



IoT CMP

APIs

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Introduction

This document provides a summary of the APIs being supplied by the Vodafone Idea IoT CMP. This document is intended for technical staff who may implement an API client to this system.

We reserve the right to update the document and APIs to add attributes to the v1 API at any time depending on changes in integration status with upstream connectivity systems. Any breaking changes will be on a v2 path. Specific responses may be altered (added to) as more information is available through this platform in the coming months.

Note

The platform is dependent on the availability and performance of upstream Connectivity systems. We include a last updated date stamp from the Connectivity systems in our responses, to provide transparency on the freshness of the data.



Account creation

In order to use the API, an Account and User must exist in the platform. Please contact Vi support in case you do not have a user created.

The email address will be sent an initial verification link which **must be clicked**. This will provide a page where the recipient **must log in and set a new password**. Once set, the password is only known to the email recipient. The email address and newly created password are the credentials to be used to access the Platform.

General API Information

The Vodafone Idea CMP operates a REST style API, with JSON as a data format.

API endpoints

Hostname: `api.vil.connectedyou.io`
 Protocol: `https`
 Content-Type: `application/json`

Pagination

APIs which return a list of records will generally support optional request url parameters to enable paging through very large lists. The list result will indicate the total record count, the offset and record result limit.

E.g. Listing cards

`/accounts/<account_number>/cards/?limit=20&offset=0` will give the first records 1-20
`/accounts/<account_number>/cards/?limit=20&offset=20` will return records 20-40
 etc.

Authentication APIs

To authenticate to resource API's you need a JWT token which is not expired.

To obtain a JWT token, first use the username and password at the token api resource described below. Then use the JWT token in the Authorization header to access resource APIs.

The JWT token includes an expiration date. We provide a token refresh resource, which should be used to obtain a new JWT token before expiry.

Authentication token

POST to `https://api.vil.connectedyou.io/auth/token`

Request Body

```
{
  "username": "bob@example.com",
  "password": "fa993a0c-fbf6-470f-8913-eade9666458b"
}
```

Response Body

```
{
  "status": "success",
  "expires_in": 3600,
  "access_token": "eyJraWQiOiIwSUwzTmN2aTBVNkN6VXZpTE9USVhWM01FS3"
```

```
..
S-hrTeIxN4y7AQNxAM70mWV43Y-SrfTJRhfGhCrQjM5vj2i40hDlEEuff8A1XDuw",
  "refresh_token":
"eyJjdHkiOiJKV1QiLCJlbmMiOiJBMjU2R0NNIiwiaWxnIjoilNBLU9BRVAifQ.ApSQ0Mk
...
NRq1EY97mdyCVIpOHLuzKMl6zemmhgDD3H6e6YXsmFPWNsGRv6w.VHjUlnjfbQGcxK9x_8v5Ag"
}
```

Or, if credentials are incorrect:

```
{
  "status": "failure",
  "message": "The username or password is incorrect"
}
```

Token Refresh

POST to <https://api.vil.connectedyou.io/auth/token/refresh>

Request Body

```
{
  "username": "bob@example.com",
  "refresh_token": "eyJjdHkiOiJKV1QiLCJlbmMiOiJBMjU2R0NNIiwiaWxnIjoilNBL
..wkShHgA.DKxE5robKeGEE38pcJPLbQ"
}
```

Response Body

```
{
  "status": "success",
  "expires_in": 3600,
  "access_token": "eyJJraWQiOiIwSUwzTmN2aTBVNkN6VXZpTE9USVhW
...DVNOFKuMsirrBuA"
}
```

Or, if the refresh token or email address are incorrect:

```
{
  "status": "failure",
  "message": "The username or password is incorrect"
}
```

Resource APIs

The resource API's require the access_token value in the Authorization header.

List SIMs for an account

GET https://api.vil.connectedyou.io/v1/accounts/<account_number>/sims/

E.g. [/v1/accounts/494380062/sims/](https://api.vil.connectedyou.io/v1/accounts/494380062/sims/)

Description

Returns the list of SIMs which are allocated to the account number. Note that listing does not refresh the data from upstream connectivity systems, but merely presents the data already updated at CMP.

Request Parameters in Path

<account_number> the CY Account number (as shown on account settings page or via account API)

Example Response Body

```
{
  "sims": [
    {
      "iccid": "8991200010486351238",
      "msisdn": 9819614123,
      "imsi": "404201048635123",
      "billing_status": "SUSPENDED",
      "circle_name": "Rest of Tamilnadu",
      "activation_date": "2013-01-13T18:30:00Z",
      "billing_plan": {
        "id": 9,
        "billing_plan": "IOT_UICC_200MB_11111"
      },
      "billing_plan_expiry": null,
      "mtd_kilobytes": 0,
      "mtd_sms_mo": 0,
      "mtd_voice_seconds": 0
    },
    ....,
    {
      "iccid": "8991200015480019993",
```



```

    "msisdn": 5755250045999,
    "imsi": "404201548001999",
    "billing_status": "ACTIVE",
    "circle_name": "Mumbai",
    "activation_date": "2018-11-18T18:30:00Z",
    "billing_plan": {
      "id": 19,
      "billing_plan": "MBB_CORP_5GB_3G_22222"
    },
    "billing_plan_expiry": null,
    "mtd_kilobytes": 0,
    "mtd_sms_mo": 0,
    "mtd_voice_seconds": 0
  }
],
"limit": 50,
"offset": 0,
"total": 1000
}

```

Get SIM Detail

GET https://api.vil.connectedyou.io/v1/accounts/<account_number>/sims/<iccid>

E.g. [/v1/accounts/494380062/sims/8991200050040331237](https://api.vil.connectedyou.io/v1/accounts/494380062/sims/8991200050040331237)

Description

Returns detailed information for a single SIM (iccid). Note that the API does not refresh the data from upstream connectivity systems, but merely presents the data already updated at CMP.

Request Parameters in Path

<account_number> the CY Account number (as shown on account settings page or via account API)

<iccid> the unique SIM card ICCID

Response Body

```

{
  "iccid": "8991200050040331237",
  "msisdn": 5755250945123,
  "imsi": "404205004033123",
  "billing_status": "ACTIVE",

```

```

"circle_name": "Mumbai",
"activation_date": "2021-02-08T15:07:05Z",
"billing_plan": {
  "id": 9,
  "billing_plan": "IOT_UICC_10_200MB_25829111"
},
"billing_plan_expiry": null,
"mtd_kilobytes": 199260,
"mtd_sms_mo": 110,
"mtd_voice_seconds": 350
}

```

Get bill plans in account

GET https://api.vil.connectedyou.io/v1/accounts/<account_number>/billing_plans

E.g. [/v1/accounts/494380062/billing_plans](https://api.vil.connectedyou.io/v1/accounts/494380062/billing_plans)

Description

Returns the information for all available bill plans in the account. Note that the API does not refresh the data from upstream connectivity systems, but merely presents the data already updated at CMP.

Request Parameters in Path

<account_number> the CY Account number (as shown on account settings page or via account API)

Response Body

```

{
  "billing_plans": [
    {
      "id": 4,
      "billing_plan": "IOT_demo_4G_25565111",
      "created_at": "2021-05-09T22:51:08.771406Z"
    },
    {
      "id": 10,
      "billing_plan": "MBB_CORP_5GB_25217111",
      "created_at": "2021-05-09T22:51:08.771497Z"
    },
    {

```

```

        "id": 35,
        "billing_plan": "Vi_IOT_VTS_250MB_25850111",
        "created_at": "2021-05-09T22:51:08.771892Z"
    }
}

```

Change bill plans

POST

https://api.vil.connectedyou.io/v1/accounts/<account_number>/sims/change_billing_plan

E.g. /v1/accounts/494380062/sims/change_billing_plan

Description

Sends a request to update the bill plan for SIMs mentioned in the request body.

Request Parameters in Path

<account_number> the CY Account number (as shown on account settings page or via account API)

Example Request Body

Example Request Body - A list of iccids and the target bill plan

```

{
    "iccids": [
        "8991200014485671239",
        "8991200014485671234"
    ],
    "target_billing_plan": "MBB_CORP_5GB_25217111"
}

```

Note: at most 5000 iccids can be in a single HTTP POST to this API, or it will return a 413 status code.

Example Response Body

```

{
    "detail": "Request has been accepted to change the billing plan.",
    "resource_id": 4304,
    "resource_url":
    "https://api.vil.connectedyou.io/v1/accounts/836658194/bulk_operations/4304"
}

```

The response gives a bulk operation **resource_url** which returns the progress of bulk operation.

Activate SIM (billing status)

POST https://api.vil.connectedyou.io/v1/accounts/<account_number>/sims/activate

E.g. [/v1/accounts/494380062/sims/activate](https://api.vil.connectedyou.io/v1/accounts/494380062/sims/activate)

Description

Sends a request to update the billing status for SIMs mentioned in the request body to Active.

Request Parameters in Path

<account_number> the CY Account number (as shown on account settings page or via account API)

Example Request Body

Example Request Body - A list of iccids and the target bill plan

```
{
  "iccids": [
    "8991200014485671239",
    "8991200014485671234"
  ]
}
```

Note: at most 5000 iccids can be in a single HTTP POST to this API, or it will return a 413 status code.

Example Response Body

```
{
  "detail": "Request has been accepted to change the billing status.",
  "resource_id": 4304,
  "resource_url":
    "https://api.vil.connectedyou.io/v1/accounts/836658194/bulk_operations/4304"
}
```

The response gives a bulk operation **resource_url** which returns the progress of bulk operation.

Suspend SIM (billing status)

POST https://api.vil.connectedyou.io/v1/accounts/<account_number>/sims/suspend

E.g. [/v1/accounts/494380062/sims/suspend](https://api.vil.connectedyou.io/v1/accounts/494380062/sims/suspend)

Description

Sends a request to update the billing status for SIMs mentioned in the request body to Suspended.



Request Parameters in Path

<account_number> the CY Account number (as shown on account settings page or via account API)

Example Request Body

Example Request Body - A list of iccids and the target bill plan

```
{
  "iccids": [
    "8991200014485671239",
    "8991200014485671234"
  ]
}
```

Note: at most 5000 iccids can be in a single HTTP POST to this API, or it will return a 413 status code.

Example Response Body

```
{
  "detail": "Request has been accepted to change the billing status.",
  "resource_id": 4304,
  "resource_url":
    "https://api.vil.connectedyou.io/v1/accounts/836658194/bulk_operations/4304"
}
```

The response gives a bulk operation **resource_url** which returns the progress of bulk operation.

Bulk Operations Summary

GET

https://api.vil.connectedyou.io/v1/accounts/<account_number>/bulk_operations/<bulk_operation_resource_id>

E.g. /v1/accounts/494380062/bulk_operations/4304

Description

Gets a summary of a bulk operation.

Request Parameters in Path

<account_number> the CY Account number (received via email, or account api above)

<bulk_operations_resource_id> the CY Bulk Operations resource identifier, returned on bulk operation creation, or via the bulk operation list APIs.

Example Response Body

```
{
  "id": 4304,
  "name": "Change billing plan",
  "account": 494380062,
  "bulk_operation_type": "CHANGE_BILLING_PLAN",
  "created_at": "2022-01-19T18:28:01.016773Z",
  "description": "Update the billing plan with : MBB_CORP_5GB_25217111",
  "metadata": {
    "billing_frequency": "Monthly",
    "target_billing_plan": "MBB_CORP_5GB_25217111"
  },
  "email": "me@company.io",
  "status": "COMPLETED",
  "trigger_type": "API",
  "message": null,
  "total_tasks": 2,
  "tasks_completed": 2,
  "tasks_remaining": 0,
  "total_tasks_failed": 1,
  "total_tasks_invalid": 0,
  "total_tasks_rejected": 0,
  "total_tasks_cancelled": 0,
  "total_tasks_succeeded": 1,
  "updated_at": "2022-01-19T18:28:51.663938Z"
}
```

The response gives a bulk operation summary for a specific bulk operation. It shows the overall progress of the individual transactions (tasks) as they are fulfilled in the background.

Bulk Operation Transaction List

GET

https://api.vil.connectedyou.io/v1/accounts/<account_number>/bulk_operations/<bulk_operation_resource_id>/transactions

E.g. [/v1/accounts/494380062/bulk_operations/4304/transactions](https://api.vil.connectedyou.io/v1/accounts/494380062/bulk_operations/4304/transactions)

Description

Gets a paginated list of individual transactions in a bulk operation.

Request Parameters in Path

<account_number> the CY Account number (received via email, or account api above)
 <bulk_operations_resource_id> the CY Bulk Operations resource identifier, returned on bulk operation creation, or via the bulk operation list APIs.

Example Response Body

```
{
  "id": 4304,
  "name": "Change billing plan",
  "account": 494380062,
  "bulk_operation_type": "CHANGE_BILLING_PLAN",
  "created_at": "2022-01-19T18:28:01.016773Z",
  "description": "Update the billing plan with : MBB_CORP_5GB_25217111",
  "metadata": {
    "billing_frequency": "Monthly",
    "target_billing_plan": "MBB_CORP_5GB_25217111"
  },
  "email": "me@company.io",
  "status": "COMPLETED",
  "trigger_type": "API",
  "message": null,
  "total_tasks": 2,
  "tasks_completed": 2,
  "tasks_remaining": 0,
  "total_tasks_failed": 1,
  "total_tasks_invalid": 0,
  "total_tasks_rejected": 0,
  "total_tasks_cancelled": 0,
  "total_tasks_succeeded": 1,
  "updated_at": "2022-01-19T18:28:51.663938Z",
  "transactions": [
    {
      "id": 105475,
      "created_at": "2022-01-19T18:28:01.060330Z",
```



```
"eid": null,
"iccid": "8991200014485671239",
"max_retries": 0,
"message": "The billing plan change request has been cancelled.",
"operation_type": "CHANGE_BILLING_PLAN",
"status": "FAILED",
"trigger_type": null,
"updated_at": "2022-01-19T18:28:05.297081Z",
"sr_number": "4-127066499201",
"integration_id": "C401-0390886649",
"sub_transactions": [],
"metadata": {
  "old_values": "IOT_demo_4G_50MB_25565111",
  "new_values": "MBB_CORP_5GB_25217111"
}
},
{
  "id": 105476,
  "created_at": "2022-01-19T18:28:01.061303Z",
  "eid": null,
  "iccid": "8991200014485671234",
  "max_retries": 0,
  "message": "The billing plan change request has been processed
successfully.",
  "operation_type": "CHANGE_BILLING_PLAN",
  "status": "SUCCESS",
  "trigger_type": null,
  "updated_at": "2022-01-19T18:28:51.642491Z",
  "sr_number": "4-127066499168",
  "integration_id": "C401-4330326051",
  "sub_transactions": [],
  "metadata": {
    "old_values": "MBB_CORP_3GB_25767111",
    "new_values": "MBB_CORP_5GB_25217111"
  }
}
],
"limit": 50,
```




```
"offset": 0,  
"total": 2  
}
```

The above shows Failed and Successful transactions. All transactions will have a VIL Service Request number `"sr_number": "4-127066499168"`. Some transactions may have `"sub_transactions"` for transactions that have been chained-queued for execution.

Note:

This API will show transactions as completed successfully once the request, which is passed to upstream systems, is returned with a success or failed result. Until then, queued transactions will remain in pending status until the CMP hears back from the upstream systems.

References

Standard Response codes

Code	Description
200 OK	When request succeeded for a GET or POST request
201 Created	When request has been fulfilled and resulted in a new resource being created (e.g. when a new user added to the account)
202 Accepted	When a request accepted for a POST that will be completed asynchronously
301 Moved Permanently	When a request is placed in a URI without final forward slash
400 Bad Request	When a request is wrongly format (e.g., incorrect request body)
401 Unauthorized	Missing credentials
403 Forbidden	Incorrect credentials
404 Not Found	When resources are not found
405 Method Not Allowed	When request uses wrong method (e.g., change_status action using GET)
409 Conflict	Indicates that the request could not be processed because of conflict in the request (e.g., object already created)
413 Payload Too Large	Indicates that the request entity (body) is larger than limits defined by server
415 Unsupported Media Type	When request uses wrong content type (e.g., application/xml)
429 Too Many Requests	When a user exceeds the maximum number of requests. Check the Throttling section for more information.
500 Internal Server Error	When there are unexpected server side conditions
503 Service Unavailable	Temporary unavailability of the service

Revision History

Version	Date	Remarks
1.0	17-Jan-2022	Initial version - Authorization, SIM list, Get SIM information
1.1	28-Jan-2022	Updated with Change bill plan change and Bulk operations APIs information
1.2	11-Feb-2022	Updated with Change billing status (Activate/ Suspend)