Workgroup: Delay-Tolerant Networking
Internet-Draft:
draft-sipos-dtn-bpv7-admin-iana-00
Updates: -ietf-dtn-bpbis (if approved)
Published: 13 October 2021
Intended Status: Standards Track
Expires: 16 April 2022
Authors: B. Sipos
JHU APL

# Bundle Protocol Version 7 Administrative Record Types Registry

## Abstract

This document clarifies that a Bundle Protocol Version 7 agent is intended to use an IANA sub-registry for Administrative Record types. It also makes a code point reservation for private or experimental use.

## Status of This Memo

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

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at https://datatracker.ietf.org/drafts/current/.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on 16 April 2022.

**Table of Contents**



## 1. Introduction

The earlier Bundle Protocol (BP) Version 6 (BPv6) defined an IANA sub-registry for Administrative Record type code points under [IANA-BP]. When Bundle Protocol Version 7 (BPv7) was published in [I-D.ietf-dtn-bpbis] it included an explicit table of Administrative Record types but made no mention of an IANA registry nor a requirement for BPv7 agents to be extensible in how they handle Administrative Record types. The BPv7 specification also did not discriminate between code point reservations and unassigned ranges for Administrative Record types.

This document updates BPv7 to explicitly use the IANA Administrative Record type registry in Section 2. This document also makes a reservation of high-valued code points for private or experimental use to avoid collisions with assigned code points.

### 1.1. Scope

This document describes updates to the IANA Administrative Record type sub-registry and how a BPv7 agent is supposed to use that registry for identifying Administrative Record types.

This document does not specify how BPv6 and BPv7 can interoperate for overlapping code points or how a specific code point is to be interpreted either similarly or differently between Bundle Protocol versions. It is up to each individual Administrative Record type specification to define how it relates to each BP version.

### 1.2. 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.

## 2. Administrative Record Types Registry

This document updates the requirements in Section 6.1 of [I-D.ietf-dtn-bpbis] to use an existing IANA registry and updates that sub-registry in Section 4.1.

Instead of using the explicit list of types in Table 3 of [I-D.ietf-dtn-bpbis], a BPv7 Agent **SHALL** interpret Administrative Record type code values in accordance with the IANA "Bundle Administrative Record Types" sub-registry under [IANA-BP] for entries having a "Bundle Protocol Version" of 7.

## 3. Security Considerations

This document does not define any requirements or structures which introduce new security considerations.

The existing security considerations of [I-D.ietf-dtn-bpbis] still apply when using the IANA Administrative Record Types sub-registry.

## 4. IANA Considerations

This specification modifies a BPv6 sub-registry to extend BPv7.

### 4.1. Bundle Administrative Record Types

Within the "Bundle Protocol" registry [IANA-BP], the "Bundle Administrative Record Types" sub-registry has been updated to include a leftmost "Bundle Protocol Version" column. The existing sub-registry entries have been updated to have BP versions as in the following table.

| Bundle Protocol Version | Value | Description | Reference |
|---|---|---|---|
| 6,7 | 0 | Reserved | [RFC7116] |
| 6,7 | 1 | Bundle status report | [RFC5050] [I-D.ietf-dtn-bpbis] |
| 6 | 2 | Custody signal | [RFC5050] |
| 6,7 | 3-15 | Unassigned | |

Table 1

Within the "Bundle Protocol" registry [IANA-BP], the following entries have been added to the "Bundle Administrative Record Types" sub-registry.

| Bundle Protocol Version | Value | Description | Reference |
|---|---|---|---|
| 7 | 16-65535 | Unassigned | |
| 7 | greater than 65535 | Reserved for Private or Experimental Use | This specification |

Table 2

## 5. Acknowledgments

## 6. References

### 6.1. Normative References


**[IANA-BP]** IANA, "Bundle Protocol", <https://www.iana.org/assignments/bundle/>.

**[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>.

**[I-D.ietf-dtn-bpbis]** Burleigh, S., Fall, K., and E. J. Birrane, "Bundle Protocol Version 7", Work in Progress, Internet-Draft, draft-ietf-dtn-bpbis-31, 25 January 2021, <https://datatracker.ietf.org/doc/html/draft-ietf-dtn-bpbis-31>.


### 6.2. Informative References


**[RFC5050]** Scott, K. and S. Burleigh, "Bundle Protocol Specification", RFC 5050, DOI 10.17487/RFC5050, November 2007, <https://www.rfc-editor.org/info/rfc5050>.

**[RFC7116]** Scott, K. and M. Blanchet, "Licklider Transmission Protocol (LTP), Compressed Bundle Header Encoding (CBHE), and Bundle Protocol IANA Registries", RFC 7116, DOI 10.17487/RFC7116, February 2014, <https://www.rfc-editor.org/info/rfc7116>.


## Author's Address


Brian Sipos
The Johns Hopkins University Applied Physics Laboratory
11100 Johns Hopkins Rd.
Laurel, MD 20723

United States of America

Email: brian.sipos+ietf@gmail.com