**ULIP Integration Requirement Document**

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Project Name: ULIP

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# Introduction

## Purpose

The purpose of this document is to define and provide details for accessing API for Vessel Import export information using Port Code, VCN number, be number, be date, Shipping bill number, shipping bill date from ULIP system.

This document details the following points:

1. **Data Integration between IPORTMAN and ULIP web service**: Identification of operational points where data integration between IPORTMAN and ULIP web service will be needed.
2. **Technical Approach** for performing Data Integration

# The Overall Description

User will share the information such as **Port Code**, **VCN number, BE number, BE Date** , **shipping bill number and Shipping Bill Date** based on data send by user ULIP system will call respective **IPORTMAN API** for accessing information.

Following are the point for accessing vessel information:

1. This API will share vessel information and import and export data based on information provided by user.
2. ULIP will expose API for getting data from IPORTMAN API.
3. **IPORTMAN/01** API will take **VCN Number** and **Port Code** from user and get data from IPORTMAN API.
4. **IPORTMAN/02** API will take **BE number, BE Date** and **Port Code** from user and get data from IPORTMAN API.
5. **IPORTMAN/03** API will take **Shipping bill number, Shipping Bill Date** and **Port Code** from user and get data from IPORTMAN API.

## Data Integration **between** IPORTMAN System and ULIP application

User will share information to ULIP system based on data shared ULIP will provide data to user.

## IPORTMAN/01

This API will take below details and connect with IPORTMAN API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **portCode** | The Port code in the IPORTMAN system | [A-Z0-9]+ | Required | Not defined |
| 2 | **vcnNo** | VCN number present in IPORTMAN system | '^[a-zA-Z0-9]{2,14}$' | Required | Min 2 Max 14 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **VCN number and PORT CODE** for which detail is required.
3. We have to send secret key with header.
4. IPORTMAN API will share information which exist in IPORTMAN system in JSON format.
5. IPORTMAN Integration will add JSON in **response** key in response body.
6. ULIP system will provide the data in JSON Object format in response body.

**Example:**

VCN Number **INMAA120210958** and PORT code **INMAA1** is shared by ULIP system, then IPORTMAN-integration will make a request to IPORTMAN API.

**Request:**

The request must be of the following format, where VCN number and Port Code is passed within the URL parameters in JSON format.

[**https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/01**](https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/01)

**Curl URL**

curl --location --request POST 'https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/01' \

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjM4MDk1NSwiYXBwcyI6ImRhdGFwdXNoIn0.krY6wsH\_xEZn4E4X5knpu7W2MKF4DSas-eB6-VJFMEm9NyB0rP2sw-3GC3twY8L1mfVA0Ln\_0RDiyWHXOZbC4g' \

--header 'Content-Type: application/json' \

--header 'Accept: application/json' \

--data-raw '{

"portCode": "INMAA1",

"vcnNo": "INMAA120210958"

}

For obtaining secret key, refer [Section 1.](#_Data_Transmission_&)6

**Response**

To acknowledge the above request, ULIP will send the below response -

1. **In case of invalid format**
2. **Invalid VCN number**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: VCN Number. Format should follow ^[a-zA-Z0-9]{2,14}$’"

}

1. **In case of VCN number not exist in IPORTMAN system**

{

    "response": [

        {

            "response": {

                "imo\_number": null,

                "shipping\_line\_code": null,

                "last\_port\_of\_call\_name": null,

                "eta": null,

                "etd": null,

                "application\_type": null,

                "port\_of\_arrival\_name": null,

                "vessel\_type": null,

                "shipping\_agent\_code": null,

                "vessel\_name": null,

                "vcn\_no": null,

                "error": "Data is not available for given Vcn No : AA"

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

1. **In case VCN number exist**

{

    "response": [

        {

            "response": {

                "imo\_number": "6680021",

                "shipping\_line\_code": "INMAA120210958",

                "last\_port\_of\_call\_name": "Abu Dhabi",

                "eta": "2021-08-16 23:00:00",

                "etd": "2021-08-18 23:00:00",

                "application\_type": "IMPORT",

                "port\_of\_arrival\_name": "INMAA120210958",

                "vessel\_type": "Carrier general cargo/container",

                "shipping\_agent\_code": "70001246",

                "vessel\_name": "MV RANOP",

                "vcn\_no": "INMAA120210958"

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

**Status Code 200**: vessel data response

**Status Code 400**: Bad request (Invalid JSON syntax, invalid JSON key)

**Status Code 401 or 403**: Unauthenticated or Unauthorized

**Status Code 500**: Some internal server error occurred

**Status Code 502**: Server is not responding.

## IPORTMAN/02

This API will take below details and connect with IPORTMAN API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **portCode** | The Port code in the IPORTMAN system | [A-Z0-9]+ | Required | Not defined |
| 2 | **beNo** | BE number present in IPORTMAN system | [0-9]{1,7} | Required | Min 1 Max 7 |
| 3 | **beDate** | BE Date number present in IPORTMAN system | [0-9]{8} | Required | 8 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **BE number, BE Date and Port Code** for which detail is required.
3. We have to send secret key with header.
4. IPORTMAN API will share information which exist in PCS system in JSON format.
5. IPORTMAN Integration will add JSON in **response** key in response body.
6. ULIP system will provide the data in JSON Object format in response body.

**Example:**

BE Number **8987001** , BE DATE **01082021** and PORT code **INMAA1** is shared by ULIP system, then IPORTMAN-integration will make a request to IPORTMAN API.

**Request:**

The request must be of the following format, where BE number, BE Date and Port code is passed within the URL parameters in JSON format.

**<https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/02>**

**Curl URL**

curl --location --request POST 'https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/02' \

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjQ0MDE3MiwiYXBwcyI6ImRhdGFwdXNoIn0.gU1MgBOg-xOjw3DrvDqIVvZa5GzX9AKZ1AL\_FP-hCqVnxVmFQM8lVlpV-F1MTbMLpY7LqfY4dQrmnFa\_kTNpaw' \

--header 'Content-Type: application/json' \

--header 'Accept: application/json' \

--data-raw '{

    "portCode": "INMAA1",

    "beNo": "8987001",

    "beDate": "01082021"

}'

For obtaining secret key, refer [Section 1.](#_Data_Transmission_&)6

**Response**

To acknowledge the above request, ULIP will send the below response -

1. **In case of invalid format**
2. **Invalid BE number**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: beNo. Format should follow [0-9]{1,7}"

}

1. **Invalid BE Date**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: beNo. Format should follow [0-9]{8}"

}

1. **In case of BE number not exist in IPORTMAN system**

{

    "response": [

        {

            "response": {

                "igm\_no": null,

                "igm\_date": null,

                "line\_no": null,

                "sub\_line\_no": null,

                "bl\_no": null,

                "be\_no": null,

                "be\_date": null,

                "importer\_name": null,

                "importer\_address": null,

                "cha\_code": null,

                "nature\_of\_cargo": null,

                "cargo\_type": null,

                "goods\_description": null,

                "marks\_no": null,

                "no\_of\_packages\_qty": null,

                "type\_of\_packages": null,

                "unit\_of\_measurement": null,

                "country\_of\_origin": null,

                "out\_of\_charge\_no": null,

                "delivery\_order\_no": null,

                "do\_date": null,

                "mode\_of\_transport": null,

                "survey\_date": null,

                "surveyor\_code": null,

                "vehicle\_info": null,

                "error": "Data is not available for given Be No : 89"

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

1. **In case BE number exist**

{

    "response": [

        {

            "response": {

                "igm\_no": "CRUDE OIL",

                "igm\_date": "2021-08-01 00:00:00",

                "line\_no": null,

                "sub\_line\_no": null,

                "bl\_no": null,

                "be\_no": "BL71",

                "be\_date": "2021-08-01 00:00:00",

                "importer\_name": null,

                "importer\_address": "Metric Ton",

                "cha\_code": "70001242",

                "nature\_of\_cargo": "LB",

                "cargo\_type": null,

                "goods\_description": null,

                "marks\_no": null,

                "no\_of\_packages\_qty": null,

                "type\_of\_packages": null,

                "unit\_of\_measurement": null,

                "country\_of\_origin": "AE",

                "out\_of\_charge\_no": 6497453,

                "out\_of\_charge\_date": "2021-08-05 11:35:00",

                "delivery\_order\_no": "7321234",

                "do\_date": "2021-08-05 00:00:00",

                "mode\_of\_transport": null,

                "survey\_date": null,

                "surveyor\_code": null,

                "vehicle\_info": null

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

**Status Code 200**: vessel data response

**Status Code 400**: Bad request (Invalid JSON syntax, invalid JSON key)

**Status Code 401 or 403**: Unauthenticated or Unauthorized

**Status Code 500**: Some internal server error occurred

**Status Code 502**: Server is not responding.

## IPORTMAN/03

This API will take below details and connect with IPORTMAN API to get data..

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **portCode** | The Port code in the IPORTMAN system | [A-Z0-9]+ | Required | Not defined |
| 2 | **shippingBillNo** | Shipping Bill number present in IPORTMAN system | [0-9]{1,7} | Required | Min 1 Max 7 |
| 3 | **shippingBillDate** | Shipping Bill Date present in IPORTMAN system | [0-9]{8} | Required | 8 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **SB number, SB Date and Port Code** for which detail is required.
3. We have to send secret key with header.
4. IPORTMAN API will share information which exist in IPORTMAN system in JSON format.
5. IPORTMAN Integration will add JSON in **response** key in response body.
6. ULIP system will provide the data in JSON Object format in response body.

**Example:**

SB Number **9847542**,SB Date **01082021** and Port Code **INMAA1**

is shared by ULIP system, then IPORTMAN-integration will make a request to IPORTMAN API.

**Request:**

The request must be of the following format, where SB number SB DATE and Port Code is passed within the URL parameters in JSON format.

**<https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/03>**

**Curl URL**

curl --location --request POST 'https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/03' \

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjQ0Mjg4MCwiYXBwcyI6ImRhdGFwdXNoIn0.w4opifeEMG3FlPf-s\_I3j\_wEu6Tk1j3cAQ6OJTWdPrvBGm-Mtx3ijbtersXehPKgnxK-X3jPc-c91yvh3hP7Ng' \

--header 'Content-Type: application/json' \

--header 'Accept: application/json' \

--data-raw '{

    "portCode": "INMAA1",

    "shippingBillNo": "9847542",

    "shippingBillDate": "01082021"

}'

For obtaining secret key, refer [Section 1.](#_Data_Transmission_&)6

**Response**

To acknowledge the above request, ULIP will send the below response -

1. **In case of invalid format**
2. **Invalid sb number**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: shippingBillNO. Format should follow [0-9]{1,7}"

}

1. **Invalid sb date**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: shippingBillDate. Format should follow [0-9]{8}"

}

1. **In case of Shipping bill number not exist in IPORTMAN system**

{

    "response": [

        {

            "response": {

                "egm\_no": null,

                "egm\_date": null,

                "shipping\_bill\_no": null,

                "shipping\_bill\_date": null,

                "nature\_of\_cargo": null,

                "cargo\_type": null,

                "exporter\_name": null,

                "port\_where\_sb\_filed": null,

                "port\_of\_origin": null,

                "port\_of\_destination\_code": null,

                "vehicle\_info": null,

                "rotation\_no": null,

                "leo\_date": null,

                "rotation\_date": null,

                "vcn\_no": null,

                "allow\_for\_shipment\_date": null,

                "port\_of\_loading": null,

                "error": "Data is not available for given Shipping Bill No : 98"

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

1. **In case Shipping Bill number exist**

{

    "response": [

        {

            "response": {

                "egm\_no": "159357",

                "egm\_date": "2021-08-03 15:17:00",

                "shipping\_bill\_no": "9847542",

                "shipping\_bill\_date": "2021-08-01 00:00:00",

                "nature\_of\_cargo": "DB",

                "cargo\_type": null,

                "exporter\_name": "JSW STEELS LIMITED",

                "port\_where\_sb\_filed": "INMAA1",

                "port\_of\_origin": "INMAA1",

                "port\_of\_destination\_code": "AEAUH1",

                "vehicle\_info": null,

                "rotation\_no": "7266535",

                "leo\_date": "2021-08-02 00:00:00",

                "rotation\_date": "2021-07-26 00:00:00",

                "vcn\_no": null,

                "allow\_for\_shipment\_date": null,

                "port\_of\_loading": null

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

**Status Code 200**: vessel data response

**Status Code 400**: Bad request (Invalid JSON syntax, invalid JSON key)

**Status Code 401 or 403**: Unauthenticated or Unauthorized

**Status Code 500**: Some internal server error occurred

**Status Code 502**: Server is not responding.

1. **Different Port Code IDENTIFIER**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **PORT\_NAME** | **PORT\_IDENTIFIER** | **PORT\_IDENTIFIER type** |
| 1 | **INMAA1** | N/A | N/A |
| 2 | **INBOM1** | N/A | N/A |
| 3 | **INPRT1** | N/A | N/A |
| 4 | **INXY1** | N/A | N/A |
| 5 | **INCCU1** | N/A | N/A |
| 6 | **INHAL1** | N/A | N/A |

**Status Code 200**: vessel data response

**Status Code 400**: Bad request (Invalid JSON syntax, invalid JSON key)

**Status Code 401 or 403**: Unauthenticated or Unauthorized

**Status Code 500**: Some internal server error occurred

**Status Code 502**: Server is not responding.

## Data Transmission & Authentication Mechanism

All data exchange would be done over secure HTTP (HTTPS). Request from ULIP's system would be made in IPORTMAN system through a data exchange URL that has following form:

<https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/01>

**Body:**

{

"portCode":"INMAA1",

"vcnNo": " INMAA120210958"

}

Access to above data exchange URL would be authorized by use of a security mechanism implemented by the ULIP system. It is as follows:

* First time access: It would require a username and password [which would be shared with user beforehand]. Once user hit with valid user id and password, ULIP system will return a basic authorization token to user, using that token user will communicate with ULIP system until token will not get expired.

Brief summary of HTTP Basic Authentication is as follows:

First time when User will hit ULIP secured API through username and password for access token as follow-

***curl -X POST***

‘<https://www.ldbstaging.co.in/ulip/v1.0.0/user/login>

***-H 'accept: application/json'***

***-H 'content-type: application/json'***

***-data ‘{"username":"xxxxxx","password":" XXxxx@12345"} ‘***

**Authorization:**

***Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJpbnRlcmNvbnQiLCJpYXQiOjE1ODU1NjYyMzcsImFwcHMiOiJkYXRhcHVzaCJ9.jb-23DbkWpz-3ptsuuZofzH-ce7jd0xR5WlkFfBPO\_Dzjop01dSx9OamqsjsgUAryLUPtUDiMX07oHG4L2AfFQ***

Upon successful authentication, the user would be logged into the ULIP system and get an access token. Though this token user can communicate with ULIP. This token has expiry time which represent user session. The session time out for the same to be fixed hour, generally it is for 30 minutes. If there is no request coming from user for 30 minutes, then session (token) will be expired and user need to re authenticate.

Using The above token, user can request ULIP system for vehicle details as follow -

***curl -X POST \***

[***https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/01***](https://www.ldbstaging.co.in/ulip/v1.0.0/IPORTMAN/01) ***\***

***-H 'accept: application/json' \***

***-H 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyNTIzMDQyNywiYXBwcyI6ImRhdGFwdXNoIn0.rhumwWJ8BWeeHe9CYmIV1UKyJk-kLHA\_ovX5Zi2OwxEv-td-KpxnfbKDI\_8FZsOoggqx3Al-Du1y2qMoUD7uzA' \***

***-H 'cache-control: no-cache' \***

***-H 'content-type: application/json' \***

***-H 'postman-token: 8e8a19a4-ea1e-6373-f616-e2e4af9a1338' \***

***-d '*** ***{"portCode": "INMAA1","vcnNo": "INMAA120210958"}'***