Content Delivery Network Interconnection (CDNI) Request Routing: CDNI Footprint and Capabilities Advertisement using ALTO

draft-ietf-alto-cdni-request-routing-alto-06

J. Seedorf
Y. Richard Yang
Kevin Ma
J. Peterson
X. Lin
J. Jensen Zhang

Changes of CDNI FCI from -06 to -08

- Text edit, in particular, consistent use of terminology

    - Thorough check of internal use

    - Updates to be consistent with dependency (e.g., the Unified Property document)

Consistent Use of Terminology (Same Document)

Example

Consistent Use of Terminology (w/ Other Documents)

Unified Property Service -> Property Map Service

Left version:

6. Query Footprint Properties using ALTO Unified Property Service

    Above sections describe how a uCDN can get the whole capabilities and footprints from dCDNs and how a uCDN can get the footprints of given capabilities. But there is another important case which is how a uCDN can get properties (i.e., capabilities) of given footprints.

    The most natrual way to solve this problem is to use ALTO unified property map defined in [I-D.ietf-alto-unified-props-new] since footprints can be easily presented as groups of entities and Filtered Property Maps are already well-defined. In this section, we describe how ALTO clients look up properties for individual footprints. We firstly describe how to represent footprint objects as unified property map entities, and then we provide examples of the full property map, the filtered property map and the incremental updates.

Right version:

6. Query Footprint Properties using ALTO Property Map Service

    Besides retrieving footprints of given capabilities, another common requirement for uCDN is to query CDNI capabilities of given footprints.

    Considering each footprint as an entity with properties including CDNI capabilities, the most natrual way to satisfy this requirement is to use the ALTO property map defined in [I-D.ietf-alto-unified-props-new]. In this section, we describe how ALTO clients look up properties for individual footprints. We firstly describe how to represent footprint objects as entities in the ALTO property map. And then we provide examples of the full property map and the filtered property map supporting CDNI capabilities, and their incremental updates.

Consistent Use of Terminology (w/ Other Documents)

Entity Address -> Entity Identifier

6.1.1. ASN Domain

This document specifies a new entity domain type in addition to the ones in [I-D.ietf-alto-unified-props-new]. ASN is the abbreviation of Autonomous System Number.

6.1.1.1. Entity Domain Type

    asn

6.1.1.2. Domain-Specific Entity Addresses

The entity address of asn domain is encoded as a string consisting of the characters "as" (in lowercase) followed by the ASN [RFC6793].

6.1.1. ASN Domain

The ASN domain associates property values with Autonomous Systems in the Internet.

6.1.1.1. Entity Domain Type

    asn

6.1.1.2. Domain-Specific Entity Identifiers

The entity identifiers of entities in an asn domain is encoded as a string consisting of the characters "as" (in lowercase) followed by the Autonomous System Number [RFC6793].

Consistent Use of Terminology (w/ Other Documents)

ALTO Entity Domain Registry -> ALTO Entity Domain Type Registry

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8.2.  ALTO Entity Domain Registry

   As proposed in Section 9.2 of [I-D.ietf-alto-unified-props-new],
   "ALTO Entity Domain Registry" is requested.  Besides, two new domains
   are to be registered, listed in Table 2.

   +--------------+----------------------+-----------------------+
   | Identifier   | Entity Address Encoding | Hierarchy & Inheritance |
   +--------------+----------------------+-----------------------+
   | asn          | See Section 6.1.1.2  | None                  |
   | countrycode  | See Section 6.1.2.2  | None                  |
   +--------------+----------------------+-----------------------+

                  Table 2: ALTO Entity Domain

8.3.  ALTO CDNI FCI Property Type Registry

   The "ALTO CDNI FCI Property Type Registry" is required by the ALTO
   Entity Domain "asn", "countrycode", "pid", "ipv4" and "ipv6", listed
   in Table 3.
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7.2.  ALTO Entity Domain Type Registry

   As proposed in Section 11.2 of [I-D.ietf-alto-unified-props-new],
   "ALTO Entity Domain Type Registry" is requested.  Besides, two new
   entity domain types are to be registered, listed in Table 2.

   +--------------+----------------------+-----------------------+
   | Identifier   | Entity Address Encoding | Hierarchy & Inheritance |
   +--------------+----------------------+-----------------------+
   | asn          | See Section 6.1.1.2  | None                  |
   | countrycode  | See Section 6.1.2.2  | None                  |
   +--------------+----------------------+-----------------------+

                  Table 2: ALTO Entity Domain Types

7.3.  ALTO Entity Property Type Registry

   As proposed in Section 11.3 of [I-D.ietf-alto-unified-props-new],
   "ALTO Entity Property Type Registry" is required.  Besides, a new
   entity property type is to be registred, listed in Table 3.
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Summary of Status and Next Steps

- Summary: Document is quite stable
- Next steps:
  - Waiting for comments from CDNI WG
  - WGLC Request