# **User's Guide**

# PowerAlert Device Manager (PADM) Version 20 Command Line Interface

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# Table of Contents

1. Overview	4	device	44	device: reset-on-lan	85
2. Logging In	5	device: <keyword></keyword>	45	device: restart device: restore-hardware	86 86
		device: apply device: asset-tag	46 47	device: restore-nardware device: return-air	87
3. Entering Commands	6	device: asset-tag device: auto-restart	47 47	device: retain-air	88
3.1 General CLI Commands	6	device: auto-restart	49	device: sensor: asset-tag	89
	_	device: battery	50	device: sensor:	
3.2 Keyboard Shortcuts	7	device: buzzer	53	date-installed	90
4. Log Navigation	8	device: bypass	54	device: sensor: humidity	90
5. CLI Commands	9	device: circuit	54	device: sensor: id	91
5. CLI Commands		device: cold-start	55	device: sensor: input	92
aaa	9	device: date-installed	55	device: sensor: location device: sensor: name	93 93
action	10	device: db9 device: dehumidifying	56 57	device: sensor: output	93
action: contact	11	device: details	58	device: sensor: region	95
action: count	12	device: details device: energy	58	device: sensor: show	96
action: delay	13	device: fan speed	59	device: sensor:	
action: enable	13	device: fault	60	temperature	97
action: interval	14	device: id	60	device: set-point	98
action: load	15	device: input	61	device: shed	99
action: load-group	16	device: isobreaker	62	device: show	100
action: name	17	isobreaker setting enable	62	device: shutdown	101
action: output-contact	17	device: last-reason	63	device: supply-air	102
action: show	18	device: load	63	device: temperature	103
action: snmp-set	19	device: load: cycle	64	device: thd	104
action: target-device	20	device: load: description	65	thd setting enable	104
action: trigger	21	device: load: name	65	device: watt-hours	104
alert	22	device: load: off	66	device: waveform	105
		device: load: on	66	dns	106
apply	25	device: load: ramp	67		
autoprobe	25	device: load: shed	68	email	107
autoprobe: authentication	26	device: load: show	69	email: address	108
autoprobe: community	27	device: load-group	70	email: enable	109
autoprobe: description	27	device: load-group: cycle	70	email: name	109
autoprobe: enable	28	device: load-group:		email: show	110
autoprobe: interval	29	description	71	email: test	110
autoprobe: name	29	device: load-group: enable		event	111
autoprobe: primary	30	device: load-group: loads	72	event: acknowledge	113
autoprobe: privacy	31	device: load-group: name	73	event: enable	113
autoprobe: retry	32	device: load-group: off	73	event: logging	114
autoprobe: secondary	33	device: load-group: on	74	event: name	115
autoprobe: security-mode	34	device: load-group: show	74	event: severity	115
autoprobe: show	35	device: location	75	event: show	116
autoprobe: username	36	device: mute	75	exit	116
autoprobe: version	36	device: name	76		
backup	37	device: off device: off-mode	77 77	firmware	117
clock	37	device: on	78	help	118
contact	39	device: on-battery	78	host	118
		device: output	79	http	119
default	39	device: power	81	•	
		device: ramp	82	https	120
		device: remote	83	ipv4	121
		device: region	84	•	
		device: reset	84	ipv6	123

# **Table of Contents**

ldap-server	125	schedule	162	ssh	207
Idap-server: anonymous	126	schedule: enable	163	cycled conver	209
ldap-server: attribute	126	schedule: frequency	164	syslog-server	
ldap-server: bind	127	schedule: load	165	syslog-server: enable	210
ldap-server: domain	128	schedule: load-group	166	syslog-server: facility	210
ldap-server: enable	129	schedule: name	167	syslog-server: host	211
ldap-server: host	129	schedule: output-contact	168	syslog-server: log	212
ldap-server: name	130	schedule: recurrence	169	syslog-server: name	212
ldap-server: object-class	131	schedule: restart	170	syslog-server: port	213
ldap-server: port	131	schedule: run-on	171	syslog-server: severity	214
Idap-server: priority	132	schedule: show	172	syslog-server: show	215
ldap-server: search	133	schedule: target-device	173	telnet	215
ldap-server: show	134	_	470		217
ldap-server: test	134	scp	173	user	
ldap-server: type	135	session	174	user: contact user: description	218 218
log	136	sftp	175	user: enable	219
log: autoexport	137	show	176	user: filter	220
log: export	138			user: fullname	221
log: interval	139	sms	177	user: password	221
log: max-size	140	sms: contact	178	user: password-age	222
log: metrics	141	sms: enable	179	user: role	223
log: severity	142	sms: name	179	user: show	224
log: show	142	sms: show	180	user: timeout	224
man	146	sms: test	181	user: username	225
password	146	smtp	182	APPENDIX	226
-		COMM	186		
password-policy	147	snmp			
		snmp-server	188		
radius-server	149	snmp-server snmp-server:	188		
radius-server radius-server: accounting	149	snmp-server snmp-server: authentication	<b>188</b> 189		
radius-server radius-server: accounting radius-server:	<b>149</b> g 150	snmp-server snmp-server: authentication snmp-server: community	<b>188</b> 189 190		
radius-server radius-server: accounting radius-server: authentication	<b>149</b> g 150 151	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable	189 190 190		
radius-server radius-server: accounting radius-server: authentication radius-server: enable	<b>149</b> g 150 151 152	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host	188 189 190 190 191		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host	<b>149</b> g 150  151 152 153	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name	188 189 190 190 191 191		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name	149 g 150 151 152 153 153	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy	188 189 190 190 191		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password	149 g 150 151 152 153 153 154	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server:	188 189 190 190 191 191 192		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority	149 g 150 151 152 153 153 154 154	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode	188 189 190 190 191 191 192		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show	149 g 150 151 152 153 153 154 154 155	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set	188 189 190 190 191 191 192 193 194		
radius-server radius-server: accounting radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test	149 g 150 151 152 153 153 154 154 155 156	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: show	188 189 190 190 191 191 192 193 194 195		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show	149 g 150 151 152 153 153 154 154 155	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: show snmp-server: trap	188 189 190 190 191 191 192 193 194 195 196		
radius-server radius-server: accounting radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test	149 g 150 151 152 153 153 154 154 155 156	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: show snmp-server: trap snmp-server: username	188 189 190 190 191 191 192 193 194 195 196 197		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot restore	149 g 150 151 152 153 153 154 154 155 156 156 156	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: show snmp-server: trap snmp-server: username	188 189 190 190 191 191 192 193 194 195 196		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot restore role	149 g 150 151 152 153 153 154 154 155 156 156 156 157	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: show snmp-server: trap snmp-server: username  snmp-user snmp-user:	188  189 190 190 191 191 192  193 194 195 196 197 198		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot restore role role: description	149 150 151 152 153 153 154 154 155 156 156 157 157	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: st snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication	188  189 190 190 191 191 192  193 194 195 196 197 198		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot restore role role: description role: name	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: st snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community	188  189 190 190 191 191 192  193 194 195 196 197 198  199 200		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: st snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: contact	188  189 190 190 191 191 192  193 194 195 196 197  198  199 200 200		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot restore role role: description role: name	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: st snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: description	188  189 190 190 191 191 192  193 194 195 196 197  198  199 200 200 201		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: stap snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: description snmp-user: enable	188  189  190  190  191  191  192  193  194  195  196  197  198  199  200  201  202		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: stap snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: contact snmp-user: description snmp-user: enable snmp-user: filter	188  189  190  190  191  191  192  193  194  195  196  197  198  199  200  201  202  203		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: stap snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: contact snmp-user: description snmp-user: enable snmp-user: privacy	188  189 190 190 191 191 192  193 194 195 196 197  198  199 200 201 202 203 204		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: stap snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: contact snmp-user: description snmp-user: enable snmp-user: privacy snmp-user: role	188  189 190 190 191 191 192  193 194 195 196 197  198  199 200 201 202 203 204 205		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: st snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: contact snmp-user: description snmp-user: enable snmp-user: privacy snmp-user: role snmp-user: security-mode	188  189 190 190 191 191 192  193 194 195 196 197  198  199 200 201 202 203 204 205 205		
radius-server radius-server: accounting radius-server: authentication radius-server: enable radius-server: host radius-server: name radius-server: password radius-server: priority radius-server: show radius-server: test  reboot  restore role role: description role: name role: privilege	149 g 150 151 152 153 153 154 154 155 156 156 157 157 158 159 160	snmp-server snmp-server: authentication snmp-server: community snmp-server: enable snmp-server: host snmp-server: name snmp-server: privacy snmp-server: security-mode snmp-server: set snmp-server: stap snmp-server: trap snmp-server: username  snmp-user snmp-user: authentication snmp-user: community snmp-user: contact snmp-user: description snmp-user: enable snmp-user: privacy snmp-user: role	188  189 190 190 191 191 192  193 194 195 196 197  198  199 200 201 202 203 204 205		

### 1. Overview

Beginning with firmware version 20.0.0, LX Platform devices support a full-featured Command Line Interface (CLI). Nearly all functions and controls available through the web interface are accessible via CLI. Additionally, CLI allows the use of scripts to facilitate operation and integration with third-party systems.

The CLI can be accessed on LX Platform devices through the RJ45 network port, Micro USB port or RJ45 CONFIG port.

Once connected, use a terminal emulator application – (such as PuTTY) – to access the CLI via Secure Shell (SSH) on default port 22. Enter the Host Name or IP address of the LX Platform device in the applicable field, then click "Open."

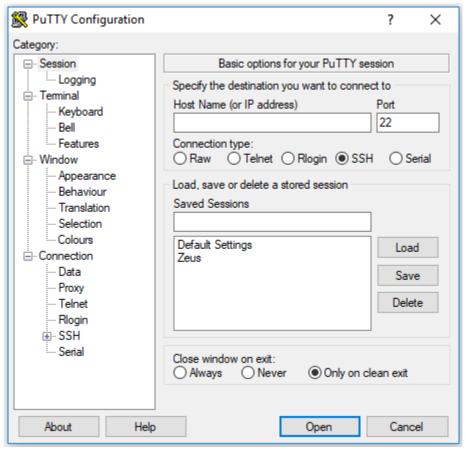


Figure 1-1: PuTTY terminal emulator

# 2. Logging In

In the terminal window that opens, enter the login credentials. The default login and password credentials are both **localadmin**. Note that the initial login to the device may require a password change. In this case, prompts will be provided for changing the password. Upon successful log in, a welcome message appears, followed by the root-level command prompt.

```
login as: localadmin
localadmin@10.22.0.102's password:
Last login: Thu Jan 30 19:27:07 2020 from 172.18.127.35

Welcome to PowerAlert Device Manager CLI v20.0.0.1707

localadmin> help
Help:

aaa - Configure aaa schemes
action - Create or update an action
alert - Acknowledge and export alerts
```

Figure 2-1: CLI Login

**Note:** PADM supports a maximum of two concurrent CLI sessions. If a third session is attempted, a warning message will appear that the session limit has been reached. The exception to this is if the third session is logging in with the default localdmin/localadmin credentials, in which case the oldest active session will be terminated.

### 3. Entering Commands

Commands can be entered individually by typing the command at the prompt.

```
console> snmp port 165
console> no snmp v1 enable
console> snmp v3 enable
```

PADM also supports command-chaining, whereby related commands and parameters can be sequentially added in a single line, separated by a semi-colon (;)

```
console> snmp port 165;no snmp v1 enable;snmp v3 enable
```

If using command-chaining with a nested command, end the line with "end" to exit from the nested command format. Otherwise, the prompt will remain in the nested format.

```
console> email user1; address user1@company.com; enable; end
```

For quick-reference information on the usage of a command, enter the command name at the prompt. For detailed information about a command, view its manual page by entering "man," followed by the command name at the prompt.

When displayed log reports exceed one page, the bottom of the screen will display a pagination indicator. The numbers appearing in brackets are the current page number and the total number of pages. The numbers appearing in carets (<>) indicate horizontal continuation of the current page. At the cursor, enter the desired page number or a letter designating the support navigation commands: [f]irst, [p]rev, [n]ext, [l]ast, [r]efresh, [q]uit. Enter the left or right caret to display the respective horizontal continuation of the page.

[1/56], <1/2>:q

### 3.1 General CLI Commands

?	Displays a list of commands.
help	Displays a list of commands.
end	Exits a nested command section and returns to the previous section.
exit	Exits a nested command section and returns to the previous section. Terminates the CLI session, if entered at the root level.
man	Displays the manual page (description) of a command.
no	Disables, removes or deletes content.
show	Displays command or keyword details.
<>	Indicates a required value in place of the brackets and text within.
	Indicates an optional parameter.
{}	Indicates a required parameter; an item from the list of choices must be selected.
	Separates mutually exclusive choices.
[{}]	Indicates a required choice within an optional element.

# 3. Entering Commands

# **3.2 Keyboard Shortcuts**

Ctrl A	Moves the cursor to the beginning of the command line.
Ctrl B / Left Arrow	Moves the cursor one character to the left.
Ctrl C	Exits from the current command and provides a new prompt.
Del Key	Deletes the character to the right of the cursor.
Ctrl D	Exits from CLI, if entered at the root level. Exits a nested command section.
Ctrl E	Moves the cursor to the end of the command line.
Ctrl F / Right Arrow	Moves the cursor one character to the right.
Ctrl K	Deletes all characters to the right of the cursor.
Ctrl N / Down Arrow	Shows the next command in history, for the current log session.
Ctrl P / Up Arrow	Shows the previous command in history, for the current log session.
Ctrl U	Deletes the whole line.
Backspace Key	Moves the cursor back one space, deleting that character.
Tab Key	Auto-completes the text (command) being entered.

# 4. Log Navigation

When viewing the Accounting, Data or Event Log in CLI, the prompt will change to allow navigation of the log contents, displayed in the following format:

In this example, the log is currently at page 4 of 25, and on the first of two pages, horizontally. Use the following letters and characters, followed by the <Enter> key to navigate logs:

#	Enter a page number to go directly to that page.
f	Go to the first page of the log.
р	Go to the previous page.
n	Go to the next page.
1	Go to the last page.
<	Move horizontally to the left.
>	Move horizontally to the right.
r	Refresh the page.
q	Quit. Return to the regular CLI command prompt.
?	Display the list of navigation options.

The following section provides a detailed description of each command and its nested commands, including syntax and examples.

All commands that follow are presented in alphabetical order.

### aaa

### aaa accounting

Use the **aaa accounting** command to modify the default setting for the Accounting Scheme. Accounting activity can be logged to the local system or to a remote server, such as RADIUS. The default Accounting Scheme is **local-only**. The other available choices are: "log activity to the remote server only" (**remote-only**), "try logging to the local system first, then the remote server, if necessary" (**local first**), and "try logging to the remote system first, then the local, if necessary" (**remote first**).

### **Syntax**

aaa accounting {local-only | remote-only | local-first | remote-first}

### **Example**

The following command changes the Accounting Scheme to "try local first, then try remote":

```
console> aaa accounting local-first
Update complete
```

### aaa authentication

Use the **aaa authentication** command to modify the default setting for the Authentication Scheme. Authentication and authorization can be performed on users entered into either the local system or a remote server, such as RADIUS or LDAP. The default Authentication Scheme is **local-only**. The other available choices are: "authenticate using the remote server only" (**remote-only**), "try authenticating using the local system first, then the remote server, if necessary" (**local-first**), and "try authenticating using the remote system first, then the local, if necessary" (**remote-first**).

#### Syntax

aaa authentication {local-only | remote-only | local-first | remote-first}

#### **Example**

The following command changes the Authentication Scheme to local authentication only:

```
console> aaa authentication local-only
Update complete
```

#### show aaa

Use the **show aaa** command to display the current settings for AAA.

### **Syntax**

show aaa [accounting | authentication]

### **Example**

The following command displays all AAA settings:

```
console> show aaa
```

Accounting Scheme : try local-first, then try-remote if necessary

Authentication Scheme : local only

### action

### action

Use the **action** command to create and/or manage an action entry. The **action-type** must be specified when creating a new action entry; action types are dependent upon the device(s) connected. Certain action types also require specifying a target device. Use the **show action-types** command to display a list of available action types and their target device dependence. Use the **no** form of this command to delete an action. To exit from the **action (<action-name>)** command format, use either the **end** or **exit** commands. When configuring an action, be sure to enter all parameters specific to the selected action-type. If required, change the default values for **count**, **delay** and **interval**.

**Note:** When creating an SNMP action, all SNMP contacts will automatically be assigned to the action. To assign individual SNMP contacts to the action, first delete all contacts using the **no contact all** command. See the **action: contact** command for details.

### **Syntax**

#### action <action-name>

• action-name – Specifies the action entry to be managed.

#### action <action-name> <action-type> [<device-name>]

- **action-name** Specifies the name of the action entry to be created. If spaces are required, bookend the name with quotation marks (").
- action-type Specifies the action type for the entry.
- device-name Specifies the target device. Use the show action-types command to identify which action types require
  specifying a target device.

#### no action <action-name>

• action-name - Specifies the action entry to be deleted. If spaces are required, bookend the name with quotation marks (").

#### **Examples**

The following command creates an action entry titled "Load Control" with an action type of "load", applied to target device "PDU123":

```
console> action "Loads Control" load PDU123
Created Loads Control
console> action (Loads Control)>
```

The following command deletes entry "Cycle-Load-4":

```
console> no action Cycle-Load-4
Deleted Cycle-Load-4
```

### show action

Use the show action command to display a summary table of all action entries or the details of a specified action entry.

### **Syntax**

### show action [<action-name>]

• action-name – Specifies the entry for which action details are to be displayed.

### **Example**

The following command displays a summary table of all action entries:

console> show action

NAME	TYPE	STATUS	DELAY	INTERVAL
Default Device Shutdown	turn-off-device	enabled	120	0
Default Email Notification	email	enabled	30	0
Default Reboot LX Card	reboot-weblx	enabled	30	0
Default SMS Notification	sms	enabled	30	0
Default SNMP Trap Notification	snmp-trap	disabled	30	0

### action: contact

### contact

Use the **contact** command to assign one or more notification recipients to the action entry. Use the **no** form of this command to remove one or more contacts from the entry. This command applies only to action types "email", "sms", "snmp-set-oid" and "snmp-trap". Note that contacts for each of these action types are created using the corresponding commands: **email**, **sms** and **snmp-user**.

#### **Syntax**

contact {all | <contact-1>[,<contact-2>,...<contact-N>]}

- all Sets all contacts as notification recipients
- contact-x Specifies a comma-delimited list of contacts as notification recipients

no contact {all | <contact-1>[,<contact-2>,...<contact-N>]}

- all Sets all contacts to be removed as notification recipients
- contact-x Removes a comma-delimited list of contacts as notification recipients

### **Examples**

The following command sets all email contacts to be recipients of entry "Send Email":

```
console> action (Send Email)> contact all
Update complete
```

The following command specifies contacts "jdoe", "Mary Smith" and "bjones" as the recipients or entry "Send Email":

```
console> action (Send Email)> contact jdoe,"Mary Smith",bjones
Update complete
```

The following command removes "Billy Jones" as a recipient for entry "Send Email":

```
console> action (Send Email)> no contact "Billy Jones"
Update complete
```

### show contact

Use the **show contact** command to display the list of recipients for a notification action entry.

### **Syntax**

show contact

### **Example**

The following command displays the recipients for entry "Send Email":

```
console> action (Send Email)> show contact
jdoe,Mary Smith,bjones
```

### action: count

### count

Use the **count** command to set the number of times an On Set action will execute when a single trigger condition occurs. Actions will stop executing once the trigger condition clears. The default value for **count** is (1), meaning the action will execute once when triggered. A **count** of zero (0) configures the action to execute indefinitely, until the trigger condition clears. Use the **interval** command to set the amount of time, in seconds, that must elapse between successive action executions. An **interval** of zero (0) configures the action to execute once, regardless of the **count**. This command applies only to action types "email", "sms", "snmp-set-oid" and "snmp-trap".

### **Syntax**

#### count < count>

• count – Specifies the number of times that the action will execute, when triggered (Range: 0-65535).

#### **Example**

The following command configures entry "Send Email" to execute indefinitely until the trigger condition clears:

```
console> action (Send Email)> count 0
Update complete
```

### show count

Use the **show count** command to display the number of times an action will execute until the trigger condition clears.

### **Syntax**

show count

#### **Example**

The following command displays the number of times entry "Send Email" will execute when triggered:

```
console> action (Send Email)> show count
5
```

### action: delay

### delay

Use the **delay** command to set the time that a triggered On Set action must wait before it executes. Actions will not execute if the trigger condition clears before the delay time elapses. The default value for **delay** is zero (0), which will cause the action to execute immediately when triggered.

### **Syntax**

### delay <delay>

• delay - Specifies the delay time, in seconds, for the action entry.

### **Example**

The following command sets a delay time of 30 seconds for entry "Send Email":

```
console> action (Send Email)> delay 30
Update complete
```

### show delay

Use the **show delay** command to display the delay time for the action entry.

### **Syntax**

show delay

### **Example**

The following command displays the delay time for entry "Send Email":

```
console> action (Send Email)> show delay 30
```

### action: enable

### enable

Use the **enable** command to activate the action entry. Use the **no** form of this command to disable the entry. A disabled action will not execute when a trigger condition occurs.

#### **Syntax**

enable

no enable

#### **Example**

The following command disables entry "UPS Check":

```
console> action (UPS Check)> no enable
Update complete
```

### show enable

Use the **show enable** command to display the enabled/disabled status for the action entry.

### **Syntax**

show enable

### **Example**

The following command displays the status of entry "UPS Check":

```
console> action (UPS Check)> show enable
disabled
```

### action: interval

### interval

Use the **interval** command to set the amount of time, in seconds, between successive executions of a triggered On Set action. Actions will stop executing once the trigger condition clears. Use the **count** command to set the number of times the action will execute. This command applies only to action types "email", "sms", "snmp-set-oid" and "snmp-trap".

### **Syntax**

#### interval <interval>

• interval – Specifies the interval time, in seconds, for the entry (Range: 0-65535).

### **Example**

The following command sets the interval time at 2 minutes for entry "Send Email":

```
console> action (Send Email)> interval 120
Update complete
```

### show interval

Use the **show interval** command to display the interval time for the action entry.

#### **Syntax**

show interval

### **Example**

The following command displays the interval time, in seconds, for entry "Send Email":

```
console> action (Send Email)> show interval 120
```

### action: load

### load

Use the **load** command to assign one or more loads to an action. Loads can be assigned as a series of numbers (i.e. "3,4,5,6"), as a range of numbers (i.e. "3-6"), or in combination (i.e. "3,5-8,10,12-15"). Note that the list of loads is additive. Use the **no** form of this command to remove one or more loads from the action. This command applies only to action type "load".

### **Syntax**

load <load-1>[,<load-2>...<load-N>]

• load-x – Specifies a comma-delimited list of loads to be assigned to the action entry.

```
no load [<load-1>[,<load-2>...<load-N>]]
```

• load-x - Specifies a comma-delimited list of loads to be removed from the action entry.

### **Example**

The following two commands clear the action of loads, then assign loads 1, 5, 6, 7, 8 and 12 to entry "Cycle Routers":

```
console> action (Cycle Routers)> no load
Update complete
console> action (Cycle Routers)> load 1,5-8,12
Update complete
```

### load state

Use the **load state** command to specify load behavior when the action is executed. This command applies only to action type "load".

### **Syntax**

load state {cycle | off | on}

#### **Example**

The following command configures the loads specified in entry "Cycle Routers" to cycle when triggered:

```
console> action (Cycle Routers)> load state cycle
Update complete
```

### show load

Use the **show load** command to display the load details for the action entry. This command applies only to action type "load".

#### **Syntax**

show load [state]

### **Example**

The following command displays the load details for entry "Cycle Routers":

### action: load-group

### load-group

Use the **load-group** command to assign one or more load groups to an action. Note that load groups are created using the device-level **load-group** command. Use the **no** form of this command to remove one or more load groups from the action. This command applies only to action type "load-group".

### **Syntax**

load-group < group-1>[, < group-2>... < group-N>]

• group-x - Specifies a comma-delimited list of load groups to be assigned to the action.

```
no load-group [<group-1>[,<group-2>...<group-N>]]
```

• group-x - Specifies a comma-delimited list of load groups to be removed from the action.

### **Examples**

The following two commands clear the action of load groups, then assign load groups "Routers1" and "Routers2" to entry "Cycle Router":

```
console> action (Cycle Router)> no load-group
Update complete
console> action (Cycle Router)> load-group Routers1,Routers2
Update complete
```

### load-group state

Use the **load-group state** command to specify the load group behavior when the action is executed. This command applies only to action type "load-group".

### **Syntax**

load-group state {cycle | off | on}

### **Example**

The following command configures the load groups specified in entry "Cycle Router" to cycle when triggered:

```
console> action (Cycle Router)> load-group state cycle
Update complete
```

### show load-group

Use the **show load-group** command to display the load group details for the action entry. This command applies only to action type "load-group".

#### **Syntax**

show load-group [state]

### **Example**

The following command displays the load group details for entry "Cycle Router":

### action: name

#### name

Use the name command to modify the name of the action entry.

### **Syntax**

#### name < new-name >

• new-name - Specifies the new name for the entry. If spaces are required, bookend the name with quotation marks (").

### **Example**

The following command changes the entry's name from "Send Email" to "Email Manager":

```
console> action (Send Email)> name "Email Manager"
Update complete
console> action (Email Manager)>
```

### show name

Use the show name command to display the name of the action entry.

### **Syntax**

show name

#### **Example**

The following command displays the name of the entry:

```
console> action (Email Manager)> show name
Email Manager
```

### action: output-contact

### output-contact

Use the **output-contact** command to specify the output contact behavior for the action entry – to either turn **on** or turn **off**, when triggered. This command is applicable only to action type "sensor" and, specifically, sensor model E2MTDO. Ensure that the specific E2MTDO is selected using the **target-device** command.

### **Syntax**

#### output-contact < number > {on | off}

• **number** – Specifies the output contact number of the sensor.

### **Example**

The following command sets the #2 contact to turn on when triggered, for entry "Fan On":

```
console> action (Fan On)> output-contact 2 on
Update complete
```

### show output-contact

Use the show output-contact command to display the output settings of the entry.

### **Syntax**

show output-contact

### **Example**

The following command displays the output settings of entry "Fan Off":

```
console> action (Fan On)> show show output contact
Contact Number : 2
Action : on
```

### action: show

### show

Use the **show** command, with optional keywords, to display details about the action entry. To view all keywords applicable to the entry, enter **show** [**Tab**][**Tab**].

### **Syntax**

show [keyword]

• **keyword** – Specifies the attribute to be displayed.

### **Examples**

The following command displays all **show** keywords for entry "Email Manager":

This example should appear second, since it was mentioned second in the **show** definition above.

```
console> action (Email Manager)> show [Tab][Tab]
contact delay interval status
count help name trigger
show
```

The following command displays all settings for entry "Email Manager":

```
console> action (Email Manager)> show
Name : UPS Check
Type : battery-test
Status : enabled
Delay : 30
Interval : 0
Count : 1
Target : UPS123
```

### show targets

Use the **show targets** command to display a list of devices and sensors available for selection as targets for action entries.

### **Syntax**

show targets

### **Example**

The following command displays a list of devices and sensors available for selection as targets:

```
console> action (Email Manager)> show targets
```

NAME	TYPE
UPS123	device
E2MTHDI	sensor
E2MT-A	sensor
E2MT-B	sensor

### action: snmp-set

### snmp-set oid

Use the **snmp-set oid** command to specify the Object Identifier (OID) to set when an SNMP Set action is executed. This command is applicable only to action type "snmp-set oid".

#### **Syntax**

#### snmp-set oid <oid>

• **oid** – Specifies the OID to set for the entry, in numeric notation.

### **Example**

The following command sets "1.3.6.1.4.1.123.4.5.6.0" as the OID for entry "Notify Server #1":

```
console> action (Notify Server #1)> snmp-set oid 1.3.6.1.4.1.123.4.5.6.0
Update complete
```

### snmp-set value

Use the **snmp-set value** command to configure the value set to the specified OID when the action is executed. The OID type must be specified: **integer** or **string**. This command is applicable only to action type "snmp-set oid".

### **Syntax**

### snmp-set value <value> {integer | string}

• value - Specifies the set value for the entry. For strings, if spaces are required, bookend the string with quotation marks (").

### **Examples**

The following command configures entry "Notify Server #1" with an SNMP Set integer value of 1:

```
console> action (Notify Server #1)> snmp-set value 1 integer
Update complete
```

The following command configures entry "Notify Server #1" with an SNMP Set string value of "Load 1 is Off":

```
console> action (Notify Server #1)> snmp-set value "Load 1 is Off" string
Update complete
```

### show snmp-set

Use the **show snmp-set** command to display the OID details for an SNMP Set action entry. This command is applicable only to action type "snmp-set oid".

### **Syntax**

show snmp-set [oid | value]

### **Example**

The following command displays the OID details for entry "Notify Server #1":

```
console> action (Notify Server #1)> show snmp-set
OID : 1.3.6.1.4.1.123.4.5.6.0
Type : integer
Value : 1
```

### action: target-device

### target-device

Use the **target-device** command to specify the device or sensor undergoing the action, as defined by the action entry. Note that changing the target device of an action entry will require re-entering all action parameters; the parameters associated with the previous target device will be erased. Use the **show targets** command to display a list of devices and sensors available for selection as target devices.

### **Syntax**

```
target-device {<device-name> | <sensor-name>}
```

- **device-name** Specifies the new target device associated with the entry.
- sensor-name Specifies the new target sensor associated with the entry.

### **Example**

The following command sets "Sensor-E2MTDO" as the new target device for entry "Indicator":

```
console> action (Indicator)> target-device Sensor-E2MTDO
Update complete
```

### show target-device

Use the **show target-device** command to display the name of the device or sensor selected to undergo the action.

#### **Syntax**

show target-device

#### **Example**

The following command displays the target device for entry "Indicator":

```
console> action (Indicator)> show target-device
Sensor-E2MTDO
```

### action: trigger

### trigger

Use the **trigger** command to assign one or more trigger conditions to the action entry. Use the **no** form of this command to remove one or more triggers from the entry. Use the **show trigger** command to display an enumerated list of all applicable trigger events. The enumeration and/or keywords are used when selecting events as triggers. Due to the variance of events by device type and model, the enumeration will not be sequential. Within the list, an asterisk (\*) denotes that the event is selected as a trigger.

### **Syntax**

trigger {on-clear | on-set} {all | <event-1>[,<event-2>...<event-N>]}

- event-x Specifies a comma-delimited list of event names or enumerations that will act as triggers for the action entry (see the **show trigger** command).
- on-clear Configures the action entry to execute when any of the selected On Clear events occur.
- on-set Configures the action entry to execute when any of the selected On Set events occur.

```
no trigger {on-clear | on-set} {all | <event-1>[,<event-2>...<event-N>]}
```

no trigger {<device-name> | <sensor-name>}

- **device-name** Removes all trigger events assigned to the specified device.
- event-x Specifies a comma-delimited list of event names or enumerations to be removed from the action entry.
- on-clear Removes On Clear events as triggers for the action entry; if no enumerated events are specified, all On Clear events will be removed.
- on-set Removes On Set events as triggers for the action entry; if no enumerated events are specified, all On Set events will be removed
- sensor-name Removes all trigger events assigned to the specified sensor.

#### **Examples**

The following command sets "Battery Low" and "Communications Lost" – enumerated as 4 and 6, respectively – as the On Set triggers for entry "Notify Server #1":

```
console> action (Notify Server #1)> trigger on-set 4,6
Update complete
```

The following command sets "Battery Low" and "Communications Lost" – listed by name – as the On Set triggers for entry "Notify Server #1":

```
console> action (Notify Server \#1)> trigger on-set "Battery Low","Communication Lost" Update complete
```

The following command sets "Battery Normal" and "Communications Restored" – enumerated as 4 and 6, respectively – as the On Clear triggers for entry "Notify Server #1":

```
console> action (Notify Server #1)> trigger on-clear 4,6
Update complete
```

The following command removes all On Clear triggers for entry "Notify Server #1":

```
console> action (Notify Server \#1)> no trigger on-clear all Update complete
```

### show trigger

Use the **show trigger** command to display an enumerated list of all applicable events. Within the list, an asterisk (\*) denotes that the event is selected as a trigger.

### **Syntax**

### show trigger [<name-pattern>]

• name-pattern – a string of characters by which the displayed list of trigger events will be filtered.

### **Example**

The following command displays all applicable trigger events for entry "Notify Server #1":

console> action (Notify Server #1)> show trigger								
#	EVENT	TYPE	ON SET	ON CLEAR	SOURCE			
1	Watchdog NTP Probe Failed	autoprobe	no	no	Watchdog NTP			
2	Watchdog Ping Probe Failed	autoprobe	no	no	Watchdog Ping			
3	Battery Bad	device	no	no	UPS123			
* 4	Battery Capacity Below Warning Level	device	yes	no	UPS123			
* 5	Battery Low	device	yes	no	UPS123			
38	Contact Output 2 in Alarm	device	no	no	Sensor07			
* 39	Temperature Beyond Limits	device	yes	yes	Sensor07			

### alert

### alert acknowledge

Use the **alert acknowledge** command to acknowledge one or more alerts. Alerts can be acknowledged as a series of numbers (i.e. "3,4,5,6"), as a range of numbers (i.e. "3-6"), or in combination (i.e. "3,5-8,10,12-15").

### **Syntax**

### alert acknowledge {all | <alert-1>[, <alert-2>... <alert-N>]}

- alert-x Sets a comma-delimited list of record numbers to be acknowledged.
- all Sets all alerts to be acknowledged.

### **Examples**

The following command acknowledges all alerts:

```
console> alert acknowledge all
Update complete
```

The following command acknowledges alert log records 1, 5, 6, 7, 8 and 12:

```
console> alert acknowledge 1,5-8,12
Update complete
```

### alert export

Use the **alert export** command to configure and execute an on-demand alert log export. The alert log can be exported as an email to a single recipient (refer to the **email** command for creating email recipients). The default file format for exported alert logs is CSV; use the **xml** option to change the exported file format to XML.

### **Syntax**

alert export email <contact-name> [xml] [purge]

contact-name – Identifies a single email contact as the recipient of the exported alert log.

### **Example**

The following command exports the Alert Log in XML format to email recipient johnd:

```
console> alert export email johnd xml
Update complete
```

### show alert

Use the **show alert** command to view the Alert Log in its entirety or filtered by record number, range of record numbers or quantity of sorted records. Use the **show alert <record-num>** format to display a single record, specified by **<record-num>**. Use the **show alert from <start-num> to <end-num>** format to display a range of records, where **<start-num>** is the first record number and **<end-num>** is the last. Use the show alert limit **limit>** format to display a set quantity of records, specified by **limit>**; this format always begins with the first record. Use the **show alert last <period>**... command format to display a range of the most recent records, specifying the end limit of the range (e.g. the last three weeks). Use the **show alert last <period>**... command format to display a range of the most recent records, specifying the end limit of the range (e.g. the last three weeks). Note that these three formats are mutually exclusive. A retrieved range of records is inherently ordered by record number and cannot be sorted otherwise. If the time format being used contains a space (for example, h:mm:ss tt), ensure that the entire time period is bookended in quotes. Example: "10:11:22 PM"

#### Syntax 1 4 1

show alert < record-num>

show alert size

show alert count [{ critical | info | warning }]

show alert [{ acknowledged | unacknowledged }] [{ cleared | uncleared }] [device <device-name>] [event <event-name>] [severity <severity>] [from <start-#> [to <end-#>]] [sort [date [{ asc | desc }]] [device [{ asc | desc }]] [event [{ asc | desc }]]

show alert [{ acknowledged | unacknowledged }] [{ cleared | uncleared }] [device <device-name>] [event <event-name>] [severity <severity>] [start-date <start-date> [start-time <start-time>]] [end-date <end-date> [end-time <end-time>]] [sort [date [{ asc | desc }]] [device [{ asc | desc }]]

show alert [{ acknowledged | unacknowledged }] [{ cleared | uncleared }] [device <device-name>] [event <event-name>] [severity <severity>] [last <period> {second | minute | hour | day | week | month | year}] [sort [date [{ asc | desc }]] [device [{ asc | desc }]] [event [{ asc | desc }]]

show alert [{ acknowledged | unacknowledged }] [{ cleared | uncleared }] [device <device-name>] [event <event-name>] [severity <severity>] [limit <qty>] [sort [date [{ asc | desc }]] [device [{ asc | desc }]] [event [{ asc | desc }]]

- acknowledged Filters the log to display only entries that are acknowledged.
- cleared Filters the log to display only entries that are cleared.
- **device-name** Filters the log to display only entries associated with the specified device.
- end-num Specifies the number of the last log record to be displayed (must be a number greater than start-num).
- end-date Filters the log to display all entries that occurred on or before this date; use the date format set using the default date-format or default user date-format command.

- end-time Filters the log to display all entries that occurred on or before this time; use the time format set using the
  default time-format or default user time-format command.
- event-name Filters the log to display only entries associated with the specified event.
- **limit** Specifies the number of log entries to be displayed.
- **period** Specifies the quantity of the selected time period of entries to be displayed.
- **record-num** Specifies the record number to be displayed.
- start-num Specifies the number of the first log record to be displayed, when displaying a range of records.
- start-date Filters the log to display all entries that occurred on or after this date; use the date format set using the
  default date-format or default user date-format command.
- start-time Filters the log to display all entries that occurred on or after this time; use the time format set using the default time-format or default user time-format command.
- unacknowledged Filters the log to display only entries that are not acknowledged.
- uncleared Filters the log to display only entries that are not cleared.

### **Example**

The following command displays all active alerts:

cons	ole> show alert					
ID	EVENT	DEVICE	DATE/TIME		TYPE	ACKNOWLEDGED
3	On Battery	UPS01	3/31/2020	11:15:47 AM	critical	no
2	Temperature High	Sensor 1	3/31/2020	10:33:07 AM	warning	no
1	Loads All Off	UPS01	3/31/2020	10:12:22 AM	critical	yes

### show alert count

Use the **show alert count** command to view the quantity of active alerts by severity.

#### **Syntax**

show alert count [critical | info | warning]

#### **Examples**

The following command displays the quantity of active alerts:

```
console> show alert count
Critical : 2
Warning : 1
Info : 0
```

The following command displays the quantity of active critical alerts.

```
console> show alert count critical
2
```

### show alert size

Use the **show alert size** command to display the total number of alerts currently stored in the log file.

#### **Syntax**

show alert size

### **Example**

The following example displays the number of alerts stored:

```
console> show alert size
18
```

### apply

### apply network

Use the **apply network** command to apply network-specific changes, which include changes to Internet settings, DNS and network services. Applying network changes may require terminating all active user sessions. Ensure that all network changes are made prior to applying them.

### **Syntax**

apply network

### **Example**

The following command applies any changes made to network settings:

```
console> apply network
Applying changes to network settings on the device. Note that this may cause a system reboot.
```

### autoprobe

### autoprobe

Use the **autoprobe** command to create and manage automatic network probe (AutoProbe) entries. The probe type must be specified when creating a new action. The available choices are "probe an NTP server" (**ntp**), "ping a network device" (**ping**) and "perform an SNMP GET" (**snmp**). If **snmp** is chosen as the probe type, the SNMP version must be specified – v1, v2 or v3. Use the **no** form of this command to delete the entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **autoprobe <probe-name>** when configuring the entry's status and settings. To exit from the **autoprobe <probe-name>** command format, use either the **end** or **exit** commands.

Refer to the **event** command for configuring an AutoProbe entry as an action trigger. Once this has been completed, refer to the **action** command for assigning an action to the AutoProbe event.

### **Syntax**

autoprobe ope-name>

• probe-name – Specifies the probe entry to be managed.

```
autoprobe robe-name> {ntp | ping | snmp {v1 | v2 | v3}}
```

• **probe-name** – Specifies the name of the probe to be created. If spaces are required, bookend the name with quotation marks (").

#### no autoprobe ope-name>

• probe-name – Specifies the probe entry to be deleted.

### **Examples**

The following command creates "Probe Get" as an SNMP (version v3) GET probe entry:

```
console> autoprobe "Probe Get" snmp v3
Created Probe Get
console> autoprobe (Probe Get)>
```

The following command deletes "old probe":

```
console> no autoprobe "old probe"
Deleted old probe
```

### show autoprobe

Use the **show autoprobe** command to view a summary table of all AutoProbe entries or the details of a specified AutoProbe entry.

### **Syntax**

show autoprobe [ntp | ping | snmp]

### **Example**

The following command displays a summary table of all AutoProbe entries:

console> show autoprobe

NAME	TYPE	DESCRIPTION	STATUS	PRIMARY IP	P PORT
probe 123	ping ntp snmp	Monitor switch NTP server Get status	enabled disabled enabled	172.17.77.77 192.168.5.100 172.17.77.88	161 162 163

### autoprobe: authentication

### authentication passphrase

Use the **authentication passphrase** command to enter an authentication passphrase for the SNMP (v3) GET AutoProbe entry. A passphrase is required if **security-mode** is set to either **authnopriv** or **authpriv**. Two options are available for entering the password. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

authentication passphrase [plaintext <passphrase>]

passphrase – Specifies the authentication passphrase for the SNMP GET AutoProbe entry, in plain text.

#### **Example**

The following command sets the Authentication Passphrase to "a1b2c3" for entry "Probe Get":

```
console> autoprobe (Probe Get)> authentication passphrase plaintext a1b2c3
Update complete
```

### authentication protocol

Use the **authentication protocol** command to select an Authentication Protocol for the SNMP (v3) GET AutoProbe entry. A protocol selection is required if **security-mode** is set to either **authnopriv** or **authpriv**. The available options are MD5 and SHA1.

#### **Syntax**

authentication protocol {md5 | sha1}

### **Example**

The following command sets the Authentication Protocol to SHA1 for entry "Probe Get":

```
console> autoprobe (Probe Get)> authentication protocol shal
Update complete
```

### show authentication protocol

Use the **show authentication protocol** command to display the selected authentication protocol for the SNMP (v3) GET AutoProbe entry.

### **Syntax**

show authentication protocol

### **Example**

The following command displays the authentication protocol for entry "Probe Get":

```
console> autoprobe (Probe Get)> show authentication protocol
sha1
```

### autoprobe: community

### community

Use the **community** command to enter a community string for an SNMP (v1 or v2) GET AutoProbe entry. A community string must be specified prior to enabling the entry. Two options are available for entering the community string. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text community string on the command line by using the **plaintext** keyword.

### **Syntax**

community [plaintext < community-string>]

• community-string – Specifies the community string for the entry, in plain text.

### **Example**

The following command sets "public" as the community string for SNMP GET probe entry "ProbeGet":

```
console> autoprobe (ProbeGet)> community plaintext public
Update complete
```

### autoprobe: description

### description

Use the **description** command to optionally enter a description for the AutoProbe entry. Use the **no** form of this command to clear the description.

#### **Syntax**

description < description >

#### no description

• description - Specifies a description for the entry. If spaces are required, bookend the description with quotation marks (").

### **Example**

The following command sets "Monitor network switch" as the description for entry "probe ABC":

```
console> probe (probe ABC)> description "Monitor network switch"
Update complete
```

### show description

Use the **show description** command to display the description entered for the AutoProbe entry.

### **Syntax**

show description

### **Example**

The following command displays the description for entry "probe ABC":

```
console> probe (probe ABC)> show description
Monitor network switch
```

### autoprobe: enable

### enable

Use the **enable** command to activate the AutoProbe entry. Use the **no** form of this command to disable the AutoProbe.

### **Syntax**

enable

no enable

### **Example**

The following command disables "probe ABC":

```
console> probe (probe ABC)> no enable
Update complete
```

### show enable

Use the **show enable** command to display the enabled/disabled status of the AutoProbe entry.

### **Syntax**

show enable

### **Example**

The following command displays the status of entry "probe ABC":

```
console> probe (probe ABC)> show enable
enabled
```

### autoprobe: interval

### interval

Use the interval command to set the time between successive AutoProbe tests.

### **Syntax**

#### interval <value>

• value – Specifies the period (in seconds) between successive probe tests (Range: 0-999).

### **Example**

The following command sets an interval time of 30 seconds between each test of entry "probe ABC":

```
console> probe (probe ABC)> interval 30
Update complete
```

### show interval

Use the **show interval** command to display the interval entered for the AutoProbe entry.

### **Syntax**

show interval

### **Example**

The following command displays the interval entered for entry "probe ABC":

```
console> probe (probe ABC)> show interval 30
```

### autoprobe: name

### name

Use the name command to modify the name of the AutoProbe entry.

### **Syntax**

### name <new-name>

• new-name - Specifies the new name for the entry. If spaces are required, bookend the name with quotation marks (").

### **Example**

The following command changes the entry's name from "probe ABC" to "probeXYZ":

```
console> probe (probe ABC)> name probeXYZ
Update complete
console> probe (probeXYZ)>
```

### show name

Use the **show name** command to display the name entered for the AutoProbe entry.

### **Syntax**

show name

### **Example**

The following command displays the entry's name:

```
console> probe (probe ABC)> show name
probe ABC
```

### autoprobe: primary

### primary address

Use the **primary address** command to set the IP address of the primary network device that the AutoProbe entry will probe. Both IPv4 and IPv6 addresses are supported.

### **Syntax**

### primary address <address>

address – Specifies the primary IPv4 or IPv6 address of the entry.

### **Example**

The following command specifies "172.17.77.88" as the primary address of entry "SnmpProbe":

```
console> probe (SnmpProbe)> primary address 172.17.77.88
Update complete
```

### primary oid

Use the **primary oid** command to set the SNMP OID that the AutoProbe entry will probe. This command applies only to SNMP probes.

#### **Syntax**

### primary oid <oid>

• oid – Specifies the OID that the entry will use for probe tests.

#### **Example**

The following command specifies "1.3.6.1.2.1.1.3.0" as the OID to use for entry "SnmpProbe":

```
console> probe (SnmpProbe)> primary oid 1.3.6.1.2.1.1.3.0
Update complete
```

### primary port

Use the **primary port** command to set the port number of the primary network device that the AutoProbe entry will probe. This command applies only to NTP and SNMP probes.

### **Syntax**

### primary port <port-number>

• port-number – Specifies the primary port number that the entry will use for probe tests (Range: 1-65535).

### **Example**

The following command specifies "161" as the primary port for entry "SnmpProbe":

```
console> probe (SnmpProbe)> primary port 161
Update complete
```

### show primary

Use the **show primary** command to display the primary address, OID and port settings for the AutoProbe entry.

### **Syntax**

show primary [address | oid | port]

### **Example**

The following command displays the primary address, OID and port settings for entry "SnmpProbe":

```
console> probe (SnmpProbe)> show primary
Primary Address : 172.17.77.88
Primary Oid : 1.3.6.1.2.1.1.3.0
Primary Port : 161
```

### autoprobe: privacy

### privacy passphrase

Use the **privacy passphrase** command to enter a privacy passphrase for the SNMP (v3) GET AutoProbe entry. A passphrase is required if **security-mode** is set to **authpriv**. Two options are available for entering the password. The first option, which is using the command without additional parameters, will prompt the entry of a password and password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

#### privacy passphrase [plaintext < passphrase >]

• passphrase – Specifies the passphrase for the entry, in plain text.

#### **Example**

The following command sets the Privacy Passphrase to "g2h3j4" for entry "Probe Get":

```
console> autoprobe (Probe Get)> privacy passphrase plaintext g2h3j4
Update complete
```

### privacy protocol

Use the **privacy protocol** command to select a Privacy Protocol for the SNMP GET AutoProbe entry. A protocol selection is required if **security-mode** is set to **authpriv**. The available options are **DES** and **AES**.

### **Syntax**

privacy protocol {des | aes}

### **Example**

The following command sets the Privacy Protocol to AES for entry "Probe Get"

```
console> autoprobe (Probe Get)> privacy protocol aes
Update complete
```

### show privacy protocol

Use the **show privacy protocol** command to display the selected privacy protocol for the SNMP GET AutoProbe entry.

### **Syntax**

show privacy protocol

### **Example**

The following command displays the privacy protocol for entry "Probe Get":

```
console> autoprobe (Probe Get)> show privacy protocol
aes
```

# autoprobe: retry

### retry

Use the retry command to set the number of consecutive AutoProbe tests that must fail before an alarm is triggered.

#### **Syntax**

#### retry < retry >

• retry – Specifies the number of probe tests that must fail before the entry triggers an alarm (Range: 0-999).

### **Example**

The following command sets the retry count to two for entry "probe ABC":

```
console> probe (probe ABC)> retry 2
Update complete
```

### show retry

Use the **show retry** command to display the retry value entered for the AutoProbe entry.

### **Syntax**

show retry

### **Example**

The following command displays the retry value of entry "probe ABC":

```
console> probe (probe ABC)> show retry
2
```

### autoprobe: secondary

### secondary address

Use the **secondary address** command to set the IP address of the second network device that the AutoProbe entry will probe. Both IPv4 and IPv6 addresses are supported.

### **Syntax**

### secondary address <ip-address>

• ip-address - Specifies the IPv4 or IPv6 address of the second network device that the entry will probe.

### **Example**

The following command specifies "172.17.77.89" as the secondary IP address for entry "SnmpProbe":

```
console> probe (SnmpProbe)> secondary address 172.17.77.89
Update complete
```

### secondary oid

Use the **secondary oid** command to set the secondary SNMP OID that the AutoProbe entry will probe. This command applies only to SNMP probes.

#### **Syntax**

### secondary oid <oid>

• oid – Specifies the secondary OID that the entry will use for probe tests.

#### **Example**

The following command specifies "1.3.6.1.2.1.1.3.1" as the secondary OID to use for entry "SnmpProbe":

```
console> probe (SnmpProbe)> secondary oid 1.3.6.1.2.1.1.3.1
Update complete
```

### secondary port

Use the **secondary port** command to set the port number of the second network device that the entry will probe. This command applies only to NTP and SNMP probes.

### **Syntax**

#### secondary port <port-number>

• **port-number** – Specifies the port number of the second network device that the entry will use for probe tests (Range: 1-65535).

### **Example**

The following command specifies "161" as the secondary port for entry "SnmpProbe":

```
console> probe (SnmpProbe)> secondary port 161
Update complete
```

### show secondary

Use the show secondary command to display the secondary address, OID and port settings for the AutoProbe entry.

### **Syntax**

show secondary [address | oid | port]

### **Example**

The following command displays the secondary address, OID and port settings for entry "SnmpProbe":

```
console> probe (SnmpProbe)> show secondary
Secondary Address : 172.17.77.89
Secondary Oid : 1.3.6.1.2.1.1.3.0
```

Secondary Port : 161

### autoprobe: security-mode

### security-mode

Use the **security-mode** command to change the default Privacy setting of the SNMP (v3) GET probe entry. The default setting is "No Authentication and No Privacy" (**noauthnopriv**). The other available choices are: "Authentication and No Privacy" (**authnopriv**), "Authentication and Privacy" (**authpriv**).

#### Syntax

security-mode {noauthnopriv | authnopriv | authpriv}

#### **Example**

The following command sets the Security Mode to "Authentication and Privacy" for entry "Probe Get":

```
console> autoprobe (Probe Get)> security-mode authpriv
Update complete
```

### show security-mode

Use the show security-mode command to display the security mode selected for the SNMP (v3) GET probe entry.

### **Syntax**

show security-mode

### **Example**

The following command displays the security mode of entry "Probe Get":

```
console> autoprobe (Probe Get)> show security-mode
authentication and privacy
```

### autoprobe: show

### show

Use the **show** command, with optional keywords, to display details about the AutoProbe entry. To view all keywords applicable to the entry, enter **show** [Tab][Tab].

### **Syntax**

### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for entry "SnmpProbe":

```
console> probe (SnmpProbe)> show [Tab][Tab]
description interval primary secondary type
help name retry status version
```

The following command displays all details for (SNMPv1) entry "V1Probe":

```
console> probe (V1Probe)> show
Name
                : V1Probe
Type
                : snmp
Description : Get device status
Status
                 : enabled
Primary Ip
              : 172.17.77.88
Primary Port
                : 161
Secondary Ip : 172.17.77.89
Secondary Port : 161
                : 30
Interval
                 : 2
Retry
Primary Oid : 1.3.6.1.2.1.1.3.0
Secondary Oid
Version
                : v1
```

### autoprobe: username

#### username

Use the username command to enter or modify the username for the SNMP (v3) GET AutoProbe entry.

### **Syntax**

#### username < username >

• username – Specifies a username for the entry. Note: spaces are not allowed in SNMPv3 usernames.

### **Example**

The following command sets "System123" as the username for entry "Probe Get":

```
console> autoprobe (Probe Get)> username System123
Update complete
```

### show username

Use the **show username** command to display the username entered for the SNMP GET AutoProbe entry.

### **Syntax**

show username

### **Example**

The following command displays the username entered for entry "Probe Get":

```
console> autoprobe (Probe Get)> show username
System123
```

### autoprobe: version

#### version

Use the **version** command to modify the SNMP version of the SNMP GET probe entry. Note that switching the SNMP version from v1/v2 to v3 – or vice-versa – will require entering parameters associated with the new version. The settings for the original version will be retained, but not used. For example, switching from v2 to v3 will hide the **community** setting and will require setting parameters for **authentication**, **privacy**, **security-mode** and **username**.

#### **Syntax**

version {v1 | v2 | v3}

### **Example**

The following command changes the SNMP version of entry "Probe Get" to v2:

```
console> autoprobe (Probe Get)> version v2
Update complete
```

## show version

Use the **show version** command to display the SNMP version for the SNMP GET probe entry.

### **Syntax**

show version

# **Example**

The following command displays the version selected for entry "Probe Get":

```
console> autoprobe (Probe Get)> show version v3
```

# backup

# backup

Use the **backup** command to back up all configuration settings and create a system-restore point. Use the **restore** command to restore configuration settings from the most recent backup.

### **Syntax**

backup

## **Example**

The following command creates a system-restore point:

```
console > backup
Creating a backup...
```

# clock

# clock ntpserver

Use the **clock ntpserver** command to specify the address of one or two Network Time Protocol (NTP) servers. This command is only available when NTP is set as the source (using the **clock source** command).

#### **Syntax**

clock ntpserver <primary-server> [<secondary-server>]

- primary-server Specifies the IPv4 address, IPv6 address or hostname of the primary NTP server.
- secondary-server Specifies the IPv4 address, IPv6 address or hostname of the secondary NTP server.

#### **Example**

The following command identifies both a primary and a secondary NTP server as the clock source:

```
console> clock ntpserver 0.pool.ntp.org 1.pool.ntp.org
Update complete
```

### clock set

Use the **clock set** command to configure the system date and time. This command is applicable only if **clock source** is set to RTC. Note that this command may terminate all sessions as the system undergoes synchronization. Use the **force** option to execute the command without confirmation. If the time format being used contains a space (for example, h:mm:ss tt), ensure that the entire time period is bookended in quotes. Example: "10:11:22 PM"

### **Syntax**

# clock set <date> <time> [force]

- date Specifies the current date, in the format selected using the default date-format or default user date-format command.
- time Specifies the current time, in the format selected using the default time-format or default user time-format command.

# **Example**

The following command sets the time and date of the system as 1/8/2020, 3:58 PM; a confirmation will appear when entered:

```
console> clock set 1/8/2020 "3:58:00 PM" Modifying system time settings may end this and other active user sessions. Type "yes" to proceed:
```

### clock source

Use the **clock source** command to select one of two options as the clock source. The available choices are **NTP** (Network Time Protocol) and **RTC** (Real Time Clock). If NTP is selected as the clock source, an NTP server address must be specified (using the **clock ntpserver** command). Note that this command may terminate all sessions as the system undergoes synchronization. Use the **force** option to execute the command without confirmation.

### **Syntax**

clock source {ntp | rtc} [force]

#### **Example**

The following command sets NTP as the clock source, without a confirmation prompt:

```
console> clock source ntp force
Update complete
```

#### show clock

Use the **show clock** command to display the current clock settings.

### **Syntax**

show clock [ntpserver | source | timezone]

#### **Example**

The following command displays all clock settings:

```
console> show clock
Primary Server : 0.pool.ntp.org
Secondary Server : 1.pool.ntp.org
```

Source : ntp

Time Zone : America/Chicago

Current UTC Date and Time : 3/30/2020 12:45:10 PM Current Local Date and Time : 3/30/2020 4:45:10 PM

# contact

### contact

Use the contact command to modify the System Contact information. The default contact name is "localadmin@poweralert".

## **Syntax**

#### contact < contact-name >

• **contact-name** – Sets the new name for the System Contact information.

## **Example**

The following command sets the System Contact information to "John Smith: (123) 555-1234":

```
console> contact "John Smith: (123) 555-1234"
Update complete
```

## show contact

Use the **show contact** command to display the current System Contact.

### **Syntax**

show contact

# **Example**

The following command displays the System Contact:

```
console> show contact
John Smith: (123) 555-1234
```

# default

### default date-format

Use the **default date-format** command to set the global date format. Note that format selections are case-sensitive and must be entered using the same capitalization as documented. Users can individually override this setting by using the **default user data-format** command.

### **Syntax**

default date-format {M/d/yyyy | M/d/yy | MM/dd/yy | MM/dd/yyyy | yy/MM/dd | yyyy-MM-dd | dd-MM-yy}

#### **Example**

The following command sets the global date format preference to "MM/dd/yyyy":

```
console> default date-format MM/dd/yyyy
Update complete
```

# default temperature-format

Use the **default temperature-format** command to set the global temperature format. Users can individually override this setting by using the **default user temperature-format** command.

# **Syntax**

default temperature-format {celsius | fahrenheit}

## **Example**

The following command sets the current user's temperature format preference to Fahrenheit:

```
console> default temperature-format fahrenheit
Update complete
```

# default time-format

Use the **default time-format** command to set the global time format. Please note the format selections are case-sensitive and must be entered using the same capitalization as documented. Users can individually override this setting by using the **default user time-format** command.

### **Syntax**

default time-format {h:mm:ss tt | hh:mm:ss tt | H:mm:ss | HH:mm:ss}

• If using either the h:mm:ss tt or hh:mm:ss tt time format, use quotes when entering the time (see Examples)

# **Example**

The following command sets the current user's time format preference to "hh:mm:ss tt":

```
console> default time-format "hh:mm:ss tt"
Update complete
```

### default timeout

Use the **default timeout** command to apply global timeout settings. Idle timeout sets the amount of time (in minutes) that a user's session can remain idle before the system terminates the session. Session timeout specifies the amount of time (in minutes) a user's session can remain active before the system requests the user to re-authenticate. Users can individually override these settings by using the **default user timeout** command.

#### **Syntax**

default timeout {idle | session} <timeout>

• **timeout** – Sets the timeout, in minutes (Range: 1-999)

### **Example**

The following command sets 30 minutes as the system-wide idle timeout:

```
console> default timeout idle 30
Update complete
```

## default timezone

Use the **default timezone** command to set the global settings for the local time zone, with respect to Universal Time Coordinated (UTC). A list of available time zones can viewed using the **show timezones** command or by referring to Appendix A of this document. Users can individually override this setting by using the **default user timezone** command.

### **Syntax**

#### default timezone < timezone >

• **timezone** – The time zone in string format.

### **Example**

The following command sets the timezone to U.S. Central Standard Time:

```
console> default timezone America/Chicago
Update complete
```

# default user date-format

Use the **default user date-format** command to set a preferred date format, applied exclusively to the user logged into the system. Note that format selections are case-sensitive and must be entered using the same capitalization as documented. Use the **no** form of this command to remove the user preference, thereby reverting to the global default date format as set by **default date-format**.

### **Syntax**

 $\label{eq:model} \mbox{default user date-format $$ $M/d/yyy \mid M/d/yy \mid MM/dd/yyyy \mid yy/MM/dd \mid yyyy-MM-dd \mid dd-MMM-yy$$ no default user date-format $$ \mbox{default user date-format}$$$ 

#### **Example**

The following command sets the current user's date format preference to "MM/dd/yyyy":

```
console> default user date-format MM/dd/yyyy
Update complete
```

#### default user reset

Use the **default user reset** command to clear all user preferences for the user logged into the system.

#### **Syntax**

default user reset

### **Example**

Examples are not applicable for this command.

# default user temperature-format

Use the **default user temperature-format** command to set a preferred temperature format, applied exclusively to the user logged into the system. Use the **no** form of this command to remove the user preference, thereby reverting to the global default temperature format as set by **default temperature-format**.

### **Syntax**

default user temperature-format {celsius | fahrenheit} no default user temperature-format

### **Example**

The following command sets the current user's temperature format preference to Fahrenheit:

```
console> default user temperature-format fahrenheit
Update complete
```

# default user time-format

Use the **default user time-format** command to set a preferred temperature format, applied exclusively to the user logged into the system. Note that format selections are case-sensitive and must be entered using the same capitalization as documented. Use the **no** form of this command to remove the user preference, thereby reverting to the global default time format as set by **default time-format**.

### **Syntax**

default user time-format {h:mm:ss tt | hh:mm:ss tt | H:mm:ss | HH:mm:ss} no default user time-format

• If using either the **h:mm:ss tt** or **hh:mm:ss tt** time format, use quotes when entering the time (see Examples).

#### **Example**

The following command sets the current user's time format preference to "hh:mm:ss tt":

```
console> default user time-format "hh:mm:ss tt"
Update complete
```

### default user timezone

Use the **default user timezone** command to set a preferred timezone, applied exclusively to the user logged into the system. A list of available time zones can be viewed using the **show timezones** command or by referring to Appendix A of this document. Use the **no** form of this command to remove the user preference, thereby reverting to the global default time format as set by **default timezone**.

### **Syntax**

default user timezone < timezone >

#### no default user timezone

• **timezone** – Sets the time zone in string format.

#### **Example**

The following command sets the current user's timezone preference to "US/Central":

```
console> default user timezone US/Central
Update complete
```

# show default

Use the **show default** command to display default configuration settings.

### **Syntax**

show default [date-format | temperature-format | time-format | timeout [idle | session] | timezone | user [date-format | temperature-format | time-format | timezone]]

## **Examples**

The following command displays all default configuration settings:

```
console> show default
Display Date Format : MM/dd/yyyy
Display Time Format : hh:mm:ss tt
Default Temperature Format : fahrenheit
Default Timezone : America/Chicago
Global Session Timeout (Minutes) : 360
Global Idle Timeout (Minutes) : 30
```

The following command displays the user's default configuration settings:

```
console> show default user
Display Date Format : M/d/yyyy (System Default)
Display Time Format : HH:mm:ss
```

Default Temperature Format : celsius

Default Timezone : America/Chicago (System Default)

# device

### device

Use the **device** command to enter the **device** (<**device-name>**) format in which all applicable commands can be entered. Specifying a <**device-name>** is only necessary when more than one device is active, not including sensors. Use the **no** form of this command to delete an inactive device. *Active devices cannot be deleted.* To exit from the **device** (<**device-name>**) command format, use either the **end** or **exit** commands.

**Note:** for devices that support External Battery Packs (EBPs), on entering the **device** (**<device-name>**) command format, the system will automatically check for the availability of an update to the EBP configuration file. If an update is available, a message will appear stating so. Use the **battery-pack update** command to initiate the update process.

## **Syntax**

device [<device-name>]

device-name – Specifies the device entry to be managed.

no device <device-name>

• **device-name** – Specifies the inactive device entry to be deleted.

### **Examples**

The following command enters the **device (<device-name>)** command format for device "Device0076":

```
console> device Device0076
Note: a new External Battery Pack configuration file is available. Use the 'battery-pack update' command to download the new version.
Retrieving details...
console> device (Device0076)>
```

The following command deletes the inactive device named "PDU-Rack1":

```
console> no device PDU-Rack1
Deleted PDU-Rack1
```

### show device

Use the **show device** command to display a summary table of all devices or the details of a specified device.

# **Syntax**

show device [<device-name>]

• **device-name** – Specifies the device for which details are to be displayed.

#### **Example**

The following command displays a summary table of the device and peripherals connected to it:

# device: <keyword>

# <keyword>

Use keywords to assign or modify values of associated data points and attributes. Up to 6 keywords can be entered in one command, but they must be entered in the correct order. For instance, to adjust the Nominal Input Voltage, the command must be entered as "input voltage nominal" (three keywords). To view available keywords, enter [Tab][Tab] at the prompt.

# **Syntax**

<keyword-1 [keyword-2 [keyword-3 [keyword-4 [keyword-5 [keyword-6]]]]]> <value>

- **keyword** Specifies one or more attributes that comprise a data point.
- value Specifies the new value for the data point.

## **Examples**

The following command sets the device's Nominal Input Voltage to 220V:

```
console> device (Rack PDU)> input voltage nominal 220
Update complete
```

The following command sets the device's Fan Speed to High:

```
console> device (Rack PDU)> cooling fan speed high
Update complete
```

# [Tab]

The keyboard **[Tab]** key serves several functions when used in conjunction with keywords. To view available keywords, enter **[Tab]** at the prompt. Enter **[Tab]** to auto-fill partially entered attributes.

### **Example**

Pressing the [TAB] key twice at the prompt lists the keywords available for the device or sensor:

```
console> device (UPS123)> [TAB][TAB]
auto-restart end
                       load
                                  no
                                          ramp
                                                    sensor
battery
              exit
                       load-group off
                                          reboot
                                                    shed
             help
buzzer
                      location on
                                          region
                                                    show
date-installed input
                                          runtime
                       name
                                  output
                                                    threshold
```

# show < keyword >

Use the **show <keyword>** command to display details about the device. Keywords for this command can be entered in a non-specific order. For example, "show input voltage" and "show voltage input" will both display all input voltage data points (e.g. input voltage, input voltage 1, input voltage 2).

## **Syntax**

show [keyword-1 [keyword-2 [keyword-3 [keyword-4 [keyword-5 [keyword-6]]]]]]

• **keyword** – Specifies one or more words that comprise a data point's name.

## **Examples**

The following command displays the device's Nominal Input Voltage:

```
console> device (Rack UPS)> show input voltage nominal
120
```

The following command displays all metrics labeled as "nominal":

# device: apply

# apply ramp-shed

Use the **apply ramp-shed** command to make effective all changes made to ramp and shed parameters (i.e. enable and delay). Upon entering the command, a confirmation message will appear; enter "yes" to proceed. Use the **force** option to apply the changes without confirmation.

### **Syntax**

apply ramp-shed [force]

### **Example**

The following command will apply all ramp and shed parameter changes made to device "UPS123", without confirmation:

```
console> device (UPS123)> apply ramp-shed force
Update complete
```

# device: asset-tag

# asset-tag

Use the **asset-tag** command to optionally enter an asset identifier for the device. Use the **no** form of this command to clear the entry.

### **Syntax**

asset-tag <tag>

### no asset-tag

• tag – Specifies an identity for the device. If spaces are required, bookend the name in quotation marks (").

# **Example**

The following command assigns "IT123ZZ" as the asset tag for device "PDU-Rack1":

```
console> device (PDU-Rack1)> asset-tag IT123ZZ
Update complete
```

# show asset-tag

Use the **show asset-tag** command to display the identifier entered for the device.

## **Syntax**

show asset-tag

### **Example**

The following command displays the asset tag for device "PDU-Rack1":

```
console> device (PDU-Rack1)> show asset-tag IT123ZZ
```

# device: auto-restart

# auto-restart low-voltage

Use the auto-restart low-voltage command to set whether a low-voltage event will cause the device to automatically restart.

### **Syntax**

auto-restart low-voltage enable

no auto-restart low-voltage enable

### **Example**

The following command configures device "UPS-123" not to auto-restart if a low-voltage event occurs:

```
console> device (UPS-123)> no auto-restart low-voltage enable
Update complete
```

### auto-restart overload

Use the auto-restart overload command to set whether an overload event will cause the device to automatically restart.

### **Syntax**

auto-restart overload enable no auto-restart overload enable

### **Example**

The following command configures device "UPS-123" to auto-restart if an overload event occurs:

```
console> device (UPS-123)> auto-restart overload enable
Update complete
```

# auto-restart overtemp

Use the **auto-restart overtemp** command to set whether an over-temperature event will cause the device to automatically restart.

### **Syntax**

auto-restart overtemp enable no auto-restart overtemp enable

### **Example**

The following command configures device "UPS-123" to auto-restart if an overtemp event occurs:

```
console> device (UPS-123)> auto-restart overtemp enable
Update complete
```

### auto-restart shutdown

Use the auto-restart shut-down command to set whether a shutdown event will cause the device to automatically restart.

#### **Syntax**

auto-restart shutdown enable no auto-restart shutdown enable

#### **Example**

The following command configures device "UPS-123" to auto-restart if a shutdown event occurs:

```
console> device (UPS-123)> auto-restart shutdown enable
Update complete
```

# auto-restart wakeup

Use the auto-restart wakeup command to set whether a wakeup event will cause the device to automatically restart.

### **Syntax**

auto-restart wakeup enable

no auto-restart wakeup enable

## **Example**

The following command configures device "UPS-123" to auto-restart if a wakeup event occurs:

```
console> device (UPS-123)> auto-restart wakeup enable
Update complete
```

### show auto-restart

Use the **show auto-restart** command to display all or selected auto-restart settings.

### **Syntax**

show auto-restart [low-voltage | overload | overtemp | shutdown | wakeup]

### **Example**

The following command displays all auto-restart settings for device "UPS-123":

# device: avr

### avr transition count reset

Use the **avr transition count reset** command to reset the recorded number of recorded AVR transitions. On executing this command, a prompt will appear to confirm the action. Use the **force** option to execute the command without confirmation.

# **Syntax**

avr transition count reset [force]

### **Example**

The following command resets the recorded AVR transition count for device "UPS123", without confirmation:

```
console> device (UPS123)> avr transition count reset force
Update complete
```

### show avr

Use the **show avr** command to display the recorded count of AVR transitions.

### **Syntax**

show avr

### **Example**

The following command displays the recorded AVR transition count for device "UPS123":

```
console> device (UPS123)> show avr
3
```

# device: battery

# battery age threshold

Use the **battery age threshold** command to configure age-related threshold parameters of the battery. This command is valid only for devices that support battery age threshold.

## **Syntax**

battery age threshold {high-warning| high-critical} <decimal-value>

• decimal-value – Sets the time (in years) as the age threshold for the specified severity level.

### battery age threshold tolerance <tolerance>

tolerance – Sets the time (in years) that must be exceeded for the threshold event to trigger again.

#### **Examples**

The following command sets the high-warning battery age threshold as 3.25 on device "UPS123":

```
console> device (UPS123)> battery age threshold high-warning 3.25
Update complete
```

The following command sets the battery age threshold tolerance as 0.5 on device "UPS123":

```
console> device (UPS123)> battery age threshold tolerance 0.5
Update complete
```

# battery date installed

Use the **battery date installed** command to enter a date on which the internal battery was installed.

### **Syntax**

#### battery date installed <date>

• date - Specifies the date, in the format selected using the default date-format or default user date-format command.

### **Example**

The following command sets March 3, 2020 as the battery installation date for device "UPS123":

```
console> device (UPS123)> battery date installed 3/3/2020
Update complete
```

# battery test period

Use the **battery test period** command to configure auto-test of the battery (if supported by the device). Note that the available period choices will vary by UPS model.

## **Syntax**

battery test period {disabled | monthly | quarterly | semi-annually}

## **Example**

The following command configures auto-test of the battery every quarter on device "UPS123":

```
console> device (UPS123)> battery test period quarterly
Update complete
```

# battery test start

Use the **battery test start** command to perform an on-demand battery test (if supported by the device). On executing this command, a prompt will appear to confirm the action. Use the **force** option to execute the command without confirmation.

### **Syntax**

battery test start [force]

### **Example**

The following command initiates a battery test on device "UPS123":

```
console> device (UPS123)> battery test start
Are you sure? Type "yes" to proceed: yes
Execution complete
```

# battery threshold capacity tolerance

Use the **battery threshold capacity tolerance** command to set the margin which must be exceeded in order to re-trigger a threshold event.

#### **Syntax**

battery threshold capacity tolerance <integer-value>

• **integer-value** - Specifies the tolerance value, as a percentage.

#### **Example**

The following command sets the battery threshold capacity tolerance at 5% for device "UPS123":

```
console> device (UPS123)> battery threshold capacity tolerance 5
Update complete
```

# battery transition count reset

Use the **battery transition count reset** command to clear the stored value identifying the number of times the device transitioned from utility power to battery. Use the **force** option to execute the command without confirmation.

### **Syntax**

battery transition count reset [force]

### **Example**

The following command clears the stored battery transition count on device "UPS123", with no confirmation:

```
console> device (UPS123)> battery transition count reset force
Execution complete
```

# show battery

Use the **show** command, with optional keywords, to display details about the battery. To view all keywords applicable to the battery, enter **show battery** [**Tab**][**Tab**].

### **Syntax**

show battery [Tab][Tab]

### **Examples**

The following command displays all battery-related **show** keywords for device "UPS123":

```
console> device (UPS123)> show battery [Tab][Tab]
           fully
                   rating transition
age
capacity
          high-critical replacement voltage
          high-warning state
charge
charged
          installed
                         status
condition
          low
                         temperature
           low-critical
count
                        test
           low-warning
                        threshold
date
discharged
            period
                          tolerance
```

The following command displays all details about the battery associated with device "UPS123":

<pre>console&gt; device (UPS123)&gt;</pre>	show batte	ery
NAME	TYPE	VALUE
Battery Temperature (C)	Battery	35.0
Battery Temperature (F)	Battery	95.0
Battery Age (Years)	Battery	0.0
Thresholds and Bounds		
High Warning		3.25
High Critical		4.00
Battery Test	Device	Done and Passed
Battery Test Date		3/31/2020
Auto-Test Period		14 Days
Initiate Battery Test		
Battery Voltage (V)	Battery	27.3

# device: buzzer

# buzzer setting

Use the **buzzer setting** command to adjust how the device's audible alert will behave when triggered. The available choices are "audible buzzer" (**alarm\_normally**) and "muted" (**stay\_silent**). This command applies only to devices that support audible alerts, and only if enabled via the **buzzer status** command.

## **Syntax**

buzzer setting {alarm-normally | stay-silent}

## **Example**

The following command configures the buzzer on device "UPS-123" to be muted when triggered:

```
console> device (UPS-123)> buzzer setting stay-silent
Update complete
```

### **buzzer status**

Use the **buzzer status** command to enable or disable the ability to selectively adjust the device's audible alert. This command applies only to devices that support audible alerts.

# **Syntax**

buzzer status enable

no buzzer status enable

# **Example**

The following command configures the audible alarm on device "UPS-123" to be selectively adjusted:

```
console> device (UPS-123)> buzzer status enabled
Update complete
```

# show buzzer

Use the **show buzzer** command to display all buzzer settings.

#### **Syntax**

show buzzer [setting | status]

### **Example**

The following command displays the buzzer settings for device "UPS-123":

# device: bypass

# bypass voltage

Use the **bypass voltage** command to set the lowest and highest acceptable input voltage for bypass operation. Expressed as a percentage, the high limit is a positive integer and the low limit is a negative integer.

## **Syntax**

bypass voltage {high-limit | low-limit} <integer-value>

• integer-value - Sets the value for the specified limit.

## **Example**

The following command sets the lower bypass voltage limit to -14 for device "UPS-123":

```
console> device (UPS-123)> bypass voltage low-limit -14
Update complete
```

# show bypass

Use the **show bypass** command to display all bypass values.

### **Syntax**

show bypass [voltage | limit | line | count]

### **Example**

The following command displays all bypass values for device "UPS-123":

# device: circuit

## circuit

Use the **circuit** command to reset the circuit peak power or circuit watt-hour calculations. Upon entering the command, a confirmation message will appear; enter 'yes' to proceed with the reset. Use the **force** option to execute the reset without a confirmation.

#### **Syntax**

circuit { peak-power | watt-hours } reset [force]

### **Example**

The following command resets the circuit watt-hours calculation, without confirmation, for device "PDU123":

```
console> device (PDU123)> circuit watt-hours reset force
Execution complete
```

# device: cold-start

## cold-start enable

Use the **cold-start enable** command to activate the cold start function. Use the **no** form of this command to disable cold-start.

### **Syntax**

cold-start enable

no cold-start enable

### **Example**

The following command activates cold start for device "UPS123":

```
console> device (UPS123)> cold-start enable
Update complete
```

# show cold-start

Use the **show cold-start** command to display the status of the cold start function.

# **Syntax**

show cold-start

### **Example**

The following command displays the cold start status for device "UPS123":

# device: date-installed

# date-installed

Use the date-installed command to modify the date that the device was installed. The default value is the current date.

#### **Syntax**

date-installed <date>

#### no date-installed

date – Specifies the date of the installation in the format selected using the default date-format or default user date-format command.

### **Example**

The following command sets October 16, 2020 as the installation date for device "PDU-Rack1":

```
console> device (PDU-Rack1)> date-installed 10/16/2020
Update complete
```

# show date-installed

Use the **show date-installed** command to display the entered installation date.

### **Syntax**

show date-installed

### **Example**

The following command displays the installation date entered for device "PDU-Rack1":

```
console> device (PDU-Rack1)> show date-installed 10/16/2020
```

# device: db9

# db9 input

Use the **db9 input** command to set the input action when pins 3 and 9 of the DB9 port are shorted.

# **Syntax**

db9 input 3-9 {shutdown\_(default) | output\_off | reboot | output\_on | power\_toggle}

# **Example**

The following command sets Output Off as the DB9 port input action for device "UPS123":

```
console> device (UPS123)> db9 input 3-9 output_off
Update complete
```

# db9 output

Use the **db9 output** command to set the condition signaled by the UPS when pins 1 and 5 or pins 8 and 5 of the DB9 port are shorted.

### **Syntax**

```
db9 output 1-5 {on_battery_(default) | on_bypass | output_on | low_battery} db9 output 8-5 {on_battery | on_bypass | output_on | low_battery_(default)}
```

### **Example**

The following command sets Output On as the condition signalled by device "UPS123" when pins 8 and 5 of the DB9 port are shorted:

```
console> device (UPS123)> db9 output 8-5 output_on
Update complete
```

## show db9

Use the **show db9** command to display the DB9 port settings.

### **Syntax**

show db9 [input | output]

## **Example**

The following command displays all DB9 port settings for device "UPS123":

# device: dehumidifying

# dehumidifying

Use the dehumidifying command to set the dehumidifying mode of the cooling device.

# **Syntax**

dehumidifying mode {on | off}

### **Example**

The following command sets the dehumidifying mode to off for device "SRCOOL123":

```
console> device (SRCOOL123)> dehumidifying mode off
Update complete
```

# show dehumidifying

Use the show dehumidifying command to display the dehumidifying mode of the cooling device.

### **Syntax**

show dehumidifying

### **Example**

The following command displays the dehumidifying mode of device "SRCOOL123":

# device: details

# details

Use the **details** command to display a comprehensive list of the device's metrics.

## **Syntax**

### show details [<device-name>]

device-name – Specifies the device for which detailed metrics are to be displayed. This option is not required if no other devices are connected.

## **Example**

The following command displays detailed metrics for device "PDU-Rack1":

console> device (PDU-Rack1)	) > show de	tails
NAME	TYPE	VALUE
Input Voltage (V)	Input	120.9
Recorded High/Low		
Minimum (V)		118.5
Maximum (V)		121.6
Nominal Input Voltage (V)	Input	120
High Critical		138
High Warning		132
Low Critical		102
Low Warning		108

# device: energy

# energy saving setting

Use the energy saving setting command to set the output load percentage trigger for automatic shutdown.

### **Syntax**

### energy saving setting <integer-value>

• integer-value - Sets the output load percentage that will trigger an automatic shutdown.

# **Example**

The following command sets the energy saving setting at 15% for device "UPS123":

```
console> device (UPS123)> energy saving setting 15
Update complete
```

# show energy saving setting

Use the **show energy saving setting** command to display the Energy Savings setting for the device.

## **Syntax**

show energy saving setting

## **Example**

The following command displays the Energy Saving setting for device "UPS123":

# device: fan speed

# fan speed setting

Use the fan speed setting command to set the fan speed for a cooling device.

### **Syntax**

fan speed setting {low | medium | high | auto}

### **Example**

The following command sets the fan speed to automatic for device "SRCOOL123":

```
console> device (SRCOOL123)> fan speed setting auto
Update complete
```

# show fan speed setting

Use the show fan speed setting command to display the fan speed setting for the cooling device.

## **Syntax**

show fan speed setting

#### **Example**

The following command displays the fan speed for device "SRCOOL123":

```
console> device (SRCOOL123)> show fan speed setting
NAME TYPE VALUE
------
Fan Speed Cooling Auto
..Automatic Fan Speed Off
..Fan Always On No
..Fan Speed Auto
```

# device: fault

# fault action

Use the **fault action** command to set the behavior of the UPS when a fault condition occurs. The bypass option maintains AC output (so long as input voltage is within bypass high/low limits). The standby option causes the UPS to turn off AC output in response to fault conditions.

# **Syntax**

fault action {go to bypass | go to standby}

## **Example**

The following command configures device "UPS123" to maintain AC output if a fault condition occurs:

```
console> device (UPS123)> fault action go_to_bypass
Update complete
```

# show fault action

Use the show fault action command to display the setting of how the device will behave when a fault condition occurs.

## **Syntax**

show fault action

## **Example**

The following command displays the Fault Action setting for device "UPS123":

# device: id

## id

Use the id command to optionally set a numeric identifier for the device. Use the no form of this command to clear the entry.

### **Syntax**

id <id>

• id – Specifies a numerical identifier for the device (Range: 0-65535).

### **Example**

The following command sets "98765" as the numerical identifier for device "PDU-Rack1":

```
console> device (PDU-Rack1)> id 98765
Update complete
```

### show id

Use the **show id** command to display the identifier entered for the device.

### **Syntax**

show id

### **Example**

The following command displays the numerical identifier for device "PDU-Rack1":

```
console> device (PDU-Rack1)> show id
98765
```

# device: input

# input

Use the **input** command to configure the device's input settings. Input parameters vary by device type and model; use keywords to identify applicable input parameters. Use the **force** option to execute the **input voltage reset** command without confirmation.

## **Syntax**

input voltage reset [force]

input voltage {I1-I2 | I2-I3 | I3-I1} reset [force]

input voltage threshold {low-critical | low-warning | high-warning | high-critical} <decimal-value>

input voltage {I1-I2 | I2-I3 | I3-I1} threshold {low-critical | low-warning | high-warning | high-critical} < decimal-value>

input voltage threshold {high-transfer | low-transfer} <decimal-value>

input {high-warning | low-warning} threshold voltage <decimal-value>

input voltage threshold tolerance <decimal-value>

• **decimal-value** – Specifies the numerical value for the threshold or tolerance.

## **Examples**

The following command resets the recorded minimum and maximum voltage levels, on device "PDU-Rack1", without confirmation:

```
console> device (PDU-Rack1)> input voltage reset force
Execution complete
```

The following command sets 102 as the Low Critical input voltage threshold on device "PDU-Rack1":

```
console> device (PDU-Rack1)> input voltage threshold low-critical 102
Update complete
```

# show input

Use the **show input** command to display the device's input metrics.

## **Syntax**

show input [frequency | nominal | voltage]

# **Example**

The following command displays all input information for device "PDU-Rack1":

console> device (PDU-Rack1)	> show inp	out VALUE
Input Voltage (V)Recorded High/Low	Input	120.9
Minimum (V)Maximum (V)		118.5 121.6
Nominal Input Voltage (V) High Critical	Input	120 138
High Warning		132
Low Critical Low Warning		102 108
LOW Wallillig		T 0 0

# device: isobreaker

# isobreaker setting enable

Use the **isobreaker setting enable** command to activate the IsoBreaker function. The IsoBreaker feature uses software to eliminate the cause of an overcurrent before the circuit break trips. Use the **no** form of this command to disable IsoBreaker.

#### **Syntax**

isobreaker setting enable no isobreaker setting enable

### **Example**

The following command activates IsoBreaker for device "PDU123:

```
console> device (PDU123)> isobreaker setting enable
Update complete
```

### show isobreaker

Use the **show isobreaker** command to display the status of the IsoBreaker function.

### **Syntax**

show isobreaker

## **Example**

The following command displays the IsoBreaker status for device "PDU123":

# device: last-reason

### last-reason

Use the **last-reason** command to reset the recorded reason for the specified event. Upon entering the command, a prompt will appear to confirm the action. Use the **force** option to execute the command without confirmation.

## **Syntax**

last-reason {ac-failure | shutdown} reset [force]

#### **Example**

The following command resets the last recorded AC failure reason, for device "UPS123", with no confirmation:

```
console> device (UPS123)> last-reason ac-failure reset force
Execution complete
```

# device: load

## load

Use the **load** command to enter the **load** (**<load-num>**) format in which all load-related commands can be entered. To exit from the **load** (**<load-num>**) command format, use either the **end** or **exit** commands.

### **Syntax**

load <load-num>

• load-num – Specifies the number of the load.

# **Example**

The following command enters the container for load #3 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load 3
console> device (PDU-Rack1)> load (3)>
```

## show load

Use the **show load** command to display a summary table of all loads on the device or the details of a specified load. Use the **show load columns** command to display the names of all available data variable columns or to specify which of those columns are to be displayed in the summary.

# **Syntax**

show load [<load-num>]

show load [columns [<column-1>[,<column-2>...<column-N>]]]

- load-num Specifies the load for which details are to be displayed.
- column-x Specifies which data variables are to be displayed in the summary table.

### **Example**

The following command displays a summary table of all loads on device "PDU-Rack1".

conso	le> device	(PDU-Rack1)>	show lo	ad	
#	NAME	GROUP	STATE	DESCRIPTION	CONTROLLABLE
1	srv ps 1	Group 1	on	vm server power supply 1	yes
2	srv ps 2	Group 1	on	vm server power supply 2	yes
3	rtr1 ps	Group 2	on	router 1 power supply	yes
4	rtr2 ps	Group 2	off	router 2 power supply	yes

# device: load: cycle

# cycle

Use the **cycle** command to turn off a specified load, and then turn it on. This command applies only to devices that support controllable loads. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the cycle without confirmation.

# **Syntax**

cycle [force]

### **Example**

The following command cycles load #2 on device "PDU-Rack1", with no confirmation:

```
console> device (PDU-Rack1)> load (2)> cycle force
Cycling
```

# device: load: description

# description

Use the **description** command to optionally enter a description for the specified load. Use the **no** form of this command to clear the description.

### **Syntax**

description < description>

### no description

• description - Specifies a description for the load. If spaces are required, bookend the description with quotation marks (").

# **Example**

The following command sets "vm server 1" as the description for load #2 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> description "vm server 1"
Update complete
```

# show description

Use the **show description** command to display the description entered for the load.

## **Syntax**

show name

### **Example**

The following command displays the description for load #2 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> show description vm server 1
```

# device: load: name

#### name

Use the **name** command to set or modify the name of the load.

### **Syntax**

### name <new-name>

• new-name - Specifies the name of the load.

### **Example**

The following command changes the name of load 1 on device "PDU-Rack1" to "Rack DXS Switch":

```
console> device (PDU-Rack1)> load (1)> name "Rack DXS Switch"
Update complete
```

### show name

Use the **show name** command to display the name entered for the load.

### **Syntax**

show name

## **Example**

The following command displays the name of the specified load on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (1)> show name
Rack DXS Switch
```

# device: load: off

# off

Use the **off** command to turn a specified load off. This command applies only to devices that support controllable loads. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the action without confirmation.

# **Syntax**

off [force]

### **Example**

The following command turns off load #2 on device "PDU-Rack1", with no confirmation.

```
console> device (PDU-Rack1)> load (2)> off force
Turning off
```

# device: load: on

#### on

Use the **on** command to turn a specified load on. This command applies only to devices that support controllable loads. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the action without confirmation.

# **Syntax**

on [force]

#### **Example**

The following command turns on load 2 on device "PDU-Rack1", with no confirmation:

```
console> device (PDU-Rack1)> load (2)> on force Turning on
```

# device: load: ramp

# ramp delay

Use the **ramp delay** command to set the time that the specified load must wait before it turns on. This command requires the load to be enabled for a ramp function via the **ramp enable** command. Note that on exiting the **load (<load-num>)** format, the **apply ramp-shed** command must be used for the changes to take effect.

# **Syntax**

### ramp delay <delay-time>

• delay-time - Specifies the ramp delay time, in seconds, for the specified load.

## **Example**

The following command sets the ramp delay time for load #2 to 30 seconds, on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> ramp delay 30
Update complete
```

# ramp enable

Use the **ramp enable** command to turn on a specified load when a ramp is initiated. This command applies to devices that support controllable loads. Use the **no** form of this command to have a load remain in its present state during a ramp. Note that on exiting the **load** (**cload-num>**) format, the **apply ramp-shed** command must be used for the changes to take effect.

## **Syntax**

ramp enable

no ramp enable

### **Example**

The following command enables the ramp function for load #2 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> ramp enable
Update complete
```

# show ramp

Use the **show ramp** command to display the ramp details for the load.

#### **Syntax**

show ramp [delay | status]

### **Example**

The following command displays the ramp details for load #2 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> show ramp
Ramp Delay : 30
Ramp Status : enabled
```

# device: load: shed

# shed delay

Use the **shed delay** command to set the time that the specified load must wait before it turns off. This command requires the load to be enabled for a shed function; see the **shed enable** command. Note that on exiting the **load** (**<load-num>**) format, the **apply ramp-shed** command must be used for the changes to take effect.

# **Syntax**

shed delay <delay-time>

• **delay-time** – Specifies the shed delay time, in seconds, for the specified load.

## **Example**

The following command sets the shed delay time for load #2 to 30 seconds, on device "PDU-Rack1".

```
console> device (PDU-Rack1)> load (2)> shed delay 30
Update complete
```

## shed enable

Use the **shed enable** command to turn off a load when a shed is initiated. This command applies to devices that support controllable loads. Use the **no** form of this command to have a load remain in its present state during a shed. Note that on exiting the **load (<load-num>)** format, the **apply ramp-shed** command must be used for the changes to take effect.

# **Syntax**

shed enable

no shed enable

### **Example**

The following command enables the shed function for load #2 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> shed enable Update complete
```

#### show shed

Use the **show shed** command to display the shed details for the load.

#### **Syntax**

show shed [delay | status]

## **Example**

The following command displays the shed details for load #2 on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load (2)> show shed
Shed Delay : 15
Shed Status : enabled
```

# device: load: show

### show

Use the **show** command, with optional keywords, to display details about the load. Note that supported settings and details will vary by device type and model. To view all keywords applicable to the load, enter **show** [Tab][Tab].

## **Syntax**

### show [keyword-1 [keyword-2 [keyword-3 [keyword-4 [keyword-5 [keyword-6]]]]]]

• **keyword-x** – Specifies the attribute(s) to be displayed. Up to 6 keywords can be used per command.

# **Examples**

The following command displays all **show** keywords for Load #2 on device "PDU-Rack1":

The following command displays all details for Load #2 on device "PDU-Rack1":

```
: 2
          : Load #2
Name
Group
State
          : Group A
          : on
Description : Server supply A
Controllable : yes
Ramp : enabled
Delay
          : 30
Shed
          : enabled
Delay
          : 30
Current : 2.0A
          : 240W
Circuit
          : 1
Phase
Bank
          : 1
```

console> device (PDU-Rack1)> load (2)> show

# device: load-group

# load-group

Use the **load-group** command to create and manage a load group entry. Use the **no** form of this command to delete the entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **load-group** (**<name>**) when configuring the entry's status and settings. To exit from the **load-group** (**<name>**) command format, use either the **end** or **exit** commands.

## **Syntax**

### load-group < name >

• name - Specifies the load group to be created or managed. If spaces are required, bookend the name with quotation marks (").

### no load-group <name>

• name - Specifies the load group to be deleted.

## **Examples**

The following command creates a load group named "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load-group "Load Group 1"
Created Load Group 1
console> device (PDU-Rack1)> load-group (Load Group 1)>
```

The following command deletes the load group named "LG3" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> no load-group LG3
Deleted LG3
```

# device: load-group: cycle

# cycle

Use the **cycle** command to turn a specified load group off and then on. This command applies only to devices that support controllable loads. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the action without confirmation.

# **Syntax**

cycle [force]

### **Example**

The following command cycles all loads assigned to "Load Group 1" on device "PDU-Rack1", with no confirmation:

```
console> device (PDU-Rack1)> load-group (Load Group 1)> cycle force
Cycling
```

# device: load-group: description

# description

Use the **description** command to optionally enter a description for the load group entry. Use the **no** form of this command to clear the description.

### **Syntax**

description < description>

### no description

description – Specifies a description for the entry. If spaces are required, bookend the description with quotation marks (").

# **Example**

The following command enters "NMS server power supplies" as the description for entry "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1) load group (Load Group 1)> description "NMS server power
supplies"
Update complete
```

# show description

Use the **show description** command to display the description entered for the load group entry.

#### **Syntax**

show description

### **Example**

The following command displays the description entered for "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1) load group (Load Group 1)> show description NMS server power supplies
```

# device: load-group: enable

### enable

Use the **enable** command to activate the load group. Use the **no** form of this command to disable the entry. A disabled load group cannot be selected when configuring actions.

#### **Syntax**

enable

no enable

### **Example**

The following command enables load group entry "GROUP1", associated with device "PDU123":

```
console> device (PDU123)> load-group (GROUP1)> enable
Update complete
```

### show enable

Use the **show enable** command to display the enabled/disabled status for the load group.

### **Syntax**

show enable

# **Example**

The following command displays the status of load group entry "GROUP1", associated with device "PDU123":

```
console> device (PDU123)> load-group (GROUP1)> show enable
enabled
```

# device: load-group: loads

### loads

Use the **loads** command to assign loads to the load group entry. Loads can be assigned as a series of numbers (i.e. "3,4,5,6"), as a range of numbers (i.e. "3-6"), or in combination (i.e. "3,5-8,10,12-15"). Note that the list of loads is additive. Use the **no** form of this command to remove loads from the list.

# **Syntax**

loads <load-1>[,<load-2>...<load-N>]

load-x – Specifies a comma-delimited list of loads to be added to the load group.

```
no loads <load-1>[,<load-2>...<load-N>]
```

load-x – Specifies a comma-delimited list of loads to be removed from the load group.

#### **Examples**

The following command assigns loads 2 through 5 and 16 through 20 to entry "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load group (Load Group 1)> loads 2-5,16-20 Update complete
```

The following command removes loads 6 and 7 from load group "Servers" on device "PDUxyz":

```
console> device (PDUxyz)> load group (Servers)> no loads 6,7
Update complete
```

# show loads

Use the show loads command to display the load numbers associated with the load group entry.

### **Syntax**

show loads

#### **Example**

The following command displays the loads associated with entry "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load group (Load Group 1)> show loads
2,3,4,5,16,17,18,19,20
```

# device: load-group: name

#### name

Use the **name** command to modify the name of the load group entry.

## **Syntax**

#### name < new-name >

• new-name - Specifies a new name for the entry. If spaces are required, bookend the name with quotation marks (").

# **Example**

The following command changes the entry's name from "Load Group 1" to "LG1" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load-group (Load Group 1)> name LG1
Update complete
console> device (PDU-Rack1)> load-group (LG1)>
```

## show name

Use the **show name** command to display the name entered for the load group entry.

## **Syntax**

show name

#### **Example**

The following command displays the load group's name:

```
console> device (PDU-Rack1)> load-group (LG1)> show name LG1 \,
```

# device: load-group: off

## off

Use the **off** command to turn off all of the loads associated with the load group entry. This command applies only to devices that support controllable loads. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the action without confirmation.

#### **Syntax**

off [force]

#### **Example**

The following command turns off all loads assigned to "Load Group 1" on device "PDU-Rack1", with no confirmation:

```
console> device (PDU-Rack1)> load-group (Load Group 1)> off force
Turning off
```

# device: load-group: on

#### on

Use the **on** command to turn on all of the loads associated with the load group entry. This command applies only to devices that support controllable loads. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the action without confirmation.

## **Syntax**

on [force]

#### **Example**

The following command turns on all loads assigned to "Load Group 1" on device "PDU-Rack1", with no confirmation:

```
console> device (PDU-Rack1)> load-group (Load Group 1)> on force
Turning on
```

# device: load-group: show

#### show

Use the **show** command, with optional keywords, to display details about the load group. To view all keywords applicable to the load group, enter **show** [Tab][Tab].

### **Syntax**

show [keyword-1 [keyword-2 [keyword-3 [keyword-4 [keyword-5 [keyword-6]]]]]]

• **keyword-x** – Specifies the attribute(s) to be displayed. Up to 6 keywords can be used per command.

### **Examples**

The following command displays all **show** keywords for entry "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load-group (Load Group 1)> show [Tab][Tab]
description help loads name state status
```

The following command displays the settings for entry "Load Group 1" on device "PDU-Rack1":

```
console> device (PDU-Rack1)> load-group (Load Group 1)> show
```

Name : Load Group 1
Description : vm server 1

Loads : 2,3,4,5,16,17,18,19.20

Status : enabled State : mixed

# device: location

# location

Use the **location** command to optionally enter information related to the physical location of the device. Use the **no** form of this command to clear the location.

#### **Syntax**

location < location >

#### no location

• **location** – Specifies physical location information pertaining to the device. If spaces are required, bookend the information with quotation marks (").

#### **Example**

The following command sets "Building 3 Room 11-W" as the location information for device "PDU-Rack1":

```
console> device (PDU-Rack1)> location "Building 3 Room 11-W"
Update complete
```

## show location

Use the **show location** command to display the location entered for the device.

#### **Syntax**

show location

#### **Example**

The following command displays the location information entered for device "PDU-Rack1":

```
console> device (PDU-Rack1)> show location
Building 3 Room 11-W
```

# device: mute

### mute buzzer

Use the **mute buzzer** command to turn off the device's buzzer for the current alert condition. When the condition clears, the buzzer will revert to its previous status. For example, if the buzzer is enabled and set to "Alarm Normally", it will once again sound if an alert condition occurs. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the mute without confirmation.

#### **Syntax**

mute buzzer [force]

#### **Example**

The following command mutes the buzzer on device "UPS-123", without confirmation prompt:

```
console> device (UPS-123)> mute buzzer force
Execution complete
```

## show mute

Use the **show mute** command to display the status of the buzzer.

#### **Syntax**

show mute

## **Example**

The following command displays the buzzer's mute status for device "UPS-123":

# device: name

#### name

Use the **name** command to modify the name of the device.

## **Syntax**

#### name < new-name >

• new-name – Specifies the new name of the device. Note: the device name cannot contain spaces.

## **Example**

The following command changes the device's name from "PDU-Rack1" to "PDU-R2":

```
console> device (PDU-Rack1)> name "PDU-R2"
Update complete
console> device (PDU-R2)>
```

#### show name

Use the **show name** command to display the name entered for the device.

#### **Syntax**

show name

### **Example**

The following command displays the device's name:

```
console> device (PDU-R2)> show name
PDU-R2
```

# device: off

### off

Use the **off** command to turn off (shut down) the device. Upon entering the command, a prompt will appear to confirm the action. Use the **force** option to execute the shutdown without confirmation. The unit of measure for delay time is typically seconds, but will vary by device model. Note that some devices do not support a shutdown-delay time. For such devices, use the command syntax without the shutdown-delay variable; the shutdown action will execute immediately on command entry.

## **Syntax**

off [force]

off <shutdown-delay> [force]

• shutdown-delay - Specifies the time that the device will wait before executing the shutdown.

# **Example**

The following command executes an immediate (no delay) shutdown of device "PDU-Rack1", with no confirmation:

```
console> device (PDU-Rack1)> off 0 force
Device shutdown in process
```

# device: off-mode

# off-mode

Use the **off-mode** command to set the operational state of the UPS when it is turned off. When set to "bypass," the UPS will provide unregulated line power within configured bypass low / high limits.

## **Syntax**

off-mode {standby | bypass}

### **Example**

The following command sets the Off Mode state to bypass for device "UPS123":

```
console> device (UPS123)> off-mode bypass
Update complete
```

#### show off-mode

Use the **show off-mode** command to display the Off Mode setting.

### **Syntax**

show off-mode

#### **Example**

The following command displays the Off Mode setting for device "UPS123":

# device: on

#### on

Use the **on** command to turn on the device. Upon entering the command, a prompt will appear to confirm the action. Use the **force** option to execute the startup without confirmation. The unit of measure for delay time is typically seconds, but will vary by device model. Note that some devices do not support a startup-delay time. For such devices, use the command syntax without the startup-delay variable; the startup action will execute immediately on command entry.

#### **Syntax**

on [force]

on <startup-delay> [force]

• **startup-delay** – Specifies the time the device will wait before executing the start-up.

## **Example**

The following command turns on device "PDU-Rack1" two seconds after execution, with no confirmation:

```
console> device (PDU-Rack1)> on 2 force
Device startup in process
```

# device: on-battery

# on-battery shutdown-seconds

Use the **on-battery shutdown-seconds** command to set the maximum amount of battery runtime in seconds the UPS will provide during a power failure.

### **Syntax**

on-battery shutdown-seconds <integer-value>

• integer-value - Sets the battery runtime the UPS will provide during a power failure.

## **Example**

The following command sets the timed shutdown at 60 seconds for device "UPS123":

```
console> device (UPS123)> on-battery shutdown-seconds 60
Update complete
```

# on-battery shutdown-status enable

Use the **on-battery shutdown-status enable** command to activate timed shutdown in the event of a power failure. Use the **no** form of this command to disable the timed shutdown.

## **Syntax**

on-battery shutdown-state enable no on-battery shutdown-state enable

## **Example**

The following command activates the timed shutdown for device "UPS123":

```
console> device (UPS123)> on-battery shutdown-status enable
Update complete
```

# show on-battery

Use the **show on-battery** command to display the timed shutdown state and value.

## **Syntax**

show on-battery [shutdown-seconds | shutdown-status]

## **Example**

The following command displays the timed shutdown settings for device "UPS123":

# device: output

# output

Use the **output** command to display the device's output metrics and to configure output threshold settings. Output parameters vary by device; use keywords to identify applicable output parameters. When the **reset** command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the reset without confirmation.

### **Syntax**

```
output current reset [force]
```

output current {phase-1 | phase-2 | phase-3} reset [force]

```
output voltage rating {100 | 110 | 115 | 120 | 127 | 200 | 208 | 220 | 230 | 240}
```

output voltage threshold {low-critical | low-warning | high-warning | high-critical} <decimal-value>

output current threshold {low-warning | high-warning | high critical} <decimal-value>

output current {phase-1 | phase-2 | phase-3} threshold {low-warning | high-warning | high critical} <decimal-value>

output load threshold high-critical <decimal-value>

output voltage threshold tolerance <decimal-value>

output utilization threshold tolerance <integer-value>

output utilization threshold high-critical <decimal-value>

- integer-value Specifies the numerical value for the output utilization threshold tolerance.
- decimal-value Specifies the numerical value for the specified threshold or tolerance.

#### **Examples**

The following command resets the recorded minimum and maximum current levels, on device "PDU-Rack1", without confirmation:

```
console> device (PDU-Rack1)> output current reset force
Execution complete
```

The following command sets 102 as the Low Critical output voltage threshold on device "PDU-Rack1":

```
console> device (PDU-Rack1)> output voltage threshold low-critical 102
Update complete
```

# show output

Use the **show output** command, with optional keywords, to display the device's output metrics. To view all keywords applicable to the entry, enter **show output** [**Tab**].

# **Syntax**

show output [keyword]

# **Examples**

The following command displays all **show output** keywords for device "PDU-Rack1":

console> devic	e (PDU-Rack1)>	show output	[Tab] [Tab]
count	kv	minimum	total
current	kw	power	utilization
energy	line	precision	voltage
frequency	low-critical	rating	
high-critical	low-warning	threshold	
high-warning	maximum	tolerance	

The following command displays all input information for device "PDU-Rack1":

console> device (PDU-Rack1)> NAME	show inpu	VALUE
Nominal Output Voltage (V)	Output	120
Output Current (A)Recorded High/Low	Output	3.2
Maximum (A)		118.5
Minimum (A)		121.6
Precision		Tenths (0.1A)
Output Frequency (Hz)	Output	59.7
Output Load (%)	Output	12
Output Power (W)	Output	384
Output Voltage (V)	Output	120
Voltage High Critical		138
Voltage High Warning		132
Voltage Low Critical		102
Voltage Low Warning		108
Current High Critical		25
Current High Warning		20
Current Low Critical		0.5
Current Low Warning		1.5

# device: power

# power on-delay

Use the **power on-delay** command to set the time the device will wait to turn on after an auto-restart is triggered.

#### **Syntax**

power on-delay <integer-value>

• integer-value – Specifies the delay value, in seconds.

# **Example**

The following command sets the auto-restart power-on delay at 15 seconds for device "PDU-Rack1":

```
console> device (PDU-Rack1)> power on-delay 15
Update complete
```

# power strategy setting

Use the power strategy setting command to set the preferred mode of operation - maximum quality or maximum efficiency.

## **Syntax**

power strategy setting {maximum\_quality | maximum\_efficiency}

## **Example**

The following command sets maximum quality as the power strategy for device "PDU-Rack1":

```
console> device (PDU-Rack1)> power strategy setting maximum_quality
Update complete
```

# show power

Use the **show power** command to display all power related settings and metrics.

#### **Syntax**

show power [on-delay | strategy setting]

### **Example**

The following command displays the power strategy setting for device "PDU-Rack1":

# device: ramp

# ramp

Use the **ramp** command to start the ramp sequence or to stop an in-progress ramp sequence. This command applies only to devices that support controllable loads. The **ramp enable** and **ramp delay** commands allow setting these parameters on a multitude of loads; these parameters can also be set on individual loads using the **load** command. After setting these parameters, use the **apply ramp-shed** command to make the changes effective.

## **Syntax**

```
ramp {start | stop}
ramp enable loads <load-1>[,<load-2>...<load-N>]
ramp delay <delay-time> loads <load-1>[,<load-2>...<load-N>]
```

## **Examples**

The following command initiates the ramp sequence on device "PDU123":

```
console> device (PDU123)> ramp start
Ramp sequence starting
```

The following command enables ramp on loads 2, 4 and 5 for device "PDU123":

```
console> device (PDU123)> ramp enable loads 2,4,5
Update complete
```

The following command sets a ramp delay time of 3 seconds for loads 1, 3 and 6 for device "PDU123":

```
console> device (PDU123)> ramp delay 3 loads 1,2,6
Update complete
```

# device: remote

# remote set-point temperature setting enable

Use the **remote set-point temperature setting** command to set the external sensor as the source for the set-point temperature. Use the **no** form of this command to revert to the internal temperature sensor as the set-point source.

#### **Syntax**

remote set-point temperature setting enable no remote set-point temperature setting enable

## **Example**

The following command sets the external sensor as the source for the set-point temperature of device "SRCOOL123":

console> device (SRCOOL123)> remote set-point temperature setting enable
Update complete

# show remote set-point temperature setting enable

Use the **remote set-point temperature setting** command to display the status of the external sensor as the source for the set-point temperature.

#### **Syntax**

show remote set-point temperature setting

#### **Example**

The following command displays the remote sensor status as the set point source for device "SRCOOL123":

console> device (SRCOOL123)> show remote set-point temperature setting
enabled

# device: region

# region

Use the **region** command to optionally enter information about the geographical location of the device. Use the **no** form of this command to clear the information.

#### **Syntax**

region < region >

#### no region

• **region** – Specifies geographical information pertaining to the device. If spaces are required, bookend the information with quotation marks (").

## **Example**

The following command sets "Chicago" as the region for device "Server 123":

```
console> device (Server 123)> region Chicago
Update complete
```

# show region

Use the **show region** command to display the region entered for the device.

#### **Syntax**

show region

#### **Example**

The following command displays the region information for device "Server 123":

```
console> device(Server 123)> show region
Chicago
```

# device: reset

# reset battery-pack

Use the **reset battery-pack** command to remove all External Battery Pack entries from the battery profile and then reconfigure using only the internal battery. This command applies only to devices that support External Battery Packs. Upon entering the command, a confirmation message will appear; enter 'yes' to proceed with the reset. Use the **force** option to execute the reset without confirmation.

#### **Syntax**

reset battery-pack [force]

#### **Example**

The following command resets device "UPS123" to using only the internal battery:

```
console> device (UPS123)> reset battery-pack
This command deletes all external batteries and re-configures using only the internal battery. Type "yes" to proceed: yes
Battery synchronization in progress...
```

# device: reset-on-lan

# reset-on-lan enable

Use the **reset-on-lan enable** command to activate the Reset-On-LAN function. Use the **no** form of this command to disable Reset-On-LAN.

### **Syntax**

reset-on-lan enable

no reset-on-lan enable

## **Example**

The following command activates Reset-On-LAN for device "UPS123":

```
console> device (UPS123)> reset-on-lan enable
Update complete
```

# show reset-on-lan

Use the **show reset-on-lan** command to display the status of the Reset-On-LAN function.

# **Syntax**

show reset-on-lan

#### **Example**

The following command displays the Reset-On-LAN status for device "UPS123":

# device: restart

#### restart

Use the **restart** command to execute a power cycle of the device, i.e. turn the device off, then on again. Upon entering the command, a prompt will appear to confirm the action. Use the **force** option to execute the startup without confirmation. The unit of measure for delay times is typically seconds, but will vary by device model. Not all device models support restart delay times.

## **Syntax**

restart <shutdown-delay> <restart-delay> [force]

- restart-delay Specifies the time that the system will wait to turn on the device after it was shut down.
- shutdown-delay Specifies the time that the system will wait to shutdown the device after the command is executed.

# **Example**

The following command waits 30 seconds before turning off device "PDU-Rack1", then turns it on after 60 seconds (with confirmation):

```
console> device (PDU-Rack1)> restart 30 60
Are you sure? Type "yes" to proceed:
```

# device: restore-hardware

## restore-hardware

Use the **restore-hardware** command to revert the device to its factory default settings. This command applies only to devices that support factory default reversion. Upon entering the command, a prompt will appear to confirm the action. Use the **force** option to execute the command without confirmation. To revert the LX Card to factory default settings, use the **restore** command.

#### **Syntax**

restore-hardware [force]

#### **Example**

The following command executes a reversion of device PDU-Rack1 to its factory default settings, with confirmation:

```
console> device (PDU-Rack1)> restore-hardware
This will immediately terminate all active user session(s) while the system restores
device PUD-Rack1 to its factory defaults. Type "yes" to proceed:
```

# device: return-air

# return-air humidity band

Use the return-air humidity band command to set the low-critical and high-critical band for humidity.

## **Syntax**

return-air humidity band {high-critical | low-critical} <decimal-value>

• **decimal-value** – Specifies the desired humidity percentage.

# **Example**

The following command sets 35.0% as the high-critical humidity band for device "SRCOOL123":

console> device (SRCOOL123)> return-air humidity band high-critical 35.0
Update complete

# return-air humidity target

Use the return-air humidity target command to set the return air humidity target band and target setting.

## **Syntax**

return-air humidity target {band | setting} <decimal-value>

• **decimal-value** – Specifies the desired humidity percentage.

### **Example**

The following command sets 10.0% as the return-air humidity target band for device "SRCOOL123":

console> device (SRCOOL123)> return-air humidity target band 10.0
Update complete

## show return-air

Use the **show return-air** command to view parameters associated with return-air.

### **Syntax**

show return-air humidity [band | target]

## **Example**

The following command displays all return-air parameters for device "SRCOOL123":

console> device (SRCOOL123)> si	how retur: TYPE	
Fault Conditions	Device	No Faults
Return Air Humidity High		No
Return Air Humidity Low		No
Hardware Features	Device	
Return Air Humidity Mode		Absolute Humidity
Return Air Humidity (%RH)	Cooling	55.3
Bands (%RH)		
High Alarm Band		35.0
Low Alarm Band		25.0
Recommended (%RH)		48
Target Band (%RH)		10.0
Target Setting (%RH)		65.0
Return Air Temperature (C)	Cooling	22.0

# device: sensor

#### sensor

Use the **sensor** command to enter the **sensor** (**sensor-name**) format in which all sensor-related commands can be entered. Specifying a **sensor-name** is only necessary when more than one sensor is active. Use the **no** form of this command to delete an inactive sensor. Active sensors cannot be deleted. To exit from the **sensor** (**sensor-name**) command format, use either the **end** or **exit** commands.

#### **Syntax**

sensor [<sensor-name>]

• **sensor-name** – Specifies the sensor to be managed.

no sensor < sensor-name >

• **sensor-name** – Specifies the inactive sensor to be deleted.

### **Examples**

The following command enters the sensor command format for sensor "E2Temp" associated with device "PDU123":

```
console> device (PDU123)> sensor E2Temp
console> device (PDU123)> sensor (E2Temp)>
```

The following command deletes the inactive sensor named "Temp 1" associated with device "PDU123":

```
console> device (PDU123)> no sensor "Temp 1"
Update complete
```

### show sensor

Use the **show sensor** command to display the settings for a specific or all sensors.

#### **Syntax**

#### show sensor [<sensor-name>]

• sensor-name – Displays details for the specified sensor.

## **Example**

The following command displays the settings for all sensors associated with device "PDU123":

console> device (PDU123)> show sensor

NAME	ACIVE	TYPE	MANUFACTURER	MODEL	SERIAL #
TopCombo	yes	EnviroSense	TRIPP LITE	E2MTDO	2631AV0AC88A3000010
Temp 1	yes	EnviroSense	TRIPP LITE	E2MTHDI	2631AV0AC886D000014
DigitalOut	yes	EnviroSense	TRIPP LITE	E2MTDO	2631AV0AC88A3000019

# device: sensor: asset-tag

# asset-tag

Use the **asset-tag** command to optionally enter an asset identifier for the sensor. Use the **no** form of this command to clear the entry.

#### **Syntax**

asset-tag <tag>

#### no asset-tag

• tag - Specifies an identity for the sensor. If spaces are required, bookend the name in quotation marks (").

## **Example**

The following command assigns "ZQ32B" as the asset tag for sensor "E2MT1" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MT1)> asset-tag ZQ32B
Update complete
```

# show asset-tag

Use the **show asset-tag** command to display the identifier entered for the device.

#### **Syntax**

show asset-tag

#### **Example**

The following command displays the asset tag for sensor "E2MT1" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MT1)> show asset-tag \mathbb{Z}Q32B
```

# device: sensor: date-installed

### date-installed

Use the date-installed command to modify the date that the device was installed. The default value is the current date.

## **Syntax**

#### date-installed <date>

date – Specifies the date of the installation in the format selected using the default date-format or default user date-format command.

# **Example**

The following command sets October 16, 2020 as the installation date for sensor "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (Temp1)> date-installed 10/16/2020
Update complete
```

#### show date-installed

Use the **show date-installed** command to display the entered installation date.

### **Syntax**

show date-installed

#### **Example**

The following command displays the installation date for sensor "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (Temp1)> show date-installed 10/16/2020
```

# device: sensor: humidity

# humidity

Use the **humidity** command to set the **low-critical** and **high-critical** threshold values and tolerance that define the operational bounds for humidity measurements. The tolerance defines the margin that a humidity measurement must exceed before triggering another threshold event; the sole setting applies to both the low-critical and high-critical thresholds.

#### Syntax

humidity threshold {low-critical | high-critical} <integer-value>

#### humidity threshold tolerance <integer-value>

• integer-value – Specifies the value for the threshold or tolerance.

#### **Examples**

The following command sets 44% as the low-critical humidity threshold for sensor "E2MTHDI", associated with device "PDU123":

```
console> device (PDU123)> sensor (E2MTHDI)> humidity threshold low-critical 44 Update complete
```

The following command sets 3% as the humidity threshold tolerance for sensor "E2MTHDI", associated with device "PDU123":

```
console> device (PDU123)> sensor (E2MTHDI)> humidity threshold tolerance 3
Update complete
```

# show humidity

Use the **show humidity** command to display a summary of humidity threshold settings.

## **Syntax**

show humidity

## **Example**

The following command displays a summary of humidity threshold settings for sensor "E2MTHDI", associated with device "PDU123":

console> device	(PDU123)>	sensor	(E2MTHDI)	> show	humidity
NAME		TYPE	VA	LUE	
Hardware Configur	ation	Device			
Humidity Suppo	rted		Y	es	
Humidity (%)		Enviror	nment 1	8	
Thresholds and	Bounds				
Low Critical			5		
High Critica	1		4	5	
Tolerance			0		

# device: sensor: id

#### id

Use the id command to optionally set a numeric identifier for the sensor. Use the no form of this command to clear the entry.

### **Syntax**

#### id <id>

• id – Specifies a numerical identifier for the sensor (Range: 0-65535).

#### **Example**

The following command sets "12345" as the numerical identifier for sensor "E2MT1" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MT1)> id 12345 Update complete
```

## show id

Use the **show id** command to display the identifier entered for the sensor.

### **Syntax**

show id

### **Example**

The following command displays the numerical identifier for sensor "E2MT1" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MT1)> show id 12345
```

# device: sensor: input

# input

Use the **input** command to configure the input contacts of an E2MTHDI sensor.

#### **Syntax**

input {contact-1 | contact-2} alarm-level {normally\_open | normally\_closed}

input {contact-1 | contact-2} description <value>

• value – Specifies a description for the input contact.

no input {contact-1 | contact-2} description <value>

• value - Clears the description for the input contact.

#### **Examples**

The following command sets "normally\_open" as the contact-1 alarm level for sensor "E2MTHDI-123" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MTHDI-123)> input contact-1 alarm-level
normally_open
Update complete
```

The following command sets "Door 12-A" as the contact-2 description for sensor "E2MTHDI-123" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MTHDI-123)> input contact-2 description "Door 12-A" Update complete
```

# show input

Use the **show input** command to display the settings for the input contacts of the sensor.

## **Syntax**

### show input

## **Example**

The following command displays the input settings for sensor "E2MTHDI-123" connected to device "PDU-Rack1":

console> device (PDU NAME	J-Rack1)> sensor TYPE	(E2MTHDI-123)> show input VALUE
Contact Input 1Alarm LevelDescription	Environment	Open Normally Open Contact Input #1
Contact Input 2Alarm LevelDescription	Environment	Open Normally Open Door 12-A

# device: sensor: location

### location

Use the **location** command to optionally enter information related to the physical location information of the sensor. By default, this information will match the location entered on the device to which the sensor is connected. Use the **no** form of this command to clear the location.

## **Syntax**

location < location >

#### no location

• **location** – Specifies location information of the sensor. If spaces are required, bookend the information with quotation marks (").

#### **Example**

The following command sets "Rack5-middle" as the location information for sensor "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (Temp1)> location Rack5-middle
Update complete
```

## show location

Use the **show location** command to display the location entered for the sensor.

### **Syntax**

show location

#### **Example**

The following command displays the location information entered for sensor "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (Temp1)> show location
Rack5-middle
```

# device: sensor: name

#### name

Use the **name** command to modify the name of the sensor. If spaces are required, bookend the name with quotation marks (").

#### Syntax 1 4 1

#### name < new-name >

• new-name – Sets the new name for the sensor.

## **Example**

The following command changes the sensor's name from "sensor0076" to "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (sensor0076)> name Temp1
Update complete
console> device (PDU123)> sensor (Temp1)>
```

#### show name

Use the **show name** command to display the name entered for the sensor.

#### **Syntax**

show name

#### **Example**

The following command displays the specified sensor's name:

```
console> device (PDU123)> sensor (Temp1)> show name
Temp1
```

# device: sensor: output

# output

Use the **output** command to configure the output contacts of an E2MTDO sensor.

## **Syntax**

output {contact-1 | contact-2} alarm-level {normally open | normally closed}

output {contact-1 | contact-2} description <value>

value – Specifies a description for the output contact.

no input {contact-1 | contact-2} description <value>

value – Clears the description for the output contact.

#### **Examples**

The following command sets "normally\_open" as the contact-1 alarm level for sensor "E2MTDO-456" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MTDO-456)> output contact-1 alarm-level
normally_open
Update complete
```

The following command sets "Beacon 12-A" as the contact-2 description for sensor "E2MTD0-456" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MTDO-456)> output contact-2 description "Beacon 12-A" Update complete
```

# output close

Use the **output close** command to close an output contact of an E2MTDO sensor. On executing this command, a confirmation message will appear; use the **force** option to close the contact without confirmation.

#### **Syntax**

output {contact-1 | contact-2} close [force]

#### **Example**

The following command closes contact-1 of sensor "E2MTDO-456" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MTDO-456)> output contact-1 close Are you sure? Type "yes" to proceed:
```

# show output

Use the **show output** command to display the settings for the output contacts of the sensor.

#### **Syntax**

show output

## **Example**

The following command displays the output settings for sensor "E2MTD0-456" connected to device "PDU-Rack1":

```
console> device (PDU-Rack1)> sensor (E2MTDO-456)> show output
NAME
                     TYPE
                                     VALUE
Contact Output 1
                      Environment
                                    Open
..Alarm Level
                                     Normally Open
..Description
                                      Contact Output #1
Contact Output 2 Environment Open
..Alarm Level
                                     Normally Open
                                      Beacon 12-A
..Description
Hardware Configuration Device
.. Contact Output Count
```

# device: sensor: region

# region

Use the **region** command to optionally enter a description of the geographical area where the sensor is located. By default, this information will match the region entered on the device to which the sensor is connected. Use the **no** form of this command to clear the information.

#### **Syntax**

region < region >

#### no region

• **region** - Specifies geographical information pertaining to the sensor. If spaces are required, bookend the information with quotation marks (").

#### **Example**

The following command sets "Chicago" as the region for sensor "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (Temp1)> region Chicago
Update complete
```

# show region

Use the **show region** command to display the region information entered for the sensor.

#### **Syntax**

show region

## **Example**

The following command displays the region information entered for sensor "Temp1", associated with device "PDU123":

```
console> device (PDU123)> sensor (Temp1)> show region
Chicago
```

# device: sensor: show

#### show

Use the **show** command, with optional keywords, to display details about the sensor. To view all keywords applicable to the sensor, enter **show** [Tab][Tab].

#### **Syntax**

show [keyword-1 [keyword-2 [keyword-3 [keyword-4 [keyword-5 [keyword-6]]]]]]

• **keyword-x** – Specifies the attribute(s) to be displayed. Up to 6 keywords can be used per command.

#### **Examples**

The following command displays all **show** keywords for sensor "TopCombo", associated with device "PDU123":

```
console> device (PDU123)> sensor (TopCombo)> show [Tab][Tab]
alarm-level description location region
asset-tag details low-critical serial-number
contact help manufacturer supported
contact-1 high-critical model temperature
contact-2 humidity name threshold
count id output tolerance
date-installed input
```

The following command displays all details for sensor "TopCombo", associated with device "PDU123":

```
console> device (PDU123)> sensor (TopCombo)> show
Name
       : TopCombo
Active
            : yes
       : EnviroSense
Type
Manufacturer : TRUPP LITE
Model : E2MTHDI
Serial # : 2631AV0AC886D00014
Install Date : 3/2/2020
Protocol : 9300
Device ID
            : 0
Asset Tag
Region
Location
```

# device: sensor: temperature

# temperature

Use the **temperature** command to set the **low-critical** and **high-critical** threshold values and tolerance that define the operational bounds for temperature measurements. The tolerance defines the margin that a temperature measurement must exceed before triggering another threshold event; the sole setting applies to both the low-critical and high-critical thresholds.

# **Syntax**

temperature threshold {low-critical | high-critical} <decimal-value>

temperature threshold tolerance <decimal-value>

• **decimal-value** – Specifies the value for the specified threshold or tolerance.

# **Examples**

The following command sets 50 degrees as the low-critical temperature threshold for sensor "E2MTHDI", associated with device "PDU123":

```
console> device (PDU123)> sensor (E2MTHDI)> temperature threshold low-critical 50
Update complete
```

The following command sets 3 degrees as the temperature threshold tolerance for sensor "E2MTHDI", associated with device "PDU123":

console> device (PDU123)> sensor (E2MTHDI)> temperature threshold tolerance 3
Update complete

# show temperature

Use the **show temperature** command to display a summary of temperature threshold settings.

### **Syntax**

### show temperature

#### **Example**

The following command displays a summary of temperature threshold settings for sensor "E2MTHDI", associated with device "PDU123":

console> device (PDU123)>	sensor (E2MTHD)	I)> show temperature
NAME	TYPE	VALUE
Hardware Configuration	Device	
Temperature Supported		Yes
Temperature (F)	Environment	76.7
Thresholds and Bounds		
Low Critical		65.0
High Critical		90.0
Tolerance		3.0

# device: set-point

# set-point

Use the **set-point** command to set the ambient temperature which the cooling device is to maintain.

## **Syntax**

### set-point temperature <decimal-value>

• **decimal value** – the value of the desired ambient temperature.

## **Example**

The following command sets the temperature set-point to 73 degrees (F) for device "SRCOOL123":

```
console> device (SRCOOL123)> set-point temperature 73
Update complete
```

# show set-point

Use the **show set-point c**ommand to display the temperature set-point of the cooling device.

#### **Syntax**

show set-point

## **Example**

The following command displays the set-point temperature (and source) for device "SRCOOL123":

# device: shed

### shed

Use the **shed** command to start the shed sequence or to stop an in-progress shed sequence on the specified device. This command applies only to devices that support controllable loads. The **shed enable** and **shed delay** commands allow setting these parameters on a multitude of loads; these parameters can also be set on individual loads using the **load** command. After setting these parameters, use the **apply ramp-shed** command to make the changes effective.

## **Syntax**

```
shed {start | stop}
shed enable loads <load-1>[,<load-2>...<load-N>]
shed delay <delay-time> loads <load-1>[,<load-2>...<load-N>]
```

## **Examples**

The following command initiates the shed sequence on device "PDU123":

```
console> device (PDU123)> shed start
Shed sequence starting
```

The following command enables shed on loads 2, 4 and 5 for device "PDU123":

```
console> device (PDU123)> shed enable loads 2,4,5
Update complete
```

The following command sets a shed delay time of 3 seconds for loads 1, 3 and 6 for device "PDU123":

```
console> device (PDU123)> shed delay 3 loads 1,2,6
Update complete
```

# device: show

#### show

Use the **show** command, with optional keywords, to display details about the device. To view all keywords applicable to the device, enter **show** [Tab][Tab].

#### **Syntax**

#### show [keyword-1 [keyword-2 [keyword-3 [keyword-4 [keyword-5 [keyword-6]]]]]]

• **keyword-x** – Specifies the attribute(s) to be displayed. Up to 6 keywords can be used per command.

## **Examples**

The following command displays all **show** keywords for device "Device0076":

```
console> device (Device0076)> show [Tab] [Tab]
age help model serial-number
asset-tag high-critical name setting
auto-restart high-warning nominal shutdown
battery id output status
battery-pack input overload temperature
battery-pack-models load overtemp test
buzzer load-group period threshold
controls location phase tolerance
count low-critical power utilization
current low-voltage precision voltage
date low-warning protocol wakeup
date-installed manufacturer region
details maximum runtime
frequency minimum sensor
```

The following command displays all properties for device "Device0076":

```
console> device (Device0076)> show
Retrieving details...
Name : Device0076
Alert Status : normal
Active : yes
Type : UPS
```

Manufacturer : TRIPP LITE
Model : SMART1000RM2U
Serial # : 2810GY0SM12345676

Install Date : 4/1/2020
Protocol : 3015
Device ID : 1
Asset Tag :

Region : Chicago Location : HQ building

# show battery-pack-models

Use the **show battery-pack-models** command to display a list of all External Battery Packs with which **battery-pack** configuration can be executed. Asterisks (\*) denote which battery packs are currently configured with the device.

## **Syntax**

show battery-pack-models [<name-pattern>]

• name-pattern – a string of characters by which the displayed list of battery models will be filtered.

## **Example**

The following command displays all External Battery Packs that can be configured for device "Device0076":

```
console> device (Device0076)> show battery-pack-models
# MODEL
--- ------
1 BP12V81
2 BP-192v12-3U
3 BP192v18-4U
*4 BP192v5RT2U
5 BP240v10RT3U
```

# device: shutdown

# shutdown completion

Use the **shutdown completion** command to set whether the UPS will complete or cancel communicating shutdown messaging to connected systems if power is restored.

### **Syntax**

shutdown completion {complete\_if\_ac\_returns | cancel\_if\_ac\_returns}

#### **Example**

The following command sets device "UPS123" to cancel shutdown messaging if power is restored:

```
console> device (UPS123)> shutdown completion cancel_if_ac_returns
Update complete
```

# show shutdown completion

Use the **show shutdown completion** command to display shutdown completion settings for the device.

#### **Syntax**

show shutdown completion

### **Example**

The following command displays the shutdown completion settings for device "UPS123":

# device: supply-air

# supply-air temperature dehumidifying limit

Use the **supply-air temperature dehumidifying limit** command to set the dehumidifying limit value. If the control temperature falls below this limit, the device will exit dehumidifying mode.

## **Syntax**

supply-air temperature dehumidifying limit <decimal-value>

• decimal value - Specifies the desired temperature in degrees Celsius.

## **Example**

The following command sets the supply temperature dehumidifying limit to 20 degrees (C) for device "SRCOOL123":

console> device (SRCOOL123)> supply-air temperature dehumidifying limit is 20.0
Update complete

# supply-air temperature band

Use the supply-air temperature band command to set the high-critical and low-critical band for supply air temperature.

#### **Syntax**

supply-air temperature band {high-critical | low-critical} <decimal-value>

• decimal value - Specifies the desired temperature in degrees Celsius.

#### **Example**

The following command sets the high-critical supply air temperature band at 25.0 degrees (C) for device "SRCOOL123":

console> device (SRCOOL123)> supply-air temperature band high-critical 25.0
Update complete

# show supply-air

Use the **show supply-air** command to display all parameters related to supply air temperature.

#### **Syntax**

show supply-air

## **Example**

The following command displays all parameters related to supply air temperature for device "SRCOOL123":

# device: temperature

# temperature mode

Use the **temperature mode** command to set which temperature is to be used as a control point: supply air or return air.

#### **Syntax**

temperature mode {supply\_air | return\_air}

#### **Example**

The following command sets return air as temperature control point for device "SRCOOL123":

```
console> device (SRCOOL123)> temperature mode return_air
Update complete
```

# show temperature

Use the **show temperature** mode command to display the selected temperature mode.

#### **Syntax**

show temperature mode

## **Example**

The following command displays the temperature mode for device "SRCOOL123":

# device: thd

# thd setting enable

Use the **thd setting enable** command to activate alarm reporting of Total Harmonic Distortion. Use the **no** form of this command to disable the function.

#### **Syntax**

thd setting enable no thd setting enable

## **Example**

The following command activates alarm reporting of Total Harmonic Distortion for device "UPS123":

```
console> device (UPS123)> thd setting enable
Update complete
```

## show thd

Use the show thd command to display the status of Total Harmonic Distortion alarm reporting.

# **Syntax**

show thd

### **Example**

The following command displays the status of Total Harmonic Distortion alarm reporting for device "UPS123":

# device: watt-hours

### watt-hours reset

Use the **watt-hours reset** command to reset the recorded watt-hours per 24-hour period. Upon entering the command, a prompt will appear to confirm the action. Use the **force** option to execute the command without confirmation.

### **Syntax**

watt-hours reset [force]

#### **Example**

The following command resets the recorded watt hour value for device "UPS123", with no confirmation:

```
console> device (UPS123)> watt-hours reset force
Execution complete
```

# device: waveform

# waveform setting enable

Use the **waveform setting enable** command to activate the Waveform Capture function. Use the **no** form of this command to disable Waveform Capture.

## **Syntax**

waveform setting enable no waveform setting enable

## **Example**

The following command activates Waveform Capture for device "UPS123":

```
console> device (UPS123)> waveform setting enable
Update complete
```

# show waveform

Use the **show waveform** command to display the status of the Waveform Capture function.

# **Syntax**

show waveform

#### **Example**

The following command displays the Waveform Capture status for device "UPS123":

# dns

### dns address

Use the **dns address** command to configure the Domain Name System IP address(es) to use for resolving domain names. Use the **no** form of this command to clear all or a specified DNS IP address. Note that changes to network parameters must be applied using the **apply network** command for the changes to take effect.

# **Syntax**

dns address <primary> [<secondary> [<tertiary>]]

dns address {secondary | tertiary} <address>

- address Specifies the secondary or tertiary DNS IP address.
- primary Specifies the primary DNS IP address.
- secondary Specifies the secondary DNS IP address.
- tertiary Specifies the tertiary DNS IP address.

no dns address [secondary | tertiary]

#### **Examples**

The following command specifies the primary DNS server IP address as 192.188.5.5 and the secondary DNS server IP address as 192.188.5.6:

```
console> dns address 192.188.5.5 192.188.5.6 NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

The following command clears the secondary DNS server IP address:

```
console> no dns address secondary
NOTE: Use the "apply network" command to complete the change. This may cause a system
reboot.
```

#### dns enable

Use the **dns enable** command to activate the use of Domain Name System IP address(es) for resolving domain names. Use the **no** form of this command to disable the use of DNS. Note that changes to network parameters must be applied using the **apply network** command for the changes to take effect.

# **Syntax**

dns enable

no dns address

### **Example**

The following command activates the use of DNS server IP address(es):

```
console> dns enable
NOTE: Use the "apply network" command to complete the change. This may cause a system
reboot.
```

### show dns

Use the **show dns** command to display the current DNS settings.

## **Syntax**

show dns [primary | secondary | tertiary | status]

## **Example**

The following command displays all DNS settings:

console> show dns
Primary DNS : 192.188.5.5
Secondary DNS : 192.188.5.6
Tertiary DNS : 192.188.5.7
Manual DNS : disabled

# email

## email

Use the **email** command to create and manage email notification recipients. Use the **no** form of the command to delete recipients. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **email** (**<name>**) when configuring the entry's status and settings. To exit from the **email** (**<name>**) command format, use either the **end** or **exit** commands. To create SMS notification recipients, use the **sms** command; to create SNMP notification recipients, use the **snmp-server** command.

#### **Syntax**

#### email <name>

• **name** - Specifies the email entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no email <name>

name - Specifies the email entry to be deleted.

#### **Examples**

The following command creates "maryd" as an email notification recipient:

```
console> email maryd
Created maryd
console> email (maryd)>
```

The following command deletes entry "maryd":

```
console> no email maryd
Deleted maryd
```

## show email

Use the **show email** command to display a summary table of all notification recipient entries or the details of a specified email entry.

## **Syntax**

#### show email [<name>]

• name – Specifies the entry for which email details are to be displayed.

## **Example**

The following command displays a summary table of all notification recipient entries:

# email: address

## address

Use the address command to set an email address for the email entry.

#### **Syntax**

#### address <email-address>

• email-address - Specifies the email address associated with the entry.

#### **Example**

The following command sets "mary\_dove@company.com" as the email contact information for entry "maryd":

```
console> email (maryd)> address mary_dove@company.com
Update complete
```

#### show address

Use the **show address** command to display the address entered for the email entry.

#### **Syntax**

#### show address

#### **Example**

The following command displays the email address for entry "maryd":

```
console> email (maryd)> show address
mary dove@company.com
```

## email: enable

#### enable

Use the **enable** command to activate the email recipient. Use the **no** form of this command to disable the email recipient.

#### **Syntax**

enable

no enable

#### **Example**

The following command disables entry "maryd":

```
console> email (maryd)> no enable
Update complete
```

#### show enable

Use the **show enable** command to display the enabled/disabled status for the email recipient.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "maryd":

```
console> email (maryd)> show enable
enabled
```

## email: name

#### name

Use the **name** command to modify the name of the email recipient entry.

#### **Syntax**

name < new-name >

• new-name – Specifies the new name for the entry.

#### **Example**

The following command changes the entry's name from "maryd" to "Mary Dove":

```
console> email (maryd)> name "Mary Dove"
Update complete
console> email (Mary Dove)>
```

#### show name

Use the **show name** command to display the name of the email recipient entry.

#### **Syntax**

show name

#### **Example**

The following command displays the entry's name:

```
console> email (Mary Dove)> show name
Mary Dove
```

### email: show

#### show

Use the **show** command to display the details about the email recipient entry.

#### **Syntax**

show [address | name | status | test]

#### **Example**

The following command displays all details for entry "Mary Dove":

```
console> email (Mary Dove)> show
```

Name : Mary Dove
Email : mary\_dove@company.com
Status : disabled

Last Test: Test failed - 3/24/2020 5:34:56 PM

## email: test

#### test

Use the **test** command to perform a check of the entry's email address.

#### **Syntax**

test

#### **Example**

The following command executes an email test for entry "maryd":

```
console> email (maryd)> test
Testing...complete
Test successful - 3/24/2020 5:34:56 PM
```

#### show test

Use the **show test** command to display the metrics of the most recent email test for the email recipient entry.

#### **Syntax**

show test

#### **Example**

The following command displays the metrics of the last email test for entry "maryd":

```
console> email (maryd)> show test
Test successful - 3/24/2020 5:34:56 PM
```

### event

#### event

Use the **event** command to manage standard events and to create custom events. Use the **no** form of this command to delete a custom event. When creating a custom event, select an easily remembered name as a label for the entry; this name will be used in the command format **event** (**event-name>**) when configuring the entry's status and settings. To exit from the **event** (**event-name>**) command format, use either the **end** or **exit** commands.

#### **Syntax**

event <event-name> [<device-name> | <sensor-name>]

- **device-name** Specifies the device to which the event applies.
- event-name Specifies the standard event entry to be managed, or, specifies the name of a custom event to be created.
- **sensor-name** Specifies the sensor to which the event applies.

#### no event < event-name >

• event-name - Specifies the custom event entry to be deleted. Standard events cannot be deleted.

#### **Example**

The following command creates a custom event named "Event ABC":

```
console> event "Event ABC"
Created Event ABC
console> event (Event ABC)>
```

#### show event

Use the **show event** command to display a summary table of all events or the details of a specified event entry. Note that the list of events will vary by device type and model.

#### **Syntax**

#### show event [<event-name>]

• event-name – Specifies the entry for which event details are to be displayed.

#### **Examples**

The following command displays a summary table of all events supported by the device (a basic UPS, in this example):

console> show event NAME	SEVERITY	STATUS	SOURCE	
Contact Input 1 In Alarm	critical	enabled	Sensor1	enabled
Contact Input 2 In Alarm	critical	enabled	Sensor1	enabled
Communications Lost	information	disabled	Sensor1	disabled
Humidity Beyond Limits	critical	enabled	Sensor1	enabled
Temperature Beyond Limits	critical	enabled	Sensor1	enabled
Battery Age Above Threshold	information	enabled	UPS123	enabled
Battery Low	critical	enabled	UPS123	disabled
Communications Lost	critical	enabled	UPS123	enabled
Event ABC	warning	enabled	UPS123	disabled
Load 01 Off	warning	enabled	UPS123	enabled
Load 02 Off	warning	enabled	UPS123	enabled
Load Level Above Threshold	warning	enabled	UPS123	enabled
Loads Not All On	warning	enabled	UPS123	enabled
NTP Watchdog NTP Probe Failed	warning	enabled	UPS123	enabled
On Battery	critical	enabled	UPS123	enabled
Output Off	warning	enabled	UPS123	enabled
Overload	critical	enabled	UPS123	disabled
Ping Watchdog Ping Probe Failed	warning	enabled	UPS123	enabled
Self Test Failed	warning	enabled	UPS123	enabled
Temperature High	critical	enabled	UPS123	disabled

The following command displays the settings for event "Communications Lost":

console> show event "Com	munications Lo	st"			
NAME	SEVERITY	STATUS	SOURCE	AUTO-ACK	LOGGING
Communications Lost	information	disabled	Sensor1	disabled	disabled
Communications Lost	critical	enabled	IIPS123	enabled	disabled

## event: acknowledge

### acknowledge enable

Use the **acknowledge enable** command to automatically acknowledge all alerts raised by the specified event entry. Use the **no** form of this command to disable auto-acknowledge for the entry.

#### **Syntax**

acknowledge enable

no acknowledge enable

#### **Example**

The following command enables automatic acknowledgement for event "On Battery":

```
console> event (On Battery)> acknowledge enable
Update complete
```

### show acknowledge

Use the show acknowledge command to display the enabled/disabled status for auto-acknowledge of the event entry.

#### **Syntax**

show acknowledge

#### **Example**

The following command displays the automatic acknowledgement status for entry "On Battery":

```
console> event (On Battery)> show acknowledge
enabled
```

## event: enable

#### enable

Use the **enable** command to activate the event. Use the **no** form of this command to disable the event. Disabled events will not generate alerts or be logged (upon occurring), nor can they be selected when creating or executing actions. By default, all events (standard and custom) are enabled.

#### **Syntax**

enable

no enable

#### **Example**

The following command disables event "Loads Not All On":

```
console> event (Loads Not All On)> no enable
Update complete
```

#### show enable

Use the **show enable** command to display the enabled/disabled status of the event.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "Loads Not All On":

```
console> event (Loads Not All On)> show enable
disabled
```

## event: logging

### logging enable

Use the **logging enable** command to record all occurrences of the event entry in the Event Log. Use the **no** form of this command to disable event logging for the entry. This command is valid only if the event is enabled.

#### **Syntax**

logging enable

no logging enable

#### **Example**

The following command disables event logging for entry "Load Level Above Threshold":

```
console> event (Load Level Above Threshold)> no logging enable
Update complete
```

## show logging

Use the **show logging** command to display the event logging enabled/disabled status for the event entry.

#### **Syntax**

show logging

#### **Example**

The following command displays the event logging status for entry "Load Level Above Threshold":

```
console> event (Load Level Above Threshold)> show logging
disabled
```

### event: name

#### name

Use the **name** command to modify the name of the event. This command applies only to custom events.

#### **Syntax**

#### name < new-name >

• **new-name** – Specifies a new name for the custom event. If spaces are required, bookend the name with quotation marks (").

#### **Example**

The following command changes the name of custom event "Event ABC" to "Event 123":

```
console> event (Event ABC)> name "Event 123"
Update complete
console> event (Event 123)>
```

#### show name

Use the **show name** command to display the name of the event.

#### **Syntax**

show name

#### **Example**

The following command displays the name of (standard) event "On Battery":

```
console> event (On Battery)> show name
On Battery
```

## event: severity

### severity

Use the **severity** command to change the severity level of the event. By default, all custom events are assigned a severity of "warning".

#### **Syntax**

#### severity {critical | info | warning}

- critical Sets the event's severity level as "critical".
- info Sets the event's severity level as "info".
- warning Sets the event's severity level as "warning".

#### **Example**

The following command sets the severity level as "critical" for entry "Load 01 Off":

```
console> event (Load 01 Off)> severity critical
Update complete
```

### show severity

Use the **show severity** command to display the severity level of the event.

#### **Syntax**

show severity

#### **Example**

The following command displays the severity level for entry "Load 01 Off":

```
console> event (Load 01 Off)> show severity
critical
```

### event: show

#### show

Use the **show** command, with optional keywords, to display all configuration settings for the event. To view all keywords applicable to the event, enter **show** [**Tab**][**Tab**].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for event "On Battery":

```
console> event (On Battery)> show [Tab][Tab]
acknowledge help logging name severity status
```

The following command displays all settings for custom event entry "Event ABC":

### exit

#### exit

Use the **exit** command at the root level of the command line interface to log out and terminate the session. This command can also be used to exit a nested command format (e.g. **action (<action-name>)**).

#### **Syntax**

exit

#### **Example**

Examples are not applicable for this command.

### **firmware**

Upon logging into CLI, the system automatically checks for the availability of a new (LX card) firmware version. If an update is available, a message will appear identifying the new firmware version.

#### **Example**

```
Welcome to PowerAlert Device Manager CLI v20.0.0.5678

A new firmware version is available: v20.0.0.9999

Use the 'firmware update' command to download the latest version console>
```

#### firmware check

Use the **firmware check** command to verify availability of a new firmware version. A message will appear with the results of the check and a prompt for downloading a new version, if available. Use the **force** option to automatically download the new firmware file, if available.

#### **Syntax**

firmware check [force]

#### **Examples**

The following command checks for availability latest firmware version available:

```
console> firmware check
Current firmware version : v20.0.0.2345
Staged firmware version : v20.0.0.2346
Firmware is currently staged for upgrade. Enter 'firmware update' to upgrade
```

If a new firmware version is not available, a message stating so will appear when the command is entered:

```
console> firmware check force
The LX Card is running the latest firmware update, v20.0.0.1871
```

### firmware update

Use the **firmware update** command to execute update of the staged firmware file. A firmware file becomes staged either by scp/sftp upload or when uploaded using the **firmware check** command. Note that downgrades to previous firmware versions are possible using the scp/sftp method. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the update without confirmation. All active user sessions are terminated during the update process, including the session that initiated the process. Updating the firmware version cannot be canceled once started.

#### **Syntax**

firmware update [force]

#### **Examples**

The following command updates the device to the latest firmware version available:

```
console> firmware update
This will immediately terminate any active user session(s) while the system installs
the updated firmware to v20.0.0.2346 and reboots.
Are you sure? Type "yes" to proceed:
Update process started. Terminating sessions
Farewell localadmin
Quitting shell
```

If a new firmware version is not available, a message stating so will appear when the command is entered:

```
console> firmware update
Latest firmware version is already installed (installed version is 20.0.0.9999)
```

If a new firmware version is not available, a message stating so will appear when the command is entered:

```
console> firmware update
No firmware has been staged via website download or scp/sftp upload.
```

## help

### help

Use the **help** command to display a list of available commands and a brief description of each. Use the **man** command to obtain a more detailed description of a command.

#### **Syntax**

help

#### **Example**

Examples are not applicable for this command.

### host

#### host name

Use the **host name** command to modify the name by which the system will appear on the network. Note that the system has predefined hostname by default.

#### **Syntax**

host name <hostname>

• hostname – Specifies the name by which the system will appear on the network.

#### **Example**

The following command changes the hostname to PDUroom2:

```
console> host name PDUroom2
Update complete
```

#### show host

Use the **show host** command to display the current hostname.

#### **Syntax**

show host

#### **Example**

The following command displays the current hostname:

```
console> show host
PDUroom2
```

## http

### http enable

Use the **http enable** command to enable the HTTP service. Use the **no** form of this command to disable the HTTP service. Note that changes to network parameters must be applied using the **apply network** command for the changes to take effect. The HTTP service is enabled by default.

#### **Syntax**

http enable

no http enable

#### **Example**

The following command disables the HTTP service:

```
console> no http enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### http port

Use the **http port** command to set the port number to use for the HTTP service. The default port number for the HTTP service is 80.

#### **Syntax**

http port <port-number>

port-number - Specifies the port to use for the HTTP service (Range: 1-65535).

#### **Example**

The following command changes the port to use for the HTTP service to 8077:

```
console> http port 8077
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### http redirect enable

Use the **http redirect enable** command to redirect all HTTP traffic to HTTPS. Use the **no** form of this command to disable the redirect. HTTP redirect is disabled, by default.

#### **Syntax**

http redirect enable

no http redirect enable

#### **Example**

The following command enables HTTP redirect:

```
console> http redirect enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### show http

Use the **show http** command to display the current settings for the HTTP service.

#### **Syntax**

show http [status | port | redirect]

#### **Example**

The following command displays all HTTP service information:

console> show http

HTTP Status : enabled HTTP Port : 8077 HTTP Redirect : disabled

## **https**

### https enable

Use the **https enable** command to enable the HTTPS service. Use the **no** form of this command to disable the HTTPS service. Note that changes to network parameters must be applied using the **apply network** command for the changes to take effect. The HTTPS service is enabled by default.

#### **Syntax**

https enable

no https enable

#### **Example**

The following command disables the HTTPS service:

```
console> no https enable
Update complete
```

NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.

### https port

Use the **https port** command to set the port number to use for the HTTPS service. The default port number for the HTTPS service is 443.

#### **Syntax**

#### https port <port-number>

• port-number – Specifies the port to use for the HTTPS service (Range: 1-65535).

#### **Example**

The following command changes the port to use for the HTTPS service to 4033:

```
console> https port 4033
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### show https

Use the **show https** command to display the current settings for the HTTPS service.

#### **Syntax**

show https [status | port]

#### **Example**

The following command displays all HTTPS service information:

console> show https
HTTPS Status : disabled
HTTPS Port : 4033

## ipv4

### ipv4 enable

Use the **ipv4 enable** command to enable the IPv4 service. Use the **no** form of this command to disable the service. Note that changes to network parameters must be applied using the **apply network** command for the changes to take effect. The IPv4 service is enabled by default. To check current network settings, use the **show network** command.

#### **Syntax**

ipv4 enable

no ipv4 enable

#### **Example**

The following command enables the IPv4 service:

```
console> ipv4 enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### ipv4 address

Use the **ipv4 address** command to configure the IPv4 settings. The default setting for IPv4 address is DHCP.

#### **Syntax**

ipv4 address dhcp

ipv4 address <address> {</prefix-length> | <mask>} [gateway < gateway-address>]

- gateway-address Specifies the IPv4 address for the gateway.
- ipv4-address Specifies the static IPv4 address to assign to the system.
- mask Specifies the subnet mask IP address.
- **prefix-length** Specifies the number of bits comprising the IPv4 address prefix (Range: 1-30). The value must be preceded by a forward slash character (/).

continued

#### **Examples**

The following command configures IPv4 for DHCP:

```
console> ipv4 address dhcp
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

The following command configures IPv4 for a static address of 192.168.10.33, a subnet mask of 255.255.255.0 and a gateway of 10.0.0.1:

```
console> ipv4 address 192.168.10.33 255.255.255.0 gateway 10.0.0.1
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

The following command configures IPv4 for a static address of 192.168.10.33 and a prefix length of 24:

```
console> ipv4 address 192.168.10.33/24
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### ipv4 gateway

Use the **ipv4 gateway** command to set the IPv4 gateway address.

#### **Syntax**

ipv4 gateway < gateway -address>

• gateway -address - Specifies the IPv4 address for the gateway.

#### **Example**

The following command sets 192.168.10.1 as the IPv4 gateway:

```
console> ipv4 gateway 192.168.10.1
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### show ipv4

Use the **show ipv4** command to display the current settings for the IPv4 service.

#### **Syntax**

show ipv4 [status | address | gateway]

#### **Example**

The following command displays all IPv4 service information:

```
console> show ipv4
IPV4 Status : enabled
IPV4 Address : 192.168.10.33
IPV4 Subnet : 255.255.255.0
IPV4 Gateway : 10.0.0.1
```

## ipv6

### ipv6 enable

Use the **ipv6 enable** command to enable the IPv6 service. Use the **no** form of this command to disable the IPv6 service. Note that changes to network parameters must be applied using the **apply network** command for the changes to take effect. The IPv6 service is enabled by default. To check current network settings, use the **show network** command.

#### **Syntax**

ipv6 enable

no ipv6 enable

#### **Example**

The following command enables the IPv6 service:

```
console> ipv6 enable
Update complete
```

NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.

### ipv6 address

Use the ipv6 address command to configure the IPv6 settings. The default setting for IPv6 address is DHCP.

#### **Syntax**

ipv6 address dhcp

ipv6 address < ipv6-address /prefix-length> [gateway < gateway-address>]

- gateway-address Specifies the IPv6 address for the gateway.
- ipv6-address Specifies the static IPv6 address to assign to the network interface.
- **prefix-length** Specifies the number of bits constituting the prefix.

#### **Examples**

The following command configures IPv6 for DHCP:

```
console> ipv6 address dhcp
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

The following command configures IPv6 for a static address prefix of 2018::567, a prefix length of 64 and a gateway address of fe80::7e9a:54ff:fee2:380:

```
console> ipv6 address 2018::567/64 gateway fe80::7e9a:54ff:fee2:380
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### ipv6 gateway

Use the ipv6 gateway command to set the IPv6 address for the gateway.

#### **Syntax**

ipv6 gateway < gateway-address>

• gateway-address – Specifies the IPv6 address for the gateway.

#### **Example**

The following command sets fe80::7e9a:54ff:fee2:380 as the IPv6 address for the gateway:

```
console> ipv6 gateway fe80::7e9a:54ff:fee2:380
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### show ipv6

Use the **show ipv6** command to display the current settings for the IPv6 service.

#### **Syntax**

show ipv6 [status | address | gateway]

#### **Example**

The following command displays all IPv6 service information:

```
console> show ipv6
IPV6 Status : enabled
IPV6 Address : 2018:aa9:0:1234::567/64
IPV6 Gateway : fe80::7e9a:54ff:fee2:380
```

## **Idap-server**

### **Idap-server**

Use the **Idap-server** command to create and/or manage a Lightweight Directory Access Protocol (LDAP) server entry. Use the **no** form of this command to delete an entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **Idap-server** (**server-name>**) when configuring the entry's status and settings. To exit from the **Idap-server** (**server-name>**) command format, use either the **end** or **exit** commands. **Note:** prior to creating a second LDAP server entry, you must use the **port** commands to change the authentication port number of the original entry; new entries always use the default value for the authentication port.

#### **Syntax**

#### Idap-server < server-name >

• **server-name** – Specifies the LDAP server entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no Idap-server < server-name >

• **server-name** – Specifies the LDAP server entry to be deleted.

#### **Examples**

The following command creates "LDAPsrvr1" as an LDAP server entry:

```
console> ldap-server LDAPsrvr1
Created LDAPsrvr1
console> ldap-server (LDAPsrvr1)>
```

The following command deletes LDAP Server entry "Server 123":

```
console> no ldap-server "Server 123"
Deleted Server 123
```

### show Idap-server

Use the **show Idap-server** command to display a summary table of all LDAP server entries or the details of a specified entry.

#### **Syntax**

#### show Idap-server [<server-name>]

console> show ldan-server

server-name – Specifies the entry for which LDAP server details are to be displayed.

#### **Example**

The following command displays a summary table of all LDAP server entries:

console, show reap server					
NAME	STATUS	HOST	PORT	PRIORITY	ANONYMOUS
LDAPsrvr2	enabled	localhost	22	1	enabled
LDAPsrvr4	enabled	172.17.59.35	23	2	disabled

## **Idap-server: anonymous**

### anonymous enable

Use the **anonymous enable** command to enable anonymous bind for the LDAP server entry. Use the **no** form of this command to disable anonymous bind. If anonymous bind is disabled, a **bind** domain name and password must be specified. Anonymous bind is enabled by default.

#### **Syntax**

anonymous enable

no anonymous enable

#### **Example**

The following command disables anonymous bind for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> no anonymous enable
Update complete
```

### show anonymous

Use the **show anonymous** command to display the anonymous bind status for the LDAP server entry.

#### **Syntax**

show anonymous

#### **Example**

The following command displays the anonymous bind status for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show anonymous
disabled
```

## **Idap-server: attribute**

#### attribute

Use the **attribute** command to optionally enter a login name attribute for the LDAP server entry. Use the **no** form of this command to clear the attribute string.

#### **Syntax**

#### attribute <attribute>

• attribute – Specifies the attribute to be associated with the login name. If spaces are required, bookend the attribute with quotation marks (").

#### no attribute

#### **Example**

The following command adds attribute "vetted" to LDAP server entry "SRV-LDAP":

```
console> ldap-server (SRV-LDAP)> attribute vetted
Update complete
```

#### show attribute

Use the show attribute command to display the login name attribute for the LDAP server entry.

#### **Syntax**

show attribute

#### **Example**

The following command displays the attribute entered for LDAP server entry "SRV-LDAP":

```
console> ldap-server (SRV-LDAP)> show attribute
vetted
```

## **Idap-server: bind**

#### bind dn

Use the **bind dn** command to set the distinguished name (user, location and domain) for the LDAP server entry. This command is required if **anonymous** is disabled.

#### **Syntax**

#### bind dn <dn>

dn – Sets the distinguished name for the entry.

#### **Example**

The following command sets the distinguished name for accessing entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> bind dn "CN=Users,DC=example,DC=com"
Update complete
```

### bind password

Use the **bind password** command to enter a password for the entry. This command is required if **anonymous** is disabled. Two options are available for entering the password. The first option will prompt entry of the password and password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

#### bind password

#### bind password plaintext <password>

• password – Sets the password for the entry, in plain text.

#### **Example**

The following command sets "q8w9e0" as the password for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> bind password plaintext q8w9e0
Update complete
```

#### show bind

Use the show bind command to display the distinguished name for the LDAP server entry.

#### **Syntax**

show bind

#### **Example**

The following command displays the distinguished name details for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show bind
CN=Users,DC=example,DC=com
```

## **Idap-server: domain**

#### domain

Use the **domain** command to optionally enter a domain name for the LDAP server entry. This command applies only if **active-directory** is selected as the LDAP server **type**. Use the **no** form of this command to clear the domain name.

#### **Syntax**

#### domain < domain>

• **domain** – Specifies the domain name for the LDAP server entry. If spaces are required, bookend the name with quotation marks (").

#### no domain

#### **Example**

The following command sets the domain name for entry "LDAPsrvr1" as DMN123:

```
console> ldap-server (LDAPsrvr1)> domain DMN123
Update complete
```

#### show domain

Use the **show domain** command to display the domain name entered for the LDAP server entry.

#### **Syntax**

#### show domain

#### **Example**

The following command displays the domain name for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show domain
DMN123
```

## **Idap-server: enable**

#### enable

Use the **enable** command to activate the LDAP server entry. Use the **no** form of this command to disable the entry. **Note:** an entry cannot be enabled until it is configured using the following commands: **host**, **password**, **type**, **anonymous**.

#### **Syntax**

enable

no enable

#### **Example**

The following command disables entry "Server ABC":

```
console> ldap-server (Server ABC)> no enable
Update complete
```

#### show enable

Use the **show enable** command to display the enabled/disabled status of the LDAP server entry.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "Server ABC":

```
console> ldap-server (Server ABC)> show enable
disabled
```

## **Idap-server: host**

#### host

Use the **host** command to set the IP address or host name of the LDAP server entry. Both IPv4 and IPv6 addresses are supported.

#### **Syntax**

host {<ip-address> | <host-name>}

- ip-address Identifies the IPv4 or IPv6 address of the entry.
- host-name Identifies the host name of the entry.

#### **Example**

The following command sets 172.17.60.66 as the IPv4 address of entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> host 172.17.60.66
Update complete
```

#### show host

Use the **show host** command to display the host name or IP address of the LDAP server entry.

#### **Syntax**

show host

#### **Example**

The following command displays the IP address of entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show host
172.17.60.66
```

## **Idap-server: name**

#### name

Use the **name** command to modify the name of the LDAP server entry.

#### **Syntax**

#### name < new-name >

• **new-name** – Identifies the new name for the entry.

#### **Example**

The following command changes the entry's name from "Server ABC" to "Server XYZ":

```
console> ldap-server (Server ABC)> name "Server XYZ"
Update complete
console> ldap-server (Server XYZ)>
```

#### show name

Use the **show name** command to display the name entered for the LDAP server entry.

#### **Syntax**

show name

#### **Example**

The following command displays the entry's name:

```
console> ldap-server (Server XYZ)> show name
Server XYZ
```

## **Idap-server: object-class**

### object-class

Use the **object-class** command to limit a user search to a specific class of objects for the LDAP server entry. Use the **no** form of this command to clear the search string.

#### **Syntax**

#### object-class < search-base >

• **object-class** – Sets the object class to search. If spaces are required in the search string, bookend the search string with quotation marks (").

#### no object-class

#### **Example**

The following command sets "adminPerson" as the object class for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> object-class adminPerson
Update complete
```

### show object-class

Use the show object-class command to display the object class for the LDAP server entry.

#### **Syntax**

show object-class

#### **Example**

The following command displays the object class for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show object-class
adminPerson
```

## **Idap-server: port**

### port

Use the **port** command to specify the port number of the LDAP server entry for authentication requests. The default authentication port is 389.

#### **Syntax**

#### port <port-number>

• port-number – Specifies the entry's port number for authentication requests (Range: 1-65535).

#### **Example**

The following command specifies 400 as the LDAP server port for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> port 400
Update complete
```

### show port

Use the **show port** command to display the port number for the LDAP server entry.

#### **Syntax**

show port

#### **Example**

The following command displays the port number for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show port
400
```

## **Idap-server: priority**

### priority

Use the **priority** command to set a priority for the LDAP server entry. In the case where multiple entries exist, the priority determines which servers are used first. For the priority value, enter an integer from 1 to 99. Lower numbers have higher priority.

#### **Syntax**

priority < priority >

• priority – Sets the priority of the entry (Range: 1-99).

#### **Example**

The following command sets 1 (one) as the priority level for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> priority 1
Update complete
```

### show priority

Use the **show priority** command to display the priority of the LDAP server entry.

#### **Syntax**

show priority

#### **Example**

The following command displays the priority for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show priority
1
```

## **Idap-server: search**

#### search base

Use the **search base** command to optionally designate the starting point for the search in the external LDAP directory tree to search. Use the **no** form of this command to clear the search string.

#### **Syntax**

#### search base < search-base >

• search-base – Sets the directory tree to search.

#### no search base

#### **Example**

The following command sets "sub-tree" as the LDAP directory on "LDAPsrvr1" to search:

```
console> ldap-server (LDAPsrvr1)> search base dc=tripplite,dc=com
Update complete
```

#### search filter

Use the **search filter** command to optionally refine the list of LDAP users to search. Use the **no** form of this command to clear the filter string.

#### **Syntax**

#### search filter < search-filter>

• search-filter – Sets the filter to apply when searching the LDAP directory tree.

#### no search filter

#### **Example**

Examples are not applicable for this command.

#### show search

Use the **show search** command to display the search details for the LDAP server.

#### **Syntax**

#### show search [base | filter]

- base Displays search details related to the specified directory tree.
- filter Displays search details as determined by the specified filter.

#### **Example**

The following command displays the search base for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show search base
Directory Tree to Search : dc=tripplite,dc=com
Filter To Apply When Searching :
```

## **Idap-server: show**

#### show

Use the **show** command, with optional keywords, to display details about the LDAP server entry. To view all keywords applicable to the entry, enter **show** [**Tab**][**Tab**].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show [Tab][Tab]
anonymous help object-class search type
attribute host port status
bind name priority test
```

#### The following command displays all details for entry "LDAPsrvr1":

Type : active-directory

Server Search Base DN :
Login Name Attribute :
User Entry Object Class :
User Search Subfilter :

Active Directory Domain : testdomain
Anonymous Bind : disabled
Bind DN : testname
Last Test : Not tested

## **Idap-server: test**

#### test

Use the **test** command to test authenticated communications to the specified LDAP server. On executing this command, prompts will appear for entering the access credentials of the specified LDAP server.

#### **Syntax**

test

#### **Example**

The following command executes a communication test of entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> test
Username: Admin123
Password:
Testing...completed
Test successful - 3/24/2020 12:34:56 PM
```

#### show test

Use the show test command to display the metrics of the last communications test for the LDAP Server entry.

#### **Syntax**

show test

#### **Example**

The following command displays the metrics of the last test of entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show test
Test successful - 3/24/2020 12:34:56 PM
```

## **Idap-server: type**

### type

Use the **type** command to set the LDAP server type for the entry. The supported choices are: OpenLDAP (**openIdap**) and MS Active Directory (**active-directory**).

#### **Syntax**

type {openIdap | active-directory}

- active-directory Sets the entry's LDAP server type as MS Active Directory.
- openIdap Sets the entry's LDAP server type as OpenLDAP.

#### **Example**

The following command sets MS Active Directory as the LDAP server type for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> type active-directory
Update complete
```

### show type

Use the **show type** command to display the LDAP server type of the LDAP server entry.

#### **Syntax**

show type

#### **Example**

The following command displays the LDAP server type for entry "LDAPsrvr1":

```
console> ldap-server (LDAPsrvr1)> show type
active-directory
```

## log

### log

Use the **log** command to enter the **log <log-type>** format in which display and configuration commands specific to the identified log type can be executed. To exit from the **log <log-type>** command format, use either the **end** or **exit** commands.

#### **Syntax**

log {accounting | application | data | event}

#### **Example**

The following command enters the command format for the Event Log:

```
console> log event
console> log (event)>
```

### show log

Use the **show log** command to display the settings for all logs or a specified log.

#### **Syntax**

show log [accounting | application | data | event]

#### **Example**

The following command displays the settings for all logs:

console> show LOG TYPE	log AUTO-EXPORT	RECIPIENTS	FORMAT	MAX SIZE
accounting application	enabled disabled	<pre>johnd, joed, moed moed</pre>	xml	10000
data	enabled	all contacts	CSV	
event	enabled	moed, joed	xml	10000

## log: autoexport

### autoexport email

Use the **autoexport email** command to assign one or more email recipients of automatically-exported logs. Use the **no** form of this command to remove a recipient from the list of automatically-exported log recipients. Email recipients are created and configured using the **email** command. This command applies to all log types (Accounting, Application, Data, Event).

#### **Syntax**

autoexport email {all | <contact-1>[,<contact-2>,...<contact-5>]}

- all Specifies all enabled email contacts as recipients of the auto-exported log.
- contact-x Sets a comma-delimited list of contacts as email recipients of the auto-exported log.

no autoexport email {all | <contact-1>[,<contact-2>,...<contact-5>]}

- all Specifies all enabled email contacts to be removed as recipients of the auto-exported log.
- contact-x Sets a comma-delimited list of contacts to be removed as email recipients of the auto-exported log.

#### **Examples**

The following command configures auto-export of the Accounting Log to all email recipients:

```
console> log (accounting)> autoexport email all
Update complete
```

The following command removes email recipients "moed" and "joed" from the list of Data Log auto-export recipients:

```
console> log(data)> no autoexport email moed,joed
Update complete
```

### autoexport enable

Use the **autoexport enable** command to enable the automatic export of the log. Use the **no** form of this command to disable the automatic exporting of the log. This command will automatically export the log under the following conditions:

- Accounting and Event Log upon reaching the maximum log size, as configured using the size command.
- Application Log upon reaching the maximum log size.
- Data Log once or twice daily, depending on the quantity of logged variables and log interval.

For the Accounting Log and Event Log, auto-export will remove the older half of the displayed entries. Auto-export will not affect the displayed Data Log; entries will be purged on a First In First Out basis. The Application Log will be cleared of all entries upon being auto-exported.

#### **Syntax**

autoexport enable no autoexport enable

#### **Example**

The following command enables automatic export of the Event Log:

```
console> log (event)> autoexport enable
Update complete
```

### autoexport format

Use the **log autoexport format** command to configure the file format of the automatically exported log file. This command applies only to the Accounting Log and the Event Log. By default, the format is set to CSV; use the **xml** option to change the file format to XML.

#### **Syntax**

autoexport format {csv | xml}

#### **Example**

The following command sets CSV as the file format for automatically-exported Event Logs:

```
console> log (event)> autoexport format csv
Update complete
```

### show autoexport

Use the **show autoexport** command to display all auto-export settings.

#### **Syntax**

show autoexport [email | enable | format]

#### **Example**

The following command displays all autoexport settings for the Accounting Log:

```
console> log (accounting)> show autoexport
Auto-export Status : enabled
Auto-export Format : xml
```

Auto-export Recipients : all contacts

## log: export

### export

Use the **export** command to configure and execute an on-demand export of the log. The log can be exported to a single email recipient [refer to the **email** command for creating email recipients]. This command applies to all log types. For Accounting Log and Event Log exports, the default file format is CSV; use the **xml** option to change the file format to XML.

#### **Syntax**

export email <contact-name> [xml]

• contact-name - Identifies a single email contact as the recipient of the exported log.

#### **Example**

The following command exports the Accounting Log in XML format to email recipient "johnd":

```
console> log (accounting)> export email johnd xml
```

### export rollup

Use the **export rollup** command to configure and execute an on-demand export of the Data Rollup Log. The log can be exported in csv format to a single email recipient [refer to the **email** command for creating email recipients]. The Data Rollup Log cannot be purged (cleared) upon being exported. This command applies only to the Data Log.

#### **Syntax**

#### export rollup email <contact-name>

• contact-name – Identifies the email recipient of the exported Data Rollup Log.

#### **Example**

The following command exports the Data Rollup Log to email recipient "johnd":

```
console> log (data)> export rollup email johnd
Update complete
```

## log: interval

#### interval

Use the **interval** command to specify how often metrics are recorded in the Data Log. A change to the interval requires that all current entries in the Data Log be purged. On executing the command, a message will appear to confirm the purge. Use the **force** option to execute the command without confirmation. This command applies only to the Data Log.

#### **Syntax**

#### interval <value> [force]

value – Specifies the amount of time, in seconds, between successive recordings of data (Range: 5-600).

#### **Example**

The following command configures the system to record metrics in the Data Log every 30 seconds:

```
console> log (data)> interval 30 Modifying the interval requires existing log files to be purged. Type "yes" to proceed:
```

#### show interval

Use the **show interval** command to display how often metrics are recorded in the Data Log. This command applies only to the Data Log.

#### **Syntax**

#### show interval

#### **Example**

The following command displays the recording interval for the Data Log:

```
console> log (data)> show interval
60
```

## log: max-size

#### max-size

Use the **max-size** command to set the maximum number of entries to be stored in the log. This value is used as the trigger for automatic export of a log, if enabled using the **autoexport** command. This command applies only to the Accounting Log and the Event Log.

#### **Syntax**

#### max-size < maxsize >

• maxsize - Sets the maximum number of entries to be stored in the log (Range 1000 - 10000).

#### **Example**

The following command sets the maximum size of the Accounting Log at 5,000 entries:

```
console> log (accounting)> max-size 5000
Update complete
```

#### show max-size

Use the **show max-size** command to display the maximum number of entries to be stored in the log. This command applies only to the Accounting Log and the Event Log.

#### **Syntax**

show max-size

#### **Example**

The following command displays all settings for the Accounting Logs:

```
console> log (accounting)> show \max-size 5000
```

## log: metrics

#### metrics

Use the **metrics** command to specify one or more data metrics to be recorded in the Data Log and the Data Rollup Log. By default, all metrics are recorded. Use the **no** form of this command to remove one or more metrics from being recorded. This command applies only to the Data Log.

#### **Syntax**

```
metrics {all | {<metric-id1> | <metric-keyword1>}[,{<metric-id2> | <metric-keyword2>}...{<metric-idN> | <metric-keywordN>}]}
```

no metrics {<metric-id1> | <metric-keyword1>}[,{<metric-id2> | <metric-keyword2>}...{<metric-idN> | <metric-keywordN>}]}

- all Sets all data metrics to be recorded in the Data Log.
- **metric-x** Identifies a comma-delimited list of enumerated metrics and/or keywords to be recorded in the Data Log (refer to the **show metrics** command).

#### **Examples**

The following command sets all metrics to be recorded in the Data Log:

```
console> log (data)> metrics all
Update complete
```

The following command sets the Data Log to record Input Voltage, Input Current, Input Power and Input Frequency, enumerated as 11, 12, 14 and 16, respectively:

```
console> log (data)> metrics 11,12,14,16
Update complete
```

#### show metrics

Use the **show metrics** command to display an enumerated list of all applicable metrics and keywords associated with those metrics. The enumeration and/or keywords are used when selecting metrics to be recorded, as well as for filtering displayed data. Due to the variance of metrics by device type and model, the enumeration will not be sequential. Within the list, an asterisk (\*) denotes that the metric is selected for logging.

#### **Syntax**

show metrics [device <device-name>]
show metrics [sensor <sensor-name>]

show metrics [group {battery | environment | input | output}]

- device-name Displays an enumerated list of metrics and associated keywords for the specified device.
- sensor-name Displays an enumerated list of metrics and associated keywords for the specified sensor.

#### **Example**

The following command displays the available metrics for the device and all peripherals connected to it:

## log: severity

### severity

Use the **severity** command to set the lowest severity level of items to be recorded in the log. This command applies only to the Application Log.

#### **Syntax**

severity {emergency | alert |critical | error | warning | notice |info | debug | trace}

#### **Example**

The following command sets the Application Log to record items with a severity level of "warning" and higher:

```
console > log (application) > severity warning
```

### show severity

Use the **show severity** command to display the selected severity level for Application Log. This command applies only to the Application Log.

#### **Syntax**

show severity

#### **Example**

The following command displays the selected severity level for the Application Log:

```
console> log (application)> show severity
warning
```

## log: show

#### show

Use the **show** command to display current settings for the log. Note that the **severity** keyword applies only to the Application Log. The **max-size** keyword applies only to the Accounting Log and Event Log. The **interval**, **metrics** and **rollup** keywords apply only to the Data Log.

#### Syntax 1 4 1

show [autoexport | interval | max-size | metrics | report | rollup | severity | size]

#### **Example**

The following command displays all settings for the Accounting Log:

```
console> log (accounting)> show
Auto-export Status : enabled
Auto-export Format : xml
```

Auto-export Recipients : all contacts

Max Size : 10000

#### show report

Use the **show report** command to view the Accounting, Data or Event Log in its entirety or by specified subset, described below:

#### **Accounting Log and Event Log**

Use the **show report** ... < record-num> format to display a single record, where < record-num> denotes the record number.

Use the **show report ... from <start-num> to <end-num>** format to display a range of records, where <start-num> is the first record number and <end-num> is the last.

Use the **show report** ... **sort** ... **limit <qty>** format to display a set quantity of records, specified by **<qty>**; this format always begins with the first record.

Use the **show report last <period>...** command format to display a range of the most recent records, specifying the end limit of the range (e.g. the last three weeks). Note that these four formats are mutually exclusive. A retrieved range of records is inherently ordered numerically by record number and cannot be sorted otherwise.

#### **Data Log**

Use the **show report** command to view the Data Log. Use the **show report columns <metric>** format to specify which data variables (columns) to display, where **<metric>** denotes either the enumerated metric or the metric name. Use the **show report start...end** format to display a range of records, specifying the starting and ending date/time. Use the **show report last <period>...** command format to display a range of the most recent records, specifying period of the range (e.g. the last three weeks). Note that the **start...end** and **last <period>** formats are mutually exclusive.

#### **Syntax**

show report < record-num > [verbose]

show report [description <description>] [origin <origin>] [user <username>] [from <start-num> [to <end-num>] [sort [date [asc | desc]] [description [asc | desc]] [origin [asc | desc]] [user [asc | desc]]]

show report [description <description>] [origin <origin>] [user <username>] [start-date <start-date> [start-time <start-time>]] [end-date <end-date> [end-time <end-time>] [sort [date [asc | desc]] [description [asc | desc]] [origin [asc | desc]] [user [asc | desc]]]

show report [description < description>] [origin < origin>] [user < username>] [limit < qty>] [sort [date [asc | desc]] [description [asc | desc]] [origin [asc | desc]] [user [asc | desc]]

show report [description <description>] [origin <origin>] [user <username>] [last <period> {second | hour | week | month | year}]

show report [description < description>] [device < device >] [severity < severity>] [start-date < start-date > [start-time < start-time>]] [end-date < end-date > [end-time < end-time>]] [sort [date [asc | desc]] [description [asc | desc]] [severity [asc | desc]]

show report [description < description>] [device < device >] [severity < severity>] [from < start-num> [to < end-num>] [sort [date [asc | desc]] [description [asc | desc]] [device [asc | desc]] [severity [asc | desc]]]

show report [description < description>] [device < device >] [severity < severity>] [limit <qty>] [sort [date [asc | desc]] [description [asc | desc]] [device [asc | desc]] [severity [asc | desc]]]

show report [description < description >] [device < device >] [severity < severity >] [last < period > {second | minute | hour | day | week | month | year}]

show report [columns {<metric-id1> | <metric-keyword1>}[,{<metric-id2> | <metric-keyword2>}... {<metric-idN> | <metric-keywordN>}]] [device <device-name>] [sensor <sensor-name>] [start-date <start-date> [start-time <start-time>]] [end-date <end-date> [end-time <end-time>]]

continued

 $show\ report\ [columns\ \{< metric-id1> \ |\ < metric-keyword1>\}[, \{< metric-id2> \ |\ < metric-keyword2>\}...\ \\ \{< metric-idN> \ |\ < metric-keywordN>\}]\ [device\ < device-name>]\ [sensor\ < sensor-name>\}]\ [last\ < period>\{second\ |\ minute\ |\ hour\ |\ day\ |\ week\ |\ month\ |\ year\}]$ 

- description Filters the Accounting or Event Log to display only records containing a description that begins with the specified text.
- device-name Filters the Event Log to display only records associated with the specified device.
- end-date Filters the log to display all records that occurred on or before the specified date; use the date format set using
  the default date-format or default user date-format command.
- **end-num** Specifies the number of the last Accounting or Event Log record to be displayed (must be a number greater than **start-num**).
- **end-time** Filters the log to display all records that occurred on or before the specified time; use the time format set using the **default time-format** or **default user time-format** command. If using either the **h:mm:ss tt** or **hh:mm:ss tt** time format, use quotes when entering the time (see Examples).
- **metric-x** Filters the Data Log to display only data columns specified via a comma-delimited list of enumerated metrics and/or keywords (see the **show log metrics** command).
- origin Filters the Accounting Log to display only records containing an origin that begins with the specified text.
- period Specifies the quantity of the selected time period of log entries to be displayed.
- qty Specifies the quantity of Accounting or Event Log records to be displayed, beginning with the most recent record.
- record-num Specifies the record number of the Accounting or Event Log to be displayed.
- sensor-name Filters the Data Log to display only records associated with the specified sensor.
- severity Filters the Event Log to display only records with the specified severity level.
- **start-date** Filters the log to display all records that occurred on or after the specified date; use the date format set using the **default date-format** or **default user date-format** command.
- start-num Specifies the number of the first Accounting or Event Log record to be displayed, when displaying a range of records.
- **start-time** Filters the log to display all records that occurred on or after this time; use the time format set using the **default time-format** or **default user time-format** command. If using either the **h:mm:ss tt** or **hh:mm:ss tt** time format, use quotes when entering the time (see Examples).
- username Filters the Accounting Log to display only records associated with the specified user name.
- verbose Displays extended details for a single Event Log record.

#### **Examples**

The following command displays the five (5) most recent Accounting Log records pertaining to user "John D":

```
console> log (accounting)> show report user "John D" 5
```

The following command displays record # 353 of the Accounting Log:

```
console> log (accounting)> show report 353
```

The following command displays Accounting Log records starting January 1, 2020 at 12:00 AM through January 30, 2020 at 12:00 PM, sorted by date in ascending order:

```
console> log (accounting)> show report start-date 1/1/2020 start-time "12:00:00 AM" end-date 1/31/2020 end-time "12:00:00 PM" sort date asc
```

The following command displays Accounting Log records - within range #500 through #1100 - having a description starting with "login", sorted by origin in descending order:

console> log (accounting)> show report description login from 500 to 1100 sort origin desc

continued

The following command displays only the temperature and humidity records (enumerated 117 and 119, respectively) for "Sensor Rack 2A":

```
console > log (data) show report sensor "Sensor Rack 2A" columns 117,119
```

The following command displays only the last 3 days of Data Log records:

```
console > log (data) > show report last 3 day
```

The following command displays all Data Log records from May 1, 2020 9:00 AM to May 31, 2020, 5:00 PM:

```
console> log (data)> show report start-date 5/1/2020 start-time "9:00:00 AM" end-date 5/31/2020 end-time "5:00:00 PM"
```

The following command displays only Event Log records with a severity level of "critical":

```
console> log (event)> show report severity critical
```

The following command displays only Event Log records - within record range #1000 through #6000 - pertaining to device "SensorABC", sorted by severity in descending order:

```
console> log (event)> show report device Sensor ABC from 1000 to 60000 sort severity desc
```

The following command displays - within the last 600 records - records having description beginning with "on", sorted by date in ascending order:

```
console> log (event)> show report description on limit 600 sort date asc
```

# show rollup report

Use the show rollup report command to view the Data Rollup Log. This command applies only to the Data Log.

#### **Syntax**

 $show\ rollup\ report\ [\{columns\ \{< metric-id1> \ |\ < metric-keyword1>\}[, \{< metric-id2> \ |\ < metric-keyword2>\}...\ \{< metric-idN> \ |\ < metric-keywordN>\}]]\ |\ device\ < device-name> \ |\ sensor\ < sensor-name>\}]$ 

- device-name Filters the log to display only records associated with the specified device.
- **metric-x** Filters the log to display only data columns specified via a comma-delimited list of enumerated metrics (see the **show log metrics** command).
- sensor-name Filters the log to display only records associated with the specified sensor.

#### **Examples**

The following command displays only the Output Current and Output Power records (enumerated as 60 and 65, respectively) in the Data Rollup Log:

```
console> log (data)> show rollup report columns 60,65
```

The following command displays only the metrics associated with "Sensor 123" in the Data Rollup Log:

```
console> log (data)> show rollup report sensor "Sensor 123"
```

## show size

Use the **show size** command to display the number of records currently stored in the log. This command does not apply to the Application Log.

#### **Syntax**

show size

#### **Example**

The following command displays the number of records in the Accounting Log:

```
console> log (accounting)> show size
2112
```

#### man

#### man

Use the man command to display a detailed description of a specified command, including usage syntax and examples.

#### **Syntax**

### man < command>

command – Identifies the command for which detailed usage information is to be displayed.

#### **Example**

The following command provides detailed documentation about the host command:

```
console > man host
```

# password

# password

Use the **password** command to change the login password for the currently logged-in user. Two options are available for entering the password. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword. To change the password for a different user, an Administrator should use either the **user** or **snmp-user** command.

#### **Syntax**

## password

password plaintext < current-password > < new-password >

- current-password Specifies the existing password, in plain text.
- new-password Specifies the new password, in plain text.

#### **Example**

The following command changes the password from "localadmin" to "j5k6l7":

```
console> password plaintext localadmin j5k617
Update complete
```

# password-policy

# password-policy age enable

Use the **password-policy age enable** command to enable login password age requirements. Use the **no** form of this command to disable login password age requirements. By default, this setting is disabled.

## **Syntax**

password-policy age enable no password-policy age enable

## **Example**

The following command enables login password age requirements:

```
console> password-policy age enable
Update complete
```

# password-policy age maximum

Use the **password-policy age maximum** command to specify the number of days a login password can be used before it must be changed; **password-policy age** must be enabled for this setting to be in force.

#### **Syntax**

password-policy age maximum <max-age>

max-age – Specifies the maximum number of days a password can be used (Range: 1-999).

#### **Example**

The following command sets the maximum login password age to 30 days:

```
console> password-policy age maximum 30
Update complete
```

# password-policy age minimum

Use the **password-policy age minimum** command to specify the number of days that, upon being changed, a login password must be active before it can be changed again; **password-policy age** must be enabled for this setting to be in force. A value of zero allows users to immediately change their passwords. This value must be less than the maximum password age.

#### **Syntax**

password-policy age minimum <min-age>

min-age – Specifies the minimum number of days a password must remain active before it can be changed (Range: 0-999).

#### **Example**

The following command sets the minimum login password age to 2 days:

```
console> password-policy age minimum 2
Update complete
```

# password-policy min-length

Use the **password-policy min-length** command to specify the minimum number of characters that a login password must contain.

## **Syntax**

#### password-policy min-length < length>

• length - Specifies the minimum number of characters required in the password.

## **Example**

The following command sets the minimum login password length to 6 characters:

```
console> password-policy min-length 6
Update complete
```

# password-policy syntax

Use the **password-policy syntax** command to specify one or more optional character requirements for a login password. The available options are "must contain at least one numeric character" (**numeric**), "must contain at least one special character" (**special**) and "must contain at least one uppercase character" (**uppercase**). Use a comma (",") between options (no spaces) when specifying multiple options. For each option, a minimum of one such character must be used in the password. For example, if **uppercase** is specified, then at least one capital letter must be used in the password. Use the **no** form of this command to remove all syntax requirements.

#### **Syntax**

```
password-policy syntax {numeric | special | uppercase}
no password-policy syntax
```

#### **Example**

The following command sets the requirement for login passwords to contain at least one numeric character and at least one uppercase character:

```
console> password-policy syntax numeric,uppercase
Update complete
```

# show password-policy

Use the **show password-policy** command to display current settings for login password requirements.

### **Syntax**

```
show password-policy [min-length]
show password-policy [age [status | minimum | maximum]]
show password-policy [syntax [numeric | special | uppercase]]
```

#### **Example**

The following command displays all login password policy parameters:

```
console> show password-policy
Password Age Requirements : enabled
Minimum Password Age : 2
Maximum Password Age : 30
Min Required Length : 6
Must Contain At Least One Special Character : disabled
Must Contain At Least One Uppercase Character : enabled
Must Contain At Least One Numeric Character : enabled
```

# radius-server

### radius-server

Use the **radius-server** command to create and/or manage a RADIUS server entry. Use the **no** form of this command to delete the entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **radius-server** (**server-name**) when configuring the entry's status and settings. To exit from the **radius-server** (**server-name**) command format, use either the **end** or **exit** commands. **Note:** prior to creating a second RADIUS server entry, you must use the **accounting port** and **authentication port** commands to change the port numbers of the original entry; new entries always use default values for the accounting and authentication ports.

### **Syntax**

#### radius-server <server-name>

• **server-name** – Specifies the RADIUS server entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no radius-server <server-name>

• **server-name** – Specifies the RADIUS server entry to be deleted.

#### **Examples**

The following command creates "RADsrvr1" as a RADIUS server entry:

```
console> radius-server RADsrvr1
Created RADsrvr1
console> radius-server (RADsrvr1)>
```

The following command deletes entry "Server XYZ":

```
console> no radius-server "Server XYZ"
Deleted Server XYZ
```

## show radius-server

Use the **show radius-server** command to display a summary table of all RADIUS server entries or the details of a specified RADIUS server entry.

## **Syntax**

#### show radius-server [<server-name>]

• server-name - Specifies the entry for which RADIUS server details are to be displayed.

### **Example**

The following command displays a summary table of all RADIUS server entries:

console> show radius-server							
NAME	ACCT	PORT	AUTH	PORT	PROTOCOL	HOST	
RADsrvr1	enabled	1812	enabled	1813	chap	192.168.1.0	
RADsrvr2	disabled	1814	enabled	1815	pap	192.168.1.2	

# radius-server: accounting

# accounting enable

Use the **accounting enable** command to activate the RADIUS server entry as an accounting server. Use the **no** form of this command to disable the entry.

## **Syntax**

accounting enable

no accounting enable

## **Example**

The following command enables entry "RADsrvr1" as an accounting server:

```
console> radius-server (RADsrvr1)> accounting enable
Update complete
```

# accounting port

Use the **accounting port** command to specify the RADIUS server's port number to use for accounting requests. The default accounting port is 1813.

#### **Syntax**

accounting port <port-number>

• port-number – Specifies the entry port to use for accounting (Range: 1-65535).

#### **Example**

The following command sets 1813 as the accounting port to use for entry "RADsrvr1":

```
console> radius-server (RADsrvr1)> accounting port 1813
Update complete
```

# show accounting

Use the **show accounting** command to display the accounting details for the RADIUS server entry.

#### **Syntax**

show accounting [port | status]

#### **Example**

The following command displays the accounting details for entry "RADsrvr1":

```
console> radius-server (RADsrvr1)> show accounting
Acct : enabled
Port : 1813
```

# radius-server: authentication

### authentication enable

Use the **authentication enable** command to designate the RADIUS server entry as an authentication server. Use the **no** form of this command to disable the entry as an authentication server.

## **Syntax**

authentication enable

no authentication enable

#### **Example**

The following command designates entry "RADsrvr1" as an authentication server:

```
console> radius-server (RADsrvr1)> authentication enable
Update complete
```

# authentication port

Use the **authentication port** command to specify the RADIUS server entry's port number to use for authentication requests. The default RADIUS authentication port is 1812.

#### **Syntax**

authentication port <port-number>

• port-number – Specifies the port to use for authentication (Range: 1-65535).

#### **Example**

The following command specifies 1812 as the RADIUS server port for entry "RADsrvr1":

```
console> radius-server (RADsrvr1)> authentication port 1812
Update complete
```

# authentication protocol

Use the **authentication protocol** command to set the Authentication Protocol type for the RADIUS server entry. The available options are: Password Authentication Protocol (**pap**), Challenge-Handshake Authentication Protocol (**chap**) and Microsoft Challenge-Handshake Authentication Protocol (**ms-chap**).

#### **Syntax**

authentication protocol {pap | chap | ms-chap}

#### **Example**

The following command sets CHAP as the Authentication Protocol type for entry "RADsrvr1":

```
console> radius-server (RADsrvr1)> authentication protocol chap
Update complete
```

## show authentication

Use the **show authentication** command to display the authentication details for the RADIUS server.

#### **Syntax**

show authentication [port | protocol | status]

## **Example**

The following command displays the authentication details for entry "RADsrvr1":

```
console> radius-server (RADsrvr1)> show authentication
```

Auth : enabled Port : 1812 Protocol : chap

# radius-server: enable

#### enable

Use the **enable** command to activate the RADIUS server entry. Use the **no** form of this command to disable the entry. **Note:** an entry cannot be enabled until it is configured using the following commands: **host**, **port**, **accounting**, **authentication**.

## **Syntax**

enable

no enable

## **Example**

The following command disables entry "Server ABC":

#### show enable

Use the **show enable** command to display the enabled/disabled status of the RADIUS server entry.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "Server ABC":

```
console> radius-server (Server ABC)> show enable
enabled
```

# radius-server: host

#### host

Use the **host** command to set the IP address or host name of the RADIUS server entry. Both IPv4 and IPv6 addresses are supported.

## **Syntax**

host {<ip-address> | <host-name>}

- ip-address Specifies the IPv4 or IPv6 address of the entry.
- host-name Specifies the host name of the entry.

## **Example**

The following command sets 172.17.60.67 as the IPv4 address of entry "Server ABC":

```
console> radius-server (Server ABC)> host 172.17.60.67
Update complete
```

## show host

Use the **show host** command to display the host name of the RADIUS server entry.

#### **Syntax**

show host

#### **Example**

The following command displays the host name of entry "Server ABC":

```
console> radius-server (Server ABC)> show host
172.17.60.66
```

# radius-server: name

#### name

Use the **name** command to modify the name of the RADIUS server entry.

#### **Syntax**

name < new-name >

• **new-name** – Specifies the new name for the entry.

### **Example**

The following command changes the entry's name from "Server ABC" to "Server XYZ":

```
console> radius-server (Server ABC)> name "Server XYZ"
Update complete
console> radius-server (Server XYZ)>
```

#### show name

Use the **show name** command to display the name entered for the RADIUS server entry.

#### **Syntax**

show name

## **Example**

The following command displays the entry's name:

```
console> radius-server (Server XYZ)> show name
Server XYZ
```

# radius-server: password

# password

Use the **password** command to enter a password for the RADIUS-server entry. Two options are available for entering the password. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

## **Syntax**

password

#### password plaintext <password>

• password – Specifies the password for the entry, in plain text.

## **Example**

The following command sets "v3b4n5" as the password for entry "RADsrvr1":

```
console> radius-server (RADsrvr1)> password plaintext v3b4n5   
Update complete
```

# radius-server: priority

# priority

Use the **priority** command to set a priority for the RADIUS-server entry. In the case where multiple entries exist, the priority determines which servers are used first. For the priority value, enter an integer from 1 to 99. Lower numbers have higher priority.

#### **Syntax**

### priority < priority >

• priority – Specifies the priority level of the entry (Range: 1-99).

#### **Example**

The following command sets 1 (one) as the priority level for entry "RADIUSsrvr1":

```
console> radius-server (RADIUSsrvr1)> priority 1
Update complete
```

# show priority

Use the **show priority** command to display the priority of the RADIUS-server entry.

#### **Syntax**

show priority

## **Example**

The following command displays the priority for entry "RADIUSsrvr1":

```
console> radius-server (RADIUSsrvr1)> show priority 1
```

# radius-server: show

### show

Use the **show** command, with optional keywords, to display details about the RADIUS server entry. To view all keywords applicable to the sensor, enter **show** [Tab][Tab].

### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for entry "Server 123":

```
console> radius-server (Server 123)> show [Tab][Tab]
accounting help name status
authentication host priority test
```

The following command displays all details for entry "Server 123":

Status : enabled
Last Test : Not tested

# radius-server: test

#### test

Use the **test** command to test authenticated communications to the RADIUS server entry. On executing this command, prompts will appear for entering the access credentials for the entry.

#### **Syntax**

test

#### **Example**

The following command executes a communication test of entry "RADIUSsrvr1":

```
console> radius-server (RADIUSsrvr1)> test
Username: Admin123
Password:
Testing...complete
Successful - 3/24/2020 4:34:56 PM
```

## show test

Use the **show test** command to display the metrics of the last communications test of the RADIUS Server entry.

## **Syntax**

show test

#### **Example**

The following command displays the last test metrics of entry "RADIUSsrvr1":

```
console> radius-server (RADIUSsrvr1)> show test
Successful - 3/24/2020 4:34:56 PM
```

# reboot

## reboot

Use the **reboot** command to gracefully shut down and then power up the device's network interface, i.e. the "LX Card". When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the restore without confirmation. This operation does not power cycle the device itself nor any outlet on the device. **Note:** rebooting the LX Card will terminate all active sessions.

## **Syntax**

reboot [force]

#### **Example**

The following command executes a reboot of the device's network interface, with confirmation prompt:

```
console> reboot
This will gracefully shut down and then power up the device's network interface. This operation will not power cycle the device itself or any outlet on the device.
NOTE: a reboot will terminate all active sessions
Are you sure? Type "yes" to proceed:
```

# restore

#### restore

Use the **restore** command to apply configuration settings from either the most recent backup or from factory defaults. When restoring factory default settings, use the **keep-network** option to exclude network settings, i.e. prevent the currently saved network setting from being overwritten. A restore is irreversible. When the command is issued, a prompt will appear to confirm the action. Use the **force** option to execute the restore without confirmation.

## **Syntax**

restore [factory-defaults [keep-network]] [force]

## **Examples**

The following command restores the device's previous configuration (stored using the 'backup' command):

```
console> restore
A restore is irreversible. Are you sure you want to proceed with the restore? Type
"yes" to proceed.
```

The following command restores the device to factory defaults (including network settings), without a confirmation prompt:

```
console> restore factory-defaults force
Restore in progress...
```

# role

### role

Use the **role** command to create a customized user role. Use the **no** form of the command to delete the role. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **role** (<name>) when configuring the entry's status and settings. To exit from the **role** (<name>) command format, use either the **end** or **exit** commands. The default roles are Administrator, Manager, Monitor and Guest. The default roles cannot be deleted, but the roles of Manager, Monitor and Guest can be edited.

### **Syntax**

#### role <name>

• **name** – Specifies the role entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no role <name>

• name – Specifies the role entry to be deleted.

#### **Examples**

The following command creates "Manager 2" as a role:

```
console> role "Manager 2"
Created Manager 2
console> role (Manager 2)>
```

The following command deletes role "contractor":

```
console> no role contractor
Deleted contractor
```

## show role

Use the **show role** command to display a list of available roles - including default and customized user roles - or the details of a specified role entry.

## **Syntax**

### show role [<name>]

• name – Specifies the entry for which role details are to be displayed.

## **Example**

The following command displays a list of available roles, which includes two custom-created roles:

# role: description

# role description

Use the **role description** command to optionally enter a description of the role entry. Use the **no** form of this command to clear the description.

### **Syntax**

description < description >

## no description

 description – Specifies a description for the entry. If spaces are required in the description, bookend the description with quotation marks (").

### **Example**

The following command adds the description "second shift" for entry "Manager 2":

```
console> role (Manager 2)> description "second shift"
Update complete
```

# show description

Use the **show** description command to display the description of the role entry.

#### **Syntax**

show description

#### **Example**

The following command displays the description of entry "Manager 2":

```
console> role (Manager 2)> show description
second shift
```

# role: name

#### name

Use the **name** command to modify the name of the role entry.

## **Syntax**

#### name <new-name>

• **new-name** – Specifies the new name of the entry. If spaces are required in the description, bookend the description with quotation marks (").

## **Example**

The following command renames entry "Manager 2" to "IT Manager 2":

```
console> role (Manager 2)> name "IT Manager 2"
Update complete
console> role (IT Manager 2)>
```

### show name

Use the **show name** command to display the name entered for the entry.

## **Syntax**

show name

### **Example**

The following command displays the entry's name:

```
console> role (IT Manager 2)> show name
IT Manager 2
```

# role: privilege

# privilege

Use the **privilege** command to assign one or more privileges to a role. The list of assigned privileges is additive. Use the **no** form of this command to delete the privileges entry. To view an enumerated list of all privileges, use the **show privileges** command; privileges that are already assigned to the role are denoted with an asterisk (\*). Note that certain privileges may require specifying resources such as load numbers or load group numbers; the default value for these resources is **all**. Specifying one or more resources overwrites the default/previous value.

## **Syntax**

```
privilege {<privilege-id1> | <privilege-name1>}[,{<privilege-id2> | <privilege-name2>}...{<privilege-idN> | <privilege-nameN>}]}
```

privilege < privilege > {all | <resource-1>[, <resource-2>... < resource-N>]}

- privilege Specifies a privilege, either by name or number, to be assigned to the role.
- privilege-idx Specifies the privileges to be assigned to the role, via a comma-delimited, enumerated list.
- privilege-namex Specifies the privileges, by name, to be assigned to the role.
- resource-x Specifies resources related to a privilege, if required.

no privilege {<privilege-id1> | <privilege-name1>}[,{<privilege-id2> | <privilege-name2>}...{<privilege-idN> | <privilege-nameN>}]}

- privilege-idx Specifies the privileges to be removed from the role, via a comma-delimited, enumerated list.
- **privilege-namex** Specifies the privileges, by name, to be removed from the role.

#### **Examples**

The following command assigns the privilege of modifying the clock settings, enumerated as 25, for role "Manager 2":

```
console> role (Manager 2)> privilege 25
Update complete
```

The following command removes the privilege of changing load group settings, enumerated as 42, on device RackPDU, for role "Shift 2":

```
console> role (Shift 2)> no privilege RackPDU 42
Update complete
```

The following command assigns switch load control privileges of loads 1, 2 and 4-12, for role "Manager 2":

```
console> role (Manager 2)> privilege switch-loads 1,2,4-12
Update complete
```

# show privileges

Use the **show privileges** command to display a list of all available privileges. Privileges already assigned to the device are denoted with an asterisk (\*).

#### **Syntax**

## show privileges [<name-pattern>]

name-pattern – a string of characters by which the displayed list of privileges will be filtered.

#### **Example**

The following command displays all privileges available to role "Manager 2". Asterisks denote which privileges are assigned to "Manager 2":

# role: show

## show

Use the **show** command to display all settings for the specified role.

#### **Syntax**

## show [description | name | privileges]

## **Example**

The following command displays all settings for role "Manager 2":

```
console> role (Manager 2)> show
       : Manager 2
Description : second shift
    PRIVILEGE
                                    RESOURCES
 acknowledge alarms
4 change-action-settings
  change-alert-contact-settings
6
8 change-event-settings
9 change-load-group-settings
11 change-load-settings
                                    all
45 view-loads
                                    all
43 view-load-groups
44 view-load-ramp-shed
45 view-schedules
```

# schedule

### schedule

Use the **schedule** command to create and/or manage a scheduled action entry. The **schedule-type** must be specified when creating a new scheduled action entry; schedule types are dependent upon the device(s) connected. Certain schedule types also require specifying a target device. Use the **show schedule-types** command to display a list of available action types and their target device dependence. Use the **no** form of this command to delete an entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **schedule (<schedule-name>)** when configuring the entry's status and settings. To exit from the **schedule (<schedule-name>)** command format, use either the **end** or **exit** commands.

When configuring a schedule, be sure to enter all parameters specific to the selected action-type. Prior to enabling the entry, you must set a **start-date**, **frequency** and **recurrence**.

**Note:** scheduled actions will NOT account for time shifts caused by Daylight Savings Time; the actions will continue to execute at the configured time.

#### **Syntax**

#### schedule < schedule-name >

• schedule-name – Specifies the schedule action entry to be managed.

#### schedule <schedule-name> <schedule-type> [<device-name>]

- device-name Specifies the device (or sensor) undergoing the scheduled action.
- **schedule-name** Specifies the name of the schedule to be created. If spaces are required, bookend the name with quotation marks (").
- schedule-type Specifies the type of scheduled action.

#### no schedule <schedule-name>

• schedule-name – Specifies the scheduled action entry to be deleted.

### **Examples**

The following command creates "Daily Shutdown" as a scheduled action entry for device "UPS123":

```
console> schedule "Daily Shutdown" turn-off-device UPS123
Created Daily Shutdown
console> schedule (Daily Shutdown)>
```

The following command deletes entry "Weekend Shutdown":

```
console> no schedule "Weekend Shutdown"
Deleted Weekend Shutdown
```

### show schedule

Use the **show schedule** command to display a summary table of all schedules or the details of a specified schedule entry.

### **Syntax**

#### show schedule [<schedule -name>]

• schedule-name - Specifies the entry for which schedule details are to be displayed.

## **Example**

The following command displays a summary table of all scheduled action entries:

# schedule: enable

#### enable

Use the enable command to activate the scheduled action entry. Use the no form of this command to disable the entry.

### **Syntax**

enable

no enable

### **Example**

The following command enables entry "Daily Shutdown":

```
console> schedule (Daily Shutdown)> enable
Update complete
```

#### show enable

Use the show enable command to display the enabled/disabled status of the scheduled action entry.

#### **Syntax**

show enable

### **Example**

The following command displays the status of entry "Daily Shutdown":

```
console> schedule (Daily Shutdown)> show enable
enabled
```

# schedule: frequency

# frequency

Use the **frequency** command to configure when the action entry will be executed.

#### **Syntax**

#### Frequency once

#### frequency daily <days>

days – Specifies the number of days between successive executions of the scheduled action entry. For example, a value of
one (1) sets the schedule to run every day; a value of two (2) will run every other day, and so on.

#### frequency weekly <weeks> <weekday-1>[,<weekday-2>...<weekday-N>]

- weeks Specifies the number of weeks between successive executions of the scheduled action entry. For example, a value of one (1) sets the schedule to run every week; a value of two (2) will run every other week, and so on.
- weekday-x Specifies the days of the week sun, mon, tue, wed, thu, fri, sat that the scheduled action entry is to be executed. Use a comma (",") between selections without any spaces when specifying multiple days (e.g. "mon,tue,fri").

## frequency monthly <day> <months>

- day Specifies the numeric day of the month 1 to 31 on which a scheduled action entry is to be executed.
- months Specifies the number of months between successive executions of the scheduled action entry. For example, a value of one (1) sets the schedule to run every month; a value of two (2) will run every other month, and so on.

# frequency monthly {first | second | third | fourth | last} <weekday-1>[,<weekday-2>...<weekday-N>] <months>

- **{occurrence}** Sets the occurrence of the month that the scheduled action entry is to be executed. Use a comma (",") between selections without any spaces when specifying multiple occurrences (e.g. "first,third").
- weekday-x Specifies the days of the week sun, mon, tue, wed, thu, fri, sat that the scheduled action entry is to be executed. Use a comma (".") between selections without any spaces when specifying multiple days (e.g. "mon,tue,fri").
- months Specifies the number of months between successive executions of the scheduled action. For example, a value of one (1) sets the schedule to run every month; a value of two (2) will run every other month, and so on.

#### frequency yearly <month-1>[,<month-2>...<month-N>] <day>

- day Specifies the numeric day of the month 1 to 31 on which a scheduled action entry is to be executed.
- month-x Specifies which months jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec the scheduled action entry is to be executed. Use a comma (",") between selections without any spaces when specifying multiple months (e.g.. "jan,apr,jul,oct").

# frequency yearly {first | second | third | fourth | last} < weekday-1>[,< weekday-2>...< weekday-N>] < month-1>[,< month-1>...< month-N>]

- **{occurrence}** Sets the occurrence of the month that the scheduled action entry is to be executed. Use a comma (",") between selections without any spaces when specifying multiple occurrences (e.g. "first,third").
- weekday-x Specifies the days of the week sun, mon, tue, wed, thu, fri, sat that the scheduled action entry is to be executed. Use a comma (",") between selections without any spaces when specifying multiple days (e.g. "mon,tue,fri").
- month-x Specifies which months jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec the scheduled action entry is to be executed. Use a comma (",") between selections without any spaces when specifying multiple months (e.g.. "jan,apr,jul,oct").

continued

#### **Examples**

The following command sets entry "Weekend Shutdown" to be executed every week, on Sundays:

```
console> schedule (Weekend Shutdown)> frequency weekly sun
Update complete
```

The following command sets entry "Bi-monthly Reset" to be executed every two months, on the first and third Saturday of the month:

```
console> schedule (Bi-monthly Reset)> frequency monthly first,third sat 2
Update complete
```

# show frequency

Use the show frequency command to display the frequency settings of the scheduled action entry.

## **Syntax**

show frequency

### **Example**

The following command displays the frequency settings of entry "Bi-monthly Reset":

```
console> schedule (Bi-monthly Reset)> show frequency
Every 2 month(s) on the first and third Saturday
```

# schedule: load

## load

Use the **load** command to assign one or more loads to a scheduled action. Loads can be assigned as a series of numbers (i.e. "3,4,5,6"), as a range of numbers (i.e. "3-6"), or in combination (i.e. "3,5-8,10,12-15"). Note that the list of loads is additive. Use the **no** form of this command to remove one or more loads from the scheduled action. This command applies only to action type "load".

#### **Syntax**

load <load-1>[,<load-2>...<load-N>]

load-x – Specifies a comma-delimited list of loads to be added to the scheduled action entry.

```
no load <load-1>[,<load-2>...<load-N>]
```

load-x – Specifies a comma-delimited list of loads to be removed from the scheduled action entry.

#### **Example**

The following command assigns loads 1, 5, 6, 7, 8 and 12 to entry "Daily Off":

```
console> schedule (Daily Off)> load 1,5-8,12
Update complete
```

## load state

Use the **load state** command to specify load behavior – turn **on**, turn **off** or **cycle** – when the scheduled action is executed. This command applies only to action type "load".

#### **Syntax**

load state {cycle | off | on}

#### **Example**

The following command configures the loads specified in entry "Daily Off" to turn off when triggered:

```
console> schedule (Daily Off)> load state off
Update complete
```

## show load

Use the **show load** command to display the load details for the scheduled action entry. This command applies only to action type "load".

#### **Syntax**

show load [state]

## **Example**

The following command displays the load details for entry "Daily Off":

```
console> schedule (Daily Off)> show load
Load(s) : 1,5,6,7,8,12
Load State : off
```

# schedule: load-group

# load-group

Use the **load-group** command to assign one or more load groups to a scheduled action. Note that load groups are created using the device-level **load-group** command. Use the **no** form of this command to remove one or more load groups from the scheduled action. This command applies only to action type "load-group".

### **Syntax**

```
load-group <group-1>[,<group-2>...<group-N>]
```

• group-x – Specifies a comma-delimited list of load groups to be added to the scheduled action.

```
no load-group <group-1>[,<group-2>...<group-N>]
```

• group-x – Specifies a comma-delimited list of load groups to be removed from the scheduled action.

#### **Example**

The following command assigns load groups "Routers1" and "Routers2" to entry "Weekly Cycle":

```
console> schedule (Weekly Cycle)> load-group Routers1,Routers2
Update complete
```

# load-group state

Use the **load-group state** command to specify the load group behavior – turn **on**, turn **off** or **cycle** – when the scheduled action is executed. This command applies only to action type "load-group".

## **Syntax**

load-group state {cycle | off | on}

#### **Example**

The following command configures the load groups specified in entry "Weekly Cycle" to cycle when triggered:

```
console> schedule (Weekly Cycle)> load-group state cycle
Update complete
```

# show load-group

Use the **show load-group** command to display the load group details for the scheduled action entry. This command applies only to action type "load-group".

#### **Syntax**

#### show load-group [state]

• **state** – Displays the behavior of the load group(s), when triggered.

#### **Example**

The following command displays the load group details for entry "Weekly Cycle":

```
console> schedule (Weekly Cycle)> show load-group
Load Group(s) : Routers1,Routers2
Load Group State : cycle
```

# schedule: name

#### name

Use the **name** command to modify the name of the scheduled action entry.

## **Syntax**

#### name < new-name >

name – Specifies the new name for the scheduled action entry.

#### **Example**

The following command changes the entry name from "Daily Shutdown" to "Weekend Shutdown":

```
console> schedule (Daily Shutdown)> name "Weekend Shutdown"
Update complete
console> schedule (Weekend Shutdown)>
```

### show name

Use the **show name** command to display the name of the scheduled action entry.

#### **Syntax**

show name

## **Example**

The following command displays the name of entry "Daily Shutdown":

```
console> schedule (Daily Shutdown)> show name
Daily Shutdown
```

# schedule: output-contact

# output-contact

Use the **output-contact** command to specify the output contact behavior – to **open** or **close** – when triggered by the scheduled action entry. This command is applicable only to action type "sensor" and, specifically, sensor model E2MTDO. Ensure that the specific E2MTDO is selected using the **target-device** command.

## **Syntax**

output-contact < number > { open | close}

• **number** – Specifies the output contact number of the sensor.

### **Example**

The following command sets the #2 contact to open when triggered, for scheduled action "Noon Fan Off":

```
console> schedule (Noon Fan Off)> output-contact 2 open
Update complete
```

# show output-contact

Use the **show output-contact** command to display the output settings of the scheduled action entry.

#### **Syntax**

show output-contact

#### **Example**

The following command displays the output settings of scheduled action "Noon Fan Off":

```
console> schedule (Noon Fan Off)> show output contact
Contact Number: 2
Action: Open
```

# schedule: recurrence

#### recurrence

Use the **recurrence** command to configure how often a scheduled action entry is to be executed.

## **Syntax**

#### recurrence forever

#### recurrence count < count>

• count – Specifies the number of times that the entry is to be executed (Range: 0-99).

#### recurrence until <date> <time>

- date Specifies the entry's ending date, in the format selected using the default date-format or default user date-format command.
- time Specifies the entry's ending time, in the format selected using the **default time-format** or **default user time-format** command. If using either the **h:mm:ss tt** or **hh:mm:ss tt** time format, use quotes when entering the time (see Examples).

#### **Examples**

The following command sets entry "Weekend Shutdown" to be executed twelve (12) times:

```
console> schedule (Weekend Shutdown)> recurrence count 12
Update complete
```

The following command sets entry "Weekend Shutdown" to be executed until 12/1/2020 12:34:56 PM:

```
console> schedule (Weekend Shutdown)> recurrence until 12/1/2020 "12:34:56 PM"
Update complete
```

### show recurrence

Use the **show recurrence** command to display the recurrence settings of the scheduled action entry.

### **Syntax**

#### show recurrence

#### **Example**

The following command displays the recurrence of entry "Weekend Shutdown":

```
console> schedule (Weekend Shutdown)> show recurrence
until 12/1/2020 12:34:56 PM
```

# schedule: restart

#### restart

Use the **restart** command to set the restart delay time for the scheduled action entry. The restart delay sets the time that must elapse (after shutdown completes) before the device turns on. The default value is zero (0), which will cause the immediate restart of the device after shutdown. The unit of measure for delay times is typically seconds, but will vary by device model. Not all device models support restart delay times. This command applies only to action type "restart-device".

#### **Syntax**

#### restart <delay>

• delay - Specifies the restart delay time, in seconds, for the "restart-device" scheduled action entry (Range: 0-65535).

## **Example**

The following command sets a restart delay of 60 seconds for scheduled action entry "WeeklyRestart":

```
console> schedule (WeeklyRestart)> restart 60
Update complete
```

### show restart

Use the **show restart** command to display the restart delay time for the scheduled action entry. This command applies only to action type "restart-device".

### **Syntax**

show restart

### **Example**

The following command displays the restart delay time for scheduled action entry "WeeklyRestart":

```
console> schedule (WeeklyRestart)> show restart
60
```

# schedule: run-on

#### run-on

Use the **run-on** command to set the starting date of the scheduled action entry. Note that if using either the **h:mm:ss tt** or **hh:mm:ss tt** time format, use quotes when entering the time (see Examples). New scheduled action entries cannot have a run-on time sooner than 10 minutes after the current PADM UTC time. Doing so will automatically add 10 minutes to the desired run-on time. This issue may also arise if changes to PADM date and time settings are made after new schedule entries are created. For instance, if the PADM time is set back by one hour, the run-on time of the newly created schedule will automatically change to the current time plus 10 minutes.

### **Syntax**

### run-on <date> <time>

- date Specifies the entry's starting date, in the format selected using the default date-format or default user date-format command.
- time Specifies the entry's starting time, in the format selected using the **default time-format** or **default user time-format** command.

## **Example**

The following command sets a start date and time of 6/1/2020 2:34:56 PM for entry "Weekend Shutdown":

```
console> schedule (Weekend Shutdown)> run-ons 6/1/2020 "2:34:56 PM"
Update complete
```

#### show run-on

Use the **show run-on** command to display the start date and time of the scheduled action entry.

#### **Syntax**

show run-on

### **Example**

The following command displays the start date of entry "Weekend Shutdown":

```
console> schedule (Weekend Shutdown)> show run-on
6/1/2020 2:34:56 PM
```

# schedule: show

#### show

Use the **show** command, with optional keywords, to display details about the scheduled action entry. To view all keywords applicable to the entry, enter show [Tab][Tab].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

## **Examples**

The following command displays all **show** keywords for entry "Weekend Shutdown":

```
console> schedule (Weekend Shutdown)> show [Tab][Tab]
frequency name recurrence status
         next-date run-on
help
                                target-device
```

The following command displays all schedule settings for entry "Weekend Shutdown":

```
console> schedule (Weekend Shutdown)> show
```

Name : Weekend Shutdown Task : turn-off-device

Status : enabled

Next Scheduled : 2/22/2020 3:42:00 PM

Last Ran

Frequency : monthly, first and third Saturday, every 2 month(s)
Recurrence : until 12/1/2020 6:00:00 PM

Target Device : device123

# show targets

Use the **show targets** command to display a list of devices and sensors available for selection as targets for action entries.

#### **Syntax**

#### show targets

### **Example**

The following command displays a list of devices and sensors available for selection as targets:

```
console> schedule (Weekend Shutdown)> show targets
             TYPE
UPS123
           device
E2MTHDI
            sensor
E2MT-A sensor
E2MT-B sensor
```

# schedule: target-device

# target-device

Use the **target-device** command to specify the device or sensor undergoing the action, as defined by the scheduled action entry. Note that changing the target device of a scheduled action entry will require re-entering all action parameters; the parameters associated with the previous target device will be erased. Use the **show targets** command to display a list of devices and sensors available for selection as target devices.

#### **Syntax**

target-device {<device-name> | <sensor-name>}

- device-name Specifies the new target device associated with the entry.
- sensor-name Specifies the new target sensor associated with the entry.

#### **Example**

The following command sets "Sensor-E2MTDO" as the new target device for scheduled action entry "IndicateHour":

```
console> schedule (IndicateHour)> target-device Sensor-E2MTDO
Update complete
```

# show target-device

Use the **show target-device** command to display the device or sensor undergoing the scheduled action.

#### **Syntax**

show target-device

### **Examples**

The following command displays the target device for scheduled action entry "IndicateHour":

```
console> schedule (IndicateHour)> show target-device
Sensor-E2MTDO
```

# scp

# scp enable

Use the **scp enable** command to enable Secure Copy (SCP) service. Use the **no** form of this command to disable the SCP service. The SCP service can only be enabled if the SSH service is enabled (see **ssh** command). By default, both SSH and SCP are enabled. Note that SCP is tied to SFTP; enabling or disabling SCP will automatically enable or disable SFTP, respectively.

#### **Syntax**

scp enable

no scp enable

#### **Example**

The following command disables SCP service:

```
console> no scp enable
Update complete
Note: Use the "apply network" command to complete the change. This may cause a system reboot.
```

# show scp

Use the **show scp** command to display the status of the SCP service.

### **Syntax**

show scp [status]

## **Example**

The following command displays all SCP service information:

```
console> show scp
enabled
```

# session

### no session

Use the **no session** command to forcibly end one or more active sessions, i.e., users logged into the device interface. Given that a user may be active in more than one session, sessions are terminated by specifying the session number. Use the **show session** command to view a list of active sessions, arranged by session number.

## **Syntax**

no session <session-1>[,<session-2>,...<session-N>]

• session-x – Specifies a comma-delimited list of session numbers to be terminated.

## **Examples**

The following command terminates session #5:

```
console> no session 5
Session(s) terminated
```

The following command terminates session #3 and session #8:

```
console> no session 3,8
Session(s) terminated
```

## show session

Use the **show session** command to view a list of active sessions, i.e. users logged into the device.

## **Syntax**

show session <session-#> [duration | location | name | time | type | username] show session location <location> show session name <name> show session type {console | web}

#### show session username < username >

- **location** Specifies the location for which all active sessions are to be displayed.
- name Specifies the full name for which all active sessions are to to be displayed.
- session-# Specifies the session number for which information is to be displayed.
- username Specifies the user name for which all active sessions are to be displayed.

## **Example**

The following command displays all active sessions:

console> show session							
ID	USER NAME	NAME		TYPE	LOCATION	LOGGED ON	
1	ITadmin1	John	Doe	console	10.2.22.1	3/24/2020	11:32:22 AM
2	localmgr1	Jane	Doe	web	10.2.24.63	3/24/2020	1:55:12 PM
3	localmgr2	Moe	Doe	web	10.2.24.66	3/23/2020	4:05:47 AM
4	localmgr2	Moe	Doe	web	10.2.24.77	3/22/2020	4:21:32 AM
5	contractor15	_		console	192.168.1.1	3/21/2020	3:55:13 PM

# sftp

# sftp enable

Use the **sftp enable** command to enable SSH File Transfer Protocol (SFTP) service. Use the **no** form of this command to disable the SFTP service. The SFTP service can only be enabled if the SSH service is enabled; by default, both SSH and SFTP are enabled. Note that SFTP service is also tied to SCP service; enabling or disabling SFTP will automatically enable or disable SCP, respectively.

### **Syntax**

sftp enable

no sftp enable

### **Example**

The following command disables SFTP service:

```
console> no sftp enable
Update complete
```

Note: Use the "apply network" command to complete the change. This may cause a system reboot.

# show sftp

Use the **show sftp** command to display the current status of the SFTP service.

#### **Syntax**

show sftp [status]

## **Example**

The following command displays all SFTP service information:

```
console> show sftp
enabled
```

# show

### show

Use the **show** command to display all available commands. Use the **show** command with optional keywords to display details about a specified command. To view a summary list of all keywords, enter **show** [Tab][Tab].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the command for which details are to be displayed.

## **Examples**

The following command displays all root level **show** keywords:

```
console> show [Tab] [Tab]
                                                              uptime
              dns
aaa
                            log
                                              sms
about
              email
                            network
                                                              user
                                              smtp
action
              event
                            password-policy
                                              snmp
                            radius-server snmp-server
action-types help
alert
                                              snmp-user
              host
                            role
                            schedule
              http
                                              ssh
autoprobe
clock
              https
                            schedule-types support
contact
              ipv4
                            scp
                                              syslog-server
default
              ipv6
                            session
                                              telnet
                                              timezones
device
              ldap-server
                             sftp
```

The following command displays a list of time zones:

```
console> show timezones
Africa/Abidjan
Africa/Accra
Africa/Algiers
...
```

### sms

#### sms

Use the **sms** command to create and manage Short Message Service (SMS) notification recipients. Use the **no** form of this command to delete recipients. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **sms** (<name>) when configuring the entry's status and settings. To exit from the **sms** (<name>) command format, use either the **end** or **exit** commands. To create email notification recipients, use the **email** command; to create SNMP recipients, use the **snmp-server** command.

#### **Syntax**

#### sms <name>

 name – Specifies the sms recipient entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no sms <name>

• name – Specifies the sms recipient entry to be deleted.

#### **Examples**

The following command creates "johnd" as an SMS notification recipient:

```
console> sms johnd
Created johnd
console> sms (johnd)>
```

The following command deletes entry "johnd":

```
console> no sms johnd
Deleted johnd
```

## show sms

Use the **show sms** command to display a summary table of SMS recipients or the details of a specified SMS entry.

#### **Syntax**

#### show sms [<name>]

• name – Specifies the SMS entry for which details are to be displayed.

#### **Example**

The following command displays a summary table of all SMS recipients:

console>	show sms		
NAME	CONTACT	STATUS	LAST TEST
johnd	1-800-123-4567	enabled	Not tested
janed	1-800-123-4568	enabled	Test successful - 3/24/2020 17:34:45
tomd	tomd@text.com	disabled	Test failed - 3/23/2020 11:22:33

# sms: contact

#### contact

Use the **contact** command to specify the contact information for the entry – either a phone number associated with a supported carrier or an SMS (email) address associated with an unsupported carrier. Use the **show carriers** command to display a list of supported carriers.

## **Syntax**

contact <carrier> <phone-number>

#### contact other <wireless-address>

- carrier Specifies the carrier associated with the entry, in abbreviated form.
- wireless-address Specifies the SMS email address associated with the entry.
- phone-number Specifies the phone number associated with the entry.

## **Examples**

The following command sets AT&T phone number 888-555-1234 as the SMS contact information for entry "maryd":

```
console> sms (maryd)> contact at&t 888-555-1234
Update complete
```

The following command sets "8005551234@txt.othercarrier.net" as the SMS contact information for entry "maryd":

```
console> sms (maryd)> contact other 8005551234@txt.othercarrier.net
Update complete
```

### show contact

Use the **show contact** command to display the contact information for the SMS entry.

#### **Syntax**

show contact

### **Example**

The following command displays the contact information for entry "maryd":

```
console> sms (maryd)> show contact
att: 888-555-1234
```

# sms: enable

## enable

Use the enable command to activate the SMS entry. Use the no form of this command to disable the SMS entry.

## **Syntax**

enable

no enable

## **Example**

The following command disables entry "maryd":

```
console> sms (maryd)> no enable
Update complete
```

## show enable

Use the **show enable** command to display the enabled/disabled status of the SMS recipient entry.

#### **Syntax**

show enable

## **Example**

The following command shows the status of entry "maryd":

```
console> sms (maryd)> show enable
disabled
```

## sms: name

### name

Use the **name** command to modify the name of the SMS recipient entry.

## **Syntax**

name <new-name>

• new-name - Specifies the new name for the SMS entry.

### **Example**

The following command changes the entry's name from "maryd" to "Mary Dove":

```
console> sms (maryd)> name "Mary Dove"
console> sms (Mary Dove)>
```

## show name

Use the **show name** command to display the name of the SMS recipient entry.

### **Syntax**

show name

## **Example**

The following command displays the entry's name:

```
console> sms (Mary Dove)> show name
Mary Dove
```

# sms: show

### show

Use the **show** command to display the details about the SMS recipient entry.

### **Syntax**

show [contact | name | status | test]

### **Example**

The following command displays all settings for entry "maryd":

console> sms (maryd)> show

Name : maryd
Phone : 888-888-8888
Status : enabled Last Test : Not tested

#### show carriers

Use the **show carriers** command to display a list of supported carriers.

#### **Syntax**

show carriers

#### **Example**

The following command displays a list of supported carriers:

```
console> sms (maryd)> show carriers
alltel
att
boost mobile
c spire
consumer_cellular
cricket
google fi
metro pcs
page plus
republic wireless
sprint
ting
tmobile
tracfone
us cellular
verizon
virgin mobile
xfinity_mobile
```

## sms: test

#### test

Use the **test** command to send a test SMS message to the SMS recipient entry.

#### **Syntax**

test

#### **Example**

The following command sends a test SMS message to entry "maryd":

```
console> sms (maryd)> test
Testing...completed
Successful - 1/1/2020 7:34:45 PM
```

#### show test

Use the **show test** command to display the metrics of the last test message sent to the SMS recipient.

#### **Syntax**

show test

#### **Example**

The following command displays the metrics of the last test SMS message for entry "maryd":

```
console(maryd)> show test
Successful - 1/1/2020 7:34:45 PM
```

## smtp

### smtp authentication enable

Use the **smtp authentication enable** command to optionally enable SMTP authentication. Note that an SMTP **user name**, **password** and **security type** must be entered before SMTP authentication can be enabled. Use the **no** form of this command to disable SMTP authentication. Use the **apply network** command to complete SMTP configuration.

#### **Syntax**

smtp authentication enable no smtp authentication enable

#### **Example**

The following command enables SMTP authentication:

```
console> smtp authentication enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### smtp email

Use the **smtp email** command to configure settings related to notification email messages. Use the **from** sub-command to specify the email address of the entity sending the email notifications. Use the **subject** sub-command to modify the subject line (title) of the email message; the default subject line is "PowerAlert Notification". Use the **language** sub-command to select the language of the email notifications; the default selection is English.

#### **Syntax**

#### smtp email from <address>

address – Specifies the email address of the entity sending the email.

#### smtp email language {english}

#### smtp email subject <title>

• **title** – Specifies the text appearing in the Subject Line of the email. If spaces are required, bookend the title with quotation marks (").

#### **Examples**

The following command specifies "notifier@company.com" as the sender of notification emails:

```
console> smtp email from notifier@company.com Update complete
```

The following command modifies the Subject Line of the email as "System123 Notification":

```
console> smtp email subject "System123 Notification"
Update complete
```

### smtp enable

Use the **smtp enable** command to activate the entry. Note that an SMTP **host** and **port** must be entered before SMTP authentication can be enabled. Use the **no** form of this command to disable the entry SMTP. Use the **apply network** command to complete SMTP configuration.

#### **Syntax**

smtp enable

no smtp enable

#### **Example**

The following command enables the SMTP entry:

```
console> smtp enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### smtp host

Use the **smtp host** command to enter the host name of the SMTP server.

#### **Syntax**

#### smtp host <host-name>

• **host-name** – Identifies the host name of the SMTP server.

#### **Example**

The following command identifies "mail.company.com" as the host name of SMTP server:

```
console> smtp host mail.company.com
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### smtp password

Use the **smtp password** command to enter a password for the **user**. This parameter must be set before SMTP authentication can be enabled. Two options are available for entering the password. The first option will prompt entry of the password and password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

#### smtp password [plaintext < password>]

password – Specifies the password, in plain text, to associate with the SMTP user account.

#### **Example**

The following command sets the SMTP authentication password as "P855w4":

```
console> smtp password plaintext P855w4
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### smtp port

Use the smtp port command to set the port through which the system will communicate with the SMTP server.

#### **Syntax**

#### smtp port <port-number>

• port-number – Specifies the port number for communicating with the SMTP server (Range: 1-65535).

#### **Example**

The following command sets the system's SMTP port number to 25:

```
console> smtp port 25
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### smtp type

Use the **smtp type** command to select a security type option. The available choices are: **none**, Secure Socket Layer/ Transport Layer Security Layer (**ssltls**) and STARTTLS/Opportunistic TLS (**starttls**). This parameter must be set before SMTP authentication can be enabled.

#### **Syntax**

smtp type {none | ssltls | starttls}

#### **Example**

The following command sets "starttls" as the SMTP security type:

```
console> smtp type starttls
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### smtp user

Use the **smtp user** command to specify the SMTP username. This parameter must be set before SMTP authentication can be enabled.

#### **Syntax**

smtp user <user-name>

• **user-name** – Specifies the username required for authentication.

#### **Example**

The following command sets "Admin123" as the SMTP username:

```
console> smtp user Admin123
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

## show smtp

Use the **show smtp** command to display the current settings for the SMTP service. Note that authentication passwords will not be displayed.

#### **Syntax**

show smtp [status | authentication | email | host | port | status | type | user ]

#### **Example**

The following command displays all SMTP settings:

Email Subject : System123 Notification

### snmp

#### snmp port

Use the **snmp port** command to set the port number to use for inbound SNMP GETs and SETs. The default port number for the SNMP service is 161. Use the **apply network** command to complete SNMP configuration.

#### **Syntax**

#### snmp port <port-number>

• port-number – Specifies the port number to use for inbound SNMP GETs and SETs (Range: 1-65535).

#### **Example**

The following command changes the SNMP port to 163:

```
console> snmp port 163
Update complete
```

NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.

### snmp enable

Use the **snmp enable** command to individually enable inbound SNMPv1, SNMPv2 and/or SNMPv3 communications. Use the **no** form of this command to individually disable SNMPv1, SNMPv2 and/or SNMPv3 communications. By default, SNMPv1, SNMPv2 and SNMPv3 are all enabled. Use the **apply network** command to complete SNMP configuration.

#### **Syntax**

```
snmp \{v1 \mid v2 \mid v3\} enable
no snmp \{v1 \mid v2 \mid v3\} enable
```

#### **Examples**

The following command enables inbound SNMP v3 communications:

```
console> snmp v3 enable Update complete \label{eq:complete} \begin{tabular}{ll} NOTE: Use the "apply network" command to complete the change. This may cause a system reboot. \\ \end{tabular}
```

The following command disables inbound SNMP v1 communications:

```
console> no snmp v1 enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### show snmp

Use the **show snmp** command to display the current settings for the SNMP service.

#### **Syntax**

```
show snmp [port | v1 | v2 | v3]
```

#### **Example**

The following command displays all SNMP setting:

```
console> show snmp
SNMP Port : 163
SNMP V1 : enabled
SNMP V2c : enabled
SNMP V3 : enabled
```

### snmp-server

#### snmp-server

Use the **snmp-server** command to create and/or manage an outbound SNMP agent, i.e., SNMP recipient entry. The SNMP version must be specified when creating a new entry. Use the **no** form of this command to delete the entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **snmp-server** (**server-name>**) when configuring the entry's status and settings. To exit from the **snmp-server** (**server-name>**) command format, use either the **end** or **exit** commands. To create email notification recipients, use the **email** command; to create SMS recipients, use the **sms** command.

#### **Syntax**

#### snmp-server <server-name>

• **server-name** – Specifies the SNMP recipient entry to be managed.

#### snmp-server <server-name> {v1 | v2 | v3}

• **server-name** – Sets the name of the SNMP recipient entry to be created. If spaces are required, bookend the name with quotation marks (").

#### no snmp-server < server-name >

• **server-name** – Specifies the SNMP recipient entry to be deleted.

#### **Examples**

The following command creates "SNMPrcvr1" as an SNMPv3 recipient:

```
console> snmp-server SNMPrcvr1 v3
Created SNMPrcvr1
console> snmp-server (SNMPrcvr1)>
```

The following command deletes the entry "Server ABC":

```
console> no snmp-server "Server ABC"
Deleted Server ABC
```

## show snmp-server

Use the **show snmp-server** command to display a summary table of all SNMP server entries or the details of a specified SNMP server entry.

#### **Syntax**

#### show snmp-server < server-name >

server-name – Specifies the SNMP server entry for which details are to be displayed.

#### **Example**

The following command displays a summary table of all SNMP server entries:

console> show snmp-server									
NAME	STATUS	HOST	VERSION	TRAP PORT	SET PORT				
SRVrcvr1	enabled	192.168.88.88	v1	162	161				
SRVrcvr2	enabled	192.168.88.99	v3	162	161				

## snmp-server: authentication

### authentication passphrase

Use the **authentication passphrase** command to enter an authentication passphrase for the SNMP (v3) server entry. A passphrase is required if **security-mode** is set to either **authnopriv** or **authpriv**. Two options are available for entering the password. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

authentication passphrase [plaintext <passphrase>]

passphrase – Specifies the entry's authentication passphrase for the SNMP server entry, in plain text.

#### **Example**

The following command sets the Authentication Passphrase to "a1b2c3" for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> authentication passphrase plaintext a1b2c3
Update complete
```

### authentication protocol

Use the **authentication protocol** command to select an Authentication Protocol for the SNMP server entry. A protocol selection is required if **security-mode** is set to either **authnopriv** or **authpriv**. The available options are MD5 and SHA1.

#### **Syntax**

authentication protocol {md5 | sha1}

#### **Example**

The following command sets the Authentication Protocol to SHA1 for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> authentication protocol shal
Update complete
```

## show authentication protocol

Use the **show authentication protocol** command to display the selected authentication protocol for the SNMP server entry.

#### **Syntax**

show authentication protocol

#### **Example**

The following command displays the authentication protocol for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> show authentication protocol shal
```

## snmp-server: community

### community

Use the **community** command to enter a community string for the SNMP (v1 or v2) server entry. A community string must be specified prior to enabling the entry. Two options are available for entering the community string. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text community string on the command line by using the **plaintext** keyword.

#### **Syntax**

community

#### community plaintext < community-string>

• community-string – Specifies the community string for the entry, in plain text.

#### **Example**

The following command sets "public" as the community string for entry "Server ABC":

```
console> snmp-server (Server ABC)> community plaintext public
Update complete
```

## snmp-server: enable

#### enable

Use the **enable** command to activate the SNMP server entry. Use the **no** form of this command to disable the entry. Note: an SNMPv1 or v2 entry cannot be enabled until it is configured using the **host** and **community** commands. Likewise, an SNMPv3 entry cannot be enabled until it is configured using the **host**, **set**, **trap** and **username** commands.

#### **Syntax**

enable

no enable

#### **Example**

The following command disables entry "Server ABC":

```
console> snmp-server (Server ABC)> no enable
Update complete
```

#### show enable

Use the show enable command to display the enabled/disabled status for the SNMP server entry.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "Server ABC":

```
console> snmp-server (Server ABC)> show enable
enabled
```

## snmp-server: host

#### host

Use the **host** command to set the IP address or host name of the SNMP server entry. Both IPv4 and IPv6 addresses are supported. The host must be specified prior to enabling the entry.

#### **Syntax**

host {<ip-address> | <host-name>}

- ip-address Specifies the IPv4 or IPv6 address of the entry.
- host-name Specifies the host name of the entry.

#### **Example**

The following command sets 172.17.60.66 as the IPv4 address for entry "SNMPsrvr1":

```
console> snmp-server (SNMPsrvr1)> host 172.17.60.66
Update complete
```

#### show host

Use the **show host** command to display the host name entered for the SNMP server entry.

#### **Syntax**

show host

#### **Example**

The following command displays the host name for entry "SNMPsrvr1":

```
console> snmp-server (SNMPsrvr1)> show host
172.17.60.66
```

## snmp-server: name

#### name

Use the **name** command to modify the name of the SNMP server entry.

#### **Syntax**

name < new-name >

• **new-name** – Specifies the new name for the entry.

#### **Example**

The following command changes the entry's name from "Server ABC" to "Server XYZ":

```
console> snmp-server (Server ABC)> name "Server XYZ"
Update complete
console> snmp-server (Server XYZ)>
```

#### show name

Use the **show name** command to display the name entered for the SNMP server entry.

#### **Syntax**

show name

#### **Example**

The following command displays the entry's name:

```
console> snmp-server (Server XYZ)> show name Server XYZ
```

## snmp-server: privacy

### privacy passphrase

Use the **privacy passphrase** command to enter a privacy passphrase for the SNMP (v3) server entry. A passphrase is required if **security-mode** is set to **authpriv**. Two options are available for entering the passphrase. The first option will prompt the entry of a passphrase followed by a passphrase confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text passphrase on the command line by using the **plaintext** keyword.

#### **Syntax**

privacy passphrase [plaintext <passphrase>]

• passphrase – Specifies the passphrase for the entry, in plain text.

#### **Example**

The following command sets the Privacy Passphrase to "g2h3j4" for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> privacy passphrase plaintext g2h3j4
Update complete
```

## privacy protocol

Use the **privacy protocol** command to select a Privacy Protocol. A protocol selection is required if **security-mode** is set to **authpriv**. The available options are DES and AES.

#### **Syntax**

privacy protocol {des | aes}

#### **Example**

The following command sets the Privacy Protocol to 128-bit AES for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> privacy protocol aes
Update complete
```

### show privacy protocol

Use the show privacy protocol command to display the selected privacy protocol for the SNMP server entry.

#### **Syntax**

show privacy protocol

#### **Example**

The following command displays the privacy protocol for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> show privacy protocol
aes
```

## snmp-server: security-mode

## security-mode

Use the **security-mode** command to change the default Privacy setting of the SNMP (v3) server entry. The default setting is "No Authentication and No Privacy" (**noauthnopriv**). The other available choices are: "Authentication and No Privacy" (**authnopriv**), "Authentication and Privacy" (**authpriv**).

#### **Syntax**

security-mode {noauthnopriv | authnopriv | authpriv}

#### **Example**

The following command sets the Security Mode to "Authentication and Privacy" for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> security-mode authpriv
Update complete
```

## show security-mode

Use the **show security-mode** command to display the security mode selected for the SNMP server entry.

#### **Syntax**

show security-mode

#### **Example**

The following command displays the security mode for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> show security-mode
authentication and privacy
```

## snmp-server: set

#### set enable

Use the **set enable** command to enable SNMP SETs for the SNMP server entry. Use the **no** form of the command to disable SNMP SETs.

#### **Syntax**

set enable

no set enable

#### **Examples**

The following command enables SNMP SETs for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> set enable
Update complete
```

The following command disables SNMP SETs for entry "Server ABC":

```
console> snmp-server (Server ABC)> no set enable
Update complete
```

#### set port

Use the **set port** command to identify the port number to use when sending an SNMP SET. The default port number for SNMP SET is 161.

#### **Syntax**

set port <port-number>

port-number – Specifies the entry's port number to use when sending an SNMP SET (Range: 1-65535).

#### **Example**

The following command assigns 161 as the SET port for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> set port 161
Update complete
```

#### set test

Use the **set test** command to execute a test of SNMP SET communications with the SNMP server entry.

#### Syntax 1 4 1

set test <oid> <value> {string | integer}

- oid Specifies the OID to set on the SNMP server.
- value Specifies the value to be set.

#### **Example**

The following command executes a test of SNMP communications with entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> set test 1.3.6.1.4.1.123.1.2.3.4.0 1 integer Testing...complete Successful - 3/24/2020 5:44:32 PM
```

#### show set

Use the **show set** command to display the SET details for the SNMP server entry.

#### **Syntax**

```
show set [port | status | test]
```

#### **Example**

The following command displays the SNMP SET details for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> show set
Set Port : 161
```

Set Status : enabled

Set Test : Test successful- 3/24/2020 5:44:32 PM

## snmp-server: show

#### show

Use the **show** command, with optional keywords, to display details for the SNMP server entry. To view all keywords applicable to the entry, enter **show** [**Tab**][**Tab**].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for entry "Server 123":

```
console> snmp-server (Server 123)> show [Tab][Tab]
authentication host privacy set trap version
help name security-mode status username
```

The following command displays all details for entry "Server 123":

```
console> snmp-server (Server 123)> show
Name : SNMP123
Status : enabled
Host : 192.168.1.111
Username : Adminv3
Version : v3
Trap Port : 162
Set Port : 161
```

Type : trap
Trap : enabled
Trap Test : Not tested
Set : disabled
Set Test : Not tested
Sec Mode : authpriv
Auth : shal
Priv : aes

## snmp-server: trap

### trap enable

Use the **trap enable** command to enable SNMP Traps or Informs for the SNMP server entry. Use the **no** form of the command to disable SNMP Traps or Informs.

#### **Syntax**

trap enable

no trap enable

#### **Examples**

The following command enables SNMP Traps for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> trap enable
Update complete
```

The following command disables SNMP Traps for entry "Server ABC":

```
console> snmp-server (Server ABC)> no trap enable
Update complete
```

### trap port

Use the **trap port** command to identify the port number for the SNMP server entry to use when sending an SNMP Trap. The default port number for SNMP Trap is 162.

#### **Syntax**

trap port <port-number>

• port-number – Specifies the entry's port number to use when sending an SNMP Trap (Range: 1-65535).

#### **Example**

The following command assigns 162 as the Trap port for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> trap port 162
Update complete
```

### trap test

Use the trap test command to execute a test of SNMP Trap/Inform communications with the SNMP server entry.

#### Syntax 1 4 1

trap test

#### **Example**

The following command executes a test of SNMP Trap/Inform communications with entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> trap test
Testing...complete
Spruccessful - 3/24/2020 11:44:32 AM
```

### trap type

Use the **trap type** command to identify the type or notification to use, **trap** or **inform**. The default notification type is **trap**.

#### **Syntax**

trap type {trap | inform}

#### **Example**

The following command assigns Inform as the notification type for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> trap type inform
Update complete
```

### show trap

Use the **show trap** command to display the trap settings for the SNMP server.

#### **Syntax**

show trap [port | status | test | type]

#### **Example**

The following command displays the SNMP Trap/Inform details for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> show trap
```

Trap Port : 161
Trap Status : enabled

Trap Test Result : Test successful - 3/24/2020 11:44:32 AM

Trap Type : inform

## snmp-server: username

#### username

Use the **username** command to add a username for the SNMP (v3) server entry. The username must be specified prior to enabling the entry.

#### **Syntax**

#### username < username >

• username – Specifies the username of the (SNMPv3) entry.

#### **Example**

The following command sets "AdminV3" as the username for entry "SNMPrcvr1":

```
console> snmp-server (SNMPrcvr1)> username AdminV3
Update complete
```

#### show username

Use the **show username** command to display the username entered for the SNMP server entry.

#### **Syntax**

show username

#### **Example**

The following command displays the username entered for entry "Server ABC":

```
console> snmp-server (Server ABC)> show username
AdminV3
```

### snmp-user

#### snmp-user

Use the **snmp-user** command to create and/or manage an inbound SNMP user entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **snmp-user** (**<username>**) when configuring the entry's status and settings. The SNMP version must be specified at all times. Use the **no** form of this command to delete the entry. To exit from the **snmp-user** (**<username>**) command format, use either the **end** or **exit** commands.

#### **Syntax**

snmp-user <username> [v1 | v2 | v3]

• **username** – Specifies the name of the SNMP user entry to be created or managed. Note: spaces are not allowed in SNMP user names.

no snmp-user <username> [v1 | v2 | v3]

• username - Specifies the SNMP user entry to be deleted.

#### **Examples**

The following command creates "AdminABC" as an SNMP v3 user:

```
console> snmp-user AdminABC v3
Created AdminABC
console> snmp-user (AdminABC)>
```

The following command deletes SNMP user "old-admin":

```
console> no snmp-user old-admin v3
Deleted old-admin
```

### show snmp-user

Use the **show snmp-user** command to display a summary table of all SNMP user entries or the details of a specified SNMP user entry.

#### **Syntax**

show snmp-user [<username> [v1 | v2 | v3]]

• username – Specifies the SNMP user entry for which details are to be displayed.

#### **Example**

The following command displays a summary table of all SNMP user entries:

	console> sho				
USERNAME CONTACT		DESCRIPTION	STATUS	IP FILTER	
	snmpadmin2	1-888-123-4567	Shift 2 Admin	enabled	
	snmpmgr1	1-888-123-4566	Shift 1 Manager	enabled	192.168.11.0/255.255.255.0
	snmpmgr2	1-888-123-4565	Shift 2 Manager	enabled	192.168.11.0/255.255.255.0
	snmpguest1	1-888-123-4564	Guest #1	enabled	192.168.11.120

## snmp-user: authentication

### authentication passphrase

Use the **authentication passphrase** command to enter an authentication passphrase for the SNMP user entry. A passphrase is required if **security-mode** is set to either **authnopriv** or **authpriv**. Two options are available for entering the password. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the plaintext keyword.

#### **Syntax**

authentication passphrase [plaintext <passphrase>]

passphrase – Specifies the authentication passphrase for the SNMP user entry, in plain text.

#### **Example**

The following command sets the Authentication Passphrase to "a1b2c3" for entry "AdminABC":

```
console> snmp-user (AdminABC)> authentication passphrase plaintext alb2c3
Update complete
```

## authentication protocol

Use the **authentication protocol** command to select an Authentication Protocol for the SNMP user entry. A protocol selection is required if **security-mode** is set to either **authnopriv** or **authpriv**. The available options are MD5 and SHA1.

#### **Syntax**

authentication protocol {md5 | sha1}

#### **Example**

The following command sets the Authentication Protocol to SHA1 for entry "AdminABC":

```
console> snmp-user (AdminABC)> authentication protocol shal
Update complete
```

### show authentication protocol

Use the show authentication protocol command to display the selected authentication protocol for the SNMP user entry.

#### **Syntax**

show authentication protocol

#### **Example**

The following command displays the authentication protocol for entry "AdminABC":

```
console> snmp-user (AdminABC)> show authentication protocol shal
```

## snmp-user: community

### community

Use the **community** command to enter a community string for the SNMP user entry. A community string must be specified if the SNMP **version** is set to either v1 or v2. Two options are available for entering the community string. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text community string on the command line by using the **plaintext** keyword.

#### **Syntax**

community [plaintext < community-string>]

• community-string – Specifies the community string for the entry, in plain text.

#### **Example**

The following command sets "public" as the community string for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> community plaintext public
Update complete
```

## snmp-user: contact

#### contact

Use the **contact** command to optionally enter contact information for the SNMP user entry. Use the **no** form of this command to clear the contact.

#### **Syntax**

contact < contact>

no contact

• **contact** – Specifies the contact information for the entry. If spaces are required, bookend the contact information with quotation marks (").

#### **Example**

The following command sets "mobile: 1-888-888-8888" as the contact information for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> contact "mobile: 1-888-888-8888"
Update complete
```

#### show contact

Use the **show contact** command to display the contact information entered for the SNMP user.

#### **Syntax**

show contact

#### **Example**

The following command displays the contact information for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show contact
mobile: 1-888-888-8888
```

## snmp-user: description

### description

Use the **description** command to optionally enter a description for the SNMP user entry. Use the **no** form of this command to clear the description.

#### **Syntax**

description < description >

#### no description

• description - Specifies a description for the entry. If spaces are required, bookend the description with quotation marks (").

#### **Example**

The following command sets "SNMP Administrator, shift 2" as the description for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> description "SNMP Administrator, shift 2" Update complete
```

## show description

Use the **show description** command to display the description entered for the entry.

#### **Syntax**

show description

#### **Example**

The following command displays the description for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show description
SNMP Administrator, shift 2
```

## snmp-user: enable

#### enable

Use the **enable** command to activate the SNMP user entry. Use the **no** form of this command to disable the entry. **Note:** an SNMPv1 or v2 entry cannot be enabled until it is configured using the **host** and **community** commands. Likewise, an SNMPv3 entry cannot be enabled until it is configured using the **host**, **security-mode** and **username** commands.

#### **Syntax**

enable

no enable

#### **Examples**

The following command enables entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> enable
Update complete
```

The following command disables entry "old admin":

```
console> snmp-user (old-admin)> no enable
Update complete
```

#### show enable

Use the **show enable** command to display the enabled/disabled status of the SNMP user entry.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show enable
enabled
```

## snmp-user: filter

#### filter

Use the **filter** command to optionally specify an IPv4 or IPv6 address or subnet to which SNMP access of the SNMP user entry will be limited. This command applies only if the SNMP **version** is set to either v1 or v2. Use the **no** form of this command to remove all IP filtering.

#### **Syntax**

filter <ip-address> [{/<prefix-length> | <mask>}]

#### no filter

- **ip-address** Specifies the IPv4 or IPv6 address to which the entry's access will be limited; specifies the starting address of an IPv4 range to which the entry's access will be limited.
- mask Specifies the subnet mask for the IPv4 address to which the entry's access will be limited.
- prefix-length Specifies the prefix length for the IPv6 address to which the entry's access will be limited.

#### **Examples**

The following command allows entry "snmpadmin2" to access the device only from 192.168.11.100:

```
console> snmp-user (snmpadmin2)> filter 192.168.11.100
Update complete
```

The following command allows entry "snmpadmin2" to access the device only from within the IP address range of 192.168.11.0 to 192.168.11.255:

```
console> snmp-user (snmpadmin2)> filter 192.168.11.0 255.255.255.0
Update complete
```

The following command removes all IP filtering for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> no filter
Update complete
```

#### show filter

Use the **show filter** command to display IP filter parameters entered for the SNMP user entry.

#### **Syntax**

show filter

#### **Example**

The following command displays the IP filter specified for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show filter 10.10.10.10.10/255.255.255.255
```

## snmp-user: privacy

### privacy passphrase

Use the **privacy passphrase** command to enter a privacy passphrase for the SNMP user entry. A passphrase is required if **security-mode** is set to **authpriv**. Two options are available for entering the password. The first option, using the command without additional parameters, will prompt the entry of a password and password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

privacy passphrase [plaintext <passphrase>]

• passphrase - Specifies the passphrase for the entry, in plain text.

#### **Example**

The following command sets the Privacy Passphrase to "g2h3j4" for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> privacy passphrase plaintext g2h3j4
Update complete
```

### privacy protocol

Use the **privacy protocol** command to select a Privacy Protocol for the SNMP user entry. A protocol selection is required if **security-mode** is set to **authpriv**. The available options are **des** and **aes**.

#### **Syntax**

privacy protocol {des | aes}

#### **Example**

The following command sets the Privacy Protocol to AES for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> privacy protocol aes
Update complete
```

## show privacy protocol

Use the **show privacy protoco**l command to display the selected privacy protocol for the SNMP user entry.

#### Syntax 1 4 1

show privacy protocol

#### **Example**

The following command displays the privacy protocol for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show privacy protocol
aes
```

## snmp-user: role

#### role

Use the **role** command to change the Role assigned to the SNMP user entry. Three standard Roles are supported: **administrator** (the default), **manager** and **guest**. Additionally, customized Roles may be assigned; see the root-level **role** command.

#### **Syntax**

role {administrator | manager | guest | <custom-name>}

• custom-name - Assigns a specified custom role to the entry (if created via the root-level role command).

#### **Example**

The following command assigns the role of Manager to entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> role manager
Update complete
```

#### show role

Use the **show role** command to display the role assigned to the SNMP user.

#### **Syntax**

show role

#### **Example**

The following command displays the role assigned to entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show role
Manager
```

## snmp-user: security-mode

## security-mode

Use the **security-mode** command to change the default Privacy setting of the SNMP (v3) user entry. The default setting is "No Authentication and No Privacy" (**noauthnopriv**). The other available choices are: "Authentication and No Privacy" (**authnopriv**), "Authentication and Privacy" (**authpriv**).

#### **Syntax**

security-mode {noauthnopriv | authnopriv | authpriv}

#### **Example**

The following command sets the Security Mode to "Authentication and Privacy" for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> security-mode authpriv
Update complete
```

### show security-mode

Use the **show security-mode** command to display the security mode selected for the SNMP user entry.

#### **Syntax**

show security-mode

#### **Example**

The following command displays the security mode of entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show security-mode
authentication and privacy
```

## snmp-user: show

#### show

Use the **show** command, with optional keywords, to display details for the SNMP user entry. To view all keywords applicable to the entry, enter **show** [**Tab**][**Tab**].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show [Tab][Tab]
authentication description privacy security-mode username
contact help role status version
```

The following command displays all details for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show
```

Username : SNMP123

Contact : Description :
Status : er

Status : enabled
Security Mode : authpriv
Authentication : shal
Privacy : aes

Role : Administrator

Version : v3

### snmp-user: username

#### username

Use the **username** command to modify the username of the SNMP user entry.

#### **Syntax**

#### username < username >

• username – Specifies the new username of the entry. Note: the username cannot contain spaces.

#### **Example**

The following command sets "AdminV3" as the new username for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> username AdminV3
Update complete
```

#### show username

Use the **show username** command to display the username entered for the SNMP user entry.

#### **Syntax**

show username

#### **Example**

The following command displays the username entered for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> show username
snmpadmin2
```

### ssh

#### ssh enable

Use the **ssh enable** command to enable the Secure Shell (SSH) service. Use the **no** form of this command to disable the SSH service. The SSH service is enabled by default. Use the **apply network** command to complete SSH configuration.

#### **Syntax**

ssh enable

no ssh enable

#### **Example**

The following command enables the SSH service:

```
console> ssh enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### ssh port

Use the **ssh port** command to set the port number to use for the SSH service. The default port number for the SSH service is 22.

#### **Syntax**

#### ssh port <port-number>

• port-number – Specifies the port to use for the SSH service (Range: 1-65535).

#### **Example**

The following command changes the port to use for the SSH service to 24:

```
console> ssh port 24
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

#### show ssh

Use the **show ssh** command to display the current settings for the SSH service.

#### **Syntax**

show ssh [status | port]

#### **Example**

The following command displays all SSH settings:

```
console> show ssh
SSH Status : enabled
SSH Port : 24
```

## syslog-server

### syslog-server

Use the **syslog-server** command to create and/or manage a syslog server entry. Use the **no** form of this command to delete the entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **syslog-server** (**server-name**) when configuring the entry's status and settings. To exit from the **syslog-server** (**server-name**) command format, use either the **end** or **exit** commands. Note that the host-name (or IP address) of the entry is configured using the server's **host** command.

#### **Syntax**

#### syslog-server <server-name>

• **server-name** – Specifies the syslog server entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no syslog-server <server-name>

• **server-name** – Specifies the syslog server entry to be deleted.

#### **Examples**

The following command creates "SYSsrvr2" as a syslog server entry:

```
console> syslog-server SYSsrvr2
Created SYSsrv2
console> syslog-server (SYSsrvr2)>
```

The following command deletes the entry named "Syslog server 2":

```
console> no syslog-server "Syslog server 2"
Deleted Syslog server 2
```

## show syslog-server

Use the **show syslog-server** command to display a summary table of all syslog server entries or the details of a specified syslog server entry.

#### **Syntax**

#### show syslog-server [<server-name>]

• server-name – Specifies the syslog server entry for which details are to be displayed.

#### **Example**

The following command displays a summary table of all syslog server entries:

console> show syslog-server									
STATUS	NAME	HOST	PORT	FACILITY	SEVERITY				
enabled	SYSsrvr1	10.22.0.1	514	23	emergency				
enabled	SYSsrvr2	10.22.0.2	515	23	warning				
enabled	SYSsrvr3	10.22.0.3	516	23	debug				

## syslog-server: enable

#### enable

Use the **enable** command to activate the syslog server entry. Use the **no** form of this command to disable the entry.

#### **Syntax**

enable

no enable

#### **Example**

The following command disables entry "Server ABC":

```
console> syslog-server (Server ABC)> no enable
Update complete
```

#### show enable

Use the **show enable** command to display the enabled/disabled status for the syslog server.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "Server ABC":

```
console> syslog-server (Server ABC)> show enable enabled
```

## syslog-server: facility

## facility

Use the **facility** command to set the type of program logging the message for the syslog server entry. The list of facilities and codes is defined by standard RFC-5424. The default facility code for each entry is 1.

#### **Syntax**

#### facility < facility>

• facility – Specifies the facility code for the entry.

#### **Example**

The following command sets 23 as the facility code for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> facility 23
Update complete
```

### show facility

Use the **show facility** command to display the facility code of the syslog server entry.

#### **Syntax**

show facility

#### **Example**

The following command displays the facility code for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> show facility
23
```

## syslog-server: host

#### host

Use the **host** command to set the IP address or host name of the syslog server entry. Both IPv4 and IPv6 addresses are supported.

#### **Syntax**

host {<ip-address> | <host-name>}

- ip-address Specifies the IPv4 or IPv6 address of the entry.
- host-name Specifies the host name of the entry.

#### **Example**

The following command sets 172.17.60.66 as the IPv4 address for entry "SysLogsrvr1":

```
console> syslog-server (SysLogsrvr1)> host 172.17.60.66
Update complete
```

#### show host

Use the **show host** command to display the host name entered for the entry.

#### **Syntax**

show host

#### **Example**

The following command displays the host name for entry "SysLogsrvr1":

```
console> syslog-server (SysLogsrvr1)> show host
172.17.60.66
```

## syslog-server: log

#### log

Use the **log** command to set which log type records are to be sent to the syslog server entry. Use the **all** option to specify all log types, or enter this command multiple times to specify log types individually. Use the **no** form of this command to disable transmissions to the entry.

#### **Syntax**

```
log {all | application | data | event} enable
no log {all | application | data | event} enable
```

#### **Example**

The following command enables sending Application Log items to entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> log application enable
Update complete
```

### show log

Use the **show log** command to display the log types specified for the syslog server entry.

#### **Syntax**

show log

#### **Example**

The following command displays the log types specified for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> show log
Application : enabled
Data : enabled
Event : enabled
```

## syslog-server: name

#### name

Use the **name** command to modify the name of the syslog server entry.

#### **Syntax**

#### name <new-name>

new-name – Specifies the new name for the entry.

#### **Example**

The following command changes the entry's name from "Server ABC" to "Server XYZ":

```
console> syslog-server (Server ABC)> name "Server XYZ"
Update complete
console> syslog-server (Server XYZ)>
```

#### show name

Use the **show name** command to display the name entered for the syslog server entry.

#### **Syntax**

show name

#### **Example**

The following command displays the entry's name:

```
console> syslog-server (Server ABC)> show name Server ABC
```

## syslog-server: port

#### port

Use the **port** command to specify the port number of the syslog server entry.

#### **Syntax**

port <port-number>

• port-number – Specifies the port number of the entry (Range: 1-65535).

#### **Example**

The following command specifies 514 as the syslog server port for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> port 514
Update complete
```

### show port

Use the **show port** command to display the port number for the syslog server entry.

#### **Syntax**

show port

#### **Example**

The following command displays the port number for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> show port
514
```

## syslog-server: severity

### severity

Use the **severity** command to set the minimum severity level at which records are to be logged to the syslog server entry.

#### **Syntax**

severity {emergency | alert | critical | error | warning | notice | info | debug | trace}

#### **Example**

The following command configures entry "SYSsrvr2" to receive records with a severity level of 'critical' or higher:

```
console> syslog-server (SYSsrvr2)> severity critical
Update complete
```

### show severity

Use the **show severity** command to display the minimum severity level specified for the syslog server entry.

#### **Syntax**

show severity

#### **Example**

The following command displays the minimum severity level for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> show severity
critical
```

## syslog-server: show

#### show

Use the **show** command, with optional keywords, to display details about the syslog server entry. To view all keywords applicable to the entry, enter **show** [**Tab**].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all details for entry "Server 123":

```
console> syslog-server (Server 123)> show
facility host name severity
help log port status
```

The following command displays all details for entry "Server 123":

```
console> syslog-server (Server 123)> show
Status : enabled
Name : SYSsrvr2
Host : 10.10.10.2
Port : 514
Facility : 23
Severity : warning
Application : disabled
Data : enabled
Event : enabled
```

## telnet

#### telnet enable

Use the **telnet enable** command to enable the Telnet service. Use the **no** form of this command to disable the Telnet service. The Telnet service is enabled by default. Use the **apply network** command to complete Telnet configuration.

#### **Syntax**

telnet enable

no telnet enable

#### **Example**

The following example enables the Telnet service:

```
console> telnet enable
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

### telnet port

Use the **telnet port** command to set the port number to use for the Telnet service. The default port number for the Telnet service is 23.

#### **Syntax**

#### telnet port <port-number>

• port-number – Specifies the port to use for the Telnet service (Range: 1-65535).

#### **Example**

The following example changes the port to use for the Telnet service to 24:

```
console> telnet port 24
Update complete
NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.
```

#### show telnet

Use the **show telnet** command to display the current settings for the Telnet service.

#### **Syntax**

show telnet [status | port]

#### **Example**

The following command displays all Telnet service information.

```
console> show telnet
Telnet Status : enabled
Telnet Port : 22
```

#### user

#### user

Use the **user** command to create and/or manage an entry for a local user. Use the **no** form of this command to delete the entry. When creating an entry, select an easily remembered name as a label for the entry; this name will be used in the command format **user** (**<user-name>**) when configuring the entry's status and settings. To exit from the **user** (**<user-name>**) command format, use either the **end** or **exit** commands. PADM supports up to 64 local user entries.

#### **Syntax**

#### user <user-name>

• **user-name** – Specifies the user entry to be created or managed. If spaces are required, bookend the name with quotation marks (").

#### no user <user-name>

• **user-name** – Specifies the user entry to be deleted.

#### **Examples**

The following command creates "ITadmin1" as a user entry:

```
console> user ITadmin1
Created ITadmin1
console> user (ITadmin1)>
```

The following command deletes entry "Admin shift 2":

```
console> no user "Admin shift 2":
Deleted Admin shift 2
```

#### show user

Use the **show user** command to display a summary table of all user entries or the details of a specified user entry.

#### **Syntax**

#### show user [<user-name>]

• user-name – Specifies the entry for which user details are to be displayed.

#### **Example**

The following command shows a summary table of all user entries:

console> show	user		
NAME	CONTACT	DESCRIPTION	STATUS
ITadmin1	123-456-7890	IT Administrator, shift 1	enabled
localmgr1	x8888	Shift 1 Manager	enabled
localmgr2	x8888	Shift 2 Manager	enabled
contractor15	_	security	enabled

### user: contact

#### contact

Use the **contact** command to optionally enter contact information for the user entry. Use the **no** form of this command to clear the information.

#### **Syntax**

contact < contact >

#### no contact

• **contact** – Specifies the contact information for the entry. If spaces are required, bookend the contact information with quotation marks (").

#### **Example**

The following command sets "mobile: 1-888-888" as the contact information for entry "ITadmin1":

```
console> user (ITadmin1)> contact "mobile: 1-888-888-8888"
Update complete
```

#### show contact

Use the **show contact** command to display the contact information entered for the user.

#### **Syntax**

show contact

#### **Example**

The following command displays the user's contact information:

```
console> user (ITadmin1)> show contact
mobile: 1-888-888-8888
```

# user: description

# description

Use the **description** command to optionally enter a description for the user entry. Use the **no** form of this command to clear the description.

#### **Syntax**

description < description>

#### no description

• description – Specifies a description for the entry. If spaces are required, bookend the description with quotation marks (").

#### **Example**

The following command sets "IT Administrator, shift 1" as the description for entry "ITadmin1":

```
console> user (ITadmin1)> description "IT Administrator, shift 1" Update complete
```

### show description

Use the **show description** command to display the description entered for the user entry.

#### **Syntax**

show description

#### **Example**

The following command displays the description entered for entry "ITadmin1":

```
console> user (ITadmin1)> show description
IT Administrator, shift 1
```

## user: enable

#### enable

Use the **enable** command to activate the user entry. Use the **no** form of this command to disable the entry.

#### **Syntax**

enable

no enable

#### **Example**

The following command enables entry "ITadmin1":

```
console> user (ITadmin1)> enable
Update complete
```

#### show enable

Use the **show enable** command to display the enabled/disabled status of the user entry.

#### **Syntax**

show enable

#### **Example**

The following command displays the status of entry "ITadmin1":

```
console> user (ITadmin1)> show enable
enabled
```

## user: filter

#### filter

Use the **filter** command to optionally specify an IPv4 or IPv6 address or subnet to which access by the user entry will be limited. Use the **no** form of this command to remove all IP filtering for the entry.

#### **Syntax**

```
filter <ip-address> [{/<prefix-length> | <mask>}]
```

#### no filter

- ip-address Specifies the IPv4 or IPv6 address to which the entry's access will be limited.
- mask Specifies the subnet mask for the IPv4 address to which the entry's access will be limited.
- prefix-length Specifies the prefix length for the IPv6 address to which the entry's access will be limited.

### **Examples**

The following command allows entry "ITadmin1" to access the device only from within the 192.168.11.XXX subnet:

```
console> user (ITadmin1)> filter 192.168.11/255.255.255.0
Update complete
```

The following command removes all IP filtering for entry "ITadmin1":

```
console> user (ITadmin1)> no filter
Update complete
```

#### show filter

Use the **show filter** command to display the IP filter entered for the user entry.

#### **Syntax**

show filter

#### **Example**

The following command displays the IP filter specified for entry "ITadmin1":

```
console> user (ITadmin1)> show filter
192.168.11/255.255.255.0
```

### user: fullname

#### **fullname**

Use the **fullname** command to optionally enter a full name for the user entry. Use the **no** form of this command to clear the full name.

#### **Syntax**

#### fullname <fullname>

• fullname - Specifies the full name of the user entry. If spaces are required, bookend the full name with quotation marks (").

#### **Example**

The following command sets "John Doe" as the full name for entry "ITadmin1":

```
console> usesr (ITadmin1)> fullname "John Doe"
Update complete
```

#### show fullname

Use the **show fullname** command to display the full name entered for the user entry.

#### **Syntax**

show fullname

#### **Example**

The following command displays the full name of entry "ITadmin1":

```
console> user (ITadmin1)> show fullname
John Doe
```

# user: password

## password

Use the **password** command to change the login password for the user entry. Two options are available for entering the password. The first option will prompt the entry of a password followed by a password confirmation, neither of which will be echoed to the terminal. The second option allows entry of a plain text password on the command line by using the **plaintext** keyword.

#### **Syntax**

password

#### password plaintext <password>

• password - Specifies the new password for the user entry, in plain text.

#### **Example**

The following command changes the password to "j5k6l7" for entry "lTadmin1":

```
console> user (ITadmin1)> password plaintext j5k617
Update complete
```

# user: password-age

### password-age

Use the **password-age** command to enter alternate password aging settings for the user entry; the global settings are configured using the **password-policy** command. This command is valid only if the global password age override is enabled using the **password-age enable** command.

#### **Syntax**

password-age {minimum | maximum} <password-age>

• password-age – Specifies the number of days associated with the minimum/maximum password age for the entry (Range: 1-999).

#### **Example**

The following command sets 15 days as the maximum password age for entry "ITadmin1":

```
console> user (ITadmin1)> password-age maximum 15
Update complete
```

### password-age enable

Use the **password-age enable** command to allow override of the global password age settings for the user entry. Use the **no** form of this command to return to the global setting.

#### **Syntax**

password-age enable

no password-age enable

#### **Example**

The following command allows override of the global password aging settings for entry "ITadmin1":

```
console> user (ITadmin1)> password-age enable
Update complete
```

# show password-age

Use the **show password-age** command to display the password aging override settings for the user entry.

#### **Syntax**

show password-age

#### **Example**

The following command displays the password aging override settings for entry "ITadmin1":

```
console> user (ITadmin1)> show password-age
Maximum Password Age: default
Minimum Password Age: default
```

# user: role

#### role

Use the **role** command to change the Role assigned to the user entry. Three standard Roles are supported: **administrator** (the default), **manager** and **guest**. Additionally, customized Roles may be assigned; see the root-level **role** command.

#### **Syntax**

role {administrator | manager | guest | <custom-name>}

• custom – Assigns a specified custom role to the entry (if created via the root-level role command).

#### **Example**

The following command assigns the role of Guest to entry "contractor15":

```
console> user (contractor15)> role guest
Update complete
```

#### show role

Use the **show role** command to display the role selected for the user entry.

#### **Syntax**

show role

#### **Example**

The following command displays the role assigned for entry "contractor15":

```
console> user (contractor15)> show role
Guest
```

### user: show

#### show

Use the **show** command, with optional keywords, to display details for the user entry. To view all keywords applicable to the entry, enter show [Tab][Tab].

#### **Syntax**

#### show [keyword]

• **keyword** – Specifies the attribute to be displayed.

#### **Examples**

The following command displays all **show** keywords for entry "ITadmin1":

```
console> user (ITadmin1)> show [Tab][Tab]
           filter help
                                 role timeout
description fullname password-age status username
```

The following command displays all details for entry "ITadmin1":

```
console > user (ITadmin1) > show
Contact
                   : ITadmin1
```

: mobile 1-888-888-8888

:

Description : shift 2 Status : enabled

IP Filter

Full Name : John Doe : Manager Role Timeout override : enabled Idle (Minutes) : 30 Session (Minutes) : 360 Password Age Status : disabled Minimum Password Age : 15 Maximum Password Age : 45

# user: timeout

#### timeout

Use the timeout command to override the global idle and session timeout settings for the user entry; the global settings are configured using the **default** command. Use the **no** form of this command to revert to the global setting.

#### **Syntax**

```
timeout {idle | session} <time>
```

#### no timeout {idle | session}

• time - Specifies the number of minutes associated with the idle/session timeouts for the user entry (Range: 1-999).

#### **Example**

The following command sets 30 minutes as the idle timeout for entry "ITadmin1":

```
console> user (ITadmin1)> timeout idle 30
Update complete
```

#### show timeout

Use the **show timeout** command to display the idle and session timeout override settings for the user entry.

#### **Syntax**

show timeout

#### **Example**

The following command displays the idle and session timeout override settings for entry "ITadmin1":

```
console> user (ITadmin1)> show timeout
Idle (Minutes) : 30
Session (Minutes) : 360
```

#### user: username

#### username

Use the **username** command to modify the name of the user entry.

#### **Syntax**

#### username < new-name >

• new-name - Specifies the new name of the entry. If spaces are required, bookend the description with quotation marks (").

#### **Example**

The following command changes the entry's name from "ITadmin1" to "ITadmin ABC":

```
console> user (ITadmin1)> username "ITadmin ABC"
Update complete
console> user (ITadmin ABC)>
```

#### show username

Use the **show username** command to display the name entered for the user entry.

#### **Syntax**

show username

#### **Example**

The following command displays the username of the entry:

```
console> user (ITadmin ABC)> show username
ITadmin ABC
```

The following time zones are supported in PADM. Use the **show timezones** command to display them in CLI. Time zones are set using the default timezone and default user timezone commands.

Atrica	Africa
--------	--------

Africa/Abidjan Africa/Accra

Africa/Addis Ababa

Africa/Algiers Africa/Asmara Africa/Asmera Africa/Bamako Africa/Bangui Africa/Banjul Africa/Bissau Africa/Blantyre Africa/Brazzaville Africa/Bujumbura

Africa/Cairo Africa/Casablanca

Africa/Ceuta Africa/Conakry Africa/Dakar

Africa/Dar es Salaam

Africa/Djibouti Africa/Douala Africa/El Aaiun Africa/Freetown Africa/Gaborone Africa/Harare

Africa/Johannesburg

Africa/Juba Africa/Kampala Africa/Khartoum Africa/Kigali Africa/Kinshasa Africa/Lagos Africa/Libreville Africa/Lome Africa/Luanda Africa/Lubumbashi Africa/Lusaka Africa/Malabo Africa/Maputo

Africa/Maseru

Africa/Mbabane

Africa/Mogadishu

Africa/Monrovia Africa/Nairobi Africa/Ndjamena Africa/Niamey Africa/Nouakchott Africa/Ouagadougou Africa/Porto-Novo Africa/Sao Tome Africa/Timbuktu

Africa/Tunis Africa/Windhoek

Africa/Tripoli

#### **America**

America/Adak America/Anchorage America/Anguilla America/Antigua America/Araguaina

America/Argentina/Buenos Aires America/Argentina/Catamarca

America/Argentina/ComodRivadavia

America/Argentina/Cordoba America/Argentina/Jujuy America/Argentina/La Rioja America/Argentina/Mendoza America/Argentina/Rio Gallegos

America/Argentina/Salta America/Argentina/San Juan America/Argentina/San Luis America/Argentina/Tucuman America/Argentina/Ushuaia

America/Aruba America/Asuncion America/Atikokan America/Atka America/Bahia

America/Bahia Banderas

America/Barbados America/Belem America/Belize

America/Blanc-Sablon America/Boa Vista America/Bogota

America/Boise

America/Buenos\_Aires America/Cambridge Bay America/Campo Grande

America/Cancun America/Caracas America/Catamarca America/Cayenne America/Cayman America/Chicago America/Chihuahua America/Coral Harbour America/Cordoba America/Costa Rica America/Creston

America/Curacao America/Danmarkshavn

America/Dawson

America/Cuiaba

America/Dawson Creek

America/Denver America/Detroit America/Dominica America/Edmonton America/Eirunepe America/El Salvador America/Ensenada America/Fort Nelson America/Fort Wayne America/Fortaleza America/Glace Bay America/Godthab America/Goose Bay America/Grand Turk America/Grenada America/Guadeloupe America/Guatemala America/Guayaquil

America/Hermosillo America/Indiana/Indianapolis

America/Indiana/Knox

America/Guyana

America/Halifax

America/Havana

America/Indiana/Marengo America/Indiana/Petersburg America/Indiana/Tell\_City America/Indiana/Vevay America/Indiana/Vincennes America/Indiana/Winamac

America/Indianapolis
America/Inuvik
America/Iqaluit
America/Jamaica
America/Jujuy
America/Juneau

America/Kentucky/Louisville America/Kentucky/Monticello

America/Knox\_IN America/Kralendijk America/La\_Paz America/Lima

America/Los\_Angeles America/Louisville America/Lower\_Princes

America/Maceio
America/Managua
America/Managua
America/Marigot
America/Martinique
America/Matamoros
America/Mazatlan
America/Mendoza
America/Menominee

America/Merida America/Metlakatla America/Mexico\_City America/Miquelon America/Moncton America/Monterrey America/Montevideo America/Montreal America/Montserrat

America/New\_York America/Nipigon America/Nome America/Noronha

America/Nassau

America/North\_Dakota/Beulah America/North\_Dakota/Center America/North\_Dakota/New\_Salem

America/Ojinaga
America/Panama
America/Pangnirtung
America/Paramaribo
America/Phoenix
America/Port-au-Prince
America/Port\_of\_Spain
America/Porto\_Acre

America/Porto\_Velho
America/Puerto\_Rico
America/Punta\_Arenas
America/Rainy\_River
America/Rankin Inlet

America/Recife
America/Regina
America/Resolute
America/Rio\_Branco
America/Rosario
America/Santa\_Isabel
America/Santarem
America/Santiago

America/Santo\_Domingo America/Sao\_Paulo America/Scoresbysund America/Shiprock America/Sitka

America/St\_Barthelemy America/St\_Johns America/St\_Kitts America/St\_Lucia America/St\_Thomas America/St\_Vincent America/Swift\_Current America/Tegucigalpa

America/Thule
America/Thunder\_Bay
America/Tijuana
America/Toronto
America/Tortola
America/Vancouver
America/Virgin
America/Whitehorse

America/Virgin
America/Whitehorse
America/Winnipeg
America/Yakutat
America/Yellowknife

**Antaractica** 

Antarctica/Casey Antarctica/Davis

Antarctica/DumontDUrville
Antarctica/Macquarie
Antarctica/Mawson
Antarctica/McMurdo
Antarctica/Palmer
Antarctica/Rothera
Antarctica/South\_Pole
Antarctica/Syowa
Antarctica/Troll

**Arctic** 

Arctic/Longyearbyen

Antarctica/Vostok

Asia
Asia/Aden
Asia/Almaty
Asia/Amman
Asia/Anadyr
Asia/Aqtau
Asia/Aqtobe
Asia/Ashkhabad
Asia/Ashkhabad
Asia/Baghdad
Asia/Bahrain
Asia/Baku
Asia/Bangkok
Asia/Barnaul

Asia/Beirut

Asia/Bishkek

Asia/Brunei
Asia/Calcutta
Asia/Chita
Asia/Choibalsan
Asia/Chongqing
Asia/Chungking
Asia/Colombo
Asia/Dacca
Asia/Damascus
Asia/Dhaka
Asia/Dili
Asia/Dubai
Asia/Dushanbe

Asia/Famagusta

Asia/Gaza Asia/Harbin

Asia/Hebron

Asia/Ho\_Chi\_Minh Asia/Hong Kong

Asia/Hovd
Asia/Irkutsk
Asia/Istanbul
Asia/Jakarta
Asia/Jayapura
Asia/Jerusalem
Asia/Kabul

Asia/Kamchatka Asia/Karachi Asia/Kashgar Asia/Kathmandu Asia/Katmandu Asia/Khandyga Asia/Kolkata Asia/Krasnoyarsk

Asia/Kuala\_Lumpur

Asia/Kuching
Asia/Kuwait
Asia/Macao
Asia/Macau
Asia/Magadan
Asia/Makassar
Asia/Manila
Asia/Muscat
Asia/Nicosia

Asia/Novokuznetsk Asia/Novosibirsk Asia/Omsk

Asia/Orral

Asia/Phnom\_Penh Asia/Pontianak Asia/Pyongyang Asia/Qatar

Asia/Qatar Asia/Qostanay Asia/Qyzylorda Asia/Rangoon Asia/Riyadh Asia/Saigon Asia/Sakhalin Asia/Samarkand Asia/Seoul Asia/Shanghai Asia/Singapore Asia/Srednekolymsk

Asia/Taipei Asia/Tashkent

Asia/Tbilisi

Asia/Tehran Asia/Tel\_Aviv Asia/Thimbu

Asia/Thimphu

Asia/Tokyo

Asia/Tomsk Asia/Ujung Pandang

Asia/Ulaanbaatar Asia/Ulan Bator

Asia/Urumqi

Asia/Ust-Nera Asia/Vientiane

Asia/Vladivostok

Asia/Yakutsk Asia/Yangon

Asia/Yekaterinburg

Asia/Yerevan

**Atlantic** 

Atlantic/Azores
Atlantic/Bermuda

Atlantic/Canary

Atlantic/Cape\_Verde
Atlantic/Faeroe

Atlantic/Faroe

Atlantic/Jan\_Mayen

Atlantic/Madeira

Atlantic/Reykjavik
Atlantic/South Georgia

Atlantic/St\_Helena

Atlantic/Stanley

**Australia** 

Australia/ACT

Australia/Adelaide Australia/Brisbane

Australia/Broken Hill

Australia/Canberra

Australia/Currie Australia/Darwin

228

Australia/Eucla Australia/Hobart

Australia/LHI

Australia/Lindeman

Australia/Lord\_Howe
Australia/Melbourne

Australia/NSW

Australia/North

Australia/Perth

Australia/Queensland

Australia/South Australia/Sydney Australia/Tasmania

Australia/Victoria
Australia/West

Australia/Yancowinna

**Brazil** 

Brazil/Acre

Brazil/DeNoronha

Brazil/East Brazil/West

CET

**CST6CDT** 

Canada

Canada/Atlantic

Canada/Central

Canada/Eastern

Canada/Mountain

Canada/Newfoundland

Canada/Pacific

Canada/Saskatchewan

Canada/Yukon

Chile

Chile/Continental

Chile/EasterIsland

Cuba

**EET** 

**EST** 

**EST5EDT** 

Europe/Belgrade Europe/Tiraspol **Egypt** Europe/Berlin Europe/Ulyanovsk **Eire** Europe/Bratislava Europe/Uzhgorod Europe/Brussels Europe/Vaduz **Etc** Europe/Bucharest Europe/Vatican Etc/GMT Europe/Budapest Europe/Vienna Etc/GMT+0 Europe/Vilnius Europe/Busingen Etc/GMT+1 Europe/Chisinau Europe/Volgograd Etc/GMT+10 Europe/Copenhagen Europe/Warsaw Etc/GMT+11 Europe/Dublin Europe/Zagreb Etc/GMT+12 Europe/Gibraltar Europe/Zaporozhye Etc/GMT+2 Europe/Guernsey Europe/Zurich Etc/GMT+3 Europe/Helsinki Etc/GMT+4 **GB** Europe/Isle of Man Etc/GMT+5 Europe/Istanbul **GB-Eire** Etc/GMT+6 Europe/Jersey Etc/GMT+7 **GMT** Europe/Kaliningrad Etc/GMT+8 **GMT** Europe/Kiev Etc/GMT+9 GMT+0 Europe/Kirov Etc/GMT-0 GMT-0 Europe/Lisbon Etc/GMT-1 **GMTO** Europe/Ljubljana Etc/GMT-10 Europe/London Etc/GMT-11 Greenwich Europe/Luxembourg Etc/GMT-12 **HST** Europe/Madrid Etc/GMT-13 Europe/Malta Etc/GMT-14 Hongkong Europe/Mariehamn Etc/GMT-2 **Iceland** Europe/Minsk Etc/GMT-3 Europe/Monaco Etc/GMT-4 Indian Europe/Moscow Etc/GMT-5 Indian/Antananarivo Europe/Nicosia Etc/GMT-6 Indian/Chagos Europe/Oslo Etc/GMT-7 Indian/Christmas Europe/Paris Etc/GMT-8 Indian/Cocos Europe/Podgorica Etc/GMT-9 Indian/Comoro Europe/Prague Etc/GMT0 Indian/Kerguelen Europe/Riga Etc/Greenwich Indian/Mahe Europe/Rome Etc/UCT Indian/Maldives Europe/Samara Etc/UTC Indian/Mauritius Europe/San\_Marino Etc/Universal Indian/Mayotte Europe/Sarajevo Etc/Zulu Indian/Reunion Europe/Saratov **Europe** Iran Europe/Simferopol Europe/Amsterdam Europe/Skopje Israel Europe/Andorra Europe/Sofia Europe/Astrakhan **Jamaica** Europe/Stockholm Europe/Athens Europe/Tallinn Japan Europe/Belfast

Europe/Tirane

Kwajalein

Libya

**MET** 

**MST** 

**MST7MDT** 

**Mexico** 

Mexico/BajaNorte Mexico/BajaSur Mexico/General

**NZ** NZ

NZ-CHAT

Navajo

**PRC** 

**PST8PDT** 

**Pacific** 

Pacific/Apia
Pacific/Auckland
Pacific/Bougainville
Pacific/Chatham

Pacific/Chuuk Pacific/Easter Pacific/Efate

Pacific/Enderbury Pacific/Fakaofo

Pacific/Fiji

Pacific/Funafuti Pacific/Galapagos

Pacific/Gambier

Pacific/Guadalcanal

Pacific/Guam Pacific/Honolulu Pacific/Johnston Pacific/Kiritimati

Pacific/Kosrae Pacific/Kwajalein Pacific/Majuro

Pacific/Marquesas Pacific/Midway Pacific/Nauru

Pacific/Norfolk
Pacific/Noumea

Pacific/Niue

Pacific/Pago Pago

Pacific/Palau Pacific/Pitcairn Pacific/Pohnpei Pacific/Ponape

Pacific/Port\_Moresby
Pacific/Rarotonga
Pacific/Saipan
Pacific/Samoa

Pacific/Tahiti Pacific/Tarawa Pacific/Tongatapu

Pacific/Truk
Pacific/Wake
Pacific/Wallis
Pacific/Yap

**Poland** 

**Portugal** 

**ROC** 

ROK

**Singapore** 

Turkey

**UCT** 

US

US/Alaska US/Aleutian US/Arizona

US/Central
US/East-Indiana

US/Eastern US/Hawaii

US/Indiana-Starke

US/Michigan US/Mountain US/Pacific US/Samoa

**UTC** 

Universal

W-SU

**WET** 

Zulu



