


















# What is vCon?

And what does the evolving IETF standard solve?

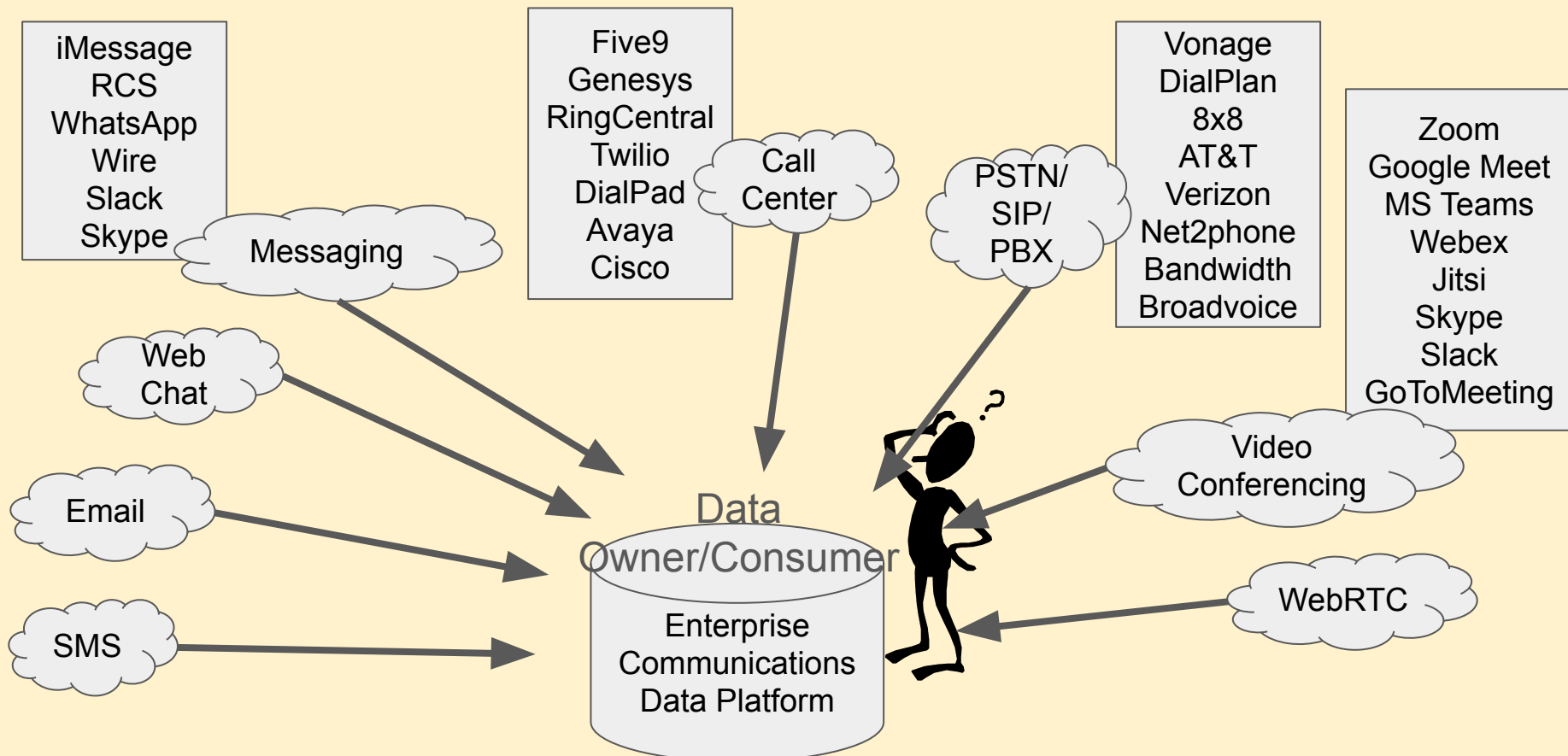
Dan Petrie - SIPEZ LLC

# What is a vCon?

Virtual CONversion data container

- Metadata    
- Conversation dialog    
- Ancillary documents   
- Analysis      

# Proprietary Communications Data APIs and Formats



# A simple recording does not capture it all

Transfer

Conference joins and drops

Hold and unhold

Mute and unmute

Originator

Participants

Incompleted call

Disposition

Tamper Prevention

Confidentiality

# Proprietary API and Data Formats for: Analysis SaaS

Post Conversational Analysis:

- Transcription
- Translation
- Sentiment analysis
- Summary
- Notes
- Action items
- Agent performance quality
- Reporting
- Categorization
- Tagging
- Generative AI
- ...

Every analysis service uses a different data interface

Transcription accuracy problems

Transcription is domain and dialect specific

# AI & ML Training Data Chaos in Corporate Communications

Data ingest for model training

Email, SMS, webchat, phone calls, video conferences are modes of communication in modern contact centers

Biggest cost in creating AI & ML models:

- building training sets
- organizing, cleaning data

Need:

- Structured communications and conversation data
- Unified across communications modes

# Proprietary API and Data Formats for: CRM

Non-standard way to get conversation data and analysis into CRM systems

# vCon JSON Conversation Container

## Data:

- Parties list 
- Dialog list 
- Attachments list 
- Analysis list 

JSON vCon format  
and examples:



## Features:

- Dialog, Attachments and Analysis Data included or referenced
- Signing
- Encryption
- Redaction
- Grouping



# vCon Parties Object

name

tel

mailto

stir

validation

jcard

civicaddress

gmlpos

timezone

# vCon Dialog Object



type: text

start

duration

parties[]

originator

mimetype

filename

body

encoding

url

alg

signature

originator

disposition

party\_history[]



type: recording

start

duration

parties[]

originator

mimetype

filename

body

encoding

url

alg

signature

originator

disposition

party\_history[]



type: transfer

start

parties[]

transferee

transferor

transfer-target

original

consultation

target-dialog



type: incomplete

start

parties[]

originator

# vCon Attachment Object

purpose

start

party

mimetype

filename

body

encoding

url

alg

signature

# vCon Analysis Object

type

dialog[]

mimetype

filename

vendor

product

schema

body

encoding

url

alg

signature

# What does vCon enable for telcos and ITSPs?

Provide greater value to existing customers

- Increase revenues
- Customer retention



Reduces friction for onboarding new customers



Attract new customers using standards approach



# What does vCon do for conversational analysis SaaS?

Reduce development costs




Reduces friction




Reduce time and cost in customer acquisition



# What does vCon enable for the Enterprise?

Easier Integration: 

- Communications centers
- Data ingest for CDP and model training
- Post conversational analysis, internal and 3rd party SaaS
- CRM





Saves time and cost 

More choices

# What does vCon enable for the individual?

## Productivity



- Transcript 
- Summary
- Notes 
- Action items 
- Notifications 

## Freedom and flexibility



# What is the IETF?

Some mid and upper layer protocols courtesy of the IETF

- IP
- DNS
- TCP
- UDP
- HTTP
- TLS
- SIP
- JABBER
- WebRTC
- JOSE: JWT, JWS, JWE
- STIR
- MLS

# What is Happening with vCon in the IETF?

First draft JSON format - May 2022

IETF Hackathons - IETF meeting: July & Nov. 2022, Mar., July, Nov. 2023, Mar. 2024

Hot RFC - IETF meeting: Nov. 2022 & Mar. 2023

Bar BOF - IETF meeting Nov. 2022

ART Dispatch - IETF meeting Nov. 2022

BOF and Initial Charter Discussion - IETF meeting Mar. 2023

Informal WG Meeting - IETF meeting Nov. 2023

Charter Approved and WG Formed - Dec. 2023

First WG Meeting - IETF meeting Mar. 2024

I-D Draft Accepted as WG Item - Apr. 2024

# How can you get involved with vCon at the IETF?

Join the vCon WG email list and comment

Review and comment on the I-D

Tell us about your use cases

Write a use case or requirements I-D

IETF vCon working group info, documents and email list:



# Value of Hackathons and Open Source Implementations

Test Internet-Drafts

Test concepts and protocols

Feedback and corrections to Internet-Drafts

Early change to try out new protocols

# Who is using or working on vCon?



More coming soon.

Add your logo here!

# What can you do with vCon open source?

python-vcon package:

- Command Line Interface
- Core vCon Python library

Py\_vcon README:



# What can you do with vCon open source server?

## RESTful APIs and Pipeline Server

- Store, retrieve, modify and delete vCons
- Perform operations on vCons using pluggable framework of vCon processors
- Run a single vCon processor with options, using provided or stored vCons
- Group a sequence of vCon processors and associated options into a vCon pipeline definition
- Run a vCon pipeline, via a RESTful API, using provide or stored vCons
- Queue vCon jobs for the pipeline server to run through vCon pipelines
- Administer and monitor the server and configuration via an Admin RESTful API
- Scale 100s of instances with shared state



# How can you get involved with vCon Open Source?

Review the features and comment

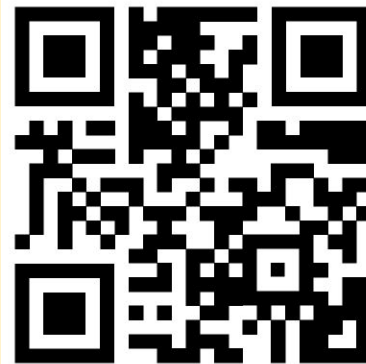
Try out vCon

Use vCon in your product

Contribute:

- Be a tester
- Create vCon processor plugins
- Add new features

py\_vcon\_server README:





# Contact me

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