

Chapter 46

Terminal Server

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Introduction

This chapter describes the terminal server facilities provided by the switch, how to configure virtual terminals and create host nickname tables.

See [Chapter 10, Interfaces](#) for details of how to configure and manage the asynchronous ports on the switch.

Some of the commands described in this chapter are available as both Manager (or Security Officer) privilege level and User privilege level commands. Normally, commands that require only User privilege have a restricted syntax. For example, if the **set asyn** command is issued from a port with User privileges, it can only alter characteristics of the port from which the command was entered. Displays produced by some commands are different for different privilege levels. Differences are described in the individual command descriptions.

For information about entering, editing, and recalling commands within a Telnet session, see [Chapter 2, Using the Command Line Interface \(CLI\)](#).

TTY Devices

A *TTY device* is a software device that forms a link between a terminal device (a terminal connected to an asynchronous port or a Telnet connection) and the switch's command processor. TTY devices support Telnet connections to the switch and multiple terminal sessions from a single asynchronous port or Telnet connection. The term TTY is derived from the UNIX operating system where TTY is an abbreviation for TeleType, the terminal I/O handling software layer in UNIX. TTY devices are also called *virtual terminals*.

Asynchronous ports

Asynchronous ports have a dedicated TTY device associated with them that provides access to the switch's command prompt. When a terminal session is initiated using the [telnet command on page 46-17](#), a dynamic TTY device is created for the Telnet session and linked to the dedicated TTY device.

Some configuration parameters of a terminal connection to an asynchronous port such as the baud rate apply only to the physical port; whereas other parameters such as the prompt apply to the dedicated TTY device. Parameters in the [set asyn command on page 10-24 of Chapter 10, Interfaces](#) can be used to set the configuration of both the physical port and the dedicated TTY device ([Table 46-1](#)).

Table 46-1: Configuration parameters for TTY devices

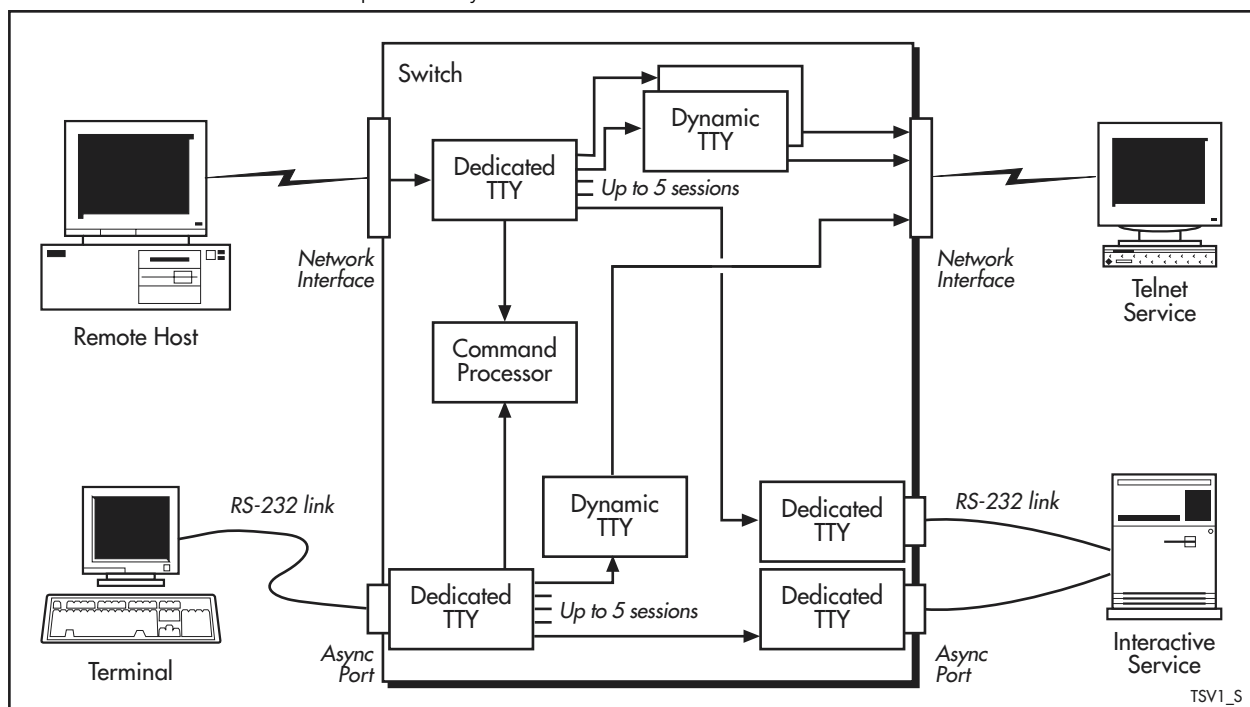
Parameter	Meaning
history	Sets the number of commands saved for command line recall.
page	Sets the number of lines of output displayed on the terminal before the switch pauses and waits for the user to press a key to continue.
prompt	Sets the switch prompt to a string, the default prompt, or disables the prompt.
type	Sets the type of the terminal to VT100 or DUMB. Dumb terminals are used for printing or for terminals that do not support VT100 escape sequences.
idletimeout	Specifies a period of time, in seconds, for the TTY device's idle timer. If the specified time period lapses since the last time a TTY device received data from the remote client, the connection is terminated; this applies from the moment that the Telnet session becomes established.

The physical characteristics of the asynchronous port affect the operation of the port as a network interface, as well as a terminal port. However, characteristics of the dedicated TTY device affect only terminal connections and have no effect when the port is used as a network interface.

When the **set asyn** command on page 10-24 of Chapter 10, *Interfaces* is executed from a terminal attached to an asynchronous port, it displays the configuration of the asynchronous port, followed by the configuration of the dedicated TTY device. To view the configuration of a dedicated TTY device, use the **show tty** command on page 46-14.

Telnet connections A Telnet connection (created when a user Telnets to the switch) also has an associated dedicated TTY device (Figure 46-1). However, the TTY device is temporary and exists only while the Telnet connection is active.

Figure 46-1: TTY devices provide an interface between terminals and Telnet connections, the switch's command processor, and interactive and Telnet services provided by the switch



The **set asyn** command on page 10-24 of Chapter 10, *Interfaces* can be used to set the configuration of a dedicated TTY device (Table 46-1 on page 46-2). Physical port characteristics cannot be set because, by nature, a Telnet connection is not associated with an asynchronous port. When the **set asyn** command is executed from a Telnet connection, it displays the configuration of the dedicated TTY device, and is equivalent to the **show tty** command on page 46-14.

Displaying TTY configuration

From either a terminal attached to an asynchronous port or a Telnet connection, use the following command to display the configuration of any TTY device, including both dedicated and dynamically created TTY devices.

```
show tty[=tty-number]
```

To display a one-line summary for a specific TTY device, use the command:

```
show tty[=tty-number] summary
```

If **all** is specified as the TTY device, a list of all existing dedicated and dynamic TTY devices is displayed.

Setting TTY defaults To set the default configuration for dynamically created TTY devices dedicated to Telnet connections, use the command:

```
set tty [history=0..99] [page=4..99] [prompt={prompt|default|  
off}] [type={dumb|vt100}] [idletimeout={10..4294967294|  
off|0}]
```

The default configuration for TTY devices dedicated to the asynchronous ports is set with the [set asyn command on page 10-24 of Chapter 10, Interfaces](#). All defaults are retained through switch reboots.

Multiple Sessions

Once a terminal or Telnet connection has been made to the switch, it is possible to Telnet to another host. The connection between the TTY device for the terminal port or Telnet connection and the TTY device for the service is called a *session*. It is possible to have up to five sessions open at one time, but only one session may be active at any one time. Input from the terminal or Telnet connection is sent to the active session and output from the active session is sent to the terminal or Telnet connection. Inactive sessions do not receive any input. Output from an inactive session is buffered until the session becomes the active session. To create a session, use the command:

```
telnet hostaddr
```

where *hostaddr* may be a host name defined in host address table, the IP address of a host in dotted decimal notation or a domain name to be resolved by a *Domain Name Server* (DNS).

Once the session is created, input from the terminal is sent to the host or service and output from the host or service is sent to the terminal. To return to the switch prompt a special character must be typed; this character is known as the *attention character*. For an asynchronous port, this character is a [Break] by default, but may be changed to [Ctrl+P] by using the following command if the method of connection from the terminal to the port prevents the transmission of a [Break].

```
set asyn attention=^P
```

See the [set asyn command on page 10-24 of Chapter 10, Interfaces](#) for more information. For a Telnet connection the attention character is always [Ctrl+P]. The attention character for a Telnet session cannot be a [Break] because it is not possible to transmit such a character over the network, since [Break] is a line state rather than a true character.

When a session is active, pressing the attention character suspends the session and returns the user to the switch prompt. Another session can be created by entering another [telnet](#) command. Up to five concurrent sessions may be established. While a session is suspended it remains connected until it is terminated by the user or the remote host (in the case of a Telnet session).

A number of switch commands are provided to manage sessions. To display the currently established sessions, use the command:

```
show session
```

To reconnect to a session, use the command:

```
reconnect session-number
```

To terminate a session, use the command:

```
disconnect session-number
```

An alternative method of reconnecting to a session is to press [Ctrl+X] to display the name of the first available session and a reconnect command for the session next to the prompt. To reconnect to this session press [Enter] or [Return]. Pressing [Ctrl+X] repeatedly displays each available session in turn. Press [Enter] or [Return] when the desired session is displayed.

Accessing Telnet Hosts

Asynchronous ports on the switch are often used to access Telnet hosts available on the network by using the [telnet command on page 46-17](#).

Telnet To access a Telnet host, use the command:

```
telnet ipadd
```

where *ipadd* is an IPv4 address in dotted decimal form, a valid IPv6 address, or a full domain name. For example, a host with the domain name `zaphod.beeblebrox.com` and IP address `172.16.1.5` can be accessed with either of the commands:

```
telnet zaphod.beeblebrox.com
telnet 172.16.1.5
```

If a domain name is specified, the switch sends a request to a name server to translate the domain name to an IP address. If the translation is successful, the switch attempts to make a connection to the host specified by the IP address.

A name server must be defined with the [set ip nameserver command on page 13-127 of Chapter 13, Internet Protocol \(IP\)](#). The domain name lookup may take several seconds, during which time the normal switch prompt reappears. When the lookup is complete, a message is displayed indicating whether the lookup was successful.

To assign a short nickname to popular Telnet hosts, use the command:

```
set ip host=nickname ipaddress=ipadd
```

To see the current list of nicknames, use the command:

```
show ip host
```

The Telnet host can now be accessed with the command:

```
telnet nickname
```

For example, if the Telnet host `zaphod.beeblebrox.com` is assigned the nickname `zaphod`, then it can be accessed with the command:

```
telnet zaphod
```

Using nicknames solves two problems: it reduces the time delay associated with domain name lookups, and it saves users having to remember IP addresses or long domain names.

See the [set ip host command on page 13-121 of Chapter 13, Internet Protocol \(IP\)](#) and the [show ip host command on page 13-158 of Chapter 13, Internet Protocol \(IP\)](#) for more information about configuring host names.

**Remote
management**

Managing remote switches is as easy as managing the local switch to which the terminal is connected. From a terminal, or PC running terminal emulation software, connected to any port (with either User or Manager privilege), use the command:

```
telnet ipadd
```

to Telnet to the remote switch, specifying the remote switch's IP address. If the connection is successful a login prompt from the remote switch is displayed. Login using a login name that has been defined with Manager privilege (such as the default Manager login name), and enter the password.

To return to the local switch, terminate the connection by using the command:

```
logout
```

Command Reference

This section describes the commands available on the switch to configure and use the terminal server functions on the switch.

The shortest valid command is denoted by capital letters in the Syntax section. See “[Conventions](#)” on [page xlix of About this Software Reference](#) in the front of this manual for details of the conventions used to describe command syntax. See [Appendix A, Messages](#) for a complete list of messages and their meanings.

connect

Syntax Connect ASYn=0

Description This command enables you to connect the terminal to an asynchronous port on the switch after you have telneted to the switch.

Example To connect to the switch’s asynchronous port 0, use the command:

```
c asy=0
```

Related Commands [disconnect](#)
 [reconnect](#)
 [show sessions](#)
 [telnet](#)

disable telnet server

Syntax DISable TELnet SErver

Description This command blocks telnet access to the switch. Telnet access is enabled by default. For security reasons, it may be desirable to disable telnet access to the switch.

Example To disable telnet access to the switch, use the command:

```
dis tel se
```

Related Commands [enable telnet server](#)
 [set telnet](#)
 [show telnet](#)
 [telnet](#)

disconnect

Syntax `Disconnect session-number`

where *session-number* is the number from 1 to 5 for a currently established terminal session

Description This command terminates the specified terminal session. If the session is a connection to a host port then the assignment is broken. If the session is a Telnet connection the connection is broken. The session number must be the number of a currently available terminal session.

This command should not normally be required. Users should execute the standard logoff procedure for the host service. Logging off from the host disconnects the session and returns the user to the switch prompt. The **disconnect** command should be used if logging off from the host fails to disconnect the session.

Examples To terminate session 2, use the command:

```
d 2
```

Related Commands [connect](#)
[reconnect](#)
[show sessions](#)
[telnet](#)

enable telnet server

Syntax `ENAbLe TELnet SErver`

Description This command enables the Telnet server to be accessed remotely. The Telnet server is enabled by default.

Related Commands [disable telnet server](#)
[set telnet](#)
[show telnet](#)
[telnet](#)

reconnect

Syntax Reconnect *session-number*

where *session-number* is the number from 1 to 5 for a currently established terminal session

Description This command reconnects the user's terminal to the specified terminal session. All subsequent output from the terminal is sent to the specified session and all output from the session is sent to the terminal. The session number must be the number of a currently established terminal session.

Examples To reconnect to session 2, use the command:

```
r 2
```

Related Commands [connect](#)
 [disconnect](#)
 [show sessions](#)
 [telnet](#)

set telnet

Syntax SET TELnet [TErmtype=*termstring*] [INsertnull={ON|OFF}]
 [LISTenport=*port*] [IDLEtimeout=0..4294967295]
 [MAXSessions=0..30] [LOGINSYSstemname={ON|OFF}]

where:

- *termstring* is a string 1 to 31 characters long. If the string contains spaces, it must be in double quotes.
- *port* is a number from 1 to 65535.

Description This command sets the terminal type string used, and the null insertion behaviour for all outgoing Telnet sessions.

The **termtype** parameter specifies a terminal identification string that is passed to a remote Telnet server upon connection. The default option is the string **unknown**. The terminal identification is usually used by the remote system to set the terminal attributes for the Telnet session.

The **insertnull** parameter, when set to **on**, specifies that a NULL character should be inserted after each CR sent to the remote host. The default is **off**.

The **listenport** parameter sets the TCP port over which the Telnet server listens for connections. If this parameter is not used, the default port number is **23**.

The **idletimeout** parameter specifies a period of time, in seconds, for the Telnet server's idle timer. If the specified time period lapses since the last time a Telnet session received data from the remote client, the session is terminated. This applies from the moment that the Telnet session becomes established, regardless of whether the user has logged in or not. If 0 is specified, the idle timer remains off, and the session must be explicitly terminated. The default is **0**.

If the Telnet server idle timeout period is modified while there are established Telnet sessions, the idle timers for those sessions are reset so that they use the new timeout value. Any idle time accumulated by those sessions prior to the **set** command is lost.

The **maxsessions** parameter specifies the number of concurrent Telnet sessions that are supported by the switch. Once this limit is reached, any subsequent session requests are rejected. The session limit cannot be set below the number of currently established Telnet sessions. The default is 30.

The **loginsystemname** parameter, determines whether the system name will appear at the login prompt for all telnet client sessions. The default is **on** (the system name will appear).

Important If the TCP listen port is changed from the default of 23, care must be taken to ensure that IP filtering configurations are matched accordingly.

Examples To set the terminal identification string to vt100, without the system name appearing at the login prompt, use the command:

```
set tel te=vt100 loginsys=off
```

Related Commands

- [disable telnet server](#)
- [enable telnet server](#)
- [show telnet](#)
- [telnet](#)

set tty

Syntax SET Tty [History=0..99] [PAGE=4..99] [PRompt={*string-15*|DEFault|OFF}] [TYpe={Dumb|Vt100}] [IDLEtimeout={10..4294967294|OFF|0}]

where *string-15* is a string 1 to 15 characters long. If the string contains spaces, it must be in double quotes. The string is not case sensitive.

Description This command sets the default values for TTY devices created for Telnet connections. Multiple options may be specified in the same command.

To change the settings for a Telnet connection immediately, use the [set asyn command on page 10-24 of Chapter 10, Interfaces](#).

The **history** parameter sets the number of commands saved in the command history for future recall. The minimum number is 0 and the maximum is 99. Setting the history length to zero for a port does not clear all the commands from the history. The command history is cleared with the [reset asyn history command on page 10-22 of Chapter 10, Interfaces](#). The default history length for asynchronous ports and Telnet connections is 30.

The **page** parameter sets the number of lines of command output displayed on the terminal screen before the switch pauses and waits for the user to press a key to continue. This number may range from 4 to 99. The default is 22 for both asynchronous ports and Telnet connections. If **page** is set to **off**, paging is disabled.

The **prompt** parameter sets the prompt for the port to either the default string, such as:

```
CMD>
```

or a user-specified string, or disables the prompt. It is often convenient to disable the prompt if the port is being used as a manager port or for debugging network problems, as it reduces the clutter on the terminal screen. This option has effect when the port is not assigned. When the port is assigned, the host controls prompting.

The **type** parameter specifies the type of terminal attached to the port. If **type** is set to **vt100**, the switch expects the terminal to support standard VT100 escape sequences and uses them. If **type** is set to **dumb**, the switch does not use VT100 escape sequences. The **dumb** option is required for Telnet clients that do not support VT100 escape sequences. The default is **vt100** for both asynchronous ports and Telnet connections.

The **idletimeout** parameter specifies a period of time, in seconds, for the TTY device's idle timer. If the specified time period lapses since the last time a TTY device received data from the remote client, the connection is terminated; this applies from the moment that the Telnet session becomes established. If **0** or **off** is specified, the idle timer remains off, and the session must be explicitly terminated. The default is 0.

If the **idletimeout** period is modified when there are already established Telnet sessions, the idle timers for those sessions are reset so that they use the new timeout value. Any idle time accumulated by those sessions prior to the issuing of the set command is lost.

Examples To set PAGE mode off for all subsequent Telnet connections, use the command:

```
set tt pag=of
```

Related Commands [set asyn](#) in Chapter 10, Interfaces
[show tty](#)

show sessions

Syntax SHow SESSions

Description This command displays the status of the sessions available for a port or Telnet login (Figure 46-2). The status is one of the following:

- IP address for Telnet connection
- Host name for Telnet connection
- Nickname for Telnet connection
- “not connected” if the session is not in use

Figure 46-2: Example output from the **show sessions** command

```
Session information for Telnet 1

session 1 connected to tst
session 2 connected to SUN
session 3 connected to 192.168.35.17
session 4 connected to host.company.com
session 5 not connected
```

Examples To display the status of the current terminal sessions, use the command:

```
sh ses
```

Related Commands [connect](#)
[disconnect](#)
[reconnect](#)

show telnet

Syntax SHow TELnet

Description This command displays information about the current Telnet settings (Figure 46-3, Table 46-2).

Figure 46-3: Example output from the **show tty** command

```
TELNET Module Configuration
-----
Telnet Server ..... Enabled
Telnet Server Listen Port ..... 23
Telnet Terminal Type ..... UNKNOWN
Telnet Insert Nulls ..... Off
Telnet Com Port Control ..... Disabled
Telnet Current Sessions ..... 1
Telnet Session Limit ..... 12
Telnet Idle Timeout ..... 180
Telnet System Name at Login..... off
-----
```

Table 46-2: Parameters in output of the **show telnet** command

Parameter	Meaning
Telnet Server	Whether the Telnet server is enabled.
Telnet Server Listen Port	TCP port number that the Telnet server is listening on. Can be any number from 1 to 65535 that is not already in use.
Telnet Terminal Type	Terminal type identification string that is passed to a remote Telnet server upon connection. The default is UNKNOWN.
Telnet Insert Nulls	Whether a NULL character is inserted after each CR that is sent.
Telnet Com Port Control	Whether reverse Telnet is enabled. Reverse Telnet is only available when two or more asynchronous ports are installed on the switch.
Telnet Current Sessions	Number of Telnet sessions currently established.
Telnet Session Limit	Maximum number of concurrent Telnet sessions allowed.
Telnet Idle Timeout	Maximum period of time in seconds without data being received from a given remote Telnet client before the corresponding session is terminated.
Telnet System Name at Login	Indicates whether the system name will appear together with the telnet client login prompt. Note that the login prompt and system names appear before you log into the switch.

Related Commands

- [disable telnet server](#)
- [enable telnet server](#)
- [set telnet](#)
- [telnet](#)

show tty

Syntax `SHoW TTY[=tty-number|All] [{Summary|Default}]`

where *tty-number* is the number of a TTY device

Description This command displays information about one or all of the TTY devices defined on the switch at the time the command is issued. There is a TTY device dedicated to each port and it is always present. Other TTY devices are created and destroyed as they are required for Telnet logins and multiple sessions.

If a TTY number is specified, then information for this TTY is displayed. If a TTY number is not specified, then information for the TTY where the command is issued is displayed. If **all** is specified, then information for all the TTYs on the switch is displayed.

If no other parameters are specified then full configuration information for the specified TTY is displayed (Figure 46-4, Table 46-3 on page 46-14). The **summary** parameter generates an abbreviated one-line display for each TTY specified (Figure 46-5 on page 46-15, Table 46-4 on page 46-16). The **default** parameter displays the default values assigned to TTY devices created for Telnet connections (Figure 46-6 on page 46-16, Table 46-5 on page 46-16). A TTY number may not be specified with the **default** parameter.

If the command is issued from a connection with User privileges, the TTY number cannot be specified and the information displayed is for the TTY from which the command was issued.

Figure 46-4: Example output from the **show tty** command

```
TTY information
Instance ..... 30
Login name ..... manager
Description ..... Telnet 1
Secure ..... yes
Connections to ..... 21
Current connection ..... 0
In flow state ..... on
Out flow state ..... on
Attached module ..... Telnet
Attached module instance .. 1
Type ..... VT100
Prompt ..... default
Echo ..... yes
Attention ..... char
Manager ..... yes
Edit mode ..... insert
History length ..... 30
Page mode/length ..... 22
Idle Timeout (seconds)..... 300
```

Table 46-3: Parameters in output of the **show tty** command

Parameter	Meaning
Instance	Instance number for the TTY device.
Login name	Login name of the user logged in to this port, if any.
Description	Name assigned to the port.
Secure	Whether the port is secure.

Table 46-3: Parameters in output of the **show tty** command (Continued)

Parameter	Meaning
Connections to	A list of TTY devices (if any) to which this port TTY is linked for the purpose of providing multiple sessions.
Current connection	Instance number of the TTY that this port TTY is currently connected to, or "none" if there is no active connection.
In flow state	Whether the input flow control for the TTY device is on.
Out flow state	Whether the output flow control for the TTY device is on.
Attached module	Name of the module that owns the TTY. The default is TSER (terminal server).
Attached module instance	Instance of the module that owns the TTY.
Type	Whether the terminal type for the TTY is dumb or VT100.
Prompt	Prompt for this TTY: default off login password confirm encapsulation user-defined string
Echo	Whether the TTY echoes characters are received.
Attention	Attention character for this TTY: none break char
Manager	Whether the TTY has Manager privileges.
Edit mode	Edit mode for the TTY question mark (?) insert overstrike
History length	Maximum number of commands that is held in the command history for this TTY.
Page mode/length	Number of lines of command output the switch displays before pausing and waiting for the user to press a key, or "off" if page mode is disabled for this TTY.
Idle timeout	Maximum period of time in seconds without data being received from a given remote client before the corresponding session is terminated.

Figure 46-5: Example output from the **show tty=all summary** command

TTY Description	User name	Module	Inst	Mgr	Timeout
016 Port 0	support	TSER	000	yes	off
018 Telnet 1	manager	TELN	001	yes	300

Table 46-4: Parameters in output of the **show tty=all summary** command

Parameter	Meaning
TTY	Instance number of the TTY
Description	Name of the port, for a TTY dedicated to a port. For a Telnet login TTY the description is "Telnet" followed by the Telnet instance number.
User name	Login name of the user logged in to the TTY, if any.
Module	Name of the module that is connected to the TTY.
Inst	Instance number of the module that is connected to the TTY.
Mgr	Whether the TTY has manager privileges.
Timeout	Maximum period of time in seconds without data being received from a given remote client before the corresponding session is terminated.

Figure 46-6: Example output from the **show tty default** command

```

TTY Default Settings
-----
History length.....20
Page length.....22
Prompt.....default
Type.....VT100
Idle Timeout (seconds)....off

```

Table 46-5: Parameters in output of the **show tty default** command

Parameter	Meaning
History length	Default maximum number of commands that is held in the command history for a TTY.
Page mode/length	Default number of lines of command output the switch displays before pausing and waiting for the user to press a key, or "off" if page mode is disabled for a TTY.
Prompt	Default prompt for a TTY: default off login password confirm encapsulation user-defined string
Type	Whether the default terminal type for a TTY is dumb or VT100.
Idle Timeout	Maximum period of time in seconds without data being received from a given remote client before the corresponding session is terminated.

Examples To display the TTY configuration for a Telnet connection, use the command:

```
sh tt
```

To display a summary of all the TTY information for a switch, use the command:

```
sh tt=a s
```

Related Commands [set asyn](#) in Chapter 10, Interfaces
[set tty](#)

telnet

Syntax `TELnet {ipadd|ipv6add[%interface]|host}`

where:

- *ipadd* is an IP address in dotted decimal notation.
- *ipv6add* is a valid IPv6 address.
- *interface* is the interface the Telnet request is sent out, for a request to Telnet to an IPv6 link-local address, e.g. eth0vlan1. Separate the address and interface with a % sign.
- *host* is a full domain name of a host, a host nickname created with the [add ip host command on page 13-67 of Chapter 13, Internet Protocol \(IP\)](#), or a host name in the same domain.

Description This command attempts to open a Telnet connection to a Telnet host at the specified IP address or with the specified name. If the command is successful, the message in [Figure 46-7](#) is followed by the host prompt. When the user logs off from the host, the connection terminates and the switch prompt reappears. The Telnet session can also be terminated by pressing [Ctrl+D].

Telnetting to an IPv6 link-local address requires interface information as well as the address because a single link-local address can belong to several interfaces. To telnet to a link-local address, specify the interface out which the switch is to send the telnet request, as well as the address to which the switch is to send the telnet request ([Figure 23-1 on page 23-18 in Chapter 23, Internet Protocol version 6 \(IPv6\)](#)). For example:

```
telnet fe80::7c27%vlan1
```

If the *sysName* MIB object is set to the switch's fully qualified domain name (e.g. switch.company.com) by using the [set system name command on page 4-33 of Chapter 4, Configuring and Monitoring the System](#), and a name server has been defined by using the [set ip nameserver command on page 13-127 of Chapter 13, Internet Protocol \(IP\)](#), then the command:

```
tel mainhost
```

attempts a Telnet connection to the host "mainhost.company.com", provided "mainhost" is not an IP nickname (IP nicknames take precedence).

Figure 46-7: Example output from the **telnet** command

```
TELNET. Attempting to connect to 192.168.35.17, please wait...
```

If a domain name is specified, the switch sends a request to a name server to translate the domain name into an IP address. This may take several seconds during which time the normal switch prompt reappears. When the name server responds (or fails to respond), a message is displayed indicating that the lookup was unsuccessful, or that it was successful and an attempt is being made to connect to a host at the specified IP address.

A user is permitted to issue the **telnet** command only if the user has the TELNET attribute set to **yes** in the user database. See [Chapter 29, User Authentication](#) for further information on these security features.

If a user telnets to the switch but does not login within one minute, the switch automatically times out the session and terminates the Telnet connection.

Examples To connect to Telnet host zaphod.beeblebrox.com use the command:

```
tel zaphod.beeblebrox.com
```

Related Commands

- [add ip host](#)
- [connect](#)
- [delete ip host](#)
- [disable telnet server](#)
- [disconnect](#)
- [enable telnet server](#)
- [reconnect](#)
- [set ip host](#)
- [set ip nameserver](#)
- [set system name](#)
- [set telnet](#)
- [show ip host](#)
- [show telnet](#)