

Adtran

PlumeOS

Administrative Interface

Command Reference Guide

6POS0CRG-35A

August 2022



To the Holder of this Document

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Overview

This manual provides information about connecting to the administrative (admin) interface of a PlumeOS SDG, using the command line interface (CLI), and executing the commands available on the PlumeOS SDG units.

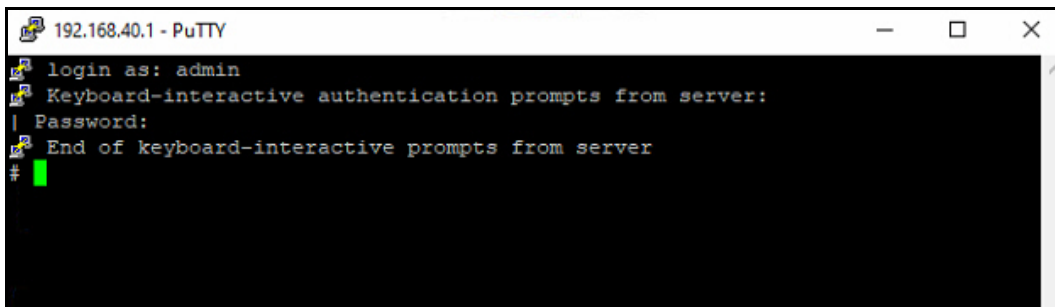
If you are new to the CLI on the admin interface, please take a few moments to review the information provided in the sections which follow.

If you are already familiar with the CLI on the admin interface and are looking for information on a specific command or group of commands, please proceed to the [Administrative Interface Command Set on page 9](#) of this guide.

Connecting to the Admin Interface

To connect to the admin Interface on a PlumeOS device, a user must be on the device's LAN and connect to the unit's LAN IP address via Secure Shell (SSH).

1. Open a SSH client, such as PuTTY, on your computer and enter the LAN IP address of the PlumeOS device. The default LAN IP address is **192.168.40.1**.
2. Enter the admin interface username and password at the prompts. The default admin interface username is **admin** and the default password is **adtran-plos**.



Introduction to Command Line Interface

The CLI is a method used to communicate with your PlumeOS device. While it describes the method used to communicate, such as by secure shell (SSH), it also refers to the way information is passed to the unit. As a text-based user interface, the CLI prompts you to input commands line by line when you communicate with the admin interface (hence the name command line interface).

Introduction to Commands

Most of the commands available on the admin interface are used to display information that can aid in troubleshooting the PlumeOS device. Some commands allow the admin to adjust settings on the unit, such as the device password, and other commands allow the admin to execute a process, such as performing a factory reset. To properly use commands, the admin must understand what function they want the PlumeOS device to complete and what syntax the device understands as instructions. Each command has its own role within the operating system, and it is the responsibility of the operator to become familiar with specific commands.

The following are key characteristics of the CLI:

- It is line-based (there are no screen editing features)
- It executes commands instantly upon end-of-line
- It implements industrial de facto behavior for network equipment CLIs (structurally and behaviorally, it resembles CLIs found on other equipment while still possessing unique characteristics in some areas)

The CLI can be accessed over the network through ssh and the user must log in before CLI commands can be executed. This begins a session that lasts until logout.

How Commands Function

A command is a single line of syntax that contains either a single word, a word string, or multiple words. Single word commands and word strings are short and straightforward (for example, `factory_reset`, `free`, or `mfginfo`). Multiple word commands contain an argument and a command. An argument modifies a command. In the command **show leases**, **show** is the command word and **leases** is the argument because it modifies the command **show**. Command words and word strings are entered immediately after the command prompt in the CLI.

Optionally, some commands use variables to specify information relevant only to your PlumeOS device. These variables are identified with angled brackets (< >). The description of the information required is contained within the symbols and displayed in italics. For example, the following command provides the command string **easycwmp_set_acs_password** and includes the variable *<password>*:

```
easycwmp_set_acs_password <password>
```



NOTE

Command words are not case sensitive, thus show, SHOW, and Show are identical. Conversely, parameters may either be case-sensitive or not, depending on the command and parameter in question.

PlumeOS Command System

Adtran products, training tools, and manuals follow a specific system for entering and referencing commands. Items that are typed in **bold** are the required commands and arguments for a certain action. The following documentation contains commands in bold after an example prompt. They look similar to this:

```
#easycwmp_restart
```

In the example above, the character # is the prompt after which commands are entered. In this example, the words in bold (**easycwmp_restart**) is the entire command and constitutes what should be typed after the prompt.

Some commands present a choice of arguments. If this is the case, the manual or guide will place the argument in brackets separated by a vertical bar (|) between the choices as seen in this example:

```
#pppoe get [pwd | user]
```

Again, the # is the prompt, the command is **pppoe get**, and the choices of arguments are **pwd** or **user**.

Some commands call for variables, which require the admin to enter information that pertains to the specific PlumeOS SDG they are configuring. Information within a command line that pertains to a specific PlumeOS unit is set off with angled brackets (< >). The description of the information required is contained within the angled brackets and is displayed in *italics*. For example:

```
#easycwmp_set_acs_password <password>
```

In this case, # is your prompt, the command word string is **easycwmp_set_acs_password**, and the information needed from the admin is the password to be used for TR-069 connections to the ACS (*<password>*).

PlumeOS Command System Help

System help features embedded within the PlumeOS CLI provide assistance in determining the correct command syntax, the full set of parameters required for a complete command, and auto-completion through the use of CLI

shortcut keys. Additional shortcuts are available for movement of cursor position, deletion, and substitution of characters and commands. The following tables list the available CLI shortcut keys and their operation.

Table 1. Context Sensitive Help

Shortcut Key	Description
[?]	Display context sensitive help. This is either a list of possible command completions with summaries, or the full syntax of the current command. A subsequent repeat of this key, when a command has been resolved, will display a detailed reference.
Entering [?] a second time	A subsequent repeat of the [?] key, when a command has been resolved, will display a detailed reference.

Table 2. Auto-Completion

Shortcut Key	Description
[Enter]	Auto-completes, syntax-checks then executes a command. If there is a syntax error then the offending part of the command line will be highlighted and explained.
[space]	Auto-completes, or inserts a space if the command is already resolved.



NOTE

Both keys listed in Table 2 perform auto-completion for the current command line. If the command prefix is not unique, then the bell will ring and a subsequent repeat of the key will display possible completions.

Table 3. Movement Shortcuts

Shortcut Key	Description
[CTRL-A]	Move to the start of the line.
[CTRL-E]	Move to the end of the line
[up]	Move the previous command line held in history
[down]	Move the next command line held in history
[left]	Move the insertion point left one character
[right]	Move the insertion point right one character

Table 4. Deletion Shortcuts

Shortcut Key	Description
[CTRL-C]	Delete and abort the current line.
[CTRL-D]	Delete the character to the right on the insertion point.

Table 4. Deletion Shortcuts

Shortcut Key	Description
[CTRL-K]	Delete all the characters to the right of the insertion point.
[CTRL-U]	Delete the whole line.
[Backspace]	Delete the character to the left of the insertion point.

Administrative Interface Command Set

The following commands, described in alphabetical order, are available on the Adtran PlumeOS device.

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date-set [<year>.<month>.<day>-<hours>:<minutes>[:<seconds>] on page 12

dhcp renew on page 13

easycwmp_restart on page 14

easycwmp_set_acs_password <"password"> on page 15

easycwmp_set_acs_url <"url"> on page 16

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show tr069 on page 59
show tr181 on page 61
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tr069 event-periodic on page 64
upgrade on page 65

date

Use the **date** command to view the date and time on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following example displays the date and time from the system clock:

```
#date  
Mon Jul 25 21:07:20 UTC 2022
```

date-set [<year>.<month>.<day>-<hours>:<minutes>[:<seconds>]

Use the **date-set** command to configure the system software clock. For the command to be valid, all non-optional fields must be entered.

Syntax Description

[<year>]	Optional. Sets the year in the format YYYY. This parameter is needed when the specified date is in a different year than that which is currently set in the system.
<month>	Sets the month in the format MM. Valid range is 01 to 12 .
<day>	Sets the day of the month in the format DD. Valid range is 01 to 31 .
<hours>	Sets the hour of the day (in 24-hour format) of the system software clock in the format HH. Valid range is 00 to 23 .
<minutes>	Sets the minutes of the hour of the system software clock in the format MM. Valid range is 00 to 59 .
[<seconds>]	Optional. Sets the seconds of the minute of the system software clock in the format SS. Range is 00 to 59 .

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example sets the system software clock for 3:25 p.m., August 27, 2022 (the current date in the system is August 26, 2022):

```
#date-set 08.27-15:25
```

The following example sets the system software clock for 3:25pm, August 27, 2022 (the current date in the system is August 26, 2021)

```
#date-set 2022.08.27-15:25
```

dhcp renew

Use the **dhcp renew** command to release and renew the WAN IP address. Variations of this command include:

```
dhcp renew ipv4  
dhcp renew ipv6
```

Syntax Description

ipv4	Specifies to release and renew the DHCP lease for an IPv4 IP address.
ipv6	Specifies to release and renew the DHCP lease for an IPv6 IP address.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example releases and renews the DHCP lease for an IPv4 IP address on the WAN interface:

```
#dhcp renew ipv4
```

easycwmp_restart

Use the **easycwmp_restart** command to reset the TR-069 engine on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example resets the TR-069 engine:

```
#easycwmp_restart
```

easycwmp_set_acs_password <*password*>

Use the **easycwmp_set_acs_password** command to set the password for TR-069 connections to the Auto Configuration Server (ACS). Enter the password string surrounded by quotation marks (for example, "**admin**").

Syntax Description

<*password*> Specifies the password to use for ACS authentication.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following example sets the ACS password to *admin*:

```
#easycwmp_set_acs_password "admin"
```

easycwmp_set_acs_url <"url">

Use the **easycwmp_set_acs_url** command to set the URL for the ACS. Enter the URL surrounded by quotation marks (for example, "**http://acs.smartrg.com**").

Syntax Description

<url>	Specifies the URL to use for ACS.
-------	-----------------------------------

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example sets the ACS URL to *http://pscpe.acs.smartrg.com/v1/*:

```
#easycwmp_set_acs_url "http://acs.smartrg.com"
```


easycwmp_set_acs_username <*name*>

Use the **easycwmp_set_acs_username** command to set the ACS username. Enter the name string surrounded by quotation marks (for example, **admin**).

Syntax Description

< <i>name</i> >	Specifies the username to use for connecting to the ACS.
-----------------	--

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example sets the ACS username to *admin*:

```
#easycwmp_set_acs_username "admin"
```

exit

Use the **exit** command to exit the CLI.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example exits the CLI:

```
#exit
```

factory_reset

Use the **factory_reset** command to restore the PlumeOS device to factory default settings.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example restores the PlumeOS device to factory default settings:

```
#factory_reset
```

free

Use the **free** command to display the available memory in the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following example displays the available memory in the PlumeOS device:

```
#free
      total      used      free      shared  buff/cache   available
Mem:   1014548    130964    793944         5516     89640     820336
Swap:          0           0           0
```

help

Use the **help** command to display the help shortcuts embedded within the PlumeOS CLI.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example displays the help information pertaining to PlumeOS CLI:

#help

CONTEXT SENSITIVE HELP

[?] - Display context sensitive help. This is either a list of possible command completions with summaries, or the full syntax of the current command. A subsequent repeat of this key, when a command has been resolved, will display a detailed reference.

AUTO-COMPLETION

The following keys both perform auto-completion for the current command line. If the command prefix is not unique then the bell will ring and a subsequent repeat of the key will display possible completions.

[enter] - Auto-completes, syntax-checks then executes a command. If there is a syntax error then offending part of the command line will be highlighted and explained.

[space] - Auto-completes, or if the command is already resolved inserts a space.

MOVEMENT KEYS

[CTRL-A] - Move to the start of the line
[CTRL-E] - Move to the end of the line.
[up] - Move to the previous command line held in history.
[down] - Move to the next command line held in history.
[left] - Move the insertion point left one character.
[right] - Move the insertion point right one character.

DELETION KEYS

[CTRL-C] - Delete and abort the current line
[CTRL-D] - Delete the character to the right on the insertion point.
[CTRL-K] - Delete all the characters to the right of the insertion point.
[CTRL-U] - Delete the whole line.
[backspace] - Delete the character to the left of the insertion point.

history <number>

Use the **history** command to display the history list of CLI commands used.

Syntax Description

<number>	Specifies an integer that sets the size of the history list. A value of 0 means the history list size is unbounded.
----------	--

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example displays the last five CLI commands used:

```
#history 5
```

image show

Use the **image show** command to display the running and available images in the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following example displays the running and available images in the PlumeOS device:

```
#image show
----- img.sh : show summary -----

imageid stat bldDate                bldUser   bldDesc                sign
-----  -  -
e       RN   2022-07-25 09:29:59 UTC  buildagent 2.1.0.0-220718-21-0-gf037a02 OK

stat : N=next, R=Running, F=Force
```

logout

Use the **logout** command to log out the user from the CLI on the admin interface.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example logs the user out of the CLI:

```
#logout
```


mfg-image

Use the **mfg-image** command to update the manufacturing image. Variations of this command include:

```
mfg-image update_default
mfg-image update_file <tftp string>
```

Syntax Description

update_default	Specifies to update the mfg-img via Trivial File Transfer Protocol (TFTP) with the default ImageName <i>mfg-initramfs-kernel.bin.engnum</i> .
update_file <tftp string>	Specifies to set and update the mfg-img using a specified filename. <i><tftp string></i> specifies the file location in the format <i>tftp://<ip address>/<filename></i> .

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example specifies to set and update the mfg-image using the file named **myfile.run** located at ip address **10.200.2.4**:

```
#mfg-image update_file tftp://10.200.2.4/myfile.run
```

mfginfo

Use the **mfginfo** command to display general manufacturing information about the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example displays the manufacturing info for this PlumeOS device:

```
#mfginfo
```

```
MFG_MAC=AC:13:9C:DA:0E:D0
MFG_SERIAL=854V6A5320000094
MFG_MODEL=854-v6
MFG_HWREV=A5
MFG_ENGNUM=406
MFG_DATE=20220325
MFG_SOURCE=XVT
MFG_PART_NUM=17600028F1
```

nslookup <“*string*”>

Use the **nslookup** command to find the Nameserver for a Hostname or Fully Qualified Domain Name.

Syntax Description

<*string*> Specifies a name for which to lookup the Nameserver.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following example displays the corresponding Nameserver for the string entered:

```
#nslookup "www.google.com"
```

ping

Use the **ping** command to verify network connectivity for any host connected to the PlumeOS device. Variations of this command include:

```
ping -c <number>
```

```
ping <ip address|hostname>
```

Syntax Description

<code>-c <number></code>	Specifies the number of echo requests to be sent.
<code><ip address hostname></code>	Specifies the IP address or host name of the host to ping. IPv4 addresses should be expressed in dotted decimal notation (for example, 10.10.10.1).

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

To ping the host at IPv4 address 10.10.10.4, enter the command as follows:

```
#ping 10.10.10.4
```

pppoe get

Use the **pppoe get** command to obtain PPPoE options from the PlumeOS device. Variations of this command include:

```
pppoe get pwd
pppoe get user
```

Syntax Description

pwd	Retrieves the PPPoE password.
user	Retrieves the PPPoE username.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

To retrieve the PPPoE password, enter the **pppoe get pwd** command as follows:

```
#pppoe get pwd
PPPoE password: autoconfig
```

pppoe set

Use the `pppoe set` command to specify the PPPoE password or username on the PlumeOS device. Variations of this command include:

```
pppoe set pwd <password>  
pppoe set user <username>
```

Syntax Description

pwd <password>	Retrieves the PPPoE password.
user <username>	Retrieves the PPPoE username.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

To specify the PPPoE username as **dingo342**, enter the **pppoe set user** command as follows:

```
#pppoe set user dingo342
```

ps <“string”>

Use the **ps** <“string”> command to display running processes on the PlumeOS device.

Syntax Description

<“string”> Specifies the running process to display. Enter the string surrounded by quotation marks (for example, “**aux**”). For a full list of process options, enter **ps ?** at the prompt.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

To display the auxillary running processes on the PlumeOS device, enter the **ps** “**aux**” command as follows:

```
#ps "aux"
```

```
USER      PID  %CPU  %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1   0.0   0.1   1616   1040 ?        Ss   20:59   0:01 /sbin/procd
root         2   0.0   0.0     0     0 ?        S    20:59   0:00 [kthreadd]
root         3   0.0   0.0     0     0 ?        I<   20:59   0:00 [rcu_gp]
root         4   0.0   0.0     0     0 ?        I<   20:59   0:00 [rcu_par_gp]
root         7   0.2   0.0     0     0 ?        I    20:59   0:06
      [kworker/u4:0-events_unbound]
root         8   0.0   0.0     0     0 ?        I<   20:59   0:00 [mm_percpu_wq]
root         9   0.0   0.0     0     0 ?        S    20:59   0:00 [rcu_tasks_trace]
root        10   0.0   0.0     0     0 ?        R    20:59   0:01 [ksoftirqd/0]
root        11   0.0   0.0     0     0 ?        I    20:59   0:00 [rcu_sched]
root        12   0.0   0.0     0     0 ?        S    20:59   0:00 [migration/0]
```

show arp

Use the **show arp** command to display the Address Resolution Protocol (ARP) entries inside the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show arp** command:

```
#show arp
IP address           HW type   Flags      HW address           Mask      Device
-----
192.168.40.130       0x1       0x2        4c:ba:d7:09:e8:04    *         br-lan
192.168.40.250       0x1       0x0        ea:2c:6d:ff:3d:52    *         br-lan
```


show buildinfo

Use the **show buildinfo** command to display general build information about the software and hardware on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show buildinfo** command:

```
#show buildinfo
DISTRIB_ID='OpenWrt'
DISTRIB_RELEASE='21.02-SNAPSHOT'
DISTRIB_REVISION='r67153-68cc5bcead'
DISTRIB_TARGET='mediatek/mt7622'
DISTRIB_ARCH='aarch64_cortex-a53'
DISTRIB_DESCRIPTION='OpenWrt Generic 21.02-SNAPSHOT'
DISTRIB_TAINTS='no-all busybox override'
DISTRIB_TIP='f037a02'
BUILD_TIME="Mon Jul 25 09:29:59 UTC 2022"
BUILD_TIME_EPOCH="1658741399"
BUILD_HOST="Linux ip-172-26-2-144 5.13.0-1029-aws #32~20.04.1-Ubuntu SMP Thu Jun 9
13:03:13 UTC 2022 x86_64 x86_64 x86_64 GNU/Linux"
BUILD_USER="buildagent"
BUILD_DESC="2.1.0.0-220718-21-0-gf037a02"
BUILD_BRANCH="release/2.1.0.0"
BUILD_HASH="68cc5bcead"
BUILD_HASH_FULL="68cc5bcead644c8651e8cb32071c41967fabac15"
SRG_TARGET="polecat"
#*****
# BUILD INFO FILE
#*****
TARGET="polecat"
PLUME_OS_IMAGE_NAME="plos-sdg-mtk-arm-2.1.0.0-220725-27.run"
PLUME_OS_IMAGE_VERSION="2.1.0.0-220725-27"
BUILD_TYPE="PROD"
FEED_MTK_PLUMEOS_COMMIT_SHA="6b299b68ec9c882a13e62ab255482f1d7365c99f"
FEED_SRG_PLUMEOS_COMMIT_SHA="17d7558678e9544ecd3c4235cfb91c6e291c35d8"
FEED_WIFI_PLUMEOS_COMMIT_SHA="4706231c239d9d0d4b5389b0c60cd40a59fe873a"
```

```
PLUMEOS_OWRT_COMMIT_SHA="68cc5bcead644c8651e8cb32071c41967fabac15"  
VENDOR_ADTRAN_COMMIT_SHA="3ae06565a2ddadf2085cb811da83b88f357edf82"  
WLAN_AP_COMMIT_SHA="f037a02ec715f2a4454ad45a8e2f46aabb99b7c3"  
GIT_TAG_NAME="2.1.0.0-220725-27"  
FW_IMG_SUFFIX=""
```

show config <*file name*>

Use the **show config** command to display the system configuration file information for the PlumeOS device.

Syntax Description

<*file name*> Specifies the configuration file name to be displayed.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

To display system configuration file information for the **CONFIG1** file on the device, enter the command as follows:

```
#show config CONFIG1
```

show contrack

Use the **show contrack** command to display information about the current contrack sessions on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show contrack** command:

```
#show contrack
icmp      1 10 src=192.168.40.90 dst=192.168.40.1 type=8 code=0 id=3635 packets=2
         bytes=64 src=192.168.40.1 dst=192.168.40.90 type=0 code=0 id=3635 packets=2
         bytes=64 mark=0 use=1
udp       17 41 src=192.168.40.253 dst=192.168.40.255 sport=57621 dport=57621
         packets=84 bytes=6048 [UNREPLIED] src=192.168.40.255 dst=192.168.40.253
         sport=57621 dport=57621 packets=0 bytes=0 mark=0 use=1
tcp       6 6352 ESTABLISHED src=192.168.40.203 dst=20.81.56.243 sport=51869
         dport=8883 packets=124 bytes=5512 src=20.81.56.243 dst=24.42.190.67 sport=8883
         dport=51869 packets=126 bytes=5305 [ASSURED] mark=0 use=1
udp       17 54 src=192.168.40.2 dst=192.168.40.255 sport=17500 dport=17500
         packets=166 bytes=33034 [UNREPLIED] src=192.168.40.255 dst=192.168.40.2
         sport=17500 dport=17500 packets=0 bytes=0 mark=0 use=1
.....
```

show disk-usage

Use the **show disk-usage** command to view the amount of disk space available in the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show disk-usage** command:

```
#show disk-usage
Filesystem           Size      Used      Available Use%   Mounted on
/dev/mmcblk0p8       511.0M    122.5M    388.5M    24%   /boot
/dev/mmcblk0p9       3.0G      273.6M    2.5G      10%   /FLASH
/dev/loop0           25.3M     25.3M     0         100%  /rom
tmpfs                 495.4M     1.7M     493.7M    0%    /tmp
tmpfs                 495.4M     3.6M     491.8M    1%    /tmp/root
overlayfs:/tmp/root  495.4M     3.6M     491.8M    1%    /
tmpfs                 512.0K     0        512.0K    0%    /dev
```

show dmesg

Use the **show dmesg** command to display kernel messages on the PlumeOS device; includes the Linux **dmesg** file output.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show dmesg** command:

```
#show dmesg
[  0.000000] Booting Linux on physical CPU 0x0000000000 [0x410fd034]
[  0.000000] Linux version 5.10.110 (buildagent@ip-172-26-2-144)
(aarch64-openwrt-linux-musl-gcc (OpenWrt GCC 8.4.0 r67122-02384a2743) 8.4.0, GNU
ld (GNU Binutils) 2.34) #0 SMP Thu Jul 21 21:37:42 2022
[  0.000000] Machine model: Adtran 854-v6
[  0.000000] earlycon: uart8250 at MMIO32 0x0000000011002000 (options '')
[  0.000000] printk: bootconsole [uart8250] enabled
[  0.000000] Zone ranges:
[  0.000000]   DMA            [mem 0x0000000040000000-0x000000007fffffff]
[  0.000000]   DMA32        empty
```

show dns

Use the **show dns** command to display the current Domain Naming Service (DNS) servers of the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show dns** command:

```
#show dns
nameserver 75.76.160.1
nameserver 75.76.160.2
```

show drops

Use the show drops command to display packets sent, errors, dropped packets, and carrier collisions for each interface on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show drops** command:

```
#show drops
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT
   group default qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   RX: bytes  packets  errors  dropped missed  mcast
   28746     188      0       0       0       0
   TX: bytes  packets  errors  dropped carrier collsns
   28746     188      0       0       0       0
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1504 qdisc fq_codel state UP mode
   DEFAULT group default qlen 1000
   link/ether ac:13:9c:da:0e:d0 brd ff:ff:ff:ff:ff:ff
   RX: bytes  packets  errors  dropped missed  mcast
   104235858 799754   6       0       0       0
   TX: bytes  packets  errors  dropped carrier collsns
   71367720  249842  0       0       0       0
```


show file

Use the **show file** command to display content of a given file on the PlumeOS device. Variations of this command include:

```
show file dhcp-leases
show file dnsmasq-conf
show file meminfo
show file mtd
show file net-dev
show file ovssdb-db
show file ovssdb-log
show file ramoops
show file resolv-conf
show file resolv-conf-auto-tmp
show file resolv-conf-tmp
```

Syntax Description

dhcp-leases	Displays the DHCP client lease database.
dnsmasq-conf	Displays DHCP and DNS configuration information.
meminfo	Displays extended memory usage information.
mtd	Displays MTD devices information.
net-dev	Displays network interface statistics.
ovssdb-db	Displays all Opensync database tables and information.
ovssdb-log	Displays all Opensync connection logs.
ramoops	Displays the Kernel panic log. This information can be used to provide to support if a unit reboots unexpectedly; the information is displayed upon the reboot.
resolv-conf	Displays DNS resolver configuration information.
resolv-conf-auto-tmp	Displays DNS resolver automatic configuration (tmp folder).
resolv-conf-tmp	Displays DNS resolver configuration (tmp folder).

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example requests that DHCP client lease information is displayed:

```
#show file dhcp-leases
```

show interfaces

Use the **show interfaces** command to display interface status and configuration information on the PlumeOS device. This command will display information for each interface and its associated IP address information (similarly to the **ip address** command in Linux).

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show interfaces** command:

```
#show interfaces
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default
   qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1504 qdisc fq_codel state UP group
   default qlen 1000
   link/ether ac:13:9c:da:0e:d0 brd ff:ff:ff:ff:ff:ff
   inet6 fe80::ae13:9cff:feda:ed0/64 scope link
       valid_lft forever preferred_lft forever
3: ip6tnl0@NONE: <NOARP> mtu 1452 qdisc noop state DOWN group default qlen 1000
   link/tunnel6 :: brd :: permaddr ala:9632:a020::
4: gre0@NONE: <NOARP> mtu 1476 qdisc noop state DOWN group default qlen 1000
```

show interfaces stats

Use the **show interfaces stats** command to display detailed packet statistics for a specific interface on the PlumeOS device. Variations of this command include:

```
show interfaces stats eth <interface number>
show interfaces stat lan <interface number>
show interfaces stat wan <interface number>
```

Syntax Description

eth	Specifies an Ethernet interface.
lan	Specifies a local area network (LAN) interface.
wan	Specifies a wide area network (WAN) interface.
<i><interface number></i>	Specifies the interface number.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example displays the statistics associated with the Ethernet interface **0**:

```
#show interfaces stats eth 0
NIC statistics:
  tx_bytes: 85131372
  tx_packets: 313111
  tx_skip: 0
  tx_collisions: 0
  rx_bytes: 128657203
  rx_packets: 1029857
  rx_overflow: 0
  rx_fcs_errors: 0
  rx_short_errors: 0
  rx_long_errors: 0
  rx_checksum_errors: 7
  rx_flow_control_packets: 0
  p06_TxDrop: 0
  p06_TxCrcErr: 0
  p06_TxUnicast: 278554
  p06_TxMulticast: 1952
  p06_TxBroadcast: 749358
  p06_TxCollision: 0
  p06_TxSingleCollision: 0
  p06_TxMultipleCollision: 0
```

```
p06_TxDeferred: 0  
p06_TxLateCollision: 0  
p06_TxExcessiveCollistion: 0  
p06_TxPause: 0
```

show ip

Use the **show ip** command to display IP address information for each interface on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show ip** command:

```
#show ip
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default
   qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1504 qdisc fq_codel state UP group
   default qlen 1000
   link/ether ac:13:9c:da:0e:d0 brd ff:ff:ff:ff:ff:ff
   inet6 fe80::ae13:9cff:feda:ed0/64 scope link
       valid_lft forever preferred_lft forever
3: ip6tnl0@NONE: <NOARP> mtu 1452 qdisc noop state DOWN group default qlen 1000
   link/tunnel6 :: brd :: permaddr ala:9632:a020::
4: gre0@NONE: <NOARP> mtu 1476 qdisc noop state DOWN group default qlen 1000
   link/gre 0.0.0.0 brd 0.0.0.0
5: gretap0@NONE: <BROADCAST,MULTICAST> mtu 1462 qdisc noop state DOWN group default
   qlen 1000
   link/ether 00:00:00:00:00:00 brd ff:ff:ff:ff:ff:ff
```

show iptables

Use the **show iptables** command to display IP table information for the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show iptables** command:

```
#show iptables
Chain INPUT (policy DROP 850 packets, 129K bytes)
 pkts bytes target      prot opt in        out       source      destination
    0     0 ACCEPT      all  --  eth1.4    *        0.0.0.0/0   0.0.0.0/0
 4963 206K ACCEPT      icmp --  *        *        0.0.0.0/0   0.0.0.0/0
    0     0 ACCEPT      all  --  wan.4     *        0.0.0.0/0   0.0.0.0/0
    0     0 ACCEPT      tcp  --  *        *        0.0.0.0/0   0.0.0.0/0
 ctstate NEW tcp dpt:7547
  129  4128 ACCEPT      2    --  *        *        0.0.0.0/0   0.0.0.0/0
30634 13M ACCEPT      all  --  *        *        0.0.0.0/0   0.0.0.0/0
 ctstate RELATED,ESTABLISHED
    1   337 ACCEPT      udp  --  *        *        0.0.0.0/0   0.0.0.0/0
 udp dpt:68
    0     0 ACCEPT      all  --  lo        *        0.0.0.0/0   0.0.0.0/0
 1531 104K ACCEPT      udp  --  *        *        0.0.0.0/0   0.0.0.0/0
 udp dpt:53
 2546 514K NM_INPUT  all  --  *        *        0.0.0.0/0   0.0.0.0/0

Chain FORWARD (policy ACCEPT 2044 packets, 355K bytes)
 pkts bytes target      prot opt in        out       source      destination
 398K  91M ACCEPT      all  --  *        *        0.0.0.0/0   0.0.0.0/0
 ctstate RELATED,ESTABLISHED
  950 50180 TCPMSS      tcp  --  *        wan     0.0.0.0/0   0.0.0.0/0
 tcp flags:0x06/0x02 TCPMSS clamp to PMTU
...
```

show leases

Use the **show leases** command to display current DHCP leases for devices connected to the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show leases** command:

```
#show leases
1658829530 48:a2:e6:37:5f:6f 192.168.40.9 Lyric-375F6F 1,3,6 "Honeywell"
    01:48:a2:e6:37:5f:6f
1658826940 ea:2c:6d:ff:59:d4 192.168.40.119 * 1,3,6,12,15,28,42,43 "841-t6" *
1658826934 e8:2c:6d:ff:59:d4 169.254.7.160 841T6A4120002433_Pod-1 1,3,6,12,15,28,43
    "841-t6" *
1658826916 e8:2c:6d:ff:3e:b4 169.254.7.205 841T6A4120001999_Pod-4 1,3,6,12,15,28,43
    "841-t6" *
1658826717 02:23:6a:f7:43:c4 192.168.40.236 * 1,3,6,12,15,28,42,43 "841-t6" *
1658826711 00:23:6a:f7:43:c4 169.254.7.194 841T6A4120002851_Pod-2 1,3,6,12,15,28,43
    "841-t6" *
1658826691 e8:2c:6d:ff:3d:54 169.254.7.135 841T6A4120001977_Pod-1-1
    1,3,6,12,15,28,43 "841-t6" *
....
```

show log

Use the **show log** command to display system log information for the PlumeOS device. Variations of this command include:

```
show log
show log filter
show log scroll
```

Syntax Description

show log	Displays all syslog/event entries in the device.
filter	Optional. Limits output to the -e filter logs.
scroll	Optional. Limits output to the tail logs.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show log** command:

```
#show log
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.000000] DMA [mem
0x0000000040000000-0x000000007fffffff]
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.000000] node 0: [mem
0x0000000045141000-0x000000007fffffff]
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.000000] Initmem setup node 0 [mem
0x0000000040000000-0x000000007fffffff]
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.000000] Dentry cache hash table
entries: 131072 (order: 8, 1048576 bytes, linear)
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.000000] Memory: 1007716K/1048576K
available (8510K kernel code, 912K rdata, 2400K rodata, 448K init, 299K bss,
40860K reserved, 0K cma-reserved)
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.000000] clocksource:
arch_sys_counter: mask: 0xffffffffffffffff max_cycles: 0x2e2049cda, max_idle_ns:
440795202628 ns
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.007232] NET: Registered protocol
family 16
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.007569] DMA: preallocated 128 KiB
GFP_KERNEL pool for atomic allocations
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.007592] DMA: preallocated 128 KiB
GFP_KERNEL|GFP_DMA pool for atomic allocations
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.007613] DMA: preallocated 128 KiB
GFP_KERNEL|GFP_DMA32 pool for atomic allocations
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.044807] Bluetooth: SCO socket layer
```


initialized

```
Sat Jan 1 00:00:03 2000 kern.info kernel: [ 0.046858] IP idents hash table
entries: 16384 (order: 5, 131072 bytes, linear)
```

show mfg

Use the **show mfg** command to display board manufacturing information for the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show mfg** command:

```
#show mfg
MFG_MAC=AC:13:9C:DA:0E:D0
MFG_SERIAL=854V6A5320000094
MFG_MODEL=854-v6
MFG_HWREV=A5
MFG_ENGNUM=406
MFG_DATE=20220325
MFG_SOURCE=XVT
MFG_PART_NUM=17600028F1
```

show netdev

Use the **show netdev** command to display NETDEV information for the PlumeOS device, including Wi-Fi radio power and traffic statistics.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show netdev** command:

```
#show netdev
phy#1
  Interface wifi5g
    ifindex 30
    wdev 0x100000004
    addr ac:13:9c:da:0e:d9
    ssid RouterIHardlyKnowHer
    type AP
    channel 157 (5785 MHz), width: 80 MHz, center1: 5775 MHz
    txpower 30.00 dBm
    multicast TXQ:
      qsz-byt qsz-pkt flows drops marks overlmt hashcol tx-bytes tx-packets
      0         0      19     0       0         0         0 570         19
  Interface onboard-ap-50
    ifindex 27
    wdev 0x100000003
    addr ae:13:9c:da:0e:dc
    ssid we.piranha
    type AP
    channel 157 (5785 MHz), width: 80 MHz, center1: 5775 MHz
    txpower 30.00 dBm
    multicast TXQ:
      qsz-byt qsz-pkt flows drops marks overlmt hashcol tx-bytes tx-packets
      0         0     138     0       0         0         0 36582        138
```

show netstat

Use the **show netstat** command to display a list of currently and recently connected sessions running through the PlumeOS device. The output of this command contains the **netstat -an** information.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show netstat** command:

```
#show netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp      0      0 dynamic-24-42-190-67.knology.net:52036
        ec2-34-222-216-37.us-west-2.compute.amazonaws.com:https ESTABLISHED
tcp      0      0 192.168.40.1:ssh        192.168.40.2:56895     ESTABLISHED
tcp      0      0 dynamic-24-42-190-67.knology.net:59840
        ec2-52-34-72-24.us-west-2.compute.amazonaws.com:https ESTABLISHED

Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags      Type           State           I-Node Path
unix  3      [ ]        DGRAM          29097 /var/run/hostapd-phy0/wifi2g_b
unix  3      [ ]        DGRAM          29280 /var/run/hostapd-phy1/wifi5g_b
unix  30     [ ]        DGRAM          1954  /dev/log
```

show ovsh-table

Use the show ovsh-table command to display information from the OVSH tables. Variations of this command include:

```
show ovsh-table filter
show ovsh-table <"string name">
show ovsh-table "all"
```

Syntax Description

filter	Displays filtered data from the OVSH tables.
<"string name">	Displays data for specific OVSH tables. Table names must be included in quotation marks.
"all"	Displays data for any table in the Open Sync database.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example displays OVSH table information for the **Manager** table, which shows the connection status to the Plume cloud:

```
#show ovsh-table Manager
```

```
-----
_uuid          | 446d~2504 |
_version       | 0a28~e0d4 |
connection_mode | ["set", []] |
external_ids   | ["map", []] |
inactivity_probe | 30000 |
is_connected   | true |
max_backoff    | ["set", []] |
other_config   | ["map", []] |
status         | ["map", [{"sec_since_connect", "4071"}, {"state", "ACTIVE"}]] |
target         | ssl:52.34.72.24:443 |
```

show pci

Use the **show pci** command to display information about the PCI devices on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show pci** command:

```
#show pci
01:00.0 Class 0002: 14c3:7915
00:00.0 Class 0604: 14c3:3258
00:01.0 Class 0604: 14c3:3258
01:00.0 Class 0002: 14c3:7915
```

show phys

Use the **show phys** command to display basic hardware information for each interface on the PlumeOS device. SFP information is included for devices that support SFPs.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the **show phys** command (some output is omitted due to the length of the output):

#show phys

```
Settings for wan:
  Supported ports: [ ]
  Supported link modes:  10baseT/Half 10baseT/Full
                        100baseT/Half 100baseT/Full
                        1000baseT/Full
                        2500baseT/Full
  Supported pause frame use: Symmetric Receive-only
  Supports auto-negotiation: Yes
  Supported FEC modes: Not reported
  Advertised link modes: 10baseT/Half 10baseT/Full
                        100baseT/Half 100baseT/Full
                        1000baseT/Full
                        2500baseT/Full
  Advertised pause frame use: Symmetric Receive-only
  Advertised auto-negotiation: Yes
  Advertised FEC modes: Not reported
  Link partner advertised link modes: 10baseT/Half 10baseT/Full
                                       100baseT/Half 100baseT/Full
                                       1000baseT/Half 1000baseT/Full
  Link partner advertised pause frame use: Symmetric Receive-only
  Link partner advertised auto-negotiation: No
  Link partner advertised FEC modes: Not reported
  Speed: 1000Mb/s
  Duplex: Full
  Port: Twisted Pair
  PHYAD: 5
  Transceiver: external
```

Auto-negotiation: on
MDI-X: Unknown
Supports Wake-on: pg
Wake-on: d
Link detected: yes

show route

Use the **show route** command to display the routing table of the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show route** command:

```
#show route
Kernel IP routing table
Destination      Gateway          Genmask          Flags Metric Ref    Use Iface
0.0.0.0          24.42.190.1     0.0.0.0          UG    0      0      0 wan
24.42.190.0     0.0.0.0         255.255.254.0   U      0      0      0 wan
169.254.6.0     0.0.0.0         255.255.255.128 U      0      0      0 onboard-ap-24
```

show sfp

Use the **show sfp** command to display basic hardware information for each SFP on the PlumeOS device (if SFPs are supported). This output is the same as that displayed using the command [show phys on page 55](#), except limited to SFPs only.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

To display SFP hardware information for the PlumeOS device, enter the command as follows:

```
#show sfp
```

show tr069

Use the `show tr069` command to display TR-069 information on the PlumeOS device. Output can include detailed protocol statistics, or a basic health summary. Variations of this command include:

```
show tr069 stats
show tr069 summary
```

Syntax Description

stats	Displays detailed statistics for the TR-069 protocol.
summary	Displays a basic health summary for the TR-069 protocol on the device.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following is sample output from the `show tr069 stats` command:

```
#show tr069 stats
{
  "cwmp": {
    "status": "up",
    "start_time": "2022-07-25T21:09:05+00:00",
    "uptime_sec": 4029,
    "acs_url": "http://pscpe.acs.smartrg.com/v1/",
    "acs_ip": "",
    "wan_ip": "",
    "wan_device": "wan",
    "connection_request_protocol": "N/A",
    "total_received_connection_request": 0,
    "last_connection_request_time": "N/A"
  },
  "last_session": {
    "status": "N/A",
    "events": "N/A",
    "start_time": "N/A",
    "end_time": "N/A",
    "last_received_http_code": 0
  },
  "next_session": {
    "status": "waiting",
    "start_time": "2022-07-26T05:45:08+00:00",
```

```
        "events": "2 PERIODIC",
        "end_time": "N/A",
        "last_received_http_code": "N/A"
    },
```

.....

The following is sample output from the **show tr069 summary** command:

```
#show tr069 summary
```

```
{
    "status": "up",
    "start_time": "2022-07-25T21:09:05+00:00",
    "uptime_sec": 4109,
    "acs_url": "http://pscpe.acs.smartrg.com/v1/",
    "acs_ip": "",
    "wan_ip": "",
    "wan_device": "wan"
}
```

show tr181

Use the **show tr181** command to display information about the TR-181 data model on the PlumeOS device. Output can be limited to a specific parameter. Variations of this command include:

```
show tr181
show tr181 <parameter>
```

Syntax Description

<parameter> Optional. Limits output to a specific TR-181 parameter.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show tr181** command:

```
#show tr181
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.BOTTime",
  "value": "2019-09-06T18:00:00Z", "type": "xsd:dateTime" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.EOTTime",
  "value": "2019-09-06T23:59:59Z", "type": "xsd:dateTime" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.TestInterval",
  "value": "3600", "type": "xsd:unsignedInt" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.TestJitter",
  "value": "0", "type": "xsd:unsignedInt" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.Interface",
  "value": "", "type": "xsd:string" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.Host", "value":
  "", "type": "xsd:string" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.Timeout",
  "value": "5000", "type": "xsd:unsignedInt" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.DataBlockSize",
  "value": "56", "type": "xsd:unsignedInt" }
{ "parameter":
  "Device.X_SMARTRG_COM_NetworkPerformance.PeriodicICMPEchoTesting.DSCP", "value":
  "0", "type": "xsd:unsignedInt" }
```

show uptime

Use the **show uptime** command to display the system uptime and load average of the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following is sample output from the **show uptime** command:

```
#show uptime
22:18:57 up 1:19, load average: 0.04, 0.10, 0.13
```

top

Use the **top** command to display CPU usage and individual CPU processes on the PlumeOS device.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0 Command was introduced.

Usage Examples

The following example displays CPU usage and individual CPU processes:

```
#top
```

```

Mem: 472968K used, 541580K free, 5348K shrd, 824K buff, 329084K cached
CPU:  0% usr  0% sys  0% nic 100% idle  0% io  0% irq  0% sirq
Load average: 0.10 0.12 0.17 1/149 606
  PID  PPID  USER      STAT   VSZ  %VSZ  %CPU  COMMAND
 2853   1    root       S      5864   1%   0%   /usr/sbin/hostapd -s -g
      /var/run/hostapd/global
23894   2    root       IW        0   0%   0%   [kworker/u4:1-ph]
 5228  4986  root       S      27864   3%   0%   /usr/opensync/bin/fsm
 5105  4986  root       S      15092   1%   0%   /usr/opensync/bin/nm
 4536  4535  root       S<     14532   1%   0%   ovs-vswitchd
      unix:/var/run/openvswitch/db.sock -vconsole:emer -vsyslog:err -vfile:info
      --mlockall --no-chdir --log-file=/var/log/openvswitch/ovs-vswitchd.log
      --pidfile=/var/run/openvswitch/ovs-vs
 4523  4522  root       S<     14000   1%   0%   ovssdb-server /var/run/openvswitch/conf.db
      -vconsole:emer -vsyslog:err -vfile:info
      --remote=punix:/var/run/openvswitch/db.sock
      --private-key=db:Open_vSwitch,SSL,private_key --certificate=db:Open_v
 2173   1    logd      S      12292   1%   0%   /sbin/logd -S 10000
 5098  4986  root       S      11252   1%   0%   /usr/opensync/bin/bm
....

```

tr069 event-periodic

Use the **tr069 event-periodic** command to send an inform to the ACS.

Syntax Description

No subcommands.

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example sends a TR-069 inform to the ACS:

```
#tr069 event-periodic
```


upgrade

Use the **upgrade** command to allow a user to upgrade a device using a link to a remote file. Variations of this command include:

```
upgrade "[http|ftp|tftp]:// <string>" [yes|no|<size>]
```

Syntax Description

http:// <string>	Specifies the remote HTTP link in the format <ip address>/<filename>.
ftp : //<string>	Specifies the remote FTP link in the format <ip address>/<filename>.
tftp:// <string>	Specifies the remote TFTP link in the format <ip address>/<filename>.
yes	Specifies to restore to factory default during the upgrade.
no	Specifies not to restore to factory default during the upgrade.
<size>	Specifies the TFTP blocksize. Default value is 8192 .

Default Values

No default values are necessary for this command.

Command History

Release 2.1.0.0	Command was introduced.
-----------------	-------------------------

Usage Examples

The following example upgrades the PlumeOS device using filename **myfile.run** at the TFTP location **10.200.2.4** and does not factory default the unit:

```
#upgrade "tftp 10.200.2.4/myfile.run" no
```