CDNI Requirements
(draft-ietf-cdni-requirements-01)

CDNI Working Group
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Change History

1. Version -00
   – Published on Sept 9, 2011
   – Official CDNI Working Group (WG) draft as Informational document
   – Changes made according to last WG's action items
2. Version -01
   – Published on Oct 19, 2011
   – Resolutions of open issues and WG discussions notified to WG on same day with subject "Proposed update to CDNI requirements draft"
   – Draft's "OPEN ISSUE" resolutions (13)
   – WG comment resolutions (2)

WG Comment #2

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2. >>- I think REQ-2 should be a MUST, and it should be written in the
>>context ofŠ"The Upstream CDN MUST request aggregate information from
>>the Downstream CDN to facilitateŠ"  If it's not a request, then it
>>must go the other way (the Downstream CDN MUST report to the Upstream
>>CDN).
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REQ-2 [MED] The CDNI Request-Routing interface should allow the Downstream CDN to communicate to the Upstream CDN aggregate information to facilitate CDN selection during request routing, such as Downstream CDN capabilities, resources and affinities (i.e. Preferences or cost). This information could, for example, include:
 * supported content types and delivery protocols
 * footprint (e.g. layer-3 coverage)
 * a set of metrics/attributes (e.g. Streaming bandwidth, storage resources, distribution and delivery priority)
 * a set of affinities (e.g. Preferences, indication of distribution/delivery fees)
 * information to facilitate request redirection (e.g. Reachability information of Downstream CDN Request Routing system).

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KL> This requirement can be split into two.  One for mandatory parameters for base
function of CDN selection (e.g. content types, footprint).  The other for optional
parameters that can be useful (e.g. metrics/attributes, affinities). The specific
parameters should be left for the solution draft to deal with.  The "request" and
"report" are RRI pull and push, respectively.  (See terms in framework draft).  In this
requirement description, we've describe it more generically.

After consulting with other authors, the conclusion was that the essential parameters
used for request routing can be configured at the Upstream CDN.  Therefore, Request
Routing Interface support for any of the parameters is considered as optional.

Resolution: No action.
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WG Comment #4

4. >>- Should REQ-4 also be under Section 4 rather than 5?

Reference: [LOW] The CDNI Request-Routing interface may allow the Downstream CDN to communicate to the Upstream CDN aggregate information on CDNI administrative limits and policy. This information can be taken into account by the Upstream CDN Request Routing system in its CDN Selection decisions.

KL> I think there may still be some more debate on which functions belong to RRI vs. Control Interface. If this requirement remains in the Control Interface, it should be moved to Section 5 CDNI Control Interface.

Resolution: Changed "Control interface" to "Request-Routing architecture" in requirement because the information pertains to request routing function.

WG Comment #10

10. >>Also, should there be any mechanism to indicate whether entitlements
>>are an issue to downstream CDNs from the CSP?

KL> Not sure if entitlements have been discussed in the past. Others can chime in.

Not clear if this is covered in the delegation blacklist in META-14 requirement?

Reference: [HIGH] The CDNI Metadata Distribution interface shall allow signaling of content distribution control policies. For example, this could potentially include:

* delegation whitelist/blacklist (i.e. Information defining which downstream CDNs the content may/may not be delivered through)

Resolution: No action

Status

- Quiet since 9/13/2011
- Considered stable unless specific issues are raised
- Potential updates to draft
  - Inputs from draft-manning-cdni-additional-csf-reqs (ATIS CSF requirements)
  - Ongoing discussions on other CDNI drafts (e.g. framework, use cases); Draft authors/editors to track requirement issues