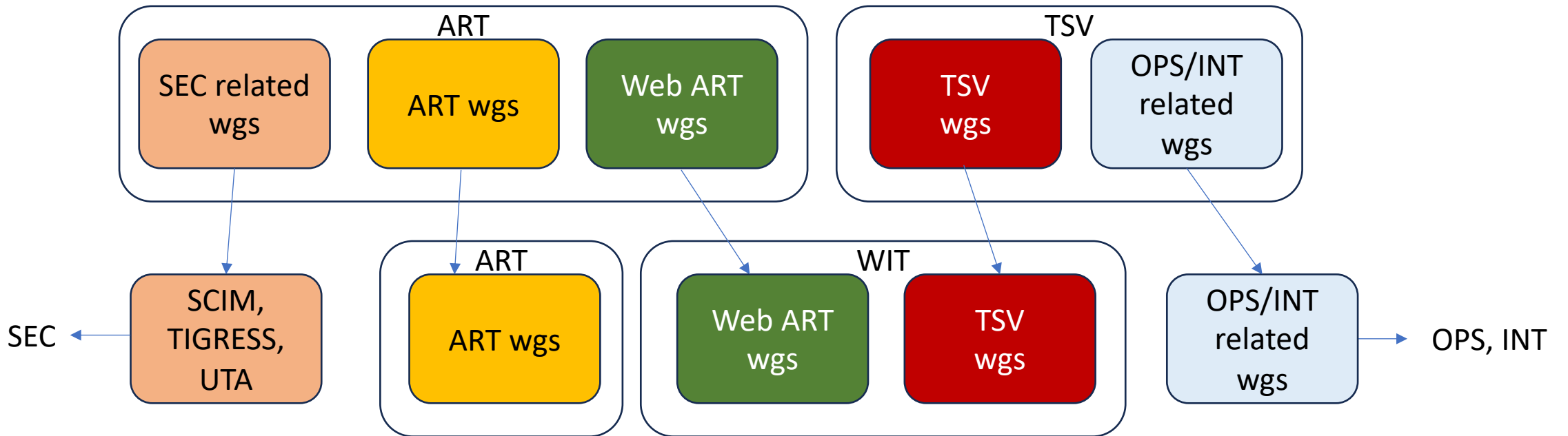# WIT Area

Web and Internet Transport

Wait… What is happening?

Part of **TSV** and part of *ART* will soon merge into a new area called "Web and Internet Transport" (WIT).

Timeline: by IETF 119 (with a possible transition period starting January 2024)

Web and Internet Transport

- *AVTCORE, CDNI,* **CCWG***, CORE, HTTPAPI, HTTPBIS*, **MASQUE***, MOQ*, **NFSV4**, **QUIC**, *RTCWEB*, **TAPS**, **TCPM**, **TSVAREA** (to be renamed), **TSVWG** (to be renamed), *WEBTRANS*, and *WISH*.

- **ALTO**, **IPPM** → OPS

- **DTN** → INT

- *SCIM, TIGRESS, UTA* → SEC

Announcement: https://mailarchive.ietf.org/arch/msg/ietf/qK_TwOiniQWxonzhkE5AQeK45mg/

Audio/Video Transport Core Maintenance (avtcore)

The concluded AVT working group defined the Real-time Transport Protocol (RTP) first published in 1996, real-time transmission of audio and video over unicast and multicast UDP/IP.

Designed to carry a multitude of multimedia formats, which permits the development of new formats without revising the RTP standard.

AVTCORE does RTP maintenance.

Examples:

- RTP Payload Format for (SCIP Codec, Visual Volumetric Video-based Coding, sFrame, …)
- RTP over QUIC (RoQ)

Content Delivery Networks Interconnection ([cdni](#))

Goal: interconnect independent CDNs to deliver content from Content Service Providers through these multiple CDNs to end users.

Going through rechartering soon (most likely).

Collaboration with [Streaming Video Technology Alliance](#) SVTA

RFC 7336 - **Framework for Content Distribution Network Interconnection (CDNI)**
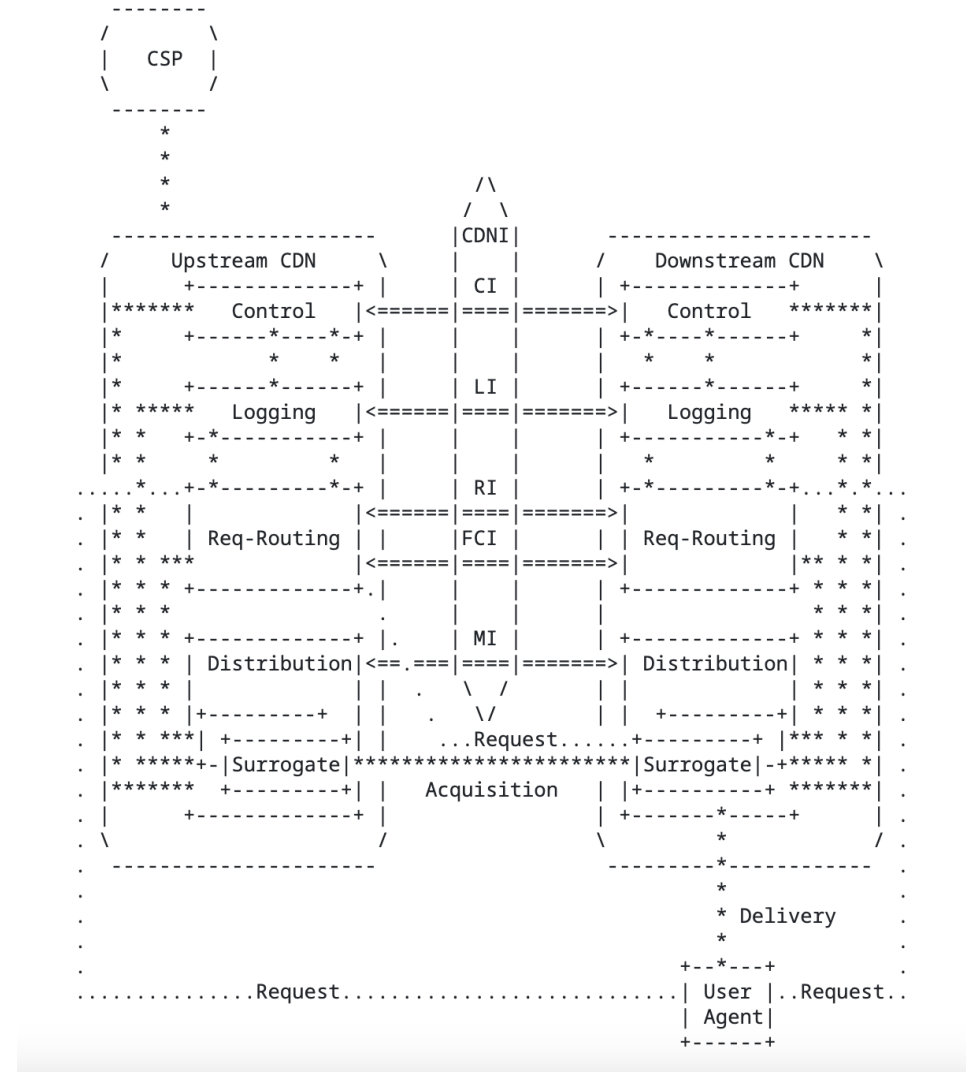
Constrained RESTful Environments ([core](#))

CoRE provides a framework for resource-oriented applications intended to run on constrained IP networks.

- The **Constrained Application Protocol** (CoAP) – [RFC 7252](#)
    - designed for M2M applications such as smart energy and building automation.
    - request/response interaction model
    - includes key concepts of the Web such as URIs and Internet media types
    - multicast support, very low overhead, and simplicity for constrained environments

- Today, CoRE is continuing CoAP maintenance and extension, including group communication, pub/sub over CoAP, DNS over COAP, CoAP Performance Measurement, security for CoAP (OSCORE)

Building Blocks for HTTP APIs ([httpapi](#))

HTTP extensions, new message body formats, and BCPs that relate to HTTP APIs.

Example of work:

- Api-catalog: A well-known URI to help discovery of APIs
- Link Hints: mechanism for annotating Web links to HTTP(S) resources with information that otherwise might be discovered by interacting with them (method supported, authentication needed…)

HTTP ([httpbis](#))

- maintaining and developing the "core" specifications for HTTP, and generic extensions to it

- maintain and develop extensions for HTTP/3 as necessary

- See [extensions listing](#) for a list of current work

Media Over QUIC ([moq](.))

- Fairly new working group (first BoF IETF 113)

- Goal: developing a simple low-latency media delivery solution for ingest and distribution of media.
- Use cases including live streaming, gaming, and media conferencing
- Media will be mapped onto underlying QUIC mechanisms (QUIC streams and/or QUIC datagrams) and can be used over raw QUIC or WebTransport.

- Current work:
  - Media over QUIC Transport
  - Media Over QUIC - Use Cases and Requirements for Media Transport Protocol Design

Real-Time Communication in WEB-browsers (rtcweb)

- WebRTC is a protocol suite aimed at real-time multimedia exchange between browsers, and between browsers and other entities. [WebRTC Overview]

- One of the documents published (JavaScript Session Establishment Protocol (JSEP), RFC 8829) included a contradiction that needed to be fixed

- That document is in AUTH48 and the working group will conclude once that's done.

WebTransport (webtrans)

- the W3C Web Incubation Community Group (WICG) is developing the WebTransport API (see: https://github.com/WICG/web-transport)

- This wg works on the protocol development to send data to and receive data from servers. It can be used like WebSockets but with support for multiple streams, unidirectional streams, out-of-order delivery, and reliable as well as unreliable transport.

- Current work:
  - The WebTransport Protocol Framework (requirements)
  - WebTransport over HTTP/3
  - WebTransport over HTTP/2

WebRTC Ingest Signaling over HTTPS ([wish](#))

- Goal: a specification for a HTTPS-based signaling protocol to establish one-way WebRTC-based audiovisual sessions between broadcasting tools and the network.

- [WebRTC-HTTP ingestion protocol (WHIP)](#) has been developed and has currently passed IETF Last Call.

- WISH is starting a [rechartering](#)