

CDNi Request Routing Redirection Interface (RI) extension

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Overview

- A new CDNi internet draft about extending RFC 7975
- As part of the Redirection Interface (RI)
- For adding new recursive request routing capabilities
 - Manifest rewrite support
 - Dealing with simple HTTP proxy request mode
- Do not extend the DNS based redirection

Rational – Problem

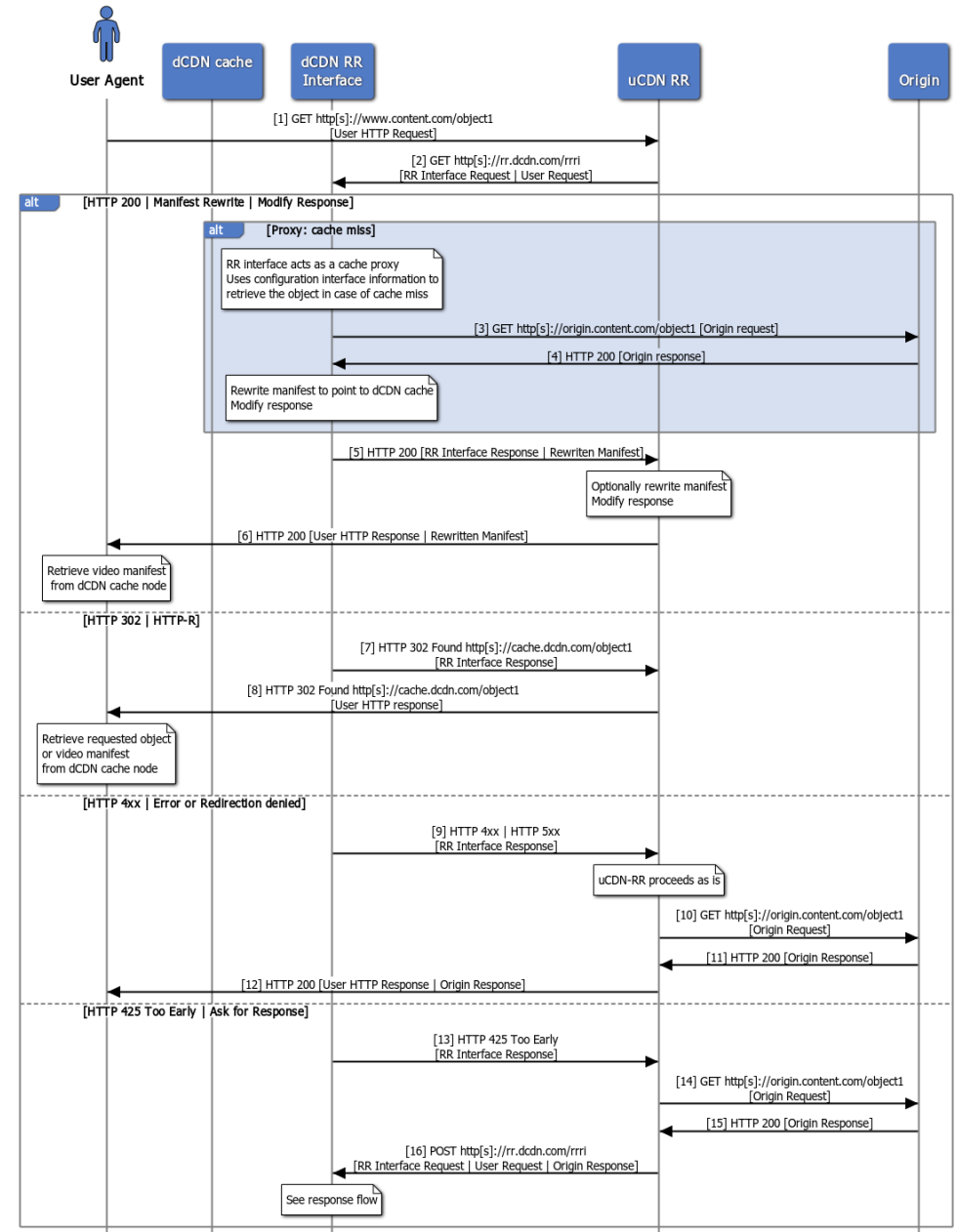
- The dCDN can only provide a URI for redirection
 - No possibility to support « manifest rewrite » redirection
- The dCDN does not support dealing with the user request directly
 - It adds unnecessary latency
- The dCDN (request router) might have no possibility to access the content source
 - It precludes request routing based on the response (e.g. manifest information)

Rational - Proposal

- uCDN performs a Redirection request
 - After receiving the user's request (request-driven mode)
 - Before sending the response back to the user (response-driven mode)
- Request-driven mode
 - uCDN acts as a HTTP proxy forwarding the request to the dCDN
- Response-driven mode
 - uCDN builds the response and post it to the dCDN for a potential update

Request-driven mode

- uCDN acts as a HTTP proxy forwarding the request to the dCDN
- dCDN MAY acts as HTTP proxy forwarding the request to the content source
- dCDN builds the response
 - Success: HTTP redirect
 - Success: content (manifest)
 - Error (4xx/5xx): the uCDN builds the response
 - Error (425): the uCDN proceeds with Response-driven mode



Response-driven mode

- uCDN builds the request (POST) to the dCDN
 - Attached the prepared response to the original request (POST body)
- dCDN modifies the prepared response and sends it back to the uCDN
- uCDN MAY modify the original response possibly modified by the dCDN
- uCDN sends the final response to the original requester

