



## PIA Desktop: Command Line Interface

Travis - 2022-08-11 - Application & Features

The Private Internet Access desktop client includes a command-line interface that can be used to control some functionality of the PIA client from scripts.

### Invoking `piactl`

Windows

On Windows, specify the full path to `piactl.exe` or change into the PIA installation directory and invoke it. For example:

```
"C:\Program Files\Private Internet Access\piactl.exe" --  
help  
"C:\Program Files\Private Internet Access\piactl.exe"  
connect
```

Or:

```
cd "C:\Program Files\Private Internet Access"  
piactl --help  
piactl connect
```

We do **not** recommend adding the PIA installation directory to PATH on Windows, as this would also add the DLLs shipped by PIA to PATH.

`piactl` in example commands, substitute the full path on Windows as needed.

### Mac and Linux

On Mac and Linux, `piactl` is symlinked into `/usr/local/bin` at installation time if possible, so normally `piactl` is sufficient from a command line. For example:

```
piactl --help  
piactl connect
```

This requires that:

- There isn't already a file called `piactl` in `/usr/local/bin`
- `/usr/local/bin` is already in your PATH (PIA does not alter PATH)
- On Linux, the directory `/usr/local/bin` must already exist.

Otherwise, the full path to piactl can be used - on Mac: /Applications/Private Internet Access.app/Contents/MacOS/piactl; on Linux: /opt/piavpn/bin/piactl.

## Help

piactl --help displays usage information.

Usage: piactl [options] command [parameters...]

Command-line interface to the PIA client. Some commands, such as connect, require that the graphical client is also running.

### Options:

--timeout, -t <seconds> Sets timeout for one-shot commands.  
--debug, -d Prints debug logs to stderr.  
--help, -h Displays this help.  
-v, --version Displays version information.

### Arguments:

command Command to execute  
parameters Parameters for the command

### Commands

#### background

usage: background <enable|disable>

Allow the killswitch and/or VPN connection to remain active in the background when the GUI client is not running.

When enabled, the PIA daemon will stay active even if the GUI client is closed or has not been started.

This allows `piactl connect` to be used even if the GUI client is not running.

Disabling background activation will disconnect the VPN and deactivate killswitch if the GUI client is not running.

Disabling background activation will disconnect the VPN and deactivate killswitch if the GUI client is not running.

#### connect

Connects to the VPN, or reconnects to apply new settings.

The PIA client must be running to use this command.

(The PIA daemon is inactive when the client is not

running.)

dedicatedip

usage (add): dedicatedip add <token\_file>

usage (remove): dedicatedip remove <region\_id>

Add or remove a Dedicated IP.

To add, put the dedicated IP token in a text file (by itself), and specify that file on the command line:

DIP20000000000000000000000000000000

(This ensures the token is not visible in the process command line or environment.)

To remove, specify the dedicated IP region ID, as shown by `piactl get regions`, such as  
`dedicated-sweden-000.000.000.000`.

disconnect

Disconnects from the VPN.

get

usage: get <type>

Get information from the PIA daemon.

Available types:

- connectionstate - VPN connection state

values: Disconnected, Connecting, StillConnecting, Connected, Interrupted, Reconnecting, StillReconnecting, DisconnectingToReconnect, Disconnecting

- debuglogging - State of debug logging setting

- portforward - Forwarded port number if available, or the status of the request to forward a port

values: [forwarded port], Inactive, Attempting, Failed, Unavailable

- region - Currently selected region (or "auto")

- regions - List all available regions

- vpnip - Current VPN IP address

login

usage: login

Log in to your PIA account.

Put your username and password on separate lines in a text file,

and specify that file on the command line:

p00000000  
(yourpassword)

logout  
Log out your PIA account on this computer.

monitor  
usage: monitor <type>  
Monitors the PIA daemon for changes in a specific setting or state value.

When a connection is established, the current value is printed.

When a change is received, the new value is printed.

Available types:

- connectionstate - VPN connection state

values: Disconnected, Connecting, Still Connecting, Connected, Interrupted, Reconnecting, Still Reconnecting, Disconnecting To Reconnect, Disconnecting

- debuglogging - State of debug logging setting

- portforward - Forwarded port number if available, or the status of the request to forward a port

values: [forwarded port], Inactive, Attempting, Failed, Unavailable

- region - Currently selected region (or "auto")

- vpnip - Current VPN IP address

resetsettings  
Resets daemon settings to the defaults  
(ports/protocols/etc.)  
Client settings (themes/icons/layouts) can't be set with the CLI.

set  
usage: set <type> <value>  
Change settings in the PIA daemon.  
Available types:  

- region - Select a region (or "auto")

## Commands

Option	Description
--timeout <sec> / -t <sec>	Specifies the timeout used for one-shot commands (default is 5 seconds). If the PIA daemon doesn't respond before this timeout, piactl exits unsuccessfully.
--debug / -d	Displays debug output while executing piactl.
--help / -h	Displays the help text.
--version / -v	Displays the version of piactl.

piactl supports several commands:

Command	Description
background	Allow the killswitch and/or VPN connection to remain active in the background when the GUI client is not running.
connect	Causes PIA to connect to the VPN, if it isn't already connected.
disconnect	Causes PIA to disconnect from the VPN, if it is connected.
get <type>	Gets information about PIA settings or state.
login <login_file>	Logs in to a PIA account.
logout	Logs out of a PIA account.
resetsettings	Resets settings to the defaults. This only resets daemon settings (those that control the VPN connection), like protocols, ports, exclusions, etc. Graphical client settings (like the window type and icon theme) are not affected.
set <type> <value>	Sets some of the values obtainable with get.
monitor <type>	Monitors the PIA daemon for changes in a specific setting or state value.

**The PIA client must be running to use the connect command.**

Otherwise, piactl will print a message and exit. This is currently required because the daemon is inactive when the graphical client is not running, and so the daemon can disconnect if the user logs out.

get/set types

Type	Can set?	Description	Values
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`connectionstate`	No	VPN connection state	Disconnected, Connecting, Still Connecting, Connected, Interrupted, Reconnecting, Still Reconnecting, Disconnecting To Reconnect, Disconnecting
`debuglogging`	Yes	Whether debug logging is enabled	`true` or `false`
`portforward`	No	When connected, the forwarded port, or the status of the request to forward a port	Forwarded port value, or state indicator: `Inactive`, `Attempting`, `Failed`, `Unavailable`
`region`	Yes	The current selected region	Region identifier (see `get regions`) or `auto` for automatic region
`requestportforward`	Yes	Enabling port forwarding	Whether to request port forwarding after connecting
`protocol`	Yes	Selects the VPN connection protocol	VPN connection protocol - openvpn or wireguard
`regions`	No	Lists all available regions	Lists `auto` and all region identifiers
`vpnip`	No	The current VPN IP address, if connected and the address is known	IP address, or `Unknown`

#### `monitor` Types

Type	Description	Values
`connectionstate`	VPN connection state	Disconnected, Connecting, StillConnecting, Connected, Interrupted, Reconnecting, StillReconnecting, DisconnectingToReconnect, Disconnecting
`debuglogging`	State of debug logging setting	True or False
`portforward`	When connected, the forwarded port, or the status of the request to forward a port	[forwarded port], Inactive, Attempting, Failed, Unavailable

`region`	The current selected region	Currently selected region (or "auto")
`requestportforward`	Enabling port forwarding	Whether to request port forwarding after connecting
`protocol`	Selects the VPN connection protocol	VPN connection protocol - openvpn or wireguard
`vpnip`	The current VPN IP address, if connected and the address is known	Current VPN IP address

**\*Note\*** The current monitor command will continue running until it is manually stopped by pressing Ctrl+C **\*Note\***