An update on
Streaming Video Alliance's
Labs Initiative

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Streaming Video Alliance

- Steaming Video Alliance is an ecosystem comprising of content publishers, content distributors, network service providers and technology vendors, working jointly on all things related to over-the-top streaming media

- The alliance depends on the IETF protocols for all aspects around streaming media, but equally important is the collective experience and expertise of its members to develop best practices, guidelines, and specifications, all with the goal of improving interoperability and hence the quality of experience

The **Advertising Working Group** focuses on technical issues associated with ad insertion, ad QoE, and more.

The **Edge Storage Sub-Group** (part of Open Caching) focuses on use cases related to caching video content in the home.

The **Geo Sub-Group** (part of Networking and Transport) focuses on defining how user location data is best used in streaming video.

The **Live Streaming Working Group** develops guidelines and best practices to solve challenges related to quality, latency, and scalability.

The **Measurement/QoE Working Group** looks at data capture, playback and delivery analytics, and quality of experience.

Technical Working Groups

There are a variety of technical working groups in the Alliance, each addressing critical technical challenges which enable member companies to participate in the topics most important to them and their business.

The **Networking and Transport Working Group** addresses delivery and architecture challenges in streaming at scale.

The **Open Caching Working Group** develops specifications to define functionality of the Open Caching Network.

The **Privacy and Protection Working Group** explores challenges related to ensuring streaming security and user privacy.

The **VR/360-Degree Video Study Group** looks at the current market, how VR will change streaming, and technical challenges.

The **Metadata Working Group defines solutions related to the metadata associated with streaming video.**

So far

- The Alliance has been successful in developing best practices, specifications and guidelines

And, true to IETF's mantra of running code…, the Alliance has

- Initiated work to turn specifications into APIs and defining metadata exchanged between APIs and implement these APIs

- By establishing an open source platform
  - **The Alliance calls this the SVA Labs initiative**

https://www.streamingvideoalliance.org/

- Open Caching Architecture:
  - CDN OC Controller
  - SP OC Controller
  - OCN
    - APIs

- In addition, the group has also set up a test-bed for client-stickiness upon redirection
  - HTTP Redirect Testbed
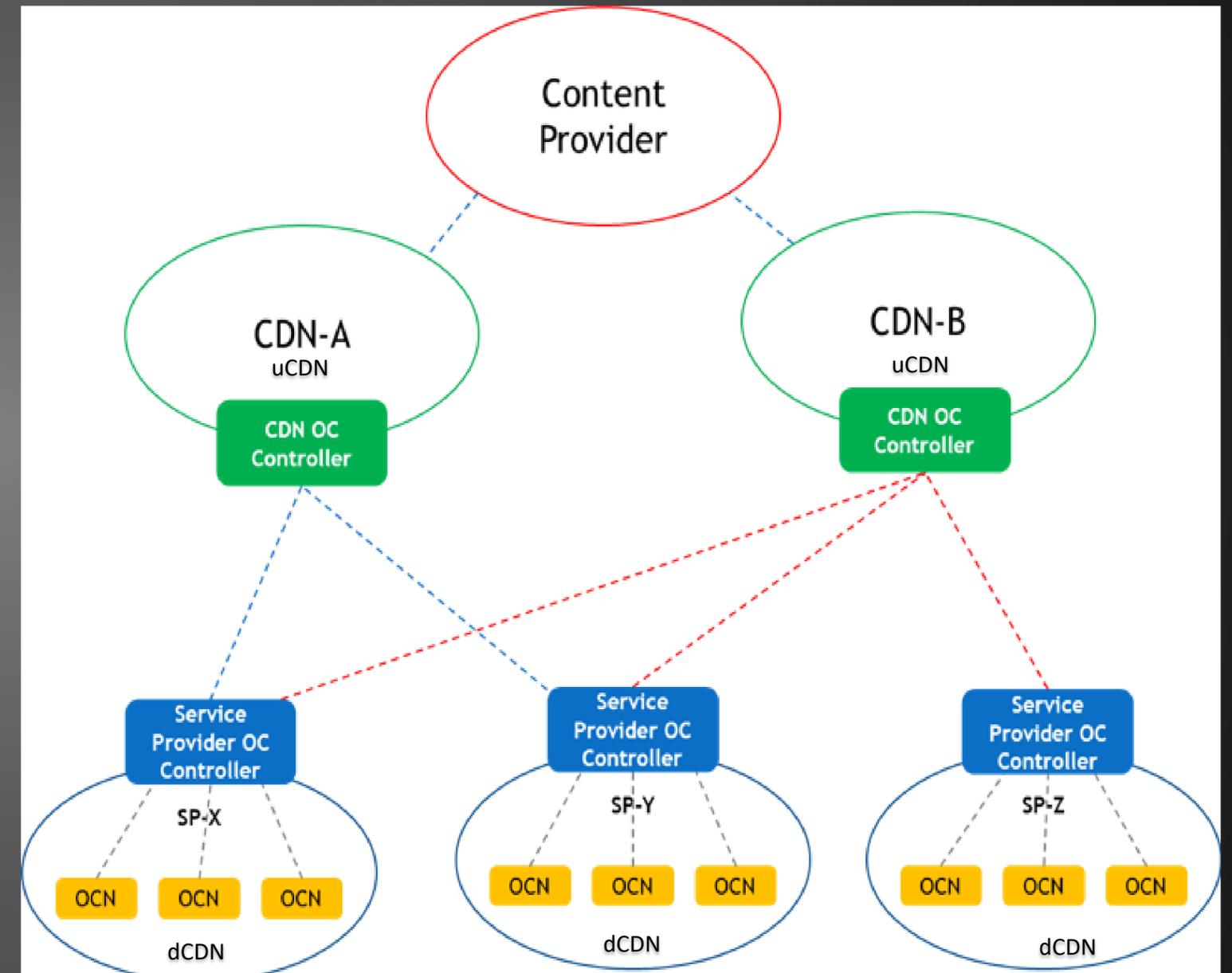
The Open Caching Working Group works to identify the critical components of a non-proprietary caching system and establish basic architectural guidelines for implementation

https://www.streamingvideoalliance.org/technical-groups/open-caching/

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Open Caching candidate APIs

- Implement APIs consistent with CDNI RFCs (and I-D)

  - Service-Provisioning API

  - Footprint and Capacity API

  - Content-Management operations API

- Implement APIs for other features

  - Logging integration API

  - Capacity-Insight API

- Use the OpenAPI representation

  - Wider audience of contributors

  - Modern RESTful API specification

  - Support in multiple languages

RESTful API
DELETE POST PUT GET

SVA Labs Motivation

- Increase adoption

  - Ease of integration

  - Shorten gap to deployment

- Encourage Industry Collaboration

  - It is in the interest of the contributors

- Establish feedback loop into the IETF

  - Bring work back into the IETF based on running code

Provide an implementation framework that makes wider adoption easier

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Extensions to CDNI based on Open Caching Implementation

- https://tools.ietf.org/pdf/draft-ietf-cdni-request-routing-extensions-07.pdf

- https://tools.ietf.org/pdf/draft-ietf-cdni-triggers-extensions-03.pdf

THANKS!

If you have questions or require more information, don't hesitate to contact me