draft-ietf-stephan-cdi-usecases-metadata-00
IETF82 – Taipei
WG CDNi

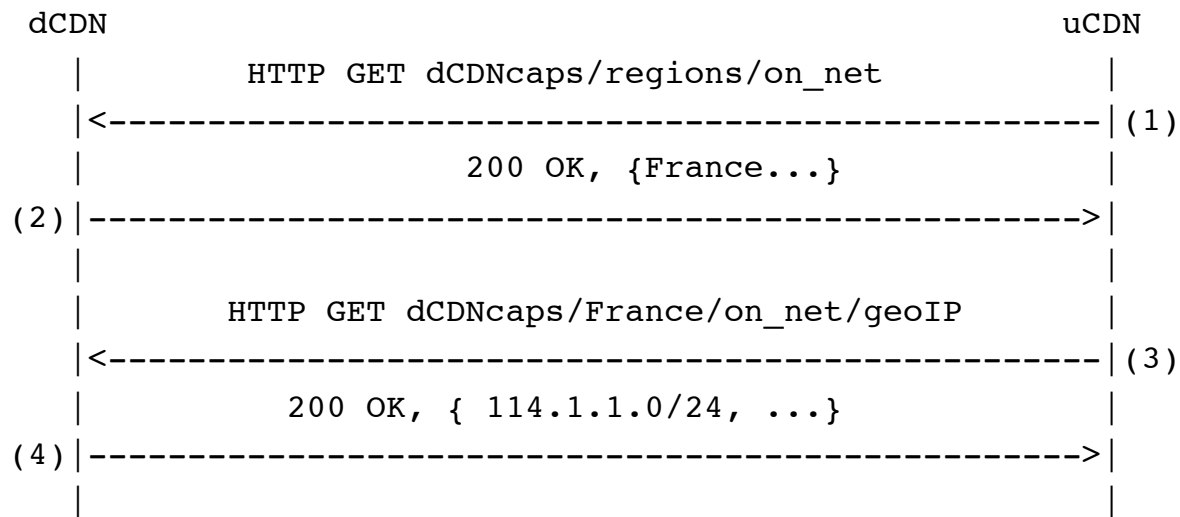E. Stephan, G. Bertrand, F. Fieau, R. Pages

France Telecom - Orange

Draft Overview

- Proposes a framework for exchanging CDmD
- Checks this approach on CDNi use cases
- Identifies:
  - Operations,
  - Main objects
  - Flag Information elements
- The framework is close to SNIA/CDMI interface

Assumptions

- The metadata presented are not exchanged only on the metadata interface.

```
  dCDN                                                    uCDN
   |           HTTP GET dCDNcaps/regions/on_net            |
   |<---------------------------------------------------|(1)
   |                  200 OK, {France...}                 |
(2)|--------------------------------------------------->|
   |                                                      |
   |         HTTP GET dCDNcaps/France/on_net/geoIP        |
   |<---------------------------------------------------|(3)
   |              200 OK, { 114.1.1.0/24, ...}            |
(4)|--------------------------------------------------->|
   |                                                      |
```

Framework for exchanging CDmD

- RESTful design
  - HTTP/HTTPS CRUD operations and error code,
  - Create, Retrieve, Update, Delete based on PUT, GET, POST, DELETE
- Push of CDmD by uCDN to dCDN
- Existing Datamodeling Languages
  - XML, JSON, RELAX NG or YANG/NETCONF datamodels
- Objects Extensibility

CDmD Objects

- Content:
- Standard Region
- Logical Region
- Geoloc
- dCDNcaps
- uCDNcaps

Flags from the use cases

- Content
  - Auto_purge_delay: 'remove the content after delivery + few seconds'
  - immediat_acquisition: 'acquire this content immediately'
- region
  - on_net :'I manage the network of this region'
- dCDNcaps
  - on-the-fly vs batch mode (i.e. a/synchronous actions)
    - Content_acquisition: 'Support acquisition immediately after reception of the CDmD'
    - CDmD_deletion: 'Support the deletion of CDmD immediately at the end of the delivery' ,
    - Content_purge: 'Support automatic purge of content at the end of the delivery'
- uCDNcaps
  - bursty_ interconnection: 'this interconnection is sparsely used'

Discussions

- RESTful interface ?

- Push mode only?

- Which datamodeling language ?

- Standard administrative names of geographic area like country, region,… like defined ISO 3166-2 ?

- Thoughts on reusing parts of SNIA/CDMI interface ?

- Objects Extensibility need ?

Next Steps

- 'Move' framework section to the CDNi framework draft;

- Merge with other mD drafts;

- Add links (req#) to the requirement draft;

- Capture new flag information elements
  - Add new use cases
  - Add/discuss other call flows

- Analysis of potential alignment on SNIA/CDMI interface