

NAME

wpa_cli - text-based frontend program for interacting with wpa_supplicant

SYNOPSIS

wpa_cli [-p *path_to_ctrl_sockets*] [-i *ifname*] [-hvB] [-a *action_file*] [-P *pid_file*] [-g *global_ctrl*]
[-G *ping_interval*] *command* ...

DESCRIPTION

The **wpa_cli** utility is a text-based frontend program for interacting with wpa_supplicant(8). It is used to query current status, change configuration, trigger events, and request interactive user input.

The **wpa_cli** utility can show the current authentication status, selected security mode, dot11 and dot1x MIBs, etc. In addition, **wpa_cli** can configure EAPOL state machine parameters and trigger events such as reassociation and IEEE 802.1X logoff/logon.

The **wpa_cli** utility provides an interface to supply authentication information such as username and password when it is not provided in the wpa_supplicant.conf(5) configuration file. This can be used, for example, to implement one-time passwords or generic token card authentication where the authentication is based on a challenge-response that uses an external device for generating the response.

The **wpa_cli** utility supports two modes: interactive and command line. Both modes share the same command set and the main difference is in interactive mode providing access to unsolicited messages (event messages, username/password requests).

Interactive mode is started when **wpa_cli** is executed without any parameters on the command line. Commands are then entered from the controlling terminal in response to the **wpa_cli** prompt. In command line mode, the same commands are entered as command line arguments.

The control interface of wpa_supplicant(8) can be configured to allow non-root user access by using the *ctrl_interface_group* parameter in the wpa_supplicant.conf(5) configuration file. This makes it possible to run **wpa_cli** with a normal user account.

AUTHENTICATION PARAMETERS

When wpa_supplicant(8) needs authentication parameters, such as username and password, that are not present in the configuration file, it sends a request message to all attached frontend programs, e.g., **wpa_cli** in interactive mode. The **wpa_cli** utility shows these requests with a "CTRL-REQ-<type>-<id>:<text>" prefix, where <type> is IDENTITY, PASSWORD, or OTP (One-Time Password), <id> is a unique identifier for the current network, <text> is a description of the request. In the case of an OTP (One-Time Password) request, it includes the challenge from the authentication server.

A user must supply `wpa_supplicant(8)` the needed parameters in response to these requests.

For example,

```
CTRL-REQ-PASSWORD-1:Password needed for SSID foobar  
> password 1 mysecretpassword
```

Example request for generic token card challenge-response:

```
CTRL-REQ-OTP-2:Challenge 1235663 needed for SSID foobar  
> otp 2 9876
```

OPTIONS

These options are available:

-p *path*

Control sockets path. This should match the **ctrl_interface** in `wpa_supplicant.conf(5)`. The default path is `/var/run/wpa_supplicant`.

-i *ifname*

Interface to be configured. By default, the first interface found in the socket path is used.

-h Show help.

-v Show version information.

-B Run the daemon in the background.

-a *action_file*

Run in daemon mode, executing the action file based on events from `wpa_supplicant(8)`.

-P *pid_file*

PID file location.

-g *global_ctrl*

Use a global control interface to `wpa_supplicant(8)` rather than the default Unix domain sockets.

-G *ping_interval*

Wait "*ping_interval*" seconds before sending each ping to `wpa_supplicant(8)`. See the **ping** command.

command

See available commands in the next section.

COMMANDS

These commands can be supplied on the command line or at a prompt when operating interactively.

status Report the current WPA/EAPOL/EAP status for the current interface.

ifname

Show the current interface name. The default interface is the first interface found in the socket path.

ping Ping the wpa_supplicant(8) utility. This command can be used to test the status of the wpa_supplicant(8) daemon.

mib Report MIB variables (dot1x, dot11) for the current interface.

help Show usage help.

interface [*ifname*]

Show available interfaces and/or set the current interface when multiple interfaces are available.

level *debug_level*

Change the debugging level in wpa_supplicant(8). Larger numbers generate more messages.

license

Display the full license for **wpa_cli**.

logoff Send the IEEE 802.1X EAPOL state machine into the "logoff" state.

logon Send the IEEE 802.1X EAPOL state machine into the "logon" state.

set [*settings*]

Set variables. When no arguments are supplied, the known variables and their settings are displayed.

pmksa

Show the contents of the PMKSA cache.

reassociate

Force a reassociation to the current access point.

reconfigure

Force `wpa_supplicant(8)` to re-read its configuration file.

preauthenticate *BSSID*

Force preauthentication of the specified *BSSID*.

identity *network_id identity*

Configure an identity for an SSID.

password *network_id password*

Configure a password for an SSID.

new_password *network_id password*

Change the password for an SSID.

PIN *network_id pin*

Configure a PIN for an SSID.

passphrase *network_id passphrase*

Configure a private key passphrase for an SSID.

bssid *network_id bssid*

Set a preferred BSSID for an SSID

blacklist [*bssid* | *clear*]

Add a BSSID to the blacklist. When invoked without any extra arguments, display the blacklist. Specifying *clear* causes **wpa_cli** to clear the blacklist.

list_networks

List configured networks.

select_network *network_id*

Select a network and disable others.

enable_network *network_id*

Enable a network.

disable_network *network_id*

Disable a network.

add_network

Add a network.

remove_network *network_id*

Remove a network.

set_network [*network_id variable value*]

Set network variables. Shows a list of variables when run without arguments.

get_network *network_id variable*

Get network variables.

disconnect

Disconnect and wait for reassociate/reconnect command before connecting.

reconnect

Similar to **reassociate**, but only takes effect if already disconnected.

scan Request new BSS scan.

scan_results

Get the latest BSS scan results. This command can be invoked after running a BSS scan with **scan**.

bss [*idx | bssid*]

Get a detailed BSS scan result for the network identified by "bssid" or "idx".

otp *network_id password*

Configure a one-time password for an SSID.

terminate

Force wpa_supplicant(8) to terminate.

interface_add *ifname [confname driver ctrl_interface driver_param bridge_name]*

Add a new interface with the given parameters.

interface_remove *ifname*

Remove the interface.

interface_list

List available interfaces.

quit Exit **wpa_cli**.

SEE ALSO

wpa_supplicant.conf(5), wpa_supplicant(8)

HISTORY

The **wpa_cli** utility first appeared in FreeBSD 6.0.

AUTHORS

The **wpa_cli** utility was written by Jouni Malinen <j@w1.fi>. This manual page is derived from the *README* and *wpa_cli.c* files included in the **wpa_supplicant** distribution.