

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 token like this:

Testing the token

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

Valid is by getting a list of all supported regions to provide your username and token. Connect 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 V Stockholm",
      "tag": "SE_STO2",
      "regions": [
        {
          "zone_id": "2",
          "name": "Stockholm V 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 V Japan",
                "status": "active",
                "region": "tky1"
            }
        ]
    },
    "status": "available"
},
{
    "area": {
        "id": "7",
        "name": "Germany V Frankfurt",
        "tag": "DE",
        "regions": [
            {
                "zone_id": "6",
                "name": "Frankfurt V 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 V UAE",
                "status": "active",
                "region": "dx1"
            }
        ]
    }
}

```

```
]
},
"status": "available"
},
{
  "area": {
    "id": "1",
    "name": "Europe",
    "tag": "EU",
    "regions": [
      {
        "zone_id": "1",
        "name": "Karlskrona V Sweden",
        "status": "active",
        "region": "Kna1"
      }
    ]
  },
  "id": "a018123218f5428ba96d7fb212d90cf2",
  "status": "provisioned",
  "name": "CCP_Domain_43597",
  "enabled": true
}
]
```

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