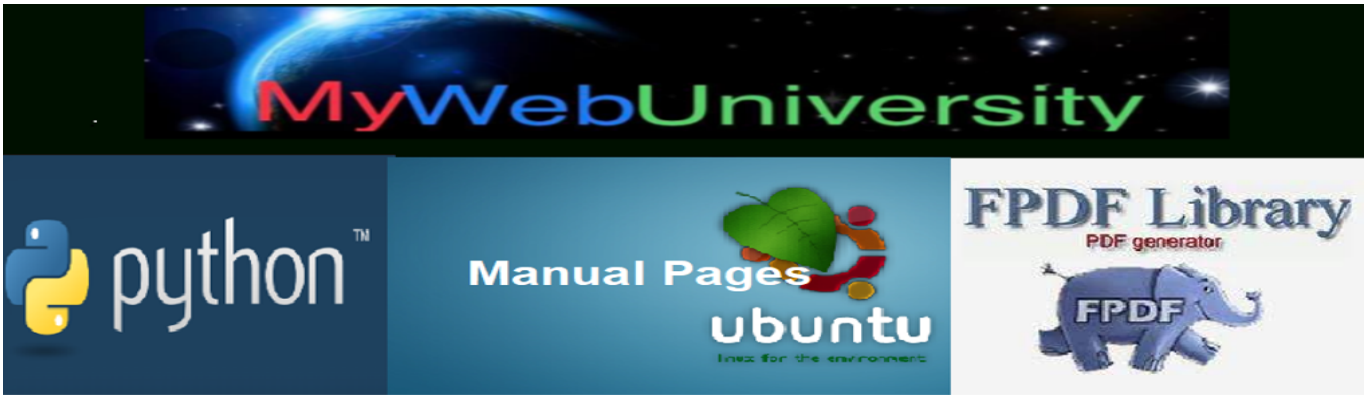

Rocky Enterprise Linux 9.2 Manual Pages on command 'telnet.netkit.1'

$ man telnet.netkit.1

TELNET(1) BSD General Commands Manual TELNET(1)

NAME

telnet ? user interface to the TELNET protocol

SYNOPSIS

telnet [-468ELadr] [-S tos] [-b address] [-e escapechar] [-l user] [-n tracefile] [host [port]]

DESCRIPTION

The telnet command is used for interactive communication with another host using the TELNET protocol. It begins in command mode, where it prints a telnet prompt ("telnet> "). If telnet is invoked with a host argument, it performs an open command implicitly; see the description below.

Options:

-4 Force IPv4 address resolution.

-6 Force IPv6 address resolution.

-8 Request 8-bit operation. This causes an attempt to negotiate the TELNET BINARY op? tion for both input and output. By default telnet is not 8-bit clean.

-E Disables the escape character functionality; that is, sets the escape character to ``no character''.

-L Specifies an 8-bit data path on output. This causes the TELNET BINARY option to be negotiated on just output.

-a Attempt automatic login. Currently, this sends the user name via the USER variable of the NEW-ENVIRON option if supported by the remote system. The username is re? trieved via getlogin(3).

-b address

Use bind(2) on the local socket to bind it to a specific local address.

-d Sets the initial value of the debug toggle to TRUE.

-r Emulate rlogin(1). In this mode, the default escape character is a tilde. Also, the interpretation of the escape character is changed: an escape character followed by a dot causes telnet to disconnect from the remote host. A ^Z instead of a dot suspends telnet, and a ^] (the default telnet escape character) generates a normal telnet prompt. These codes are accepted only at the beginning of a line.

-S tos Sets the IP type-of-service (TOS) option for the telnet connection to the value tos.

-e escapechar

Sets the escape character to escapechar. If no character is supplied, no escape character will be used. Entering the escape character while connected causes telnet to drop to command mode.

-l user

Specify user as the user to log in as on the remote system. This is accomplished by sending the specified name as the USER environment variable, so it requires that the remote system support the TELNET NEW-ENVIRON option. This option implies the -a op? tion, and may also be used with the open command.

-n tracefile

Opens tracefile for recording trace information. See the set tracefile command be? low.

host Specifies a host to contact over the network.

port Specifies a port number or service name to contact. If not specified, the telnet port (23) is used.

Protocol:

Once a connection has been opened, telnet will attempt to enable the TELNET LINEMODE option. If this fails, then telnet will revert to one of two input modes: either ?character at a time? or ?old line by line? depending on what the remote system supports.

When LINEMODE is enabled, character processing is done on the local system, under the con? trol of the remote system. When input editing or character echoing is to be disabled, the remote system will relay that information. The remote system will also relay changes to any special characters that happen on the remote system, so that they can take effect on the lo? cal system.

In ?character at a time? mode, most text typed is immediately sent to the remote host for processing.

In ?old line by line? mode, all text is echoed locally, and (normally) only completed lines are sent to the remote host. The ?local echo character? (initially ?^E?) may be used to turn off and on the local echo (this would mostly be used to enter passwords without the password being echoed).

If the LINEMODE option is enabled, or if the localchars toggle is TRUE (the default for ?old line by line?; see below), the user's quit, intr, and flush characters are trapped locally, and sent as TELNET protocol sequences to the remote side. If LINEMODE has ever been en? abled, then the user's susp and eof are also sent as TELNET protocol sequences, and quit is sent as a TELNET ABORT instead of BREAK There are options (see toggle autoflush and toggle autosynch below) which cause this action to flush subsequent output to the terminal (until the remote host acknowledges the TELNET sequence) and flush previous terminal input (in the case of quit and intr).

Commands:

The following telnet commands are available. Unique prefixes are understood as abbrevia? tions.

auth argument ...

The auth command controls the TELNET AUTHENTICATE protocol option. If telnet was compiled without authentication, the auth command will not be supported. Valid arguments are as follows:

disable type Disable the specified type of authentication. To obtain a list of available types, use the auth disable ? command.

enable type Enable the specified type of authentication. To obtain a list of available types, use the auth enable ? command.

status List the current status of the various types of authentication.

Note that the current version of telnet does not support authentication.

close Close the connection to the remote host, if any, and return to command mode.

display argument ...

Display all, or some, of the set and toggle values (see below).

encrypt argument ...

The encrypt command controls the TELNET ENCRYPT protocol option. If telnet was compiled without encryption, the encrypt command will not be supported.

Valid arguments are as follows:

disable type [input|output]

Disable the specified type of encryption. If you do not specify input or output, encryption of both is disabled. To obtain a list of available types, use ``encrypt disable ?''.

enable type [input|output]

Enable the specified type of encryption. If you do not specify input or output, encryption of both is enabled. To obtain a list of available types, use ``encrypt enable ?''.

input This is the same as ``encrypt start input''.

-input This is the same as ``encrypt stop input''.

output This is the same as ``encrypt start output''.

-output This is the same as ``encrypt stop output''.

start [input|output]

Attempt to begin encrypting. If you do not specify input or output, encryption of both input and output is started.

status Display the current status of the encryption module.

stop [input|output]

Stop encrypting. If you do not specify input or output, encryption of both is stopped.

type type Sets the default type of encryption to be used with later ``encrypt start'' or ``encrypt stop'' commands.

Note that the current version of telnet does not support encryption.

environ arguments...

The environ command is used to propagate environment variables across the telnet link using the TELNET NEW-ENVIRON protocol option. All variables exported from the shell are defined, but only the DISPLAY and PRINTER variables are marked to be sent by default. The USER variable is marked to be sent if the -a or -l command-line options were used.

Valid arguments for the environ command are:

define variable value

Define the variable variable to have a value of value. Any variables defined by this command are automatically marked for propagation

(``exported''). The value may be enclosed in single or double quotes so that tabs and spaces may be included.

undefine variable

Remove any existing definition of variable.

export variable

Mark the specified variable for propagation to the remote host.

unexport variable

Do not mark the specified variable for propagation to the remote host. The remote host may still ask explicitly for variables that are not exported.

list List the current set of environment variables. Those marked with a * will be propagated to the remote host. The remote host may still ask explicitly for the rest.

? Prints out help information for the environ command.

logout Send the TELNET LOGOUT protocol option to the remote host. This command is simi? lar to a close command. If the remote host does not support the LOGOUT option, nothing happens. But if it does, this command should cause it to close the con? nection. If the remote side also supports the concept of suspending a user's session for later reattachment, the logout command indicates that the session should be terminated immediately.

mode type Type is one of several options, depending on the state of the session. Telnet asks the remote host to go into the requested mode. If the remote host says it can, that mode takes effect.

character Disable the TELNET LINEMODE option, or, if the remote side does not understand the LINEMODE option, then enter ?character at a time? mode.

line Enable the TELNET LINEMODE option, or, if the remote side does not understand the LINEMODE option, then attempt to enter ?old-line-by-line? mode.

isig (-isig) Attempt to enable (disable) the TRAPSIG mode of the LINEMODE op? tion. This requires that the LINEMODE option be enabled.

edit (-edit) Attempt to enable (disable) the EDIT mode of the LINEMODE option. This requires that the LINEMODE option be enabled.

softtabs (-softtabs)

Attempt to enable (disable) the SOFT_TAB mode of the LINEMODE op?

tion. This requires that the LINEMODE option be enabled.

litecho (-litecho)

Attempt to enable (disable) the LIT_ECHO mode of the LINEMODE op?

tion. This requires that the LINEMODE option be enabled.

? Prints out help information for the mode command.

open host [[-l] user][- port]

Open a connection to the named host. If no port number is specified, telnet will attempt to contact a telnet daemon at the standard port (23). The host specifi? cation may be a host name or IP address. The -l option may be used to specify a user name to be passed to the remote system, like the -l command-line option. When connecting to ports other than the telnet port, telnet does not attempt telnet protocol negotiations. This makes it possible to connect to services that do not support the telnet protocol without making a mess. Protocol negotiation can be forced by placing a dash before the port number.

After establishing a connection, any commands associated with the remote host in /etc/telnetrc and the user's .telnetrc file are executed, in that order.

The format of the telnetrc files is as follows: Lines beginning with a #, and blank lines, are ignored. The rest of the file should consist of hostnames and sequences of telnet commands to use with that host. Commands should be one per line, indented by whitespace; lines beginning without whitespace are interpreted as hostnames. Lines beginning with the special hostname ?DEFAULT? will apply to all hosts. Hostnames including ?DEFAULT? may be followed immediately by a colon and a port number or string. If a port is specified it must match exactly with what is specified on the command line. If no port was specified on the command line, then the value ?telnet? is used. Upon connecting to a particular host, the commands associated with that host are executed.

quit Close any open session and exit telnet. An end of file condition on input, when in command mode, will trigger this operation as well.

send arguments

Send one or more special telnet protocol character sequences to the remote host. The following are the codes which may be specified (more than one may be used in

one command):

abort Sends the TELNET ABORT (Abort Processes) sequence.

ao Sends the TELNET AO (Abort Output) sequence, which should cause the re?
mote system to flush all output from the remote system to the user's ter?
minal.

ayt Sends the TELNET AYT (Are You There?) sequence, to which the remote sys?
tem may or may not choose to respond.

brk Sends the TELNET BRK (Break) sequence, which may have significance to the
remote system.

ec Sends the TELNET EC (Erase Character) sequence, which should cause the
remote system to erase the last character entered.

el Sends the TELNET EL (Erase Line) sequence, which should cause the remote
system to erase the line currently being entered.

eof Sends the TELNET EOF (End Of File) sequence.

eor Sends the TELNET EOR (End of Record) sequence.

escape Sends the current telnet escape character.

ga Sends the TELNET GA (Go Ahead) sequence, which likely has no significance
to the remote system.

getstatus
If the remote side supports the TELNET STATUS command, getstatus will
send the subnegotiation to request that the server send its current op?
tion status.

ip Sends the TELNET IP (Interrupt Process) sequence, which should cause the
remote system to abort the currently running process.

nop Sends the TELNET NOP (No Operation) sequence.

susp Sends the TELNET SUSP (Suspend Process) sequence.

synch Sends the TELNET SYNCH sequence. This sequence causes the remote system
to discard all previously typed (but not yet read) input. This sequence
is sent as TCP urgent data (and may not work if the remote system is a
4.2BSD system -- if it doesn't work, a lower case ?r? may be echoed on
the terminal).

do cmd

dont cmd

will cmd

wont cmd

Sends the TELNET DO cmd sequence. cmd can be either a decimal number be? tween 0 and 255, or a symbolic name for a specific TELNET command. cmd can also be either help or ? to print out help information, including a list of known symbolic names.

? Prints out help information for the send command.

set argument value

unset argument value

The set command will set any one of a number of telnet variables to a specific value or to TRUE. The special value off turns off the function associated with the variable. This is equivalent to using the unset command. The unset command will disable or set to FALSE any of the specified variables. The values of vari? ables may be interrogated with the display command. The variables which may be set or unset, but not toggled, are listed here. In addition, any of the vari? ables for the toggle command may be explicitly set or unset.

ayt If telnet is in localchars mode, or LINEMODE is enabled, and the status character is typed, a TELNET AYT sequence is sent to the remote host. The initial value for the "Are You There" character is the terminal's status character.

echo This is the value (initially ?^E?) which, when in ?line by line? mode, toggles between doing local echoing of entered characters (for normal processing), and suppressing echoing of entered characters (for entering, say, a password).

eof If telnet is operating in LINEMODE or ?old line by line? mode, entering this character as the first character on a line will cause this character to be sent to the remote system. The initial value of the eof character is taken to be the terminal's eof character.

erase If telnet is in localchars mode (see toggle localchars below), and if telnet is operating in ?character at a time? mode, then when this charac? ter is typed, a TELNET EC sequence (see send ec above) is sent to the re? mote system. The initial value for the erase character is taken to be the terminal's erase character.

escape This is the telnet escape character (initially ?^]?) which causes entry into telnet command mode (when connected to a remote system).

flushoutput

If telnet is in localchars mode (see toggle localchars below) and the flushoutput character is typed, a TELNET AO sequence (see send ao above) is sent to the remote host. The initial value for the flush character is taken to be the terminal's flush character.

forw1

forw2 If TELNET is operating in LINEMODE, these are the characters that, when typed, cause partial lines to be forwarded to the remote system. The initial value for the forwarding characters are taken from the terminal's eol and eol2 characters.

interrupt

If telnet is in localchars mode (see toggle localchars below) and the interrupt character is typed, a TELNET IP sequence (see send ip above) is sent to the remote host. The initial value for the interrupt character is taken to be the terminal's intr character.

kill If telnet is in localchars mode (see toggle localchars below), and if telnet is operating in ?character at a time? mode, then when this charac? ter is typed, a TELNET EL sequence (see send el above) is sent to the re? mote system. The initial value for the kill character is taken to be the terminal's kill character.

lnext If telnet is operating in LINEMODE or ?old line by line? mode, then this character is taken to be the terminal's lnext character. The initial value for the lnext character is taken to be the terminal's lnext charac? ter.

quit If telnet is in localchars mode (see toggle localchars below) and the quit character is typed, a TELNET BRK sequence (see send brk above) is sent to the remote host. The initial value for the quit character is taken to be the terminal's quit character.

reprint

If telnet is operating in LINEMODE or ?old line by line? mode, then this character is taken to be the terminal's reprint character. The initial

value for the reprint character is taken to be the terminal's reprint character.

rlogin This is the rlogin mode escape character. Setting it enables rlogin mode, as with the r command-line option (q.v.)

start If the TELNET TOGGLE-FLOW-CONTROL option has been enabled, then this character is taken to be the terminal's start character. The initial value for the kill character is taken to be the terminal's start charac? ter.

stop If the TELNET TOGGLE-FLOW-CONTROL option has been enabled, then this character is taken to be the terminal's stop character. The initial value for the kill character is taken to be the terminal's stop charac? ter.

susp If telnet is in localchars mode, or LINEMODE is enabled, and the suspend character is typed, a TELNET SUSP sequence (see send susp above) is sent to the remote host. The initial value for the suspend character is taken to be the terminal's suspend character.

tracefile

This is the file to which the output, caused by netdata or option tracing being TRUE, will be written. If it is set to ?-?, then tracing informa? tion will be written to standard output (the default).

worderase

If telnet is operating in LINEMODE or ?old line by line? mode, then this character is taken to be the terminal's worderase character. The initial value for the worderase character is taken to be the terminal's worderase character.

? Displays the legal set (unset) commands.

slc state The slc command (Set Local Characters) is used to set or change the state of the the special characters when the TELNET LINEMODE option has been enabled. Special characters are characters that get mapped to TELNET commands sequences (like ip or quit) or line editing characters (like erase and kill). By default, the local special characters are exported.

check Verify the current settings for the current special characters. The remote side is requested to send all the current special character

settings, and if there are any discrepancies with the local side, the local side will switch to the remote value.

export Switch to the local defaults for the special characters. The local default characters are those of the local terminal at the time when telnet was started.

import Switch to the remote defaults for the special characters. The remote default characters are those of the remote system at the time when the TELNET connection was established.

? Prints out help information for the slc command.

status Show the current status of telnet. This includes the name of the remote host, if any, as well as the current mode.

toggle arguments ...

Toggle (between TRUE and FALSE) various flags that control how telnet responds to events. These flags may be set explicitly to TRUE or FALSE using the set and unset commands. More than one flag may be toggled at once. The state of these flags may be examined with the display command. Valid flags are:

authdebug Turns on debugging for the authentication code. This flag only ex? ists if authentication support is enabled.

autoflush If autoflush and localchars are both TRUE, then when the ao, or quit characters are recognized (and transformed into TELNET se? quences; see set above for details), telnet refuses to display any data on the user's terminal until the remote system acknowledges (via a TELNET TIMING MARK option) that it has processed those TELNET sequences. The initial value for this toggle is TRUE if the terminal user had not done an "stty noflsh", otherwise FALSE (see stty(1)).

autodecrypt When the TELNET ENCRYPT option is negotiated, by default the actual encryption (decryption) of the data stream does not start automati? cally. The autoencrypt (autodecrypt) command states that encryp? tion of the output (input) stream should be enabled as soon as pos? sible.

Note that this flag exists only if encryption support is enabled.

autologin If the remote side supports the TELNET AUTHENTICATION option,

telnet attempts to use it to perform automatic authentication. If the TELNET AUTHENTICATION option is not supported, the user's login name is propagated using the TELNET NEW-ENVIRON option. Setting this flag is the same as specifying the a option to the open com? mand or on the command line.

autosynch If autosynch and localchars are both TRUE, then when either the intr or quit characters is typed (see set above for descriptions of the intr and quit characters), the resulting telnet sequence sent is followed by the TELNET SYNCH sequence. This procedure should cause the remote system to begin throwing away all previously typed input until both of the telnet sequences have been read and acted upon. The initial value of this toggle is FALSE.

binary Enable or disable the TELNET BINARY option on both input and out? put.

inbinary Enable or disable the TELNET BINARY option on input.

outbinary Enable or disable the TELNET BINARY option on output.

crlf If this is TRUE, then carriage returns will be sent as <CR><LF>. If this is FALSE, then carriage returns will be send as <CR><NUL>. The initial value for this toggle is FALSE.

crmod Toggle carriage return mode. When this mode is enabled, most car? riage return characters received from the remote host will be mapped into a carriage return followed by a line feed. This mode does not affect those characters typed by the user, only those re? ceived from the remote host. This mode is not very useful unless the remote host only sends carriage return, but never line feed. The initial value for this toggle is FALSE.

debug Toggles socket level debugging (useful only to the super user). The initial value for this toggle is FALSE.

encdebug Turns on debugging information for the encryption code. Note that this flag only exists if encryption support is available.

localchars If this is TRUE, then the flush, interrupt, quit, erase, and kill characters (see set above) are recognized locally, and transformed into (hopefully) appropriate TELNET control sequences (respectively

ao, ip, brk, ec, and el; see send above). The initial value for this toggle is TRUE in ?old line by line? mode, and FALSE in ?character at a time? mode. When the LINEMODE option is enabled, the value of localchars is ignored, and assumed to always be TRUE. If LINEMODE has ever been enabled, then quit is sent as abort, and eof and suspend are sent as eof and susp, see send above).

netdata Toggles the display of all network data (in hexadecimal format). The initial value for this toggle is FALSE.

options Toggles the display of some internal telnet protocol processing (having to do with telnet options). The initial value for this toggle is FALSE.

prettydump When the netdata toggle is enabled, if prettydump is enabled the output from the netdata command will be formatted in a more user-readable format. Spaces are put between each character in the output, and the beginning of telnet escape sequences are preceded by a '*' to aid in locating them.

skiprc When the skiprc toggle is TRUE, telnet does not read the telnetrc files. The initial value for this toggle is FALSE.

termdata Toggles the display of all terminal data (in hexadecimal format). The initial value for this toggle is FALSE.

verbose_encrypt

When the verbose_encrypt toggle is TRUE, TELNET prints out a message each time encryption is enabled or disabled. The initial value for this toggle is FALSE. This flag only exists if encryption support is available.

? Displays the legal toggle commands.

z Suspend telnet. This command only works when the user is using the csh(1).

! [command]

Execute a single command in a subshell on the local system. If command is omitted, then an interactive subshell is invoked.

? [command]

Get help. With no arguments, telnet prints a help summary. If a command is specified, telnet will print the help information for just that command.

ENVIRONMENT

Telnet uses at least the HOME, SHELL, DISPLAY, and TERM environment variables. Other envi?

ronment variables may be propagated to the other side via the TELNET NEW-ENVIRON option.

FILES

/etc/telnetrc global telnet startup values

~/.telnetrc user customized telnet startup values

HISTORY

The Telnet command appeared in 4.2BSD.

NOTES

On some remote systems, echo has to be turned off manually when in ?old line by line? mode.

In ?old line by line? mode or LINEMODE the terminal's eof character is only recognized (and

sent to the remote system) when it is the first character on a line.

BUGS

The source code is not comprehensible.