



SVTA Configuration Interface Project

IETF-116 (March 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 back in 2006
- **Share:** Contribute our extensions back to the IETF to be incorporated onto the CDNI standard. That's why we are here today.

Project History

- July 2021 - IETF Draft posted with SVTA proposed CDNI Metadata Model Extensions
 - `draft-goldstein-cdni-metadata-model-extensions-00` (with 2 revisions)
 - Received good feedback, with a key message: This thing is way too big, cut it up into smaller parts that can be evaluated individually. Message received!
- Feb 2022 - SVTA Configuration Interface Version 1.0 Published as a 3 part document set
 - Part 1: Overview & Architecture
 - Part 2: CDNI Metadata Model Extensions (a mirror of the IETF draft)
 - Part 3: Simple Configuration Metadata API (MI from RFC8006 with “push” extensions).
- Remainder of 2022 till present
 - Lessons learned as a working testbed was created and several SVTA members built real implementations. Many lessons learned! Metadata model and APIs improved.
 - Work underway on Version 2.0, targeting publication Summer 2023.
 - The first 3 smaller IETF drafts (each with a set of MI objects) are being presented today.
 - Another round of IETF draft metadata model extensions planned for IETF-117.

SVTA Configuration Interface V 2.0

Part 1: Overview & Architecture

Part 2: CDNI Metadata Model Extensions

- 2.a Metadata Expression Language (CDNI-MEL)
- 2.b Processing Stages Metadata
- 2.c Cache Control Metadata*
- 2.d Source Access Control Metadata
- 2.e Client Access Control Metadata
- 2.f Edge Control Metadata*
- 2.g Open Caching Metadata
- 2.h Private Features Metadata
- 2.i Protected Secrets Metadata*

Part 3: Simple Configuration Metadata API

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

Part 5: Metadata Capabilities (an extended FCI.Metadata)

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

Part 7: Terraform Interface (Industry Standard Terraform Resource definitions for SVTA/CDNI)

** Part 2 sub-parts in red are the first 3 drafts submitted for IETF-116*

Configuration Interface V 2.0 Architecture

