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 crtl_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 a 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).