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                    **DRIP Registry HTTP Interface**

## Abstract

   This document defines an HTTP based interface using either JSON or
   CBOR for object encodings for the DRIP Registry from a DRIP
   Provisioning Agent (DPA) to support DRIP Entity Tag (DET) and its
   additional information registration into a DRIP Identity Management
   Entity (DIME). The Registry is a logically required component of a
   DIME that handles the various DNS functions for DRIP registration
   and lookup using DETs.

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   This Internet-Draft is submitted in full conformance with the
   provisions of BCP 78 and BCP 79.

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## 1.  Introduction

The Registry is one of the required components in a DIME for it to
fulfill the role of registration of DRIP Entity Tags (DETs) of
clients. A standardized interface is needed for this to avoid
interoperability issues between vendors supporting DRIP and the
various logical components of the DIME.

Per [drip-detim] the Registry MUST:

> provided an interface for interactions with the DPA. This
> interface MAY be over HTTPS using JSON/CBOR encoding ...

This document is the definition of this interface and its behavior;
specifically between the Registry and a DPA. A snapshot of the
OpenAPI specification is in Appendix A at the time of this documents
publishing; with a URI to access an updated specification.

## 2.  Terminology

### 2.1.  Required Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
"SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and
"OPTIONAL" in this document are to be interpreted as described in
BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all
capitals, as shown here.

## 3.  Endpoint Definitions & Behavior

All endpoints that send DRIP Endorsements use the JSON/CBOR forms as specified in [drip-detim].

If there is any failure during validation in any endpoint a HTTP 400 code MUST be sent to the client with a detailed reason for the error.

### 3.1.  Serial Number

TODO

### 3.2.  Operator

TODO

### 3.3.  Ground Control Station

TODO

### 3.4.  Session ID

TODO

### 3.5.  Child DIME

TODO

## 4.  Normative References

[drip-detim] Wiethuechter, A., Card, S. W., Moskowitz, R., and J. Reid, "DRIP Entity Tag (DET) Identity Management Architecture", Work in Progress, Internet-Draft, draft-wiethuechter-drip-detim-arch-00, 27 September 2022, <https://www.ietf.org/archive/id/draft-wiethuechter-drip-detim-arch-00.txt>.

[RFC2119]  Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <https://www.rfc-editor.org/info/rfc2119>.

[RFC8174]  Leiba, B., "Ambiguity of Uppercase vs Lowercase in RFC 2119 Key Words", BCP 14, RFC 8174, DOI 10.17487/RFC8174, May 2017, <https://www.rfc-editor.org/info/rfc8174>.

[RFC9153]  Card, S., Ed., Wiethuechter, A., Moskowitz, R., and A. Gurtov, "Drone Remote Identification Protocol (DRIP) Requirements and Terminology", RFC 9153, DOI 10.17487/

RFC9153, February 2022, <https://www.rfc-editor.org/info/rfc9153>.

## Appendix A.  OpenAPI Specification

TODO

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