**ULIP Integration Requirement Document**

Version No.: 1.0

Date: 04/08/2021

Project Name: ULIP

This document contains proprietary information of NEC corporation India Pvt Ltd**.** Unauthorized access, copying and replication are prohibited. This document must not be copied in whole or part by any means, without the written authorization of NEC corporation India Pvt Ltd, Noida, India.

Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Date | Author | Reviewer | Significant Changes |
| 1.0 | 04/08/2021 | Hasan Mhad Khan |  | Baseline Version |
|  |  |  |  |  |

**Table of Contents**

[Introduction 4](#_Toc79415949)

[1.1 Purpose 4](#_Toc79415950)

[The Overall Description 4](#_Toc79415951)

[1.2 Data Integration between MBPT System and ULIP application 4](#_Toc79415952)

[1.3 MBPT/01 4](#_Toc79415953)

[1.3.1 Technical Approach 5](#_Toc79415954)

[1.4 MBPT/02 7](#_Toc79415955)

[1.4.1 Technical Approach 8](#_Toc79415956)

[1.5 MBPT/03 11](#_Toc79415957)

[1.5.1 Technical Approach 12](#_Toc79415958)

[1.6 Data Transmission & Authentication Mechanism 16](#_Toc79415959)

# 

# Introduction

## Purpose

The purpose of this document is to define and provide details for accessing API for MBPT system information (information about vessel and cargo available in MBPT system) from ULIP system.

This document details the following points:

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

# The Overall Description

User will share the information such as **VCN number, Send Export Gate Pass Details, and Send Import Gate Pass Details** based on data send by user ULIP system will call respective **MBPT** API for accessing information.

Following are the point for accessing information:

1. This API will share data based on information provided by user.
2. ULIP will expose API for getting data from MBPT API.
3. **MBPT/01** API will take VCN number from user and get data from MBPT API.
4. **MBPT/02** API will take IGM number from user and get data from MBPT API.
5. **MBPT/03** API will take shipping bill number from user and get data from MBPT API.

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

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

## MBPT/01

This API will take **VCN number** and connect with MBPT API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **vcnNo** | vessel call number as available in MBPT 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** for which detail is required.
3. MBPT API will share details of vessel information which exist in MBPT system in JSON format.
4. MBPT Integration will add JSON in **response** key in response body.
5. ULIP system will provide the data in JSON Object format in response body.

**Example:**

VCN number 2101485 is shared by ULIP system, then MBPT-integration will make a request to MBPT API.

**Request:**

The request must be of the following format, where driving license number and date of birth is passed within the URL body in JSON format.

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/MBPT/01>

{"vcnNo": "2101485"}

**Curl URL**

curl -X POST \

http://localhost:8085/ulip/v1.0.0/MBPT/01 \

-H 'accept: application/json' \

-H 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyODUwMTgxNywiYXBwcyI6ImRhdGFwdXNoIn0.38RQUrw\_sMp2pJaco6hNEdGtbu-COCSi4dBySfT8tawk3ZYYLmPrNaCNP9U9yq7q52QD0S7HUcCSvIZ\_UX33MQ' \

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

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

-H 'postman-token: fe88ad4b-9547-cd77-3ab1-a5122d3b7fb3' \

-d '{"vcnNo": "2101485"}'

For obtaining authentication token, refer [Section 1.6](#_Data_Transmission_&)

**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: vcnNo. Format should follow ^[a-zA-Z0-9]{2,14}$”

}

1. **In case of vcn number does not exist in MBPT system**

{

"response": [

{

"response":{

"status":"1",

"Error":256,

"message":"Invalid VCN Number"

}

,

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success" }

1. **In case VCN number exist**

{

"response": [

{

"response": {

"VoyageDetails": {

"IMO\_NUMBER": "M00066",

"APPLICATION\_TYPE": "I",

"SHIPPING\_AGENT\_CODE": "KHA01",

"ATA": "04.03.2021:15:45",

"ATD": null,

"PORT\_OF\_ARRIVAL\_NAME": null,

"VESSEL\_TYPE": "WATR",

"ETA": "20.01.2021:17:40",

"ETD": "06.05.2021:23:59",

"VIA\_NO": "2101485",

"LAST\_PORT\_OF\_CALL\_NAME": "INBOM",

"VESSEL\_NAME": "AQUA",

"SHIPPING\_LINE\_CODE": "KHA"

},

"message": "Success",

"status": "0"

},

"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.

## MBPT/02

This API will take **import gate details** and connect with MBPT API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **igmNo** | Igm Number as available in MBPT system. | [0-9]{7} | Required | 7 |
| **2** | **igmDate** | Igm date as available in MBPT system | [0-9]{8} | Required | 8 |
| **3** | **itemNo** | Item number as available in MBPT system | [0-9]{1,2} | Required | 2 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **Import Gate Pass Details** for which detail is required.
3. MBPT API will share details of cargo information which exist in MBPT system in JSON format.
4. MBPT Integration will add JSON in **response** key in response body.
5. ULIP system will provide the data in JSON Object format in response body.

**Example:**

**IGM number, IGM date and item number** is shared by ULIP system, then MBPT- integration will make a request to MBPT API.

**Request:**

The request must be of the following format, where driving license number and date of birth is passed within the URL body in JSON format.

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/MBPT/02>

{"igmNo" : "2283545", "igmDate" : "26052021", "itemNo" : "8"}

**Curl URL**

curl -X POST \

http://localhost:8085/ulip/v1.0.0/MBPT/02 \

-H 'accept: application/json' \

-H 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyODUwMTgxNywiYXBwcyI6ImRhdGFwdXNoIn0.38RQUrw\_sMp2pJaco6hNEdGtbu-COCSi4dBySfT8tawk3ZYYLmPrNaCNP9U9yq7q52QD0S7HUcCSvIZ\_UX33MQ' \

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

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

-H 'postman-token: 82712715-1137-0bd1-253e-320f5c5d415a' \

-d '{"igmNo" : "2283545", "igmDate" : "26052021", "itemNo" : "8"}'

For obtaining authentication token, refer [Section 1.6](#_Data_Transmission_&)

**Response**

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

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

{

"response": null,

"error": "true",

"code": "400",

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

}

1. **Invalid IGM date number**

{

"response": null,

"error": "true",

"code": "400",

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

}

1. **Invalid item number**

{

"response": null,

"error": "true",

"code": "400",

"message": "Data format failed OR wrong value entered at: itemNo. Format should follow [0-9]{1,2}"

}

1. **In case of IGM number does not exist in MBPT system**

{

"response": [

{

"response": {

"status":"1",

"message":"No records found "

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case IGM number exist**

{

"response": [

{

"response": {

"IgmGPDtls": {

"bl\_no": "77SE21050257",

"no\_of\_packages\_qty": "2",

"goods\_description": "KNEADER REACTOR HS CODE 8479820090 6000L SOLVENT WASHER REACTOR SS304L(6000L KNEADER REACTOR) SPECIA",

"importer\_name": "UPL LIMITED JHAGADIA",

"delivery\_order\_no": "120210608982541",

"crg\_type": "G",

"be\_date": "24052021",

"out\_of\_charge\_date": "04062021",

"unit\_of\_measurement": "MT",

"Item\_no": "8",

"type\_of\_packages": "PKG",

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

"surveyor\_code": "Dummy",

"vehicle\_info": [

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "SSM",

"TRUCK\_EXIT\_TIME": "08062021",

"TRUCK\_ENTRY\_TIME": "08062021"

}

],

"do\_date": "08062021",

"marks\_no": "UPL LIMITED INVOICE NUMBER AND DATE SSDC20210412 AND APRIL 12, 2021 PURCHASE ORDER NUMBER: 4510261808",

"line\_no": "8",

"importer\_address": "PLOT NO 746/750, PO BOX NO 9 393110 JHAGADIA BHARUCH INDIA",

"country\_of\_origin": "2041951813",

"be\_no": "4062308",

"sub\_line\_no": "0",

"igm\_date": "26052021",

"survey\_date": "",

"igm\_no": "2283545",

"cha\_code": "11/779"

},

"message": "Success",

"status": "0"

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

**Status Code 200**: IGM 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.

## MBPT/03

This API will take **shipping bill number** and **shipping bill date** and connect with MBPT API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **shppingBillNo** | Shipping Bill number as available in MBPT system. | [0-9]{7} | Required | 7 |
| 2 | **shippingBillDate** | Shipping bill date as per MBPT system | [0-9]{8} | required | 8 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **Send Export Gate Pass Details** for which detail is required.
3. MBPT API will share details of cargo information which exist in MBPT system in JSON format.
4. MBPT Integration will add JSON in **response** key in response body.
5. ULIP system will provide the data in JSON Object format in response body.

**Example:**

Shipping Bill number **2132144** is shared by ULIP system, then MBPT-integration will make a request to MBPT API.

**Request:**

The request must be of the following format, where driving license number and date of birth is passed within the URL body in JSON format.

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/MBPT/03>

{"shippingBillNo": "2132144", "shippingBillDate" : "01062021"}

**Curl URL**

curl -X POST \

http://localhost:8085/ulip/v1.0.0/MBPT/03 \

-H 'accept: application/json' \

-H 'authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYyODUwMTgxNywiYXBwcyI6ImRhdGFwdXNoIn0.38RQUrw\_sMp2pJaco6hNEdGtbu-COCSi4dBySfT8tawk3ZYYLmPrNaCNP9U9yq7q52QD0S7HUcCSvIZ\_UX33MQ' \

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

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

-H 'postman-token: 3d854a9d-cd2b-b978-abf2-08d73a7d4097' \

-d '{"shippingBillNo": "2132144", "shippingBillDate" : "01062021"}'

For obtaining authentication token, refer [Section 1.6](#_Data_Transmission_&)

**Response**

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

1. **In case of invalid format**
2. **Invalid shipping bill number**

{

"response": null,

"error": "true",

"code": "400",

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

}

1. **Invalid shipping bill 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 does not exist in MBPT system**

{

"response": [

{

"response":{

"status":"1",

"message":"No records found "},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case shipping bill number exist**

{

"response": [

{

"response": {

"ExpGPDtls": {

"egm\_date": "",

"egm\_no": "",

"exporter\_name": "SKODA AUTO VOLKSWAGEN INDIA PRIVATE LIMITED",

"port\_where\_sb\_filed": "INBOM1",

"importer\_address": "",

"goods\_description": "",

"port\_of\_loading": "INBOM1",

"cargo\_type": "BK",

"rotation\_date": "07.06.2021:00:00",

"importer\_name": "",

"allow\_for\_shipment\_date": "12.06.2021:00:00",

"leo\_date": "12.06.2021:00:00",

"rotation\_no": "224366",

"shipping\_bill\_date": "01062021",

"vehicle\_info ": [

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NC123",

"TRUCK\_EXIT\_TIME": null,

"TRUCK\_ENTRY\_TIME": "01062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AD8109",

"TRUCK\_EXIT\_TIME": "02062021",

"TRUCK\_ENTRY\_TIME": "02062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AD3147",

"TRUCK\_EXIT\_TIME": null,

"TRUCK\_ENTRY\_TIME": "02062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AC6461",

"TRUCK\_EXIT\_TIME": "02062021",

"TRUCK\_ENTRY\_TIME": "02062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AC5539",

"TRUCK\_EXIT\_TIME": "02062021",

"TRUCK\_ENTRY\_TIME": "02062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AC3494",

"TRUCK\_EXIT\_TIME": "02062021",

"TRUCK\_ENTRY\_TIME": "02062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AC6465",

"TRUCK\_EXIT\_TIME": "02062021",

"TRUCK\_ENTRY\_TIME": "02062021"

},

{

"TRUCK\_ENTRY\_PERMIT\_NO": null,

"VEHICLE\_NUMBER": "NL01AD3145",

"TRUCK\_EXIT\_TIME": null,

"TRUCK\_ENTRY\_TIME": "02062021"

}

],

"cha\_code": "",

"port\_of\_origin": "INBOM1",

"shipping\_bill\_no": "2132144",

"vcn\_no": "2106140",

"nature\_of\_cargo": "BK",

"port\_of\_destination\_code": "MXVER"

},

"message": "Success",

"status": "0"

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

**Status Code 200**: export 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 MBPT system through a data exchange URL that has following form:

<https://www.ulip.dpiit.gov.in/ulip/v1.0.0/MBPT/01>

**Body:**

{"vcnNo": "1234567890122"}

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.ulip.dpiit.gov.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.ulip.dpiit.gov.in/ulip/v1.0.0/MBPT/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 '{"vcnNo": "1234567890122"}'***