CDNI WG
draft-xiaoyan-cdni-request-routing-protocol-00.txt
IETF82 - TaiPei

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Objective and Scope

➢ The purpose of this document is to define the request routing interface for CDNI, which is one of the main building blocks of the CDN interconnection architecture.

➢ This document only discuss Recursive Request Routing, as the Iterative Request Routing does not invoke any interaction over the request routing interface.

➢ However, a placeholder is reserved for Iterative Request Routing and up to WG to decide if any contents to be added.

Objective and Scope(2)

➢ **This draft focus on implementation of the following two parts of RRI.**

- **Redirection:** which allows an Upstream CDN (uCDN)to query a Downstream CDN (dCDN) at request-routing time to check the willingness of the Downstream CDN for a request delegation before redirecting the request to the Downstream CDN.

- **Footprint & Capabilities Advertisement:** which allow a dCDN to provide an uCDN with information (static or dynamic) about it's footprint, load status etc., to facilitate dCDN selection.

Request Routing Interface- Redirection

➤ Illustrate all the possible variants for recursive request routing procedures based on the relative factors, i.e. routing mechanism of the uCDN and user agent, dCDN and user agent, protocol utilized over the RRI.

➤ Exclude some of the invalid cases according to some filtering rules.

➤ Show flow examples and detailed descriptions of the valid cases.

Request Routing Interface- Footprint & Capabilities Advertisement

➢ List the capability info advertised from a dCDN to an uCDN to facilitate selection of the dCDN.

➢ Two mode are proposed to implement capability advertisement, i.e. Report mode and Query mode.

➢ Message description for capability advertisement is proposed as well.

Comparison with other relevant drafts

- This I-D illustrate several capability information e.g. service status, load, footprint advertised from dCDN to a uCDN, draft-previdi-cdni-footprint-advertisement-00 only discusses footprint obtainment and advertisement.
- This I-D uses combination of country, state and city to represent footprint of a CDN. The proposal of draft-previdi-cdni-footprint-advertisement-00 for same topic is IP address prefix.
- Proposal in draft-seedorf-alto-for-cdni-00 gives another approach for footprint represented by IP address prefix.

Next step

➢ More discussion and possible extension of capability info advertised from a dCDN to an uCDN, e.g. identification of the dCDN

➢ Further review on request routing procedure

➢ More security considerations

➢ Collect and incorporate comments from the WG in a future version