

draft-ietf-cdni-use-cases-03

IETF83 – Paris

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#82

- Integrating review/comments from:
 - Kent Leung, François Le Faucheur, and many other people on the list
- Main changes since last IETF (three draft updates)
 - Clarifications, outline improvement, abstract/introduction improvements etc.
 - Add use case "**ISP Handling of Third-Party Content**"
 - Capture discussions on Content Encoding Restrictions
 - Extend the security section to integrate the ML feedback
 - Clarify the section about nomadic users
 - Clarify Section 3.2.2. "Failure of Content Acquisition"

Final Modifications

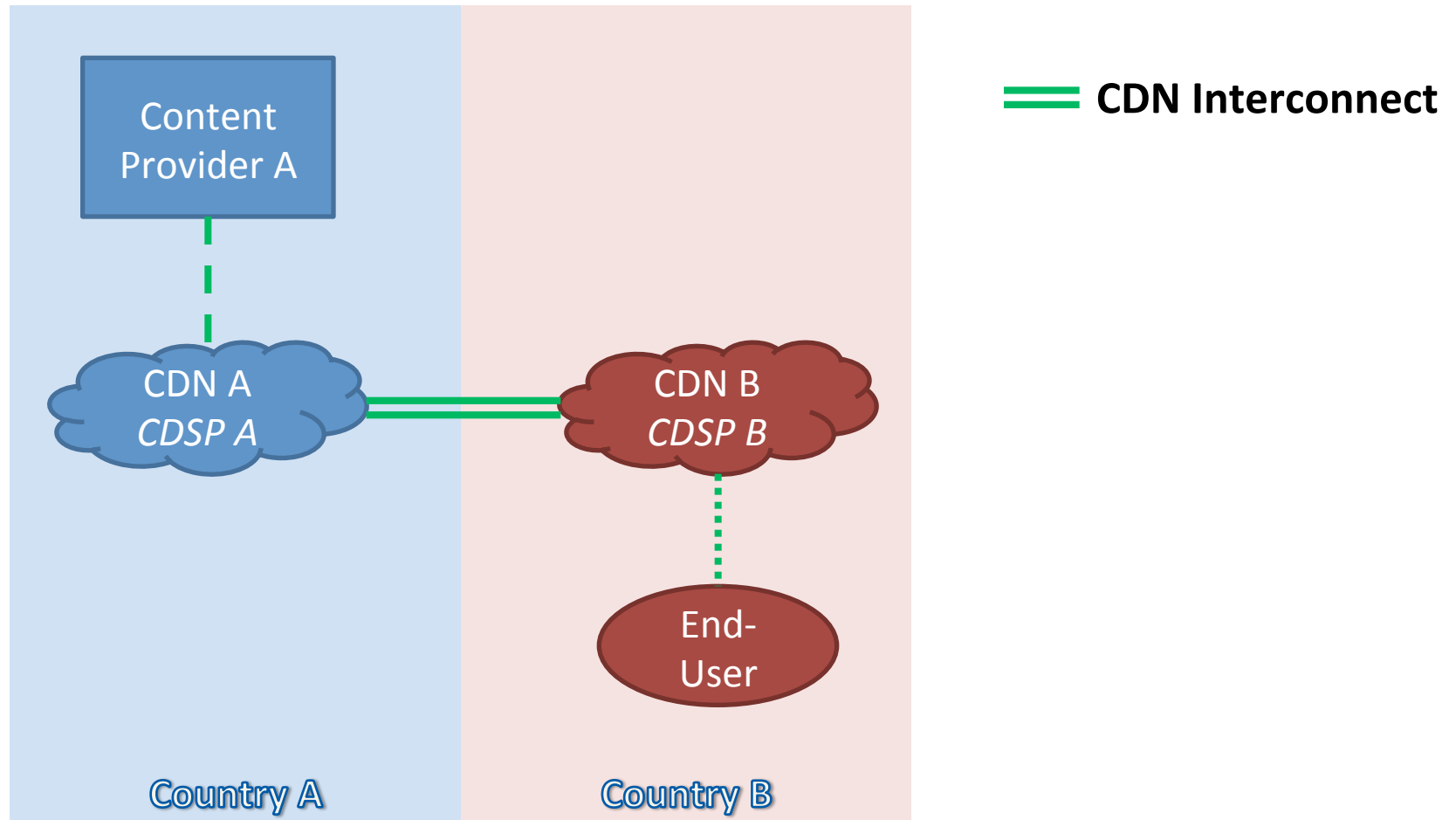
- Final comments received:
 - A few editorial changes as suggested by FLF on the mailing-list
 - Modifications of the section about delivery restrictions
- We have published <http://tools.ietf.org/id/draft-ietf-cdni-use-cases-04.txt> with these final modifications on Monday.
 - We have moved the section about delivery restrictions to Annex A
 - We have rephrased text that looked like requirements

Next Steps

- April 2012
 - Submit CDNI use cases to IESG as Informational

Annex: List of the use cases

Geographic Extension: an Example



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*
- **ISP Handling of Third-Party Content**
 - CDNI agreement between Access and upstream CDN
- **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.