

# The JSON format for vCon Conversation Data Container

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# What's a conversation? And what's in THAT conversation?

- Data generated in communications systems is siloed, opaque and exported in proprietary formats, if it's exported at all.
- Conversations have many modes: messaging, video, voice (meta?), and customers use more than one mode all the time. Not a single standard to capture omni-channel customer journeys.
- Customer facing organizations record conversations, for very good operational, marketing and sales reasons, for the benefit of the shareholders and customers.
- Responsible organizations should treat customer data with the same care as organizational data.
- GDPR, CCDPA and similar legislation world-wide demand the right of a person to be forgotten by a business, to remove that data from the business, to be as if the relationship between them never existed.
- How do you keep track of what customer biometric data was used in AI training? Changing your name is way easier than changing your face or your voice

# A Conversation in Four Parts

## Dialogs

Timestamped recordings of conversations, chat transcripts, video recordings. Can be from a single mode or many. Can be packed or external (URL)

## Parties

Identification and location of the parties in the dialogs, including the authenticating organization or method, such as STIR PASSPORT

## Analysis

A series of third party analysis of the conversations: sentiment :) :(, quality (MOS), agent compliance, transcriptions, translations, redactions, data labels

## Attachments

Documents that provide the context of the conversation: PowerPoint, Sales Leads, NDAs

# The vCon Standard

- Defines a standard data format to describe a human conversation to enable interchange and analysis between heterogeneous systems
- Scope of the vCon
  - Parties - An identification of the parties involved, and who identifies them, where they are
  - Dialog - Recordings (any MIME type) of the conversation, when and how long
  - Analysis - What AI has to say? Translations of the conversations
  - Attachments - Attached documents for conversation context.
- Designed to Protect People and Businesses
  - Security, privacy and tamper-proof packages
  - Packed and unpacked versions allow for flexible storage options
- Designed to Connect Systems
  - Provides a structured way to connect machine learning to infrastructure
  - Uses JSON to enable fast adoption at the application layer
- Designed to Define
  - Provides an extensible way of describing all kinds of conversations, using all kinds of media, for omnichannel scenarios
  - “PDF” for Conversations

# Practical Problems We Are Solving

- General Conversation Management: signing and verification, encryption, content redaction, data packing / unpacking, appending to a signed document, grouping of vCons together in a set
- Standardizing the format enables an ecosystem of tools and reference sources
- Increases the visibility at the edge of networks; Strolid checks for noisy backgrounds for our remote agents
- Allows us to responsibly share conversations with stakeholders
- Fixes integration issues in conversational services, provides test sets and
- Removes siloed data and enables people to move between service providers and communications systems without losing this data
- Enables data engineering for conversations to support ML and AI (Robot Food)
- Enables strong authentication and identification of parties in conversations to reduce fraud

# Status and Current Discussions

## Status

- vCon Python library is now available - vCon Lifecycles - Group support, Redaction, amendments
- vCon Server at Hackathon as an implementation example
- Integrated with six different kinds of communications services: call center queue, outbound dialer, soft client, phone system, email and webchat
- Integrated with three different analysis engines: whisper AI, Deepgram, Citigroup Data Profiler
- Need comments and suggestions
- We are looking for a workgroup, a volunteer to chair the Bar BOF, veteran charter writer

## Current Discussions

- JSON as the containing type - any other alternatives?

# More information

Learn more at:

- **Mailing List:** <https://www.ietf.org/mailman/listinfo/Vcon>
- **I-D:** <https://datatracker.ietf.org/doc/draft-petrie-vcon/>
- **Open Source:** <https://github.com/vcon-dev/vcon>
- **White Paper:** <https://bit.ly/vcon-wp>

IETF 115:

- **Hackathon:** Saturday and Sunday
- **HotRFC:** 18:00 Sunday
- **ART dispatch WG meeting:** Mon 9:30
- **vCon Bar BoF:** Thurs. 15:30-16:30 Richmond 6