CHAPTER 6

ISDN Commands

This chapter describes the commands you use to configure Integrated Services Digital Network (ISDN) calling, such as on-demand dialing and security.

Note The command syntax includes a combination of bold and regular uppercase and lowercase alphanumeric characters. You can enter commands in full or you can enter abbreviated forms of many commands. The abbreviated form consists of the first characters in each word of the syntax that appear in bold uppercase type in command syntax in this chapter. These characters represent the minimum you must enter for the command to be recognized and executed.

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call

To make a manual ISDN call on a specified link to a specified phone number, use the **call** command. If no link number is specified, the call will be placed on both links. If no destination phone number is specified, the unit will use the number configured for the current profile.

CAll **[object] [**<**number**>**]**

Syntax Description

object Can consist of a link or a channel.

number (Optional) The telephone number of the remote ISDN device. If no telephone number is entered, the router will call the number configured in the current profile with the **set number** command. If no number is entered and the current profile has not been configured with a number, this command has no effect.

Default

None

Command Mode

Profile mode

Usage Guidelines

The object parameter can take one of three forms, described below.

1 Connection

A logical data stream that connects the unit to the remote device. A connection can have multiple links associated with it. The syntax format for connection is as follows:

```
C#
```

2 Link

A logical 64/56kbps data path assigned to users, numbered sequentially beginning with one. The unit is limited to two links. The two syntax formats for link are as follows:

```
L# or #
```

The # parameter can be either 1 or 2.

The three syntax formats for a connection and an associated link are as follows:

```
C#/L# or C#/# or #/#
```

3 Channel

Channels provide a physical data path over the WAN network. Channels are one or more time slots kept in sequence through the WAN network that do not require any kind of inverse multiplexing. The unit can support 64K channels or (in INS release only) 128K channels. The syntax format for a channel is as follows:

```
CH#
```

The # parameter can be 1 or 2.

Example

The following example makes a manual call on the second link to 408 555-1212 while in profile mode for profile 2503:

```
Host:2503> call 2 4085551212
```

Related Command

set number

demand

To specify when an on-demand ISDN call will be made, use the **demand** command.

DEmand [<**link**>] **[TH**reshold **=**kb/s**] [DU**ration= <**seconds**>**] [SO**urce **=WAN** | **LAn** | **BOth]]**

Syntax Description

link	Specifies the link with which all the following parameters are associated.
threshold kb/s	(Optional) Minimum data rate (in kbps) that must exist on the channel before the call will be made. The range is 0 to 128.[1] Inband negotiation traffic (traffic that terminates at the router) is not taken into account for the threshold level.
duration seconds	(Optional) Length of time (in seconds) that the traffic is to be above the data threshold before the call is made. The range is 1 to 255.
source	(Optional) Source of traffic that is counted.
wan	Traffic received from the ISDN line.
lan	Traffic received from the LAN.
both	The value of LAN or the ISDN traffic, whichever is higher.

1. The data rate measured is the data that the router intends to forward across the ISDN line, so the data rate may actually exceed the physical capacity of the line.

Default

Channel 1—**threshold** 0 **duration** 1 **source lan**
Channel 2—**threshold** 48 **duration** 1 **source both**

Command Mode

System level or profile mode

Usage Guidelines

On-demand dialing must be enabled with the **set auto** command for these setting to take effect.

Example

The following example determines when on-demand dialing will take place for profile 2503's connection:

```
Host:2503> demand 1 threshold 10 duration 2 source lan
```

This specifies the first demand call.

Related Command

set auto

disconnect

To manually terminate an ISDN call, use the **disconnect** command.

DIsconnect [**object** | **AL**l]

Syntax Description

object (Optional) ISDN B channel or link. Can be either 1 or 2. If no channel or link is entered, any connected calls are terminated.

Default

None

Command Mode

Profile mode

Usage Guidelines

The object parameter can take one of three forms, described below.

1 Connection

A logical data stream that connects the unit to the remote device. A connection can have multiple links associated with it. The syntax format for connection is as follows:

```
C#
```

2 Link

A logical 64/56 kbps data path assigned to users, numbered sequentially beginning with one. The unit is limited to two links. The two syntax formats for link are as follows:

```
L# or #
```

The # parameter can be either 1 or 2.

The three syntax formats for a connection and an associated link are as follows:

```
C#/L# or C#/# or #/#
```

3 Channel

Channels provide a physical data path over the WAN network. Channels are one or more time slots kept in sequence through the WAN network that do not require any kind of inverse multiplexing. The unit can support 64K channels or (in INS release only) 128K channels. The syntax format for a channel is as follows:

```
CH#
```

The # parameter can be 1 or 2.

Example

The following example disconnects a call on the first link:

```
Host> disconnect 1
```

The following example disconnects any calls on both links of the current connection:

```
Host> disconnect
```

Note The router may automatically reconnect the call after using the **disconnect** command. This can occur if on-demand dialing is enabled and a telephone number has been entered with the **set number** command. If the router receives enough packets to meet the demand threshold parameters, a new call will be made.

---

establish

To reassign a released service profile identifier (SPID ID) to the Cisco 750 or and Cisco 60 series router use the **establish** command.

EStablish **[<spid id>]**

Syntax Description

spid id Specify the number of the SPID you are establishing (1 or 2) as set by the **set spid** command.

Default

None

Command Mode

System level

Usage Guidelines

This command is used to reassign one of the Cisco router's SPIDs after it has been released to a device other than the Cisco router. This command is applicable only in the United States.

Example

The following example releases and reassigns the SPID ID2 to the Cisco router following a previous release.

ES`tablish 2`

The following outlines a typical sequence of events:

1 A unit has two calls established.

2. The user disconnects a call to free the B-channel.
3. The user releases the second SPID by entering: REL 2.
4. The message “Terminal Identifier Unassigned” is displayed.
5. The user activate the same SPID in another ISDN TE on the same DSL.
6. The user completes use of the other TE and frees the SPID.
7. The user reactivates the SPID in the unit by entering: ES 2.
8. The user makes a second channel call on the unit.

Related Command

release

release

The **release** command allows you to release the Layer 2 link and Terminal Identifier (TEI) Unassigned associated with a SPID. When released, the SPID will still reside in configuration memory so you will not have to reenter the SPID.

RElease **[**<**spid id**>**]**

Syntax Description

spid id Specify the number of the SPID you are releasing (1 or 2) as set by the **set spid** command.

Default

None

Command Mode

System level

Usage Guidelines

This command is used to release a SPID being used by the Cisco 750 series or Cisco 760 series routers, so that it can be used by another device on the same ISDN line (S-Bus). Use this command when your ISDN line only supports two SPIDs and 1 B channel per SPID (DMS-100). To reassign the SPID back to the Cisco 750 series or Cisco 760 series router, use the **establish** command. This command is applicable to US switches only.

Example

The following example releases the Channel 1 SPID from the Cisco router so that it can be used by another device on the same ISDN line:

```
Host> release 1
```

Related Command

establish

reset directory number

To delete one or all of the router's directory numbers, use the **reset directory number** command:

REset **DI**rectorynumber **AL**l | **<number>** [<.**subaddress**>]

Note This command only applies to routers with analog phone support.

Syntax Description

all Deletes all of router's directory numbers that have been entered with the **set directory number** or **set phone** command.

number Deletes the specified directory number that has been entered with the **set directory number** or **set phone** command.

.subaddress (Optional) Subaddress of a device on a multipoint ISDN line. Can consist of 1 to 10 digits.

Default

None

Command Mode

System level

Example

To delete a directory number that has been entered with the **set directory number** or **set phone** command:

```
Host> REset DI All
or
Host> REset DI 14085559020
```

Related Commands

set directory number

set phone

reset phone

To disassociate a directory number that has been associated with an interface, use the **reset phone** command:

REset **PHONE1 | PHONE2 | DOV**

Note This command only applies to routers with analog phone support.

Syntax Description

**PHONE1	PHONE2**	The directory number set for each phone interface will be disassociated.
DOV	(Data Over Voice) All of the DOV directory numbers set will be disassociated (a maximum of two).

Default

None

Command Mode

System level

Example

To disassociate a directory number that has been entered with the **set phone** command:

```
Host> REset phone1
```

Related Command

set phone

set auto

To enable or disable on-demand dialing, use the **set auto** command.

SEt **[<link>] AU**to **ON** | **OF**f

Syntax Description

link (Optional) Link on which on-demand dialing is enabled or disabled. Can be set to 1 or 2.

If no Link is specified, on-demand dialing will be enabled or disabled on both links.

on Enables on-demand dialing.

off Disables on-demand dialing.

Default

channel 1—enabled (**on**)
channel 2—enabled (**on**)

Command Mode

Profile mode

Example

The following example disables on-demand dialing for the second channel:

```
Host:2503> set 2 auto off
```

set billing

To set billing services for semipermanent connections or timelink , use the **set billing** command.

SEt **BI**lling **SP**c **<number>** | **TI**melink | **NO**ne

Note Used in Australia Primary Rate Interface (PRI) only.

Syntax Description

SPC number Number assigned by AUSTEL when you subscribe to a semi-permanent connection ISDN BRI service.

timelink Sets Austel billing services for timelink services. This is an economical billing process for calls of more than one hour but less than three or four hours.

none Disables any special billing services set.

Default

None

Command Mode

Profile mode

Usage Guidelines

Use this command when using AUSTEL as your ISDN BRI service provider. Only one side can set the SPC, therefore, set the timeout to off at the called side of the particular user.

Example

The following example sets the billing spc number:

```
Host: set billing spc 364-4331
```

set callwaiting

To disable or enable the call waiting feature, use the **set callwaiting** command.

SEt **CALLW**aiting **[IN**terface=**PHONE1 | PHONE2] ON | OFF**

Note This command only applies to routers with analog phone support.

Syntax Description

PHONE1 | PHONE2	Sets the call waiting feature for each specified phone interface.
on	Enables the call waiting feature.
off	Disables the call waiting feature.

Default

Enabled

Command Mode

System level

Usage Guidelines

If a fax machine or modem is connected to the analog phone interface PHONE2, disable call waiting for phone 2.

Example

The following example disables the call waiting interface on PHONE2:

```
Host> set callwaiting IN=PHONE2 OFF
```

set countrygroup

To set the ring cadence duration for the analog phone equipment for a specific country group, use the **set countrygroup** command.

SEt COUntryGroup <group number>

Note This command only applies to routers with analog phone support.

Syntax Description

group number Set a ring cadence for the analog phone equipment that pertains to a specific country.

Note Refer to the **version** command to verify the correct analog phone daughter card.

Table 6-1 lists each country group, associated group number and the associated ring cadences.

Table 6-1 Country Groups and Ring Cadence Duration

Country Group	Group Number	Ring Cadence
USA, Canada	1	2 - 4[1]
Australia, Ireland, Singapore, United Kingdom	2	0.4 - 0.2 - 0.4 - 2
Austria, Portugal, Sweden	3	1 - 5
Belgium	4	1 - 3
Denmark, Finland, Germany, Greece, Italy, Luxembourg, Mexico, Netherlands, Norway, Switzerland	5	1 - 4
Finland, Sweden	6	1 - 9
France	7	1.5 - 3.5
Hong Kong	8	0.4 - 0.2 - 0.4 - 3
Japan, Korea	9	1-2
Spain	10	1.5 - 3

[1]Underlined value indicates the ring duration in seconds.

Default

1 <North American countries>

Command Mode

System level

Usage Guidelines

Ring cadences for the analog phone equipment differs for each country. This command allows the user to choose the appropriate ring cadence.

Example

The following example sets the current country group value to 1. The appropriate ring cadence will take effect immediately.

```
Host> set countrygroup 1
```

set delay

To set the time between unsuccessful demand call attempts, use the **set delay** command.

SEt **[**<**link**>**] DE**lay **=** <**seconds**>

Syntax Description

link (Optional) Link to which the delay time applies. If no link is entered, the delay time is set for both links.

delay Time in seconds between unsuccessful call attempts. Can be between 10 and 32,767. An unsuccessful call will be attempted when the delay time has expired only if the parameters set by the **demand** command are met.

Default

Link 1—30
Link 2—30

Command Mode

System level

Usage Guidelines

The delay time applies to all ISDN demand call attempts.

Example

The following example sets the first channel to retry demand calls at most every 15 seconds:

```
Host> set 1 delay 15
```

Note If the Cisco routers at both ends of an ISDN connection are configured with on-demand dialing enabled and the same delay time, unsuccessful calls can lead to a nonterminating error condition. This occurs when each router repeatedly tries to call the other at exactly the same delay time. Neither call will be successful, and both routers will repeat the call attempt at the same delay interval.

set directory number

To enter the router's directory number, use the **set directory number** command.

SEt **[<spid id>] DI**rectorynumber =<**number**> **[.subaddress]**

Syntax Description

spid id The SPID ID can be 1 or 2. Depending on your ISDN service provider, your line may be assigned one or two SPIDs. Must be used if the switch has SPIDS, otherwise ignore this field.

If no SPID ID is specified, the directory number will be associated with SPID1 in the case of switches with SPIDs.

number The directory number assigned by the telephone company. Can consist of 1 to 20 digits. For Cisco 760 series routers a maximum of 4 directory numbers will be allowed. For Cisco 750 series routers a maximum of 4 directory numbers will be allowed.

subaddress (Optional) Subaddress of a device on a multipoint ISDN line. Can consist of 1 to 10 digits.

Default

No directory number is configured.

Command Mode

System level

Note For the Cisco 750 series routers, use this command to delete directory numbers.

Usage Guideline

To delete a directory number, use the **reset directory number** command (applies only to 760 series routers).

Examples

The following example sets directory numbers for both SPID 1 and SPID 2:

```
Host> set 1 directory 5551234
Host> set 2 directory 5555678
Host> set : directory
```

Related Command

reset directory number

set multidestination

To enable multidestination dialing, use the **set multidestination** command.

SEt **MU**ltidestination **ON|OF**f

Syntax Description

on Enables multidestination dialing. The Cisco router, through the use of profiles, is able to connect to multiple remote locations over ISDN.

off Disables multidestination dialing. If the Cisco router attempts to connect with two different remote routers, the connection to the second router will be refused.

Default

off (disabled)

Command Mode

System level

Note When setting multidestination, ensures that you are not creating a bridging loop.

Example

The following example enables multidestination dialing:

```
Host> set multidestination on
```

set number

To enter the ISDN telephone number that each link calls, use the **set number** command.

SEt [<**link**>] **NU**mber = [<**number**> **<.subaddress>**]

Syntax Description

link (Optional) The Link to which the telephone number is assigned. Can be 1 or 2. If no link is specified, the number is applied to both links.

number The telephone number called when dialing on demand. Can consist of 1 to 32 digits. This number should include all numbers required for the Cisco router to complete the call, for example access codes and area codes.

subaddress (Optional) The subaddress of a device on a multipoint ISDN line. Can be 1 to 10 digits.

Default

No ISDN phone numbers configured.

Command Mode

Profile mode

Usage Guidelines

To delete a number entered with the **set number** command, enter the command without the phone number argument and make sure you are in profile mode for the correct profile.

Examples

The following example sets a telephone number that is automatically dialed for profile 2503:

```
Host:2503> set 1 number 14085551234
```

The following example deletes the dialed number for profile 2503:

```
Host:2503> set 1 number
```

Related Commands

set auto

set plan

set phone

To select which interface the voice calls will be routed to, use the **set phone** command.

SEt **PHONE1 | PHONE2 | DOV** <**number**> [**.subaddress**]

Note This command only applies to routers with analog phone support.

Syntax Description

PHONE1 | PHONE2	The phone interface to which the voice calls will be routed. If no interface has been associated with an incoming voice call, the default routing will be to PHONE1.
DOV	(Data Over Voice) If a directory number is associated with the DOV interface, all incoming voice calls to that number will be treated as data over voice calls and routed to the Ethernet interface.
number	The directory number associated with that interface. There is one directory number per phone interface. Two directory numbers can be assigned to be data over voice.
.subaddress	(Optional) Subaddress of a device on a multipoint ISDN line. Can consist of 1 to 10 digits.

Default

PHONE1

Command Mode

System level

Example

The following example sets the phone interface and directory number:

Host> **`set phone1 4089327144`**

Related Command

reset phone

set plan

To set the numbering plan for outgoing calls, use the **set plan** command. The numbering plan is the type of telephone numbering plan the router uses when making calls. Numbering plans are predefined settings that configure calls so that they conform to phone system requirements.

SEt **PL**an **NO**rmal | **IN**ternational | **NA**tional | **SU**bscriber | **UN**known ISDN | **AB**breviated | **CE**ntrex| **NE**twork

Syntax Description

normal	Unknown numbering type with unknown numbering plan (most common case).
international	The international numbering type with ISDN numbering plan.
national	The national numbering type with ISDN numbering plan.
subscriber	Local numbering type with ISDN numbering plan.
unknown ISDN	Unknown numbering type with ISDN numbering plan.
network	Network specific numbering type with private numbering plan.
centrex	Local numbering type with private numbering plan.
abbreviated	Abbreviated numbering type with private numbering plan.

Default

normal

Command Mode

Profile mode

Example

The following example sets the router to use the international numbering plan when making calls:

```
Host> set plan international
```

set power source detect

To set the router to detect Power Source 1, use the **set powersource detect** command.

SEt **PS1 ON** | **OF**f

Note This command only applies to routers with analog phone support.

Syntax Description

on Sets the router to detect Power Source 1.

off Use in areas that do not support Power Source 1.

Default

on

Command Mode

System level

Usage Guidelines

This command only applies outside of the United States.

Example

The following example enables the router to use Power Source 1:

```
Host> set ps1 on
```

set ringback number

To set the router's ringback number, use the **set ringback number** command. The ringback number is used by the remote router to make a callback to the router.

SEt **[link] RI**ngback **=[<number> [.subaddress**>**]]**

Syntax Description

link (Optional) The ISDN B channel to which the ringback number applies. Can be 1 or 2. If no channel is specified, the ringback number applies to both channels.

number The number used by the remote router to make a callback to the Cisco router. Can be 1 to 32 digits. This number must include all the digits necessary for the remote router to complete a call to the Cisco router, for example, area and access codes.

.subaddress (Optional) Specifies a particular device on a multipoint ISDN line. Can be 1 to 10 digits.

Default

No ringback number is configured.

Command Mode

Profile level

Usage Guidelines

If remote routers are calling in from different area codes, or different access codes, it may be necessary to specify the ringback number in each router's profile. For example, the ringback number for a remote router in the same area code might be 555-1234 while the ringback number for a remote router outside the area code might be 1 408-555-1234, and the ringback number for a remote router on a PBX might be 9-555-1234.

In addition to being the remote router's callback number, the ringback number has another function. To make a second-channel call, the Cisco router uses a combination of the number it used to make the first-channel call and the remote router's second-channel ringback number.

For example, the Cisco router calls 555-1234 to reach the first channel of the remote router. If the second channel phone number is 555-5678, set the remote router's second-channel ringback number to 5678. The local router will use the prefix of the first number it called (555) plus the second channel's ringback number (5678) to make the second call.

Example

The following example sets the number that a remote router uses when making a callback to the Cisco router on the first ISDN B Channel:

```
Host> set 1 ringback 14155551234
```

set speed

To set the speed of data calls, use the **set speed** command.

SEt **SP**eed **56** | **64** | **AU**to | **VO**ice

Syntax Description

56 Outgoing calls are made and connected at 56 kbps.

Incoming calls are connected at 56 kbps.

64 Outgoing calls are made and connected at 64 kbps.

Incoming calls are connected at 64 kbps, unless Bearer Capability (BC) indicates the call is at 56 kbps. In this case, calls are connected at 56 kbps.

auto Outgoing calls are attempted at 64 kbps. If unsuccessful, the call is retried.

Incoming calls are connected at the speed indicated by BC and ISDN messages.

voice Outgoing calls are made using Voice Bearer Capability (VBC) and data is transferred at 56 kbps. Used for Data Over Voice (DOV). This parameter is only used in the US. Incoming calls are connected as in auto mode.

Default

auto

Command Mode

Profile mode

Usage Guidelines

The **voice** keyword should only be used with use ISDN switch types 5ESS, DMS, or NI-1.

Example

The following example sets the speed for data calls to 64 kbps for profile 2503:

```
Host:2503> set speed 64
```

set spid

To enter a service profile identifier (SPID), use the **set spid** command.

SEt **[<spid id>] SPI**d **= [<SPID number>]**

Note This command is used only in the United States.

Syntax Description

spid id (Optional if there is only one SPID) Used as a convenient single digit number to identify the actual long SPIDs allocated by the service providers.

spid number Number identifying the service to which you have subscribed. This value is assigned by the ISDN service provider and is usually a ten-digit telephone number with some extra digits. The SPID number can consist of 1 to 20 digits.

Default

No SPIDs are configured.

Command Mode

System level

Usage Guidelines

To delete a previously entered SPID, use the **set spid** command without the SPID number argument.

Examples

The following example sets two SPIDs for the line:

```
Host> set 1 spid 0408555123401
Host> set 2 spid 0405555123402
```

The following example deletes the first SPID:

```
Host> set 1 spid
```

Related Commands

release

establish

show configuration

set switch

To configure the central office switch, use the **set switch** command.

SEt **SW**itch **5Ess** | **DMS** | **N1-1** | **INS** | **VN3** | **NET3** | **1TR6** | **TPH** | **SD64** | **HSD128**

Syntax Description

5ess	AT&T 5ESS
dms	Northern Telecom DMS-100
ni-1	National ISDN-1
ins	Japan-NTT's Information Network System
vn3	France-ISDN BRI standard
net3	Europe-ISDN BRI standard
1tr6	Germany-ISDN BRI standard
tph	Australia
sd64	Japan-NTT's SuperDigital service, which is the ISDN equivalent of a leased (private) line service.
hsd128	Japan-Dedicated line service, which enables the unit to use a single 128 kbps data stream connected to one port. With this option, Channel 1 runs at 128 kpbs, and Channel 2 is not used.

Note All of the switch settings are not available to all users. The switch type available depends on the type of software loaded into the unit.

Default

Depends on software version.

Command Mode

System level

Example

The following example configures the ISDN switch type as DMS:

```
Host> set switch dms
```

set timeout

To configure the amount of time the ISDN line will remain idle before disconnecting, use the **set timeout** command. This command set the same parameter as the **timeout duration** command.

SEt **[<link>] TIME**out **[<seconds>** | **OF**f**]**

Syntax Description

link (Optional) The ISDN link to which the timeout parameters apply.

seconds Time (in seconds) that the ISDN line will remain idle before disconnecting. Can be between 1 and 32,767 seconds.

off The ISDN line will not disconnect automatically.

Default

off

Command Mode

Profile mode

Example

The following example configures both ISDN B channels to disconnect after five minutes for profile 2503:

```
Host:2503> set 1 timeout 300
Host:2503> set 2 timeout 300
```

Related Command

timeout

set voicepriority (for Cisco 750 series routers)

The **set voicepriority** command sets the voice priority mode. It determines if the system will disconnect a B-channel assigned to a data call to allow a voice call.

SEt **VO**icepriority **AL**ways **| CO**nditional **| NE**ver **| DI**sable

Syntax Description

always	Sets voicepriority to be active under all circumstances. Data calls will always be bumped for voice calls.
conditional	Sets voicepriority to disconnect data calls under only if the network connection can be guaranteed (i.e., only if there are two data calls up to the same destination)
never	Disables voicepriority; data calls are never bumped for voice calls.
disable	Voice calls are handled as Data Over Voice Calls (DOV). DOV calls are data calls made with Voice Bearer Capability (VBC).

Default

always

Command Mode

System level

Usage Guidelines

Voicepriority can be set in a variety of ways. Table 6-2 lists the settings and the modes for inbound calls. Outbound calls are not affected by the Set Voicepriority mode.

Table 6-2 Inbound Calls Voicepriority Modes

Inbound Calls			
Mode	2 data channels destination A	1 data channel to destination A, 1 data channel to destination B	1 data channel to destination A but the offered channel is in use
Always	Bump 1 data channel when inbound call is answered by going off-hook.	Bump 1 data channel when inbound call is answered by going off-hook.	Bump data call when inbound is answered.
Conditional	Bump 1 data channel when inbound call is answered by going off-hook.	No bump; ring busy	No bump; ring busy
Never	No bump; ring busy	No bump; ring busy	No bump; ring busy
Disable	Voice calls are handled as Data Over Voice Calls (DOV)		

Example

The following example configures voicepriority for incoming calls on both phone interfaces to conditional mode:

```
Host> set voicepriority conditional
```

set voicepriority (for Cisco 760 series routers)

The **set voicepriority** command sets the voice priority mode. It determines if the system will disconnect a B-channel assigned to a data call to allow a voice call.

SEt **VO**icepriority **[IN**coming **| OU**tgoing**] [IN**terface**=PHONE1 | PHONE2] AL**ways **| CO**nditional **| NE**ver

Syntax Description

incoming outgoing	Indicates the direction of the call for which the priorities are being set. The default, when nothing is specified, is incoming.
interface	Takes the values of PHONE1 or PHONE2. When neither is specified, it will apply to both PHONE1 and PHONE2. This parameter is only for the Cisco 760 series routers.
always	Sets voicepriority to be active under all circumstances. Data calls will always be bumped for voice calls.
conditional	Sets voicepriority to disconnect data calls under only if the network connection can be guaranteed (i.e. only if there are two data calls up to the same destination)
never	Disables voicepriority; data calls are never bumped for voice calls.

Default

always

Command Mode

System Level

Usage Guidelines

Voicepriority can be set in a variety of ways. Table 6-3 lists the settings and the modes for inbound calls.

Table 6-3 Inbound VoicePriority Modes

Inbound Calls			
Mode	**2 data channels destination A**	**1 data channel to destination A, 1 data channel to destination B**	**1 data channel to destination A but the offered channel is the one in use**
Always	Bump 1 data channel when inbound call is answered by going off-hook.	Bump 1 data channel when inbound call is answered by going off-hook.	Bump data call when inbound is answered.
Conditional	Bump 1 data channel when inbound call is answered by going off-hook.	No bump; ring busy	No bump; ring busy
Never	No bump; ring busy	No bump; ring busy	No bump; ring busy

Table 6-4 lists the settings and the modes for outbound calls.

Table 6-4 Outbound VoicePriority Modes

Outbound Calls			
Mode	**2 data calls to Destination A**	**1 Data Call to Destination A and 1 data Call to Destination B**	**1 Data Call to Destination A but the phone's channel is the one in use**
Always	Bump 1 data call when the phone goes off-hook	Bump 1 data call when the phone goes off-hook	Bump the existing dataphone when the call goes off-hook
Conditional	Bump 1 data call when the phone goes off-hook	No bump; ring busy	No bump; ring busy
Never	No bump; ring busy	No bump; ring busy	No bump; ring busy

Example

The following example configures voicepriority for incoming calls on both phone interfaces to conditional mode:

```
Host>set voicepriority conditional
```

show status

To display the current status of the ISDN line and both B channels, use the **show status** command.

SHow **ST**atus

Syntax Description

This command contains no keywords or arguments.

Command Mode

System level or profile mode

Sample Display

The following sample display shows output from the **show status** command:

```
>show status
Status
Line Status
  Line Activated
  Terminal Identifier Assigned

Port Status                   Interface Connection Link
  Ch:1 56K Call In Progress    Data         7         1
  Ch:2 64K Call In Progress    Phone1
```

show voicerouting

To display the current settings of voice call routing, use the **show voicerouting** command.

SHow **VO**icerouting

Note This command only applies to routers with analog phone support.

Syntax Description

This command contains no keywords or arguments.

Default

None

Command Mode

System level

Sample Display

The following sample display shows the output from the **show voicerouting** command:

```
>show voicerouting
Interface    VoicePriority   VoicePriority  CallWaiting   Directory Number
                   In             Out
PHONE1       AlWAYS          CONDITIONAL          ON      5229026
PHONE2       ALWAYS          ALWAYS               OFF     5229044
DOV          N/A             N/A                  N/A     5229045
UNSPECIFIED  N/A             N/A                  N/A     5229027
```

timeout

To configure the parameters that specify when the ISDN line will be disconnected, use the **timeout** command. This is an expanded version of the **set timeout** command, which only allows you to specify duration.

TImeout **<link>** **[TH**reshold **=<kbps>] [DU**ration= **<seconds>**] **[SO**urce= **WA**n | **LA**n | **BO**th**]**

Syntax Description

link	(Optional) The link to which the timeout parameters apply.
threshold	(Optional) Data rate in kbps. If the data rate falls below the specified threshold for the specified duration, the ISDN line disconnects.
duration	(Optional) Length of time, in seconds, that the traffic must be below the threshold before the ISDN line is disconnected.
source	(Optional) Source of the traffic in reference to the threshold.
lan	Timeout parameters apply to packets received from the LAN.
wan	Timeout parameters apply to packets received from the ISDN line.
both	Timeout parameters apply to packets received from the interface that has the most traffic, LAN or ISDN.

Default

Channel 1—**threshold** 0, **duration off**, **source lan**
Channel 2—**threshold** 48, **duration off**, **source both**

Command Mode

Profile mode

Usage Guidelines

If the **set timeout** command is configured to off, this command does not apply.

Example

The following example configures the router to disconnect the second channel if the data rate from either the LAN or the ISDN line falls below 64 kbps for 60 seconds:

```
Host:2503> timeout 2 threshold 48 duration 60 source both
```

Related Command

set timeout