indicates the ADPCM rates in Kbps. The "z" suffix indicates that 00 code level is used. Type a16 or c16 uses only 01, 10, and 11 binary codes to avoid long strings of zeros. Type a16z and c16z connections use the 00 code and are automatically configured to avoid ZCS lines (*Z).

Full Name

Add a connection

Syntax

addcon <parameters> <optional parameters>

Related Commands

delcon, dncon, dspcon, dspcons, upcon

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

addcon 7.2 beta 8.2 v

Description

Add a "v" type voice connection. Channel 7.2 on node alpha will be connected to channel 8.2 on node beta. The connections are highlighted on the screen. A prompt appears asking you to confirm these connections.

Connection type is "v", "class of service" (COS) is "2" (See **cnfcos** command), compression is VAD, and ownership is local. Because the **addcon** command was entered at the node alpha, the node alpha is considered the "owner" of the connection.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:37 PST

 Local      Remote      Remote                                      Route
 Channel    NodeName    Channel    State  Type    Compression  Code Avoid COS O
 7.1beta8.1Ok2567/80L
 8.1.100gamma6.1.200Okfr0L
 5.2.400delta6.2.302Okfr0L
 7.2beta8.2OkvVAD2L

Last Command: addcon 7.2 beta 8.2 v

Next Command:
```

Table 7-3 addcon – Parameters

Parameter	Description
local channel	Specifies the local channel or set of channels to connect in the following format. Brackets indicate that a range of channels can be specified. slot.chan [–chan] | slot.port.dlci | slot.vpi.vci
node	Specifies the name of the node at the other end of the connection. For a DACS-type connection (where channels on a node are connected to channels on the same node), use the local node name.
remote channel	Specifies the local channel or set of channels to connect in the following format. Brackets indicate that a range of channels can be specified. slot.chan [–chan] | slot.port.dlci | slot.vpi.vci | slot.port.vpi.vci
type	Specifies the voice connection type. Refer to the command description for valid voice connection types on the CDP or CVM card and on compression types.

Table 7-4 addcon – Optional Parameters

Parameter	Description
avoid	Specifies the type of trunk for the connection to avoid. The default is no avoidance. The choices are: *s avoid satellite trunks. *t avoid terrestrial trunks. *z avoid trunks using zero code suppression techniques that modify any bit position to prevent long strings of zeros.

cnfchadv

Enables the Adaptive Voice feature for individual channels. The Adaptive Voice feature must also be equipped at each node terminating the connection. If Adaptive Voice is not equipped for given nodes in the network, the channel specific Adaptive Voice disable/enable command (**cnfchadv**) has no effect at these nodes.

If the Adaptive Voice feature is enabled for a channel with a “c” or “v” connections, VAD is automatically disabled on that channel when trunk bandwidth is available and enabled when trunk bandwidth is needed. If the Adaptive Voice feature is not enabled for a channel with a “c” or “v” connections, VAD is always turned on for that channel. In order for a voice (“c” or “v”) connection to use Adaptive Voice, both ends must have Adaptive Voice enabled with the **cnfchadv** command.

Full Name

Configure channel adaptive voice

Syntax

cnfchadv <channel(s)> <y/n>

Related Commands

dspchcnf

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfchadv 14.1 e

Description

Enable Adaptive Voice for channel 14.1.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:43 PST

           %    Adaptive  Gain (dB)   Dial                          OnHk      Cond
Channels  Util  Voice     In  Out     Type   Interface Type    A  B  C  D  Crit.
14.1-24    40   Enabled    0    -    Inband  Unconfig          ?  ?  -  -    a




Last Command: cnfchadv 14.1 e


Next Command:
```

Table 7-5 cnfchadv – Parameters

Parameter	Description
channel	Specifies the channel or range of channels over which to enable/disable Adaptive Voice.
e	Enables Adaptive Voice (default setting).
d	Disables Adaptive Voice.

cnfchdl

Configures the dial type for a channel or set of channels. The dial type may be inband, pulse, or user configured. The user configured option allows non-default timing values to be used. The parameters associated with the **cnfchdl** command are timing constants used to ensure that signalling pulses are not distorted in time by transmission through the network.

- Dial type determines the signalling message timing for a connection. Dial type is ignored for DS0 data connections.
- When you add an inband or pulse dial type to a channel, the channel configuration screen appears, showing the designated dial types for each channel.
- When you add a user-configured dial type, a more detailed screen appears, showing the dial type as well as the signalling delay, minimum wink, interdigit times, and playout delay.

If inband is chosen, the node assumes that the A and B bits are not used for loop-disconnect dialing. Therefore, any change in signalling bit status is sent as a packet to the far end of the connection.

If pulse is chosen, the transmitting node waits (normally 72 msec) after an A or B bit transition for another transition to arrive. If one does, the new transition is incorporated into the same signalling packet that is sent to the far end of the connection. This increases the delay of the signalling transition across the network, but decreases the amount of trunk bandwidth used for signalling.

If the default timings are not correct for the network, they may be set with the user configured option. The dialing type should be set correctly. If a connection designated pulse is used for inband signalling, delay across the network will be greater than necessary. If a connection designated inband is used for pulse signalling, the relative timing of signalling transitions may be lost, distorting the pulses.

Full Name

Configure dial type for channels

Syntax

cnfchdl <channel(s)> <dial_type> [<sig_delay> <min_wink> <int_dig_time> <playout delay>]

Related Commands

dspchcnf, dspchdlcnf

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfchdl 14.1 p

Description

Configure the dial type of channel 14.1 to pulse.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2   Mar. 16 1996 09:46 PST

           %    Adaptive  Gain (dB)   Dial                          OnHk     Cond
Channels  Util  Voice     In  Out     Type   Interface Type    A  B  C  D  Crit.
14.1       40   Enabled    0    -    Pulse   Unconfig          ?  ?  -  -    a
14.2-24    40   Enabled    0    -    Inband  Unconfig          ?  ?  -  -    a




Last Command: cnfchdl 14.1 p


Next Command:
```

Table 7-6 cnfchdl – Parameters

Parameter	Description
channel	Specifies the channel or range of channels over which to configure dial type.
dial type	Specifies the dial type to assign. The three possible dial types are: i inband p pulse u user configured Inband is the default dial type. If you designate "**u**" for a user-configured dial type, you are prompted, as applicable, from among the following: sig delay, min wink, interdigit time, and playout delay.

Table 7-7 cnfchdl – Optional Parameters

Parameter	Description
signalling delay	Specifies the signalling delay, in milliseconds, to assign to the user-configured dial type. The range is from 12 to 96. The value entered is rounded to the closest multiple of 1.5 ms.
minimum wink	Specifies the minimum wink, in milliseconds, to assign to the user-configured dial type. The range is from 3 to 765. The value entered is rounded down to the nearest whole multiple of 3 ms. (This is not applicable to CDP or CVM channels.)
interdigit time	Specifies the interdigit time, in milliseconds, to assign to the user-configured dial type. The range is from 3 to 765. The value entered is rounded down to the nearest whole multiple of 3 ms. This is not applicable to a CDP or CVM channel.
playout delay	Specifies the signaling delay, in milliseconds, assign to the user-configured dial type. The range is from 12 to 96. The value entered is rounded to the closest multiple of 1.5 ms.

cnfchec

Configures the Integrated Echo Canceller channel parameters associated with the specified voice channel. CAS and DATA channels are not configured.

Full Name

Configure channel echo canceller

Syntax

cnfchec <chan> <ec> <erl> <td> <convergence> <nlp>

Related Commands

dspchec

Attributes

Privilege	1
Jobs	No
Log	No
Node	IPX, IGX
Lock	Yes

Example 1

cnfchec 7.1 e h e e e

Description

Enable and configure the CDP or CVM card Echo Canceller in channel 7.1 with high echo loss tone disabled, convergence enabled, and non-linear processing enabled

System Response

```
pubsipx1       TN    StrataCom       IPX 16    8.2    July 27 1996 06:06 PDT

          Echo     Echo Return    Tone      Conver-  Non-Linear Voice
Channels  Cancel   Loss (.1 dBs)  Disabler  gence    Processing Tmplt
7.1       Enabled  High  60       Enabled   Enabled  Enabled    USA
7.2-31    Disabled High  60       Enabled   Enabled  Enabled    USA




Last Command: cnfchec 7.1 e h e e e

Next Command:
```

Table 7-8 chfchec – Parameters

Parameter	Description
channel	Specifies the channel or range of channels in which the CDP or CVM reside.
echo canceller	Enable or disable echo canceller. An “e” indicates enable; a “d” indicates disable.
echo return loss	Sets the echo return loss as high/low). An “h” indicates high; a “l” indicates low.
tone disabler	Enables or disables tone disabler. An “e” indicates enable; a “d” indicates disable.
convergence	Enables or disables tone disabler. An “e” indicates enable; a “d” indicates disable
non-linear processing	Enables or disables non-linear processing. An “e” indicates enable; a “d” indicates disable.

cnfchgn

Configures the amount of gain inserted by the IPX or IGX mode for a given circuit line channel or range of channels. Gain can be configured between +6 dB and -8 dB. The input gain is inserted at the receive side of a CDP or CVM circuit line and is therefore applied before the signal is packetized by the CDP or CVM. The output gain is inserted at the transmit side of a CDP or CVM circuit line and is applied after the signal has been depacketized by the CDP or CVM. Gain is ignored for channels used in data connections.

Full Name

Configure gain insertion for channels

Syntax

cnfchgn <channel(s)> <input_gain> [<output_gain>]

Related Commands

dspchcnf

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfchgn 14.1 -4 2

Description

Configure input gain of –4 db and an output gain of +2 dB for channel 1 of circuit line 1.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:52 PST

           %    Adaptive  Gain (dB)   Dial                          OnHk      Cond
Channels  Util  Voice     In  Out     Type   Interface Type    A  B  C  D  Crit.
14.1       40   Enabled   -4    -     User    Unconfig          ?  ?  -  -    a
14.2-24    40   Enabled    0    -     Inband  Unconfig          ?  ?  -  -    a




Last Command: cnfchgn 14.1 -4 2


Next Command:
```

Table 7-9 cnfchgn – Parameters

Parameter	Description
channel	Specifies the channel or range of channels in which to configure gain.
gain	Specifies the gain, in decibels, to assign to the channel. The range is –8 dB to +6 dB.

cnfcond

Creates a conditioning template that specifies the bit patterns to be transmitted for each of the T1 and E1 timeslots and their A, B, C, and D signalling bits while the channel is in the failed state. Its purpose is to prevent the signalling bits from returning to the idle (on-hook) bit pattern during a channel failure and to force a known bit pattern (usually busy). If a connection fails and the template has been specified as the conditioning template for the failed connection, the data parameter in the template is transmitted in the channels timeslot, and the A, B, C, and D bits are processed according to the specified parameters.

A two-character sequence in the id parameter field identifies the template. The 'Data Pattern' field displays the pattern transmitted in the channels timeslot. The 'Signalling Pattern' field displays the pattern transmitted in the channel's A, B, C, and D signalling bit positions. Each of the A, B, C, and D signalling bits are specified independently and may be held high or low, or toggled to the on-hook condition for a short time, then off-hook (this process is called a wink). The timing of toggling the bits can be controlled by specifying the duration of winks in increments of 50 msec.

A typical failure response is for the node to:

1. Transmit idle characters in the channel's timeslot
2. Signal off-hook for a period of 2 seconds
3. Return permanently to the on-hook condition.

Full Name

Configure conditioning template

Syntax

cnfcond <id> <data> <A bit> <B bit> <C bit> <D bit>

Related Commands

cnfvchtp, dspchcnf, dspcond

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfcond lm 01010100 0(40)/1 1 1 1

Description

Configure the conditioning template.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:59 PST

Conditioning criterion lm:

  Data Pattern
  01010100 - E1/T1



  Signalling Pattern
  A            0(40)/1
  B            1
  C            1
  D            1



Last Command: cnfcond lm 01010100 0(40)/1 1 1 1


Next Command:
```

Table 7-10 cnfcond – Parameters

Parameter	Description
id	Specifies the identifier of conditioning template. The identifier may be any two character combination of lowercase letters (a-z) and numeric digits (0-9).
data	Specifies an eight-bit binary string to use instead of the voice in the event the channel fails.
A bit B bit C bit D bit	Specifies the signalling sequence to be transmitted for these bits in the event of channel failure. Each of these four parameters may be set independently. Each element in the sequence is expressed as a 1 or 0 (to indicate the logic state of the line) followed by a number in parenthesis to indicate the duration that state is to be held on the channel. The duration number is expressed in 50 msec intervals. For example, if <B> is set to 1(40); upon a channel failure, the B bit is held to the 1 state for a period of 2 seconds (40 x 50 msec = 2 seconds). If the duration value is omitted, the state is held permanently. So <C> set to 0 would cause the C bit to be held permanently to 0 during a failed channel condition. A sequence of states can be specified by entering several states separated by slash symbols. A maximum of 5 states in sequence can be specified. For example, <A> set to 1(40)/0(20)/1 would cause, upon a failure of the c

cnfcondsc

Assigns a user-specified, reference description to a connection. The connection descriptor is independently configurable at each end of a connection**.** To remove a descriptor, enter this command and specify a null descriptor. A descriptor cannot be deleted in a job, just reconfigured. The **dspcon** and **dspcons +d** commands display any existing connection descriptors.

Full Name

Configure connection description

Syntax

cnfcondsc <channel> <descriptor>

Related Commands

dspcon, dspcons

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX, BPX
Lock	Yes

Example 1

cnfcondsc 5.1 gracie’s_phone

Description

Assign the descriptive name “gracie’s_phone” to channel 5.1. To assign this descriptor at the other end of the connection, **vt** to the other end of the connection, enter **cnfcondsc**, and specify the name “gracie's_phone.“

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2     Mar. 15 1996 15:40 PST

Conn:  5.1        beta        25.1        256 7/8    Desc: gracie's_FAX


Owner: REMOTE  Restriction: NONE  COS: 0                    Status: OK
Compression: NONE

Path:     alpha   10-- 7beta
Pref:     Not Configured


alpha 5.1                                          beta 25.1
SDP:   OK                                          SDP:   OK
SDI:   OK                                          SDI:   OK
Clock: OK                                          Clock: OK

Last Command: cnfcondsc 5.1 gracie's_phone


Next Command:
```

Table 7-11 cnfcondsc – Parameters

Parameter	Description
channel	Specifies the local voice, data, frame relay, or ATM channel to describe.
descriptor	Specifies a string of up to 20 characters. The descriptor cannot begin with a number, and no spaces are allowed.

cnfrcvsig

Configures the receive signalling bits for a CDP or CVM voice channel. Channel signalling bit options are T (transparent), 0, 1, or I (invert). If signalling is set to “not used” (-) by **cnfchtp**, the following condition is maintained: A=1, B=1, C=0, D=1.

Full Name

Configure receive signalling

Syntax

cnfrcvsig <channel(s)> <[A/]Conv> <[B/]Conv> <[C/]Conv> <[D/]Conv>

Related Commands

cnfxmtsig, dspsigqual

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfrcvsig 8.1 A/T B/0 C/I D/I

Description

Configure channel 8.1 signalling to transparent for the A bit, inhibited for the B bit, inverted for the C and D bits.

System Response

```
beta           TRM   YourID:1        IPX 32    8.2    Mar. 23 1996 11:36 MST

                                 Signalling Qualifiers
From 8.1    TXAbit  TXBbit  TXCbit  TXDbit  RXAbit RXBbit RXCbit RXDbit
8.1         T       T       T       T       T      0      I      I
8.2-31      T       T       T       T       T      T      T      T




Last Command: cnfrcvsig 8.1 A/T B/0 C/I D/I


Next Command:
```

Table 7-12 cnfrcvsig – Parameters

Parameter	Description
channel	Specifies the channel or range of channels for which to configure receive signalling

Table 7-13 cnfrcvsig – Optional Parameters

Parameter	Description
A/	Specifies the conversion applied to the A bit. <Conv> can be one of: 1: bit is asserted. 0: bit is inhibited. T: bit is passed transparently. I: bit is inverted.
B/	Specifies the conversion applied to the B bit.
C/	Specifies the conversion applied to the C bit.
D/	Specifies the conversion applies to the D bit.

cnfvchtp

Configures an interface signalling type for a voice channel. Most standard signalling types are maintained by the node, but a custom template may be built by the user. Entering the **cnfvchtp** command without a specific interface number, the system presents you with a list of valid interface types and their associated onhook and conditioning information.

To assign an interface type (and its associated onhook and conditioning information) to the channel or set of channels, enter the number of the desired interface type. As mentioned previously, type "1" requires user configuration. Interface type is ignored for "d" type connections.

Full Name

Configure interface type for voice channels

Syntax

cnfvchtp <channel(s)> <type> [<A> <B> <C> <D> <cond_code>]

Related Commands

cnfchgn, cnfchdl, dspchcnf, dspconst

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfvchtp 14.1 1

Description

Configure the interface type for channel 14.1 to user configured

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 1:06 PST

           %    Adaptive  Gain (dB)  Dial                          OnHk     Cond
Channels  Util  Voice     In  Out    Type      Interface Type     A  B  C  D  Crit.
14.1      40    Enabled   -4    -     User      Unconfig           ?  ?  -  -    a
14.2-24   40    Enabled    0    -     Inband    Unconfig           ?  ?  -  -    a




Last Command: cnfvchtp 14.1 1


Next Command:
```

Example 2

cnfvchtp 15.5-8 1 X X - - b

Description

Configure a user configurable interface type for channel 15.1 to 15.8. The channel configuration screen shows that channels 5-8 of circuit line 15 now has a user-configured interface type with an A-bit on-hook value of "X", a B-bit on-hook value of "X", an C-bit on-hook value of not used, D-bit on-hook value of not used, and conditioning template b.

Table 7-14 cnfvchtp – Parameters

Parameter	Description
channel	Specifies the channel or range of channels for which to configure the interface type.

<table>
<tr><th>Parameter</th><th>Description</th></tr>
<tr><td>interface type</td><td>Specifies the number of the interface type to assign to the channel or range of channels. These types are listed below. The Onhook column has A bits on the left and B bits on the right. The conditioning column has different types of conditioning specified. If you designate interface type number 1 to indicate a user-configured interface type, the system prompts for: onhook A, onhook B, onhook C (if applicable), onhook D (if applicable), conditioning A, conditioning B, conditioning C (if applicable), conditioning D (if applicable), and conditioning template information.
<table>
<tr><th>Interface Number</th><th>Interface Type</th><th>Onhook</th><th>Conditioning</th></tr>
<tr><td>1</td><td>User Config</td><td></td><td></td></tr>
<tr><td>2</td><td>Unconfig</td><td>? ? - -</td><td>a</td></tr>
<tr><td>3</td><td>No Sig</td><td>? ? ? ?</td><td>a</td></tr>
<tr><td>4</td><td>Force Sig</td><td>? ? - -</td><td>a</td></tr>
<tr><td>5</td><td>2W E&M</td><td>0 X - -</td><td>a</td></tr>
<tr><td>6</td><td>4W E&M</td><td>0 X - -</td><td>a</td></tr>
<tr><td>7</td><td>FXO</td><td>11 - -</td><td>b</td></tr>
<tr><td>8</td><td>FXS G/S</td><td>01 - -</td><td>c</td></tr>
<tr><td>9</td><td>FXS L/S</td><td>0 X - -</td><td>d</td></tr>
<tr><td>10</td><td>DPO</td><td>0 X - -</td><td>a</td></tr>
<tr><td>11</td><td>DPT</td><td>0 X - -</td><td>a</td></tr>
<tr><td>12</td><td>RPO</td><td>0 X - -</td><td>a</td></tr>
<tr><td>13</td><td>RPT</td><td>0 X - -</td><td>a</td></tr>
<tr><td>14</td><td>SDPO</td><td>0 X - -</td><td>a</td></tr>
<tr><td>15</td><td>DX</td><td>0 X - -</td><td>a</td></tr>
<tr><td>16</td><td>ETO</td><td>? ? - -</td><td>e</td></tr>
<tr><td>17</td><td>PLAR</td><td>? ? - -</td><td>d</td></tr>
<tr><td>18</td><td>PLR</td><td>0 X - -</td><td>a</td></tr>
<tr><td>19</td><td>RD</td><td>? ? - -</td><td>a</td></tr>
<tr><td>20</td><td>R1 (SOCOTEL)</td><td>0 - - -</td><td>e</td></tr>
<tr><td>21</td><td>SSDC5A</td><td>1 1 0 1</td><td>f</td></tr>
<tr><td>22</td><td>R2 (backward)</td><td>1 1 - -</td><td>e</td></tr>
<tr><td>23</td><td>R2 (forward)</td><td>1 0 - -</td><td>d</td></tr>
</table>
When the IPX or IGX receives A, B, C, and D bits corresponding to the onhook values, that channel is known to be onhook. If the A, B, C, and D bits do not correspond to the onhook values, that channel is known be offhook</td></tr>
<tr><td>onhook A</td><td>A-bit value for the onhook state of a channel or set of channels.</td></tr>
<tr><td>onhook B</td><td>B-bit value for the on-hook state of a channel or set of channels.</td></tr>
<tr><td>onhook C</td><td>C-bit value for the on-hook state of a channel or set of channels.</td></tr>
</table>

Parameter	Description
onhook D	D-bit value for the on-hook state of a channel or set of channels. Possible values are: 1 high 0 low X don't care ? don't know - not used
conditioning template	One of many predefined or user-defined conditioning templates in the range of 00000000 to 11111111. (See **dspcond** and **cnfcond** commands). Each interface type, except for option 1, has a predetermined conditioning template associated with it. These represent the A, B, C, D bit values as well as the substitute PCM voice sample sent to the attached equipment in case the voice connection fails for any reason.

cnfxmtsig

Allows the node to pass A, B, C, and D channel signalling bits through unchanged, or to invert, or hold them at a given value for a CDP or CVM circuit line. It affects signalling bits in the transmit direction (to the PBX or channel bank) in an E1 system. The command configures the transmit signalling. Channel signalling bit options are T (transparent), 0, 1, or I (invert). If signalling is set to "not used" (-) by **cnfchtp**, the following is maintained: A=1, B=1, C=0, D=1.

Full Name

Configure transmit signalling

Syntax

cnfxmtsig <channel(s)> <[A/]Conv> <[B/]Conv> <[C/]Conv> <[D/]Conv>

Related Commands

cnfrcvsig, dspsigqual

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

cnfxmtsig 8.1 a/1 b/0 c/1 d/t

Description

Configure the transmit signalling for channel 8.1 to inverted for the A bit, inhibited for the B bit, asserted for the C bit and transparent for the D bit.

System Response

```
beta           TRM   YourID:1        IPX 32    8.2    Mar. 23 1996 11:38 MST

                                 Signalling Qualifiers
From 8.1    TXAbit  TXBbit  TXCbit  TXDbit  RXAbit RXBbit RXCbit RXDbit
8.1         1       0       1       T       T      0      I      I
8.2-31      T       T       T       T       T      T      T      T









Last Command: cnfxmtsig 8.1 A/1 B/0 C/1 D/t


Next Command:
```

Table 7-15 cnfxmtsig – Parameters

Parameter	Description
channel	Specifies the channel or range of channels for which to configure receive signalling

Table 7-16 cnfxmtsig – Optional Parameters

Parameter	Description
A/	Specifies the conversion applied to the A bit. <Conv> can be one of: 1: bit is asserted. 0: bit is inhibited. T: bit is passed transparently. I: bit is inverted.
B/	Specifies the conversion applied to the B bit.
C/	Specifies the conversion applied to the C bit.
D/	Specifies the conversion applies to the D bit.

delcon

Removes voice connections from a network. Connections can be deleted from the node at either end of the connection. Do not delete a connection when the node at the other end of the connection is unreachable. The unreachable node does not recognize the deletion. It is especially important not to delete a connection to an unreachable node then connect the deleted channel to another node.

Full Name

Delete connection

Syntax

delcon <channel(s)>

Related Commands

addcon, dspcon, dspcons

Attributes

Privilege	1–2
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	Yes

Example 1

delcon 14.1

Description

Delete connection 14.1. The proposed deletions are highlighted, a prompt requests confirmation of the deletion. Enter a “y” to delete the highlighted connections or an “n” not to delete. The example shows the screen after deletion of 14.1.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:35 PST

 Local      Remote      Remote                                      Route
 Channel    NodeName    Channel    State  Type    Compression  Code Avoid COS O
 5.1        beta        25.1       Ok     256                 7/8         0  L
 9.1.100    gamma       8.1.200    Ok     fr                              0  L
 9.2.400    beta        19.2.302   Ok     fr                              0  L




Last Command: delcon 14.1


Next Command:
```

Table 7-17 delcon – Parameters

Parameter	Description
channel(s)	Specifies a channel or range of channels to delete. The format for channel is: slot.channel For a range of channels, separate the first and last channel with a dash (-).

dspchcnf

Displays configuration details for voice, data, or frame relay channels. **Voice** channels display: Utilization, Adaptive Voice, Gain, Dial Type, Interface Type, and OnHook and Conditioning specifications. **Data** channels display: Maximum EIA Update Rate, Percentage Utilization, DFM Pattern Length, and DFM Status. **Frame relay** channels display: Minimum Information Rate, VC Queue Buffer Size or Bc, Peak Information Rate or Be, Maximum Credits, ECN Queue Buffer Size, Quiescent Information Rate, ForeSight enabled or not, and Percentage Utilization.

If the channel specified is a voice channel, the display includes configuration details for all channels on the specified circuit line starting with the specified channel. If the channel specified is a data channel, the display includes configuration details for all channels on the specified data card (CDP or CVM, LDP, or SDP or HDM) starting with the specified channel. If the channel specified is a frame relay channel, the display includes configuration details for all channels on the specified FRP port starting with the specified channel. If you specify a frame relay port only with no DLCI, the display includes configuration details for all channels on the frame relay port specified. The display will indicate either StrataCom parameters or standard frame.

Full Name

Display channel configurations

Syntax

dspchcnf [channel]

Related Commands

cnfchadv, cnfchdfm, cnfchdl, cnfcheia, cnfchgn, cnfchtp, cnfchutl, cnffrcon

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dpchcnf 14.1

Description

Display the configuration values of circuit line 14.1.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 10:06 PST

           %    Adaptive  Gain (dB)   Dial                          OnHk      Cond
Channels  Util  Voice     In  Out     Type   Interface Type    A  B  C  D  Crit.
14.1       40   Enabled   -4    -     User    Unconfig          ?  ?  -  -    a
14.2-24    40   Enabled    0    -     Inband  Unconfig          ?  ?  -  -    a




Last Command: dspchcnf 14.1


Next Command:
```

Table 7-18 dspchchf – Parameters

Parameter	Description
start channel	Specifies the channel to begin the display. Format is as follows: slot.channel

dspchdlcnf

Displays dial type configurations for all channels on a circuit line as follows:

Table 7-19

Channel Type	Dial Type	Description
All	Dial Type	Inband, pulse, or user configured.
User Configured	Signalling delay	The signalling delay, in milliseconds, assigned to the channel. The range is from 12 to 96.
	minimum wink	The minimum wink assigned to the channel. The range is 3–765 millisecs. (This is not applicable to a CDP or CVM channel)
	interdigit time	The interdigit times assigned to the channel. The range is 3–765 millisecs. (This is not applicable to a CDP or CVM channel.)
	playout delay	The signaling delay assigned to the channel. The range is 12–96 millisecs.

Full Name

Display dial type configurations for channels

Syntax

dspchdlcnf [start_channel]

Related Commands

cnfchdl

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dpchdlcnf 14.1

Description

Display the dial type configuration for all channels beginning with 14.1.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:45 PST


Channels  Type   Sig Delay   Min Wink  IntDigit Time  Playout Delay
14.1-24   Inband      12        141           300           -









Last Command: dspchdlcnf 14.1


Next Command:
```

Table 7-20 dspchdlcnf

Parameter	Description
start channel	Specifies the channel with which to begin the display.

dspchec

Displays the Integrated Echo Canceller channel parameters associated with the specified voice channel(s). CAS and DATA channels are not displayed. The specified channels must be on a CDP or CVM. The following lists the displayed parameters and possible values.

Table 7-21

Echo Cancel	Enable/Disable
Echo Return Loss (.1 dBs)	High/low (loss is in units are 0.1 dBs)
Tone Disabler	Enabled/disabled
Convergence	Enabled/disabled
Non-Linear Processing	Enabled/disabled

Full Name

Display CDP or CVM voice echo canceller configuration

Syntax

dspchec <channel(s)>

Related Commands

cnfchec

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dpchec 7.1

Description

Display the echo canceller configuration for channel 7.1.

System Response

```
pubsipx1       TN    StrataCom       IPX 16    8.2    July 27 1996 06:10 PDT

          Echo     Echo Return    Tone      Conver-  Non-Linear Voice
Channels  Cancel   Loss (.1 dBs)  Disabler  gence    Processing Tmplt
7.1       Enabled  High  60       Enabled   Enabled  Enabled    USA
7.2-31    Disabled High  60       Enabled   Enabled  Enabled    USA




Last Command: dspchec 7.1


Next Command:
```

Table 7-22 dspchec – Parameters

Parameter	Description
channel	Specifies the channel or channels to display.

dspcon

Displays connection information for a specified channel. The information displayed includes:

- The channel numbers for both the local and remote ends of the connection.
- The node names at both ends of the connection.
- The routing restriction.
- The class of service (COS) of the connection.
- The connection route. listing the end nodes and any intermediate nodes.
- The preferred route for the connection (if configured).
- The status of the cards associated with the connection.
- Any Y-cable conflicts.
- The compression status (VAD on or off, ADPCM on or off, DFM on or off, frame relay compression on or off).
- The connection descriptor (if configured).

The status that may be displayed includes:

OK	Connection OK
FAILED	Connection failed

Full Name

Display connection

Syntax

dspcon <channel>

Related Commands

cnfchec

Attributes

Privilege	1–6
Jobs	Yes
Log	Yes
Node	IPX, IGX
Lock	No

Example 1

dspcon 5.1.100 pubsipx3 5.1.200

Description

Display connection information for 5.1.

System Response

```
pubsipx1       TN    StrataCom       IPX 16    8.2    July 24 1996 21:36 PDT

Conn:  5.1.100           pubsipx3    5.1.200            fr
   MIR       CIR    VC Q Depth      PIR      Cmax   ECN QThresh    QIR    FST
 4.8/9.6   4.8/9.6  65535/65535   128/256     8/10  65535/65535 19.2/9.6   n
% Util:  90/100
Owner: LOCAL  Restriction: NONE  COS: 0                    Status: OK
Group: NONE  Priority: L  TestRTD: 0 msec

Path:   pubsipx1   8--   6pubsipx3
Pref:   Not Configured



pubsipx1  FRP:   OK                    pubsipx3  FRP:   OK
          FRI:   OK                              FRI:   OK


Last Command: dspcon 5.1.100 pubsipx3 5.1.200


Next Command:
```

Table 7-23 dspcon – Parameters

Parameter	Description
channel	Specifies the channel for which to display connection details. The format for *channel* is *slot.channel.dlci*. The command displays connection information for one channel at a time.

dspcond

Displays the signalling bit patterns from the specified template. Refer to the description of the **cnfcond** command for the purpose of the conditioning template.

Full Name

Display conditioning criteria

Syntax

dspcond <identifier>

Related Commands

cnfchtp, cnfcond

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dspcond a

Description

Display the conditioning template identified as “a.”

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:56 PST

Conditioning criterion a:

  Data Pattern
  01010100 - E1
  01111111 - T1


  Signalling Pattern
  A            0(40)/1
  B            1
  C            1
  D            1



Last Command: dspcond a


Next Command:
```

Table 7-24 dspcond – Parameters

Parameter	Description
identifier	Specifies the identifier of the template.

dspcons

Displays a summary of the connections on an IPX or IGX node. Status that may be displayed includes

OK	Connection OK
FAILED	Connection failed

The fields displayed in the **dspcons** screens are the following:

Table 7-25

Fields	Description
Local Channel	The connection's channel at this node.
Remote Node Name	The name of the node at the other end of the connection.
Remote Channel	The connection's channel at the remote node.
State	The state of the connection(s) as follows: • OK — Routed • Down — Downed • OK Downed — Waiting for onhook to occur to allow courtesy down to take place for connection(s) that have been courtesy downed using the dncon command. • Failed — Unrouted, but trying
Type	The type of connection (v = voice, d = data, fr = frame relay, atfr = ATM to frame relay interworking, atfst = ATM to frame relay interworking with ForeSight, -fail = failed connections; data rate in kbps for data)
Route Avoid	The type of lines to avoid when routing (satellite lines, terrestrial lines, lines with zero code suppression).
Compression	The type of compression applied to the connection (PCM, PCM and VAD, ADPCM, VAD and ADPCM for voice connections), (DFM for data connections).
COS	The Class Of Service.
Owner	The end of the connection in control of re-routing.
Descriptor	The connection descriptor string (if +d option specified).
Loopback	A connection with a local loopback is indicated by a right parenthesis symbol between the "Local Channel" and "Remote NodeName" columns. A frame relay connection with a port loopback is indicated by a right bracket symbol between the "Local Channel" and "Remote NodeName" columns. A connection with a remote loopback is indicated by a right parenthesis symbol before the channel number in the "Remote Channel" column.
Local/Remote A-bit	A-bit status on the local and remote nodes if -abit option selected. Note that -abit is incompatible with -v, -d, and +d.

Full Name

Display connections

Syntax

dspcons [-v | -d | -a | -atfr | -g | +d | -abit | fabit | -fail]

Related Commands

addcon, cnfchadv, chfchdfm, cnfcondsc

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dspcons

Description

Display a summary of all connections.

System Response

```
pubsipx1       TN    StrataCom       IPX 16    8.2    July 24 1996 23:04 PDT

 Local          Remote      Remote
 Channel        NodeName    Channel         State  Type      Compress  Code COS
 5.1.100        pubsipx3    5.1.200         Ok     fr                      0









Last Command: dspcons

Next Command:
```

Example 2

dspcons -abit

Description

Display connections and abit status.

System Response

```
sw53           VT    StrataCom       BPX 15    8.2    July 25 1996 11:52 GMT

 Local           Remote      Remote                    Local     Remote
 Channel         NodeName    Channel         State      A-bit     A-bit
 4.1.2.1         sw53        4.3.2.1         Ok        OK        OK
 4.1.2.2         sw53        4.3.2.2         Ok        OK        OK
 4.1.2.3         sw53        4.3.2.3         Ok        OK        OK
 4.1.2.4         sw53        4.3.2.4         Ok        OK        OK
 4.1.2.5         sw53        4.3.2.5         Ok        OK        OK
 4.1.2.6         sw53        4.3.2.6         Ok        OK        OK
 4.1.2.7         sw53        4.3.2.7         Ok        OK        OK
 4.1.2.8         sw53        4.3.2.8         Ok        OK        OK
 4.1.2.9         sw53        4.3.2.9         Ok        OK        OK
 4.1.2.10        sw53        4.3.2.10        Ok        OK        OK
 4.1.2.11        sw53        4.3.2.11        Ok        OK        OK
 4.1.2.12        sw53        4.3.2.12        Ok        OK        OK
 4.1.2.13        sw53        4.3.2.13        Ok        OK        OK

This Command: dspcons -abit


Continue?
```

Table 7-26 dspcons – Optional Parameters

Parameter	Description
start channel	Specifies the channel to begin the display. The start channel is specified as follows: slot.channel | slot.port.dlci | slot.vpi.vci
node name	Specifies that only connections to this remote node from the local note be displayed. If no "nodename" is designated, connections from the local node to all other nodes are displayed.
connection type	Specifies that only connections of this type be displayed. If no "connection type" is designated, all connections appear. When you enter the connection type on the command line, precede it with a hyphen (-). Valid connection types to display are: -v Displays only voice connections. -d Display only data connections. -f Displays frame relay connections. -abit Shows A-bit (nni) status. -fabit Shows connections with failed A-bit (nni) status.
+d	Causes the display to show the user-configurable descriptor for the connection instead of the compression and ownership fields.

dspconst

Displays the status of the circuit line(s) and continues to display the status until the DEL key is depressed. While the display is on the screen, the status is automatically updated. The update frequency is one second for each circuit line being displayed. (For example, if only one line is displayed, the update frequency is once per second, if three circuit lines are displayed, the update frequency is once per three seconds). Connection states displayed by the command are listed below.

Table 7-27

Symbol	Description
+	offhook
-	onhook
m	slow modem
M	fast modem
blank	channel not connected

Full Name

Display connection state for line connections

Syntax

dspconst [circuit line]

Related Commands

cnfchtp

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dspconst

Description

Display the condition state for the voice channels on the node.

System Response

```
alpha          TRM   YourID:1        IPX 16    8.2    Mar. 16 1996 09:55 PST

Connection status display

+ offhook, - onhook, m slow modem, M fast modem
                      1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 3 3
CLN   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1

14    +




This Command: dspconst


Hit DEL key to quit:
```

Table 7-28 dspconst – Optional Parameters

Parameter	Description
circuit line	Specifies the number of the circuit line for which to display the channel states. If no circuit line is specified, all upped circuit lines, up to 8, display.

dspsigqual

Displays the configuration for the A, B, C, and D bit signalling qualifiers for all channels. The only parameter is the starting channel. You set the values for these signalling bits with the **cnfrcvsig** and **cnfxmtsig** commands. Note that these signaling bit states are different from the states during circuit alarm (signalling conditioning).

During normal operation of the voice circuit, the A, B, C, and D signalling bits may be held at a fixed value (0 or 1), inverted (I), or passed through transparently (T). For the direction of the signals, the transmit direction is towards the PBX or channel bank. Receive is from the external equipment.

Full Name

Display signalling qualifiers

Syntax

dspsigqual <start channel>

Related Commands

cnfxmtsig, cnfrcvsig

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dspsigqual 8.1

Description

Display the channel signalling bit qualifiers for channel 8.1.

System Response

```
beta           TRM   YourID:1        IPX 32    8.2    Mar. 23 1996 11:39 MST

                                Signalling Qualifiers
From 8.1    TXAbit  TXBbit  TXCbit  TXDbit  RXAbit RXBbit RXCbit RXDbit
8.1         1       0       1       T       T      0      I      I
8.2-31      T       T       T       T       T      T      T      T









Last Command: dspsigqual 8.1


Next Command:
```

Table 7-29 dspsigqual – Parameters

Parameter	Description
start channel	Specifies the number of the starting channel in the format slot.port

dspsvcst

Displays the voice SVC statistics.

Full Name

Display voice SVC statistics

Syntax

dspsvcst

Related Commands

Attributes

Privilege	1–6
Jobs	No
Log	No
Node	IPX, IGX
Lock	No

Example 1

dspsvcst

Description

Display the voice SVC statistics for the current node.

System Response

```
sw91           TN    StrataCom       IPX 8     8.2       May  29 1996 14:11 GMT


Number of Active SVC             :         0
Number of SVC Requests           :         0
Number of Failed Requests        :         0
Last Reason for request failure  :         0
Number of Completed SVC Routes   :         0
Number of Failed SVC Routes      :         0
Number of Deleted SVC(s)         :         0
Number of Failed SVC             :         0
Max Secs To Perform SVC Route         :      0.000
Avg Secs To Perform SVC Route         :      0.000




Last Command: dspsvcst


Next Command:
```

prtchcnf

Prints the configuration details for voice channels or data channels. This command uses the same syntax, and prints the same information as is displayed using the **dspchcnf** command. See the **dspchcnf** command for syntax and output information.

Full Name

Print channel configurations

Syntax

prtchcnf [start_channel]

Related Commands

dspchcnf

Attributes

Privilege	1–6
Jobs	Yes
Log	No
Node	IPX, IGX
Lock	Yes

Example 1

prtchcnf 14.1

Description

Print the configuration values of circuit line 14.1.

System Response

None available because this command produces hardcopy.

Table 7-30 prtchcnf – Parameters

Parameter	Description
start channel	Specifies the starting channel for the print output. The format is *slot.channel*.

prtchdlcnf

Prints the dial type configurations for channels on a circuit line.

Full Name

Print dial type configuration for channels

Syntax

prtchdlcnf [start_channel]

Related Commands

cnfchdl, dspchcnf

Attributes

Privilege	1–6
Jobs	Yes
Log	No
Node	IPX, IGX
Lock	Yes

Example 1

prtchcnf 14.1

Description

Print the dial type configuration for all channels beginning with 14.1.

System Response

None available as this command produces hardcopy.

Table 7-31 prtchdlcnf – Parameters

Parameter	Description
start channel	Specifies the starting channel for the print output. The format is *slot.channel*.

prtcons

Prints a summary of connections terminated at the IPX or IGX node.

Full Name

Print connections

Syntax

prtcons [start_channel] [nodename] [type] [+d]

Related Commands

dspcons

Attributes

Privilege	1–6
Jobs	Yes
Log	No
Node	IPX, IGX
Lock	Yes

Example 1

prtcons

Description

Print a summary of all connections.

System Response

None available as this command produces hardcopy.

Table 7-32 prtcons – Optional Parameters

Parameter	Description
start channel	Specifies the channel to begin the display. The start channel is specified as follows: slot.channel
node name	Specifies that only connections to this remote node from the local note be displayed. If no "nodename" is designated, connections from the local node to all other nodes are displayed.
connection type	Specifies that only connections of this type be displayed. If no "connection type" is designated, all connections display. When you enter the connection type on the command line, it must be preceded with a hyphen (-). Valid connection types to display are: -v Displays only voice connections. -d Display only data connections. -f Displays frame relay connections. -nni Displays frame relay network to network connections for failed connections only.
+d	Specifies that the display should show the connection descriptor string in place of the usual compression and ownership fields.