Routing Request Redirection for CDN Interconnection

Draft-he-cdni-routing-request-redirection-02

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Overview

- Was presented in IETF 81st Quebec
- Has been Updated twice since IETF 81st Quebec
- Main Changes
  - Define data which have to be passed in CDNI request routing requests & responses
  - Introduce an HTTP based RESTful interface for CDNI Request Routing

Main Changes (1)

- Data passed in CDNI Request Routing Requests

	DNS Request	HTTP Request
An encapsulation of the User Agent's request	DNS Client IP address	Client IP address
	Type of query	Requested URL
	Real Client IP address(if know)	
	URI of requested content	
Properties that uCDN can use to control the dCDN's response	A link to the associated CDNI Metadata	A link to the associated CDNI Metadata
		Whether to return hostnames or IP address in the redirection URL

Main Changes (1) – Cont.

- Data passed in CDNI Request Routing Responses

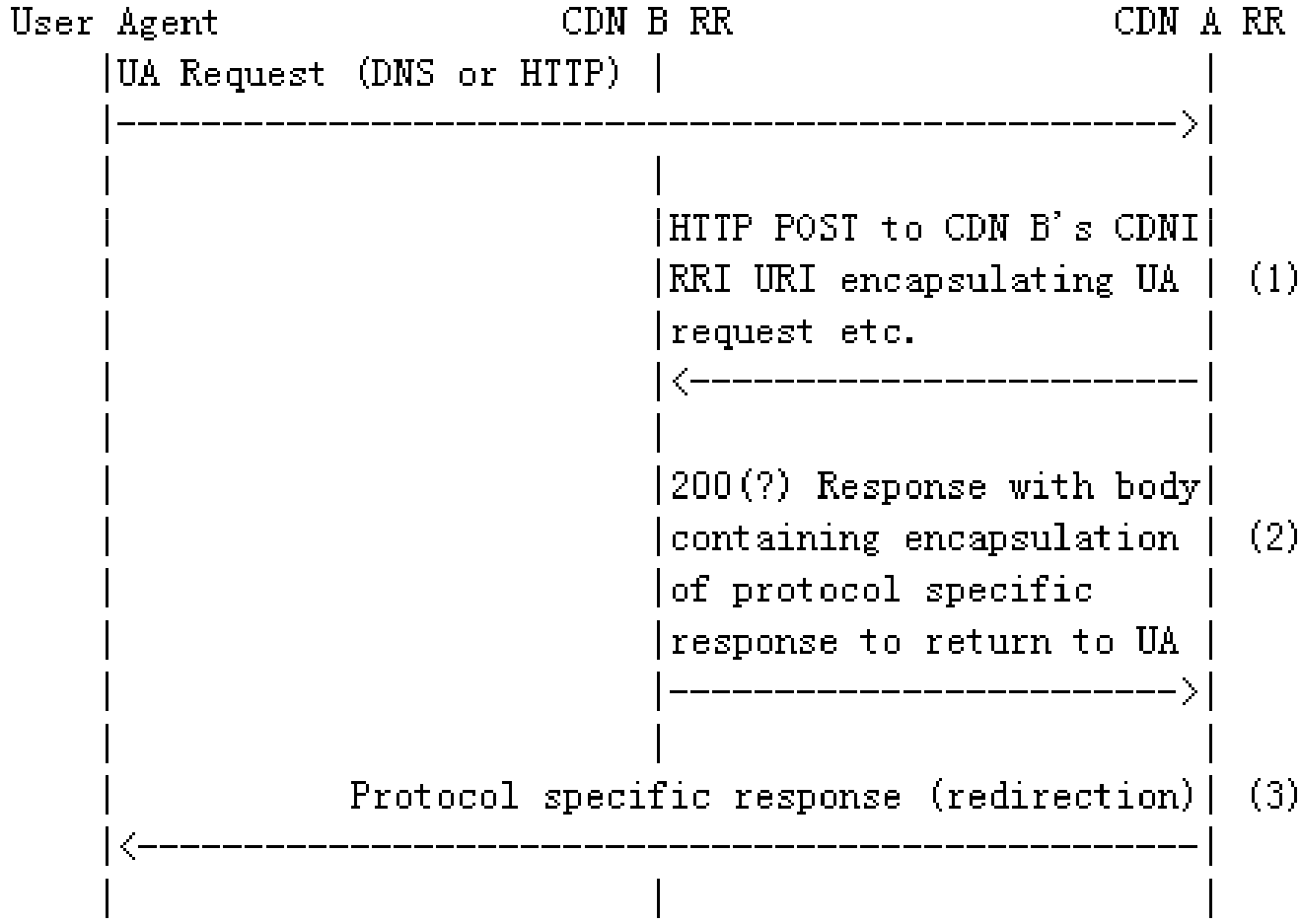
	DNS Response	HTTP Response
An encapsulation of CDNI/HTTP response to the End User	CNAME of the dCDN's Request Router	IP address or hostname of request router
Parameters/policies that indicate the properties of the response	Parameter that indicate whether the response is cacheable	
	Parameter that indicate how long to reduce the number of subsequent CDNI request routing requests the uCDN needs to make	
	Parameter that indicate the scope of the response (if it is cacheable), e.g., does it apply to a wider range of client IP addresses or URIs than one in the request	

Main Changes (2)

- The same RESTful interface is used for both DNS and HTTP redirection of User Agent's requests.
- It enables CDN operators to only have to deploy a single (RESTful) interface for request routing between their CDNs, regardless of the User Agent redirection method.
- The interface is easily extendable to support other User Agent request redirection methods.

Main Changes (2) – Cont.

- The general call flow between Request Routers between two interconnected CDNs



Next Step

- Detailed protocol specification
- Future design of the HTTP based RESTful Interface

Any Questions?