Accessing the Cleura Cloud REST API

Cleura Cloud provides a REST API, which you can take advantage of with a tool like `curl`. But before you do, you must create a token for the current session. For that, you only need to have an account in Cleura Cloud.

Creating a token

Cleura Cloud REST API calls use token authentication. The process of obtaining a valid token works slightly differently, based on whether your account has two-factor authentication (2FA) enabled or not.

Without 2FA **With 2FA**

If you do not have 2FA enabled for your account, to create a token, have your username (`your_cc_username`) and password (`your_cc_password`) to the Cleura Cloud handy and type:

```
curl -d '{"auth": {"login": "your_cc_username", "password": "your_cc_password"}}' \
    https://rest.cleura.cloud/auth/v1/tokens
```

Provided you typed your username and password correctly and that there were no connection issues to the remote endpoint, you will get a JSON object with a string (`token`) that holds your session token:

```
{
  "result": "login_ok",
  "token": "vahkie7EiDaij7chegaitee2zohsh1oh"
}
```

If you do have 2FA enabled for your account, then first request a token as you would without 2FA enabled:

```
curl -d '{"auth": {"login": "your_cc_username", "password": "your_cc_password"}}' \
    https://rest.cleura.cloud/auth/v1/tokens
```

Instead of a token, you will get a verification code (look at `verification`):

```
{
  "result": "twofactor_required",
  "type": "sms",
  "verification": "ahb4en3cho"
}
```

This verification code is required for requesting a 2FA code:

```
curl -d '{"request2fa": {"login":
"your_cc_username", "verification":
"ahb4en3cho"}}' \
   https://rest.cleura.cloud/auth/v1/
tokens/request2facode
```

In our example, the code is sent via an SMS message (check the JSON object above and, more specifically, look at the value of `type`). So after getting a new SMS message with your 2FA code, which expires after ten minutes, go ahead and request your token like this:

```
curl -d '{"verify2fa": {"login":
"your_cc_username", "verification":
"ahb4en3cho", "code": 2fa_code}}' \
   https://rest.cleura.cloud/auth/v1/
tokens/verify2fa
```

Make sure not to put the `2fa_code` in quotes, for it is of type integer and that fact should be reflected during the assignment to `code`. You will get a JSON object with your token:

```
{
 "result": "login_ok",
 "token":
"fiushood9oraTiNa4ban3eemeezoeDae"
}
```

Now that you have obtained a valid token, you can proceed with making Cleura Cloud REST API calls.

Testing the token

lid is by getting a list of all supported
 to provide your username
nect to the `https://rest.cleura.cloud/accesscontrol/`

```
curl -H "X-AUTH-LOGIN: your_cc_username" \
   -H "X-AUTH-TOKEN: vahkie7EiDaij7chegaitee2zohsh1oh" \
   https://rest.cleura.cloud/accesscontrol/v1/openstack/domains
```

All supported regions should be returned as objects in a JSON array:

```
[
  {
    "area": {
      "id": "6",
      "name": "Sweden \/ Stockholm",
      "tag": "SE_STO2",
      "regions": [
        {
          "zone_id": "2",
          "name": "Stockholm \/ Sweden",
            "status": "active",
            "region": "Sto2"
          }
        ]
      },
      "id": "79b0cef45b504586ad0bf057dc4cb8b8",
      "status": "provisioned",
      "name": "CCP_Domain_43597",
      "enabled": true
    },
    {
      "area": {
        "id": "3",
        "name": "Japan",
        "tag": "JP",
        "regions": [
          {
            "zone_id": "7",
            "name": "Tokyo \/ Japan",
            "status": "active",
            "region": "tky1"
          }
        ]
      },
      "status": "available"
    },
    {
      "area": {
        "id": "7",
        "name": "Germany \/ Frankfurt",
        "tag": "DE",
        "regions": [
          {
            "zone_id": "6",
            "name": "Frankfurt \/ Germany",
            "status": "active",
            "region": "Fra1"
          }
        ]
      },
      "id": "08db589d04f442e19c272f2cd1a02906",
      "status": "provisioned",
      "name": "CCP_Domain_43597",
      "enabled": true
    },
    {
      "area": {
        "id": "2",
        "name": "United Arab Emirates",
        "tag": "AE",
        "regions": [
          {
            "zone_id": "8",
            "name": "Dubai \/ UAE",
            "status": "active",
            "region": "dx1"
          }
      ]
    },
    "status": "available"
  },
  {
    "area": {
      "id": "1",
      "name": "Europe",
      "tag": "EU",
      "regions": [
        {
          "zone_id": "1",
          "name": "Karlskrona \/ Sweden",
          "status": "active",
          "region": "Kna1"
        }
      ]
    },
    "id": "a018123218f5428ba96d7fb212d90cf2",
    "status": "provisioned",
    "name": "CCP_Domain_43597",
    "enabled": true
  }
]
```

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