

**NAME**

**wpa\_action** – wpa\_cli action script

**SYNOPSIS**

**wpa\_action** *IFACE ACTION*

**DESCRIPTION**

**wpa\_action** is a shell script designed to control the **ifupdown** framework according to *ACTION* events received from **wpa\_supplicant**. **wpa\_cli** receives *CONNECTED* and *DISCONNECTED* events from **wpa\_supplicant** via the *ctrl\_iface* socket and gives the *ACTION* event to the **wpa\_action** script as an argument, along with the *IFACE* to be acted upon.

**wpa\_action** also receives an environment variable from **wpa\_cli**, *WPA\_ID\_STR*, containing an alphanumeric identification string for the *CURRENT* network block. *WPA\_ID\_STR* is provided by the 'id\_str' network block option of **wpa\_supplicant.conf**, and provides a means to map the *ACTION* to a *LOGICAL* interface configured in the **interfaces** file.

If either the ifupdown **interfaces** or *ifstate* file cannot be found, **wpa\_action** will exit silently (status 0). **wpa\_action** will search the following locations for their existence:

```
/etc/network/run/ifstate
/run/network/ifstate
/etc/network/interfaces
```

**IFACE**

Network interface to be acted upon, for example 'eth1' or 'wlan0'.

**ACTION**

An *ACTION* to be performed on the *IFACE*.

**CONNECTED**

**wpa\_supplicant** has completed authentication. **ifup** *IFACE=WPA\_ID\_STR* is invoked and the action is logged to syslog. Network settings for the *LOGICAL* interface *WPA\_ID\_STR* are applied.

**DISCONNECTED**

**wpa\_supplicant** has detected disconnection. **ifdown** *IFACE=WPA\_ID\_STR* is invoked and the action is logged to syslog. Network settings for the *LOGICAL* interface *WPA\_ID\_STR* are undone.

**stop** The 'stop' *ACTION* is called manually by the user, to stop the **wpa\_cli** daemon, invoke **ifdown** *IFACE* (if the *IFACE* is present in the *ifstate* file) and stop the **wpa\_supplicant** daemon.

**reload** The 'reload' *ACTION* can be used to reload the **wpa\_supplicant** configuration file specified by *wpa-roam*. 'restart' is a synonym for 'reload' and can be used equally. The action is logged to */var/log/wpa\_action.log*.

**ENVIRONMENT**

An alphanumeric identification string provided by the 'id\_str' network block option of **wpa\_supplicant.conf** is exported to **wpa\_action** as an environment variable, *WPA\_ID\_STR*. When 'id\_str' is not configured for the *CURRENT* network block, 'default' is substituted for the absent *WPA\_ID\_STR* environment variable.

A unique network identifier, *WPA\_ID*, is exported to **wpa\_action**. It is the number assigned to the *CURRENT* **wpa\_supplicant** network block (*network\_id*).

**USAGE**

The only reasons for **wpa\_action** to be explicitly executed by the user is to stop **wpa\_cli** from controlling **ifupdown** or reload the *wpa\_supplicant.conf* file after editing.

```
wpa_action eth1 stop
```

Otherwise, **wpa\_action** is given as an argument to a **wpa\_cli** daemon.

```
wpa_cli -i eth1 -a /sbin/wpa_action -B
```

This can be done by using the *wpa-roam* option in the **interfaces** file. *wpa-roam* takes one argument, a user provided **wpa\_supplicant.conf** file.

The inet *METHOD* must be 'manual' for this interface, as it will be configured according to **wpa\_cli** action events. Also supply a 'default' **interfaces** stanza using the dhcp inet *METHOD* so that networks without an 'id\_str' option can fallback to attempting to receive an ip via dhcp. If one or more networks requires additional network configuration, provide an unique 'id\_str' for each network, and an **interfaces** stanza using the 'id\_str' value as a *LOGICAL* interface. The following interfaces file is configured to use dhcp for any network without an 'id\_str', a static ip for the network with an 'id\_str' of 'home\_static' and dhcp plus an additional post-up command for the network with an 'id\_str' of 'uni'.

An example wpa\_supplicant.conf configured to roam between 3 different networks:

```
network={
    ssid="foo"
    id_str="uni"
    key_mgmt=NONE
}

network={
    ssid="bar"
    id_str="home_static"
    psk=123456789...
}

network={
    ssid=""
    key_mgmt=NONE
}
```

The corresponding **interfaces** file would contain *LOGICAL* interfaces, that correlate to each unique 'id\_str' provided by the configuration file:

```
iface eth1 inet manual
    wpa-driver wext
    wpa-roam /etc/wpa_supplicant/wpa_supplicant.conf

iface default inet dhcp

iface uni inet dhcp

iface home_static inet static
    address 192.168.0.20
    netmask 255.255.255.0
    network 192.168.0.0
    broadcast 192.168.0.255
    gateway 192.168.0.1
```

## SEE ALSO

**wpa\_cli(8)**, **wpa\_supplicant(8)**, **wpa\_supplicant.conf(5)**, **ifup(8)**, **interfaces(5)**

## AUTHOR

This manual page was written by Kel Modderman <kel@otaku42.de> for the Debian GNU system (but may be used by others).