**ULIP Integration Requirement Document**

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Project Name: ULIP

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Revision History

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|  |  |  |  |  |

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# 

# Introduction

## Purpose

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

This document details the following points:

1. **Data Integration between NMPT and ULIP web service**: Identification of operational points where data integration between NMPT 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, BE Number, and Shipping Bill Number** based on data send by user ULIP system will call respective **NMPT** 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 NMPT API.
3. **NMPT/01** API will take VCN number from user and get data from NMPT API.
4. **NMPT/02** API will take BE number from user and get data from NMPT API.
5. **NMPT/03** API will take VCN Number from user and get data from NMPT API for different Terminal.
6. **NMPT/04** API will take BE number from user and get data from NMPT API for different Terminal.
7. **NMPT/05** API will take Shipping Bill Number from user and get data from NMPT API for different Terminal.

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

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

## NMPT/01

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **vcn\_no** | vessel call number as available in NMPT 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. NMPT API will share details of vessel information which exist in NMPT system in JSON format.
4. NMPT 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 HAL12100007

is shared by ULIP system, then NMPT-integration will make a request to NMPT 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.ldbstaging.co.in/ulip/v1.0.0/NMPT/01>

{"vcn\_no": "HAL12100007"}

**Curl URL**

curl --location --request POST 'http://localhost:8085/ulip/v1.0.0/NMPT/01' \

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjM0ODg0MCwiYXBwcyI6ImRhdGFwdXNoIn0.E78\_Oa5DYP7m4Jpq2Q9kXK8gQDiScqndwwNkIicBOzQmXudwXRJbNwjRVSJKkI1cYaEZK45oS4\_1sMS1Q\_ggRA' \

--data-raw '{

    "vcn\_no":"HAL12100007"

}'

For obtaining authentication token, refer Section 1.8

**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\_no. Format should follow  ^[a-zA-Z0-9]{2,14}$"

}

1. **In case of vcn number does not exist in NMPT 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": {

                "imo\_number": "9414319",

                "vcn\_no": "HAL12100007",

                "vessel\_name": "NOEL",

                "shipping\_line\_code": "OCL1",

                "shipping\_agent\_code": "",

                "application\_type": "I",

                "eta": "05042021 13:40",

                "etd": "08042021 19:25",

                "ata": "07042021 16:20",

                "atd": "09042021 23:10",

                "port\_of\_arrival\_name": "INCCU1",

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

                "vessel\_type": "C"

            },

            "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.

## NMPT/02

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **be\_no** | BE Number as available in NMPT system. | [0-9]{1,7} | Required | Min=1,  Max=7 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **BE Number** for which detail is required.
3. NMPT API will share details of cargo information which exist in NMPT system in JSON format.
4. NMPT 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:**

**BE number** is shared by ULIP system, then NMPT- integration will make a request to NMPT 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.ldbstaging.co.in/ulip/v1.0.0/NMPT/02>

{"be\_no" : "3437935”}

**Curl URL**

curl --location --request POST 'http://localhost:8085/ulip/v1.0.0/NMPT/02' \

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjM0ODg0MCwiYXBwcyI6ImRhdGFwdXNoIn0.E78\_Oa5DYP7m4Jpq2Q9kXK8gQDiScqndwwNkIicBOzQmXudwXRJbNwjRVSJKkI1cYaEZK45oS4\_1sMS1Q\_ggRA' \

--data-raw '{

    "be\_no":"3437935"

}'

'

For obtaining authentication token, refer Section 1.8

**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. **In case of BE number does not exist in NMPT system**

{

"response": [

{

"response": {

"status":"1",

"message":"No records found "

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case BE number exist**

{

    "response": [

        {

            "response": {

                "igm\_no": "2279238",

                "igm\_date": "05042021",

                "line\_no": "75",

                "sub\_line\_no": "1",

                "bl\_no": "SHACB21007945",

                "be\_no": "3437935",

                "be\_date": "05042021",

                "importer\_name": "GLOBAL ISPAAT PRIVATE LIMITED",

                "importer\_address": "M-18/19,CUNCOLIM INDUSTRIAL ESTATE,CUNCOLIM,SALCETTE",

                "cha\_code": "AGWPP3748ACH001",

                "nature\_of\_cargo": "C",

                "cargo\_type": "",

                "goods\_description": "USED INDUSTRIAL SEWING MACHINE HS:84522900",

                "marks\_no": "N/M",

                "no\_of\_packages\_qty": "723",

                "type\_of\_packages": "PCS",

                "unit\_of\_measurement": "KGS",

                "country\_of\_origin": "SN",

                "out\_of\_charge\_no": "2041189007",

                "out\_of\_charge\_date": "05042021",

                "delivery\_order\_no": "3242",

                "do\_date": "05042021",

                "mode\_of\_transport": "R",

                "survey\_date": "",

                "surveyor\_code": "",

                "vehicle\_info": null

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

**Status Code 200**: BE Number 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.

## NMPT/03

This API will take **VCN Number** and connect with NMPT API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **vcn\_no** | vessel call number as available in NMPT 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. NMPT API will share details of cargo information which exist in NMPT system in JSON format.
4. NMPT 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 **INNML121070010**

is shared by ULIP system, then NMPT-integration will make a request to NMPT 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.ldbstaging.co.in/ulip/v1.0.0/NMPT/03>

{

 "vcn\_no":"INNML121070010"

}

**Curl URL**

curl --location --request POST 'http://localhost:8085/ulip/v1.0.0/NMPT/03' \

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjM0ODg0MCwiYXBwcyI6ImRhdGFwdXNoIn0.E78\_Oa5DYP7m4Jpq2Q9kXK8gQDiScqndwwNkIicBOzQmXudwXRJbNwjRVSJKkI1cYaEZK45oS4\_1sMS1Q\_ggRA' \

--data-raw '{

    "vcn\_no":"INNML121070010"

}'

For obtaining authentication token, refer Section 1.8

**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\_no. Format should follow  ^[a-zA-Z0-9]{2,14}$"

}

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

{

"response": [

{

"response":{

"status":"1",

"message":"No records found "},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case VCN number exist**

{

{

    "response": [

        {

            "response": {

                "imo\_number": "1234555",

                "vcn\_no": "INNML121070010",

                "vessel\_name": "TEST\_VSL\_01",

                "shipping\_line\_code": "17789",

                "shipping\_agent\_code": "17789",

                "application\_type": "B",

                "eta": "21072021 16:20",

                "etd": "21072021 20:11",

                "ata": "11072021 00:00",

                "atd": "20072021 14:00",

                "port\_of\_arrival\_name": "INNML1",

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

                "vessel\_type": "C"

            },

            "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.

## NMPT/04

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **be\_no** | BE Number as available in NMPT system. | [0-9]{1,7} | Required | Min=1,  Max=7 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **BE Number** for which detail is required.
3. NMPT API will share details of cargo information which exist in NMPT system in JSON format.
4. NMPT 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:**

**BE number** is shared by ULIP system, then NMPT- integration will make a request to NMPT 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.ldbstaging.co.in/ulip/v1.0.0/NMPT/04

{

"be\_no" : " 5236246

”}

**Curl URL**

curl --location --request POST 'http://localhost:8085/ulip/v1.0.0/NMPT/04' \

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjM0ODg0MCwiYXBwcyI6ImRhdGFwdXNoIn0.E78\_Oa5DYP7m4Jpq2Q9kXK8gQDiScqndwwNkIicBOzQmXudwXRJbNwjRVSJKkI1cYaEZK45oS4\_1sMS1Q\_ggRA' \

--data-raw '{

    "be\_no":"5236246"

}'

'

For obtaining authentication token, refer Section 1.8

**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. **In case of BE number does not exist in NMPT system**

{

"response": [

{

"response": {

"status":"1",

"message":"No records found "

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

1. **In case BE number exist**

{

    "response": [

        {

            "response": {

                "igm\_no": "2290480",

                "igm\_date": "26082021",

                "line\_no": "21-0",

                "sub\_line\_no": "21-0",

                "bl\_no": "21BXO",

                "be\_no": "5236246",

                "be\_date": "28082021",

                "importer\_name": "",

                "importer\_address": "",

                "cha\_code": "122",

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

                "cargo\_type": "PC",

                "goods\_description": "DRIED RAW CASHEW NUTS",

                "marks\_no": "NIL",

                "no\_of\_packages\_qty": "207.48",

                "type\_of\_packages": "BGS",

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

                "country\_of\_origin": "GUINEA-BISSAU",

                "out\_of\_charge\_no": "2043098319",

                "out\_of\_charge\_date": "08092021",

                "delivery\_order\_no": "120210901123712",

                "do\_date": "01092021",

                "mode\_of\_transport": "R",

                "survey\_date": "",

                "surveyor\_code": "",

                "vehicle\_info": [

                    {

                        "truck\_entry\_permit\_no": "GP2109130000001",

                        "vehicle\_number": "KA19A2093",

                        "truck\_exit\_time": "",

                        "truck\_entry\_time": "13092021"

                    }

                ]

            },

            "responseStatus": "SUCCESS"

        }

    ],

    "error": "false",

    "code": "200",

    "message": "Success"

}

**Status Code 200**: BE Number 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.

## NMPT/05

This API will take **export gate details** and connect with NMPT API to get data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Field Name** | **Field Description** | **Format** | **Required/Not – Required** | **Length** |
| 1 | **Shipping\_bill\_no** | Shipping Bill Numberas available in NMPT system. | [0-9]{7} | Required | 7 |

### Technical Approach

1. All the data will be shared through rest web services.
2. ULIP system will provide **Shipping Bill Number** for which detail is required.
3. NMPT API will share details of cargo information which exist in NMPT system in JSON format.
4. NMPT 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** is shared by ULIP system, then NMPT- integration will make a request to NMPT 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.ldbstaging.co.in/ulip/v1.0.0/NMPT/05

{

"shipping\_bill\_no" : "9890556”}

**Curl URL**

curl --location --request POST 'http://localhost:8085/ulip/v1.0.0/NMPT/05' \

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

--header 'Authorization: Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJ0ZXN0MSIsImlhdCI6MTYzNjM0ODg0MCwiYXBwcyI6ImRhdGFwdXNoIn0.E78\_Oa5DYP7m4Jpq2Q9kXK8gQDiScqndwwNkIicBOzQmXudwXRJbNwjRVSJKkI1cYaEZK45oS4\_1sMS1Q\_ggRA' \

--data-raw '{

    "shipping\_bill\_no":"9890556"

}'

For obtaining authentication token, refer [Section 1.](#_Data_Transmission_&)8

**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. **In case of Shipping Bill number does not exist in NMPT system**

{

"response": [

{

"response": {

"status":"1",

"message":"No records found "

},

"responseStatus": "SUCCESS"

}

],

"error": "false",

"code": "200",

"message": "Success"

}

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

Development In Progress

**Status Code 200**: Shipping Bill Number 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 NMPT system through a data exchange URL that has following form:

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

**Body:**

{ "vcn\_no":"HAL12100007"}

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/NMPT/01***](https://www.ldbstaging.co.in/ulip/v1.0.0/NMPT/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": "*** ***HAL12100007"}'***