



WX Application Acceleration Platforms

JWOS Command Reference Guide

Release 6.0

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Part 1

Using the JWOS CLI

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About this guide

This preface describes how to use this guide and request technical support:

- Objectives on page xiii
- Audience on page xiii
- Document Conventions on page xiii
- List of Technical Publications on page xv
- Requesting Technical Support on page xv

Objectives

This guide describes how to use the Juniper WAN Acceleration Operating System (JWOS) command-line interface (CLI) to configure, monitor, and manage the Juniper Networks WX application acceleration platforms.

To manage WX devices through the JWOS Web interface, see the *WX Administration Guide*.

Audience

This guide is intended for administrators responsible for configuring and managing WX devices. It is assumed that readers of this guide are familiar with their network architecture and devices and can perform basic network configuration procedures.

Document Conventions

Table 1 on page xiv defines notice icons used in this guide, Table 2 on page xiv defines text conventions used throughout the book, and Table 3 on page xiv defines the text conventions used for CLI commands.

Table 1: Notice icons




Icon	Meaning	Description
	Informational note	Indicates important features or instructions.
	Caution	Indicates that you may risk losing data or damaging your hardware.
	Warning	Alerts you to the risk of personal injury.

Table 2: Text Conventions

Convention	Description
Plain sans serif type	Filenames and directory names.
<i>Italics</i>	<ul style="list-style-type: none"> ■ Terms defined in text. ■ Variable elements for which you supply values. ■ Book titles.
+ (<i>plus sign</i>)	Key names linked with a plus sign indicate that you must press two or more keys simultaneously.

Table 3: CLI Conventions

Convention	Description
Bold type	Commands that you enter; command names and options.
Plain sans serif type	<ul style="list-style-type: none"> ■ Filenames and directory names. ■ Code and system output.
<i>Italics</i>	Variables for which you supply values.
[] Square brackets	Elements in square brackets indicate optional keywords or variables.
Pipe symbol	Elements separated by the pipe symbol indicate a choice between mutually exclusive keywords or variables. The set of choices is often enclosed in parentheses for clarity.
{ } Braces	Elements in braces indicate required keywords or variables.
() (parentheses)	Enclose a set of mutually exclusive keywords or variables separated by the pipe symbol.
# (pound sign)	Indicates a comment specified on the same line as the configuration statement to which it applies.

List of Technical Publications

The following additional WX documents are available at <http://www.juniper.net/techpubs>:

- *WX Administration Guide*—Explains how to use the JWOS Web interface to install and configure the WX application acceleration platforms.
- *WX Client User's Guide*—Explains how to use the WX client software to provide application acceleration between a Windows 2000 or Windows XP workstation and remote WX devices running JWOS 6.0 or later.

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- Find solutions and answer questions using our Knowledge Base: <http://kb.juniper.net/>
- Download the latest versions of software and review release notes: <http://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://www.juniper.net/alerts/>
- Join and participate in the Juniper Networks Community Forum: <http://www.juniper.net/company/communities/>
- Open a case online in the CSC Case Management tool: <http://www.juniper.net/cm/>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool located at <https://tools.juniper.net/SerialNumberEntitlementSearch/>.

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- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see <http://www.juniper.net/support/requesting support.html>

Part 1

Using the JWOS CLI

- JWOS Command-Line Interface Overview on page 3
- System Commands on page 7
- Configuration Commands on page 19
- Request Commands on page 47
- Show Commands on page 53

Chapter 1

JWOS Command-Line Interface Overview

The following topics provide an overview of the JWOS command-line interface (CLI):

- Introducing the CLI on page 3
- Accessing the CLI on page 3
- CLI Basics on page 5

Introducing the CLI

You use the CLI to configure and monitor WX devices—whether from a console or through a network connection. The CLI command shell runs on top of a UNIX-based operating system kernel.

The CLI is a straightforward command interface. You type commands on a single line, and the commands are executed when you press the Enter key. The CLI provides command help and command completion, and it also provides Emacs-style keyboard sequences that allow you to move around on a command line and scroll through recently executed commands.

Accessing the CLI

You can use either of the following methods to access the CLI:

- From a remote client, use an SSH application to connect to the primary IP address of the WX device (see “Using an SSH Program from a Remote Workstation” on page 3.)
- From a terminal connected to the serial port on the WX device (see “Using a Terminal Connected to the Serial Port” on page 4).

Using an SSH Program from a Remote Workstation

SSH is an application program that provides authentication and encryption capabilities for secure Internet communications. You can download SSH client software from the following site:

<http://www.openssh.com>

Because there are many different types of SSH applications available, we recommend that you read the instructions for your specific SSH application.



NOTE: WX devices support SSH (protocol versions SSHv1 and SSHv2) with DES/3DES encryption. Up to four connections are supported. Multiple channels, port forwarding, and X11 forwarding are not supported.

Using a Terminal Connected to the Serial Port

You can connect a terminal to the serial port on a WX device and use a terminal emulation program (such as HyperTerminal) to log into the CLI. Some terminal emulation programs also include an SSH application.

Use a female-to-female DB-9 crossover cable (null-modem cable) to connect the serial port on the WX device to the serial port on the terminal. The serial port on the WX device is of type RS-232 (AT-compatible) with a male DB-9 connector.

On the terminal, verify the following serial port settings:

- Baud rate: 9600 bps
- Data bits: 8
- Parity: none
- Stop bits: 1
- Flow control: none

Logging In Using the CLI

Enter your username and password to log into the CLI. When a WX device is accessed for the first time, type **admin** for the username and **juniper** for the password. We recommend that the default password be changed immediately.

The following prompt is displayed with the default system name:

```
WX>
```

To add or change local user accounts, see “config set system login” on page 42. To change the default system name, see “config set system name” on page 43

CLI Basics

Note the following about the CLI:

- CLI commands are case sensitive.
- To view the online help, type **help** before the command or **?** after it. Type just **help** or **?** at the command prompt to view available commands and options.
- Configuration changes take effect when you type **commit**. You can use the **show** commands to verify your changes before committing them. To retain your changes after the next time the system restarts, use the **request system save-config** command.

The following table lists the commonly used keyboard shortcuts.

Table 4: Keyboard Shortcuts

Action	Shortcut	Description
Complete commands	Tab or Ctrl + I	Completes a partially typed keyword if enough characters are entered to uniquely identify it.
Recall commands	Ctrl + P or ↑ (up arrow)	Retrieves the previous command from the history buffer.
	Ctrl + N or ↓ (down arrow)	Retrieves the next command from the history buffer.
Delete characters	Ctrl + H	Deletes the character before the cursor (same as Backspace key).
	Ctrl + K	Deletes all characters from the cursor to the end of the line.
	Ctrl + W	Deletes the word before the cursor.
	Ctrl + U	Deletes all characters on the line.
Move cursor	Ctrl + A	Moves the cursor to the start of the line.
	Ctrl + B	Moves the cursor back one character.
	Ctrl + E	Moves the cursor to the end of the line.
	Ctrl + F	Moves the cursor forward one character.
Transpose characters	Ctrl + T	Transposes the character at the cursor with the preceding character.

Chapter 2

System Commands

This chapter describes the JWOS system commands. Note that these commands are operational, and are not saved in the device configuration file.

Command	Description
“clear flow-filter” on page 8	Clears the flow filter statistics.
“cls” on page 8	Clears the screen.
“commit” on page 8	Applies changes to the configuration.
“exit” on page 9	Exits the CLI (same as quit).
“history” on page 9	Displays the command history for the current user.
“netstat” on page 9	Displays network traffic statistics.
“packet-capture” on page 11	Captures raw network traffic on the Local or Remote interface.
“ping” on page 12	Verifies whether a remote network device is accessible.
“quit” on page 13	Exits the CLI (same as exit).
“set adjacency establish” on page 13	Sets a delay for creation of adjacencies.
“set client default-config” on page 14	Specifies the source of the default configuration that is downloaded to WX clients
“set date” on page 14	Sets the date and time of the WX device.
“set logging” on page 15	Specifies the minimum severity of messages written to the log, and whether log messages are displayed on the console.
“set system clear-hardened-state” on page 15	Clears a passthrough condition and returns the system to normal operation.
“setup” on page 16	Runs the Quick Setup from the command line.

Command	Description
“traceroute” on page 17	Traces the path to a WX device or other network device.

clear flow-filter

Syntax	clear flow-filter debug-buffer
Release-Information	Introduced in JWOS Release 6.0.
Description	Clears the traffic statistics for all the current flow filters.
Options	None.
Related-Topics	“config delete flow-filter” on page 22 “show flow-filter” on page 62
Sample Usage	WX> clear flow-filter debug-buffer

cls

Syntax	cls
Release-Information	Introduced in JWOS Release 6.0.
Description	Clears the screen.
Options	None.
Related-Topics	None.
Sample Usage	WX> cls

commit

Syntax	commit
Release-Information	Introduced in JWOS Release 6.0.
Description	Applies the candidate configuration to the running configuration. The candidate configuration includes all configuration changes entered since the last commit. To retain your changes after the system restarts, use the command <code>request system save-config</code> .
Options	None.
Related-Topics	“request system save-config” on page 51

Sample Usage WX> `commit`

exit

Syntax `exit`

Release-Information Introduced in JWOS Release 6.0.

Description Exits from the CLI interface. Same as `quit`.

Options None.

Related-Topics “quit” on page 13

Sample Usage WX> `exit`

history

Syntax `history`

Release-Information Introduced in JWOS Release 6.0.

Description Lists the command history of the current user.

Options None.

Related-Topics None.

Sample Usage WX> `history`
 [1] `show client`
 [2] `show client settings`
 [3] `history`

netstat

Syntax `netstat [-AaLnW] [-f protocol_family | -p protocol]`
 `netstat -i | -l interface [-abdnt] [-f protocol_family | -p protocol]`
 `netstat -w seconds [-l interface] [-d]`
 `netstat -s [-s [-z] [-f protocol_family | -p protocol]`
 `netstat -m`
 `netstat -r [-AnW] [-f protocol_family]`
 `netstat -rs [-s]`
 `netstat -g [-W] [-f protocol_family]`
 `netstat -gs [-s] [-f protocol_family]`

Release-Information Introduced in JWOS Release 6.0.

Description Displays the active network connections and other traffic statistics. If no options are specified, the connection status and number of bytes in the send and receive queues

are shown for each open socket (local and remote IP address and port) for all protocol families.

Options **-AaLnW**—Displays the hexadecimal number of each socket (A), both listening and non-listening sockets (a), current listen queue sizes (L), numeric address names rather than symbolic host and port names (n), and/or wide (untruncated) host names (W).

-f *protocol_family*—Displays network data for just the specified family of protocols. Specify **inet** for the TCP and UDP protocols.

-p *protocol*—Displays network data for just the specified protocol, such as **tcp**.

-i | —*interface*—Displays network statistics for all interfaces or a specific interface.

-abdnt—Displays both active and inactive interfaces (a), input and output byte counts for each interface (b), dropped packet counts (d), and/or network timer information.

-w *seconds* [-l *interface*] [-d]—Displays input and output packet, byte, error, and collision counts for all interfaces or a specific interface, and refreshes the data in the specified number of seconds. Use the **-d** option to include the drop count. Press **Ctrl + c** to stop the refresh.

-s [-s -z]—Displays summary statistics for all protocols or the specified protocol(s). Use the second **-s** option to shorten the summary, and the **-z** option to further shorten the TCP and Proxy statistics.

-m—Includes masqueraded connections, if any, in the list of active connections.

-r [-AnW]—Displays the current routing tables. Use the options to display all hexadecimal addresses (A), numeric address names rather than symbolic host and port names (n), and/or wide (untruncated) host names (W).

-rs [-s]—Displays a routing statistics summary. Use the **-s** option to shorten the summary.

-g [-W]—Displays the virtual interface table, the multicast routing table, and the multicast group memberships. Use the **-W** option to view the wide (untruncated) host names.

-gs [-s]—Displays the multicast routing statistics and the multicast group memberships. Use the **-s** option to view just the multicast group memberships.

Related-Topics “show flow-stats” on page 65

Sample Usage

```
WX> netstat
Active Internet connections
Proto Recv-Q Send-Q Local Address          Foreign Address         (state)
tcp4      0      0 10.87.78.20.48623      10.87.83.15.23          ESTABLISHED
tcp4      0      0 10.87.83.15.23        10.87.78.15.48623      ESTABLISHED
tcp4      0      0 10.87.78.20.2222      10.87.83.15.1775        ESTABLISHED
tcp4      0      0 10.87.83.15.1775      10.87.78.15.2222        ESTABLISHED
tcp4      0      0 10.87.78.20.48621      10.87.83.15.23          TIME_WAIT
```

```

WX> netstat -i
Name      Mtu Network      Address      IpKts Ierrs      OpKts Oerrs
Coll
lo0       16384 (Link#1)      567         0         567         0
0
lo0       16384 127          127.0.0.2      0          -          0          -
-
ge-0/0/1  1500 (Link#2)      00:30:48:d0:23:ce 7473520      0 7514837      0
0
ge-0/0/0  1500 (Link#3)      00:30:48:d0:23:cf 5513083      0 5372512      0
0
br-0/0    1500 (Link#4)      00:30:48:d0:23:ce 12986479      0 12887303      0
0
br-0/0    1500 207.17.137    207.17.137.246 2307604      - 2557773      -
-
fxp0     1500 (Link#5)      00:30:48:d0:23:d1 0            0          0          0
0

WX> netstat -rs
routing:
    0 bad routing redirects
    0 dynamically created routes
    0 new gateways due to redirects
    402 destinations found unreachable
    0 uses of a wildcard route
    2 routes not in table but not freed

```

packet-capture

Syntax packet-capture (copy *url-path* [start-packet *n*] [number-of-packet *n*] | delete | start [save-time *seconds*] -i *interface* -b *bytes* [*options*] | stop)

Release-Information Introduced in JWOS Release 6.0.

Description Captures raw network traffic on the specified interface(s). The packet capture information can then be exported to a file and analyzed by a protocol analyzer program or other hardware. Packet captures are logged in the access log file. Many of the options and expressions available with the FreeBSD `tcpdump` utility are also available here (the exceptions are -C, -D, -d, -dd, -ddd, -f, -l, -L, -m, -p, -U, -W, -w, -Y, -Z). For more information, go to <http://www.manpages.info/freebsd/tcpdump.1.html>.

Options copy (*ftp://ip:username:password/path* | *tftp://ip/path*)—Copies a packet capture to an FTP or TFTP server.

- start-packet *n*—Starting packet number in the trace file. The default is 0 (zero).
- number-of-packet *n*—Number of packets to copy in addition to the start packet. The default is 0 (zero), which copies all packets.

delete—Deletes the previous packet capture.

start—Starts a packet capture.

- **save-time seconds**—Duration in seconds that a completed packet capture is available in memory. The default is 3600.
- **-i interface**—Indicates the interfaces where data is collected. The name can be a bridge interface (such as br-0/0) or a Local or Remote interface (such as ge-0/0/1).
- **-b bytes**—Number of bytes to capture (4096 is the minimum).
- **options**—Specify any combination of the following:
 - **-c n**—Maximum number of packets to capture.
 - **-h (libpcap | snoop)**—File format of the collected data. The default is libpcap.
 - **-s n**—Maximum number of bytes captured for each packet (0 to 65535). The default is 68. Entering 0 (zero) captures the entire packet.
 - **[src | dst] host IP_address**—Source and destination IP addresses of the traffic to be captured. The default is all IP addresses. If **src** or **dst** is omitted, a packet is captured if the specified address is its source or destination address.
 - **[src | dst] port port**—Source and destination port numbers of the traffic to be captured. The default is all ports. If **src** or **dst** is omitted, a packet is captured if the specified port is its source or destination port.
 - **protocol**—IP protocol of the traffic to be captured. Specify **tcp** or **udp**. The default is all protocols.
 - **'tcp[tcpflags] & (tcp-fin, tcp-syn, tcp-rst, tcp-psh, tcp-ack, tcp-urg, tcp-ece, tcp-cwr) !=0'**—TCP flags that must be set for a packet to be captured (applies only to TCP traffic). Multiple flags can be separated by or (|) or and (&) operators, and the entire expression must be enclosed in quotation marks. For example, to capture just the first and last packets of a TCP connection, enter:

'tcp[tcpflags] & (tcp-fin | tcp-syn) !=0'

stop—Stops the packet capture.

Related-Topics “show packet-capture” on page 68

Sample Usage **WX> packet-capture start -i ge-0/0/1 -b 5000**
 tcpdump: listening on ge-0/0/1, link-type EN10MB (Ethernet), capture size 68 bytes
 79 packets captured
 5052 bytes captured
 Successfully started tcpdump in background. CLI can be used as usual.

ping

Syntax **ping ip-address [count num] [size num]**

Release-Information Introduced in JWOS Release 6.0.

- Description** Verifies connections to remote WX devices or other devices in your network. The DNS server should be configured before using this command.
- Options** *ip-address*—Specifies the IP address or hostname of the device.
- count num*—Specifies the number of request packets.
- size num*—Specifies the number of bytes in a request packet (8 to 4068). The default is 56.

Related-Topics None.

Sample Usage

```
WX> ping 10.87.83.13 count 2
PING 10.87.83.15 (10.87.83.15): 56 data bytes

64 bytes from 10.87.83.15: icmp_seq=0 ttl=126 time=0.685 ms
64 bytes from 10.87.83.15: icmp_seq=1 ttl=126 time=0.537 ms

--- 10.87.83.15 ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max/stddev = 0.537/0.611/0.685/0.074 ms
```



NOTE: If the remote device does not respond, press Ctrl + C to display the ping statistics.

quit

Syntax quit

Release-Information Introduced in JWOS Release 6.0.

Description Exits from the CLI interface. Same as exit.

Options None.

Related-Topics “exit” on page 9

Sample Usage WX> quit

set adjacency establish

Syntax set adjacency establish disable (delay *minutes* | no-delay)

Release-Information Introduced in JWOS Release 6.0.

Description Configures or disables a time period during which no new adjacencies can be formed. Applies to both user defined (UD) and automatically discovered (AD) adjacencies.

Options *delay minutes*—Number of minutes (1 through 60) before new adjacencies can be formed.

no-delay—Cancels the current delay and allows new adjacencies to be formed immediately.

Related-Topics “config set adjacency peer-address” on page 28
 “show adjacency peer-address” on page 57

Sample Usage `WX> set adjacency establish disable delay 10`

set client default-config

Syntax `set client default-config (device-startup-config | config-source)`

Release-Information Introduced in JWOS Release 6.0.

Description Specifies the source of the default configuration that is downloaded to WX clients. This command is operational, and cannot be saved in the WX configuration file.

Options `device-startup-config | config-source`—Specifies the WX startup configuration file as the default client configuration or specifies the path for a customized configuration file. The file location is specified in one of the following formats:

- `/path/filename`
- `ftp:// IP address:username:password/path and file name`
- `tftp:// IP address/path and file name`

Users must download the WX client each time the application definitions or service policies are changed.

Related-Topics “show client settings” on page 59

Sample Usage `WX> set client default-config device-startup-config`

set date

Syntax `set date date`

Release-Information Introduced in JWOS Release 6.0.

Description Manually sets the date and time for the WX device. Use this option if the network does not have an NTP server.

Options *date*—Date and time for the WX device. The format is YYYYMMDDhhmm.ss. The time is in 24 hour format.

Related-Topics “config set system clock” on page 40

“config set system ntp” on page 44

“show system” on page 70

Sample Usage `WX> set date 200908080820.02`

set logging

Syntax	<code>set logging (console-output no-console-output) severity module=level</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Specifies whether log messages are displayed on the terminal connected to the WX console port, in addition to being written to the system log file. You can also change the logging levels for specific modules.
Options	<p><code>console-output no-console-output</code>—Enables or disables the display of log messages on the console (disabled by default).</p> <p><code>severity module=level</code>—Sets the lowest severity level of the messages written to the log or the console for the specified module (use the <code>show logging modules</code> command to list the module names). The following severity levels are listed in descending order of severity. Each level includes all of the severity levels above it.</p> <ul style="list-style-type: none"> ■ <code>f F</code>—Fatal error messages about software or hardware malfunctions. ■ <code>e E</code>—Error messages, such as license expired. ■ <code>w W</code>—Warning messages. ■ <code>i I</code>—Informational messages, such as reload requests and low-process stack messages (the default for all modules). ■ <code>d D</code>—Debug messages. ■ <code>v V</code>—Verbose mode, which provides additional details about the above messages.
Related-Topics	<p>“config set system syslog” on page 44</p> <p>“show logging” on page 68</p>
Sample Usage	<code>WX> set logging console-output</code>

set system clear-hardened-state

Syntax	<code>set system clear-hardened-state</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Clears a software or hardware passthrough condition where all traffic is passed through without any processing. You must then enter the <code>request system reboot</code> command to restart the device.

Options None.

Related-Topics “request system reboot” on page 50

Sample Usage `WX> set system clear-hardened-state`
`WX> request system reboot`

setup

Syntax setup

Release-Information Introduced in JWOS Release 6.0.

Description Runs the Quick Setup from the command line when the device is in the factory default state and the bridge interface is connected to the network. If this command is being run as part of an upgrade, the upgrade procedure preserves the bridge IP address, subnet mask, and gateway address.



NOTE: NOTE: You will see the following warning message if the WX device is not in the factory default state (does not apply to upgrades).
 Device is not in Quick Setup state. Please reset device to factory default before proceeding, quit setup.

When you run this command through a serial console connection to the device you do not need to set up connectivity to the bridge interface. If the device is in the factory default state when you log in using a serial console connection, the command runs automatically.

Options None.

Related-Topics None.

Sample Usage `WX> setup`

```
***** WELCOME *****
Welcome to the Quick Setup wizard for JWOS. This wizard will enable you
to get your JWOS device up and running with a minimum of effort.
*****
Press Enter to continue

-----
You will now configure IP parameters (IP address, subnet mask, default
gateway) to enable IP connectivity for this device. Once these parameters
are configured, additional management tasks can be performed via the
CLI or the Web interface.
setup br-0/0? yes[y]/no[n] [yes]
```

After pressing Enter, you are prompted to enter the bridge IP, subnet mask, and default gateway IP as follows:


```

IP address: <ip address>
IP subnet mask: <subnet mask>
IP default gateway: <ip address>

```

Next, you are prompted to change any of the above settings if needed.

```

You have entered the following values:
IP address: <ip address>
IP subnet mask: <subnet mask>
IP default gateway: <ip address>
IP subnet mask: <subnet mask>
IP default gateway: <ip address>
Do you wish to change the setting? Please enter 'yes' or 'y' to make the change.
Otherwise enter 'no' or 'n' to confirm the change. yes[y]/no[n] [no]

```

Then you are asked to enter the mode and speed for the bridge's Local and Remote interfaces and are also given the chance to change them if needed.

```

Local Interface Mode: (auto, full, half) [auto]
Local Interface Speed: (auto, 10, 100) [auto]

```

```

You have entered the following values:
Local Interface Mode: auto
Local Interface Speed: auto
Do you wish to change the setting? Please enter 'yes' or 'y' to make the change.
Otherwise enter 'no' or 'n' to confirm the change. yes[y]/no[n] [no]

```

```

Remote Interface Mode: (auto, full, half) [auto]
Remote Interface Speed: (auto, 10, 100) [auto]

```

```

You have entered the following values:
Remote Interface Mode: auto
Remote Interface Speed: auto
Do you wish to change the setting? Please enter 'yes' or 'y' to make the change.
Otherwise enter 'no' or 'n' to confirm the change. yes[y]/no[n] [no]

```

Depending on the device model, additional questions may be displayed.

traceroute

Syntax	<code>traceroute ip-address [maxhops number]</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Traces the network path from the current WX device to another device in the network.
Options	<p><i>ip-address</i>—The IP address or host name of a remote WX device or other network device.</p> <p><i>maxhops number</i>—The maximum number of routers (hops) to traverse (up to 255). The default is 64 hops.</p>

Related-Topics “show routing-options” on page 69

Sample Usage `WX> traceroute 10.87.76.20 maxhops 3`
traceroute to 10.87.76.20 (10.87.76.20), 64 hops max, 40 byte packets
1 10.87.73.1 0.345 ms 0.268 ms 0.242 ms
2 10.87.75.2 0.509 ms 0.350 ms 0.371 ms
3 10.87.76.20 0.518 ms 0.469 ms 0.620 ms



NOTE: Press Ctrl + C to stop the trace.

Chapter 3

Configuration Commands

This chapter describes the configuration commands. You must enter the **commit** command to apply your changes before exiting the CLI session. To retain the changes when the system is restarted, enter the command **request system save-config**.

Command	Description
“config delete acceleration cifs” on page 21	Deletes the account used to access servers that require SMB signing.
“config delete adjacency peer-address” on page 21	Disables adjacency settings for remote WX endpoints.
“config delete application-definition” on page 22	Deletes an application definition or a specific rule in a definition.
“config delete flow-filter” on page 22	Deletes the specified flow filter.
“config delete interface arp” on page 23	Deletes Address Resolution Protocol (ARP) entries.
“config delete routing-options” on page 23	Deletes all static routing options or a specified route.
“config delete snmp” on page 24	Deletes trap destinations for the Simple Network Management Protocol (SNMP).
“config delete system” on page 24	Deletes a user, DNS server, or syslog server.
“config set acceleration assembly-source-mac-mode” on page 25	Configures the source MAC address of decompressed packets.
“config set acceleration cifs” on page 25	Configures Common Internal File System (CIFS) acceleration.
“config set acceleration monitor” on page 26	Globally configures the monitoring of applications for reports.
“config set acceleration nsc” on page 27	Enables or disables Network Sequence Caching (NSC) for data compression.
“config set acceleration tcpproxy” on page 27	Configures Transmission Control Protocol (TCP) acceleration.

Command	Description
“config set adjacency defaultsettings” on page 28	Resets adjacency settings to the default values.
“config set adjacency peer-address” on page 28	Configures adjacency settings for remote WX endpoints.
“config set allow downgrade” on page 29	Disables the software downgrade capability.
“config set application-definition” on page 29	Configures application definitions.
“config set boot” on page 32	Configures the startup settings.
“config set client download” on page 32	Configures support for downloading the WX client from the WX device.
“config set client peering-support” on page 33	Configures whether adjacencies can be formed with WX clients.
“config set client username” on page 33	Configures a username and password required to download the WX client.
“config set control-traffic” on page 34	Configures ToS or DSCP values for WX control traffic.
“config set disk” on page 34	Configures disk activity for system maintenance.
“config set flow-filter” on page 35	Configures a flow filter to collect traffic flow statistics for a source and destination address, port, and protocol.
“config set events” on page 34	Configures the system events.
“config set interface” on page 36	Configures the interface settings, such as speed and duplex mode.
“config set interface arp” on page 37	Configures Address Resolution Protocol (ARP) entries.
“config set interface periodic-test-mode” on page 38	Configures periodic test mode for duplex settings.
“config set packet-interception” on page 38	Configures off-path interception for the WX device
“config set routing-options” on page 39	Configures the routing options for a WX device.
“config set snmp” on page 39	Configures the SNMP settings.
“config set system bypass-capability” on page 40	Configures hardware passthrough.
“config set system clock” on page 40	Configures the system clock settings.
“config set system community” on page 41	Specifies the community of the WX device.

Command	Description
“config set system contact” on page 41	Specifies the system administrator name and contact information.
“config set system domain-name” on page 41	Specifies the domain name for the WX device.
“config set system front-panel” on page 42	Enables or disables the front panel keypad.
“config set system location” on page 42	Specifies the physical location of the WX device.
“config set system login” on page 42	Adds a new user account or edits an existing account.
“config set system name” on page 45	Configures the device name.
“config set system name-server” on page 44	Configures one or more DNS server IP addresses.
“config set system ntp” on page 44	Configures the Network Time Protocol (NTP).
“config set system syslog” on page 44	Configures syslog settings.

config delete acceleration cifs

Syntax	config delete acceleration cifs apply-signing username <i>name</i>
Release-Information	Introduced in JWOS Release 6.0.
Description	Deletes the user account used to access one or more Windows servers that require Server Message Block (SMB) signing for Common Internet File System (CIFS) traffic flows.
Options	username <i>name</i> —The username used to access the Windows server(s) where SMB is required.
Related-Topics	“config set acceleration cifs” on page 25 “show acceleration cifs” on page 54
Sample Usage	WX> config delete acceleration cifs apply-signing username smbaccount

config delete adjacency peer-address

Syntax	config delete adjacency peer-address <i>ip-address</i> (no-discover no-service type persist) config delete adjacency peer-address all no-discover
Release-Information	Introduced in JWOS Release 6.0.
Description	Disables the persistence of an adjacency, re-enables automatic discovery (AD) for one or all remote WX endpoints, or re-enables a service for an endpoint. After an

adjacency is manually disabled (or disrupted for any reason), it takes about 30 seconds to re-establish the adjacency.

- Options** *ip-address*—Removes one of the following adjacency settings for the WX endpoint specified by the IP address.
- **no-discover**—Enables the use of AD to form adjacencies with remote endpoints.
 - **no-service *type***—Enables the specified service type:
 - **cifs**—Common Internet File System (CIFS) acceleration
 - **nsc**—Network Sequence Caching (NSC) data compression
 - **tcp**—Transmission Control Protocol (TCP) acceleration
 - **persist**—Disables the persistence of a user defined (UD) adjacency when it is inactive for 15 minutes. Adjacencies formed through automatic discovery are not persistent.

all no-discover—Enables automatic discovery for all remote WX endpoints.

Related-Topics “config set adjacency peer-address” on page 28
 “show adjacency peer-address” on page 57

Sample Usage `WX> config delete adjacency peer-address all no-discover`

config delete application-definition

Syntax `config delete application-definition name [rule-id number]`

Release-Information Introduced in JWOS Release 6.0.

Description Deletes an application definition or a specific rule in a definition.

Options *name*—Deletes the current definition for the named application.

rule-id number—Deletes the specified rule from the application definition. Each application definition can have up to 10 rules.

Related-Topics “config set application-definition” on page 29
 “show application-definition” on page 58

Sample Usage `WX> config delete application-definition appname1`

config delete flow-filter

Syntax `config delete flow-filter src-ip (ip-address | any) dst-ip (ip-address | any) src-port (number | any) dst-port (number | any) protocol (tcp | udp)`

Release-Information Introduced in JWOS Release 6.0.

Description	Deletes the specified flow filter.
Options	<p>src-ip (<i>ip-address</i> <i>any</i>)—Source IP address of the flow filter (may be a specific address or any).</p> <p>dst-ip (<i>ip-address</i> <i>any</i>)—Destination IP address of the flow filter (may be a specific address or any).</p> <p>src-port (<i>number</i> <i>any</i>)—Source port number of the flow filter (may be a specific port or any).</p> <p>dst-port (<i>number</i> <i>any</i>)—Destination port number of the flow filter (may be a specific port or any).</p> <p>protocol (<i>tcp</i> <i>udp</i>)—Protocol of the flow filter.</p>
Related-Topics	<p>“clear flow-filter” on page 8</p> <p>“config delete flow-filter” on page 22</p> <p>“show flow-filter” on page 62</p>
Sample Usage	<pre>WX> config delete flow-filter src-ip any dst-ip any src-port any dst-port any protocol udp</pre>

config delete interface arp

Syntax	config delete interface arp (<i>ip-address</i> <i>mac-address</i> <i>hardware-address</i> <i>all</i>)
Release-Information	Introduced in JWOS Release 6.0.
Description	Deletes the specified static entry in the Address Resolution Protocol (ARP) table or all dynamic entries.
Options	<p><i>ip-address</i> <i>mac-address</i> <i>hardware-address</i>—Deletes the static ARP entry for the specified IP address and MAC address.</p> <p><i>all</i>—Deletes all dynamic ARP entries.</p>
Related-Topics	<p>“config set interface arp” on page 37</p> <p>“show interfaces arp” on page 66</p>
Sample Usage	<pre>WX> config delete interface arp 11.11.11.11 mac-address 11:22:33:44:55:66</pre>

config delete routing-options

Syntax	config delete routing-options interface <i>name</i> static route <i>ip-prefix</i> [next-hop <i>ip-address</i>]
Release-Information	Introduced in JWOS Release 6.0.

Description Deletes static routes from a bridge interface, or a specified static route, and deletes one or all next-hop gateways.

Options interface *name*—Name of a bridge interface, such as `br-0/0`.

static route *ip-prefix*—IP address and subnet mask of the static route(s) to be deleted, such as `10.20.30.0/24`. If a next hop gateway address is not included, all the static routes for the specified network are deleted.

next-hop *ip-address*— IP address of the gateway associated with the static route. This option deletes only the static route with the specified gateway.

Related-Topics “config set routing-options” on page 39

“show routing-options” on page 69

Sample Usage `WX> config delete routing-options interface br-0/0 static route 10.17.20.0/24`

config delete snmp

Syntax config delete snmp traps destination *ip-address*

Release-Information Introduced in JWOS Release 6.0.

Description Deletes a destination for traps generated by the Simple Network Management Protocol (SNMP).

Options destination *ip-address*—The trap destination IP address.

Related-Topics “config set snmp” on page 39

“show snmp” on page 69

Sample Usage `WX> config delete snmp traps destination 10.17.18.2`

config delete system

Syntax config delete system (login user *name* | name-server *ip-address* | syslog destination *ip-address*)

Release-Information Introduced in JWOS Release 6.0.

Description Deletes a user account, name server, or syslog destination.

Options login user *name*—Deletes the login account of the specified user.

name-server *ip-address*—Deletes the IP address of a DNS server used to resolve addresses on the Flow Diagnostics page of the Web interface.

syslog destination *ip-address*—Deletes the specified IP address as a destination for syslog messages.

- Related-Topics**
- “config set system login” on page 42
 - “config set system name-server” on page 44
 - “config set system syslog” on page 44
 - “show system” on page 70

Sample Usage `WX> config delete system login user jsmith`

config set acceleration assembly-source-mac-mode

Syntax	<code>config set acceleration assembly-source-mac-mode (copy-source default user-defined <i>mac-address</i>)</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Configures the source MAC address of decompressed packets. By default, the source hardware (MAC) address of a decompressed packet is the MAC address of the WX endpoint that decompressed the packet.
Options	<p><code>copy-source</code>—Uses the source MAC address received in the compressed packet.</p> <p><code>default</code>—Uses the MAC address of the WX decompressor.</p> <p><code>user-defined <i>mac-address</i></code>—Specifies a MAC address (the format is <code>xx:xx:xx:xx:xx:xx</code>).</p>
Related-Topics	None.
Sample Usage	<code>WX> config set acceleration assembly-source-mac-mode default</code>

config set acceleration cifs

Syntax	<code>config set acceleration cifs-service no-cifs-service</code> <code>config set acceleration cifs apply-signing-mode no-apply-signing-mode</code> <code>config set acceleration cifs apply-signing encrypted-username <i>name</i> encrypted-password <i>password</i> encrypted-domain <i>domain</i></code> <code>config set acceleration cifs (cache no-cache default-settings disable-signing no-disable-signing downgrade-smb2 no-downgrade-smb2)</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Configures Common Internet File System (CIFS) application acceleration. Most active flows are accelerated; passive flows and flows for unsupported clients or servers are not.
Options	<code>cifs-service no-cifs-service</code> —Enables or disables CIFS acceleration (enabled by default).

apply-signing-mode | no-apply-signing-mode—Enables or disables the use of Server Message Block (SMB) signing for CIFS traffic (disabled by default). If signing is enabled, use a separate command to specify an account on the Windows servers that require SMB signing. To accelerate CIFS traffic when a server requires SMB signing, the WX must log in to the server to create an SMB signature.

- **encrypted-username *name* encrypted-password *password* encrypted-domain *domain***—The username (1 through 64 characters), password, and domain used to access the Windows servers that require SMB signing. The username can contain ASCII letters (a-z, A-Z), digits (0 through 9), dashes (-), and underscores (_).

cache | no-cache—Enables or disables the storing of transferred files in the disk object cache (enabled by default).

default-settings—Restores the default configuration settings for CIFS acceleration.

disable-signing | no-disable-signing—Enables or disables the disabling of SMB signing when it is not required (enabled by default).

downgrade-smb2 | no-downgrade-smb2—Enables or disables the downgrading of SMB2 to SMB on traffic flows between Vista and non-Vista systems. Downgrading to SMB allows the CIFS traffic to be accelerated (enabled by default).

Related-Topics “config delete acceleration cifs” on page 21

“show acceleration cifs” on page 54

Sample Usage `WX> config set acceleration no-cifs-service`

config set acceleration monitor

Syntax	<code>config set acceleration monitor no-monitor</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Globally enables or disables monitoring of applications for reports. Monitoring can also be enabled by application.
Options	<code>monitor no-monitor</code> —Globally enables or disables the monitoring of applications for reports (enabled by default).
Related-Topics	<p>“config set application-definition” on page 29</p> <p>“request system clear monitor stats” on page 48</p> <p>“show acceleration monitor” on page 55</p>
Sample Usage	<code>WX> config set acceleration monitor</code>

config set acceleration nsc

Syntax	config set acceleration nsc-service no-nsc-service
Release-Information	Introduced in JWOS Release 6.0.
Description	<p>Globally enables or disables Network Sequence Caching (NSC) for data compression. NSC uses disk storage to identify patterns of repeated traffic. Note that enabling NSC has no effect unless TCP acceleration (tcpproxy) is enabled. NSC can also be enabled by application.</p> <p>nsc-service no-nsc-service—Globally enables or disables NSC for data compression (enabled by default).</p>
Related-Topics	<p>“config set application-definition” on page 29</p> <p>“show acceleration nsc” on page 55</p>
Sample Usage	WX> config set acceleration no-nsc-service

config set acceleration tcpproxy

Syntax	config set acceleration tcpproxy-service no-tcpproxy-service config set acceleration tcpproxy max_connections (high low medium)
Release Information	Introduced in JWOS Release 6.0.
Description	<p>Configures global TCP acceleration settings. The sending and receiving WX endpoints terminate the TCP session and acknowledge all data transmissions locally. This results in three independent sessions—between the source and the sending WX, between the two WX endpoints, and between the receiving WX and the destination. TCP acceleration can also be enabled by application.</p>
Options	<p>tcpproxy-service no-tcpproxy-service—Globally enables or disables TCP acceleration (enabled by default).</p> <p>max_connections (high low medium)—Sets the range of TCP connections allowed. The default is medium. Note that increasing the number of connections reduces the memory allocated to each connection, which may affect the traffic throughput.</p>
Related-Topics	<p>“config set application-definition” on page 29</p> <p>“show acceleration tcpproxy” on page 56</p>
Sample Usage	WX> config set acceleration tcpproxy-service

config set adjacency defaultsettings

Syntax	config set adjacency defaultsettings
Release-Information	Introduced in JWOS Release 6.0.
Description	Resets the adjacency settings to the default values.
Options	None.
Related-Topics	“show adjacency peer-address” on page 57
Sample Usage	WX> config set adjacency defaultsettings

config set adjacency peer-address

Syntax	config set adjacency peer-address <i>ip-address</i> persist config set adjacency peer-address <i>ip-address</i> (hello-freq <i>seconds</i> no-discover (no-service <i>type</i> reset) config set adjacency peer-address all no-discover
Release-Information	Introduced in JWOS Release 6.0.
Description	<p>Configures adjacencies with remote WX endpoints in the same community. By default, automatic discovery (AD) allows each pair of WX endpoints to discover each other by marking the first two TCP packets in a traffic flow (SYN and SYN-ACK). They then form an adjacency to accelerate the traffic between them. Adjacencies formed automatically are maintained only while they are active. Inactive adjacencies are disabled after 15 minutes to conserve system resources.</p> <p>To control which endpoints form adjacencies, you can configure persistent user defined (UD) adjacencies that are maintained even when there is no traffic. Use the command <code>config set adjacency peer-address <i>ip-address</i> persist</code> to manually define an adjacency.</p>
Options	<p><i>ip-address</i>—IP address of a WX endpoint. You can configure the following adjacency settings:</p> <ul style="list-style-type: none"> ■ persist—Enables a persistent adjacency that is maintained even when there is no traffic. ■ hello-freq <i>seconds</i>—Configures the number of seconds between hello messages sent during an adjacency to verify the endpoint is still active. The valid values are 5, 15, 60, 300, and 3600 (default is 15). ■ no-discover—Disables the use of automatic discovery for the specified WX endpoint (enabled by default).

- **no-service type**—Disables one of the following services for the adjacency (all are enabled by default):
 - **cifs**—CIFS acceleration
 - **nsc**—NSC data compression
 - **tcp**—TCP acceleration
- **reset**—Deletes the adjacency. Note that the adjacency will be reestablished if automatic discovery is enabled.

all no discover—Disables automatic discovery for all remote WX endpoints (enabled by default).

Related-Topics “config delete adjacency peer-address” on page 21

“show adjacency peer-address” on page 57

Sample Usage `WX> config set adjacency peer-address 10.17.20.11 persist`

config set allow downgrade

Syntax `config set allow downgrade (wxos | no-wxos)`

Release-Information Introduced in JWOS Release 6.0.

Description Configures whether JWOS 6.0 or later can be downgraded to WXOS 5.6.5 or later. You can still downgrade to a previous version of JWOS.

wxos | no-wxos—Enables or disables the ability to downgrade the WX software from JWOS 6.0 or later to WXOS 5.6.5 or later (disabled by default). You cannot downgrade JWOS 6.0 or later to a version prior to WXOS 5.6.5.

Options None.

Related-Topics “request system install” on page 48

Sample Usage `WX> config set allow downgrade no-wxos`

config set application-definition

Syntax `config set application-definition name (monitor | no-monitor | service type | type apptype | rule-id number options)`
`config set application-definition Undefined-Application (monitor | no-monitor)`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the application definitions used to identify network traffic. Up to 256 applications can be defined. Definitions are provided for applications with well-known port numbers. All other applications are grouped as Undefined-Application.

Each application definition can have up to 10 rules, and each rule can specify a protocol, source and destination port numbers (or range of port numbers), source and destination IP addresses or subnets, and a Type of Service (ToS) or Differentiated Services Code Point (DSCP) value.

A packet matches an application definition if a match occurs on any of its rules. All the values defined in the same rule must be true for a match to occur on that rule. A packet is classified under the first application for which a rule match is found.

- Options** *name*—Application definition name (up to 63 characters). For a new application definition, include any one of the following options, except the *rule-id*. The rules must be specified separately.
- **monitor | no-monitor**—Enables or disables the inclusion of traffic statistics for the application on the monitoring reports in the Web interface (enabled by default). Traffic statistics for unmonitored applications are grouped together as the Undefined-Application.
 - **service type**—The following service types are disabled by default:
 - **cifs | no-cifs**—Enables or disables CIFS acceleration.
 - **nsc | no-nsc**—Enables or disables NSC compression. Note that enabling NSC has no effect unless TCP acceleration is also enabled.
 - **tcp | no-tcp**—Enables or disables TCP acceleration.
 - **type *apptype***—The following application types are supported:
 - **default**—No special processing (the default).
 - **ftp**—Apply to the FTP application to allow FTP ports to be learned dynamically.



NOTE: If the *apptype* is set to **ftp**, the CIFS service cannot be enabled for the application.

- **rule-id *number options***—After an application name is defined, you can specify up to 10 rules (numbered 1 through 10) to identify the application traffic. Enter one rule per command. The rule options are:
 - **destination-address *IP-address* [/mask]**—Destination IP address or subnet. Typically, source and destination addresses are specified in separate rules so that a match occurs on packets that specify either address. A rule that includes both addresses will match only packets that specify both addresses.
 - **destination-port *number***—Destination port number, a range of port numbers separated by a hyphen (-), or a series of comma-separated port numbers and ranges. Typically, source and destination ports are specified in separate rules so that a match occurs on packets that specify either port. A rule that includes both ports will match only packets that specify both ports.

- **dscp value**—Differentiated Services Code Point (DSCP) number (0 through 63) or name. Table 5 on page 31 lists the DSCP names and the equivalent DSCP and IP precedence values for the class selector (CSx) names. The assured forwarding (AFx) and expedited forwarding (EF) names are defined by RFCs 2597 and 3246.

Table 5: ToS and DSCP Values

Name	DSCP	IP Precedence
Default	0	0
CS1	8	1
CS2	16	2
CS3	24	3
CS4	32	4
CS5	40	5
CS6	48	6
CS7	56	7
AF11	10	–
AF12	12	–
AF13	14	–
AF21	18	–
AF22	20	–
AF23	22	–
AF31	26	–
AF32	28	–
AF33	30	–
AF41	34	–
AF42	36	–
AF43	38	–
EF	46	–

- **protocol** (*number* | *any* | *tcp* | *udp*)—Protocol of the matching traffic. By default, a match can occur on any TCP or non-TCP packet. If you do not

specify any port numbers, you can enter a protocol number (0 to 134). Note that only TCP traffic can be compressed and accelerated. Non-TCP traffic can just be monitored. If the protocol is Any, all selected services are applied to the TCP traffic, but the monitoring statistics will include the matching non-TCP traffic (if any).

- **source-address** *IP-address* [/mask]—Source IP address or subnet.
- **source-port** *number*—Source port number(s) or range (same format as the destination port).
- **tos** *number*—IP precedence value (0 through 7).

Undefined-Application monitor | no-monitor—Enables or disables monitoring of traffic statistics for all application traffic that does not match an application definition (enabled by default).

Related-Topics “config delete application-definition” on page 22
 “show application-definition” on page 58

Sample Usage `WX> config set application-definition appl service nsc`
`WX> config set application-definition appl rule-id 1 destination-port 999`

config set boot

Syntax `config set boot (partition [no-preserve-ip] | safe)`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the behavior when the WX device restarts.

Options *partition*—The partition name (A or B) used to reboot the device.

no-preserve-ip—Does not preserve the IP address information.

safe—Restarts the WX device so that the power is on, and the device can be configured, but traffic is passed through without any processing.

Related-Topics “request system reboot” on page 50
 “show boot” on page 59

Sample Usage `WX> config set boot A`

config set client download

Syntax `config set client download (support | no-support) | (authentication | no-authentication)`

Release-Information Introduced in JWOS Release 6.0.

Description Configures whether the WX client software can be downloaded remotely and whether authentication is required.

Options `support` | `no support`—Enables or disables the ability to download the WX client software to a Windows PC (enabled by default). The WX device must have a license for the client software.

`authentication` | `no-authentication`—Enables or disables the prompt for a username and password to download the client software (disabled by default).

Related-Topics “`config set client peering-support`” on page 33

“`config set client username`” on page 33

“`show client settings`” on page 59

Sample Usage `WX> config set client download support`

config set client peering-support

Syntax `config set client peering-support` | `no-peering-support`

Release-Information Introduced in JWOS Release 6.0.

Description Configures whether the WX device can form adjacencies with WX clients (enabled by default). An adjacency must be established before traffic can be accelerated between a WX client and the WX device.

Options `peering-support` | `no-peering-support`—Enables or disables the ability to form adjacencies with remote Windows devices running the WX client software (enabled by default).

Related-Topics “`show client settings`” on page 59

Sample Usage `WX> config set client peering-support`

config set client username

Syntax `config set client username name` (encrypted-password *encrypted-password* | password *password*)

Release-Information Introduced in JWOS Release 6.0.

Description Configures the username and password required to download the WX client software.

Options *name*—The username (up to 32 characters) can contain ASCII letters (a-z, A-Z), digits (0 through 9), dashes (-), and underscores (_).

encrypted-password encrypted-password—The encrypted password must be a 32-byte, MD5 digest. The user is prompted for the password if the password is not included in the command.

password—The user is prompted for the password (4 to 64 characters) after entering the command.

Related-Topics “config set client download” on page 32
“show client settings” on page 59

Sample Usage `WX> config set client username ksmith password`
New password:
Retype password:

config set control-traffic

Syntax `config set control-traffic (dscp number | tos number)`

Release-Information Introduced in JWOS Release 6.0.

Description Configures a Type of Service (ToS) IP precedence value or a Differentiated Services Code Point (DSCP) value for the WX control traffic sent between WX endpoints. For all other traffic, the incoming ToS/DSCP values are preserved on outgoing packets.

Options *dscp number*—DSCP value (0 through 63).
tos number—IP precedence value (0 through 7).

Related-Topics “show system” on page 70

Sample Usage `WX> config set control-traffic dscp 1`

config set disk

Syntax `config set disk (quiesce | activate)`

Release-Information Introduced in JWOS Release 6.0.

Description Controls disk activity for system maintenance.

Options *quiesce*—Stops all the disk activity.
activate—Activates the disk when the disk maintenance is completed.

Related-Topics None.

Sample Usage `WX> config set disk activate`

config set events

Syntax `config set events | no-events`
`config set events system (name | no-name) event-name`

Release-Information	Introduced in JWOS Release 6.0.
Description	Specifies the system events that can be generated.
Options	<p>events no-events—Globally enables or disables the generation of system events (enabled by default).</p> <p>(name no-name) <i>event-name</i>—Enables or disables the generation of the specified system event. All system events are enabled by default. Use the show events command to view the event names.</p>
Related-Topics	“show events” on page 62
Sample Usage	<code>WX> config set events system no-name cold start</code>

config set flow-filter

Syntax	<code>config set flow-filter src-ip (<i>ip-address</i> any) dst-ip (<i>ip-address</i> any) src-port (<i>number</i> any) dst-port (<i>number</i> any) protocol (tcp udp)</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Configures a flow filter to collect traffic flow statistics for a source and destination address, port, and protocol.
Options	<p>src-ip (<i>ip-address</i> any)—Source IP address of the flow filter (may be a specific address or any).</p> <p>dst-ip (<i>ip-address</i> any)—Destination IP address of the flow filter (may be a specific address or any).</p> <p>src-port (<i>number</i> any)—Source port number of the flow filter (may be a specific port or any).</p> <p>dst-port (<i>number</i> any)—Destination port number of the flow filter (may be a specific port or any).</p> <p>protocol (tcp udp)—Protocol of the flow filter.</p>
Related-Topics	<p>“clear flow-filter” on page 8</p> <p>“config delete flow-filter” on page 22</p> <p>“show flow-filter” on page 62</p>
Sample Usage	<code>WX> config set flow-filter src-ip any dst-ip any src-port any dst-port any protocol udp</code>

config set interface

Syntax config set interface *name* enable | disable
 config set interface *name* ip-address *ip-address* subnet-mask *mask* default-gateway
 ip-address
 config set interface *name* (down-time *seconds* | mtu *number* | propagate-failure |
 no-propagate-failure | speed-duplex *speed*)

Release-Information Introduced in JWOS Release 6.0.

Description Specifies interface speeds and duplex modes. Interface names are assigned automatically, as shown in Table 6 on page 36.

Table 6: Interface Types and Descriptions

Interface	Name	Description
Bridge	br-slot/pair	<p>A bridge interface connects a pair of local and remote ports on the WX device. When either port receives traffic that is not processed by the WX device, such as broadcast or passthrough traffic, the traffic is sent out the other port. The two ports, called a <i>port-pair</i>, share the IP address of the bridge interface.</p> <p>Every WX device has a bridge interface named br-0/0.</p> <p>On devices that support additional two-port or four-port I/O modules, the slots are numbered from top to bottom and left to right, starting from 1. The pair number is 0, except on four-port modules, where the right-hand pair is 1.</p> <p>You cannot configure the speed of a bridge interface.</p>
Local	fe-slot/pair/0 or ge-slot/pair/0	The fe or ge indicates the interface speed (Fast Ethernet or Gigabit Ethernet). The slot and pair numbers are the same as the associated bridge. The /0 indicates the Local interface.
Remote	fe-slot/pair/1 or ge-slot/pair/1	Same name as the Local interface, except the /1 indicates the Remote interface.
Loopback	lo0	On devices that support a loopback address, you can configure the IP address and subnet mask.
Management	fxp0	On devices that have a management port, you can configure the IP address, subnet mask, default gateway, and interface speed and mode.

Options interface *name* —The name of the interface. Specify one of the following options:

- **enable | disable**—Enables or disables the specified interface. This option is available for all interfaces (disabled by default).
- **down-time seconds**—The number of seconds that the Local or Remote interface will be shut down to propagate a failure to the other interface. The default is 15.
- **ip-address *ip-address* subnet-mask *mask* default-gateway *ip-address***—Assigns an IP address, subnet mask, and default gateway to the management interface (fxp0) or a bridge interface (such as br-0/0).
- **mtu *number*** —Configures the maximum transmission unit (MTU) for an interface (1 through 1500). The default is 1500.
- **propagate-failure | no-propagate-failure**—Enables or disables failure propagation on the specified Local or Remote interface. For example, if the switch fails, the Local interface can briefly disable the Remote interface so that the router can detect the loss of connectivity with the switch (used in high-availability environments).
- **speed-duplex (auto | 10-full | 10-half | 100-full | 100-half | 1000-full)** —Configures a speed-duplex pair for a Local or Remote interface (default is **auto**).

Related-Topics “show interfaces” on page 65

Sample Usage `WX> config set interface fe-0/0/0 speed-duplex 100-full`

config set interface arp

Syntax	<code>config set interface arp <i>ip-address</i> mac-address <i>mac-address</i> (local remote)</code> <code>config set interface arp age-out-timer <i>minutes</i></code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Configures a static Address Resolution Protocol (ARP) entry that maps an IP address to a hardware Media Access Control (MAC) address.
Options	<p><i>ip-address</i>—The IP address of the ARP entry.</p> <p><i>mac-address mac-address</i>—The hardware (MAC) address associated with the IP address (the format is <code>xx:xx:xx:xx:xx:xx</code>).</p> <p><i>local remote</i>—The Local or Remote interface.</p> <p><i>age-out-timer minutes</i>—Number of minutes (up to 60) before dynamic ARP entries are deleted (default is 20). If you change the timer value, it applies only to ARP entries learned in the future, not to existing entries.</p>
Related-Topics	<p>“config delete interface arp” on page 23</p> <p>“show interfaces arp” on page 66</p>

Sample Usage `WX> config set interface arp ip-address 10.11.11.01 mac-address 22:33:44:55:66:77 local`

config set interface periodic-test-mode

Syntax `config set interface periodic-test-mode | no-periodic-test-mode`

Release-Information Introduced in JWOS Release 6.0.

Description Runs a test to detect a duplex mode mismatch on the Local or Remote interface.

Options `periodic-test-mode | no-periodic-test-mode`—Enables or disables a periodic test of the duplex settings on the Local and Remote interfaces (enabled by default). This test does not send any packets. If mismatched duplex settings are detected, an error message is displayed in the banner of the Web interface and when you log in to the CLI. A mismatch can be detected only when data is sent and received at the same time.

Related-Topics “config set interface” on page 36
 “show interfaces” on page 65

Sample Usage `WX> config set interface no-periodic-test-mode`

config set packet-interception

Syntax `config set packet-interception mode (off | external)`

Release-Information Introduced in JWOS Release 6.0.

Description Configures packet interception for an off-path WX device where the Local interface is connected to the router and the Remote interface is not used.

Options `mode (off | external)`—Indicates whether an external router is configured to route traffic to the WX device (disabled by default).



CAUTION: CAUTION: Enabling packet interception disables the Remote interface. If the WX device is installed in the data path, all data transmission through the device will stop.

Related-Topics “show packet-interception” on page 68

Sample Usage `WX> config set packet-interception mode external`

config set routing-options

Syntax	config set routing-options interface <i>name</i> static route <i>network</i> next-hop <i>ip-address</i>
Release-Information	Introduced in JWOS Release 6.0.
Description	Adds static routes for a bridge interface, such as br-0/0.
Options	<p>interface <i>name</i>—Name of the bridge interface, such as br-0/0.</p> <p>static route <i>network</i>—Specifies the network prefix, such as 10.20.30.0/24.</p> <p>next-hop <i>ip-address</i>—The gateway IP address for the specified network prefix.</p>
related-topics	“show routing-options” on page 69
Sample Usage	<pre>WX> config set routing-options interface br-0/0 static route 10.20.30.0/24 next-hop 10.20.30.1</pre>

config set snmp

Syntax	config set snmp (authentication-failure-trap no-authentication-failure-trap read-community <i>string</i> snmp-mode no-snmp-mode trap-mode no-trap-mode traps destination <i>ip-address</i> community <i>string</i> write-community <i>string</i>)
Release-Information	Introduced in JWOS Release 6.0.
Description	Configures Simple Network Management Protocol (SNMP) settings. WX devices support SNMP, the Management Information Base (MIB) II public objects, and private MIB objects. Your network management system (NMS) can use the private MIB to monitor the performance of the WX devices in your network. In addition, enabling SNMP traps on a WX device allows the device to send traps and alarms to the NMS as they occur.
Options	<p>authentication-failure-trap no-authentication-failure-trap—Enables or disables traps for authentication failures (disabled by default).</p> <p>read-community <i>string</i>—Specifies the read-community string. If the community string contains spaces, enclose it in quotation marks.</p> <p>snmp-mode no-snmp-mode—Enables or disables support for SNMP (enabled by default).</p> <p>trap-mode no-trap—Enables or disables the generation of SNMP traps (disabled by default).</p> <p>traps destination <i>ip-address</i> community <i>string</i> — Configures the trap server IP address and trap-community string (up to 30 characters). If the string contains spaces, enclose it in quotation marks</p>

`write-community string`—Specifies the write-community string. If the community string contains spaces, enclose it in quotation marks.

Related-Topics “show snmp” on page 69

Sample Usage `WX> config set traps destination 10.11.11.11 community “string 1”`

config set system bypass-capability

Syntax `config set system bypass-capability | no-bypass capability`

Release-Information Introduced in JWOS Release 6.0.

Description Configures hardware passthrough. Disabling hardware passthrough blocks all traffic through the device during a restart or system failure. In high-availability environments, this allows power failures to be detected and the traffic routed to an alternate device.

Options `bypass-capability | no-bypass capability`—Enables or disables hardware passthrough (enabled by default).

Related-Topics “show system” on page 70

Sample Usage `WX> config set system no-bypass-capability`

config set system clock

Syntax `config set system clock (daylight-saving | no-daylight-saving | time-format (12 | 24) | time-zone name`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the system clock. The date and time is saved with each entry in the system log files, which can help you troubleshoot problems if they arise.

Options `daylight-saving | no-daylight-saving`—Enables or disables daylight saving time.

`time-format (12 | 24)`—Specifies a 12-hour AM/PM time format (the default) or a 24-hour format.

`time-zone name`—Specifies the time zone in one of the following formats:

- GMT hour offset. Format is `GMT+/-hh:mm`. The value is negative when the location is west of GMT. See http://time_zone.tripod.com/ for a list of offsets.
- Abbreviated time zone names, such as PST, IST, and JST. See <http://www.timeanddate.com/library/abbreviations/timezones/> for a complete list.

- A geographical location. To view the location names, enter the command `config set system clock time-zone ?`.

Related-Topics “config set system ntp” on page 44
 “show system” on page 70

Sample Usage `WX> config set system clock time-zone PST`

config set system community

Syntax `config set system community name`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the community for the WX device. Adjacencies can occur only between devices in the same community. If a community is not specified, the device is in the default community.

Options `community name`—The community name (up to 64 characters). The name can contain ASCII letters (a-z, A-Z), digits (0 through 9), dashes (-), and underscores (_).

Related-Topics “show system” on page 70

Sample Usage `WX> config set system community juniper`

config set system contact

Syntax `config set system contact name`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the system administrator’s contact information.

Options `config set system contact name`—The contact information for the system administrator (up to 32 characters). Text that includes spaces must be enclosed in double quotation marks.

Related-Topics “show system” on page 70

Sample Usage `WX> config set system contact “Carlos Hernandez”`

config set system domain-name

Syntax `config set system domain-name name`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the local DNS domain name of a WX device for use on the Flow Diagnostics page in the Web interface. When an IP address in the specified domain is resolved by one of the DNS servers, the domain name is prepended to the host name shown on the Flow Diagnostics page.

Options domain-name *name*—The domain name (up to 256 characters), such as `juniper.net`. The name must include at least one period, but not as the first or last character. If the local domain is not specified, only the host names are shown for resolved IP addresses in the local domain. Resolved addresses outside the local domain will include the domain name returned by the DNS server. Specify `none` to remove the local domain name. The limit is 256 characters.

Related-Topics “config set system name-server” on page 44
“show system” on page 70

Sample Usage `WX> config set system domain-name juniper.net`

config set system front-panel

Syntax `config set system front-panel (lock | no-lock`

Release-Information Introduced in JWOS Release 6.0.

Description Locks or unlocks the front panel keypad on devices that have an LCD.

Options lock | no-lock—Locks or unlocks the front panel keypad (unlocked by default).

Related-Topics “show system” on page 70

Sample Usage `WX> config set system front-panel lock`

config set system location

Syntax `config set system location string`

Release-Information Introduced in JWOS Release 6.0.

Description Specifies the physical location of the WX device.

Options location *string*—A description of the physical location of the device (up to 32 characters). Text that includes spaces must be enclosed in double quotation marks.

Related-Topics “show system” on page 70

Sample Usage `WX> config set system location “Central data center”`

config set system login

Syntax `config set system login user name class type [idle-timeout minutes]`

`config set system login user name (class type | idle-timeout minutes | password)`

Release-Information Introduced in JWOS Release 6.0.

Description Adds a new user account or edits an existing account.

Options *user name*—Login name of a new or existing user (up to 32 characters). The name can contain ASCII letters (a-z, A-Z), digits (0 through 9), dashes (-), and underscores (_). To add a new user account, enter the name and user class, and you are prompted for a password (4 to 64 characters) after entering the command. To change an existing account, enter the current user name and the option to be changed.

class type —The following class types are supported:

- **superuser**—Full read-write privileges. Only the superuser can create or update user accounts.
- **operator**—Read-write configuration privileges, but no packet capture or user management privileges.
- **read-only-plus**—Read-only privileges and packet capture capability.
- **read-only**—Read-only privileges.

idle-timeout minutes—Number of minutes before an idle user is logged out (the default is 30).

password—Used to change the password (4 to 64 characters) of an existing account. You are prompted for the password after entering the command.

Related-Topics “show system” on page 70

Sample Usage `WX> config set system login user jsmith class operator`
 New password:
 Retype password:

config set system name

Syntax `config set system name string`

Release-Information Introduced in JWOS Release 6.0.

Description Configures the name of the WX device.

name string—Specifies a device name (up to 30 characters). Do not use colons (:), asterisks (*), question marks (?), or angle brackets (< >) in device names.

Related-Topics “show system” on page 70

Sample Usage `WX> config set system name wx-10.10.20.10`

config set system name-server

Syntax	config set system name-server <i>ip-address</i> [<i>ip-address2 ip-address3</i>]
Release-Information	Introduced in JWOS Release 6.0.
Description	Specifies up to three DNS servers used to resolve IP addresses on the Flow Diagnostics page in the Web interface. The first IP address is configured as the primary DNS server. The other addresses (if any) are configured as secondary DNS servers.
Options	<i>ip-address</i> [<i>ip-address2 ip-address3</i>] —Sets one or more DNS server IP addresses.
Related-Topics	“config set system domain-name” on page 41 “show system” on page 70
Sample Usage	WX> config set system name-server 10.10.10.10 20.20.20.20

config set system ntp

Syntax	config set system ntp no-ntp config set system ntp (interval <i>number</i> server (primary secondary) <i>ip-address</i>)
Release-Information	Introduced in JWOS Release 6.0.
Description	Configures the Network Time Protocol (NTP). If the time is configured manually, NTP should be disabled.
Options	ntp no-ntp—Enables or disables NTP mode (disabled by default). interval <i>number</i> —Poll interval for NTP updates, in seconds to the power of two (6 through 17). The default interval is 6, which means the NTP client polls the server for time updates every 64 seconds. The maximum interval is 17 (36 hours). server (primary secondary) <i>ip-address</i> —Specifies the IP address of the primary or secondary NTP server.
Related-Topics	“config set system clock” on page 40 “show system” on page 70
Sample Usage	WX> config set system ntp server secondary 10.11.12.10

config set system syslog

Syntax	config set system syslog (destination <i>ip-address</i> facility <i>local0-7</i> severity (any none emergency alert critical error warning notice info))
---------------	--

Release-Information Introduced in JWOS Release 6.0.

Description Allows WX devices to send syslog messages to one or more syslog servers. A syslog server allows you to centrally log and analyze configuration events and system error messages, such as interface status, security alerts, and environmental conditions.

Options *destination ip-address*—IP address of a syslog server. You can specify up to five servers (one per command).

facility local0-7—Specifies the facility of the syslog messages. The default is *local0*.

severity (any | none | emergency | alert | critical | error | warning | notice | info)—Specifies the lowest severity level of the messages sent to the syslog servers. Select **Any** to include all severity levels. The default is **none**. Note that debug messages are not sent to the syslog servers.

- **emergency**—Critical error messages about system failures.
- **alert**—Critical error messages needing immediate action.
- **critical**—Critical error messages needing prompt action.
- **error**—Non-critical error messages, such as license expired.
- **warning**—Informational messages about minor events that are not errors.
- **notice**—Informational messages about normal, but significant events.
- **info**—Informational messages, such as reload requests.

Related-Topics “show logging” on page 68

“show system” on page 70

Sample Usage `WX> config set system syslog destination 10.12.22.10`

Chapter 4

Request Commands

This chapter describes the request commands used to restart, revert, or upgrade the system or client software version.

Command	Description
“request support” on page 47	Generates a diagnostic file for Technical Support.
“request system clear monitor stats” on page 48	Clears the statistics for the monitoring reports in the Web interface.
“request system disk shred” on page 48	Performs a secure wipe of the compression dictionary and object cache.
“request system install” on page 48	Loads the WX software image or WX client software image, or allows you to revert to a prior JWOS software version.
“request system license” on page 49	Adds or saves a license.
“request system load-config” on page 49	Loads a configuration from a file or restores factory settings.
“request system save-config” on page 51	Saves the current configuration to the startup.cfg file or an external file.
“request system reboot” on page 50	Restarts the WX device.

request support

Syntax	<code>request support export <i>label path</i></code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Generates a diagnostic file for JTAC (Juniper Technical Assistance Center) containing the current configuration, system information, filter settings, and log files. You can then email this file to JTAC to assist in the diagnosis of problems.
Options	<i>label</i> —The label for the file. If the label includes spaces, enclose it in double quotation marks. <i>path</i> —The path where you want to save the file.

Related-Topics None.

Sample Usage `WX> request support export call_1 c:\support`

request system clear monitor stats

Syntax `request system clear monitor stats`

Release-Information Introduced in JWOS Release 6.0.

Description Clears the statistics for the monitoring reports in the Web interface.

Options None.

Related-Topics “config set acceleration monitor” on page 26

Sample Usage `WX> request system clear monitor stats`

request system disk shred

Syntax `request system disk shred`

Release-Information Introduced in JWOS Release 6.0.

Description Performs a secure wipe of all the data on the hard disk.

Options None

Related-Topics None.

Sample Usage `WX> request system disk shred`

request system install

Syntax `request system install (path [allow-wxos-downgrade] [mark-current] | client path)`

Release-Information Introduced in JWOS Release 6.0.

Description Loads a WX device or WX client software image from a FTP or TFTP server, and allows you to revert to a previous version of the WX device software.

Options `install path | client path`—Loads a WX device software image or a WX client software image from a FTP or TFTP server. The location is specified in one of the following formats:

- `ftp://IP address:username:password/path and file name`
- `tftp://IP address/path and file name`

allow-wxos-downgrade—Allows you to downgrade to a previous version of the WX device software. Note that you cannot downgrade from JWOS 6.0 or later to a version prior to WXOS 5.6.5.

mark-current—Marks the uploaded WX device software image to be used for the next system reboot.

Related-Topics “config set allow downgrade” on page 29

“config set client download” on page 32

“request system reboot” on page 50

“show boot” on page 59

Sample Usage `WX> request system install tftp://10.10.25.30/software/jwos6010.zip mark-current`

request system license

Syntax `request system license (add terminal license-key | save license-file)`

Release-Information Introduced in JWOS Release 6.0.

Description Adds or saves a WX license key.

Options **add terminal *license-key***—Adds the license key. Do not enclose the license key in quotation marks.

save *license-file*—Saves the license key as a file on a FTP or TFTP server. The location is specified in one of the following formats:

- `ftp://IP address:username:password/path and file name`
- `tftp://IP address/path and file name`

Related-Topics “show system” on page 70

Sample Usage `WX> request system license save ftp://11.11.11.11:ksmith:passwd/mylicense`

request system load-config

Syntax `request system load-config (filename | factory-default [wipedisk n] [preserve-ip])`

Release-Information Introduced in JWOS Release 6.0.

Description Loads configuration information from a file or restores the factory default settings.

Options ***filename***—Loads a device configuration filename (up to eight characters) without the extension. The file location is specified in one of the following formats:

- `/path/filename`

- `ftp://IP address:username:password/path and file name`
- `tftp://IP address/path and file name`

factory-default—Reloads the factory settings and restores the temporary license. When the reload is done, unplug the power cable from the back of the WX device, plug the cable back in, and then specify the IP address, subnet mask, and default gateway for the device. You can specify options to preserve the IP addresses and wipe the disk.



NOTE: Restoring the factory default configuration removes all data, configuration information and log files. It also disrupts the adjacencies associated with the device. Before you restore the factory default configuration, you should back up the configuration file to another location.

- **preserve-ip**—Retains the device IP addresses when you reload the factory defaults.
- **wipe-disk *n***—Specifies the number of passes used to perform a secure wipe of the hard disk. During each pass, a different value is written to each byte on the disks. The first pass uses random numbers, the second pass writes a repeated pattern, the third pass uses zeros, the fourth pass writes another repeated pattern, while the fifth pass repeats the sequence with random numbers, shifted by one byte. Each pass takes about three hours (to stop the process, reboot the device). For maximum security, five passes are recommended.

Related-Topics “set client default-config” on page 14
 “request system save-config” on page 51

Sample Usage `WX> request system load-config c:\mypath\startup`

request system reboot

Syntax	<code>request system reboot [clean]</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Restarts the WX device. Restarting the device loads the configuration information in the <code>startup.cfg</code> file, along with the current boot image.
Options	clean —Clears the compression dictionary used for Network Sequence Caching.
Related-Topics	“config set boot” on page 32 “request system install” on page 48
Sample Usage	<code>WX> request system reboot clean</code>

request system save-config

Syntax	<code>request system save-config [filename]</code>
Release-Information	Introduced in JWOS Release 6.0.
Description	Saves the running configuration to the <code>startup.cfg</code> file in flash memory or to the specified file name.
Options	<p><i>filename</i>—Saves the running configuration to an external location. Specify the external location in one of the following formats:</p> <ul style="list-style-type: none"> ■ <code>/path/filename</code> ■ <code>ftp://IP address:username:password/path and file name</code> ■ <code>tftp://IP address/path and file name</code>
Related-Topics	“request system load-config” on page 49
Sample Usage	<code>WX> request system save-config c:\mypath\startup.cfg</code>

Chapter 5

Show Commands

This chapter describes the show commands used to display information about the device configuration and runtime status.

Command	Description
“show acceleration cifs” on page 54	Displays the Common Internet File System (CIFS) acceleration configuration and status.
“show acceleration monitor” on page 55	Indicates whether application monitoring for reports is globally enabled.
“show acceleration nsc” on page 55	Indicates whether Network Sequence Caching (NSC) for data compression is globally enabled.
“show acceleration tcpproxy” on page 56	Indicates whether Transmission Control Protocol (TCP) acceleration is globally enabled.
“show access-log” on page 56	Displays the access log.
“show adjacency peer-address” on page 57	Displays the status of one or all adjacent WX endpoints.
“show application-definition” on page 58	Displays the current definitions for all applications.
“show boot” on page 59	Displays the WX software image on each partition.
“show client settings” on page 59	Displays the WX client settings.
“show commands” on page 60	Displays a list of all available CLI commands.
“show configuration” on page 61	Displays the global system configuration.
“show disks” on page 61	Displays the disk space usage on each partition.
“show events” on page 62	Displays the configuration of the system events.
“show flow-filter” on page 62	Displays the configured flow filters or the traffic statistics for each of the current flow filters.
“show flow-stats” on page 65	Displays the current and cumulative traffic flow statistics.

Command	Description
“show interfaces” on page 65	Displays the specified level of interface information for one or all interfaces.
“show interfaces arp” on page 66	Displays the static and dynamic Address Resolution Protocol (ARP) entries.
“show interfaces bridge” on page 67	Displays the status of the bridge interfaces.
“show log” on page 67	Displays the system log file.
“show logging” on page 68	Displays the log settings and the list of modules that can add entries to the system log.
“show packet-capture” on page 68	Displays the packet capture status and options.
“show packet-interception” on page 68	Displays the current packet interception settings.
“show routing-options” on page 69	Displays the static routes for one or all interfaces.
“show snmp” on page 69	Displays Simple Network Management Protocol (SNMP) settings or statistics.
“show system” on page 70	Displays general system information.
“show version” on page 71	Displays WX device model number and software version information.

show acceleration cifs

Syntax	show acceleration cifs (configuration statistics [detail])
Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the CIFS acceleration configuration and statistics. The statistics include the current number of active flows, passive flows, and number of files being tracked, along with several totals since the device was last reset, such as the total number of CIFS flows, the total reads and writes, and the number of reads and writes accelerated. Most active flows are accelerated; passive flows and flows for unsupported clients or servers are not.
Options	configuration—Lists the configuration settings for CIFS acceleration. statistics [detail]—Displays a brief or detailed list of CIFS statistics.
Related-Topics	“config set acceleration cifs” on page 25
Sample Usage	<pre>WX> show acceleration cifs statistics detail ***** Cifs Detailed Stats *****</pre>

```

General
Total flows                : 0
Active flows               : 0
Passive flows              : 20
Client PDUs (active)      : 0
Server PDUs (active)      : 0
Flows with Soft Error     : 0
Flows from unsupported clients : 0

Write Details
Total Writes               : 0
Accelerated Writes        : 0

Read Details
Total Reads               : 0
Accelerated Reads         : 0

Close Details
Total Closes              : 0
Accelerated Closes        : 0

File Details
Files Currently Tracked: 0

Transactions Details
Trans2 DFS Accel Count    : 0
Total Trans2 Accel Count  : 0
Total Trans2 Count        : 0

```

show acceleration monitor

Syntax	show acceleration monitor
Release-Information	Introduced in JWOS Release 6.0.
Description	Indicates whether global monitoring of applications is enabled for reports. Monitoring can also be enabled by application.
Options	None.
Related-Topics	<p>“config set acceleration monitor” on page 26</p> <p>“config set application-definition” on page 29</p>
Sample Usage	<pre>WX> show acceleration monitor Monitor Mode: enabled</pre>

show acceleration nsc

Syntax	show acceleration nsc
Release-Information	Introduced in JWOS Release 6.0.
Description	Indicates whether Network Sequence Caching (NSC) is globally enabled for data compression. NSC can also be enabled or disabled by application.

Options None.

Related-Topics “config set acceleration nsc” on page 27
 “config set application-definition” on page 29

Sample Usage WX> show acceleration nsc
 NSC Mode: enabled

show acceleration tcpproxy

Syntax show acceleration tcpproxy

Release-Information Introduced in JWOS Release 6.0.

Description Indicates whether Transmission Control Protocol (TCP) acceleration is globally enabled. TCP acceleration can also be enabled or disabled by application.

Options None.

Related-Topics “config set acceleration tcpproxy” on page 27
 “config set application-definition” on page 29

Sample Usage WX> show acceleration tcpproxy
 ***** TCP Proxy Acceleration Settings *****
 TCP Proxy: enable

show access-log

Syntax show access-log [nopause]

Release-Information Introduced in JWOS Release 6.0.

Description Displays the access control log.

Options nopause—Lists the log information without pausing after each page of output.

Related-Topics “show logging” on page 68

Sample Usage WX> show access-log nopause
 2008-08-06 18:49:56 HTTPS: 172.23.5.8 admin Login http POST 0
 2008-08-06 19:21:23 CONSOLE: admin Logout
 2008-08-06 19:22:42 CONSOLE: admin Logout
 2008-08-06 19:24:40 CONSOLE: admin Login

show adjacency peer-address

Syntax	show adjacency peer-address (<i>ip-address</i> all) [detail state (connected connecting disconnected rejected waiting)] [type (WXC client)]
Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the status of one or all adjacent WX endpoints. Note that inactive adjacent endpoints are disconnected after 15 minutes, and disconnected and rejected endpoints are retained until the WX device is restarted.
Options	<p><i>ip-address</i> all—Displays adjacency information for a specific IP address or all current adjacencies.</p> <p>detail—Displays adjacency details, such as the last activity time, the remote WX ID (the MAC address), and whether the local and remote adjacency was established through automatic discovery (AD) or user configuration (UC).</p> <p>state (connected connecting disconnected rejected waiting)—Displays only endpoints in the specified state.</p> <p>type (WXC client)—Displays adjacency information only for WX clients or WXC devices. JWOS 6.0 supports only WX client adjacencies.</p>
Related-Topics	<p>“config delete adjacency peer-address” on page 21</p> <p>“config set adjacency peer-address” on page 28</p>
Sample Usage	Table 7 on page 57 lists the output fields for the show adjacency command. Output fields are listed in the approximate order in which they appear.

Table 7: show adjacency Output Fields

Field Name	Field Description
Type	Indicates whether the remote endpoint is a WX client (WX-C), a WXC device, or an unknown device (NONE). JWOS 6.0 supports only WX clients.
ConS	Indicates which services are configured on the remote endpoint. For example, TNC indicates TCP acceleration (T), NSC compression (N), and CIFS acceleration (C) are enabled.
SvcS	Indicates which services are actually applied to the traffic sent to the remote endpoint.

Table 7: show adjacency Output Fields (continued)

Field Name	Field Description
Nack-Reason	Indicates why an adjacency with the remote endpoint was rejected: ADJ DISABLED—Adjacencies with the remote endpoint are disabled on the local WX device. AUTODISC OFF—Automatic discovery is disabled on the local WX device. CLIENT-CLIENT—Adjacencies are not allowed between WX clients. CLIENT-LIMIT—Maximum number of adjacent WX clients has been reached the local WX device. CLIENT OFF—The WX client is disabled. COMM STR—The community name of the remote endpoint and the local WX device do not match. HW VERSION—The remote hardware version does not support adjacencies with the local WX device. SW VERSION—The remote software version does not support adjacencies with the local WX device. PROXY MODE—TCP acceleration on the remote endpoint is disabled. SYSTEM LIMIT—Maximum number of adjacencies has been reached on the local WX device.
Hello Frequency	Number of seconds between hello messages sent to verify an adjacent endpoint is still active.

```
WX> show adjacency peer-address all
***** Adjacency Show *****
```

IP-Address	Type	ConS	SvcS	Adj-State	Destination-Name	Nack-Reason
172.23.16.22	WX-C	TNC	TNC	Connected	ITLOANER-T418	
172.23.16.13	WX-C	TNC	TNC	Connected	MRIJHWANI-T421	
172.23.16.23	WX-C	TNC	TNC	Connected	MLANGDON-T61	
172.23.16.2	WX-C	TNC	TNC	Connected	JTOSH-T42	
172.23.16.11	WX-C	TNC	TNC	Connected	RDELANCY-XP	
172.23.16.9	WX-C	TNC	TNC	Rejected	RROESNER-XP	ADJ DISABLED

```
WX> show adjacency peer-address 172.23.16.22 detail
***** Adjacency Details *****
```

```
Remote IP Address   : 172.23.16.22
Remote WXID        : 00:1F:E2:18:CD:9C
Hello Frequency    : 15
Local Adj Type     : AD
Remote Adj Type    : AD
Last Active Time   : Wed Apr  1 15:58:14 2009

Services Conf      : TNC
Services Status    : TNC
```

show application-definition

Syntax show application-definition [*name*]

Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the definitions for one or all applications.
Options	<i>name</i> —Displays the definition for the specified application.
Related-Topics	“config delete application-definition” on page 22 “config set application-definition” on page 29
Sample Usage	<pre> WX> show application-definition FTP ===== Application: FTP Priority: 1 Type: ftp Monitoring:enabled Services: NSC:enabled CIFS:disabled TCP:enabled Rule Id: 1 Source Port: 20-21 Rule Id: 2 Destination Port: 20-21 </pre>

show boot

Syntax	show boot												
Release-Information	Introduced in JWOS Release 6.0.												
Description	Displays the WX software images on each partition, and indicates which image is running and which is selected for use by the next reboot.												
Options	None.												
Related-Topics	“config set boot” on page 32 “request system install” on page 48 “request system reboot” on page 50												
Sample Usage	<pre>WX> show boot</pre> <table><thead><tr><th>Image</th><th>Partition</th><th>Running</th><th>Selected</th></tr></thead><tbody><tr><td>JWOS 6.0I1.8566</td><td>B</td><td>X</td><td>X</td></tr><tr><td>JWOS 6.0I1.8545</td><td>A</td><td></td><td></td></tr></tbody></table>	Image	Partition	Running	Selected	JWOS 6.0I1.8566	B	X	X	JWOS 6.0I1.8545	A		
Image	Partition	Running	Selected										
JWOS 6.0I1.8566	B	X	X										
JWOS 6.0I1.8545	A												

show client settings

Syntax	show client settings
Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the settings for the WX client, including the current client configuration.
Options	None.

Related-Topics “set client default-config” on page 14

“config set client download” on page 32

“config set client peering-support” on page 33

“config set client username” on page 33

Sample Usage

```
WX> show client settings
*****Client Settings*****
Client Download Support: on
Client Peering Support: on
Client Authentication: Required
Client Download Username: wxclient
Client Download Password: *****
Client Version: 6.0
Client Default Configuration Source: Startup Configuration of WX
                                   May 23 2009: 10 Hours
=====
      Current Client Configurations:
=====
config set system contact "juniper-support"
config set system community "jnpr"
.
.
.
```

show commands

Syntax show commands

Release-Information Introduced in JWOS Release 6.0.

Description Displays a list of all of the available commands.

Options None.

Related-Topics None.

Sample Usage

```
WX> show commands
Commands:
  cls
  commit
  config
  delete
    acceleration
    cifs
    apply-signing
    username
    %username
  adjacency
    peer-address
    %ip-address
    no-discover
    no-service
    cifs
```

```

nsc
tcp
persist
all
no-discover
application-definition
%application-name
[=More (4%)=]

```

show configuration

Syntax	show configuration
Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the global system configuration.
Options	None.
Related-Topics	None.
Sample Usage	<pre> WX> show configuration ***** General information ***** ***** System information ***** System name: WX Location: on Community : jnpr Contact: juniper-support Management IP: Software version: JWOS 6.0A7.1 Model No.: 1.0 Platform: WXC-590 Serial number: 0590000016 System started at: 0 System up for: 13:01:39 10/23/08 hr:min:sec Front Panel Lock Status: 0 System Bypass Capability: on Info for flash file system: File system size: MB Free space: 453 MB [=More (9%)=] </pre>

show disks

Syntax	show disks
Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the disk space usage on each partition, including the percentage of space used and the number of used and available 1K blocks of space on each partition.

Options None.

Related-Topics None.

Sample Usage WX> show disks

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/sda1	275070500	1790976	259306676	1%	/opt/jwos/nsc/read
/dev/sda2	183380272	52	174064988	0%	/opt/jwos/nsc/write
/dev/sdb1	275070500	188	261097464	0%	/opt/jwos/objstore
/dev/sdb2	91690136	3116	87029404	0%	/opt/jwos/monitor
/dev/sdb3	91688180	80760	86949904	0%	/opt/jwos/misc

show events

Syntax show events configuration system

Release-Information Introduced in JWOS Release 6.0.

Description Displays the configuration of the system events.

Options None.

Related Topics “config set events” on page 34

Sample Usage WX> show events configuration system

```
Mode: on
===== System Events =====
```

ID	Name	Enabled	Severity
101	power-supply-failure	on	error
102	power-supply-ok	on	notice
201	license-will-expire	on	info
202	thruput-limit-exceeded	on	error
203	license-expired	on	error
204	client-limit-exceeded	on	info
301	fail-safe-mode-active	on	critical
302	cold-start	on	notice
401	if-speed-mode-mismatch	on	error
402	if-speed-mode-ok	on	notice
403	if-duplex-mismatch	on	error
501	lan-link-up	on	notice
502	lan-link-down	on	info
503	wan-link-up	on	notice
504	wan-link-down	on	info
601	login-failure	on	error
602	log-in-success	on	notice
701	startup-cfg-saved	on	notice
702	startup-cfg-failure	on	error
801	disk-failure	on	error

show flow-filter

Syntax show flow-filter (configuration | debug-buffer)

Release-Information Introduced in JWOS Release 6.0.

Description	Displays the configured flow filters or the traffic statistics stored in the debug buffer for each of the current flow filters.
Options	<p>configuration—Displays a list of the configured flow filters.</p> <p>debug-buffer—Displays the traffic statistics stored in the debug buffer for all flow filters.</p>
Related-Topics	<p>“clear flow-filter” on page 8</p> <p>“config delete flow-filter” on page 22</p> <p>“config set flow-filter” on page 35</p>
Sample Usage	<pre>WX> show flow-filter configuration source-address destination-address source-port destination-port 207.17.137.246 any 80 any WX> show flow-filter debug-filter Processing flow trace buffer might take time, depending upon the number of flows. Are you sure you want to proceed [yes,no]? (no)y ---- Flow Filter Output ---- ===== Real Time Statistics for FlowNo:1 Source IP: 10.87.43.6 Source Port: 1258 Destination IP: 10.87.44.200 Destination Port: 443 Protocol: TCP ==== General Info ==== Packets Sent Proxy: 0 Packets Received Proxy: 0 Bytes Sent WAN Proxy: 0 Bytes Received WAN Proxy: 0 Packets Difference Sent LAN Proxy: 0 Packets Difference Sent WAN Proxy: 0 Packets Difference Received WAN Proxy: 0 Total Packets Passthrough: 0 Total Bytes Passthrough:0 Inter Packet Difference Passthrough: 0 Last Packet Time: 0 Last Sent Packet Time: 0 Last Received Packet Time: 0 ==== TCP Acceleration ==== Reads At PSI Layer: 0 Writes At PSI Layer: 0 Generic PSI State: 4 PSI socket eagain counter: 0 Last PSI Socket Error Number: 0 Socket Descriptor: 0 Initial Sequence Number: -1556453639 Initial SYN-ACK Number: 1689014505 Number of SYN Seen: 0 Number of SYN-ACK Seen: 0 TCP Options in SYN: 0 TCP Options Supported: 0</pre>

```

SACK Supported: 0
MSS Size: 0
Read Window Size: 5840
Write Window Size: 65535
TCP Bytes Received: 0
TCP Bytes Sent: 878739044
TCP Connection State:0
FIN Received: 0
FIN Received Side: 0
Bidirectional FIN Received: 0
RST Received: 0
Last Socket Error:0
Last RTT: 0
Best RTT: d
Largest Send Window: 65535
LAN Packets Transmitted: 0
Duplicate ACK Received From LAN: 1
WAN Packets Transmitted: 0
Duplicate ACK Received from WAN: 1

```

==== Appdef Info ====

```

Acceleration Protocol: 0
Application Sync Ver: 0
Flow Initiated: 0
Hard Quits: 0
Soft Quits: 0
Unknown Quits: 0
Bytes To Server: 0
Bytes From Server: 0
PDU's to Server: 0
PDU's From Server: 0
Bytes To Client: 0
Bytes From Client: 0
PDU's To Client: 0
PDU's From Client: 0
Application State: 0
Present Application PDU Size: 0

```

==== CIFS Info ====

```

Accelerated Reads: 0
Total Reads: 0
Accelerated Writes: 0
Total Writes: 0
Accelerated Trans2 Count: 0
Total Trans2 Count: 0
Free Disk Space Positive: 0
Free Disk Space Negative: 0
Free Disk Space Stale: 0
Free Disk Space Unavailable: 0
Prefetch Re-use OK: d
Prefetch Re-use Not OK: 0
Whole File Count:0
Whole File Buffer Alloc Fail Count: 0
Mid Table Full Count: 0
Write Update Error Count: 0
Close Acceleration Fail: 0
File Open Write Through Count: 0
Write Through Acceleration Count: 0
Send Buffer Alloc Fail Count: 0

```



```

===== NSC Info =====
Bytes To WAN: 439271684
Bytes From WAN: 0
Bytes To LAN: 0
Bytes From LAN: 439271684
Cache Hit To WAN: 0
Cache Hit From WAN: 0
Cache Miss To WAN: 0
Cache Miss from WAN: 0

```

show flow-stats

Syntax	show flow-stats																			
Release-Information	Introduced in JWOS Release 6.0.																			
Description	Displays the current and cumulative number of proxied (accelerated) and passthrough (unprocessed) traffic flows, as well as the number of flows that have NSC compression or CIFS acceleration applied. The cumulative statistics are the totals since the last time the WX device was restarted.																			
Options	None.																			
Related Topics	“show acceleration cifs” on page 54																			
Sample Usage	<pre>WX> show flow-stats</pre> <table> <thead> <tr> <th></th><th>Current</th><th>Cumulative</th></tr> </thead> <tbody> <tr> <td>Number of flows:</td><td>58</td><td>30390</td></tr> <tr> <td>Passthrough:</td><td>10</td><td>9586</td></tr> <tr> <td>Proxied:</td><td>48</td><td>20804</td></tr> <tr> <td>NSC:</td><td>46</td><td>20033</td></tr> <tr> <td>CIFS:</td><td>2</td><td>630</td></tr> </tbody> </table>			Current	Cumulative	Number of flows:	58	30390	Passthrough:	10	9586	Proxied:	48	20804	NSC:	46	20033	CIFS:	2	630
	Current	Cumulative																		
Number of flows:	58	30390																		
Passthrough:	10	9586																		
Proxied:	48	20804																		
NSC:	46	20033																		
CIFS:	2	630																		

show interfaces

Syntax	show interfaces [<i>interface-name</i>] brief extensive terse	
Release-Information	Introduced in JWOS Release 6.0.	
Description	Displays the specified level of interface information for one or all interfaces.	
Options	<p><i>interface-name</i>—Name of the interface you want to view, such as br-0/0. Omit the interface name to view information for all interfaces.</p> <p>brief—Displays basic interface properties, including admin status, link status, IP address, speed, duplex, flags, and MTU.</p> <p>extensive—Displays the basic interface properties, plus the hardware address, traffic statistics, and last flap time (last reset time).</p>	

terse—Displays the interface name, type, admin and link status, and IP address.

Related-Topics “config set interface” on page 36

Sample Usage

```
WX> show interfaces terse
***** Interface Status *****
Name           Type      Admin    Link    Proto   IP Address
lo0             loopback  up       up      inet    127.0.0.2/8
ge-0/0/1        remote   up       up      inet
ge-0/0/0        local    up       up      inet
br-0/0          bridge   up       up      inet    207.17.137.246/24
fxp0            management up       down    inet    0.0.0.0/0

WX> show interfaces brief
***** Interface Status *****
Physical interface: lo0 Admin: up Physical Link is up
Type: loopback, MTU: 16436, Speed: N/A, Duplex: N/A
Auto-negotiation: N/A
Device flags : Up Running Multicast
inet 127.0.0.2
Subnet Mask: 255.0.0.0

Physical interface: fxp0 Admin: up Physical Link is down
Type: management, MTU: 1500, Speed: 65535, Duplex: full
Auto-negotiation: enable
Device flags : Up Broadcast Link0
inet 0.0.0.0
Subnet Mask: 0.0.0.0

Physical interface: ge-0/0/0 Admin: up Physical Link is up
Type: local, MTU: 1500, Speed: 1000, Duplex: full
Auto-negotiation: enable
Device flags : Up Broadcast Running Link0
inet N/A
Subnet Mask: N/A
[=More (60%)=]
```

show interfaces arp

Syntax show interfaces arp

Release-Information Introduced in JWOS Release 6.0.

Description Displays all static and dynamic entries in the Address Resolution Protocol (ARP) table.

Options None.

Related-Topics “config set interface arp” on page 37
“config delete interface arp” on page 23

Sample Usage

```
WX> show interfaces arp
Number of ARP entries listed on this WX device:1
IP           MAC Address      Interface Bridge  Port    Type
10.87.77.1   00:1c:23:c6:8a:73 ge-0/0/1 br-0/0   remote  dynamic
```

show interfaces bridge

Syntax	show interfaces bridge (<i>bridge-name</i> all) status
Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the network settings and the Local and Remote interface associated with one or all bridge interfaces.
Options	<i>bridge-name</i> —Name of a bridge interface, such as br-0/0.
Related Topics	“config set interface” on page 36
Sample Usage	<pre>WX> show interfaces bridge br-0/0 status IP Address: 207.17.137.246 Subnet Mask: 255.255.255.0 Default Gateway: 207.17.137.1 -----Member Physical Interfaces----- Name Type Speed Duplex Admin Oper MAC ge-0/0/0 local 100 full up up 00:30:48:d0:23:cf ge-0/0/1 remote 1000 full up up 00:30:48:d0:23:ce</pre>

show log

Syntax	<pre>show log [nopause] [session] show log [after time] [before time] [session] show log module name [severity level] [after time] [before time] [session] show log severity level [after time] [before time] [session]</pre>
Release-Information	Introduced in JWOS Release 6.0.
Description	<p>Displays the system log file.</p> <p><i>after time</i>—Displays entries after the specified date and time. The general format is yyyy-mm-dd hh:mm:ss. You can omit the quotation marks if only the date is specified.</p> <p><i>before time</i>—Displays entries prior to the specified date and time.</p> <p><i>module name</i>—Displays entries for the specified module.</p> <p><i>nopause</i>—Displays entries without pausing after each page of output.</p> <p><i>session</i>—Displays entries sorted by session.</p> <p><i>severity level</i>—Displays entries for the specified severity level.</p> <ul style="list-style-type: none"> ■ f F—Fatal error messages about software or hardware malfunctions. ■ e E—Error messages, such as License expired. ■ w W—Warning messages.

- **i | I**—Informational messages, such as reload requests and low-process stack messages.
- **d | D**—Debug messages.
- **v | V**—Verbose mode, which provides additional details about the above messages.

Related-Topics “show logging” on page 68

Sample Usage `WX> show log module ctrlmgr`
 CtrlMgrd: 2009-04-13 22:52:42,002 [0xb6ee76e0] INFO ctrlmgr - JWOS is starting

show logging

Syntax show logging [modules]

Release-Information Introduced in JWOS Release 6.0.

Description Displays the log settings and the list of modules that can add entries to the system log.

Options modules—Displays the module names.

Related-Topics “set logging” on page 15

Sample Usage `WX> show logging`
 Default severity: INFO
 Console output: disable
 aap = DEBUG,
 http = DEBUG,

show packet-capture

Syntax show packet-capture

Release-Information Introduced in JWOS Release 6.0.

Description Displays the current packet capture status and options.

Options None.

Related-Topics “packet-capture” on page 11

Sample Usage `WX> show packet-capture`
 Packet Capture Status: Ready
 Packet Capture Options: NULL

show packet-interception

Syntax show packet-interception

Release-Information	Introduced in JWOS Release 6.0.
Description	Displays the current packet interception settings.
Options	None.
Related-Topics	“config set packet-interception” on page 38
Sample Usage	<pre>WX> show packet-interception ***** Packet Interception Details ***** Packet Interception Mode : off</pre>

show routing-options

	show routing-options
Syntax	show routing-options (interface <i>name</i> static route static route [<i>destination_IP</i>])
Release-Information	Introduced in JWOS Release 6.0. .
Description	Displays the static routes for one or all interfaces.
Options	<p>interface <i>name</i>—Displays static routes for the specified bridge interface, such as br-0/0.</p> <p>static route [<i>destination_IP</i>]—Displays all static routes or just the routes for the specified destination network.</p>
Related-Topics	“config set routing-options” on page 39
Sample Usage	<pre>WX> show routing-options static route Number of Routing entries listed on this WX device:2 Destination Subnet Mask Next Hop Type Interface 0.0.0.0 0.0.0.0 207.17.137.1 static br-0/0 172.23.16.0 255.255.255.0 207.17.137.250 static br-0/0</pre>

show snmp

Syntax	show snmp [statistics]
Release-Information	Introduced in JWOS Release 6.0..
Description	Displays the settings or statistics for the Simple Network Management Protocol (SNMP).
Options	statistics—Displays SNMP statistics, such as the number of SNMP packets, traps, get and set requests, and dropped packets.
Related-Topics	<p>“config set snmp” on page 39</p> <p>“config delete snmp” on page 24</p>

Sample Usage

```
WX> show snmp
SNMP status: on
Read community string: *****
Write community string: *****
Trap status: on
Trap destination      Trap community string
Authentication-failure trap status: on
```

show system

Syntax show system [clock | license [key | usage] | login | ntp | syslog]

Release-Information Introduced in JWOS Release 6.0.

Description Displays system settings, such as the device name, community, software version, time settings, file system, system start time, and license information.

Options clock—Displays system time, time zone, and daylight saving time settings.

license [key | usage]—Displays system licensing information, or just the license key or features.

login—Displays the user accounts; the password is not displayed.

ntp—Displays the NTP settings.

syslog—Displays the syslog settings.

Related-Topics “config set system clock” on page 40
 “request system license” on page 49
 “config set system login” on page 42
 “config set system name” on page 43
 “config set system ntp” on page 44
 “config set system syslog” on page 44

Sample Usage

```
WX> show system
***** System information *****
System name: WX
Location: on
Community : jnpr
Contact: juniper-support
Management IP: 10.87.77.20

Software version: JWOS 6.0A7.1
Model No.: 1.0
Platform: WXC-590
Serial number: 0590000016

System started at: 0
```

System up for: 13:01:39 10/23/08 hr:min:sec

Front Panel Lock Status: 0
System Bypass Capability: on

Info for flash file system:
File system size: 191999672594432 MB
Free space: 453 MB
File system block size: 4294965300 Bytes

[=More (65%)=]

show version

Syntax show version

Release-Information Introduced in JWOS Release 6.0.

Description Displays the WX device model number and software version.

Options None.

Related-Topics None.

Sample Usage **show version**
Software version: JWOS 6.0A7.1
Model No: WXC-590 - 1.0

Part 2

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