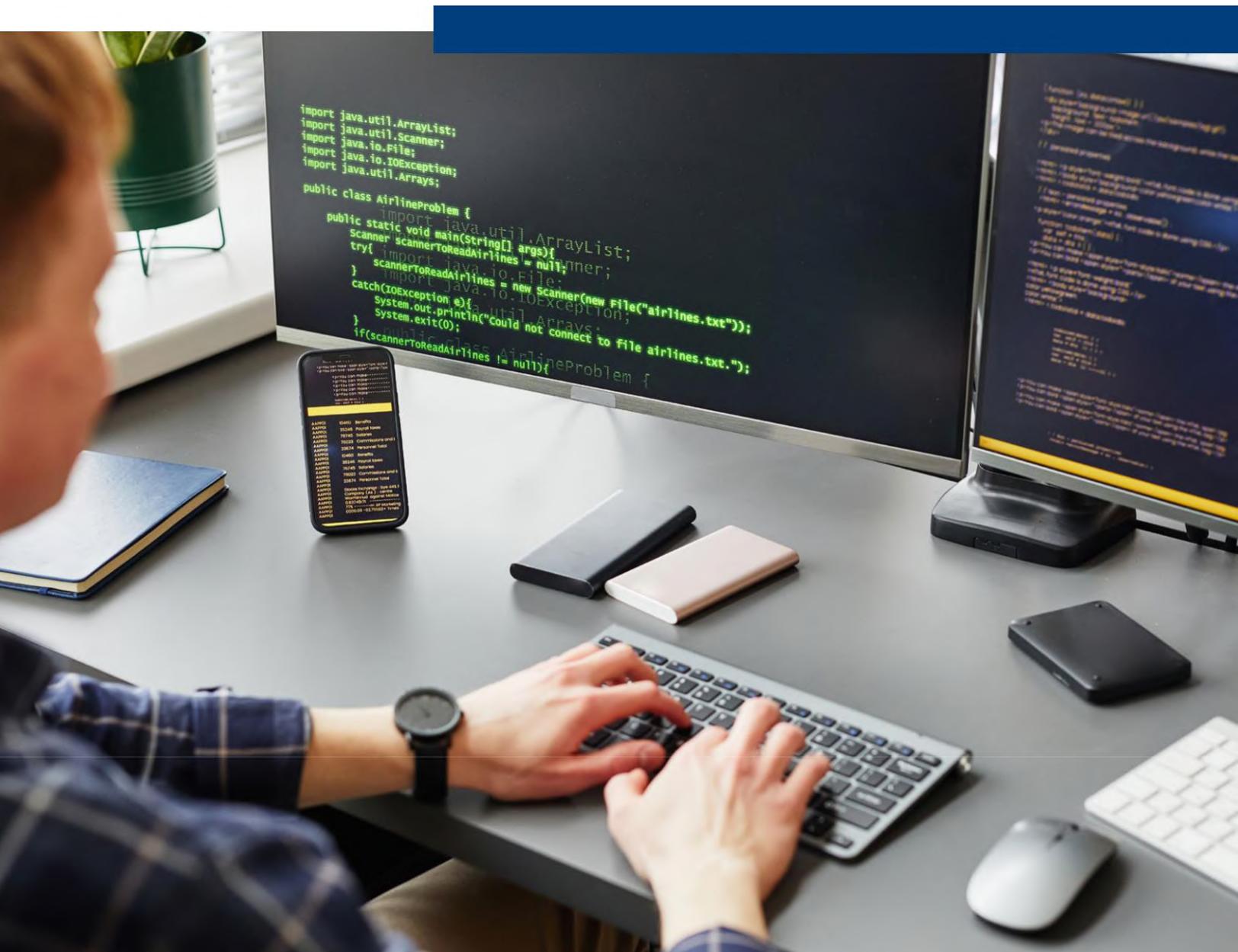


# GENERAL (non-technical) CEMS - Betting GUIDE

For Software Developers



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# 1. Version History

Version	Changes	Date
v1.0	Original document	2 <sup>nd</sup> May 2025

## 2. Glossary of Terms

<b>TERM</b>	<b>DESCRIPTION</b>
API	Application Programming Interface
CEMS-Betting	Central Electronic Monitoring System-Betting
EBS	Electronic Betting System
ICT	Information and Communication Technology
MRA	Mauritius Revenue Authority
OTP	One Time Password
POS	Point of Sale
QR Code	Quick Response Code
URL	Uniform Resource Locator
IRN	Invoice Registration Number

### 3. Background Information

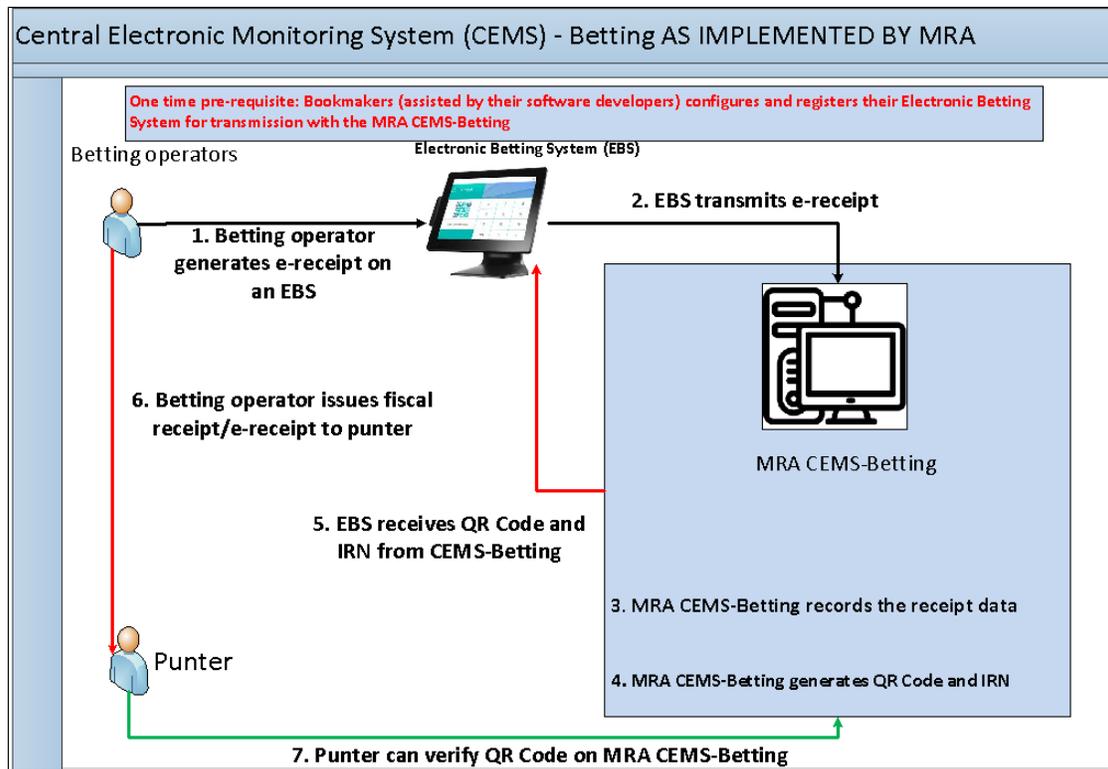
The Mauritius Revenue Authority is in the process of upgrading its Central Electronic Monitoring System-Betting (CEMS-Betting) to enable the continuous online recording, monitoring and control of betting transactions.

With the advent of the new system, licensed betting operators offering bets in Mauritius will be required to fiscalise their betting transactions in real time with the Mauritius Revenue Authority (MRA) before issuing a receipt to punters in the form of a physical or electronic receipt or acknowledgement.

In general, a licensed betting operator uses a betting software, whether web-based, standalone, or client-server to record bets. This betting software solution must be fully compliant with the MRA's CEMS-Betting, meaning it must be capable of transmitting all betting transactions in real-time using the prescribed data format (e.g., JSON), via approved APIs, and in accordance with the requirements set out by the MRA.

Note, in the context of the MRA CEMS-Betting, such betting software will be referred to as an Electronic Betting System (EBS).

The following diagram gives a pictorial representation of the MRA CEMS-Betting.



**Figure 1:** Pictorial representation of MRA CEMS-Betting

## 4. General Information on MRA Secure Hub - Portal

### 4.1. Introduction

For a betting software solution to be fully compliant with the MRA's CEMS-Betting, providers of such software for licensed betting operators offering bets in Mauritius must register, customise, and successfully test their Electronic Betting Systems (EBS) for compliance with the MRA CEMS-Betting, via the MRA Secure Hub Portal.

The MRA Secure Hub Portal is a dedicated online environment. This portal enables betting software providers for licensed betting operators offering bets in Mauritius to register their system, configure their EBS to be CEMS-Betting compliant perform testing by simulating real-world scenarios and ensure their systems meet the technical and compliance requirements set by the MRA.

### 4.2. Aims and Scope

The aim of this document is to provide general guidance to providers of betting software in Mauritius on how to make their EBS compliant in light of the CEMS-Betting upgrade. It also outlines the process of registration of EBS and testing of EBS after the necessary modifications have been implemented.

### 4.3. Target Audience

This document is intended for software developers/software providers, who design, develop, implement, or maintain betting software solutions for use, by licensed betting operators in Mauritius. It is specifically aimed at those responsible for ensuring that their EBS are compatible with and compliant to the MRA's upgraded CEMS-Betting.

Moreover, any other persons wishing to understand what is required of software developers to make their EBS compliant with the MRA CEMS-Betting may also find this document useful.

## 4.4. References for Further Reading

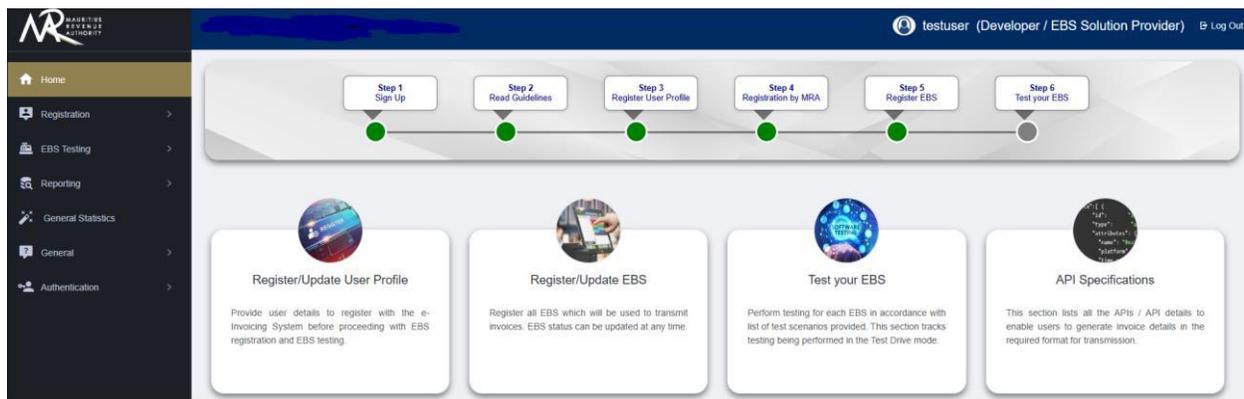
In addition to this General (non-technical) CEMS-Betting Guide for Software Developers, the following documents may also be useful in understanding the requirements for CEMS-Betting compliance in Mauritius:-

- (a) The Technical Guide of APIs for MRA CEMS-Betting
- (b) The Data Structure (JSON format) for bet details for each licence type, as required for compliance with the MRA CEMS-Betting
  - a. Standard e-receipt template for licence type BOOKMAKERS
  - b. Standard e-receipt template for licence type TOTALISATORS
  - c. Standard e-receipt template for licence type REMOTE-SMS
  - d. Standard e-receipt template for licence type REMOTE-TELEPHONE
  - e. Standard e-receipt template for licence type FOOTBALL

## 5. Overview of MRA Secure Hub Portal

The MRA Secure Hub Portal enables betting software providers to register their EBS and interface each registered EBS with the MRA CEMS-Betting.

A screen shot of the MRA Secure Hub Portal is shown below.



**Figure 2:** Overview of MRA Secure Hub Portal

## The MRA Secure Hub Portal

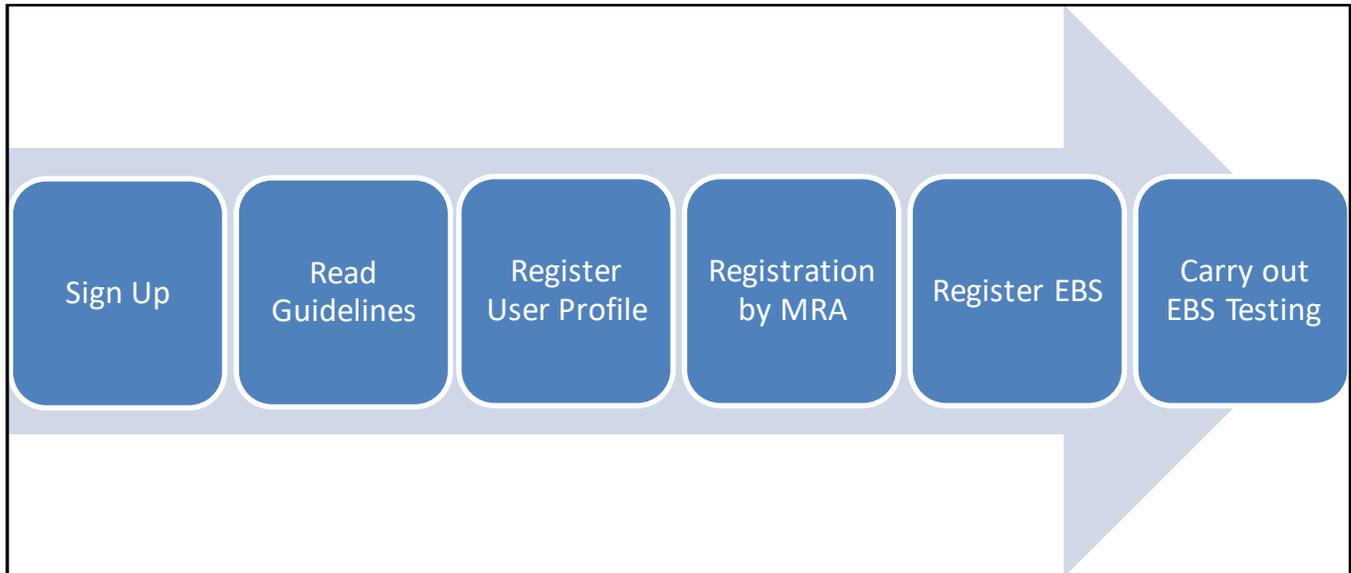
- Allows the creation of **credentials** in order to sign-in to the MRA Secure Hub Portal
- Allows the **registration of users** (software developers) and their **EBS** which they need to make CEMS-Betting compliant.
- Validates the mobile number of the user through OTP
- Provides API documentation required by the software developers to enable the integration of their EBS with the MRA CEMS-Betting
- Provides the methods / URLs, JSON Schema of the request payloads, sample request payloads and sample responses for each of the APIs
- Provides a facility for developers to simulate the use of APIs
- Enables registered users to perform tests as per the MRA test script (that is, Perform a Test Drive) to verify EBS compliance
- Provides reporting facilities to view
  - Bet details submitted successfully
  - Bet details which were rejected
  - results of tests performed as per the MRA test script
  - Exception report for all unsuccessful requests on MRA Secure Hub Portal
- Provides contact details for support from MRA

### 5.1. Accessing the MRA Secure Hub Portal

The MRA Secure Hub Portal can be accessed through any up-to-date browser like Google Chrome, Mozilla Firefox and Microsoft Edge.

The URL of the portal is <https://vfiscportal.mra.mu/einvoice-portal/home>

## 5.2. Overview of steps to make EBS Compliant with the MRA CEMS-Betting



**Figure 3:** Overview of steps to make an EBS compliant

Steps to be performed by Software Developers of betting software providers on MRA Secure Hub Portal :-

After having accessed the Portal, you need to click on the menu option Sign Up to create a user name (if you do not already have one) for carrying out sandbox testing.

Once you have successfully signed up, you can subsequently login on the Portal by clicking on the menu option **Sign In** to input the username (and password) created during the Sign Up process.

Note that you need to acknowledge having **read the guidelines** and agree to the terms and conditions of this Portal in order to be able to proceed successfully.

As part of the **User Profile Registration** process, you are required to provide your details and the details of the company for which you work including contact details.

This will automatically trigger a registration process at MRA in order to allow the new user to proceed further. The user will be informed by email when the registration process has been completed by MRA.

Once the registration process is completed, you need to input the details of the EBS for which tests will be performed when you **Register your EBS**. After you have clicked on the Save EBS Details button, you will be provided with a **unique EBS MRA ID** which you will need to save on the EBS and use while testing your EBS.

Necessary changes should then be done by software developers on the EBS for it to transmit, using the appropriate MRA Application Programming Interface (API), its bets details in the JSON format provided on the Portal. Note that there are two MRA APIs for this purpose, namely one for authentication and one for bet details transmission.

Subsequently, software developers can test their EBS while it is in **SANDBOX** mode on the Portal.

After testing of an EBS in **SANDBOX** mode has been carried out to the satisfaction of the software developer and all of the tests in the MRA test script provided on the Portal are conclusive, the software developer may then change its mode to “**TEST DRIVE**” in order to attempt the test drive.

Finally, when the EBS has passed the abovementioned self-certification test (that is, the test drive), the software developer will be required to inform MRA through a **self-certification** process on the Portal that the EBS is now compliant with the MRA CEMS-Betting.

### 5.3. Request for Support from MRA

This section of the Portal provides the contact details of team who will be providing support to software developers who face issues on the Portal. The support includes providing clarifications about the requirements of MRA in respect of the MRA CEMS-Betting.

**However, note that the support excludes providing consultancy services to software developers in making changes to their EBS.**

### 5.4. EBS Testing

This section of the Portal

- Allows software developers to view their test results for each scenario testing when they carry out sandbox testing
- Describes the MRA test script against which a self-certification test (referred to as “test drive”) will be performed by the software developers on their EBS

After the testing of an EBS in **SANDBOX** mode has been successful and all of the tests in the MRA test script are conclusive, the software developer may then change its mode to “**TEST DRIVE**” in order to attempt the test drive.

The aim of this testing is for the software developers to verify whether they have successfully made the required changes to their EBS to make the EBS compliant with the MRA CEMS-Betting.

## 5.5. View the results of the self-certification test

While software developers are carrying out the test drive on their EBS, they will get the results of the tests as and when the tests are being completed on the Portal.

Note that failure on any one test will result in the EBS failing that particular test drive. In such a case, the software developer is strongly recommended to go back to the sandbox mode to test the EBS against all the tests required by the MRA test script. Thereafter, when the EBS in a sandbox mode has passed all of the tests in the MRA test script, the software developer may then change its mode to “Test Drive” in order to attempt the test drive again.

## 5.6. Self-certification of EBS by software developer

Software developers will have to diligently carry out the appropriate changes to their EBS to make them CEMS-Betting compliant in Mauritius. Once an EBS has been tested to the satisfaction of the software developer and has passed the abovementioned self-certification test (that is, the test drive), the software developer will be required to inform MRA on the MRA Secure Hub Portal that the EBS is now compliant with the MRA CEMS-Betting in Mauritius. This is done by downloading the EBS Declaration Form, completing it, and uploading a scanned version of the signed form to the portal.

Note that MRA is **not** a certifying body for EBS. The onus is on software developers to certify that their EBS is compliant with the MRA CEMS-Betting.

## 6. Recommended User Journey on the MRA Secure Hub Portal

STEP	DESCRIPTION of STEP
1.	Sign Up on MRA Secure Hub Portal – CEMS-Betting.
2.	Sign In on MRA Secure Hub Portal – CEMS-Betting.
3.	Read and understand the guides for software developers.
4.	Register User Profile on MRA Secure Hub Portal.
5.	After receipt of email notifying that MRA has completed the user registration process, register the EBS which needs to be made compliant with the MRA CEMS-Betting.
6.	Make necessary changes to the EBS for it to generate bets in raw JSON format as per the Technical Guide of APIs for MRA CEMS-Betting and data structure of e-receipt for the appropriate licence type.
7.	Make necessary changes to EBS for it to send the encrypted bet details prepared in Step 6.
8.	With the EBS in Sandbox mode, send the encrypted JSON prepared in Step 6 using the published API for bet detail transmission.
9.	Obtain the MRA generated Invoice Registration Number (IRN) and QR Code for the submitted encrypted bet from the API called in Step 8.
10.	Affix the QR Code received in Step 9 at the top of the receipt (physically printed receipt) to be provided to the punter.
11.	Repeat Steps 8 to 10 for a comprehensive set of testing scenarios (including MRA test script).
12.	Change the EBS mode from “Sandbox” to “Test Drive” when EBS is found to be ready for the Test Drive.
13.	Prepare bet transactions as per MRA test script provided on the MRA Secure Hub Portal.
14.	Perform the Test Drive using the bet transactions prepared in Step 13.
15.	Repeat Steps 13 to 14 for all test scenarios on the MRA Test Script.
16.	View results of Test Drive as and when a test scenario has been completed. Note that failure on any one test scenario requires the Test Drive to be retaken from scratch (Reset Status of an EBS).
17.	If unsuccessful, repeat Test Drive until successful. Go back to Sandbox testing for further tests before re-attempting the Test Drive.
18.	After a successful Test Drive, confirm on the MRA Portal that the EBS tested is now compliant with the MRA CEMS-Betting.