

## Procedure for application and enrollment of a RVM Provider into the Deposit-Return System

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This document describes the necessary steps to apply for enrollment of an automated collection machine (Reverse Vending Machine or RVM) into the Deposit-Return System administrated by RetuRO SGR. This document is addressed to any potential RVM provider (the “**RVM Provider**”), and for internal use and regulations. The RVM Provider is either the producer of such RVM, or merely the provider of the same.

### 1. Initiation.

RetuRO SGR published on its official web site (<https://returosgr.ro/>), under Retailers/ RVM Providers rubric, the “Specifications and Requirements for Reverse Vending Machines” (the “**RVM Specifications**”).

All RVMs used within the Romanian Deposit-Return System (DRS) must comply with the regulations in the RVM Specifications and in its appendices, if the case may be (with the note that such appendices will be published under the same section as the RVM Specifications). The RVM Provider (and producer, as the case may be) must carefully read the RVM Specifications and its appendices as well as this comprehensive document before initiating the process. Any questions or comments regarding this document or the any of its attachments can be sent to RetuRO at [office@returosgr.ro](mailto:office@returosgr.ro).

### 2. Self-certification.

RVM Providers shall complete a Self-Certification process, which consists in the filling in and signing of a document entitled “**Self-Certification for RVM Provider**” (“**Self-Certification document**”) which shall be provided to RetuRO SGR.

Self-Certification is completed in order to confirm conformity with the requirements from the document “**Specifications and Requirements for Reverse Vending Machines**”.

**At the same time, the Self-Certification is also completed in order to confirm conformity by the RVM Provider with all requirements in the Procedure for Connecting of an RVM to the DRS IT System of RetuRO.**

The Self-Certification document can be also found on the official web site of RetuRO SGR (<https://returosgr.ro/>), under Retailers/ RVM Providers - “Self-Certification for RVM Provider”.

The Self-Certification document contains:

- A. **Essential Information and Criteria**, like Expertise and Experience, Range of Services Offered and Quality Assurance and Support. All these rubrics must be completed by the RVM Provider.
- B. **Mandatory Technical Requirements**, specified in the RVM Specifications document. [•]

### **3. IT Connection testing.**

All RVMs should be available online through a standard method of digital electronic communication and be aligned with the RVM Specifications

RetuRO, through IT Department will provide APIs for communication with RVMs. An RVM must be capable to securely connect to the RetuRO API (using HTTPS). Testing communication capabilities will be done in a UAT environment by the RVM Provider under RetuRO IT Department direct supervision.

Before moving to deployment/operation, RetuRO must validate the integration and provide official sign-off:

RetuRO Validation: RetuRO will validate the integration by verifying that the new RVM machines function correctly within the UAT environment. This includes ensuring all technical and operational requirements are met.

#### **API Documentation and Configuration:**

- A) API Documentation: RetuRO will provide the new RVM Provider with the documentation for all required APIs. This includes endpoints and configurations necessary for communication between the RVM machines and the RetuRO system.
- B) API Configuration: To assist with a proof of concept (PoC), RetuRO can configure a test RVM using a different model from another RVM Provider, as the serial number of the machine is the key attribute in API communication. This can serve as a preliminary setup for testing purposes.

API changes are not recommended due to the potential for complications, data inconsistencies, and disruptions to the overall system.

#### **Machine Setup and Return Point Configuration:**

- A) Machine Configuration (Testing Phase): For the initial setup and testing purposes, RetuRO will create a dummy return point on the portal. Instead of setting up new machines right away, we will modify the serial number of an existing machine to simulate the new RVM Provider's device. This allows us to test the system's functionality and data flow without affecting production.
- B) Return Point Setup (Testing Phase): RetuRO will assign this dummy return point to the RVM Provider's machine during the testing phase, ensuring that data from the modified serial number is correctly mapped in the system for testing purposes. This ensures the communication between the dummy RVM machine, and the system can be validated before moving forward.

#### **Implementation Phase of physical RVM**

- A) Device's configuration will be implemented in DRS UAT system. This integration will be part of the planned release schedule.

RVM Supplier	Model Name	Glass - bin type	Commingled - bag type
		BinHalfPallet	BagQuarterPallet
		BinFullPallet	BagHalfPallet
			BagFullPallet

- B) RetuRO will assign these return points to the corresponding machines, ensuring accurate and real-time data communication between the new RVM machines and the RetuRO DRS system. This will ensure that the machines are fully operational and integrated into the system after the UAT testing has been completed and validated.

### **Deployment**

The deployment will only proceed after RetuRO provides official sign-off. This confirms that all testing has been successful, and the new machines are ready for deployment in a live environment.

- A) Deployment and API Keys: will release the integration into the live environment, and deployment xAPI keys will be issued to the new RVM Provider.
- B) Retailer Notification: RetuRO will notify retailers that the new RVM Provider's machines are fully integrated and can now be registered in the system.

Official Sign-Off by RetuRO: The deployment will only proceed after RetuRO provides official sign-off. This confirms that all testing has been successful, and the new machines are ready for deployment in a live environment.

### **4. Physical inspection**

After completing self-certification and passing IT connection testing, a representative from RetuRO Operational Department is physically inspecting onsite the RVMs at RVM Provider.

### **5. Final review and sign-off**

RetuRO is compiling results from the Self-certification document, the IT connection tests and the onsite inspection.

The necessary approvals from relevant departments of RetuRo – Commercial Department, IT Department and Operational Department of RetuRO - will validate the machine for public use.