awsapicli Documentation

Release 0.1.6

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ONE

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.

CHAPTER

TWO

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
```

CHAPTER

THREE

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
```

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```
                                  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".
```

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```
  -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]
```

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```
                                  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-serial TEXT        The serial of the virtual device in the form
                                  of arn:aws:iam::ACCOUNTID:mfa/DEVICE_NAME.
                                  [required]
  --help                          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.
    -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]
  -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
  --help                          Show this message and exit.
```

Reset password

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

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```
  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
```

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```
  -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, --name TEXT                 The name of the account.  [required]
  --help                          Show this message and exit.
```

CHAPTER

FOUR

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

CHAPTER

FIVE

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 os 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 os 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 os 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 os 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 os 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 os 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 os 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

CHAPTER

SIX

CREDITS

6.1 Development Lead

- Costas Tyfoxylos <ctyfoxylos@schubergphilis.com>

6.2 Contributors

None yet. Why not be the first?

CHAPTER

SEVEN

HISTORY

CHAPTER EIGHT

0.0.1 (24-12-2021)

- First code creation

CHAPTER NINE

0.1.0 (29-12-2021)

- Initial release

CHAPTER TEN

0.1.1 (29-12-2021)

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

CHAPTER

ELEVEN

0.1.2 (29-12-2021)

- Linted code.

CHAPTER TWELVE

0.1.3 (29-12-2021)

- Bumped dependencies for a fix on account creation.

CHAPTER

THIRTEEN

0.1.4 (30-12-2021)

- Bumped dependencies and fixed typo.

CHAPTER

FOURTEEN

0.1.5 (26-04-2022)

- Updated dependencies.

CHAPTER

FIFTEEN

0.1.6 (06-05-2022)

- Fixed IAM login workflow in dependency.

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SIXTEEN

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