

LANTRONIX®



## xSenso™ 2100 Command Reference

Part Number 900-630-R  
Revision A July 2012

---

## Copyright and Trademark

© 2012 Lantronix, Inc. All rights reserved. No part of the contents of this book may be transmitted or reproduced in any form or by any means without the written permission of Lantronix.

Lantronix® is a registered trademark and DeviceInstaller™ and xSenso™ are trademarks of Lantronix, Inc.

Windows® and Internet Explorer® are a registered trademarks of Microsoft Corporation. Mozilla® and Firefox® are registered trademarks of the Mozilla Foundation. Chrome™ is a trademark of Google. Opera™ is a trademark of Opera Software ASA. Tera Term® is a registered trademark of Vector, Inc. All other trademarks and trade names are the property of their respective holders.

## Contacts

### Lantronix Corporate Headquarters

167 Technology Drive  
Irvine, CA 92618, USA  
Toll Free: 800-526-8766  
Phone: 949-453-3990  
Fax: 949-450-7249

### Technical Support

Online: [www.lantronix.com/support](http://www.lantronix.com/support)

### Sales Offices

For a current list of our domestic and international sales offices, go to the Lantronix web site at [www.lantronix.com/about/contact](http://www.lantronix.com/about/contact).

## Disclaimer

The information in this guide may change without notice. The manufacturer assumes no responsibility for any errors that may appear in this guide.

## Revision History

Date	Revision	Comments
July 2012	A	Initial document for firmware release 7.4.0.0.

## Table of Contents

List of Figures	4
List of Tables	5
<b>1: About This Guide</b>	<b>6</b>
Chapter Summaries	6
Conventions	6
Additional Documentation	7
<b>2: Overview</b>	<b>8</b>
XML Architecture and Device Control	8
Command Line Interface	8
<b>3: Command Line Interface</b>	<b>9</b>
Configuration Using Telnet	9
Configuration Using the MGMT (USB) Port	9
Navigating the CLI Hierarchy	9
Using Keyboard Shortcuts and CLI	10
Understanding the CLI Level Hierarchy	11
<b>4: Configuration Using XML</b>	<b>13</b>
XML Configuration Record Document Type Definition	13
Quick Tour of XML Syntax	14
Declaration	14
Element Start and End Tags	14
Element Attributes	14
Record, Group, Item, and Value Tags	15
Importing and Exporting an XML Configuration File	17
Best Practices	17
Importing	17
Exporting	18
XML Configuration Groups	19
XML Status Record Groups and Items	25
<b>5: Commands and Levels</b>	<b>34</b>

## List of Figures

Figure 3-2 CLI Level Hierarchy _____	11
Figure 3-3 Login Level Commands _____	12
Figure 3-4 Enable Level Commands _____	12
Figure 4-1 DTD for XCRs _____	13
Figure 4-2 XML Example _____	14
Figure 4-3 XML Example _____	15
Figure 4-4 XML Example of Multiple Named Values _____	15
Figure 4-5 XML Example of Multiple Items _____	16
Figure 4-6 XML Example with Multiple Groups _____	16

## List of Tables

Table 3-1 Keyboard Shortcuts	10
Table 4-7 XCR Groups	19
Table 4-8 XSR Group and Items	25
Table 5-1 Commands and Levels	35

# 1: About This Guide

This guide describes how to configure the xSenso 2100 using the Command Line Interface (CLI) and/or Extensible Markup Language (XML). It is written for software developers and system integrators.

## Chapter Summaries

This table lists and summarizes content of each chapter.

Chapter	Summary
<a href="#">Chapter 2: Overview</a>	Gives an overview of CLI and XML.
<a href="#">Chapter 3: Command Line Interface</a>	Lists commands and describes how to use CLI to configure the xSenso.
<a href="#">Chapter 4: Configuration Using XML</a>	Lists XCR groups and items and describes how to use XCRs to configure the xSenso.
<a href="#">Chapter 5: Commands and Levels</a>	Provides an index of the CLI Command Hierarchy with hyperlinks to the corresponding command details.

## Conventions

The table below lists and describes the conventions used in this book.

Convention	Description
<b>Bold text</b>	Default parameters.
<i>Italic text</i>	Required values for parameters
<b>Brackets [ ]</b>	Optional parameters.
<b>Angle Brackets &lt; &gt;</b>	Possible values for parameters.
<b>Pipe  </b>	Choice of parameters.
<b>Warning</b>	<b>Warning:</b> Means that you are in a situation that could cause equipment damage or bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents.
<b>Note</b>	<b>Note:</b> Means take notice. Notes contain helpful suggestions, information, or references to material not covered in the publication.
<b>Caution</b>	<b>Caution:</b> Means you might do something that could result in faulty equipment operation, or loss of data.
<b>Screen Font (Courier New)</b>	CLI terminal sessions and examples of CLI input.

## Additional Documentation

Visit the Lantronix website at [www.lantronix.com/support/documentation](http://www.lantronix.com/support/documentation) for the latest documentation and the following additional documentation.

<b>Document</b>	<b>Description</b>
<i>xSenso User Guide</i>	Describes how to configure and use the xSenso.
<i>DeviceInstaller Online Help</i>	Instructions for using the Lantronix Windows-based utility to locate the xSenso and to view its current settings.

## 2: Overview

xSenso 2100 supports three convenient configuration methods: Web Manager, Command Line Interface (CLI) and Extensible Markup Language (XML). For more information about the Web Manager, see the *xSenso 2100 User Guide* on the Lantronix website.

### XML Architecture and Device Control

XML is a fundamental building block for the future growth of Machine-to-Machine (M2M) networks. xSenso supports XML configuration records that make configuring the device server easy for users and administrators. XML configuration records are easy to edit with a standard text editor or an XML editor.

For a brief overview of XML, see [Chapter 4: Configuration Using XML](#). It provides rules on basic XML syntax, a guide to the specific XML tags used, and a guide to using XML configuration records.

### Command Line Interface

Making the edge-to-enterprise vision a reality, xSenso uses industry-standard tools for configuration, communication, and control. For example, the xSenso uses a command line interface (CLI) whose syntax is very similar to that used by data center equipment such as routers and hubs.

For details of the CLI, see [Chapter 5: Commands and Levels](#). It provides an index of the CLI Command Hierarchy with links to the corresponding command details. The CLI provides commands for configuring, monitoring, and controlling the device server.



## 3: Command Line Interface

This chapter describes accessing the xSensio by using Telnet, SSH, or USB gadget serial ports to configure the xSensio, navigating the Command Line Interface (CLI), typing keyboard shortcuts, and moving between the levels.

It contains the following sections:

- ◆ *Configuration Using Telnet*
- ◆ *Configuration Using the MGMT (USB) Port*
- ◆ *Navigating the CLI Hierarchy*
- ◆ *Using Keyboard Shortcuts and CLI*
- ◆ *Understanding the CLI Level Hierarchy*

Refer to *Chapter 5: Commands and Levels* for a complete list of levels, commands, and descriptions.

### Configuration Using Telnet

To access and configure the device server by using a Telnet session over the network, you must first establish a Telnet connection. You can also establish a Telnet connection by clicking the Telnet Configuration tab in DeviceInstaller. See the DeviceInstaller Online Help for more information, available on our website [www.lantronix.com/support/downloads](http://www.lantronix.com/support/downloads).

To access the xSensio by using Telnet, perform the following steps.

1. Click **Start > Run**. The Run dialog box displays.
2. Type `cmd` in the dialog box and press **OK**.
3. Type `telnet x.x.x.x` (`x.x.x.x` is the IP address). The xSensio is online when the command prompt (`>`) displays. You are at the root level of the CLI.

**Note:** Depending on the level of security, a password may be required.

### Configuration Using the MGMT (USB) Port

In order to configure and manage the device, connect the computer via USB cable to the xSensio MGMT port and run a terminal emulation program (e.g., Tera Term). See the *xSensio 2100 User Guide* for directions on connecting the USB port prior to configuration.

### Navigating the CLI Hierarchy

The CLI is organized into a hierarchy of levels. Each level has a group of commands for a specific purpose. For example, to configure a setting for the FTP server, one would navigate to the FTP level, which is under the configuration level.

- ◆ To move to a different level—Enter the name of the level from within its parent level. For example, to enter the tunnel level, type `tunnel <number>` at the enable prompt. This displays: `<enable> tunnel <number>#`.

- ◆ To exit and return to one level higher—Type `exit` and press the **Enter** key. Typing `exit` at the login level or the enable level will close the CLI session.
- ◆ To view the current configuration at any level—Type `show`.
- ◆ To view the list of commands available at the current level—Type the question mark "`?`". Items within `< >` (e.g. `<string>`) are required parameters.
- ◆ To view the available commands and explanations—Type the asterisk (`*`).
- ◆ To view the list of commands available for a partial command—Type the partial command followed by the question mark "`?`". For example: `<tunnel-1>#show?` displays a list of all `echo` commands at the tunnel level.
- ◆ To view available commands and their explanations for a partial command—Type the partial command followed by the asterisk (`*`). For example: `<tunnel-1>#show*` displays a list of all `echo` commands and descriptions at the tunnel level.
- ◆ To view the last 20 commands entered at the CLI—Type `show history`.

## Using Keyboard Shortcuts and CLI

One useful shortcut built into xSenso is that the complete text of a command does not have to be entered to issue a command. Typing just enough characters to uniquely identify a command, then hitting `enter`, can be used as a short cut for a command. For example, at the enable level, "`sh`" can be used for the "`show`" command.

Tab Completion is also available using the **Tab** and **Enter** keys on the keyboard. Typing the first few characters of a command, then hitting the **Tab** key displays the first command that begins with those characters. Hitting the **Tab** key again displays the next command that begins with the original characters typed. You can press **Enter** to execute the command or you can backspace to edit any parameters.

The following key combinations are allowed when configuring the device server using the CLI:

**Table 3-1 Keyboard Shortcuts**

Key Combination	Description
<b>Ctrl + a</b>	Places cursor at the beginning of a line
<b>Ctrl + b</b>	Backspaces one character
<b>Ctrl + d</b>	Deletes one character
<b>Ctrl + e</b>	Places cursor at the end of the line
<b>Ctrl + f</b>	Moves cursor forward one character
<b>Ctrl + k</b>	Deletes from the current position to the end of the line
<b>Ctrl + l</b>	Redraws the command line
<b>Ctrl + n</b>	Displays the next line in the history
<b>Ctrl + p</b>	Displays the previous line in the history
<b>Ctrl + u</b>	Deletes entire line and places cursor at start of prompt
<b>Ctrl + w</b>	Deletes one word back
<b>Ctrl + z</b>	Exits the current CLI level

Key Combination	Description
Esc + b	Moves cursor back one word
Esc + f	Moves cursor forward one word

## Understanding the CLI Level Hierarchy

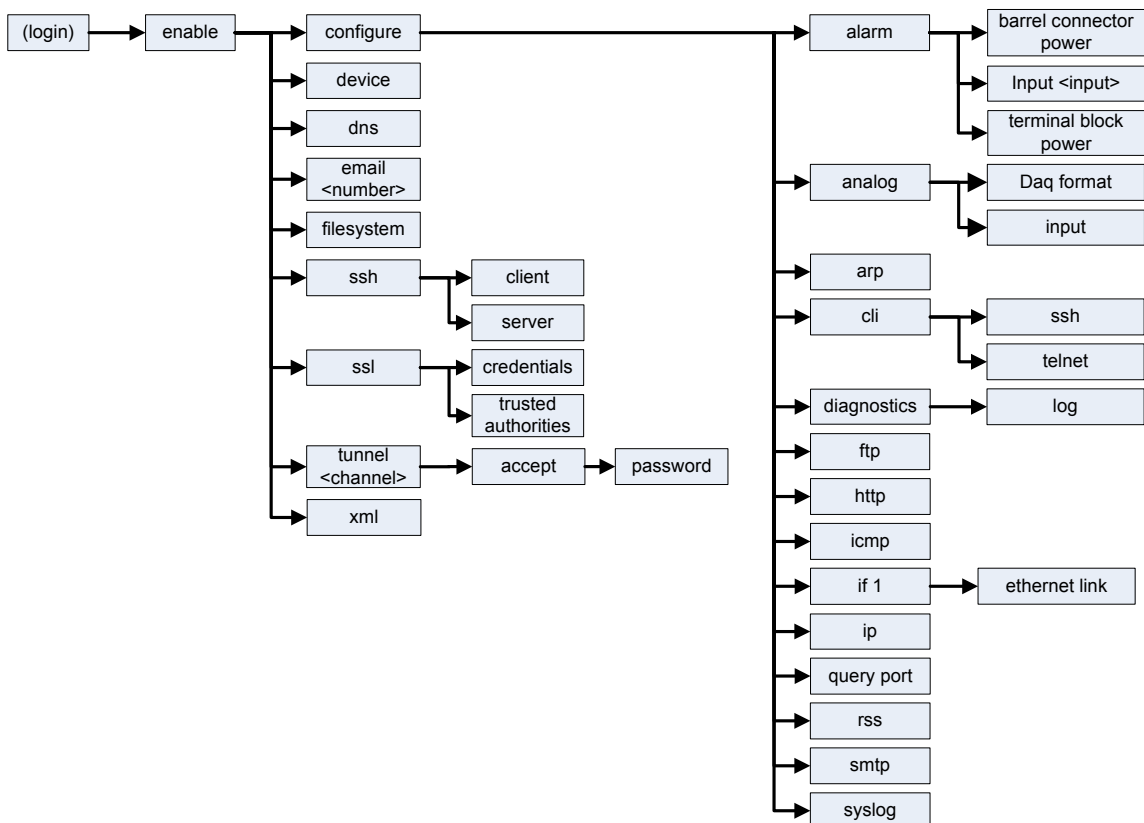
The CLI hierarchy is a series of levels. Arranging commands in a hierarchy of levels provides a way to organize and group similar commands, provide different levels of security, and reduce the complexity and number commands and options presented to a user at one time.

When you start a command line session, you begin at the login level. This level can be password protected and provides access to high level status, a few diagnostic commands, and the enable level. Further device information and configuration are accessed via the enable level.

The enable level can also be password protected and is the gateway to full configuration and management of the device server. There are commands for gathering and effecting all elements of device status and configuration, as well as commands that take you to additional levels. For instance, tunnel specific status and configuration is found under the "tunnel" level, and network specific status and configuration commands are found under the "configuration" level.

An overview of the levels in the xSenso is presented in [Figure 3-2 CLI Level Hierarchy](#) below.

Figure 3-2 CLI Level Hierarchy



Commands at the login level (see [Figure 3-3 Login Level Commands](#) below) do not affect current configuration settings and are not displayed initially. If you type `?`, you will see the login sub-commands. These commands provide diagnostic and status information only.

**Figure 3-3 Login Level Commands**

```
>?
clrscrn                               exit
ping <host>                           ping <host> <count>
ping <host> <count> <timeout>        show
show history                          trace route <host>
trace route <host> <protocol>        enable
>
```

**Note:** To configure the xSensio, you must be in the enable level and any of its sub-levels. [Figure 3-4](#) below shows the enable level commands.

**Figure 3-4 Enable Level Commands**

```
>enable
<enable>#?
auto show interfaces                  auto show processes
clrscrn                               configure
device                               disable
dns                                  email <number>
exit                                  filesystem
kill ssh <session>                   kill telnet <session>
ping <host>                           ping <host> <count>
ping <host> <count> <timeout>        reload
reload factory defaults              show
show history                          show interfaces
show ip sockets                      show processes
show sessions                         ssh
ssh <optClientUsername> <host>       ssh <optClientUsername> <host> <port>
ssl                                   telnet <host>
telnet <host> <port>                  trace route <host>
trace route <host> <protocol>        tunnel <line>
write                                  xml

<enable>#
```

See the [Chapter 5: Commands and Levels](#) at the end of this document for a complete list of levels, commands, and descriptions.

## 4: Configuration Using XML

The device server provides an Extensible Markup Language (XML) interface that you can use to configure device server devices. Every configuration setting that can be issued from the device server Web Manager and CLI can be specified using XML.

The device server can import and export configuration settings as an XML document known as an XML Configuration Record (XCR). An XCR can be imported or exported via the CLI, a Web browser, FTP, or the device server filesystem. An XCR can contain many configuration settings or just a few. For example, it might change all of the configurable parameters for a device server, or it may only change the baud rate for a single serial line. Using XCRs is a straightforward and flexible way to manage the configuration of multiple device server devices.

### XML Configuration Record Document Type Definition

An XML document type definition (DTD) is a description of the structure and content of an XML document. It verifies that a document is valid. XCRs are exported using the DTD as shown in [Figure 4-1 DTD for XCRs](#).

Figure 4-1 DTD for XCRs

```
<!DOCTYPE configrecord [  
<!ELEMENT configrecord (configgroup+)>  
<!ELEMENT configgroup (configitem+)>  
<!ELEMENT configitem (value+)>  
<!ELEMENT value (#PCDATA)>  
<!ATTLIST configrecord version CDATA #IMPLIED>  
<!ATTLIST configgroup name CDATA #IMPLIED>  
<!ATTLIST configgroup instance CDATA #IMPLIED>  
<!ATTLIST configitem name CDATA #IMPLIED>  
<!ATTLIST value name CDATA #IMPLIED>  

```

The device server DTD rules state the following:

- ◆ The XML document element is a `<configrecord>` element. This is the root element.
- ◆ A `<configrecord>` must have one or more `<configgroup>` elements and can have a `version` attribute.
- ◆ A `<configgroup>` must have one or more `<configitem>` elements and can have `name` and `instance` attributes.
- ◆ A `<configitem>` element must have one or more `<value>` elements and can have a `name` attribute.
- ◆ A `<value>` element can have only data and can have a `name` attribute.
- ◆ The `name` attribute identifies a group, item, or value. It is always a quoted string.
- ◆ The `instance` attribute identifies the specific option, like the serial port number. The "instance" attribute is always a quoted string.

**Note:**

- ◆ The name for each <configgroup> (specified with the name attribute) is the group name listed in the Web Manager XCR groups or with the "xcr list" CLI command. See the xSensio User Guide for more information about the XCR groups.
- ◆ An empty or missing <value> element in each present <configgroup> clears the setting to its default.

## Quick Tour of XML Syntax

### Declaration

The first line, <?xml version="1.0" standalone="yes"?>, is called the XML declaration. It is required and indicates the XML version in use (normally version 1.0). The remainder of the file consists of nested XML elements, some of which have attributes and content.

### Element Start and End Tags

An element typically consists of two tags: start tag and an end tag that surrounds text and other elements (element content). The start tag consists of a name surrounded by angle brackets, for example <configrecord>. The end tag consists of the same name surrounded by angle brackets, but with a forward slash preceding the name, for example </configrecord>. The element content can also contain other "child" elements.

### Element Attributes

The XML element attributes that are name-value pairs included in the start tag after the element name. The values must always be quoted, using single or double quotes. Each attribute name should appear only once in an element.

[Figure 4-2](#) shows an XML example which consists of a declaration (first line), nested elements with attributes and content.

**Figure 4-2 XML Example**

```
<configrecord version="0.1.0.0T0">
  <configgroup name = "diagnostics">
    <configitem name = "log">
      <value name="output">Disable</value>
      <value name="max length">50 Kbytes</value>
    </configitem>
  </configgroup>
</configrecord>
```

The xSensio uses the attributes in the following subsections to label the group configuration settings.

## Record, Group, Item, and Value Tags

A `<configgroup>` is a logical grouping of configuration parameters and must contain one or more `<configitem>` elements. It must have a name attribute and may have an instance attribute.

A `<configitem>` is a specific grouping of configuration parameters relevant to its parent group. An item takes the name attribute and must contain one or more value elements. For example, the line group might have parameters such as baud rate, data bits, and parity.

A value may specify the value of a configuration parameter. It may contain the name attribute. In this example, a value of 9600 might be specified for baud rate; 7 may be specified for data bits, and even may be specified for parity.

A name attribute identifies the group, item, or value. It is always quoted (as are all XML attributes). For example, a group that contains serial port parameters has the name "line".

An instance attribute identifies which of several instances is being addressed. It is always quoted. For example, the email (in the email configgroup) has the instance "1" to indicate email 1 or "2" to specify email 2.

The following figures show examples of XML configuration records and the use of the `<configrecord>`, `<configgroup>`, `<configitem>`, and `<value>` XML elements.

**Figure 4-3 XML Example**

```
<configrecord version="0.1.0.0T0">
  <configgroup name = "diagnostics">
    <configitem name = "log">
      <value name="output">Disable</value>
      <value name="max length">50 Kbytes</value>
    </configitem>
  </configgroup>
</configrecord>
```

**Figure 4-4 XML Example of Multiple Named Values**

```
<?xml version="1.0" standalone="yes"?>
  <configgroup name = "ethernet" instance = "eth0">
    <configitem name = "speed">
      <value>Auto</value>
    </configitem>
    <configitem name = "duplex">
      <value>Auto</value>
    </configitem>
  </configgroup>
```

**Figure 4-5 XML Example of Multiple Items**

```

<configgroup name="ssh server">
  <configitem name="host rsa keys">
    <value name="public key"/>
    <value name="private key"/>
  </configitem>
  <configitem name="host dsa keys">
    <value name="public key"/>
    <value name="private key"/>
  </configitem>
  <configitem name="delete authorized users">
    <value>disable</value>
  </configitem>
  <configitem name="authorized user delete">
    <value name="name"/>
  </configitem>
  <configitem name="authorized user" instance="">
    <value name="password"/>
    <value name="public rsa key"/>
    <value name="public dsa key"/>
  </configitem>
</configgroup>

```

**Figure 4-6 XML Example with Multiple Groups**

```

<?xml version="1.0" standalone="yes"?>
<configgroup name = "telnet">
  <configitem name = "state">
    <value>enable</value>
  </configitem>
  <configitem name = "authentication">
    <value>disable</value>
  </configitem>
</configgroup>
<configgroup name = "ssh">
  <configitem name = "state">
    <value>enable</value>
  </configitem>
</configgroup>

```



## Importing and Exporting an XML Configuration File

An XCR can be imported or exported using the following methods:

- ◆ Filesystem-XCRs can be saved to the device server file system and imported or accessed as needed. See [Best Practices on page 17](#) or the Filesystem Browser section in the *xSenso User Guide*.
- ◆ CLI-XCRs can be imported (captured) or exported (dumped) directly to a Telnet, SSH, or serial line CLI session. Capturing an XCR can be started by pasting a valid XCR directly into the CLI prompt. xSenso immediately processes the configuration record, changing any settings specified. This can be done on any level, including the root. Special tags in the XML allow for providing root and enable level passwords so that this can also be done at the password prompt.
- ◆ Web browser-Web Manager can be used to import and export an XCR to the device server file system. It can also be used to import an XCR from an external source such as your local hard drive.
- ◆ FTP-The device server FTP server can export and import XCRs when an FTP get or put command on the filename (xsenso.xcr for export, xsenso\_import.xcr for import; both are under the pwxcr directory) is requested. On export (FTP get of xsenso.xcr), the FTP server obtains the current XCR from the xSenso and sends it as a file. On import (FTP put of xsenso\_import.xcr), the FTP server processes the file by sending it directly to the XML engine. In both cases the device server filesystem is not accessed. The files xsenso.xcr and xsenso\_import.xcr are not read from or written to the file system. See FTP in the *xSenso User Guide*.

## Best Practices

You can import or export an entire XCR, or just a portion of it, by specifying the group name and/or group instances. In the examples below, import and export operations are performed from the CLI on the local filesystem and require a XCR on the local filesystem. The Web Manager provides the same functionality.

**Caution:** *Using Microsoft Word to edit and save an XCR will change the format of the file and make it incompatible with xSenso. This is true even if the file is saved as Plain Text (.txt) or an XML Document (.xml). Notepad, a third party text editor, or a specialized XML editor should be used instead.*

## Importing

The following syntax can be used to import configurations from a file:

```
xcr import <file>
xcr import <file> <groups and/or group:instances>
```

The first line imports all groups specified in the XML config record named in <file>. Any filename is valid, and the file name and extension are not important.

In the second line:

- ◆ Instance follows group with a colon (see the third example on the next page).
- ◆ Multiple groups are separated with a comma.
- ◆ Any white space requires the list of groups to be quoted.

- ◆ Only the named groups get imported, even if the XCR contains additional XCR groups.

The following syntax can be used to export configurations to a file on the device server's file system:

```
xcr export <file>
xcr export <file> <groups and/or group:instances>
```

The same guidelines above regarding importing configurations also apply to exporting configurations. If no groups are specified, then the export command will export all configuration settings to the file. If instances are specified after the groups, only those group instances are written. If no instance is specified, all instances of that group are written.

## Exporting

The following example exports only the accept mode tunneling settings for channel 1 to the file "tunnel\_1.xcr" on the device server filesystem:

```
xcr export tunnel_1.xcr "tunnel accept:1"
```

The following example exports only the accept mode tunneling settings for all channels to the file "tunnel\_all.xcr" on the device server filesystem:

```
xcr export tunnel_all.xcr "tunnel accept"
```

The following example imports only the settings for tunnel 2 from an XCR named "factory\_config.xcr" on the device server filesystem. If "factory\_config.xcr" has other configuration settings, they are ignored:

```
xcr import factory_config.xcr "tunnel accept:2"
```

The following example imports only tunnel settings for all channels from a configuration record on the device server filesystem named "foobar.xcr":

```
xcr import foobar.xcr "tunnel accept"
```

To import only accept mode tunnel settings for channel 1 and all accept mode settings for channel 2 from an XML configuration record named "production.xcr" that contains these settings (and possibly more), issue the following command:

```
xcr import production.xcr "tunnel tunnel accept:1, tunnel accept: 2"
```

The following example imports all tunneling settings for all channels from a file named xcr\_file:

```
xcr import xcr_file "tunnel accept"
```

The following example exports only accept mode tunneling settings on channel 1 to a file named tunnel\_config\_t1.xcr on the device server filesystem.

```
xcr export tunnel_config_t1.xcr "tunnel accept:1"
```

The following example exports accept mode tunneling for all channels to the file tunnel\_config.xcr on the device server filesystem:

```
xcr export tunnel_config.xcr "tunnel"
```

## XML Configuration Groups

Table 4-7 lists the xSensio XCR groups in alphabetical order. This table indicates the various group items, as well as some possible value names and options.

**Note:** Any instance of **&#60** in the table may be read as "less than" and any instance of **&#62** may be read as "greater than".

**Table 4-7 XCR Groups**

Group Name	Group Item	Value Name	Value Options	Additional Information
alarm	barrel connector power	connect (Attribute of "instance" is a number.)		
		email		
	input <instance>	connect <instance>		
		email		
	terminal block power	connect reminder interval		
			connect <instance>	
email				
analog input (Attribute of "instance" is a number.)	adjustment			
	alarm high			
	alarm low			
	alarm type			
	decimal point			
	delay			
	display			
	input high			
	input low			
	offset			
	range			
	reading high			
	reading low			
	title			
units				

Group Name (continued)	Group Item	Value Name	Value Options	Additional Information
arp	arp delete	ip address		Remove an entry from the ARP table. Specify the entry by its IP address.
	arp entry	ip address		
		mac address		
cli	login password			Value is SECRET, hidden from user view. Default: PASS
	enable level password			Value is SECRET, hidden from user view.
	quit connect line			Accepts text containing control characters, for example, <code>&amp;#60;control&amp;#62;A</code> represents control-A. Default: <code>&lt;control&gt;L</code>
	inactivity timeout			Default: 15 minutes
	line authentication		enable, disable	Default: disable
daq format	end character			
	identifier			
	timestamp			
	units			
device	short name			
	long name			
	serial number			Read only.
	firmware version			Read only.
diagnostics	log	output	disable, filesystem, line <number>	Default: disable
		max length		Default: 50 KB
email (Attribute of "instance" is a number.)	to			
	cc			
	from			
	reply to			
	subject			
	message file			
	overriding domain			
	server port			Default: 25
	local port		&#60;Random&#62;, ...	Default: <Random>
priority		urgent, high, normal, low, very low	Default: normal	

Group Name (continued)	Group Item	Value Name	Value Options	Additional Information
ethernet	speed		auto, 10, 100	Default: auto
	duplex		auto, half, full	Default: auto
ftp server	state			
http authentication uri	user delete	name		Deletes an HTTP Authentication URI user. The value element is used to specify the user for deletion.
	realm			
	type			
	user	password		
http server	state		enable, disable	Default: enable
	port		&#60;None&#62;, ...	Default: 80
	secure port		&#60;None&#62;, ...	Default: 443
	secure protocols		ssl3, tls1.0, tls1.1	May contain zero, one, or more of the values, separated by commas. Default: ssl3, tls1.0, tls1.1
	secure credentials			
	max timeout			Default: 10 seconds
	max bytes			Default: 40960
	logging state		enable, disable	Default: enable
	max log entries			Default: 50
	log format			Default: %h %t "%r" %s %B "%{Referer}i" "%{User-Agent}i"
	authentication timeout			Default: 30 minutes
icmp	state		enable, disable	Default: enable
interface	bootp		enable, disable	Default: disable
	dhcp		enable, disable	Default: enable
	ip address		&#60;None&#62;, ...	Accepts an IP address and mask as either: (1) IP address only (192.168.1.1) gets a default mask, (2) CIDR (192.168.1.1/24), or (3) Explicit mask (192.168.1.1 255.255.255.0).
	default gateway		&#60;None&#62;, ...	Accepts in IP address in dotted notation, like 192.168.1.1.

Group Name (continued)	Group Item	Value Name	Value Options	Additional Information	
interface (continued)	hostname				
	domain				
	dhcp client id				
	primary dns		&#60;None&#62;; ...	Accepts in IP address in dotted notation, like 192.168.1.1.	
	secondary dns		&#60;None&#62;; ...	Accepts in IP address in dotted notation, like 192.168.1.1.	
	mtu			Default: 1500 bytes	
ip	ip time to live			Default: 64 hops	
	multicast time to live			Default: 1 hops	
query port	state		enable, disable	Default: enable	
rss	feed		enable, disable	Default: disable	
	persist		enable, disable	Default: disable	
	max entries			Default: 100	
smtp	relay address				
	relay port			Default: 25	
ssh	state		enable, disable	Default: enable	
	port			Default: 22	
	max sessions			Default: 3	
ssh client	delete known hosts		enable, disable	If enabled, deletes any existing hosts before adding "known host".	
	known host delete	name		Specify the known host to delete.	
	known host	public rsa key			
		public dsa key			
	delete client users		enable, disable	If enabled, deletes any existing client users before adding "client user".	
	client user delete	name		Specify the user to delete.	
	client user	password			
		remote command			
public rsa key					
private rsa key					
public dsa key					
	private dsa key				

Group Name (continued)	Group Item	Value Name	Value Options	Additional Information
ssh server	host rsa keys	public key		
		private key		
	host dsa keys	public key		
		private key		
	delete authorized users			
	authorized user delete	name		
	authorized user	password		
public rsa key				
public dsa key				
ssl	credentials	rsa certificate		
		rsa private key		Value is SECRET, hidden from user view.
		dsa certificate		
		dsa private key		Value is SECRET, hidden from user view.
	trusted authority	certificate		
	intermediate authority	certificate		
	delete all credentials		enable, disable	If enabled, deletes any existing credentials before adding "credentials".
delete all cas		enable, disable	If enabled, deletes any existing trusted cas before adding "trusted ca".	
syslog	state		enable, disable	Default: disable
	host			
	remote port			Default: 514
	severity log level		none, emergency, alert, critical, error, warning, notice, information, debug	Default: none
telnet	state		enable, disable	Default: enable
	port			Default: 23
	max sessions			Default: 3
	authentication		enable, disable	Default: disable
tunnel accept (Attribute of "instance" is a number.)	accept mode		disable, always, any character, start character, modem control asserted, modem emulation	Default: always
	local port			Default: 0

Group Name (continued)	Group Item	Value Name	Value Options	Additional Information	
tunnel accept (Attribute of “instance” is a number.) (continued)	protocol		tcp, ssh, telnet, tcp aes, ssl	Default: tcp	
	credentials				
	tcp keep alive		&#60;None&#62;, ...	Default: 45000 milliseconds	
	aes encrypt key			Value is SECRET, hidden from user view.	
	aes decrypt key			Value is SECRET, hidden from user view.	
	block network		enable, disable	Default: disable	
	password	password			Value is SECRET, hidden from user view.
		prompt		enable, disable	Default: disable
	email connect		&#60;None&#62;, ...	Default: <None>	
	email disconnect		&#60;None&#62;, ...	Default: <None>	
xml import control	restore factory configuration		enable, disable		
	delete http authentication uris		enable, disable	Deletes existing HTTP authentication URIs before importing new ones.	
	http authentication uri delete	name		Deletes the specified HTTP authentication URI.	
	reboot		enable, disable	Reboots after importing.	



## XML Status Record Groups and Items

*Table 4-8* lists the supported XML Status Record (XSR) groups and items. These groups and items show the status of the device in XML form and can only be exported. The XSR schema differs slightly from the XCR groups and items in that the XSR allows groups within groups.

**Note:** The Valid Values column of *Table 4-8* indicates the default value.

**Table 4-8 XSR Group and Items**

Group Name	Item Name	Value Name	Valid Values
alarm	barrel connector power	duration	
		state	
		transition	
	input (Attribute of "instance" is a number.)	duration	
		state	
		transition	
	output (Attribute of "instance" is a number.)	duration	
		state	
		transition	
	terminal block power	duration	
		state	
		transition	
analog input (Attribute of "instance" is a number.)	analog in 1		
arp	arp entry	ip address	ip address in format nnn.nnn.nnn.nnn
		mac address	mac address in format xx:xx:xx:xx:xx:xx
		type	dynamic or static
		interface	eth0 or wlan0

Group Name (continued)	Item Name	Value Name	Valid Values
email (Attribute of "instance" is "<decimal>")	success	sent	decimal number
		sent with retries	decimal number
	failed		decimal number
	queued		decimal number
email log (Attribute of "instance" is "<decimal>")	entry	time	timestamp in format d days hh:mm:ss
		log	string
hardware	cpu	type	string
		speed	form of <decimal> megahertz
	memory	flash size	decimal number of bytes
		ram size	decimal number of bytes
http	state		enable or disable
	logging	entries	decimal number
		bytes	decimal number
http log	totals	entries	decimal number
		bytes	decimal number
	entry (Attribute of "instance" is "<decimal>")		String

Group Name (continued)	Item Name	Value Name	Valid Values	
icmp	snmp	InMsgs	decimal number	
		InErrors	decimal number	
		InDestUnreachs	decimal number	
		InTimeExcds	decimal number	
		InParmProbs	decimal number	
		InSrcQuenchs	decimal number	
		InRedirects	decimal number	
		InEchos	decimal number	
		InEchoReps	decimal number	
		InTimestamps	decimal number	
		InTimestampReps	decimal number	
		InAddrMasks	decimal number	
		InAddrMaskReps	decimal number	
		OutMsgs	decimal number	
		OutErrors	decimal number	
		OutDestUnreachs	decimal number	
		OutTimeExcds	decimal number	
		OutParmProbs	decimal number	
		OutSrcQuenchs	decimal number	
		OutRedirects	decimal number	
		OutEchos	decimal number	
		OutEchoReps	decimal number	
		OutTimestamps	decimal number	
		OutTimestampReps	decimal number	
OutAddrMasks	decimal number			
OutAddrMaskReps	decimal number			
interface (Attribute of "instance" is "eth0")	generic	status	linkup	
	ip address		dotted notation	
	network mask		dotted notation	
	default gateway		dotted notation	
	receive	bytes		decimal number
		packets		decimal number
		errs		decimal number
		drop		decimal number
		fifo		decimal number
frame			decimal number	
compressed		decimal number		

Group Name (continued)	Item Name	Value Name	Valid Values
interface (Attribute of "instance" is "eth0") (continued)	receive (continued)	multicast	decimal number
		transmit	bytes
	packets		decimal number
	errs		decimal number
	drop		decimal number
	fifo		decimal number
	colls		decimal number
	carrier		decimal number
	compressed	decimal number	
ip	snmp	Forwarding	decimal number
		DefaultTTL	decimal number
		InReceives	decimal number
		InHdrErrors	decimal number
		InAddrErrors	decimal number
		ForwDatagrams	decimal number
		InUnknownProtos	decimal number
		InDiscards	decimal number
		InDelivers	decimal number
		OutRequests	decimal number
		OutDiscards	decimal number
		OutNoRoutes	decimal number
		ReasmTimeout	decimal number
		ReasmReqds	decimal number
		ReasmOKs	decimal number
		ReasmFails	decimal number
		FragOKs	decimal number
		FragFails	decimal number
		FragCreates	decimal number
		netstat	InNoRoutes
	InTruncatedPkts		decimal number
	InMcastPkts		decimal number
	OutMcastPkts		decimal number
	InBcastPkts		decimal number
	OutBcastPkts		decimal number

Group Name (continued)	Item Name	Value Name	Valid Values
ip sockets	ip socket	protocol	tcp or udp
		rx queue	decimal number
		tx queue	decimal number
		local address	ip address in format nnn.nnn.nnn.nnn
		local port	decimal number
		remote address	ip address in format nnn.nnn.nnn.nnn
		remote port	decimal number or *
		state	LISTEN, SYN_RECVD, SYN_SENT, ESTABLISHED, CLOSE_WAIT, LAST_ACK, FIN_WAIT_1, FIN_WAIT_2, CLOSING, or TIME_WAIT.
memory	main heap	total memory	decimal number of bytes
		available memory	decimal number of bytes
processes	process (Attribute of "instance" is "<decimal>")	stack used	decimal number
		stack size	decimal number
		cpu %	decimal number
		thread name	String
query port	status		enabled or disabled
	last connection	ip address	ip address in format nnn.nnn.nnn.nnn
		port	decimal number
	in	discoveries	decimal number
		unknown queries	decimal number
		erroneous packets	decimal number
	out	discovery replies	decimal number
		errors	decimal number
rss	url		string in the form of a web url
	data	entries	decimal number
		bytes	decimal number
sessions			
tcp	snmp	RtoAlgorithm	decimal number
		RtoMin	decimal number
		RtoMax	decimal number
		MaxConn	decimal number
		ActiveOpens	decimal number
		PassiveOpens	decimal number
		AttemptFails	decimal number

Group Name (continued)	Item Name	Value Name	Valid Values
tcp (continued)	snmp (continued)	EstabResets	decimal number
		CurrEstab	decimal number
		InSegs	decimal number
		OutSegs	decimal number
		RetransSegs	decimal number
		InErrs	decimal number
		OutRsts	decimal number
	netstat	SyncookiesSent	decimal number
		SyncookiesRecv	decimal number
		SyncookiesFailed	decimal number
		EmbryonicRsts	decimal number
		PruneCalled	decimal number
		RcvPruned	decimal number
		OfoPruned	decimal number
		OutOfWindowIcmps	decimal number
		LockDroppedIcmps	decimal number
		ArpFilter	decimal number
		TW	decimal number
		TWRecycled	decimal number
		TWKilled	decimal number
		PAWSPassive	decimal number
		PAWSActive	decimal number
		PAWSEstab	decimal number
		DelayedACKs	decimal number
		DelayedACKLocked	decimal number
		DelayedACKLost	decimal number
		ListenOverflows	decimal number
		ListenDrops	decimal number
		TCPPrequeued	decimal number
		TCPDirectCopyFromBacklog	decimal number
		TCPDirectCopyFromPrequeue	decimal number
		TCPPrequeueDropped	decimal number
		TCPHPHits	decimal number
		TCPHPHitsToUser	decimal number
TCPPureAcks	decimal number		
TCPHPAcks	decimal number		
TCPRenoRecovery	decimal number		
TCPsackRecovery	decimal number		

Group Name (continued)	Item Name	Value Name	Valid Values
tcp (continued)	netstat (continued)	TCPACKReneging	decimal number
		TCPACKReorder	decimal number
		TCPACKReorder	decimal number
		TCPReorder	decimal number
		TCPACKReorder	decimal number
		TCPFullUndo	decimal number
		TCPPartialUndo	decimal number
		TCPDACKUndo	decimal number
		TCPLossUndo	decimal number
		TCPLoss	decimal number
		TCPLostRetransmit	decimal number
		TCPReorderFailures	decimal number
		TCPACKFailures	decimal number
		TCPLossFailures	decimal number
		TCPFastRetrans	decimal number
		TCPForwardRetrans	decimal number
		TCPSlowStartRetrans	decimal number
		TCPTimeouts	decimal number
		TCPReorderRecoveryFail	decimal number
		TCPACKRecoveryFail	decimal number
		TCPSchedulerFailed	decimal number
		TCPRcvCollapsed	decimal number
		TCPDACKOldSent	decimal number
		TCPDACKOfSent	decimal number
		TCPDACKRecv	decimal number
		TCPDACKOfRecv	decimal number
		TCPAbortOnSyn	decimal number
		TCPAbortOnData	decimal number
		TCPAbortOnClose	decimal number
		TCPAbortOnMemory	decimal number
		TCPAbortOnTimeout	decimal number
		TCPAbortOnLinger	decimal number
		TCPAbortFailed	decimal number
		TCPMemoryPressures	decimal number
		TCPACKDiscard	decimal number
		TCPDACKIgnoredOld	decimal number
		TCPDACKIgnoredNoUndo	decimal number
TCPSpuriousRTOs	decimal number		
TCPMD5NotFound	decimal number		

Group Name (continued)	Item Name	Value Name	Valid Values
tcp (continued)	netstat (continued)	TCPMD5Unexpected	decimal number
		TCPsackShifted	decimal number
		TCPsackMerged	decimal number
		TCPsackShiftFallback	decimal number
tunnel	aggregate	completed connects	decimal number
		completed accepts	decimal number
		disconnects	decimal number
		dropped connects	decimal number
		dropped accepts	decimal number
		octets from serial	decimal number
		octets from network	decimal number
		connect 0 connection time	elapsed time in format d days hh:mm:ss
		connect 1 connection time	elapsed time in format d days hh:mm:ss
		connect 2 connection time	elapsed time in format d days hh:mm:ss
		connect 3 connection time	elapsed time in format d days hh:mm:ss
		connect 4 connection time	elapsed time in format d days hh:mm:ss
		connect 5 connection time	elapsed time in format d days hh:mm:ss
		connect 6 connection time	elapsed time in format d days hh:mm:ss
		connect 7 connection time	elapsed time in format d days hh:mm:ss
		connect 8 connection time	elapsed time in format d days hh:mm:ss
		connect 9 connection time	elapsed time in format d days hh:mm:ss
		connect 10 connection time	elapsed time in format d days hh:mm:ss
		connect 11 connection time	elapsed time in format d days hh:mm:ss
		connect 12 connection time	elapsed time in format d days hh:mm:ss
		connect 13 connection time	elapsed time in format d days hh:mm:ss
connect 14 connection time	elapsed time in format d days hh:mm:ss		
connect 15 connection time	elapsed time in format d days hh:mm:ss		
accept connection time	elapsed time in format d days hh:mm:ss		



Group Name (continued)	Item Name	Value Name	Valid Values
tunnel (continued)	aggregate (continued)	connect dns address changes	decimal number
		connect dns address invalids	decimal number
	incoming connection		
udp	snmp	InDatagrams	decimal number
		NoPorts	decimal number
		InErrors	decimal number
		OutDatagrams	decimal number
		RcvbufErrors	decimal number
		SndbufErrors	decimal number
xsr	out	bytes	decimal number
		lines	decimal number
		elements	decimal number
	errors		decimal number

## 5: Commands and Levels

Click the level in the tree structure and it will take you to the command list for that level.

[root](#)

- [enable \(enable\)](#)
  - [configure \(config\)](#)
    - [alarm \(config-alarm\)](#)
      - [barrel connector power \(config-analog-alarm:Barrel Connector Power\)](#)
        - [connect 1 \(config-analog-alarm-connect:Barrel Connector Power:1\)](#)
        - [connect 2 \(config-analog-alarm-connect:Barrel Connector Power:2\)](#)
        - [email \(config-analog-alarm-email:Barrel Connector Power\)](#)
      - [input 1 \(config-analog-alarm:Input 1\)](#)
        - [connect 1 \(config-analog-alarm-connect:Input 1:1\)](#)
        - [connect 2 \(config-analog-alarm-connect:Input 1:2\)](#)
        - [email \(config-analog-alarm-email:Input 1\)](#)
      - [input 2 \(config-analog-alarm:Input 2\)](#)
        - [connect 1 \(config-analog-alarm-connect:Input 2:1\)](#)
        - [connect 2 \(config-analog-alarm-connect:Input 2:2\)](#)
        - [email \(config-analog-alarm-email:Input 2\)](#)
      - [terminal block power \(config-analog-alarm:Terminal Block Power\)](#)
        - [connect 1 \(config-analog-alarm-connect:Terminal Block Power:1\)](#)
        - [connect 2 \(config-analog-alarm-connect:Terminal Block Power:2\)](#)
        - [email \(config-analog-alarm-email:Terminal Block Power\)](#)
    - [analog \(config-analog\)](#)
      - [daq format \(config-daqformat\)](#)
      - [input 1 \(config-analog-input:1\)](#)
      - [input 2 \(config-analog-input:2\)](#)
    - [arp \(config-arp\)](#)
    - [cli \(config-cli\)](#)
      - [ssh \(config-cli-ssh\)](#)
      - [telnet \(config-cli-telnet\)](#)
    - [diagnostics \(config-diagnostics\)](#)
      - [log \(config-diagnostics-log\)](#)
    - [ftp \(config-ftp\)](#)
    - [http \(config-http\)](#)
    - [icmp \(config-icmp\)](#)
    - [if 1 \(config-if:eth0\)](#)
      - [link \(config-ethernet:eth0\)](#)
    - [ip \(config-ip\)](#)
    - [querv port \(config-querv\\_port\)](#)
    - [rss \(config-rss\)](#)
    - [smtp \(config-smtp\)](#)
    - [syslog \(config-syslog\)](#)
  - [device \(device\)](#)

- [dns \(dns\)](#)
- [email 1 \(email:1\)](#)
- [email 2 \(email:2\)](#)
- [email 3 \(email:3\)](#)
- [email 4 \(email:4\)](#)
- [email 5 \(email:5\)](#)
- [email 6 \(email:6\)](#)
- [email 7 \(email:7\)](#)
- [email 8 \(email:8\)](#)
- [email 9 \(email:9\)](#)
- [email 10 \(email:10\)](#)
- [email 11 \(email:11\)](#)
- [email 12 \(email:12\)](#)
- [email 13 \(email:13\)](#)
- [email 14 \(email:14\)](#)
- [email 15 \(email:15\)](#)
- [email 16 \(email:16\)](#)
- [filesystem \(filesystem\)](#)
- [ssh \(ssh\)](#)
  - [client \(ssh-client\)](#)
  - [server \(ssh-server\)](#)
- [ssl \(ssl\)](#)
  - [credentials \(ssl-credentials\)](#)
  - [trusted authorities \(ssl-auth\)](#)
- [tunnel 1 \(tunnel:1\)](#)
  - [accept \(tunnel-accept:1\)](#)
    - [password \(tunnel-accept-password:1\)](#)
- [tunnel 2 \(tunnel:2\)](#)
  - [accept \(tunnel-accept:2\)](#)
    - [password \(tunnel-accept-password:2\)](#)
- [xml \(xml\)](#)

Table 5-1 Commands and Levels

<b>accept (tunnel-accept:2) level commands</b>	
accept mode always	Enables the tunneling server to always accept tunneling connections.
accept mode disable	Disables accept mode tunneling.
aes decrypt key <hexadecimal>	Sets the accept tunnel AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the accept tunnel AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the accept tunnel AES encrypt key with up to 16

	bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the accept tunnel AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
block network disable	Forwards (tunnels) network data in accept mode tunneling.
block network enable	Discards all data coming in from the accept mode tunnel before forwarding it to the serial interface (generally used for debugging).
clrscrn	Clears the screen.
credentials <text>	Selects the RSA/DSA certificates by name for the SSL server.
default accept mode	Restores the default accept mode as "always".
default local port	Uses the default port number as the local port for accept mode tunneling. The default port is 10000 + #, where # is the line number for this tunnel.
default protocol	Restores the default protocol as "TCP".
default tcp keep alive	Restores the default 45 second accept mode TCP keep alive timeout.
email connect <number>	Sets an email profile to use to send an email alert upon establishing an accept mode tunnel. <number> = the number of the email profile to use.
email disconnect <number>	Sets an email profile to use to send an email alert upon closing an accept mode tunnel. <number> = the number of the email profile to use.
exit	Returns to the tunnel level.
kill connection	Disconnects the active accept mode tunneling connection.
local port <number>	Sets the port to use for accept mode tunneling. <number> = number of the port to use.
no aes decrypt key	Removes the accept tunnel AES decrypt key.
no aes encrypt key	Removes the accept tunnel AES encrypt key.
no credentials	Clears the RSA/DSA certificate selection.
no email connect	Discontinues sending email alerts upon establishing an accept mode tunnel.
no email disconnect	Discontinues sending email alerts upon closing an accept mode tunnel.
no tcp keep alive	Disables the accept mode TCP keep alive timeout.
password	Enters the next lower level.
protocol ssh	Uses SSH protocol for accept mode tunneling.
protocol ssl	Uses SSL protocol for accept mode tunneling.
protocol tcp	Uses TCP protocol for accept mode tunneling.
protocol tcp aes	Uses TCP protocol with AES encryption for accept mode tunneling.

protocol telnet	Uses Telnet protocol (with IAC) for accept mode tunneling.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Displays tunnel accept status.
tcp keep alive <milliseconds>	Enables TCP keep alive for accept mode tunneling and sets the timer. <milliseconds> = timer value, in milliseconds.
write	Stores the current configuration in permanent memory.
<b>accept (tunnel-accept:1) level commands</b>	
accept mode always	Enables the tunneling server to always accept tunneling connections.
accept mode disable	Disables accept mode tunneling.
aes decrypt key <hexadecimal>	Sets the accept tunnel AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the accept tunnel AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the accept tunnel AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the accept tunnel AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
block network disable	Forwards (tunnels) network data in accept mode tunneling.
block network enable	Discards all data coming in from the accept mode tunnel before forwarding it to the serial interface (generally used for debugging).
clrscrn	Clears the screen.
credentials <text>	Selects the RSA/DSA certificates by name for the SSL server.
default accept mode	Restores the default accept mode as "always".
default local port	Uses the default port number as the local port for accept mode tunneling. The default port is 10000 + #, where # is the line number for this tunnel.
default protocol	Restores the default protocol as "TCP".
default tcp keep alive	Restores the default 45 second accept mode TCP keep alive timeout.

email connect <number>	Sets an email profile to use to send an email alert upon establishing an accept mode tunnel. <number> = the number of the email profile to use.
email disconnect <number>	Sets an email profile to use to send an email alert upon closing an accept mode tunnel. <number> = the number of the email profile to use.
exit	Returns to the tunnel level.
kill connection	Disconnects the active accept mode tunneling connection.
local port <number>	Sets the port to use for accept mode tunneling. <number> = number of the port to use.
no aes decrypt key	Removes the accept tunnel AES decrypt key.
no aes encrypt key	Removes the accept tunnel AES encrypt key.
no credentials	Clears the RSA/DSA certificate selection.
no email connect	Discontinues sending email alerts upon establishing an accept mode tunnel.
no email disconnect	Discontinues sending email alerts upon closing an accept mode tunnel.
no tcp keep alive	Disables the accept mode TCP keep alive timeout.
password	Enters the next lower level.
protocol ssh	Uses SSH protocol for accept mode tunneling.
protocol ssl	Uses SSL protocol for accept mode tunneling.
protocol tcp	Uses TCP protocol for accept mode tunneling.
protocol tcp aes	Uses TCP protocol with AES encryption for accept mode tunneling.
protocol telnet	Uses Telnet protocol (with IAC) for accept mode tunneling.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Displays tunnel accept status.
tcp keep alive <milliseconds>	Enables TCP keep alive for accept mode tunneling and sets the timer. <milliseconds> = timer value, in milliseconds.
write	Stores the current configuration in permanent memory.
<b>alarm (config-alarm) level commands</b>	
barrel connector power	Enters the Barrel Connector Power alarm level.
clrscrn	Clears the screen.
exit	Exits to the config level.
input 1	Enters the Input 1 alarm level.
input 2	Enters the Input 2 alarm level.
show history	Displays the last 20 commands entered during the current CLI session.
terminal block power	Enters the Terminal Block Power alarm level.
write	Stores the current configuration in permanent memory.
<b>analog (config-analog) level commands</b>	
clrscrn	Clears the screen.
daq format	Enters the config analog DAQ format level.
exit	Exits to the config level.
input <number>	Change to config analog input level
show history	Displays the last 20 commands entered during the current

	CLI session.
write	Stores the current configuration in permanent memory.
<b>arp (config-arp) level commands</b>	
add <IP address> <MAC address>	Adds an entry to the ARP table, mapping an IP address to a MAC address. <ip address> = IP address to be mapped. <mac address> = MAC address in colon-separated form.
clrscrn	Clears the screen.
exit	Exits to the configuration level.
remove all	Removes all entries from the ARP cache.
remove ip <IP address>	Removes an entry from the ARP cache. <ip address> = address of the entry being removed.
show cache	Displays the ARP cache table.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>barrel connector power (config-analog-alarm:Barrel Connector Power) level commands</b>	
clrscrn	Clears the screen.
connect <instance>	Enters the next lower level. Specify the instance for the next lower level.
connect reminder interval <minutes>	Sets the time interval between repeated connections while the alarm is on.
email	Enters the next lower level.
exit	Exits to the config alarm level.
no connect reminder interval	Only connects one time when the alarm turns on.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Displays statistics.
write	Stores the current configuration in permanent memory.
<b>cli (config-cli) level commands</b>	
clrscrn	Clears the screen.
default inactivity timeout	The default inactivity timeout will apply to CLI sessions.
default login password	Restores the default CLI login password.
default quit connect line	Restores the default string used to quit the "telnet" and "ssh" commands.
enable level password <text>	Sets the enable-level password.
exit	Exits to the configuration level.
inactivity timeout <minutes>	Sets the inactivity timeout for all CLI sessions.
line authentication disable	No password required for Line CLI users.
line authentication enable	Challenges the Line CLI user with a password.
login password <text>	Sets the CLI login password.
no enable level password	Removes the enable-level password.
no inactivity timeout	No inactivity timeout will apply to CLI sessions.
quit connect line <control>	Sets the string used to quit the "telnet" and "ssh" commands. The characters may be input as text or control. A control character has the form <control>C.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.

ssh	Change to menu level for SSH configuration and status.
telnet	Change to menu level for Telnet configuration and status.
write	Stores the current configuration in permanent memory.
<b>client (ssh-client) level commands</b>	
clrscrn	Clears the screen.
default user <username> command	Restore the user command to the default login shell
delete all known hosts	Remove all known hosts
delete all users	Remove all users
delete known host <server>	Remove known host
delete user <username>	Delete the named user
exit	Exits to the ssh level.
known host <server>	Set known host RSA or DSA key
no known host <server> dsa	Remove known host DSA key
no known host <server> rsa	Remove known host RSA key
no user <username> dsa	Remove user DSA key
no user <username> rsa	Remove user RSA key
show	Show SSH Client settings
show history	Displays the last 20 commands entered during the current CLI session.
show known host <server>	Show known host RSA and DSA keys
show user <username>	Show information for a user
user <username>	Set username and RSA or DSA keys
user <username> command <command>	Customizes the user command
user <username> generate dsa 1024	Generate DSA public and private keys
user <username> generate dsa 512	Generate DSA public and private keys
user <username> generate dsa 768	Generate DSA public and private keys
user <username> generate rsa 1024	Generate RSA public and private keys
user <username> generate rsa 512	Generate RSA public and private keys
user <username> generate rsa 768	Generate RSA public and private keys
user <username> password <password>	Set username with password and optional RSA or DSA keys
write	Stores the current configuration in permanent memory.
<b>configure (config) level commands</b>	
alarm	Enters the config alarm level.
analog	Changes to the analog configuration level.
arp	Changes to the command level for ARP configuration and status.
cli	Change to menu level for CLI configuration and status
clrscrn	Clears the screen.
diagnostics	Enters the diagnostics level.
exit	Exits to the enable level.
ftp	Enters the ftp level.
http	Enters the http level.
icmp	Changes to the command level for ICMP configuration and status.
if <instance>	Changes to the interface configuration level.
ip	Changes to the command level for IP configuration and status.
kill ssh <session>	Kills SSH session with index from "show sessions"



kill telnet <session>	Kills Telnet session with index from "show sessions"
query port	Enters the query port level.
rss	Change to menu level for RSS configuration and status
show	Displays system information.
show history	Displays the last 20 commands entered during the current CLI session.
smtp	Changes to the command level for SMTP configuration and status.
syslog	Enters the syslog level.
write	Stores the current configuration in permanent memory.
<b>connect 1 (config-analog-alarm-connect:Terminal Block Power:1) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.

protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 1 (config-analog-alarm-connect:Input 2:1) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.

show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 1 (config-analog-alarm-connect:Input 1:1) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.

show history	Displays the last 20 commands entered during the current CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 1 (config-analog-alarm-connect:Barrel Connector Power:1) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current

	CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 2 (config-analog-alarm-connect:Terminal Block Power:2) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.

ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 2 (config-analog-alarm-connect:Input 2:2) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.

validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 2 (config-analog-alarm-connect:Input 1:2) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.

validate certificate enable	Requires validation of the host SSL certificate before connecting.
write	Stores the current configuration in permanent memory.
<b>connect 2 (config-analog-alarm-connect:Barrel Connector Power:2) level commands</b>	
address <text>	Sets the remote host address for a connection attempt when the alarm turns on.
aes decrypt key <hexadecimal>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes decrypt key text <text>	Sets the connection AES decrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
aes encrypt key <hexadecimal>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by two adjacent hex digits. Bytes may run together or be separated by optional punctuation: 123ABC "12 3A BC" 12,3A,BC 12.3a.bc 12:3a:bc Note that quotes must enclose the value if it contains spaces.
aes encrypt key text <text>	Sets the connection AES encrypt key with up to 16 bytes. Each byte is represented by a single character. Note that quotes must enclose the value if it contains spaces.
clrscrn	Clears the screen.
credentials <text>	Sets the SSL credential to be used when connecting.
default port	Clears the remote host port.
default protocol	Restores TCP protocol.
exit	Exits to the next higher level.
no address	No connect attempt will be made when the alarm turns on.
no aes decrypt key	Removes the connection AES decrypt key.
no aes encrypt key	Removes the connection AES encrypt key.
no credentials	Removes reference to the SSL credential.
no ssh username	Removes the SSH username.
port <number>	Sets the remote host port for a connection attempt when the alarm turns on.
protocol ssh	Selects SSH protocol.
protocol ssl	Selects SSL protocol.
protocol tcp	Selects TCP protocol.
protocol tcp aes	Selects TCP AES protocol.
protocol telnet	Selects Telnet protocol.
protocol udp	Selects UDP protocol.
protocol udp aes	Selects UDP AES protocol.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
ssh username <text>	Sets the SSH username to be used when connecting.
validate certificate disable	Skips validation of the host SSL certificate.
validate certificate enable	Requires validation of the host SSL certificate before con-



	necting.
write	Stores the current configuration in permanent memory.
<b>credentials (ssl-credentials) level commands</b>	
clrscrn	Clears the screen.
create <credential name>	Create a new credential name
delete <credential name>	Delete existing credential by name
edit <credential name>	View or edit an existing profile
exit	Exits to the ssl level.
show	Show existing credential names
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>daq format (config-daqformat) level commands</b>	
clrscrn	Clears the screen.
end character <control>	Sets the character to placed at the end of each sample string in the DAQ output. The character may be input as text, control, decimal, or hex. A control character has the form <control>C. A decimal value character has the form \99. A hex value character has the form 0xFF.
exit	Exits to the config analog level.
identifier disable	Omit the alphabetic identifier from the DAQ output.
identifier enable	Place an alphabetic identifier before each sample value in the DAQ output. I1 - Analog Input 1 I2 - Analog Input 2 O1 - Analog Output 1 O2 - Analog Output 2 R1 - Relay 1 R2 - Relay 2
no end character	No character will be placed at the end of each sample string in the DAQ output.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
timestamp disable	Omit date and time from the DAQ output.
timestamp enable	Place date and time before each sample value in the DAQ output.
units disable	Omit units from the DAQ output.
units enable	Place the units after each sample value in the DAQ output.
write	Stores the current configuration in permanent memory.
<b>device (device) level commands</b>	
auto show tlog	Continuously displays the internal trouble log.
clrscrn	Clears the screen.
exit	Exit to the enable level.
show	Show system information
show hardware information	Displays information about the hardware.
show history	Displays the last 20 commands entered during the current CLI session.
show memory	Displays current memory usage information.

show task state	Displays current task states.
show tlog	Displays the internal trouble log.
write	Stores the current configuration in permanent memory.
<b>diagnostics (config-diagnostics) level commands</b>	
clrscrn	Clears the screen.
exit	Returns to the config level.
log	Enters the next lower level.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>dns (dns) level commands</b>	
clrscrn	Clears the screen.
exit	Exits to the enable level.
lookup <host_or_ip>	Return a lookup on the DNS name or IP address.
show	Show DNS status.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>email (config-analog-alarm-email:Terminal Block Power) level commands</b>	
alarm email none	Specifies no email when the alarm turns on.
alarm email number <number>	Specifies the email number to send when the alarm turns on.
alarm message <text>	Sets the email message to be sent when the alarm turns on.
alarm reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains on.
clrscrn	Clears the screen.
default alarm email	Specifies no email when the alarm turns on.
default normal email	Specifies no email when the alarm turns off.
exit	Exits to the next higher level.
no alarm message	Removes the alarm email message.
no alarm reminder interval	Only one message will be sent when the alarm turns on.
no normal message	Removes the normal email message.
no normal reminder interval	Only one message will be sent when the alarm turns off.
normal email none	Specifies no email when the alarm turns off.
normal email number <number>	Specifies the email number to send when the alarm turns off.
normal message <text>	Sets the email message to be sent when the alarm turns off.
normal reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains off.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>email (config-analog-alarm-email:Input 2) level commands</b>	
alarm email none	Specifies no email when the alarm turns on.
alarm email number <number>	Specifies the email number to send when the alarm turns on.
alarm message <text>	Sets the email message to be sent when the alarm turns

	on.
alarm reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains on.
clrscrn	Clears the screen.
default alarm email	Specifies no email when the alarm turns on.
default normal email	Specifies no email when the alarm turns off.
exit	Exits to the next higher level.
no alarm message	Removes the alarm email message.
no alarm reminder interval	Only one message will be sent when the alarm turns on.
no normal message	Removes the normal email message.
no normal reminder interval	Only one message will be sent when the alarm turns off.
normal email none	Specifies no email when the alarm turns off.
normal email number <number>	Specifies the email number to send when the alarm turns off.
normal message <text>	Sets the email message to be sent when the alarm turns off.
normal reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains off.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>email (config-analog-alarm-email:Input 1) level commands</b>	
alarm email none	Specifies no email when the alarm turns on.
alarm email number <number>	Specifies the email number to send when the alarm turns on.
alarm message <text>	Sets the email message to be sent when the alarm turns on.
alarm reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains on.
clrscrn	Clears the screen.
default alarm email	Specifies no email when the alarm turns on.
default normal email	Specifies no email when the alarm turns off.
exit	Exits to the next higher level.
no alarm message	Removes the alarm email message.
no alarm reminder interval	Only one message will be sent when the alarm turns on.
no normal message	Removes the normal email message.
no normal reminder interval	Only one message will be sent when the alarm turns off.
normal email none	Specifies no email when the alarm turns off.
normal email number <number>	Specifies the email number to send when the alarm turns off.
normal message <text>	Sets the email message to be sent when the alarm turns off.
normal reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains off.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>email (config-analog-alarm-email:Barrel Connector Power) level commands</b>	
alarm email none	Specifies no email when the alarm turns on.

alarm email number <number>	Specifies the email number to send when the alarm turns on.
alarm message <text>	Sets the email message to be sent when the alarm turns on.
alarm reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains on.
clrscrn	Clears the screen.
default alarm email	Specifies no email when the alarm turns on.
default normal email	Specifies no email when the alarm turns off.
exit	Exits to the next higher level.
no alarm message	Removes the alarm email message.
no alarm reminder interval	Only one message will be sent when the alarm turns on.
no normal message	Removes the normal email message.
no normal reminder interval	Only one message will be sent when the alarm turns off.
normal email none	Specifies no email when the alarm turns off.
normal email number <number>	Specifies the email number to send when the alarm turns off.
normal message <text>	Sets the email message to be sent when the alarm turns off.
normal reminder interval <minutes>	Sets the time interval that messages will be sent while the alarm remains off.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>email 1 (email:1) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be

	empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 10 (email:10) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.

message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 11 (email:11) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server

	side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 12 (email:12) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email ad-

	dresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.



to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 13 (email:13) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.

show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 14 (email:14) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).

priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 15 (email:15) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscm	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to

	an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 16 (email:16) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.

no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 2 (email:2) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts.

	<number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 3 (email:3) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).

default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 4 (email:4) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts.

	<text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts.



	<text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 5 (email:5) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.

server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 6 (email:6) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).

priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 7 (email:7) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.

overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 8 (email:8) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.
local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.

no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>email 9 (email:9) level commands</b>	
auto show statistics	Continuously displays email statistics.
cc <text>	Sets Cc addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
clear log	Clears all entries from the mail log.
clear mail counters	Sets the email counters to zero.
clrscrn	Clears the screen.
default local port	Sets the local port (used to send email alerts) to random.
default priority	Sets X-Priority for email alerts to 3 (normal).
default server port	Restores the factory default port for SMTP on the server side.
email <number>	Enters the configure email level.
exit	Exits to the enable level.
from <text>	Sets the From address for email alerts. <text> = email address to place in the From field of the email alert.

local port <number>	Sets the local port used to send email alerts. <number> local port to use for email alerts.
message file <text>	Specifies a text file, the contents of which will be the message body of an email alert. <text> = the name of a local file.
no cc	Removes the Cc addresses for email alerts.
no clear mail counters	Restores the email counters to the aggregate values.
no from	Removes the From address for email alerts.
no message file	Removes the file name, so the message body will be empty.
no overriding domain	Removes the overriding domain name option.
no reply to	Removes the Reply To address for email alerts.
no subject	Removes subject used for email alerts.
no to	Removes the To addresses for email alerts.
overriding domain <text>	Sets a domain name that will be used when connecting to an SMTP server to send an email alert instead of the device's domain name in EHLO. <text> = domain name to override the current domain name in EHLO.
priority high	Sets X-Priority for email alerts to 2 (high).
priority low	Sets X-Priority for email alerts to 4 (low).
priority normal	Sets X-Priority for email alerts to 3 (normal).
priority urgent	Sets X-Priority for email alerts to 1 (urgent).
priority very low	Sets X-Priority for email alerts to 5 (very low).
reply to <text>	Sets the Reply To address for email alerts. <text> = email address to place in the Reply To field of the email alert.
send	Sends an email using the current settings.
server port <number>	Sets the port used by the SMTP server. <number> = port used for SMTP on the server side.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the email log.
show statistics	Displays email statistics.
subject <text>	Sets the Subject for email alerts. <text> = text to placed as the subject.
to <text>	Sets To addresses for email alerts. <text> = a quoted, semicolon separated list of email addresses.
write	Stores the current configuration in permanent memory.
<b>enable (enable) level commands</b>	
auto show interfaces	Show interface statistics
auto show processes	Continuously show thread runtime information
clrscrn	Clears the screen.
configure	Enters the configuration level.
device	Enters the device level.
disable	Exits the enable level.
dns	Enters the DNS level.
email <number>	Enters the configure email level.

exit	Exit from the system
filesystem	Enters the filesystem level.
kill ssh <session>	Kills SSH session with index from "show sessions"
kill telnet <session>	Kills Telnet session with index from "show sessions"
ping <host>	Ping destination continuously with 5 second timeout
ping <host> <count>	Ping destination n times with 5 second timeout
ping <host> <count> <timeout>	Ping destination n times with x timeout (in seconds)
reload	Reboot system
reload factory defaults	Reload factory defaults to permanent storage
show	Show system information
show history	Displays the last 20 commands entered during the current CLI session.
show interfaces	Show interface statistics
show ip sockets	Show UDP/TCP state information
show processes	Show thread runtime information
show sessions	Show active Telnet and SSH Sessions
ssh	Enters the SSH configuration level.
ssh <optClientUsername> <host>	Begin SSH session on network <host>. The optClientUsername must match an SSH Client: Users configuration entry. Use "" in optClientUsername to prompt for host username and password.
ssh <optClientUsername> <host> <port>	Begin SSH session on network <host>:<port>. The optClientUsername must match an SSH Client: Users configuration entry. Use "" in optClientUsername to prompt for host username and password.
ssl	Enters the SSL configuration level.
telnet <host>	Begin telnet session on network <host>.
telnet <host> <port>	Begin telnet session on network <host>:<port>.
trace route <host>	Trace route to destination
trace route <host> <protocol>	Trace route to destination using TCP, ICMP, or UDP
tunnel <line>	Enters the tunnel level. <line> = number of the tunnel line (serial port) to be configured.
write	Stores the current configuration in permanent memory.
xml	Enters the XML level.
<b>filesystem (filesystem) level commands</b>	
cat <file>	Show the contents of a file
cd <directory>	Change the current directory to the specified directory
clrscm	Clears the screen.
cp <source file> <destination file>	Copy an existing file
dump <file>	Show contents of a file as a hex dump
exit	Exits to the enable level.
format	Format the file system and lose all data
ls	Show all files and directories in the current directory
ls <directory>	Show all files and directories in the specified directory
mkdir <directory>	Create a directory
mv <source file> <destination file>	Move a file on the file system
pwd	Print working directory
rm <file>	Remove a file

rmdir <directory>	Remove a directory
show	Show file system statistics
show history	Displays the last 20 commands entered during the current CLI session.
show tree	Show all files and directories from current directory
tftp get <source file> <destination file> <host>	Get a file using TFTP
tftp get <source file> <destination file> <host> <port>	Get a file using TFTP
tftp put <source file> <destination file> <host>	Put a file using TFTP
tftp put <source file> <destination file> <host> <port>	Put a file using TFTP
touch <file>	Create a file
<b>ftp (config-ftp) level commands</b>	
clrscrn	Clears the screen.
exit	Returns to the config level.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show statistics	Displays the FTP statistics.
state disable	Disables the FTP server.
state enable	Enables the FTP server.
write	Stores the current configuration in permanent memory.
<b>http (config-http) level commands</b>	
auth <uri>	Creates a new HTTP server authentication directive. <uri> = URI of the server.
auth type <uri> digest	Sets an HTTP server authentication directive to the Digest Access Authentication scheme. <uri> = URI of the server.
auth type <uri> none	Sets the authentication type for an HTTP server authentication directive to none. <uri> = URI of the server.
auth type <uri> ssl	Sets the authentication type for an HTTP server authentication directive to SSL. <uri> = URI of the server.
auth type <uri> ssl-basic	Sets the authentication type for an HTTP server authentication directive to SSL-Basic. <uri> = URI of the server.
auth type <uri> ssl-digest	Sets the authentication type for an HTTP server authentication directive to SSL-Digest. <uri> = URI of the server.
authentication timeout <minutes>	For any Digest AuthType, sets the timeout for authentication. <minutes> = authentication timeout value.
clear counters	Sets the HTTP counters to zero.
clear log	Clears the HTTP server log.
clrscrn	Clears the screen.
default authentication timeout	Resets the authentication timeout to its default value.
default log format	Restores the HTTP Server log format string to its default value.
default max bytes	Resets the maximum bytes to its default value.
default max log entries	Restores the default maximum number of HTTP Server



	log entries.
default max timeout	Resets the timeout to its default value.
default port	Resets the HTTP Server port to its default value.
default secure port	Resets the HTTP Server SSL port to its default value.
default secure protocols	Restores the default secure protocol selections.
delete auth <uri>	Deletes an existing HTTP Server authentication directive. <uri> = URI of the server.
exit	Returns to the config level.
log format <text>	Sets the log format string for the HTTP server, using the following directives: %a remote ip address (could be a proxy) %b bytes sent excluding headers %B bytes sent excluding headers (0 = '-') %h remote host (same as %a) %{h}i header contents from request (h = header string) %m request method %p ephemeral local port value used for request %q query string (prepend with '?' or empty '-') %t timestamp HH:MM:SS (same as Apache '%(H:M:S)t') %u remote user (could be bogus for 401 status) %U URL path info %r first line of request (same as '%m %U%q <version>') %s return status
logging state disable	Disables HTTP server logging.
logging state enable	Enables HTTP server logging.
max bytes <number>	Sets the maximum number of bytes the HTTP server accepts when receiving a request.
max log entries <number>	Sets the maximum number of HTTP server log entries. <number> = maximum number of HTTP server log entries.
max timeout <seconds>	Sets the maximum time the HTTP server waits when receiving a request. <seconds> = maximum timeout value.
no clear counters	Restores the HTTP counters to the aggregate values.
no port	Disables the HTTP Server port.
no secure credentials	Clears the RSA/DSA certificate selection.
no secure port	Disables the HTTP Server SSL port.
port <number>	Sets the port number the HTTP server will use. <number> = port number.
secure credentials <text>	Selects the RSA/DSA certificates by name for the HTTP server.
secure port <number>	Sets the port number the HTTP server will use over SSL. <number> = port number.
secure protocols ssl3 disable	Disables the protocol.
secure protocols ssl3 enable	Enables the protocol.
secure protocols tls1.0 disable	Disables the protocol.
secure protocols tls1.0 enable	Enables the protocol.
secure protocols tls1.1 disable	Disables the protocol.
secure protocols tls1.1 enable	Enables the protocol.
show	Displays the current configuration.
show auth	Displays the HTTP server authentication settings.

show history	Displays the last 20 commands entered during the current CLI session.
show log	Displays the HTTP server log.
show statistics	Displays the HTTP statistics.
state disable	Disables the HTTP server.
state enable	Enables the HTTP server.
write	Stores the current configuration in permanent memory.
<b>icmp (config-icmp) level commands</b>	
clrscrn	Clears the screen.
exit	Exits to the configuration level.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
state disable	Prevents ICMP packets from being sent or received.
state enable	Allows ICMP packets to be sent and received.
write	Stores the current configuration in permanent memory.
<b>if 1 (config-if:eth0) level commands</b>	
bootp disable	Disables BOOTP.
bootp enable	Enables BOOTP.
clrscrn	Clears the screen.
default gateway <IP address>	Sets the configurable gateway IP address to the default value.
default mtu	Restores the default Maximum Transmission Unit (MTU) size.
dhcp client id <text>	Sets the DHCP client id.
dhcp disable	Disables DHCP.
dhcp enable	Enables DHCP.
domain <text>	Sets the domain name. <text> = name of the domain.
exit	Exits to the config level.
hostname <text>	Sets the host name. <text> = name of the host.
ip address <ip address/cidr>	Sets the IP address and network mask. Formats accepted: 192.168.1.1 (default mask) 192.168.1.1/24 (CIDR) "192.168.1.1 255.255.255.0" (explicit mask)
link	Enter link configuration level
mtu <bytes>	Sets the Maximum Transmission Unit (MTU) size.
no default gateway	Clears the default gateway.
no dhcp client id	Clears the DHCP client ID.
no domain	Clears the domain name.
no hostname	Clears the host name.
no ip address	Clears the IP address.
no primary dns	Clears the name of the primary DNS server.
no secondary dns	Clears the name of the secondary DNS server.
primary dns <IP address>	Sets the IP address of the primary DNS server.
secondary dns <IP address>	Sets the IP address of the secondary DNS server.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.

show status	Show interface status
write	Stores the current configuration in permanent memory.
<b>input 1 (config-analog-input:1) level commands</b>	
adjustment scale and offset	Each analog input sample will be linearly mapped to its reading value via specification of two points, one near each end of the linear mapping range. The first point is represented by Input Low, an analog input value, and Reading Low, its corresponding presented reading. The second point is represented by Input High, a different analog input value, and Reading High, its corresponding presented reading. Presented readings from other analog input values are derived by interpolation or extrapolation of the straight line.
adjustment simple offset	The offset value is added to each analog input to produce the reading.
alarm high <text>	An Analog Input reading above this value that persists for Delay seconds will turn on the alarm.
alarm low <text>	An Analog Input reading below this value that persists for Delay seconds will turn on the alarm.
alarm type high	Enables monitoring of the selected Analog Input for a reading at or above the specified Alarm High value.
alarm type high and low	Enables monitoring of the selected Analog Input for a reading either above the specified Alarm High value or below the specified Alarm Low value.
alarm type low	Enables monitoring of the selected Analog Input for a reading at or below the specified Alarm Low value.
alarm type none	Disables all alarms.
clrscrn	Clears the screen.
decimal point <number>	Sets the maximum number of digits displayed to the right of the decimal point. Choose this according to the accuracy of signal source.
default adjustment	Selects the default adjustment of simple offset.
default alarm high	Restores the default Alarm High value.
default alarm low	Restores the default Alarm Low value.
default alarm type	Restores the default Alarm Type with no alarms enabled.
default decimal point	Restores the default display setting for decimal digits.
default delay	Restores the default Delay value
default input high	Restores the default Input High value.
default input low	Restores the default Input Low value.
default offset	Removes the offset.
default range	Selects the default range of -10V to +10V on the V+ and V- terminals.
default reading high	Restores the default Reading High value.
default reading low	Restores the default Reading Low value.
default units	Restores the default units.

delay <seconds>	An Analog Input high or low reading that persists for Delay seconds will turn on the alarm.
display disable	Omit the status from summary displays, show as disabled in specific displays.
display enable	Display analog input status with the designated title and units.
exit	Exits to the config analog level.
input <number>	Change to config analog input level
input high <text>	The specified Input High value will be presented as the Reading High value.
input low <text>	The specified Input Low value will be presented as the Reading Low value.
no title	Restores the default title of Analog Input N, where N is the analog input number.
offset <text>	Adjusts each sampled analog input value by the signed Offset to produce the presented analog reading.
range 100mv	Selects an analog input range from -100mV to +100mV on V+ and V- terminals.
range 10v	Selects an analog input range from -10V to +10V on V+ and V- terminals.
range 1v	Selects an analog input range from -1V to +1V on V+ and V- terminals.
range 20ma	Selects an analog input range from -20mA to +20mA on I+ and I- terminals.
reading high <text>	The Input High value will be presented as the specified Reading High value.
reading low <text>	The Input Low value will be presented as the specified Reading Low value.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Displays status.
title <text>	Customize how the analog input status will appear in the CLI, Web Manager, and XML status.
units <text>	The specified Units will appear after the presented value of the analog input in all of its displays.
write	Stores the current configuration in permanent memory.
<b>input 1 (config-analog-alarm:input 1) level commands</b>	
clrscrn	Clears the screen.
connect <instance>	Enters the next lower level. Specify the instance for the next lower level.
connect reminder interval <minutes>	Sets the time interval between repeated connections while the alarm is on.
email	Enters the next lower level.
exit	Exits to the config alarm level.
no connect reminder interval	Only connects one time when the alarm turns on.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.

show status	Displays statistics.
write	Stores the current configuration in permanent memory.
<b>input 2 (config-analog-input:2) level commands</b>	
adjustment scale and offset	Each analog input sample will be linearly mapped to its reading value via specification of two points, one near each end of the linear mapping range. The first point is represented by Input Low, an analog input value, and Reading Low, its corresponding presented reading. The second point is represented by Input High, a different analog input value, and Reading High, its corresponding presented reading. Presented readings from other analog input values are derived by interpolation or extrapolation of the straight line.
adjustment simple offset	The offset value is added to each analog input to produce the reading.
alarm high <text>	An Analog Input reading above this value that persists for Delay seconds will turn on the alarm.
alarm low <text>	An Analog Input reading below this value that persists for Delay seconds will turn on the alarm.
alarm type high	Enables monitoring of the selected Analog Input for a reading at or above the specified Alarm High value.
alarm type high and low	Enables monitoring of the selected Analog Input for a reading either above the specified Alarm High value or below the specified Alarm Low value.
alarm type low	Enables monitoring of the selected Analog Input for a reading at or below the specified Alarm Low value.
alarm type none	Disables all alarms.
clrscrn	Clears the screen.
decimal point <number>	Sets the maximum number of digits displayed to the right of the decimal point. Choose this according to the accuracy of signal source.
default adjustment	Selects the default adjustment of simple offset.
default alarm high	Restores the default Alarm High value.
default alarm low	Restores the default Alarm Low value.
default alarm type	Restores the default Alarm Type with no alarms enabled.
default decimal point	Restores the default display setting for decimal digits.
default delay	Restores the default Delay value
default input high	Restores the default Input High value.
default input low	Restores the default Input Low value.
default offset	Removes the offset.
default range	Selects the default range of -10V to +10V on the V+ and V- terminals.
default reading high	Restores the default Reading High value.
default reading low	Restores the default Reading Low value.
default units	Restores the default units.

delay <seconds>	An Analog Input high or low reading that persists for Delay seconds will turn on the alarm.
display disable	Omit the status from summary displays, show as disabled in specific displays.
display enable	Display analog input status with the designated title and units.
exit	Exits to the config analog level.
input <number>	Change to config analog input level
input high <text>	The specified Input High value will be presented as the Reading High value.
input low <text>	The specified Input Low value will be presented as the Reading Low value.
no title	Restores the default title of Analog Input N, where N is the analog input number.
offset <text>	Adjusts each sampled analog input value by the signed Offset to produce the presented analog reading.
range 100mv	Selects an analog input range from -100mV to +100mV on V+ and V- terminals.
range 10v	Selects an analog input range from -10V to +10V on V+ and V- terminals.
range 1v	Selects an analog input range from -1V to +1V on V+ and V- terminals.
range 20ma	Selects an analog input range from -20mA to +20mA on I+ and I- terminals.
reading high <text>	The Input High value will be presented as the specified Reading High value.
reading low <text>	The Input Low value will be presented as the specified Reading Low value.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Displays status.
title <text>	Customize how the analog input status will appear in the CLI, Web Manager, and XML status.
units <text>	The specified Units will appear after the presented value of the analog input in all of its displays.
write	Stores the current configuration in permanent memory.
<b>input 2 (config-analog-alarm:input 2) level commands</b>	
clrscrn	Clears the screen.
connect <instance>	Enters the next lower level. Specify the instance for the next lower level.
connect reminder interval <minutes>	Sets the time interval between repeated connections while the alarm is on.
email	Enters the next lower level.
exit	Exits to the config alarm level.
no connect reminder interval	Only connects one time when the alarm turns on.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.

show status	Displays statistics.
write	Stores the current configuration in permanent memory.
<b>ip (config-ip) level commands</b>	
clrscrn	Clears the screen.
default ip time to live	Restores the default IP time to live.
default multicast time to live	Restores the default IP multicast time to live, which is one hop.
exit	Exits to the configuration level.
ip time to live <hops>	Sets the IP time to live, known by SNMP as "ipDefaultTTL". <hops> = number of hops that a typical IP packet is allowed to live.
multicast time to live <hops>	Sets the IP multicast time to live. <hops> = number of hops that a multicast IP packet is allowed to live.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>link (config-ethernet:eth0) level commands</b>	
clrscrn	Clears the screen.
default duplex	Restores the default duplex setting, which is auto.
default speed	Restores the default speed setting, which is auto-negotiate.
duplex auto	Sets duplex mode to auto.
duplex full	Sets duplex mode to full.
duplex half	Sets duplex mode to half.
exit	Exit back to interface configuration level
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
speed 10	Sets the speed of the Ethernet link to 10 Mbps.
speed 100	Sets the speed of the Ethernet link to 100 Mbps.
speed auto	Sets the speed of the Ethernet link to auto-negotiate.
write	Stores the current configuration in permanent memory.
<b>log (config-diagnostics-log) level commands</b>	
clrscrn	Clears the screen.
default max length	Restores the factory default maximum Log file size.
default output	Restores the default log output, which is disable.
exit	Exits to the next higher level.
max length <Kbytes>	Sets the maximum size in Kbytes for the Log file.
output disable	Disables log output.
output filesystem	Enables log to filesystem.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>password (tunnel-accept-password:2) level commands</b>	
clrscrn	Clears the screen.
exit	Exits to the next higher level.
no password	Removes the password so connections will be accepted

	unchallenged.
password <text>	Sets the password required on the network side of the tunnel to begin a connection.
prompt disable	Inhibits any prompting for password on the network side of the tunnel.
prompt enable	Sets up so a user on the network side of the tunnel will be prompted for a password.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>password (tunnel-accept-password:1) level commands</b>	
clrscrn	Clears the screen.
exit	Exits to the next higher level.
no password	Removes the password so connections will be accepted unchallenged.
password <text>	Sets the password required on the network side of the tunnel to begin a connection.
prompt disable	Inhibits any prompting for password on the network side of the tunnel.
prompt enable	Sets up so a user on the network side of the tunnel will be prompted for a password.
show	Shows the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>query port (config-query_port) level commands</b>	
clear counters	Zeros Query Port counters
clrscrn	Clears the screen.
exit	Returns to the config level.
no clear counters	Unzeros Query Port counters
show	Displays statistics and information about the query port.
show history	Displays the last 20 commands entered during the current CLI session.
state disable	Disables response to 77FE requests.
state enable	Permits response to 77FE requests.
write	Stores the current configuration in permanent memory.
<b>root level commands</b>	
clrscrn	Clears the screen.
enable	Enters the enable level.
exit	Exit from the system
ping <host>	Ping destination continuously with 5 second timeout
ping <host> <count>	Ping destination n times with 5 second timeout
ping <host> <count> <timeout>	Ping destination n times with x timeout (in seconds)
show	Show system information
show history	Displays the last 20 commands entered during the current CLI session.
trace route <host>	Trace route to destination



trace route <host> <protocol>	Trace route to destination using TCP, ICMP, or UDP
<b>rss (config-rss) level commands</b>	
clear rss	Clear the RSS Feed data
clrscrn	Clears the screen.
default max entries	Restores the default number of RSS feed entries.
exit	Exits to the configuration level.
feed disable	Disables RSS feed.
feed enable	Enables RSS feed.
max entries <number>	Sets the maximum number of RSS feed entries.
persist disable	Disables RSS feed data persistence.
persist enable	Enables RSS feed data persistence.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Display the RSS Feed status
write	Stores the current configuration in permanent memory.
<b>server (ssh-server) level commands</b>	
authorized user <username> <password>	Sets authorized username, password, and optionally RSA and/or DSA public keys
clrscrn	Clears the screen.
delete all authorized users	Removes all authorized users
delete authorized user <username>	Remove an authorized user
exit	Exits to the ssh level.
host generate dsa 1024	Generate DSA public and private keys
host generate dsa 512	Generate DSA public and private keys
host generate dsa 768	Generate DSA public and private keys
host generate rsa 1024	Generate RSA public and private keys
host generate rsa 512	Generate RSA public and private keys
host generate rsa 768	Generate RSA public and private keys
host keys	Sets RSA or DSA public and/or private keys
no host dsa	Removes DSA public and private keys
no host rsa	Removes RSA public and private keys
show	Show SSH Server settings
show authorized user <username>	Show information for an authorized user
show history	Displays the last 20 commands entered during the current CLI session.
show host dsa	Show full DSA public key
show host rsa	Show full RSA public key
write	Stores the current configuration in permanent memory.
<b>smtp (config-smtp) level commands</b>	
clrscrn	Clears the screen.
default relay port	Restores the SMTP relay port to its default.
exit	Exits to the configuration level.
no relay address	Removes the SMTP relay address.
relay address <text>	Sets an SMTP relay address to direct all outbound email messages through a mail server.
relay port <number>	Sets the SMTP relay port.
show	Displays the current configuration.

show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>ssh (ssh) level commands</b>	
client	Enters the SSH Client configuration level.
clrscrn	Clears the screen.
exit	Exits to the enable level.
server	Enters the SSH Server configuration level.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>ssh (config-cli-ssh) level commands</b>	
clrscrn	Clears the screen.
default max sessions	Restores the default maximum allowed concurrent incoming SSH sessions.
default port	Restores the default local port to the SSH server.
exit	Exits to the CLI level.
max sessions <number>	Sets the maximum allowed concurrent incoming SSH sessions. <number> = number of sessions.
port <number>	Sets the local port that the SSH server uses. <number> = local port number.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show statistics	Displays the SSH server statistics.
state disable	Disables the SSH Server.
state enable	Enables the SSH Server.
write	Stores the current configuration in permanent memory.
<b>ssl (ssl) level commands</b>	
clrscrn	Clears the screen.
credentials	Enters the SSL credentials configuration level.
exit	Exits to the enable level.
show history	Displays the last 20 commands entered during the current CLI session.
trusted authorities	Enters the SSL configuration level.
write	Stores the current configuration in permanent memory.
<b>syslog (config-syslog) level commands</b>	
clrscrn	Clears the screen.
default remote port	Restores the default syslog remote port.
default severity log level	No logging.
exit	Returns to the config level.
host <text>	Sets the address of the syslog recipient. <text> = IP address or name of the host.
no host	Removes the address of the syslog recipient.
remote port <number>	Sets the syslog remote port. <number> = number of the remote port used when making a syslog connection.
severity log level alert	Log only Alert and more severe events.
severity log level critical	Log only Critical and more severe events.
severity log level debug	Log all events.

severity log level emergency	Log only Emergency events.
severity log level error	Log only Error and more severe events.
severity log level information	Log only Information and more severe events.
severity log level none	No logging.
severity log level notice	Log only Notice and more severe events.
severity log level warning	Log only Warning and more severe events.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show statistics	Displays the syslog statistics.
state disable	Disables syslog logging.
state enable	Enables syslog logging.
write	Stores the current configuration in permanent memory.
<b>telnet (config-cli-telnet) level commands</b>	
authentication disable	No password required for Telnet users.
authentication enable	Challenges the Telnet user with a password.
clrscrn	Clears the screen.
default max sessions	Restores the default maximum allowed concurrent incoming Telnet sessions.
default port	Restores the default local port to the Telnet server.
exit	Exits to the CLI level.
max sessions <number>	Sets the maximum allowed concurrent incoming Telnet sessions. <number> = number of sessions.
port <number>	Sets the local port that the Telnet server uses. <number> = local port number.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show statistics	Displays the Telnet statistics.
state disable	Disables the Telnet Server.
state enable	Enables the Telnet Server.
write	Stores the current configuration in permanent memory.
<b>terminal block power (config-analog-alarm:Terminal Block Power) level commands</b>	
clrscrn	Clears the screen.
connect <instance>	Enters the next lower level. Specify the instance for the next lower level.
connect reminder interval <minutes>	Sets the time interval between repeated connections while the alarm is on.
email	Enters the next lower level.
exit	Exits to the config alarm level.
no connect reminder interval	Only connects one time when the alarm turns on.
show	Displays the current configuration.
show history	Displays the last 20 commands entered during the current CLI session.
show status	Displays statistics.
write	Stores the current configuration in permanent memory.
<b>trusted authorities (ssl-auth) level commands</b>	
add	Adds an Authority Certificate.
clrscrn	Clears the screen.

exit	Exits to the ssl level.
no intermediate authority <cert>	Removes an Intermediate Authority Certificate. <cert> = index displayed by "show authority" command.
no trusted authority <cert>	Removes a Trusted Authority Certificate. <cert> = index displayed by "show authority" command.
show	Displays Authority Certificate Information.
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
<b>tunnel 1 (tunnel:1) level commands</b>	
accept	Enters the accept level for this tunnel.
auto show statistics	show connection statistics
clear counters	Zeros all tunnel counters
clrscrn	Clears the screen.
exit	Exits to the enable level.
no clear counters	Unzeros all tunnel counters
show history	Displays the last 20 commands entered during the current CLI session.
show statistics	show connection statistics
tunnel <line>	Enters the tunnel level. <line> = number of the tunnel line (serial port) to be configured.
write	Stores the current configuration in permanent memory.
<b>tunnel 2 (tunnel:2) level commands</b>	
accept	Enters the accept level for this tunnel.
auto show statistics	show connection statistics
clear counters	Zeros all tunnel counters
clrscrn	Clears the screen.
exit	Exits to the enable level.
no clear counters	Unzeros all tunnel counters
show history	Displays the last 20 commands entered during the current CLI session.
show statistics	show connection statistics
tunnel <line>	Enters the tunnel level. <line> = number of the tunnel line (serial port) to be configured.
write	Stores the current configuration in permanent memory.
<b>xml (xml) level commands</b>	
clrscrn	Clears the screen.
exit	Exits to the enable level.
secret xcr dump	Dump XML configuration containing secrets to the console
secret xcr dump <group list>	Dump specified XML configuration containing secrets to the console
secret xcr export <file>	Save XML configuration containing secrets to a file
secret xcr export <file> <group list>	Save specified XML configuration containing secrets to a local file
show history	Displays the last 20 commands entered during the current CLI session.
write	Stores the current configuration in permanent memory.
xcr dump	Dump XML configuration to the console
xcr dump <group list>	Dump specified XML configuration to the console

---

xcr export <file>	Save XML configuration to a file
xcr export <file> <group list>	Save specified XML configuration to a local file
xcr import <file>	Load XML configuration from a local file
xcr import <file> <group list>	Load specified XML configuration from a local file
xcr list	List XML Configuration Record groups to the console
xsr dump	Dump XML Status Records to the console
xsr dump <group list>	Dump specified XML Status Records to the console
xsr export <file>	Save XML Status Record to a file
xsr export <file> <group list>	Save specified XML Status Record to a local file
xsr list	List XML Status Record groups to the console