

CDNI Control Interface / Triggers - 2nd Edition (RFC 8007bis) IETF 120

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Vancouver, July 23th 2024

RFC 8007bis v14: What changed from v11?

- **Published v12 on June 7th 2024: Final “clean” draft before v13**
 - TimePolicy simplification, clean-up spelling and formatting
 - <https://datatracker.ietf.org/doc/html/draft-ietf-cdni-ci-triggers-rfc8007bis-12>
- **Published v13 on July 5th 2024: SVTA Improvements**
 - Alignment with Cache Management Interface v1.0 from SVTA
 - <https://datatracker.ietf.org/doc/html/draft-ietf-cdni-ci-triggers-rfc8007bis-13>
- **Published v14 on July 7th 2024: Clean-up of v13 draft**
 - Addressed Jay’s list of issues posted to the CDNi mailing list
 - <https://datatracker.ietf.org/doc/html/draft-ietf-cdni-ci-triggers-rfc8007bis-14>
- A diff from the v11 is available at:
 - <https://author-tools.ietf.org/iddiff?url1=draft-ietf-cdni-ci-triggers-rfc8007bis-11&url2=draft-ietf-cdni-ci-triggers-rfc8007bis-14>

RFC 8007bis: Changes in v12

- **Published on June 7th 2024: Final “clean” draft before v13**
 - <https://datatracker.ietf.org/doc/html/draft-ietf-cdni-ci-triggers-rfc8007bis-12>
- **What changed?**
 - Removed DateLocalTime and LocalTimeWindow from TimePolicy
 - Cleaned up minor spelling errors
 - Formatting clean-up (non-ASCII characters, lines >72 chars)
 - Update document schema and obsolete RFC references
- A diff from the v11 is available at:
 - <https://author-tools.ietf.org/iddiff?url1=draft-ietf-cdni-ci-triggers-rfc8007bis-11&url2=draft-ietf-cdni-ci-triggers-rfc8007bis-12>

RFC 8007bis: Changes in v13

- **Published on July 5th 2024: SVTA Improvements**
 - <https://datatracker.ietf.org/doc/html/draft-ietf-cdni-ci-triggers-rfc8007bis-13>
- **What changed?**
 - Alignment with Cache Management Interface v1.0 from SVTA
 - 8 major improvements and new features added
 - Alan Arolovitch to discuss these improvements shortly
 - Fixed more grammatical, spelling, and formatting issues encountered along the way
- A diff from the v12 is available at:
 - <https://author-tools.ietf.org/iddiff?url1=draft-ietf-cdni-ci-triggers-rfc8007bis-12&url2=draft-ietf-cdni-ci-triggers-rfc8007bis-13>

RFC 8007bis: Changes in v14

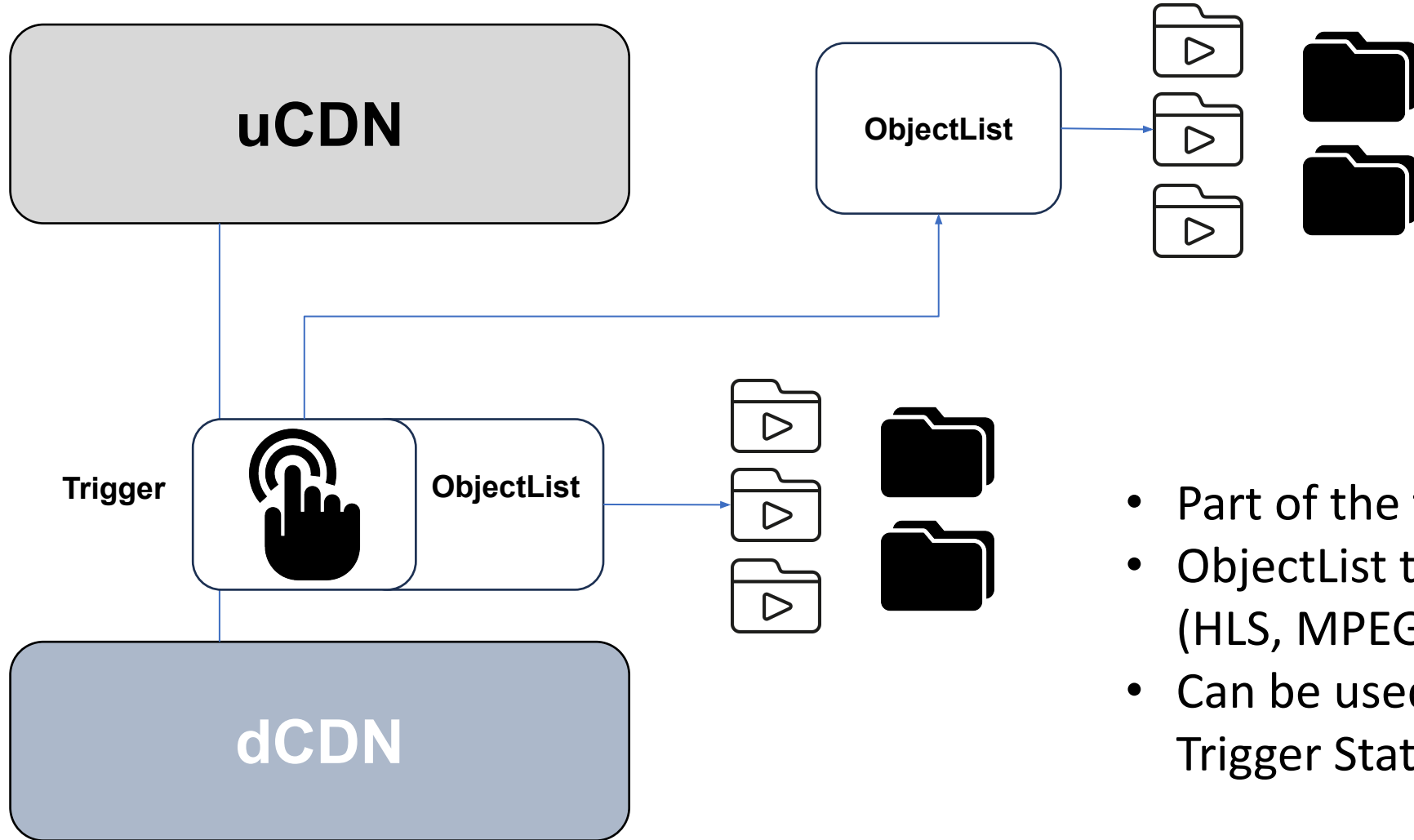
- **Published on July 7th 2024: Clean-up of v13 draft**
 - <https://datatracker.ietf.org/doc/html/draft-ietf-cdni-ci-triggers-rfc8007bis-14>
- **What changed?**
 - Addressed Jay's list of issues posted to the CDNi mailing list
 - Alignment of dCDN/uCDN/tCDN usage in document for consistency
 - ci-trigger-command update (changes lost in v13 commits)
 - payload language updates for ci-trigger-command.[create | modify]
- A diff from the v13 is available at:
 - <https://author-tools.ietf.org/iddiff?url1=draft-ietf-cdni-ci-triggers-rfc8007bis-13&url2=draft-ietf-cdni-ci-triggers-rfc8007bis-14>

Summary of v13 Changes

Alan to present on the changes made in v13:

- Moving from HLS/DASH/MSS Playlists to more flexible ObjectLists
- ExecutionPolicy extension
- Triggers acting upon public or private URLs
- RESTful changes to the API
- Separate CI/T endpoints for metadata vs. content
- Making the CDN identifier optional
- Label-based trigger collections
- Extended trigger status reporting

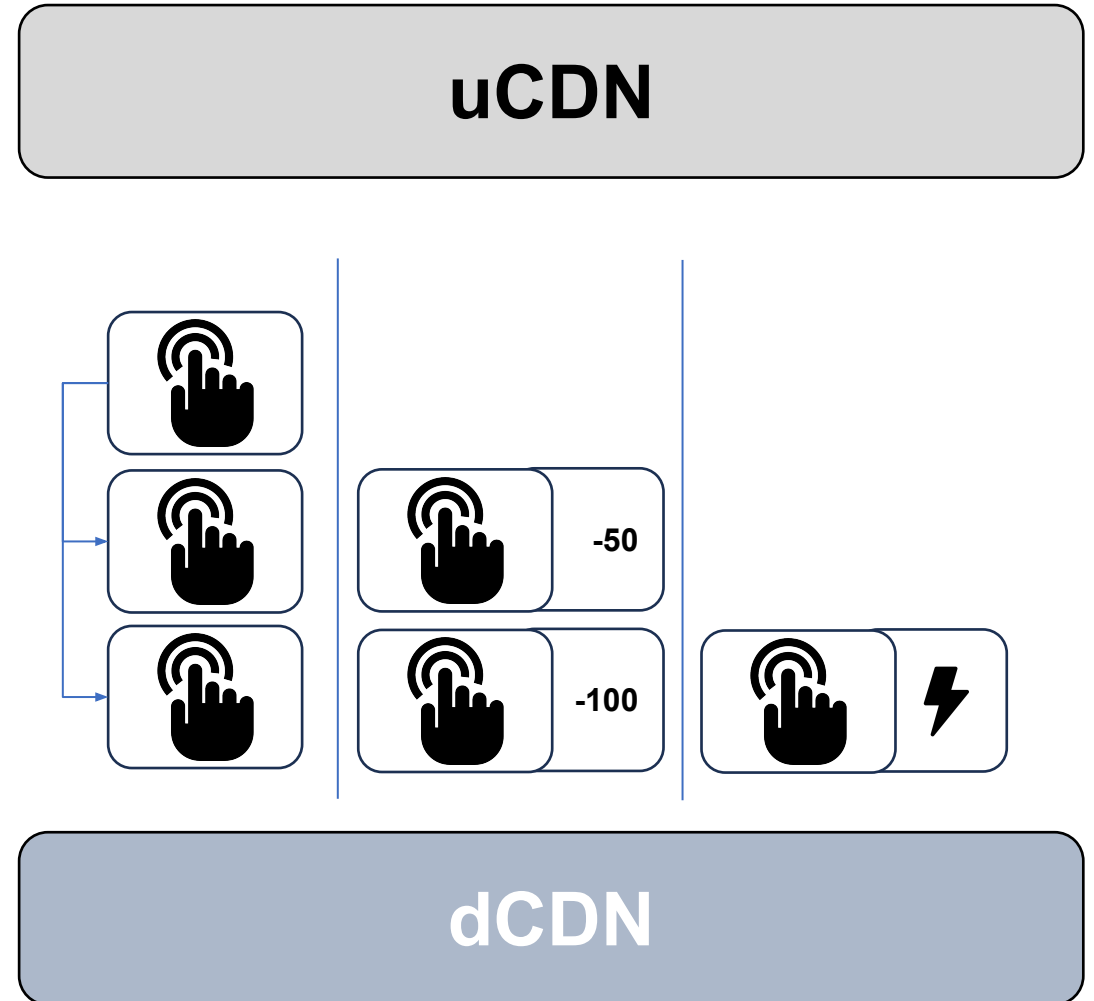
ObjectList



- Part of the trigger JSON or external
- ObjectList types: video manifest (HLS, MPEG-Dash, HSS), JSON, Text
- Can be used in Trigger Spec and in Trigger Status object

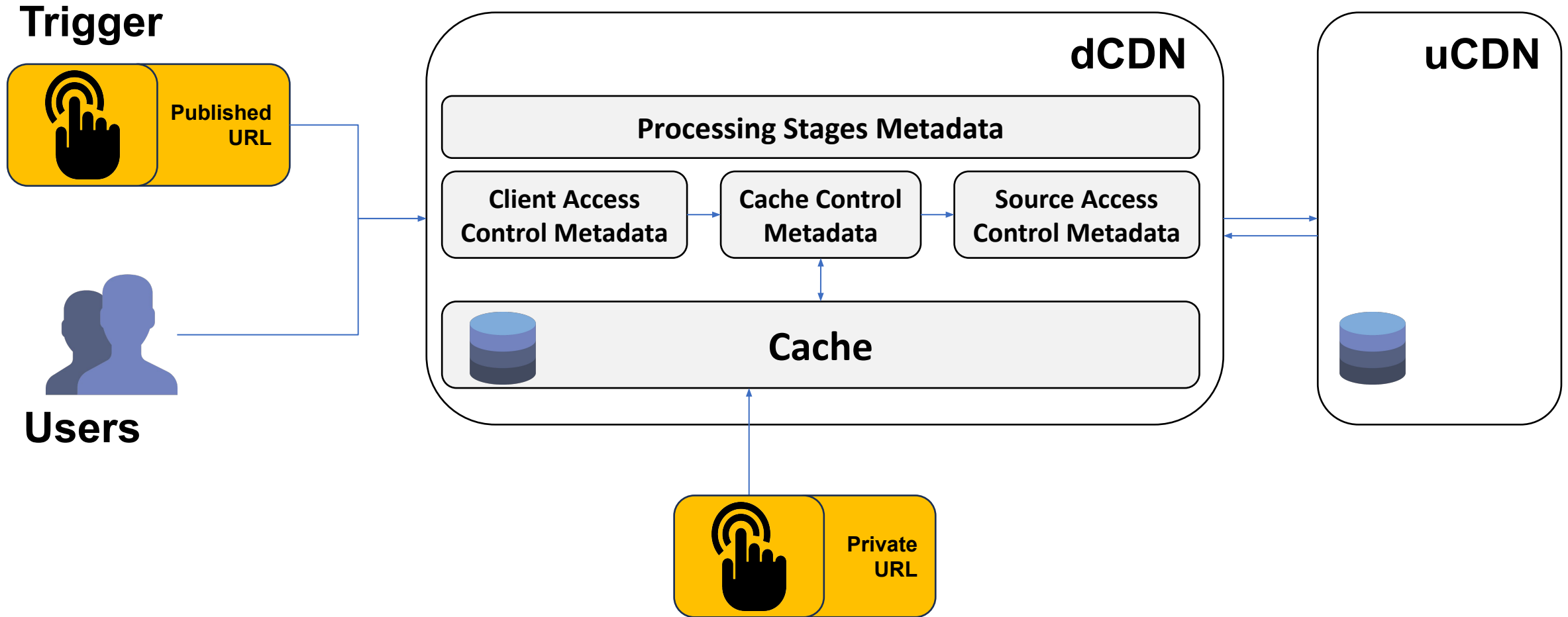
Execution Policy

- Dependency
- Priority
- Urgency



URL Processing in CI/T v2

Published and Private URLs



RESTful API

uCDN

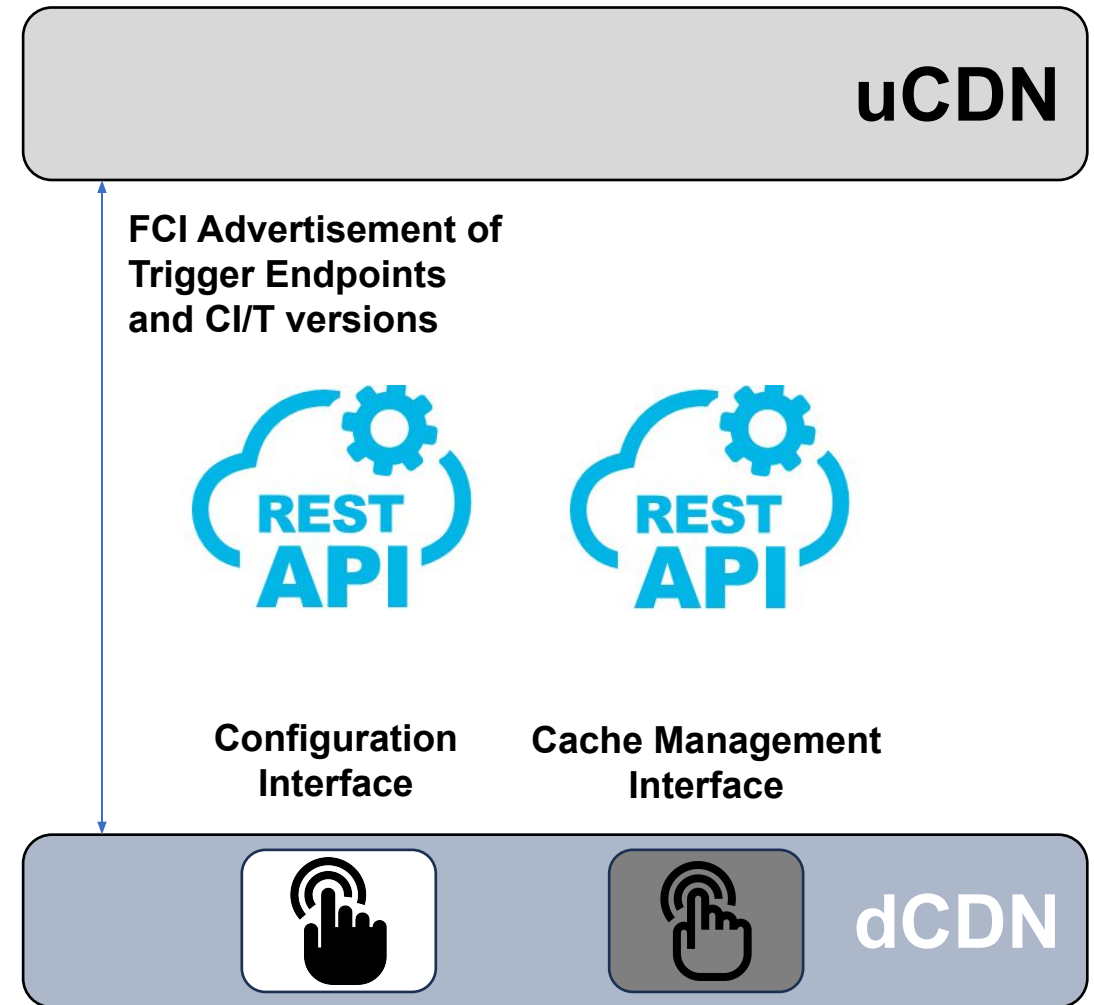


dCDN

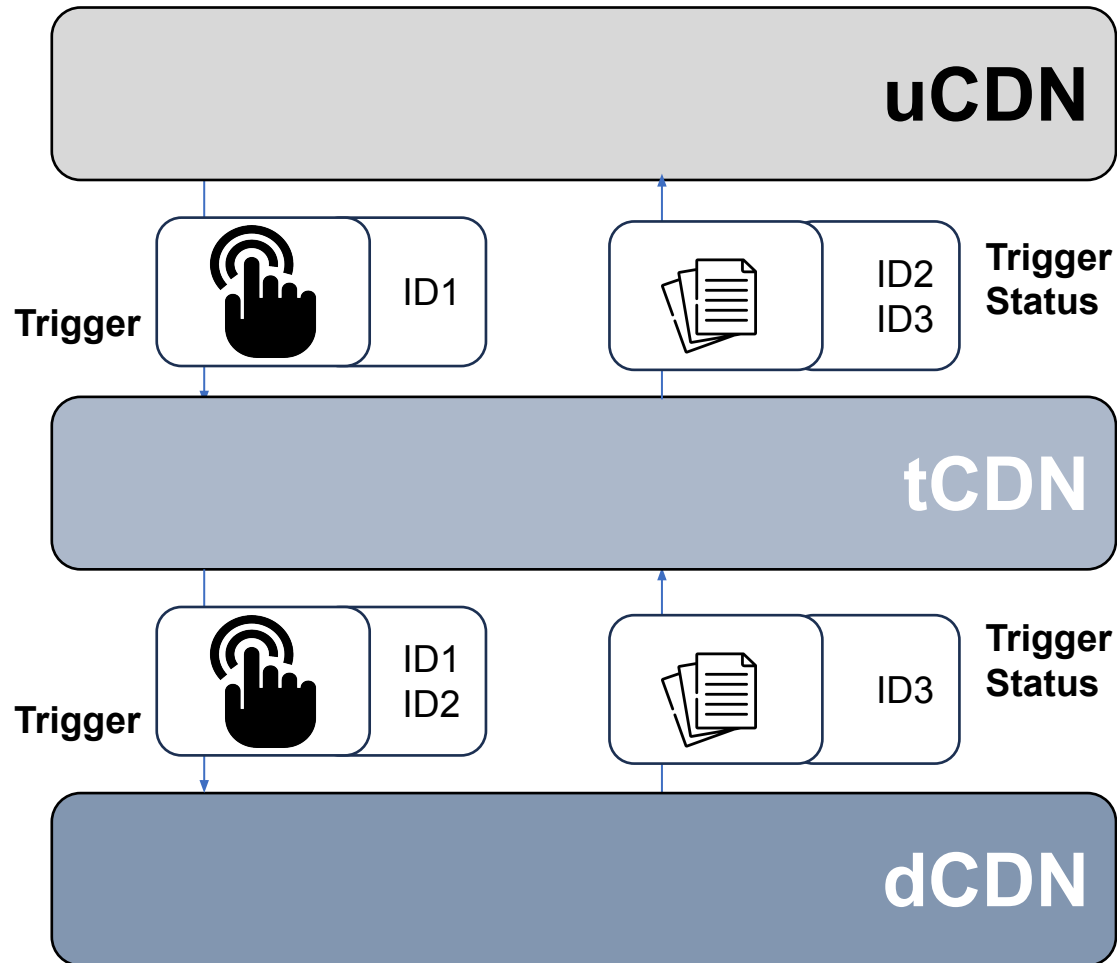
- Trigger is a dCDN-side resource that is created, updated and deleted using RESTful command
- Resource modifications:
 - Modify trigger spec while it is pending
 - Cancel trigger by changing its state

Separate Triggers Endpoints for Content and Metadata

- Separate CI/T-capable endpoints for content and metadata
- uCDN discovers CI/T URLs and CI/T version support via FCI



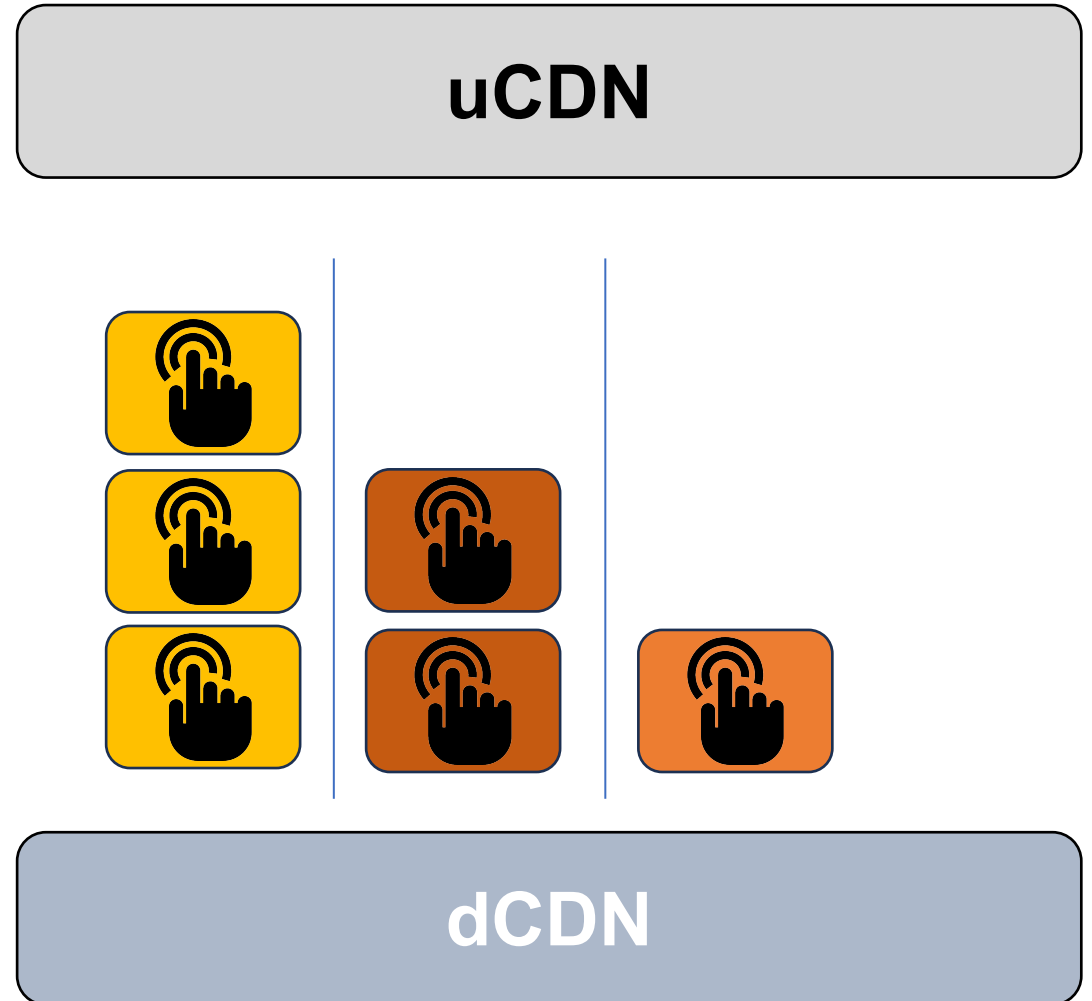
Optional CDN Identifiers



- Allow trigger operations between CDNs that do not align on BGP ASN and/or do not form a CDN chain
- Need to develop better CDN identifiers for authentication and authorization

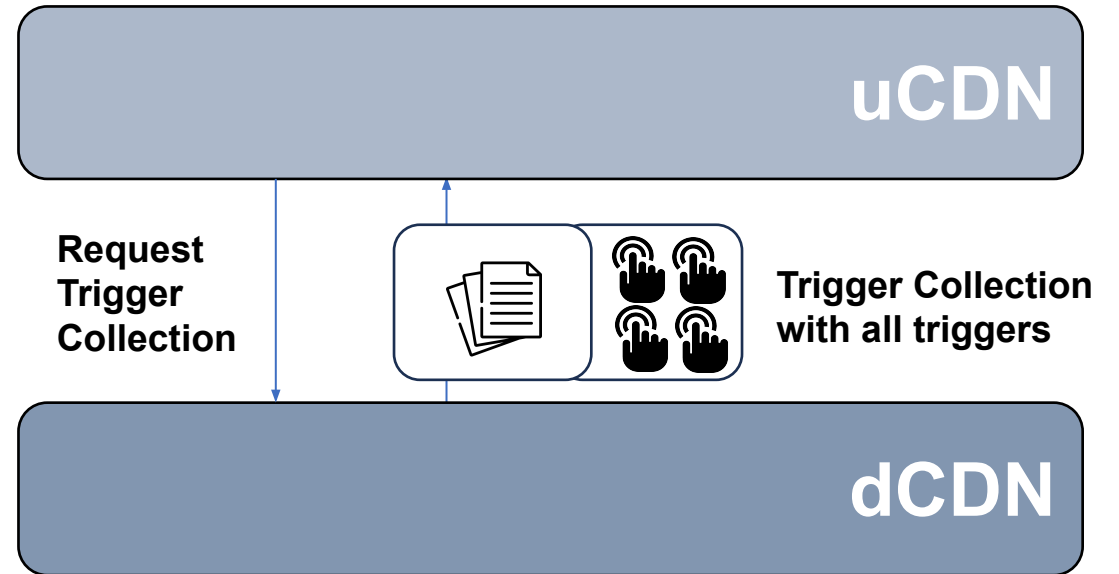
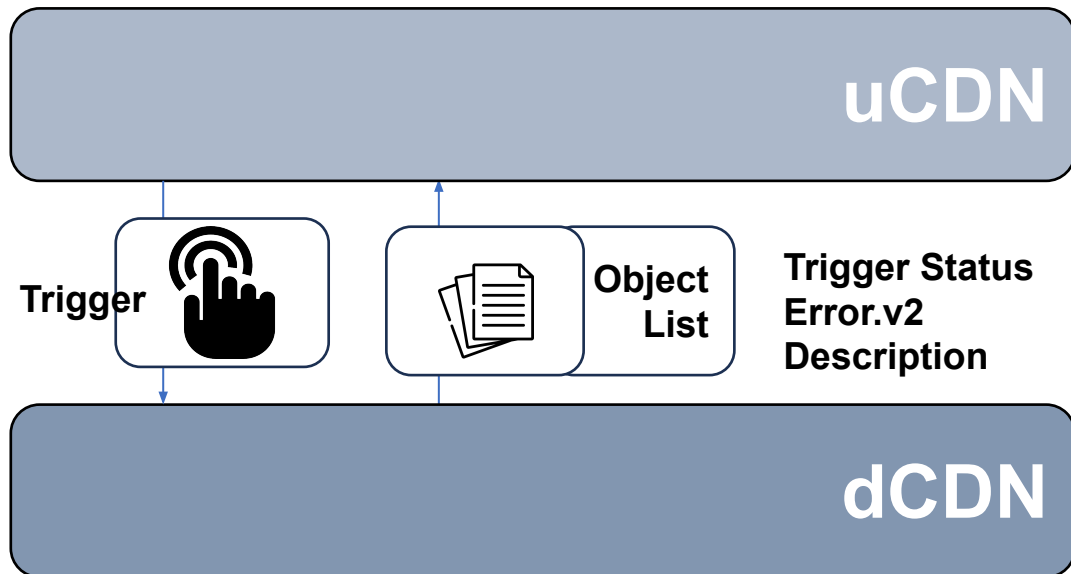
Trigger Labels

- Trigger grouping to allow management of large number of triggers
- Labels can be used to mark content grouping, content providers, etc.



Extended Reporting

- Optional support for trigger collections that embed all triggers to minimize chatter
- Support for collections by label



uCDN MAY request and dCDN provide ObjectLists to indicate how it parsed the Trigger Spec and what objects incurred an error if any

What's outstanding?

1. Clean up older language around “CI/T Trigger Command” to be more consistent with REST semantics (i.e. not treating a “trigger command” the same as a “trigger object”)
2. Clean up older language around “CI/T Delete Trigger”
3. Need more reviews beyond the RFC authors!

Next steps?

- Address outstanding issues
- More reviews
- Working Group Last Call