Device Pairing Subsystem 1.0.0

User Guide (MNO)

DPS- MNO-User-Guide-1.0.0

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**Revision history**

| **Revision** | **Date** | **Description** |
| --- | --- | --- |
| **A** |  | **Initial release** |

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# **Introduction**

The Device Pairing Subsystem (DPS) is the subsystem of Device Identification, Registration and Blocking System (DIRBS). The main purpose of DPS is to facilitate the pairing of user’s devices with their SIMs (IMSIs) over the SMS service. It also generates Pairing-list for DIRBS-Core through which it generates exception lists and black list for MNOs to implement on their EIR.

The Device Identification, Registration & Blocking System (DIRBS) is a country-wide system that is developed to check, identify and discourage non-compliant devices by verifying the installed base of devices currently active in a market. It continuously monitors the mobile eco system as new devices are activated. It can be deployed in collaboration with country’s regulatory bodies, Mobile operators and other technology partners.

DIRBS can verify that:

* Devices have properly allocated identifiers and type approval
* Devices are not duplicated or stolen
* Device importation takes place through legal channels

## Purpose

This document is intended for mobile operators to provide IMSIs and other important information that can help DPS in pairing their subscribers.

## Supported Desktop Browsers

**Table 1- Supported Desktop Browsers**

|  |  |
| --- | --- |
| **Name** | **Version** |
| Internet Explorer | 11.0 |
| Firefox 52.5 ESR | 57.0 |
| Chrome | 63.0 |
| Safari | 11.0 |
| Edge | 41.16299 |

## 

## Supported Mobile Browsers

**Table 2- Supported Mobile Browsers**

|  |  |
| --- | --- |
| **Name** | **Version** |
| Chrome | 63.0 |
| UC Browser | 11.5 |
| Opera(Android) | 44.1 |
| Opera(iOS) | 16.0.7 |
| Safari | 11.1 |
| Samsung Internet | 6.2 |
| Android | 4.1.x - 4.3 |

## Definitions, Acronyms, and Abbreviations

**Table 3- Definitions, Acronyms, and Abbreviations**

|  |  |
| --- | --- |
| ****Term**** | ****Definition**** |
| **DIRBS** | **Device Identification Registration and Blocking System** |
| IAM | Identity Access Management |
| DPS | Device Pairing Subsystem |
| MSISDN | Mobile Subscriber Integrated Services Digital Network Number |
| IMSI | International Mobile Subscriber Identity |
| MNO | Mobile Network Operator |

# **System Description**

**Table 4- System Description**

|  |  |
| --- | --- |
| Feature****/Sections**** | ****Description**** |
| **Login Screen** | To access the system, authorized user first needs to enter his/her credentials on login page, this login page authenticates user from IAM and redirects user to DPS |
| Portal Sections | **The portal is divided into following sections**   * **Header**   Header section displays the name of the system, name of the logged in user with logout functionality     * **Navigation Panel**   Navigation Panel contains main navigation menu through which user can navigate the whole system   * **Main Content Area**   Main Content Area contains all the content to be displayed and actions to be performed for respective feature   * **Breadcrumbs**   Breadcrumbs allows user to keep track of their location within the system   * **Footer**   Footer contains the software version and copyright text |
| IMSI Request | Allows user to enter IMSI for respective MSISDN one by one.  User can also download all requests in ***.csv*** file format. |
| Bulk Upload | Allows user to upload ***.csv*** file containing MSISDNs with respective IMSIs. |

# **System Navigation**

## Log-In Screen

1. **Enter user credentials i.e. username and password**
2. **Click on the “Log-In” button**

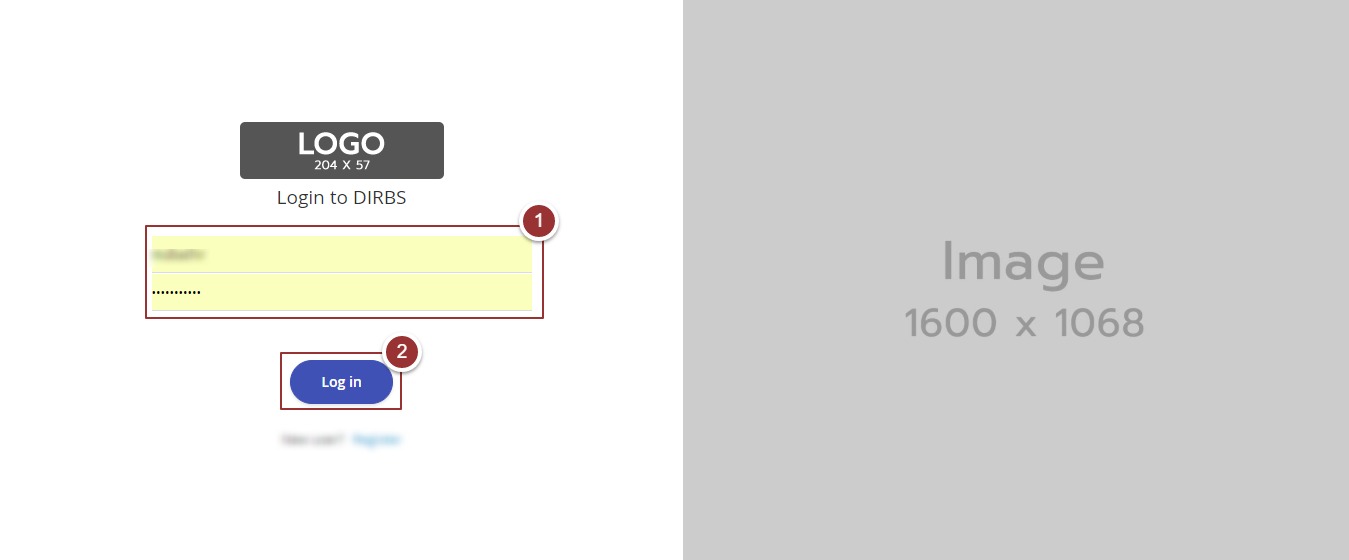


Figure 1- login Screen

## Portal Sections

The portal screen is divided into following sections.

1. **Header** section displays the name of the system, name of the logged-in user with logout functionality
2. **Main Navigation Panel** helps user to navigate through system
3. **Breadcrumbs** is a navigational aid in UI
4. **Main Content Area** contains all relevant information related to the respective feature/option
5. **Footer** contains the version and copyrights of the system

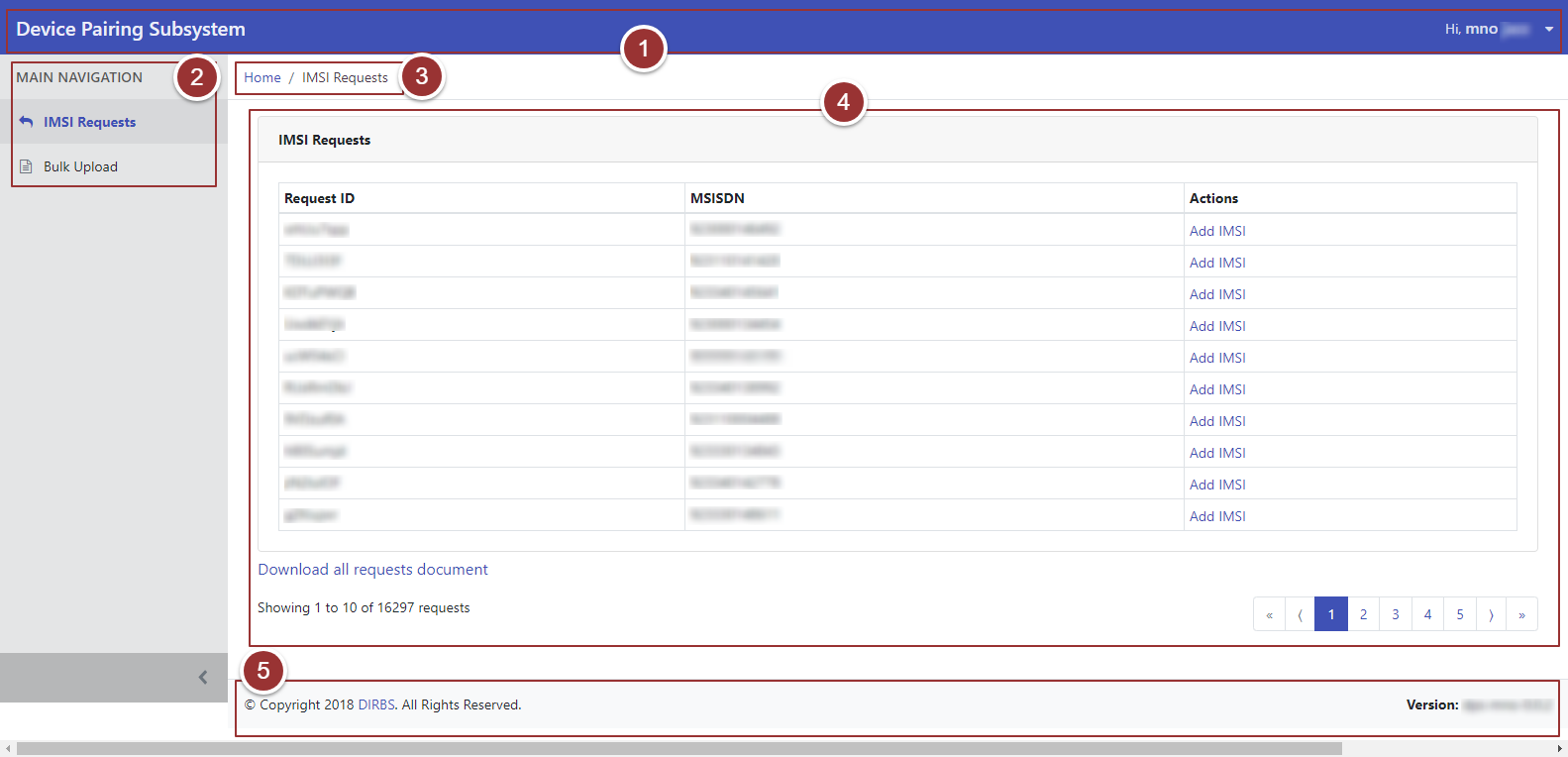


Figure 2- Portal Overview

## IMSI Requests

1. Click on the “IMSI Requests” tab under “Main Navigation” heading
2. To add IMSI for each MSISDN from portal click on “Add IMSI” link against respective MSISDN/Request ID

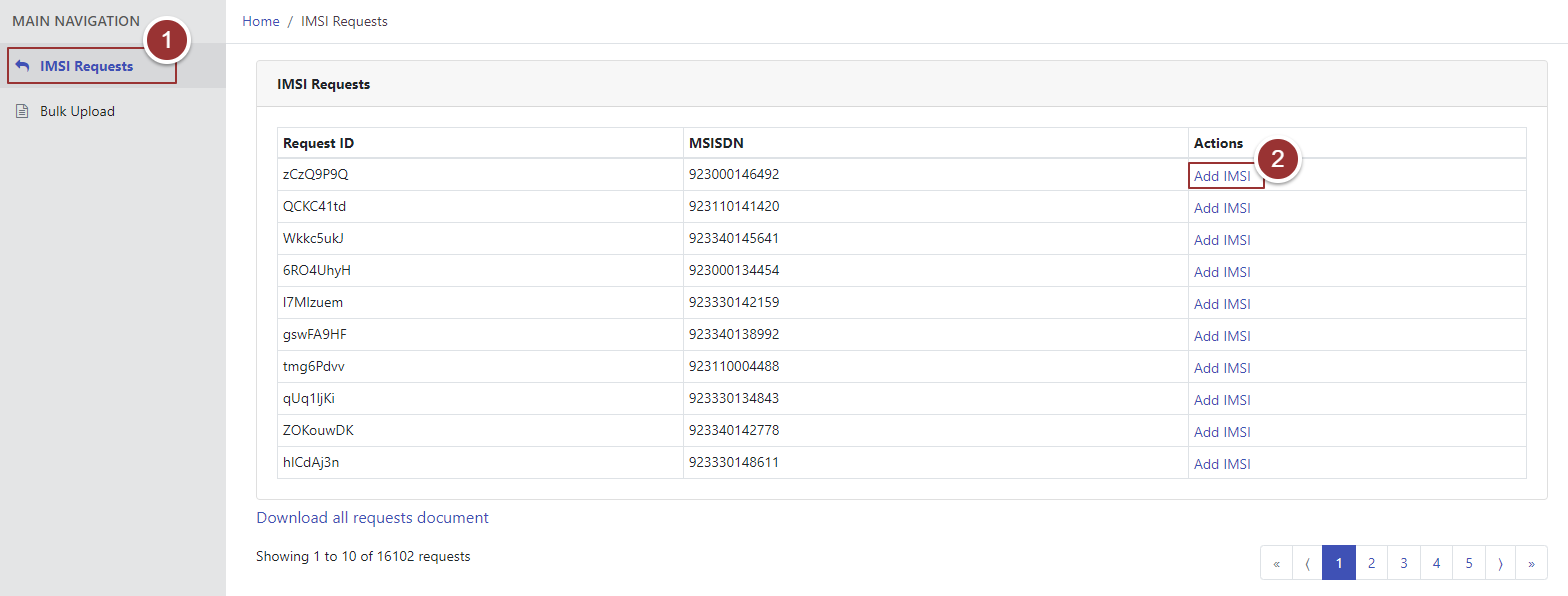


Figure 3- IMSI Requests

1. A popup will appear where user type and retype IMSI for the particular MSISDN
2. Click on “Submit” button

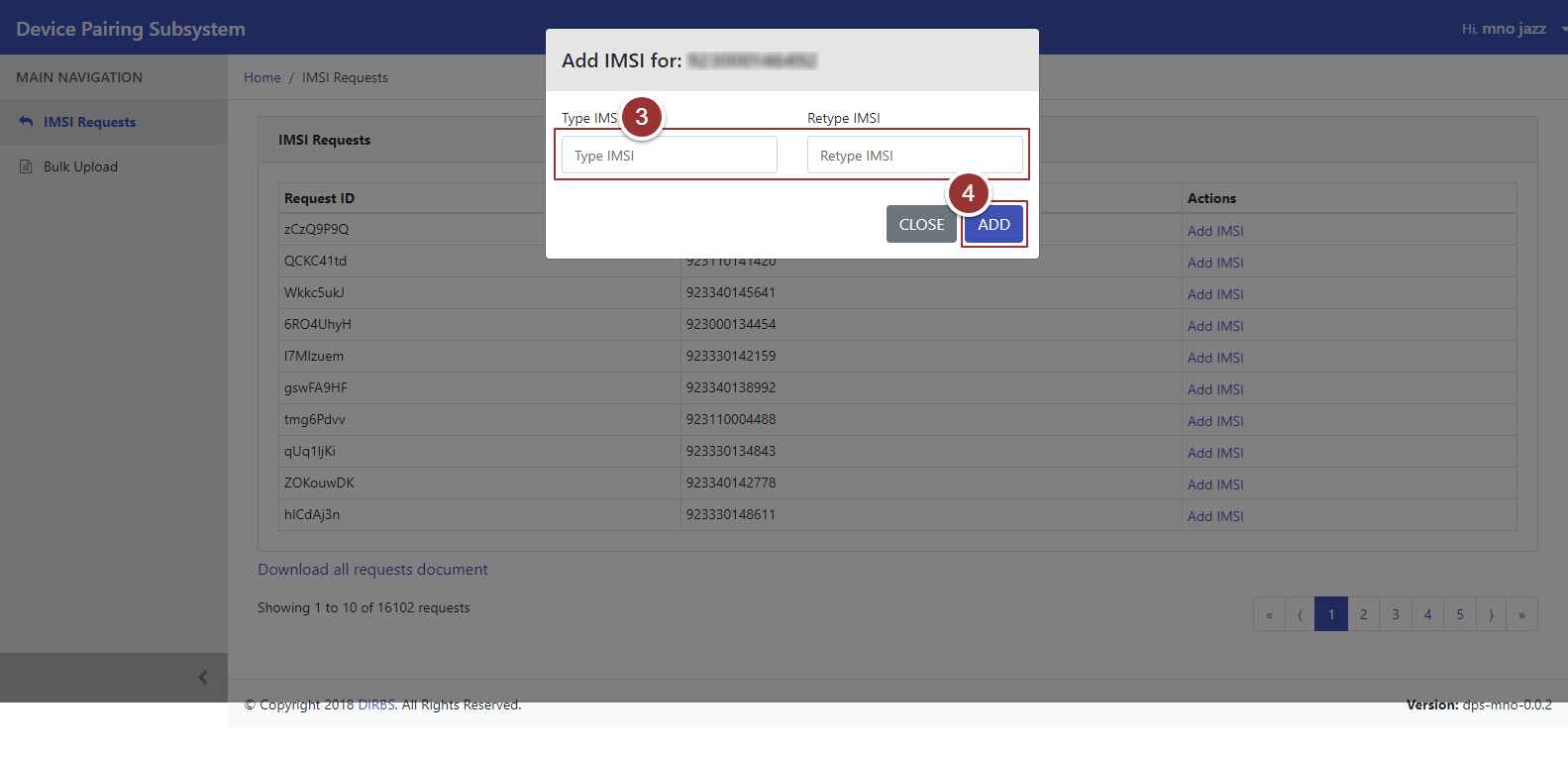


Figure 4- Add IMSI

1. To download all IMSI Requests in a file, click on “Download all requests document” link

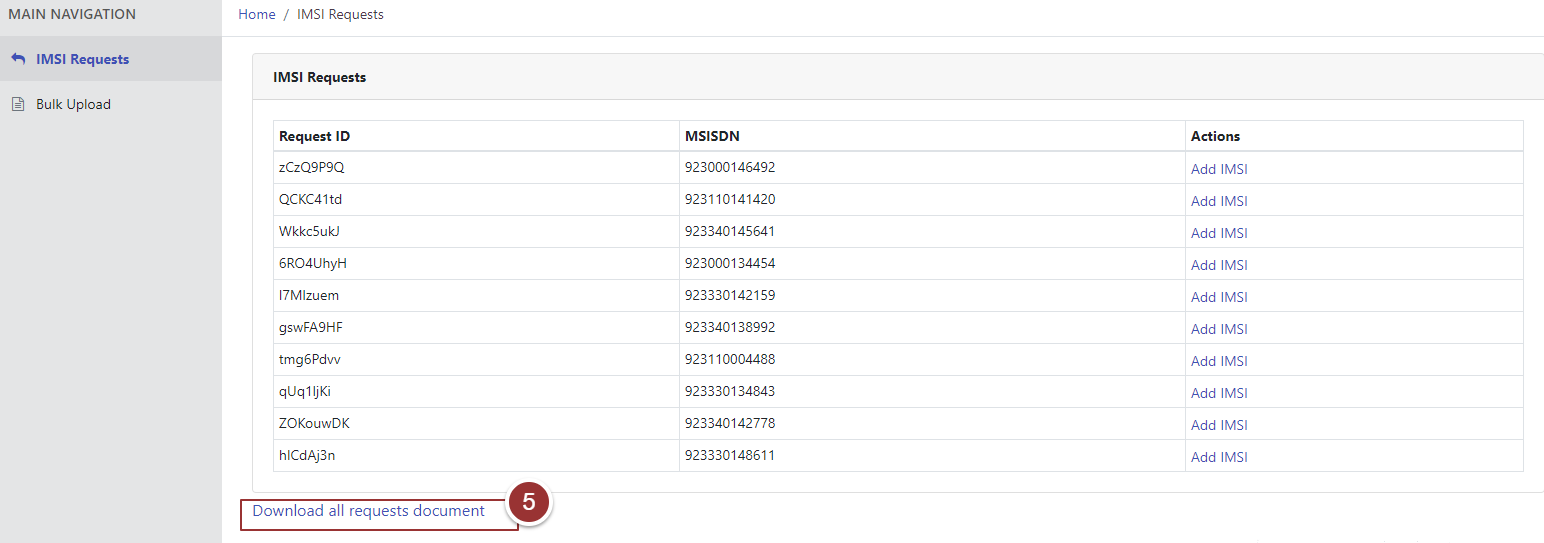


Figure 5- Download All Requests

## Bulk Upload

1. To submit IMSIs in bulk, click on “Bulk Upload” tab under “Main Navigation” heading
2. To upload a file, click on “Choose File” button and select the required file

**Note:** The uploaded file should be .csv file. It is preferable to use the same downloaded file in [Section 2.3](#_IMSI_Requests) and update it with IMSIs.

1. Click on “Submit” button

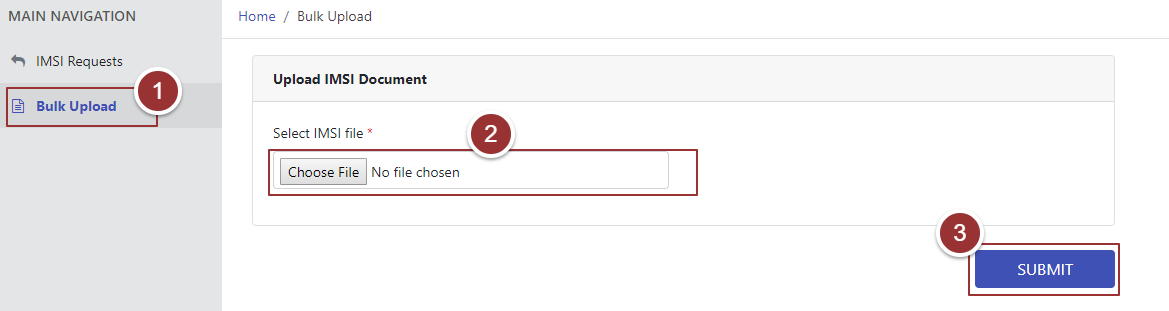


Figure 6- Bulk Upload

On successful submission of file, a confirmation message will be displayed with the count of Total, Invalid and Valid MSISDNs/IMSIs.

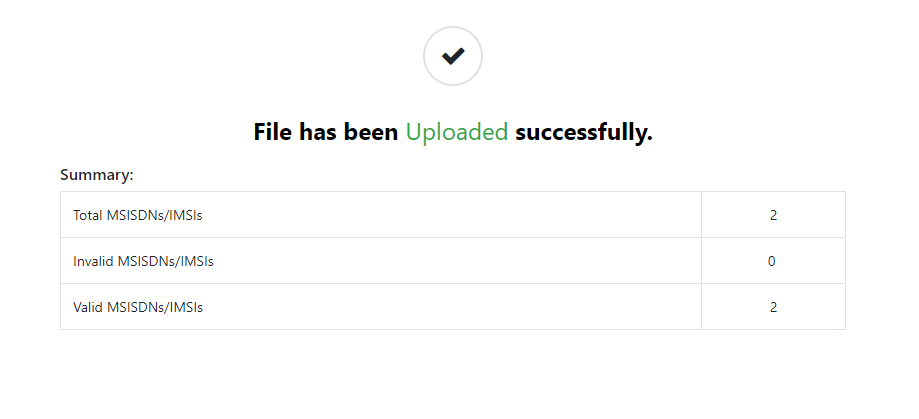


Figure 7- Confirmation Message

1. In case of any Invalid MSISDNs/IMSIs found in the file, a separate downloadable file will be generated by the system.

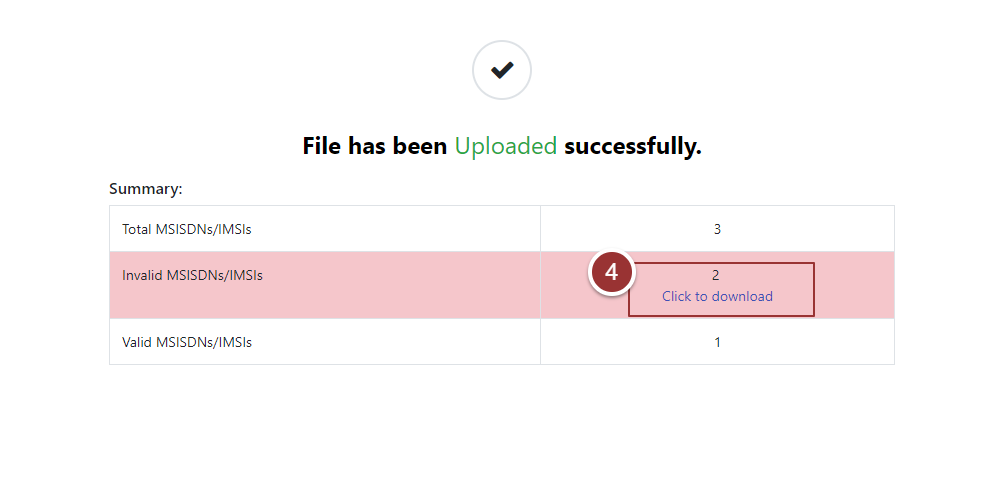


Figure 8- Download Invalid MSISDNs/IMSIs

1. If the uploaded file is not in correct format (.csv), an error message will be displayed.

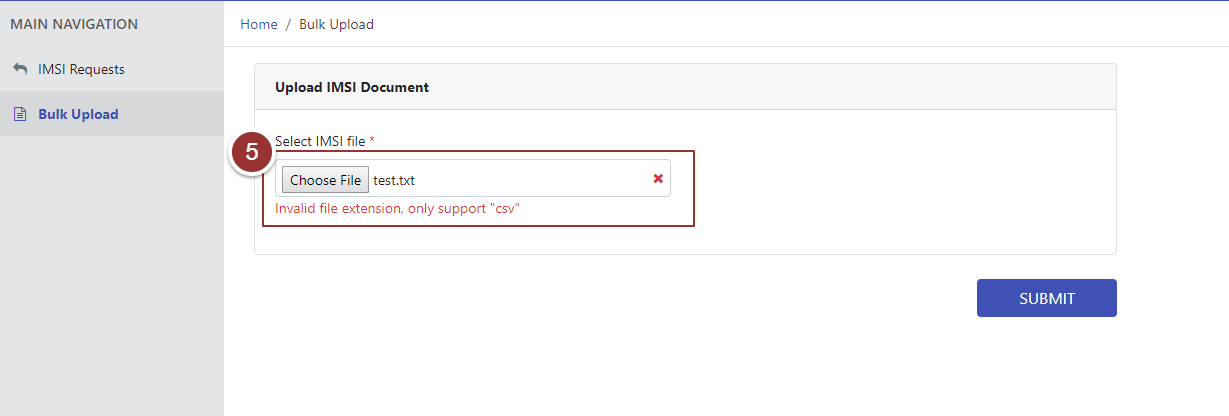


Figure 9- File Format

An Error Message will be displayed, if the header of the file is not in correct format i.e. MSISDN, IMSI.

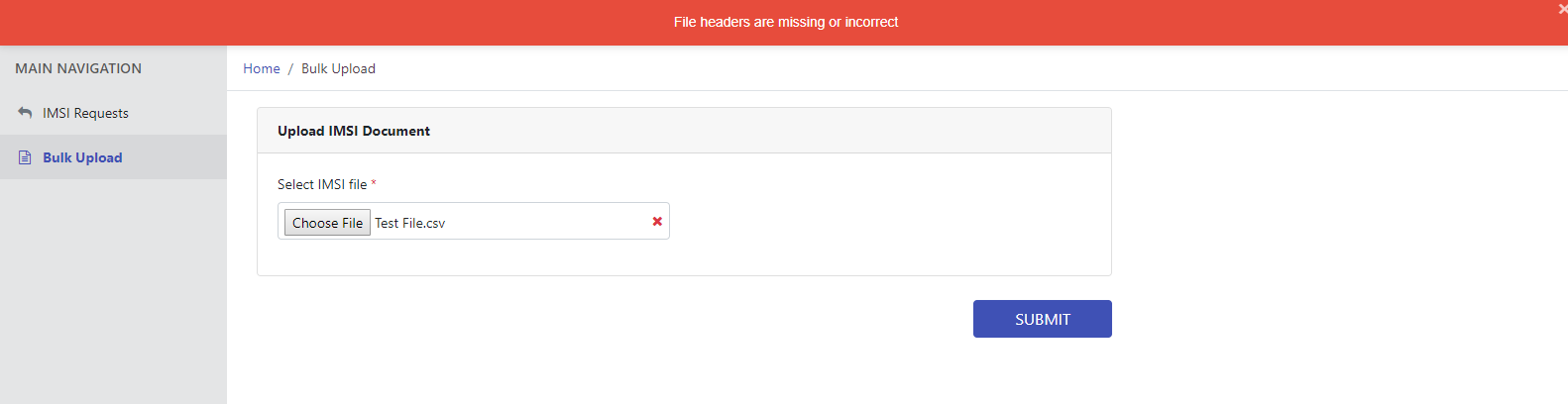


Figure 10- Incorrect format