draft-ietf-cdni-use-cases-00
IETF82 – Taipei
WG CDNi

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Draft Overview

- This document outlines three categories of **real world use-cases** for interconnecting CDNs.

- It does not discuss technical solutions.

- These use cases:
  - **Enable checking that CDNI requirements match real needs.**
  - Show the usefulness of work on CDNI enablers in the IETF.

Changes since IETF#81

- Integrating review/comments from:
  - Kent Leung
  - François Le Faucheur
  - And many other people on the mailing list

- Some editing to clarify the text.
  - Cleaning of the **terminology** section
  - Regrouping **delivery restriction** in a new section "5. Policy Enforcement"
  - Extension of the part on **security** issues.

Footprint Extension Use Cases

- **Geographic Extension**
  - Provide services beyond one's own footprint by relying on other CDNs (same country or different countries)
- **Inter-Affiliates Interconnection**
  - Allow CDN service providers with several CDNs in several regions to provide consistent service
  - *Example: FT and TP (Orange group) may interconnect their CDNs*
- **Nomadic Users**
  - Allow users who move to other geographic regions to continue to access their content (although other residents of that region cannot access the content).

Offload Use Cases

- **Overload Handling and Dimensioning**
  - A CDN may interconnect with another CDN to increase its effective prime-time capacity.
  - *Example: CDN1 supports a special event and during the peak traffic related to this event, it offloads requests to CDN2*

- **Resiliency**
  - A CDN service provider (CDSP) may redirect some requests toward another CDN for service continuity during a:
    - content delivery failure
    - content acquisition failure.

CDN Capability Use Cases

- **Vendor Interoperability**
  - A CDN operator may have a multi-vendor strategy for its CDNs and want to expose a single set of interfaces to content providers.

- **CDNs with different features**
  - Generic use case covering the situations where a CDN (CDN1) does not have the features to handle a request, and thus, delegates the request handling to another CDN.

- **QoE and QoS improvement**
  - A CDN that cannot meet the required service level agreement delegates the delivery to a CDN that can, for instance, an Access CDN.

Open Issues

1. Add a use case on CDNI from ISP view point (save bandwidth on peering points, have more control on traffic)

2. Capture discussions on Content Encoding Restrictions
   - **Add a requirement on metadata interface "content may/may not be adapted by dCDN" (cf. Scott's proposal on the list)?**
   - **Remove the section "5.1.3. Content Encoding Restrictions » about content encoding or protocol selection?**

3. Move some of the content policy statements (Section 5) into cdni-reqts

4. Potentially integrate the very specific subset of `draft-fmn-cdni-advanced-use-cases` that relates to the current scope of the WG

5. Clarify the section about nomadic users

6. Clarify Section 3.2.2. "Failure of Content Acquisition"

7. Extend the security section to integrate the ML feedback

8. Finalize the cleaning of the terminology section by pushing relevant definitions to PS and framework draft.

Next Steps

- Dec 2011
  - Submit a new version of the draft integrating the list feedback / solving the open issues

- Jan 2011
  - Issue last call on the list, once the new version is posted (*e.g.,* early Jan).

- Charter targets March 2012 to submit CDNI use cases to IESG as Informational