





Botswana Research and Education Network

**Botswana Identity Federation  
Metadata Registration Practice  
Statement (MRPS)**

**Document Control**

<b>Role</b>	<b>Name</b>	<b>Title</b>	<b>Date</b>	<b>Signature</b>
Prepared by	Bofelo McFadden	Network Systems Engineer	18 March 2025	
Approved by	Tshepo Tsheko	Managing Director	01 April 2025	

*This template document is license under Creative Commons CC BY 3.0. You are free to share, re-use and adapt this template as long as attribution is given. This document draws on work carried out by the UK Access Management Federation and the ACOnet Identity Federation with gratitude.*

## Revision Control

<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Description of Changes</b>
1.0	18 March 2025	Bofelo McFadden	Initial draft
2.0			

## Definitions and Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119].

**Federation:** A network of organizations that securely share user and resource information for collaboration.

**Federation Member:** An organization that joins the Federation by agreeing to its policies.

**Federation Operator:** The entity managing authentication, authorization, and infrastructure for the Federation.

**Federation Policy:** A document outlining the rights, responsibilities, and rules for Federation members and the operator.

**Entity:** A registered component (e.g., Identity Provider or Service Provider) described in metadata.

**Registry:** The system used by the Federation Operator to manage entity metadata.

**Registered Representatives:** Authorized individuals acting on behalf of a Federation Member.

## Table of Contents

Document Control.....	i
Revision Control.....	ii
Definitions and Terminology .....	iii
1. Introduction and Applicability .....	1
2. Member Eligibility and Ownership .....	1
3. Metadata Format .....	2
4. Entity Eligibility and Validation .....	3
4.1 Entity Registration .....	3
4.2 EntityID Format .....	3
4.3 Entity Validation .....	3
5. Entity Management.....	4
5.1. Entity Change Requests .....	4
5.2. Unsolicited Entity Changes.....	4
6. References.....	5

## **1. Introduction and Applicability**

This document describes the metadata registration practices of the Botswana Identity Federation (BIF), effective from the publication date shown on the cover sheet. All new entity registrations performed on or after that date SHALL be processed according to these practices until the document is superseded.

This document SHALL be published on the BIF website: <https://botsren.org/bw/index.php/botswana-identity-federation/> . Updates to the documentation SHALL be accurately reflected in the entity metadata.

An entity that does not include a reference to a registration policy MUST be assumed to have been registered under an historic, undocumented registration practice regime. Requests to re-evaluate a given entity against the current MRPS MAY be made to the Federation helpdesk.

## 2. Member Eligibility and Ownership

Members of BIF are eligible to use the Federation Operator's registry to register entities. Registration requests from other sources SHALL NOT be accepted.

The procedure for becoming a member of the Federation as an Identity Provider is documented at: <https://botsren.org.bw/index.php/how-to-join-as-an-idp/>.

The procedure for becoming a member of the Federation as a Service Provider is documented at: <https://botsren.org.bw/index.php/how-join-as-an-sp/>.

The membership procedure verifies the prospective member's legal capacity and requires all members to enter into a contractual relationship with the Federation Operator by agreeing to the Federation policy. The Operator verifies the legal name provided using official databases.

The process also identifies and verifies Registered Representatives, who are permitted to act on behalf of the organization in dealings with the Federation Operator.

The canonical name of a member MAY change during the membership period, for example, due to corporate name changes or mergers. The member's canonical name is disclosed in the entity's < **md: *OrganizationName*** > element.

### 3. Metadata Format

Metadata for all entities registered by the Federation Operator SHALL use the [SAML-Metadata-RPI-V1.0] metadata extension to indicate that the Federation Operator is the registrar for the entity and to detail the version of the MRPS statement that applies to the entity. The following is a non-normative example:

```
< md:EntityDescriptor xmlns:md = "urn:oasis:names:tc:SAML:2.0:metadata" >
    < md:Extensions >
        < rpi:RegistrationInformation xmlns:rpi
            = "urn:oasis:names:tc:SAML:2.0:metadata:rpi" >
            < rpi:MRPSVersion > 1.0 </rpi:MRPSVersion >
        </rpi:RegistrationInformation >
    </md:Extensions >
    ...
</md:EntityDescriptor
```



## **4. Entity Eligibility and Validation**

### **4.1 Entity Registration**

The process by which a Federation member can register an entity is described at: <https://botsren.org/bw/index.php/botswana-identity-federation/>.

The Federation Operator SHALL verify the member's right to use domain names in relation to entityID attributes.

The right to use a domain name SHALL be established in one of the following ways:

- A member's canonical name matches registrant information shown in DNS. This information will be retrieved using the WHOIS query tool.
- A member MAY be granted the right to use a specific domain name through a permission letter from the domain owner on a per-entity basis. Permission SHALL NOT include the right to use sub-domains.

### **4.2 EntityID Format**

The values of the entityID attribute MUST be an absolute URL using the http, https, or urn schemes. The https-scheme URLs are RECOMMENDED.

### **4.3 Entity Validation**

Upon entity registration, the Federation Operator SHALL carry out entity validation checks. These checks include:

- Ensuring all required information is present in the metadata;
- Ensuring metadata is correctly formatted;
- Ensuring protocol endpoints are protected with TLS/SSL certificates.

## **5. Entity Management**

Once a member has joined the Federation, any number of entities MAY be added, modified, or removed by the organization.

### **5.1. Entity Change Requests**

Any request for entity addition, change, or removal from Federation members needs to be communicated from or confirmed by their respective Registered Representatives via email.

### **5.2. Unsolicited Entity Changes**

The Federation Operator may amend or modify the Federation metadata at any time in order to:

- Ensure the security and integrity of the metadata.
- Comply with inter-Federation agreements.
- Improve interoperability.
- Add value to the metadata.
- Changes will be communicated to Registered Representatives for the entity.

## 6. References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels," BCP 14, RFC 2119, March 1997.
- [SAML-Metadata-RPI-V1.0] SAML V2.0 Metadata Extensions for Registration and Publication Information Version 1.0. OASIS Committee Specification 01. <http://docs.oasis-open.org/security/saml/Post2.0/saml-metadata-rpi/v1.0/cs01/saml-metadata-rpi-v1.0-cs01.html> .
- [SAML-Metadata-OS] OASIS Metadata for the OASIS Security Assertion Markup Language (SAML) V2.0: <http://docs.oasis-open.org/security/saml/v2.0/saml-metadata-2.0-os.pdf> .
- Botswana Identity Federation Policy <https://botsren.org/bw/wp-content/uploads/2025/04/Botswana-Identity-Federation-Policy.pdf>