

User's Guide

PowerAlert® Device Manager (PADM) 20.0.0 Command Line Interface

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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 for 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.”

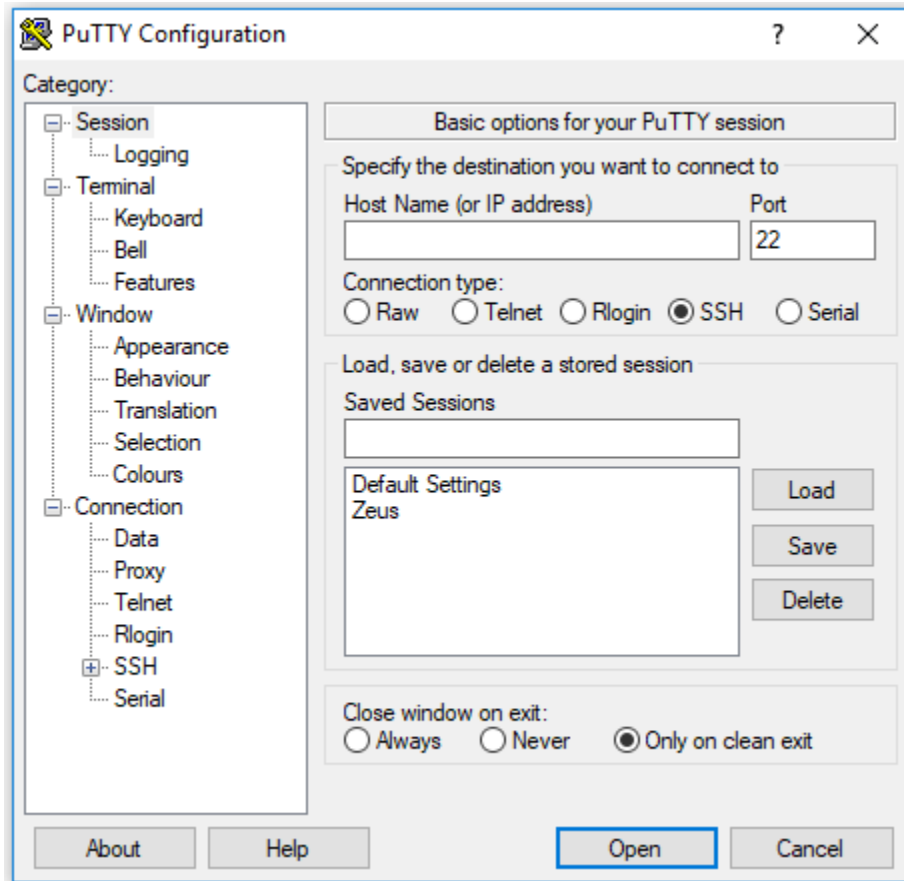
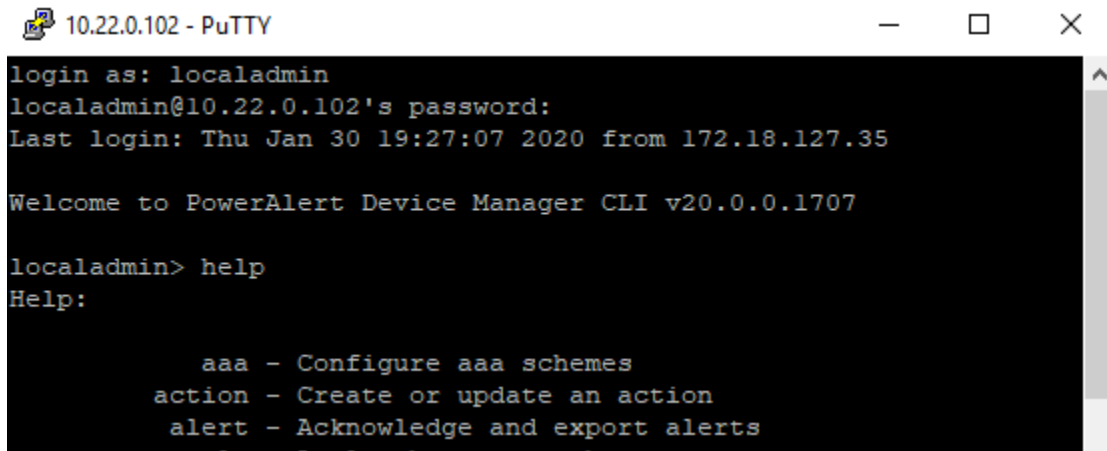


Figure 1-1: PuTTY terminal emulator

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.



```
10.22.0.102 - PuTTY
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 localadmin/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:

[4/25], <1/2>:

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.
p	Go to the previous page.
n	Go to the next page.
l	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.

5. CLI Commands

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}

Examples

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}

Examples

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]

Examples

The following command displays all AAA settings:

```
console> show aaa
Accounting Scheme      :   try local-first, then try-remote if necessary
Authentication Scheme :   local only
```

5. CLI Commands

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
```

5. CLI Commands

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.

Examples

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 of 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
```

5. CLI Commands

show contact

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

Syntax

show contact

Examples

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 that 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).

Examples

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

Examples

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

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

5. CLI Commands

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.

Examples

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

Examples

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
```

5. CLI Commands

show enable

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

Syntax

show enable

Examples

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).

Examples

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

Examples

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

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

5. CLI Commands

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.

Examples

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}

Examples

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]

Examples

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

```
console> action (Cycle Routers)> show load
Load Action : cycle
Loads       : 1,5,6,7,8,12
```

5. CLI Commands

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}

Examples

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]

Examples

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

```
console> action (Cycle Router)> show load-group
Load Action   : cycle
Load Groups   : Routers1,Routers2_____
```


5. CLI Commands

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 (“”).

Examples

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

Examples

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.

Examples

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
```

5. CLI Commands

show output-contact

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

Syntax

show output-contact

Examples

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
```

5. CLI Commands

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

Examples

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.

Examples

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
```

5. CLI Commands

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]

Examples

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.

Examples

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

Examples

The following command displays the target device for entry “Indicator”:

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

5. CLI Commands

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
```

5. CLI Commands

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.

Examples

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

```
console> action (Notify Server #1)> show trigger
#      EVENT
-----
  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
```

5. CLI Commands

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.

Examples

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

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 }]] [event [{ 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.

continued

5. CLI Commands

- **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.

Examples

The following command displays all active alerts:

```
console> 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

Examples

The following example displays the number of alerts stored:

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


5. CLI Commands

apply

apply network

Use the **apply network** command to apply network-specific changes, which includes 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

Examples

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 <probe-name>

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

autoprobe <probe-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 <probe-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
```

5. CLI Commands

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]
```

Examples

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

```
console> show autoprobe
NAME           TYPE      DESCRIPTION           STATUS           PRIMARY IP           P PORT
-----
probe ABC      ping     Monitor switch       enabled          172.17.77.77         161
probe 123      ntp      NTP server           disabled         192.168.5.100        162
SnmpProbe      snmp     Get status           enabled          172.17.77.88         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.

Examples

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}
```

Examples

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

```
console> autoprobe (Probe Get)> authentication protocol sha1
Update complete
```

5. CLI Commands

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

Examples

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.

Examples

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 (“”).

Examples

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

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

5. CLI Commands

show description

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

Syntax

show description

Examples

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

Examples

The following command displays the status of entry “probe ABC”:

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

5. CLI Commands

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).

Examples

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

Examples

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 (“”).

Examples

The following command changes the entry’s name from “probe ABC” to “probeXYZ”:

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

5. CLI Commands

show name

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

Syntax

show name

Examples

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.

Examples

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.

Examples

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
```

5. CLI Commands

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).

Examples

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]

Examples

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.

Examples

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

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

5. CLI Commands

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}
```

Examples

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
```

Examples

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).

Examples

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

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


5. CLI Commands

show retry

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

Syntax

show retry

Examples

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.

Examples

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.

Examples

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
```

5. CLI Commands

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).

Examples

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]

Examples

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}

Examples

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

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

5. CLI Commands

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

Examples

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 (V1Probe)> 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 (SnmpProbe)> 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
Interval        : 30
Retry            : 2
Primary Oid      : 1.3.6.1.2.1.1.3.0
Secondary Oid    :
Version         : v1
```

5. CLI Commands

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.

Examples

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

Examples

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}

Examples

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

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

5. CLI Commands

show version

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

Syntax

show version

Examples

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

Examples

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
```

5. CLI Commands

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
```

5. CLI Commands

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}

Examples

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

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

5. CLI Commands

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}

Examples

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)

Examples

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)

Examples

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

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


5. CLI Commands

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 be viewed using the **show timezones** command. 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

default user date-format {M/d/yyyy | M/d/yy | MM/dd/yy | MM/dd/yyyy | yy/MM/dd | yyyy-MM-dd | dd-MMM-yy}
no default user date-format

Examples

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

Examples

Examples are not applicable for this command.

5. CLI Commands

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

Examples

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).

Examples

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. 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. A list of available time zones can be found in the Appendix of this document.

Examples

Examples are not applicable for this command.

5. CLI Commands

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.

continued

5. CLI Commands

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.

Examples

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

```
console> show device
NAME          ALERT STATUS  ACTIVE  TYPE      MANUFACTURER  MODEL          SERIAL #
-----
Device0076    warning      yes     UPS       TRIPP LITE    SMART1000RM2U  2810GY0SM12345676
Sensor0011    normal      yes     Sensor    TRIPP LITE    E2MTHDI        2357AV0AC886D0005
```

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.

Example

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
```

5. CLI Commands

[Tab]

The keyboard **[Tab]** key serves several functions when used in conjunction with keywords. To view available keywords, enter **[Tab][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
buzzer            help        location    on         region       show
date-installed    input      name         output     runtime      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”:

```
console> device (Rack PDU)> show nominal
NAME                                TYPE      VALUE
-----                                -
Nominal Input Voltage (V)          Input     120
Nominal Output Voltage (V)         Output    120
```

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]

Examples

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
```

5. CLI Commands

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

Examples

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

Examples

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
```

5. CLI Commands

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

Examples

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

Examples

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

Examples

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
```

5. CLI Commands

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

Examples

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]

Examples

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

```
console> device (UPS-123)> show auto-restart
NAME                VALUE
-----            -
On Delayed Wakeup   disabled
On Low Voltage      disabled
On Overload         enabled
On Overtemp        enabled
On Shutdown        enabled
```

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
```


5. CLI Commands

show avr

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

Syntax

show avr

Examples

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

Example

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
```

5. CLI Commands

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
```

5. CLI Commands

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]
age                fully                rating                transition
capacity          high-critical       replacement          voltage
charge            high-warning        state
charged           installed           status
condition         low                 temperature
count             low-critical        test
date              low-warning         threshold
discharged        period              tolerance
```

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

```
console> device (UPS123)> show battery
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
```

5. CLI Commands

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**}

Examples

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

Examples

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**]

Examples

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

```
console> device (UPS-123)> show buzzer
NAME      TYPE      VALUE
-----  -
Buzzer    System    Enabled
..Status              Enabled
..Setting              Alarm Normally
```

5. CLI Commands

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.

Examples

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]

Examples

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

```
console> device (UPS-123)> show bypass
NAME                                TYPE      VALUE
-----                                -
Bypass Limit                        Bypass
..Voltage Limit
....High Limit                       10
....Low Limit                         -14
Hardware Configuration              Device
..Bypass Line Count                  0
```

5. CLI Commands

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

Examples

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

```
console> device (UPS123)> show cold-start
NAME                TYPE      VALUE
-----            -
Hardware Features   Device
..Cold Start                Enabled
```

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
```

5. CLI Commands

show date-installed

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

Syntax

show date-installed

Examples

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
```

5. CLI Commands

show db9

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

Syntax

show db9 [input | output]

Examples

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

```
console> device (UPS123)> show db9
NAME                               TYPE      VALUE
-----                               -
DB9 Settings                       Device
..Input Action - Pins 3-9           Shutdown (default)
..Output Trigger - Pins 1-5         On Battery (default)
..Output Trigger - Pins 8-5         Low Battery (default)
```

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

Examples

The following command displays the dehumidifying mode of device “SRCOOL123”:

```
console> device (SRCOOL123)> show dehumidifying
NAME                               TYPE      VALUE
-----                               -
Operating Mode                     Cooling   Cooling
..Dehumidifying Mode               Off
```


5. CLI Commands

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 details
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
```

5. CLI Commands

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

Examples

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

```
console> device (UPS123)> show energy saving setting
NAME                               TYPE      VALUE
-----                               -
Hardware Features                 Device
..Energy Saving                   15
```

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}

Examples

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

Examples

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

```
console> device (UPS123)> show fault action
NAME                               TYPE      VALUE
-----                               -
Hardware Features                 Device
..Fault Action                   Go to Bypass
```

5. CLI Commands

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

Examples

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.

continued

5. CLI Commands

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]

Examples

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

```
console> device (PDU-Rack1)> show input
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: 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]

Examples

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
```

5. CLI Commands

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.

Examples

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.

Syntax

show load [<load-num>]

- **load-num** – Specifies the load for which details are to be displayed.

Examples

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

```
console> device (PDU-Rack1)> show load
#      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]

Examples

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

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

5. CLI Commands

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 (“”).

Examples

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

Examples

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.

Examples

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

5. CLI Commands

show name

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

Syntax

show name

Examples

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

```
console> device (PDU-Rack1)> load (Rack DXS Switch)> 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]

Examples

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]

Examples

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

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

5. CLI Commands

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.

Examples

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 (<load-num>)** format, the **apply ramp-shed** command must be used for the changes to take effect.

Syntax

ramp enable

no ramp enable

Examples

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 | enable]

Examples

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
```


5. CLI Commands

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.

Examples

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

Examples

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 | enable]

Examples

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
```

5. CLI Commands

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”:

```
console> device (PDU123)> load (2)> show [Tab][Tab]
bank          current      help         power        state
circuit       description  name         ramp         voltage
controllable  group       phase       shed
```

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

```
console> device (PDU-Rack1)> load (2)> show
#           : 2
Name        : Load #2
Group       : Group A
State       : on
Description : Server supply A
Controllable : yes
Ramp        : enabled
Delay       : 30
Shed        : enabled
Delay       : 30
Current     : 2.0A
Power       : 240W
Circuit     : 1
Phase       : 1
Bank        : 1
```

5. CLI Commands

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]

Examples

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
```

5. CLI Commands

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 (“”).

Examples

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

Examples

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
```

5. CLI Commands

show enable

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

Syntax

show enable

Examples

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

Examples

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
```

5. CLI Commands

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 (“”).

Examples

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

Examples

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]

Examples

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
```

5. CLI Commands

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**]

Examples

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
```

5. CLI Commands

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 (“”).

Examples

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

Examples

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]

Examples

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

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


5. CLI Commands

show mute

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

Syntax

show mute

Examples

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

```
console> device (UPS-123)> show mute
NAME                TYPE      VALUE
-----            -
Buzzer              Device    Enabled
..Mute Buzzer
```

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.

Examples

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

Examples

The following command displays the device's name:

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

5. CLI Commands

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. Note that some devices do not support a shutdown-delay time; in those instances, the shutdown action will execute immediately on command entry. The unit of measure for delay time is typically seconds, but will vary by device model.

Syntax

off <shutdown-delay> [force]

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

Examples

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}

Examples

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

Examples

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

```
console> device (UPS123)> show off-mode
NAME                TYPE      VALUE
-----            -
Hardware Features   Device
..Off Mode                Bypass
```

5. CLI Commands

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. Note that some devices do not support a startup-delay time; in those instances, the startup action will execute immediately on command entry. The unit of measure for delay time is typically seconds, but will vary by device model.

Syntax

on <startup-delay> [force]

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

Examples

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.

Examples

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

Examples

The following command activates the timed shutdown for device “UPS123”:

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

5. CLI Commands

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**]

Examples

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

```
console> device (UPS123)> show on-battery
NAME                               TYPE      VALUE
-----                               -
Seconds on Battery (Seconds)      Battery   0
..Timed Shutdown Seconds          60
..Timed Shutdown Status           Enabled
```

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.

Example

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
```

5. CLI Commands

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][Tab]**.

Syntax

show output [keyword]

Examples

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

```
console> device (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)> show input
NAME                                     TYPE      VALUE
-----
Nominal Output Voltage (V)             Output    120
Output Current (A)                     Output    3.2
..Recorded High/Low
...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
```

5. CLI Commands

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}

Examples

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]

Examples

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

```
console> device (PDU-Rack1)> show power strategy setting
Maximum Quality
```

5. CLI Commands

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 temperature sensor setting enable

Use the **remote temperature sensor 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 temperature sensor setting enable

no remote temperature sensor 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 temperature sensor setting enable
Update complete
```

5. CLI Commands

show remote temperature sensor setting enable

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

Syntax

show remote temperature sensor setting

Examples

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

```
console> device (SRCOOL123)> show remote temperature sensor 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 (“”).

Examples

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

Examples

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

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


5. CLI Commands

device: reset

reset battery-pack

Use the **reset battery-pack** command to remove all External Battery Pack entries from the battery profile and then re-configure 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]

Examples

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: 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.

Examples

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:
```

5. CLI Commands

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**]

Examples

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: 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
```

5. CLI Commands

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.

Examples

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 “E2MTD1” connected to device “PDU-Rack1”:

```
console> device (PDU-Rack1)> sensor (E2MTD1)> 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

Examples

The following command displays the asset tag for sensor “E2MTD1” connected to device “PDU-Rack1”:

```
console> device (PDU-Rack1)> sensor (E2MTD1)> show asset-tag
ZQ32B
```

5. CLI Commands

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

Examples

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
```

5. CLI Commands

show humidity

Use the **show humidity** command to display a summary of humidity threshold settings.

Syntax

show humidity

Examples

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                               VALUE
-----                               -----                               -----
Hardware Configuration             Device
..Humidity Supported                Yes
Humidity (%)                       Environment                        18
..Thresholds and Bounds
....Low Critical                    5
....High Critical                   45
....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 (E2MTD1)> id 12345
Update complete
```

show id

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

Syntax

show id

Examples

The following command displays the numerical identifier for sensor “E2MT1” connected to device “PDU-Rack1”:

```
console> device (PDU-Rack1)> sensor (E2MTD1)> show id
12345
```

5. CLI Commands

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.

Example

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

Examples

The following command displays the input settings for sensor “E2MTHDI-123” connected to device “PDU-Rack1”:

```
console> device (PDU-Rack1)> sensor (E2MTHDI-123)> show input
NAME                TYPE                VALUE
-----
Contact Input 1    Environment         Open
..Alarm Level      Normally Open
..Description      Contact Input #1
Contact Input 2    Environment         Open
..Alarm Level      Normally Open
..Description      Door 12-A
```

5. CLI Commands

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 (“”).

Examples

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

Examples

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

name <new-name>

- **new-name** – Sets the new name for the sensor.

Examples

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)>
```

5. CLI Commands

show name

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

Syntax

show name

Examples

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.

Example

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 “E2MTDO-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:
```


5. CLI Commands

show output

Use the **show output** command to display the settings for the output contacts of the sensor.

Syntax

show output

Examples

The following command displays the output settings for sensor “E2MTDO-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
..Description                          Beacon 12-A
Hardware Configuration              Device
..Contact Output Count                2
```

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 (“”).

Examples

The following command sets “Chicago” as the region for sensor “Temp1”, associated with device “PDU123”:

```
console> device (PDU123)> sensor (Temp1)> region Chicago
Update complete
```

5. CLI Commands

show region

Use the **show region** command to display the region information entered for the sensor.

Syntax

show region

Examples

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          protocol
```

The following command displays all details for sensor “TopCombo”, associated with device “PDU123”:

```
console> device (PDU123)> sensor (TopCombo)> show
Name             : TopCombo
Active           : yes
Type             : EnviroSense
Manufacturer     : TRUPP LITE
Model            : E2MTHDI
Serial #         : 2631AV0AC886D00014
Install Date     : 3/2/2020
Protocol         : 9300
Device ID        : 0
Asset Tag        :
Region           :
Location         :
```

5. CLI Commands

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

Examples

The following command displays a summary of temperature threshold settings for sensor “E2MTHDI”, associated with device “PDU123”:

```
console> device (PDU123)> sensor (E2MTHDI)> 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
```

5. CLI Commands

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** command to display the temperature set-point of the cooling device.

Syntax

show set-point

Examples

The following command displays the set-point temperature (and source) for device “SRCOOL123”:

```
console> device (SRCOOL123)> show set-point
NAME                                TYPE      VALUE
-----                                -
Remote Temperature Supported        Device    Disabled
Set Point Temperature (F)           73.0
```

5. CLI Commands

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
```

5. CLI Commands

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
```

5. CLI Commands

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.

Examples

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}

Examples

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

Examples

The following command displays the shutdown completion settings for device “UPS123”:

```
console> device (UPS123)> show shutdown completion
NAME                                TYPE      VALUE
-----                                -
Hardware Features                   Device
..Shutdown Completion Behavior      Cancel if AC Returns
```

5. CLI Commands

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]

Examples

The following command resets the recorded watt hour value for device “UPS123”, with no confirmation:

```
console> device (UPS123)> watt-hours reset force
Execution complete
```

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]

Example

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.
```


5. CLI Commands

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
```

5. CLI Commands

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.

Examples

The following command displays a summary table of all notification recipient entries:

```
console> show email
NAME          EMAIL                               STATUS    LAST TEST
-----
maryd         mary_dove@company.com             enabled   Test successful 3/2/2020 17:34:56
janed         jane_dove@company.com             enabled   Test failed 3/25/2020 18:38:00
Tom D        tom_dove@company.com              disabled  Not tested
```

5. CLI Commands

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.

Examples

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

Examples

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
```

5. CLI Commands

show enable

Use the **show enable** command to display the enabled/disabled status for the email recipient.

Syntax

show enable

Examples

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.

Examples

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

Examples

The following command displays the entry’s name:

```
console> email (Mary Dove)> show name
Mary Dove
```

5. CLI Commands

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

Examples

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

Examples

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
```

5. CLI Commands

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.

Examples

The following command creates a custom event named "Event ABC":

```
console> event "Event ABC"
Created Event ABC
console> event (Event ABC)>
```

5. CLI Commands

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   AUTO-ACK
-----
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 "Communications Lost"
NAME                                     SEVERITY   STATUS   SOURCE   AUTO-ACK   LOGGING
-----
Communications Lost                     information disabled  Sensor1  disabled  disabled
Communications Lost                     critical   enabled  UPS123   enabled   disabled
```

5. CLI Commands

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

Examples

The following command displays the automatic acknowledgement status for entry “On Battery”:

```
console> event (On Battery)> show acknowledge
enabled
```


5. CLI Commands

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

Examples

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
```

5. CLI Commands

show logging

Use the **show logging** command to display the event logging enabled/disabled status for the event entry.

Syntax

show logging

Examples

The following command displays the event logging status for entry “Load Level Above Threshold”:

```
console> event (Load Level Above Threshold)> show logging
disabled
```

5. CLI Commands

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 (“”).

Examples

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

Examples

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
```

5. CLI Commands

show severity

Use the **show severity** command to display the severity level of the event.

Syntax

show severity

Examples

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”:

```
console> event (Event ABC)> show
Name              : Event ABC
Severity          : warning
Status            : enabled
Source            : device123
Auto-Ack          : enabled
Logging           : enabled
```

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

Examples

Examples are not applicable for this command.

5. CLI Commands

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
```

continued

5. CLI Commands

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

Examples

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
```

5. CLI Commands

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

Examples

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 8080.

Syntax

http port <port-number>

- **port-number** - Specifies the port to use for the HTTP service (Range: 1-65535).

Examples

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

Examples

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.

5. CLI Commands

show http

Use the **show http** command to display the current settings for the HTTP service.

Syntax

show http [status | port | redirect]

Examples

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

Examples

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 4040.

Syntax

https port <port-number>

- **port-number** – Specifies the port to use for the HTTPS service (Range: 1-65535).

Examples

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.

5. CLI Commands

show https

Use the **show https** command to display the current settings for the HTTPS service.

Syntax

show https [status | port]

Examples

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

Examples

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

5. CLI Commands

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.

Examples

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]

Examples

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
```

5. CLI Commands

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

Examples

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.

5. CLI Commands

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.

Examples

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]

Examples

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
```

5. CLI Commands

ldap-server

ldap-server

Use the **ldap-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 **ldap-server (<server-name>)** when configuring the entry's status and settings. To exit from the **ldap-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

ldap-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 ldap-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 ldap-server

Use the **show ldap-server** command to display a summary table of all LDAP server entries or the details of a specified entry.

Syntax

show ldap-server [<server-name>]

- **server-name** – Specifies the entry for which LDAP server details are to be displayed.

Examples

The following command displays a summary table of all LDAP server entries:

```
console> show ldap-server
NAME           STATUS      HOST           PORT  PRIORITY  ANONYMOUS
-----
LDAPsrvr2     enabled    localhost      22    1         enabled
LDAPsrvr4     enabled    172.17.59.35   23    2         disabled
```

5. CLI Commands

ldap-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

Examples

The following command displays the anonymous bind status for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show anonymous
disabled
```

ldap-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

Examples

The following command adds attribute “vetted” to LDAP server entry “SRV-LDAP”:

```
console> ldap-server (SRV-LDAP)> attribute vetted
Update complete
```

5. CLI Commands

show attribute

Use the **show attribute** command to display the login name attribute for the LDAP server entry.

Syntax

show attribute

Examples

The following command displays the attribute entered for LDAP server entry “SRV-LDAP”:

```
console> ldap-server (SRV-LDAP)> show attribute
vetted
```

ldap-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.

Examples

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.

Examples

The following command sets “q8w9e0” as the password for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> bind password plaintext q8w9e0
Update complete
```

5. CLI Commands

show bind

Use the **show bind** command to display the distinguished name for the LDAP server entry.

Syntax

show bind

Examples

The following command displays the distinguished name details for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show bind
CN=Users,DC=example,DC=com
```

ldap-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

Examples

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

Examples

The following command displays the domain name for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show domain
DMN123
```


5. CLI Commands

ldap-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

Examples

The following command displays the status of entry “Server ABC”:

```
console> ldap-server (Server ABC)> show enable
disabled
```

ldap-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.

Examples

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
```

5. CLI Commands

show host

Use the **show host** command to display the host name or IP address of the LDAP server entry.

Syntax

show host

Examples

The following command displays the IP address of entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show host
172.17.60.66
```

ldap-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.

Examples

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

Examples

The following command displays the entry’s name:

```
console> ldap-server (Server XYZ)> show name
Server XYZ
```

5. CLI Commands

ldap-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

Examples

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

Examples

The following command displays the object class for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show object-class
adminPerson
```

ldap-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).

Examples

The following command specifies 400 as the LDAP server port for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> port 400
Update complete
```

5. CLI Commands

show port

Use the **show port** command to display the port number for the LDAP server entry.

Syntax

show port

Examples

The following command displays the port number for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show port
400
```

ldap-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).

Examples

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

Examples

The following command displays the priority for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show priority
1
```

5. CLI Commands

ldap-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

Examples

The following command sets “sub-tree” as the LDAP directory on “LDAPsvr1” to search:

```
console> ldap-server (LDAPsvr1)> 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

Examples

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.

Examples

The following command displays the search base for entry “LDAPsvr1”:

```
console> ldap-server (LDAPsvr1)> show search base
Directory Tree to Search      : dc=tripplite,dc=com
Filter To Apply When Searching :
```

5. CLI Commands

ldap-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”:

```
console> ldap-server (LDAPsrvr1)> show
Name                : LDAPsrvr1
Status              : enabled
Host                : localhost
Port                : 389
Priority             : 1
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
```

ldap-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

Examples

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
```

5. CLI Commands

show test

Use the **show test** command to display the metrics of the last communications test for the LDAP Server entry

Syntax

show test

Examples

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
```

ldap-server: type

type

Use the **type** command to set the LDAP server type for the entry. The supported choices are: OpenLDAP (**openldap**) and MS Active Directory (**active-directory**).

Syntax

type {openldap | active-directory}

- **active-directory** – Sets the entry’s LDAP server type as MS Active Directory.
- **openldap** – Sets the entry’s LDAP server type as OpenLDAP.

Examples

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

Examples

The following command displays the LDAP server type for entry “LDAPsrvr1”:

```
console> ldap-server (LDAPsrvr1)> show type
active-directory
```

5. CLI Commands

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}

Examples

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]

Examples

The following command displays the settings for all logs:

```
console> show log
LOG TYPE      AUTO-EXPORT  RECIPIENTS          FORMAT  MAX SIZE
-----      -
accounting    enabled      johnd, joed, moed  xml     10000
application    disabled    moed
data           enabled      all contacts        csv
event          enabled      moed, joed          xml     10000
```


5. CLI Commands

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

Examples

The following command enables automatic export of the Event Log:

```
console> log (event)> autoexport enable
Update complete
```

5. CLI Commands

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}
```

Examples

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]
```

Examples

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.

Examples

The following command exports the Accounting Log in XML format to email recipient “johnd”:

```
console> log (accounting)> export email johnd xml
```

5. CLI Commands

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.

Examples

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. This command applies only to the Data Log.

Syntax

interval <value>

- **value** – Specifies the amount of time, in seconds, between successive recordings of data (Range: 5-600).

Examples

The following command configures the system to record metrics in the Data Log every 30 seconds:

```
console> log (data)> interval 30
Update complete
```

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

Examples

The following command displays the recording interval for the Data Log:

```
console> log (data)> show interval
60
```

5. CLI Commands

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).

Examples

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

Examples

The following command displays all settings for the Accounting Logs:

```
console> log (accounting)> show max-size
5000
```

5. CLI Commands

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.

Examples

The following command displays the available metrics for the device and all peripherals connected to it:

```
console> log (data)> show metrics
#      NAME                DEVICE          GROUP    KEYWORD (s)
----  -
*  1   Input Frequency      Device0068     input    frequency-input
*  2   Input Voltage         Device0068     input    voltage-input
*  3   Output Current        Device0068     ouput    output-current
* Current recorded metrics
```

5. CLI Commands

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}
```

Examples

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
```

Examples

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

```
show [autoexport | interval | max-size | metrics | report | rollup | severity | size]
```

Examples

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
```

5. CLI Commands

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]] [device [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

5. CLI Commands

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

5. CLI Commands

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"
```

5. CLI Commands

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

Examples

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.

Examples

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.

Examples

The following command changes the password from “localadmin” to “j5k6l7”:

```
console> password plaintext localadmin j5k6l7
Update complete
```

5. CLI Commands

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

Examples

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).

Examples

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).

Examples

The following command sets the minimum login password age to 2 days:

```
console> password-policy age minimum 2
Update complete
```

5. CLI Commands

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.

Examples

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

Examples

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]]

Examples

The following command displays all login password policy parameters:

```
console> show password-policy
Status : 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
```

5. CLI Commands

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.

Examples

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
```

5. CLI Commands

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

Examples

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).

Examples

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]

Examples

The following command displays the accounting details for entry “RADsrvr1”:

```
console> radius-server (RADsrvr1)> show accounting
Acct      : enabled
Port      : 1813
```

5. CLI Commands

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

Examples

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}

Examples

The following command sets CHAP as the Authentication Protocol type for entry “RADsrvr1”:

```
console> radius-server (RADsrvr1)> authentication protocol chap
Update complete
```

5. CLI Commands

show authentication

Use the **show authentication** command to display the authentication details for the RADIUS server.

Syntax

show authentication [port | protocol | status]

Examples

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”:

```
console> radius-server (Server ABC)> no enable
Update complete
```

show enable

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

Syntax

show enable

Examples

The following command displays the status of entry “Server ABC”:

```
console> radius-server (Server ABC)> show enable
enabled
```


5. CLI Commands

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.

Examples

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

Examples

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.

Examples

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)>
```

5. CLI Commands

show name

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

Syntax

show name

Examples

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.

Examples

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).

Examples

The following command sets 1 (one) as the priority level for entry “RADIUSsrvr1”:

```
console> radius-server (RADIUSsrvr1)> priority 1
Update complete
```

5. CLI Commands

show priority

Use the **show priority** command to display the priority of the RADIUS-server entry.

Syntax

show priority

Examples

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”:

```
console> radius-server (Server 123)> show
Name                : Server 123
Accounting Status   : enabled
Accounting Port     : 1813
Authentication Status : enabled
Authentication Port : 1812
Protocol            : pap
Host                : localhost
Priority             : 1
Status              : enabled
Last Test           : Not tested
```

5. CLI Commands

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

Examples

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

Examples

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]

Examples

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:
```

5. CLI Commands

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
```

5. CLI Commands

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.

Examples

The following command displays a list of available roles, which includes two custom-created roles:

```
console> show role
NAME                DESCRIPTION
-----
Administrator
Manager
Monitor
Guest
supervisor-day
supervisor-night
```

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 (“”).

Examples

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

Examples

The following command displays the description of entry “Manager 2”:

```
console> role (Manager 2)> show description
second shift
```

5. CLI Commands

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 (“”).

Examples

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

Examples

The following command displays the entry’s name:

```
console> role (IT Manager 2)> show name  
IT Manager 2
```

5. CLI Commands

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
```


5. CLI Commands

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.

Examples

The following command displays all privileges available to role “Manager 2”. Asterisks denote which privileges are assigned to “Manager 2”:

```
console> role (Manager 2)> show privileges
#      NAME                                     RESOURCE(S)
-----
*1     acknowledge-alarms
2      administrator
3      backup-restore
*4     change-action-settings
5      change-advanced-device-details
...
*46    view-schedules
47     view-sessions
*Assigned privileges
```

role: show

show

Use the **show** command to display all settings for the specified role.

Syntax

show [description | name | privileges]

Examples

The following command displays all settings for role “Manager 2”:

```
console> role (Manager 2)> show
Name           : Manager 2
Description    : second shift
#      PRIVILEGE                                     RESOURCES
-----
1      acknowledge_alarms
4      change-action-settings
6      change-alert-contact-settings
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
```

5. CLI Commands

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
```

5. CLI Commands

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.

Examples

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

```
console> show schedule
NAME                TASK                STATUS    NEXT SCHEDULED
-----
Servers off        load(s)             enabled   2020/03/24 11:00:00 PM
Reboot All         reboot device       enabled   2020/04/01 6:30:00 PM
```

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

Examples

The following command displays the status of entry “Daily Shutdown”:

```
console> schedule (Daily Shutdown)> show enable
enabled
```

5. CLI Commands

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-2>...<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

5. CLI Commands

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

Examples

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.

Examples

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
```

5. CLI Commands

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}
```

Examples

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]
```

Examples

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.

Examples

The following command assigns load groups “Routers1” and “Routers2” to entry “Weekly Cycle”:

```
console> schedule (Weekly Cycle)> load-group Routers1,Routers2
Update complete
```

5. CLI Commands

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}

Examples

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.

Examples

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.

Examples

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)>
```

5. CLI Commands

show name

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

Syntax

show name

Examples

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.

Examples

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

Examples

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
```


5. CLI Commands

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

Examples

The following command displays the recurrence of entry "Weekend Shutdown":

```
console> schedule (Weekend Shutdown)> show recurrence
until 12/1/2020 12:34:56 PM
```

5. CLI Commands

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).

Examples

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

Examples

The following command displays the restart delay time for scheduled action entry “WeeklyRestart”:

```
console> schedule (WeeklyRestart)> show restart
60
```

5. CLI Commands

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.

Examples

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

Examples

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
```

5. CLI Commands

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
help           next-date    run-on        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

Examples

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

```
console> schedule (Weekend Shutdown)> show targets
NAME          TYPE
-----
UPS123        device
E2MTHDI       sensor
E2MT-A        sensor
E2MT-B        sensor
```

5. CLI Commands

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.

Examples

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

Examples

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.

5. CLI Commands

show scp

Use the **show scp** command to display the status of the SCP service.

Syntax

show scp [status]

Examples

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
```

5. CLI Commands

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 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.

Examples

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

Examples

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.

5. CLI Commands

show sftp

Use the **show sftp** command to display the current status of the SFTP service.

Syntax

show sftp [status]

Examples

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]
aaa          dns          log          sms          uptime
about        email        network      smtp         user
action       event        password-policy snmp
action-types help         radius-server snmp-server
alert        host         role         snmp-user
autoprobe    http         schedule     ssh
clock        https        schedule-types support
contact      ipv4         scp          syslog-server
default      ipv6         session      telnet
device       ldap-server  sftp        timezones
```

The following command displays a list of time zones:

```
console> show timezones
Africa/Abidjan
Africa/Accra
Africa/Algiers
...
```


5. CLI Commands

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.

Examples

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
```

5. CLI Commands

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 <email-address>

- **carrier** – Specifies the carrier associated with the entry, in abbreviated form.
- **email-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 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

Examples

The following command displays the contact information for entry “maryd”:

```
console> sms (maryd)> show contact
att: 888-555-1234
```

5. CLI Commands

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

Examples

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.

Examples

The following command changes the entry’s name from “maryd” to “Mary Dove”:

```
console> sms (maryd)> name "Mary Dove"
console> sms (Mary Dove)>
```

5. CLI Commands

show name

Use the **show name** command to display the name of the SMS recipient entry.

Syntax

show name

Examples

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]

Examples

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
```

5. CLI Commands

show carriers

Use the **show carriers** command to display a list of supported carriers.

Syntax

show carriers

Examples

The following command displays a list of supported carriers:

```
console> sms (maryd)> show carriers
alltel
att
boost_mobile
c_spire
consumer_cellular
cricket
custom
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

Examples

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
```

5. CLI Commands

show test

Use the **show test** command to display the metrics of the last test message sent to the SMS recipient.

Syntax

show test

Examples

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

Examples

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.

5. CLI Commands

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. Note that this setting is independent of the language selection for the user interface of PowerAlert Device Manager.

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

Examples

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.

5. CLI Commands

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.

Examples

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.

Examples

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).

Examples

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.

5. CLI Commands

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 (**sslts**), and STARTTLS/Opportunistic TLS (**starttls**). This parameter must be set before SMTP authentication can be enabled.

Syntax

```
smtp type {none | sslts | starttls}
```

Examples

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.

Examples

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 ]
```

Examples

The following command displays all SMTP settings:

```
console> show smtp
Host Name           : mail.company.com
Port                : 25
Authentication Status : enabled
Authentication Type  : sslts
User Name           : Admin123
Email From          : notifier@company.com
Email Language      : english
Email Subject       : System123 Notification
```

5. CLI Commands

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).

Examples

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.

5. CLI Commands

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 | v2 | v3} enable

no snmp {v1 | v2 | v3} enable

Examples

The following command enables inbound SNMP v3 communications:

```
console> snmp v3 enable
Update complete
```

NOTE: Use the "apply network" command to complete the change. This may cause a system reboot.

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]

Examples

The following command displays all SNMP setting:

```
console> show snmp
SNMP Port      : 163
SNMP V1       : enabled
SNMP V2c      : enabled
SNMP V3       : enabled
```

5. CLI Commands

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.

Examples

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
```

5. CLI Commands

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.

Examples

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}

Examples

The following command sets the Authentication Protocol to SHA1 for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> authentication protocol sha1
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

Examples

The following command displays the authentication protocol for entry "SRVrcvr1":

```
console> snmp-server (SRVrcvr1)> show authentication protocol
sha1
```

5. CLI Commands

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.

Examples

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

Examples

The following command displays the status of entry “Server ABC”:

```
console> snmp-server (Server ABC)> show enable
enabled
```

5. CLI Commands

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.

Examples

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

Examples

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.

Examples

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)>
```

5. CLI Commands

show name

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

Syntax

show name

Examples

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.

Examples

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}

Examples

The following command sets the Privacy Protocol to 128-bit AES for entry “SRVrcvr1”:

```
console> snmp-server (SRVrcvr1)> privacy protocol aes
Update complete
```


5. CLI Commands

show privacy protocol

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

Syntax

show privacy protocol

Examples

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}

Examples

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

Examples

The following command displays the security mode for entry “SRVrcvr1”:

```
console> snmp-server (SRVrcvr1)> show security-mode
authentication and privacy
```

5. CLI Commands

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).

Examples

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

set test <oid> <value> {string | integer}

- **oid** – Specifies the OID to set on the SNMP server.
- **value** – Specifies the value to be set.

Examples

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
```

5. CLI Commands

show set

Use the **show set** command to display the SET details for the SNMP server entry.

Syntax

show set [port | status | test]

Examples

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
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           : sha1
Priv           : aes
```

5. CLI Commands

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).

Examples

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

trap test

Examples

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
```

5. CLI Commands

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}
```

Examples

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]
```

Examples

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.

Examples

The following command sets “AdminV3” as the username for entry “SNMPrcvr1”:

```
console> snmp-server (SNMPrcvr1)> username AdminV3
Update complete
```

5. CLI Commands

show username

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

Syntax

show username

Examples

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
```

5. CLI Commands

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.

Examples

The following command displays a summary table of all SNMP user entries:

```
console> show snmp-user
USERNAME      CONTACT      DESCRIPTION      STATUS      IP FILTER
-----
snmpadmin2    1-888-123-4567  Shift 2 Admin    enabled
snmpmgr1      1-888-123-4566  Shift 1 Manager  enabled     192.168.11/255.255.255.0
snmpmgr2      1-888-123-4565  Shift 2 Manager  enabled     192.168.11/255.255.255.0
snmpgquest1   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.

Examples

The following command sets the Authentication Passphrase to “a1b2c3” for entry “AdminABC”:

```
console> snmp-user (AdminABC)> authentication passphrase plaintext a1b2c3
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}

Examples

The following command sets the Authentication Protocol to SHA1 for entry “AdminABC”:

```
console> snmp-user (AdminABC)> authentication protocol sha1
Update complete
```

5. CLI Commands

show authentication protocol

Use the **show authentication protocol** command to display the selected authentication protocol for the SNMP user entry.

Syntax

show authentication protocol

Examples

The following command displays the authentication protocol for entry “AdminABC”:

```
console> snmp-user (AdminABC)> show authentication protocol
sha1
```

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.

Examples

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 (“”).

Examples

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
```


5. CLI Commands

show contact

Use the **show contact** command to display the contact information entered for the SNMP user.

Syntax

show contact

Examples

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 (“”).

Examples

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

Examples

The following command displays the description for entry “snmpadmin2”:

```
console> snmp-user (snmpadmin2)> show description
SNMP Administrator, shift 2
```

5. CLI Commands

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

Example

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

Examples

The following command displays the status of entry “snmpadmin2”:

```
console> snmp-user (snmpadmin2)> show enable
enabled
```

5. CLI Commands

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

Examples

The following command displays the IP filter specified for entry “snmpadmin2”:

```
console> snmp-user (snmpadmin2)> show filter
10.10.10.10/255.255.255.255
```

5. CLI Commands

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.

Examples

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}

Examples

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 protocol** command to display the selected privacy protocol for the SNMP user entry.

Syntax

show privacy protocol

Examples

The following command displays the privacy protocol for entry “snmpadmin2”:

```
console> snmp-user (snmpadmin2)> show privacy protocol
aes
```

5. CLI Commands

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-1**> | <**custom-2**> | ...}

- **custom-x** – Sets the entry's role as the specified custom role (if created via the **role** command).

Examples

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

Examples

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**}

Examples

The following command sets the Security Mode to "Authentication and Privacy" for entry "snmpadmin2":

```
console> snmp-user (snmpadmin2)> security-mode authpriv
Update complete
```

5. CLI Commands

show security-mode

Use the **show security-mode** command to display the security mode selected for the SNMP user entry.

Syntax

show security-mode

Examples

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             : enabled
Security Mode      : authpriv
Authentication     : sha1
Privacy            : aes
Role               : Administrator
Version            : v3
```

5. CLI Commands

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.

Examples

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

Examples

The following command displays the username entered for entry “snmpadmin2”:

```
console> snmp-user (snmpadmin2)> show username
AdminV3
```

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

Examples

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.

5. CLI Commands

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).

Examples

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]

Examples

The following command displays all SSH settings:

```
console> show ssh
SSH Status      : enabled
SSH Port       : 24
```


5. CLI Commands

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 “SYSsrv2” as a syslog server entry:

```
console> syslog-server SYSsrv2
Created SYSsrv2
console> syslog-server (SYSsrv2)>
```

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.

Examples

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
```

5. CLI Commands

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

Examples

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 7.

Syntax

facility <facility>

- **facility** – Specifies the facility code for the entry.

Examples

The following command sets 23 as the facility code for entry “SYSsrvr2”:

```
console> syslog-server (SYSsrvr2)> facility 23
Update complete
```

5. CLI Commands

show facility

Use the **show facility** command to display the facility code of the syslog server entry.

Syntax

show facility

Examples

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.

Examples

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

Examples

The following command displays the host name for entry “SysLogsrvr1”:

```
console> syslog-server (SysLogsrvr1)> show host
172.17.60.66
```

5. CLI Commands

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

Examples

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

Examples

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.

Examples

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)>
```

5. CLI Commands

show name

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

Syntax

show name

Examples

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).

Examples

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

Examples

The following command displays the port number for entry "SYSsrvr2":

```
console> syslog-server (SYSsrvr2)> show port
514
```

5. CLI Commands

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}

Examples

The following command configures entry “SYSsrv2” to receive records with a severity level of ‘critical’ or higher:

```
console> syslog-server (SYSsrv2)> 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

Examples

The following command displays the minimum severity level for entry “SYSsrv2”:

```
console> syslog-server (SYSsrv2)> show severity
critical
```

5. CLI Commands

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][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

Examples

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.

5. CLI Commands

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).

Examples

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]

Examples

The following command displays all Telnet service information.

```
console> show telnet
Telnet Status    : enabled
Telnet Port      : 22
```


5. CLI Commands

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.

Examples

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
```

5. CLI Commands

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 (“”).

Examples

The following command sets “mobile: 1-888-888-8888” 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

Examples

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 (“”).

Examples

The following command sets “IT Administrator, shift 1” as the description for entry “ITadmin1”:

```
console> user (ITadmin1)> description "IT Administrator, shift 1"
Update complete
```

5. CLI Commands

show description

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

Syntax

show description

Examples

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

Examples

The following command displays the status of entry "ITAdmin1":

```
console> user (ITAdmin1)> show enable
enabled
```

5. CLI Commands

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
```

Examples

The following command displays the IP filter specified for entry "ITAdmin1":

```
console> user (ITAdmin1)> show filter
192.168.11/255.255.255.0
```

5. CLI Commands

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 (“”).

Examples

The following command sets “John Doe” as the full name for entry “ITAdmin1”:

```
console> user (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

Examples

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.

Examples

The following command changes the password to “j5k6l7” for entry “ITAdmin1”:

```
console> user (ITAdmin1)> password plaintext j5k6l7
Update complete
```

5. CLI Commands

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).

Examples

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

Examples

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

Examples

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
```

5. CLI Commands

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-1> | <custom-2> | ... <custom-n>}

- **custom-x** – Assigns a specified custom role to the entry (if created via the root-level **role** command).

Examples

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

Examples

The following command displays the role assigned for entry “contractor15”:

```
console> user (contractor15)> show role
Guest
```

5. CLI Commands

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]
contact      filter      help        role        timeout
description  fullname   password-age status      username
```

The following command displays all details for entry “ITAdmin1”:

```
console> user (ITAdmin1)> show
Name          : ITAdmin1
Contact       : mobile 1-888-888-8888
Description   : shift 2
Status        : enabled
IP Filter     :
Full Name     : John Doe
Role          : Manager
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).

Examples

The following command sets 30 minutes as the idle timeout for entry “ITAdmin1”:

```
console> user (ITAdmin1)> timeout idle 30
Update complete
```


5. CLI Commands

show timeout

Use the **show timeout** command to display the idle and session timeout override settings for the user entry.

Syntax

show timeout

Examples

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 (").

Examples

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

Examples

The following command displays the username of the entry:

```
console> user (ITadmin ABC)> show username
ITadmin ABC
```




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