

The Streaming Video Technology Alliance

Request Routing Interface



Problem Statement

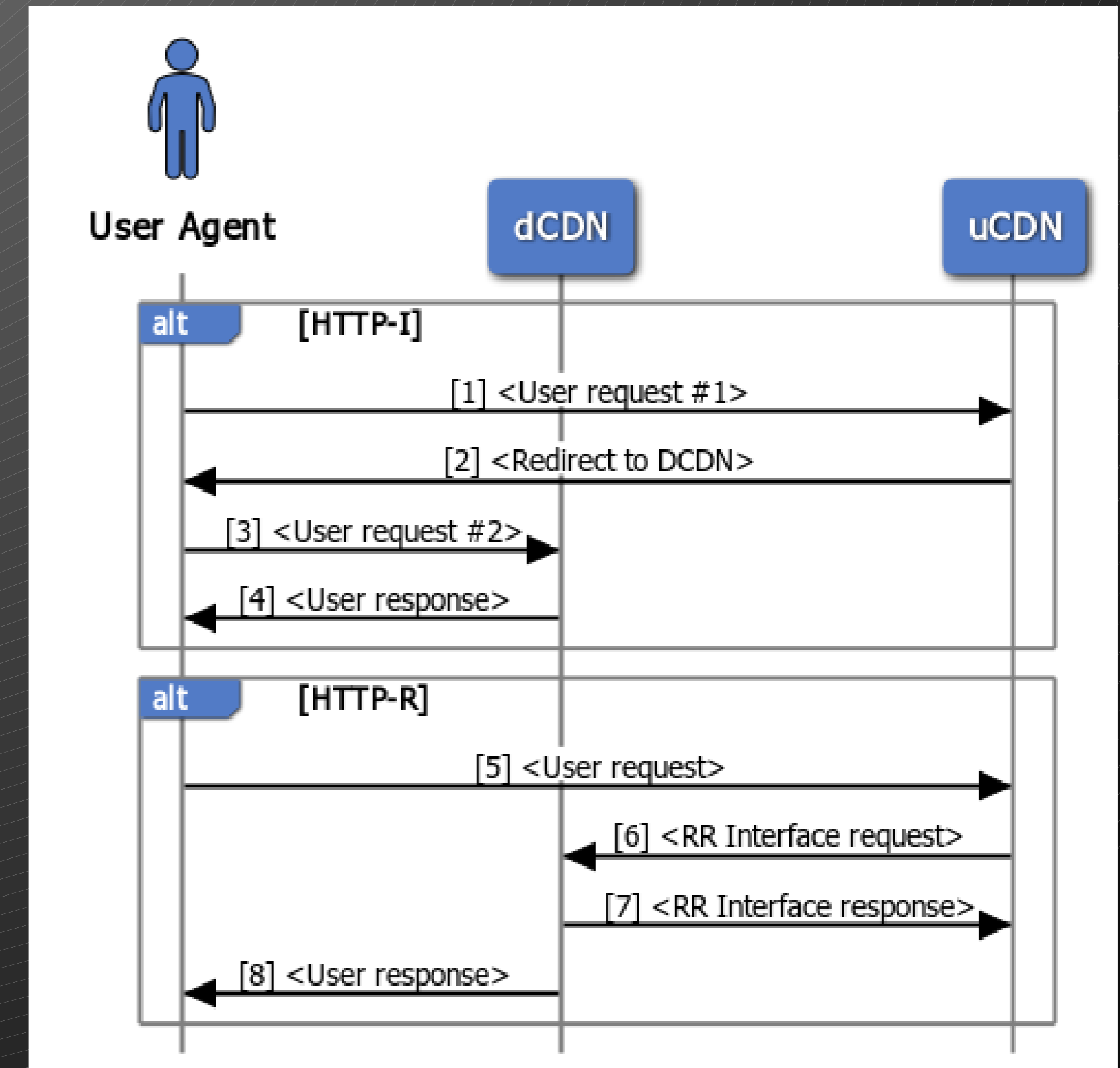
Open Caching implementations require recursive request routing (HTTP-R)

- Latency reduction
- uCDN-side content control e.g. server-side ad insertion (SSAI)
- Session-by-session admission control

HTTP-R specified by RFC7975

Simple JSON request encoding for DNS-R and HTTP-R

- Basic request only
- No latency reduction
- Complex to implement
- Request-only



Request Routing Interface

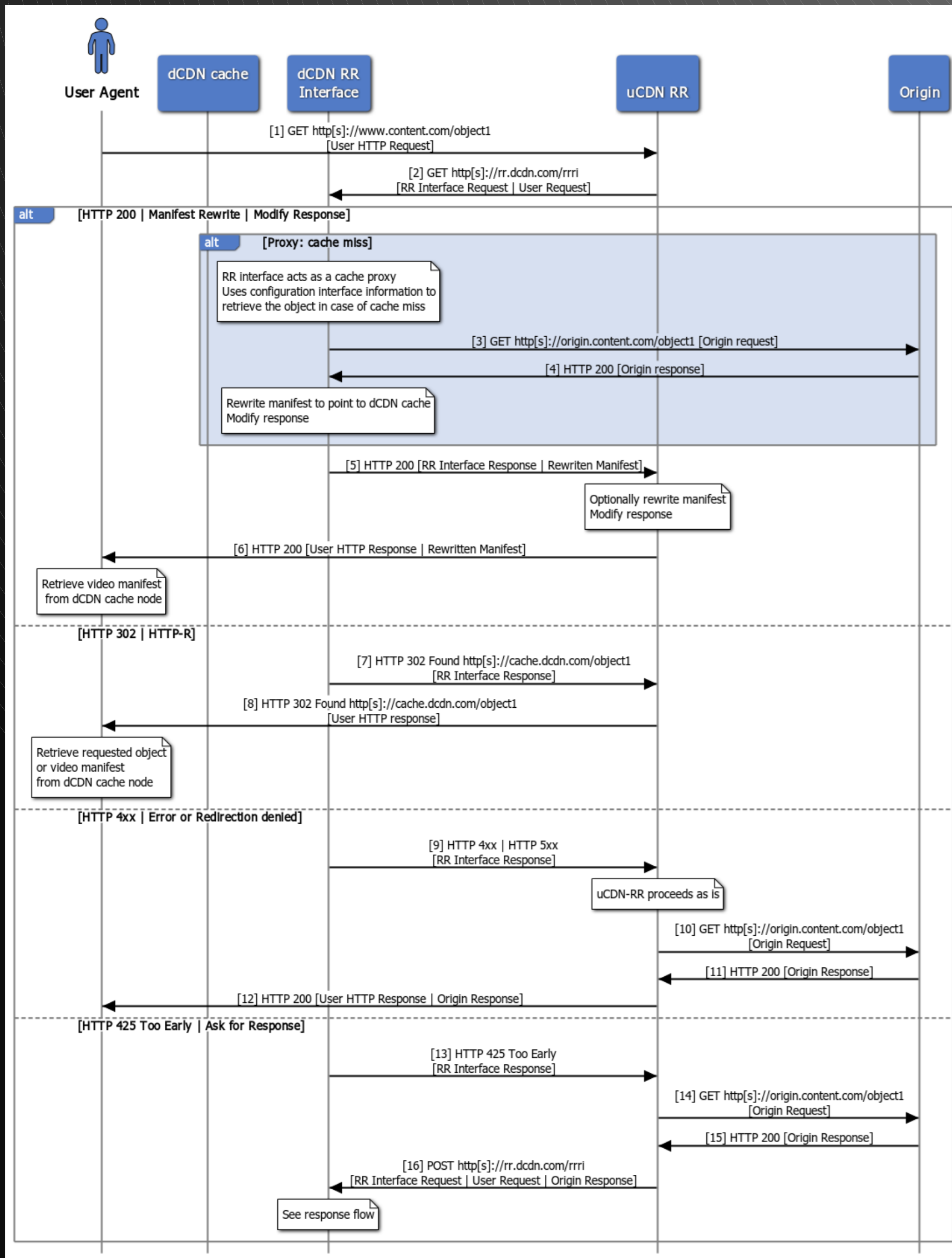
Key Features

- Common HTTP[S]-based open caching interface
- Backwards compatibility for RFC7975 HTTP-R/DNS-R
- uCDN and dCDN exchange data plane requests “as is”
- uCDN may forward dCDN response to the user without change

Two modes of operation

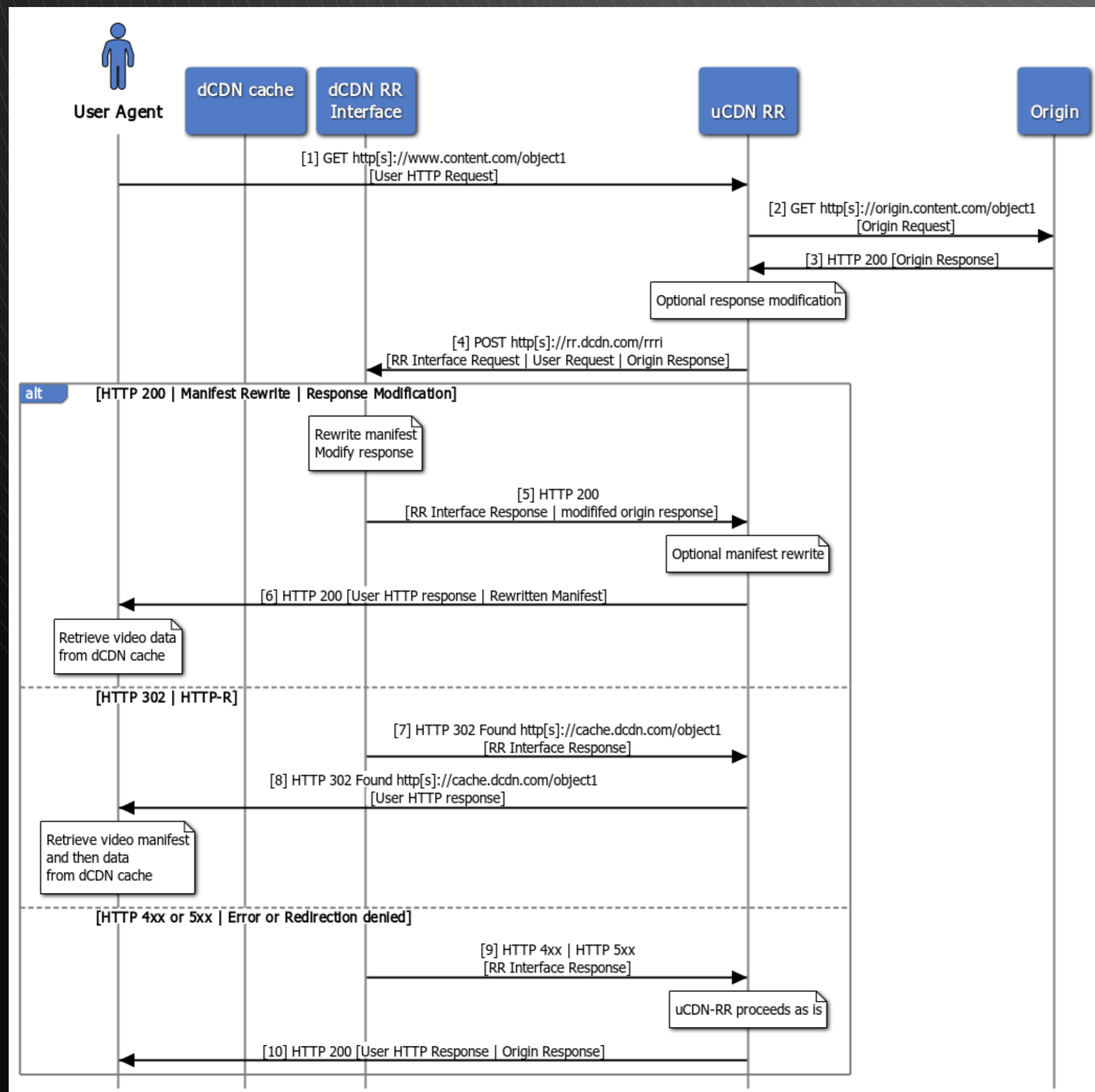
- **Request mode** assumes dCDN has independent access to content origin
- In **response mode** dCDN relies on uCDN to provide an up-to-date response
- Session can start in either request or response mode

Request Mode



- HTTP 302 redirection and manifest rewrite
- Error condition results in redirection bypass
- Can dynamically request to receive response via HTTP 5xx response code
- Assumes that dCDN can access content from the origin

Response Mode



- uCDN fetches content and may perform response modification as needed – before and after redirection
- Response is provided in POST body
- Can be used for
 - Manifest rewrite
 - Content compression
 - MIME-type and size-based decisions



THANKS!

If you have questions or require more
information about membership, don't
hesitate to contact us at

hello@streamingvideoalliance.org