

Telnet Configuration Commands

Telnet is a simple remote terminal protocol that is part of the Internet Protocol (IP) suite. Telnet allows a user at one site to establish a TCP connection to a login server at another site, then it passes the keystrokes from one system to the other. Telnet can accept either an Internet address or a domain name as the remote system address.

Use the commands in this chapter to configure Telnet support on your communication server. For configuration information, refer to the *Communication Server Configuration Guide*. For information about making connections, see the *Communication Server and Protocol Translator Connection Guide*.

ip alias

To assign an Internet address to the service provided on a TCP port, use the **ip alias** interface configuration command. Use the **no ip alias** command to remove the specified address for the communication server.

```
ip alias internet-address TCP-port  
no ip alias internet-address
```

Syntax Description

internet-address Specifies the Internet address for the service.

TCP-port Specifies the number of the TCP port.

Default

None

Command Mode

Interface configuration

Usage Guidelines

A user attempting to establish a connection is connected to the first free line in a rotary group using the Telnet protocol.

The Internet address must be on the same network or subnet as the communication server's main address, and must not be used by another host on that network or subnet. Connecting to the Internet address has the same effect as connecting to the communication server's main address, using *TCP-port* as the TCP port.

You can use the **ip alias** command to assign multiple Internet addresses to the communication server. For example, in addition to the primary alias address, you can specify addresses that correspond to lines or rotary groups. Using the **ip alias** command in this way makes the process of connecting to a specific rotary group transparent to the user.

When asynchronous mode is implemented, the communication server creates the appropriate IP aliases, which map the asynchronous addresses to the lines they are connected to. This process is automatic and does not require configuration.

Example

The following example configures connections to IP address 131.108.42.42 to act identically to connections made to the server's primary IP address on TCP port 3001. In other words, a user trying to connect is connected to the first free line in rotary group 1 using the Telnet protocol.

```
ip alias 131.108.42.42 3001
```

ip tcp chunk-size

To enable a faster response to user interrupt characters, use the **ip tcp chunk-size** global configuration command.

ip tcp chunk-size *number*

Syntax Description

number The number of characters output before the interrupt executes. The suggested value is 80, which will typically abort output within a line or two of where the user types the interrupt character. Values of less than 50 are not recommended for efficiency reasons.

Default

None

Command Mode

Global configuration

Usage Guidelines

When used with a correctly operating host, communication servers implement the Telnet Synchronize and Abort Output signals, which can stop output within one packet's worth of data from the time the user types the interrupt character.

Changing the chunk size (the number of characters output before the interrupt executes) affects neither the size of the packet used nor the TCP window size, either of which would cause serious efficiency problems for the remote host as well as for the communication server. Instead, the Telnet status is checked after the number of characters specified, causing only a relatively minor performance loss.

Example

The following example allows the communication server to execute an interrupt after an output of 100 characters, when an interrupt character or sequence is entered (Ctrl-C, for example).

```
!  
ip tcp chunk-size 100  
!
```

login-string

To define a string of characters that the communication server sends to a host after a successful connection, use the **login-string** global configuration command. This command applies only to rlogin and Telnet sessions. The **no login-string** global configuration command removes the login string.

```
login-string hostname d message [%secp] [%secw] [%b] [%m] d  
no login-string hostname
```

Syntax Description

- hostname* Specifies the name of the host.
- d* Sets a delimiting character of your choice—a pound sign (#) for example. You cannot use the delimiting character in the busy message.
- message* Specifies the login string.
- %secp** Sets a pause in seconds. To insert pauses into the login string, embed a percent sign (%) followed by the number of seconds to pause and the letter “p.”
- %secw** Prevents users from issuing commands or keystrokes during a pause.
- %b** Sends a Break character.
- %m** Supports TN3270 terminals. Sends only carriage return and no linefeed.

Default

None

Command Mode

Global configuration

Usage Guidelines

Follow the command with one or more blank spaces and a delimiting character of your choice. Then enter one or more lines of text, terminating the message with the second occurrence of the delimiting character. To use a percent sign in the login string, precede it with another percent sign; that is, type the characters “%%.” The options can be used anywhere within the message string.

Example

In the following example, the value %5p causes a five-second pause.

```
login-string office #ATDT 555-1234  
%5p hello  
#
```

telnet break-on-ip

To cause the system to generate a hardware BREAK signal on the RS-232 line that is associated with a reverse Telnet connection when a Telnet Interrupt-Process (Telnet IP) command is received on that connection, use the **telnet break-on-ip** line configuration command.

telnet break-on-ip

Syntax Description

This command has no arguments or keywords.

Default

None

Command Mode

Line configuration

Usage Guidelines

Use this command to control the translation of Telnet IP commands into X.25 BREAK signals. It is also a useful workaround in the following situations:

- Several user Telnet programs send a Telnet IP command, but cannot send a Telnet BREAK signal.
- Some Telnet programs implement a Break signal that sends a Telnet IP command.
- Some RS-232 hardware devices use a hardware BREAK signal for various purposes.

A hardware Break signal is generated when a Telnet BREAK signal is received.

Example

In the following example, line 5 is configured with the **telnet break-on-ip** command. The location text notes that this refers to the high-speed modem. The **telnet transparent** command sets end-of-line handling.

```
line 5
location high-speed modem
telnet transparent
telnet break-on-ip
```

Related Command

telnet transparent

telnet refuse-negotiations

To set a line using Telnet to refuse to negotiate full duplex, remote echo options on incoming connections, use the **telnet refuse-negotiations** line configuration command.

telnet refuse-negotiations

Syntax Description

This command has no arguments or keywords.

Default

None

Command Mode

Line configuration command

Usage Guidelines

Use this command on reverse Telnet connections to allow the communication server to refuse full-duplex, remote echo option connection requests from the other end. This command suppresses negotiation of the Telnet Remote Echo and Suppress Go Ahead options.

Example

The following example shows how to set line 5 to refuse full duplex, remote echo requests.

```
line 5
telnet refuse-negotiations
```

telnet speed

To negotiate speeds on reverse Telnet lines, use the **telnet speed** line configuration command.

```
telnet speed default-speed maximum-speed
```

Syntax Description

default-speed The line speed the communication server will use if the device on the other end of the connection has not specified a speed.

maximum-speed The maximum speed the communication server will use.

Default

None

Command Mode

Line configuration

Usage Guidelines

Use the **telnet speed** command to match line speeds on remote systems in reverse Telnet, on host machines hooked up to a communication server to access the network, or on a group of console lines hooked up to the communication server, when disparate line speeds are in use at the local and remote ends of the connection. Line speed negotiation adheres to the Remote Flow Control option, defined in RFC 1080.

Example

The following example allows line 5 to negotiate a bit rate using the Telnet option. If no speed is negotiated, the line will run at 2400 bits per second. If the remote host requests a speed of greater than 9600 baud, then 9600 will be used.

```
line 5
telnet speed 2400 9600
```

telnet sync-on-break

To cause a reverse Telnet line to send a Telnet Synchronize signal when it receives a Telnet Break signal, use the **telnet sync-on-break** line configuration command. The TCP Synchronize signal clears the data path, but will interpret incoming commands.

telnet sync-on-break

Syntax Description

This command has no arguments or keywords.

Default

None

Command mode

Line configuration

Example

The following example shows how to cause reverse Telnet line 8 to send a Telnet Synchronize signal when it receives a Telnet Break signal.

```
line 8
telnet sync-on-break
```


telnet transparent

To send a Return (CR) as a CR followed by a NULL instead of a CR followed by a Line Feed (LF) on Telnet lines, use the **telnet transparent** line configuration command.

telnet transparent

Syntax Description

This command has no arguments or keywords.

Default

None

Command Mode

Line configuration

Usage Guidelines

This command is useful for coping with different interpretations of end-of-line handling in the Telnet protocol specification.

Example

The following example shows how to change the end-of-line characters on line 7.

```
line 7
telnet transparent
```

Related Command

telnet break-on-ip

