
awsapicli Documentation

Release 0.1.6

Costas Tyfoxylos

May 06, 2022

CONTENTS

1	awsapicli	3
1.1	Project Features	3
2	Installation	5
3	Usage	7
4	Contributing	15
4.1	Submit Feedback	15
5	awsapicli	17
5.1	awsapicli package	17
6	Credits	21
6.1	Development Lead	21
6.2	Contributors	21
7	History	23
8	0.0.1 (24-12-2021)	25
9	0.1.0 (29-12-2021)	27
10	0.1.1 (29-12-2021)	29
11	0.1.2 (29-12-2021)	31
12	0.1.3 (29-12-2021)	33
13	0.1.4 (30-12-2021)	35
14	0.1.5 (26-04-2022)	37
15	0.1.6 (06-05-2022)	39
16	Indices and tables	41
	Python Module Index	43
	Index	45

Contents:

AWSAPICLI

A cli tool exposing capabilities of awsapilib like control tower account creation, account renaming and email updating, account termination and more.

- Documentation: <https://awsapicli.readthedocs.org/en/latest>

1.1 Project Features

- Creates an account through Control Tower. Supports nested OU by specifying a parent hierarchy up to 5 levels. It can create the OUs specified automatically if they don't exist with the usage of the force flag
- Requests password reset to activate the root account
- Resets the password of the root, activating the account providing the reset url from the request step.
- Activate IAM access to the billing console with the usage of the root password
- Can update the name and the email of the account
- Can activate and deactivate virtual MFA devices.

INSTALLATION

At the command line:

```
$ pip install awsapicli
```

Or, if you have virtualenvwrapper installed:

```
$ mkvirtualenv awsapicli  
$ pip install awsapicli
```

Or, if you are using pipenv:

```
$ pipenv install awsapicli
```

Or, if you are using pipx:

```
$ pipx install awsapicli
```


USAGE

To use aws-account-lifecycle:

```
aws-account-lifecycle --help
Usage: aws-account-lifecycle [OPTIONS] COMMAND [ARGS]...
```

Main entry point of the CLI.

Options:

--help Show this message and exit.

Commands:

billing-iam-activate	Activate IAM access to billing console on an...
create	Create a new account through Control Tower.
mfa-activate	Activate virtual MFA on an account.
mfa-deactivate	Deactivate virtual MFA on an account.
request-password-reset	Request a password reset for an account.
reset-password	Reset the password of an account.
terminate	Terminate (suspend for 90 days first) an account.
update-email	Update the email of an account.
update-name	Update the name of an account.

Activating IAM access on billing console

```
aws-account-lifecycle billing-iam-activate --help
Usage: aws-account-lifecycle billing-iam-activate [OPTIONS]
```

Activate IAM access to billing console on an account.

Options:

Logging options: [mutually_exclusive]

	Sets the level of logging interactively or accepts a configuration file.
-l, --log-level [debug info warning error]	Provide the log level. Defaults to info. Mutually exclusive with providing a logging configuration file.
-L, --log-config FILENAME	A config file for logging, mutually exclusive with setting the logging level interactively.
-t, --2captcha-token TEXT	A valid token for the 2captcha service if automatic captcha solving is required. Can

(continues on next page)

(continued from previous page)

	read from "TWO_CAPTCHA_API_TOKEN" environment variable
-m, --mfa-seed TEXT	The original mfa seed of the account if virtual MFA is enabled.
-r, --region TEXT	The home region of the account, can read from "AWS_DEFAULT_REGION" environment variable [required]
-p, --password TEXT	The root password of the account. [required]
-e, --email TEXT	The email to use. [required]
--help	Show this message and exit.

Creating an account

aws-account-lifecycle create --help

Usage: aws-account-lifecycle create [OPTIONS]

Create a new account through Control Tower.

Options:

Logging options: [mutually_exclusive]

Sets the level of logging interactively or accepts a configuration file.

-l, --log-level [debug|info|warning|error]

Provide the log level. Defaults to info. Mutually exclusive with providing a logging configuration file.

-L, --log-config FILENAME

A config file **for** logging, mutually exclusive with setting the logging level interactively.

-e, --email TEXT

The email to use. [required]

-r, --region TEXT

The home region of the account, can read from "AWS_DEFAULT_REGION" environment variable [required]

-n, --name TEXT

The name of the account. [required]

-a, --arn TEXT

The arn of the role that can access Control Tower. [required]

-o, --organizational-unit TEXT

The OU to create the account under. Defaults to "Custom". [required]

-h, --parent-hierarchy TEXT

The parent hierarchy of the OU **if** any, space delimited. If you want the OU to be created under Root/GrandParentOU/ParentOU the arguments would be ``-h Root -h GrandParentOU -h ParentOU``

-p, --product-name TEXT

The product name of the account. Defaults to the account name **if** not set.

-se, --sso-email TEXT

The email **for** an SSO user. It defaults to the account email **if** not set.

-sf, --sso-first-name TEXT

The first name **for** an SSO user. It defaults to "Control".

-sl, --sso-last-name TEXT

The last name **for** an SSO user. It defaults to "Tower".

(continues on next page)

(continued from previous page)

```
-f, --force-ou-hierarchy-creation    If set and a parent hierarchy is provided
                                     then then the tool will try to create it
                                     even if it does not exist.
--help                               Show this message and exit.
```

Activating MFA

```
aws-account-lifecycle mfa-activate --help
Usage: aws-account-lifecycle mfa-activate [OPTIONS]

    Activate virtual MFA on an account.

Options:
  Logging options: [mutually_exclusive]
                                     Sets the level of logging interactively or
                                     accepts a configuration file.
    -l, --log-level [debug|info|warning|error]
                                     Provide the log level. Defaults to info.
                                     Mutually exclusive with providing a logging
                                     configuration file.
    -L, --log-config FILENAME        A config file for logging, mutually
                                     exclusive with setting the logging level
                                     interactively.
    -t, --2captcha-token TEXT        A valid token for the 2captcha service if
                                     automatic captcha solving is required. Can
                                     read from "TWO_CAPTCHA_API_TOKEN"
                                     environment variable
    -m, --mfa-seed TEXT              The original mfa seed of the account if
                                     virtual MFA is enabled.
    -r, --region TEXT               The home region of the account, can read
                                     from "AWS_DEFAULT_REGION" environment
                                     variable [required]
    -p, --password TEXT              The root password of the account.
                                     [required]
    -e, --email TEXT                The email to use. [required]
    -d, --device-name TEXT           The name of the virtual device. Defaults to
                                     "root-account-mfa-device" [required]
    --help                          Show this message and exit.
```

Deactivating MFA

```
aws-account-lifecycle mfa-deactivate --help
Usage: aws-account-lifecycle mfa-deactivate [OPTIONS]

    Deactivate virtual MFA on an account.

Options:
  Logging options: [mutually_exclusive]
                                     Sets the level of logging interactively or
                                     accepts a configuration file.
    -l, --log-level [debug|info|warning|error]
```

(continues on next page)

(continued from previous page)

	Provide the log level. Defaults to info. Mutually exclusive with providing a logging configuration file.
<code>-L, --log-config FILENAME</code>	A config file for logging, mutually exclusive with setting the logging level interactively.
<code>-t, --2captcha-token TEXT</code>	A valid token for the 2captcha service if automatic captcha solving is required. Can read from <code>"TWO_CAPTCHA_API_TOKEN"</code> environment variable
<code>-m, --mfa-seed TEXT</code>	The original mfa seed of the account if virtual MFA is enabled.
<code>-r, --region TEXT</code>	The home region of the account, can read from <code>"AWS_DEFAULT_REGION"</code> environment variable [required]
<code>-p, --password TEXT</code>	The root password of the account. [required]
<code>-e, --email TEXT</code>	The email to use. [required]
<code>-d, --device-serial TEXT</code>	The serial of the virtual device in the form of <code>arn:aws:iam::ACCOUNTID:mfa/DEVICE_NAME</code> . [required]
<code>--help</code>	Show this message and exit.

Request a password reset

```
aws-account-lifecycle request-password-reset --help
Usage: aws-account-lifecycle request-password-reset [OPTIONS]
```

Request a password reset **for** an account.

Options:

Logging options: [mutually_exclusive]	Sets the level of logging interactively or accepts a configuration file.
<code>-l, --log-level [debug info warning error]</code>	Provide the log level. Defaults to info. Mutually exclusive with providing a logging configuration file.
<code>-L, --log-config FILENAME</code>	A config file for logging, mutually exclusive with setting the logging level interactively.
<code>-e, --email TEXT</code>	The email to use. [required]
<code>-t, --2captcha-token TEXT</code>	A valid token for the 2captcha service if automatic captcha solving is required. Can read from <code>"TWO_CAPTCHA_API_TOKEN"</code> environment variable
<code>--help</code>	Show this message and exit.

Reset password

```
aws-account-lifecycle reset-password --help
Usage: aws-account-lifecycle reset-password [OPTIONS]
```

(continues on next page)

(continued from previous page)

Reset the password of an account.

Options:

Logging options:	[mutually_exclusive]	Sets the level of logging interactively or accepts a configuration file.
-l, --log-level	[debug info warning error]	Provide the log level. Defaults to info. Mutually exclusive with providing a logging configuration file.
-L, --log-config	FILENAME	A config file for logging, mutually exclusive with setting the logging level interactively.
-r, --reset-url	TEXT	[required]
-p, --password	TEXT	The root password of the account. [required]
--help		Show this message and exit.

Terminate an account

```
aws-account-lifecycle terminate --help
Usage: aws-account-lifecycle terminate [OPTIONS]
```

Terminate (**suspend for 90** days first) an account.

Options:

Logging options:	[mutually_exclusive]	Sets the level of logging interactively or accepts a configuration file.
-l, --log-level	[debug info warning error]	Provide the log level. Defaults to info. Mutually exclusive with providing a logging configuration file.
-L, --log-config	FILENAME	A config file for logging, mutually exclusive with setting the logging level interactively.
-t, --2captcha-token	TEXT	A valid token for the 2captcha service if automatic captcha solving is required. Can read from " TWO_CAPTCHA_API_TOKEN " environment variable
-m, --mfa-seed	TEXT	The original mfa seed of the account if virtual MFA is enabled.
-r, --region	TEXT	The home region of the account, can read from " AWS_DEFAULT_REGION " environment variable [required]
-p, --password	TEXT	The root password of the account. [required]
-e, --email	TEXT	The email to use. [required]
--help		Show this message and exit.

Update an account email

```
aws-account-lifecycle update-email --help
Usage: aws-account-lifecycle update-email [OPTIONS]
```

Update the email of an account.

Options:

```
Logging options: [mutually_exclusive]
    Sets the level of logging interactively or
    accepts a configuration file.

-l, --log-level [debug|info|warning|error]
    Provide the log level. Defaults to info.
    Mutually exclusive with providing a logging
    configuration file.

-L, --log-config FILENAME
    A config file for logging, mutually
    exclusive with setting the logging level
    interactively.

-t, --2captcha-token TEXT
    A valid token for the 2captcha service if
    automatic captcha solving is required. Can
    read from "TWO_CAPTCHA_API_TOKEN"
    environment variable

-m, --mfa-seed TEXT
    The original mfa seed of the account if
    virtual MFA is enabled.

-r, --region TEXT
    The home region of the account, can read
    from "AWS_DEFAULT_REGION" environment
    variable [required]

-p, --password TEXT
    The root password of the account.
    [required]

-e, --email TEXT
    The email to use. [required]

-n, --new-email TEXT
    The email to update to. [required]

--help
    Show this message and exit.
```

Update an account name

```
aws-account-lifecycle update-name --help
Usage: aws-account-lifecycle update-name [OPTIONS]
```

Update the name of an account.

Options:

```
Logging options: [mutually_exclusive]
    Sets the level of logging interactively or
    accepts a configuration file.

-l, --log-level [debug|info|warning|error]
    Provide the log level. Defaults to info.
    Mutually exclusive with providing a logging
    configuration file.

-L, --log-config FILENAME
    A config file for logging, mutually
    exclusive with setting the logging level
    interactively.

-t, --2captcha-token TEXT
    A valid token for the 2captcha service if
    automatic captcha solving is required. Can
    read from "TWO_CAPTCHA_API_TOKEN"
    environment variable
```

(continues on next page)

(continued from previous page)

<code>-m, --mfa-seed TEXT</code>	The original mfa seed of the account if virtual MFA is enabled.
<code>-r, --region TEXT</code>	The home region of the account, can read from <code>"AWS_DEFAULT_REGION"</code> environment variable [required]
<code>-p, --password TEXT</code>	The root password of the account. [required]
<code>-e, --email TEXT</code>	The email to use. [required]
<code>-n, --name TEXT</code>	The name of the account. [required]
<code>--help</code>	Show this message and exit.

CONTRIBUTING

Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given.

4.1 Submit Feedback

If you are proposing a feature:

- Explain in detail how it would work.
- Keep the scope as narrow as possible, to make it easier to implement.

4.1.1 Get Started!

Ready to contribute? Here's how to set up *awsapicli* for local development. Using of pipenv is highly recommended.

1. Clone your fork locally:

```
$ git clone https://github.com/schubergphilis/awsapicli.git
```

2. Install your local copy into a virtualenv. Assuming you have pipenv installed, this is how you set up your clone for local development:

```
$ cd awsapicli/  
$ pipenv install --ignore-pipfile
```

3. Create a branch for local development:

```
$ git checkout -b name-of-your-bugfix-or-feature
```

Now you can make your changes locally. Do your development while using the CI capabilities and making sure the code passes lint, test, build and document stages.

4. Commit your changes and push your branch to the server:

```
$ git add .  
$ git commit -m "Your detailed description of your changes."  
$ git push origin name-of-your-bugfix-or-feature
```

5. Submit a merge request

AWSAPICLI

5.1 awsapicli package

5.1.1 Submodules

5.1.2 awsapicli.actions module

actions package.

Import all parts from actions here

`awsapicli.actions.activate_iam_billing(options, console)`

Activates IAM access to the billing console.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

`awsapicli.actions.activate_mfa(options, console)`

Activates virtual MFA on an account.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns The device representation returned by the activation process.

Return type device (VirtualMFADevice)

`awsapicli.actions.deactivate_mfa(options, console)`

Deactivates the virtual MFA of an account.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

`awsapicli.actions.get_account_manager_arguments(options)`

Prepares the standard arguments for account manager actions.

`awsapicli.actions.get_password_manager_arguments(options)`

Prepares the standard arguments for password manager actions.

`awsapicli.actions.password_reset(options, console)`

Resets an account root password.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

`awsapicli.actions.password_reset_request(options, console)`

Requests a password reset link.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

`awsapicli.actions.show_header()`

Shows the project header.

`awsapicli.actions.terminate_account(options, console)`

Terminates an account.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

`awsapicli.actions.update_account_email(options, console)`

Update an account's email.

Parameters

- **options** – The options provided by click
- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

`awsapicli.actions.update_account_name(options, console)`

Update an account's name.

Parameters

- **options** – The options provided by click

- **console** – The console provided by rich

Returns True on success False on failure

Return type result (bool)

5.1.3 awsapicli.awsapicli module

Main code for awsapicli.

`awsapicli.awsapicli.filter_set_options(options)`

Filters out options that are not set.

`awsapicli.awsapicli.setup_logging(options)`

Sets up the logging.

Needs the args to get the log level supplied

Parameters `options` – The options provided through the cli.

5.1.4 awsapicli.awsapicliexceptions module

Custom exception code for awsapicli.

5.1.5 awsapicli.options module

options package.

Import all parts from options here

`awsapicli.options.common_account_manager_options(function)`

Options common to account manager commands.

`awsapicli.options.common_options(function)`

Options common to all commands.

5.1.6 awsapicli.validators module

validation package.

Import all parts from validation here

`awsapicli.validators.generate_random_string(length)`

Generates a random string according to the length provided.

`awsapicli.validators.get_random_account_email(account_email)`

Generates a random email up to the maximum size allowed.

`awsapicli.validators.get_random_account_name(account_name)`

Generates a random name up to the maximum size allowed.

`awsapicli.validators.validate_account_name(ctx, param, value)`

Validates an account name.

`awsapicli.validators.validate_account_password(ctx, param, value)`

Validates an account password.

`awsapicli.validators.validate_arn(ctx, param, value)`

Validates an AWS ARN option.

`awsapicli.validators.validate_email(ctx, param, value)`

Validates an email option.

`awsapicli.validators.validate_mfa_device_name(ctx, param, value)`

Validates a virtual MFA device name.

`awsapicli.validators.validate_mfa_device_serial(ctx, param, value)`

Validates a reset link.

`awsapicli.validators.validate_region(ctx, param, value)`

Validates a AWS region option.

`awsapicli.validators.validate_reset_link(ctx, param, value)`

Validates a reset link.

`awsapicli.validators.validate_token(ctx, param, value)`

Validates a 2Captcha Token option and inserts an active 2Captcha instance in the options.

5.1.7 Module contents

awsapicli package.

Import all parts from awsapicli here

CREDITS

6.1 Development Lead

- Costas Tyfoxylos <ctyfoxylos@schubergphilis.com>

6.2 Contributors

None yet. Why not be the first?

CHAPTER
SEVEN

HISTORY

0.0.1 (24-12-2021)

- First code creation

0.1.0 (29-12-2021)

- Initial release

0.1.1 (29-12-2021)

- Disabled Item solver since the rendering does not work with the rich framework.

0.1.2 (29-12-2021)

- Linted code.

0.1.3 (29-12-2021)

- Bumped dependencies for a fix on account creation.

0.1.4 (30-12-2021)

- Bumped dependencies and fixed typo.

0.1.5 (26-04-2022)

- Updated dependencies.

0.1.6 (06-05-2022)

- Fixed IAM login workflow in dependency.

INDICES AND TABLES

- `genindex`
- `modindex`
- `search`

PYTHON MODULE INDEX

a

- `awsapicli`, [20](#)
- `awsapicli.actions`, [17](#)
- `awsapicli.awsapicli`, [19](#)
- `awsapicli.awsapicliexceptions`, [19](#)
- `awsapicli.options`, [19](#)
- `awsapicli.validators`, [19](#)

A

`activate_iam_billing()` (in module `awsapi-cli.actions`), 17
`activate_mfa()` (in module `awsapicli.actions`), 17
`awsapicli`
 module, 20
`awsapicli.actions`
 module, 17
`awsapicli.awsapicli`
 module, 19
`awsapicli.awsapicliexceptions`
 module, 19
`awsapicli.options`
 module, 19
`awsapicli.validators`
 module, 19

C

`common_account_manager_options()` (in module `awsapicli.options`), 19
`common_options()` (in module `awsapicli.options`), 19

D

`deactivate_mfa()` (in module `awsapicli.actions`), 17

F

`filter_set_options()` (in module `awsapi-cli.awsapicli`), 19

G

`generate_random_string()` (in module `awsapi-cli.validators`), 19
`get_account_manager_arguments()` (in module `awsapicli.actions`), 17
`get_password_manager_arguments()` (in module `awsapicli.actions`), 18
`get_random_account_email()` (in module `awsapi-cli.validators`), 19
`get_random_account_name()` (in module `awsapi-cli.validators`), 19

M

module
 `awsapicli`, 20
 `awsapicli.actions`, 17
 `awsapicli.awsapicli`, 19
 `awsapicli.awsapicliexceptions`, 19
 `awsapicli.options`, 19
 `awsapicli.validators`, 19

P

`password_reset()` (in module `awsapicli.actions`), 18
`password_reset_request()` (in module `awsapi-cli.actions`), 18

S

`setup_logging()` (in module `awsapicli.awsapicli`), 19
`show_header()` (in module `awsapicli.actions`), 18

T

`terminate_account()` (in module `awsapicli.actions`), 18

U

`update_account_email()` (in module `awsapi-cli.actions`), 18
`update_account_name()` (in module `awsapi-cli.actions`), 18

V

`validate_account_name()` (in module `awsapi-cli.validators`), 19
`validate_account_password()` (in module `awsapi-cli.validators`), 19
`validate_arn()` (in module `awsapicli.validators`), 20
`validate_email()` (in module `awsapicli.validators`), 20
`validate_mfa_device_name()` (in module `awsapi-cli.validators`), 20
`validate_mfa_device_serial()` (in module `awsapi-cli.validators`), 20
`validate_region()` (in module `awsapicli.validators`), 20

`validate_reset_link()` (*in module `awsapicli.validators`*), [20](#)
`validate_token()` (*in module `awsapicli.validators`*), [20](#)