draft-ietf-bertrand-cdni-logging

IETF83 – Paris
WG CDNi

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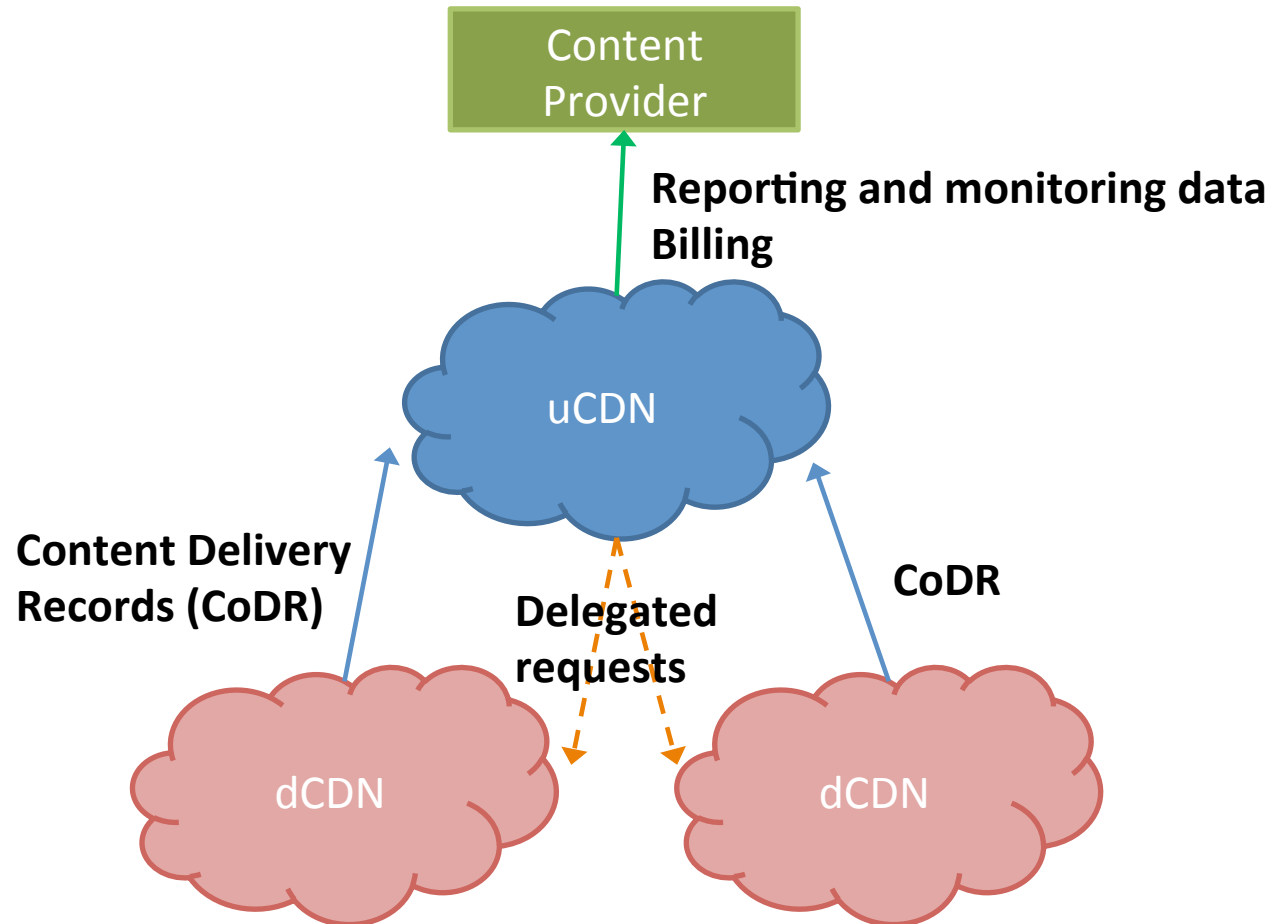Emile Stephan (emile.stephan@orange.com)

Draft Overview

- **The draft's purpose is to describe the CDNI Logging interface**
  - **Framework** and **Architecture**
  - **Information model**
    - Log Information Elements (semantic)
    - Core Logging Records (semantic)
  - **Logging operations**: aggregation, protection, filtering, update and rectification...
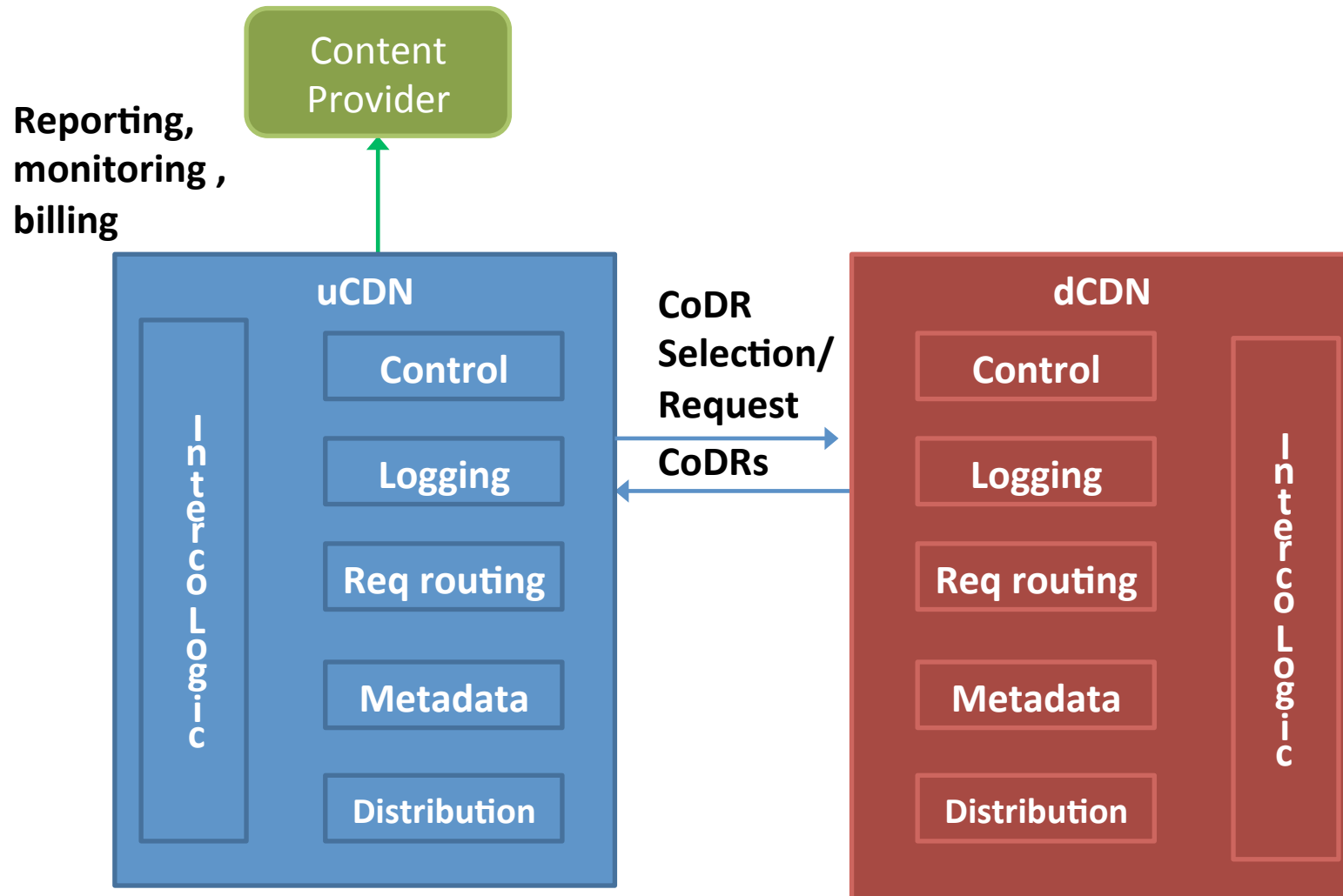 - **Survey** of common logging formats (W3C, Squid...)

Rationale for Logging

- **Usages** of CDNI Logging Information By uCDN
  - Maintenance/Debugging
  - Accounting
  - End-User Experience Management
  - Security

- For instance, Logging data enables uCDN to compute **key performance indicators**
  - Example: Number of delivery requests received from end-users in a given region for a given piece of content, during a given period of time (e.g., hour/day/week/month)

Logging framework

Content Provider

Reporting and monitoring data
Billing

uCDN

Content Delivery
Records (CoDR)

Delegated
requests

CoDR

dCDN

dCDN

Logging architecture

Content
Provider

**Reporting,
monitoring ,
billing**

uCDN

Interco Logic

Control

Logging

Req routing

Metadata

Distribution

**CoDR
Selection/
Request
CoDRs**

dCDN

Control

Logging

Req routing

Metadata

Distribution

Interco Logic

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Logging information elements

- The draft defines **information elements** that form the base for useful Logging Records:
  - time, URI_log, protocol, request method, status, size, uCDN identifier…
  - This list will be extended

- The draft identifies logging records (events logged) and the information that they should include
  - Example: Reception of a content request

Logging Operations

- Identification of operations to optimize Logging
  - Logging Aggregation, Fragmented Objects
  - Logging Protection / Signing
  - Logging Filtering
  - Logging Update and Rectification

Survey of access Log formats

- The draft describes log formats commonly used in servers and caching proxies
  - W3C Common Log File (CLF) Format
  - W3C Extended Log File (ELF) Format
  - National Center for Supercomputing Applications (NCSA) common, combined and separate Log Formats
  - Squid 2.0 Native Log Format for Access Logs

Next steps

- We need to agree on the information model:
  - mandatory/optional information elements
  - mandatory/optional logging records
  - Discuss with authors of draft-lefaucheur-cdni-logging-delivery-00 to converge on the information model

- Next main tasks on draft-ietf-bertrand-logging
  - consolidate the information elements definitions
  - consolidate the logging records list
  - add a candidate protocol analysis to the draft
  - identify and add potential additional requirements