SVTA Configuration Interface Project

IETF-117 (July 2023)
The SVTA Configuration Interface Plan

• **Problem Statement:** The need for an industry-standard API and configuration metadata model becomes increasingly important as content and service providers:
  ○ Continue to leverage multiple CDNs
  ○ Leverage Open Caching Systems that need to interoperate with CDNs
  ○ Automate their operations

• **Scope:** CDNs and Open Caching Systems have similar configuration metadata definitions and challenges - let’s tackle them together in a single standard.

• **Don’t start from scratch:** Extend the IETF CDNI work started many years ago

• **Share:** Contribute our extensions back to the IETF to be incorporated onto the CDNI standard. That’s why we are here today.
Part 1: Overview & Architecture

Part 2: CDNI Metadata Model Extensions

- 2.a Metadata Expression Language [IETF 118]
- 2.b Processing Stages Metadata [IETF 118]
- 2.c Cache Control Metadata [IETF 117] draft-power-cdni-cache-control-metadata-01
- 2.d Source Access Control Metadata [IETF 119]
- 2.e Client Access Control Metadata [IETF 119]
- 2.f Edge Control Metadata [IETF 117] draft-siloniz-cdni-edge-control-metadata-01
- 2.g Open Caching Metadata [IETF 119]
- 2.h Private Features Metadata [IETF 119]

Part 3: Simple Configuration Metadata API (adds PUT capability to RFC8006 MI Interface)

Part 4: Service Configuration Model (a layer above HostIndex for common definitions)

Part 5: Metadata Capabilities (FCI.MetadataExtended for granular advertisements)

Part 6: Orchestration API (Decouples configuration publishing and deployment)

Part 7: Terraform Interface (Industry Standard Terraform Resource definitions for SVTA/CDNI)
Configuration Interface V 2.0 Architecture

Content Providers & uCDNs

Overview & Architecture (Part 1)

Capabilities Advertisement (Parts 2,5) [RFC 8008]

Query dCDN for Metadata Capabilities

Option 1: Use Simple Metadata API to publish Configuration Metadata to dCDN

Option 2: Use Terraform to orchestrate dCDNs

SVTA Terraform Integration (Part 7)

Configuration Metadata (Part 2) [RFC 8006]

OC-FCI API (Footprint & Capability Spec)

Simple Metadata API (Part 3)

Service Configuration (Part 4)

Metadata Orchestration API (Part 6)

dCDNs

Query dCDN for Metadata Capabilities

dCDNs