



# vCon Overview

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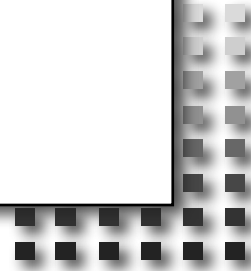
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# What is a vCon?

## Definition and Core Concept

- Container for data and information from real-time human conversations
- Analogous to vCard but for conversations instead of contacts
- Supports multimedia sessions, phone calls, video conferences, SMS/MMS, webchat, email threads
- Standardized format enabling interoperability between systems

- JSON-based container that can be signed and encrypted

## Key Benefits:

- Common storage and interchange method
- Enhanced identity, privacy, and security
- Simplified service integration



# The Problem vCon Solves

## Current Challenges

- Conversational data stored in disparate, incompatible systems
- No standard format for conversation exchange
- Difficult system interoperation
- Inconsistent data handling practices
- Privacy and compliance challenges across platforms

## vCon Solution

- Standardized container format
- Seamless data exchange between systems
- Enhanced privacy and security controls
- Simplified regulatory compliance
- Better conversation analytics and ML training



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# What's Inside a vCon?

## **Parties - Participant identity information**

- Names, phone numbers, email addresses
- Contact details and identification data

## **Dialog - Actual conversation content**

- Audio, video, text in original media form
- The "ground truth" of the conversation

## **Analysis - Processed insights and derived data**

- Transcripts, translations, summaries
- Sentiment analysis, semantic tagging

## **Attachments - Supporting documents and context**

- Slide decks, sales leads, consent forms
- Any relevant supplemental files



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# Privacy and Data Responsibility

## Balancing Utility vs. Sensitivity

### Privacy Considerations

- Parties section contains sensitive biometric data (GDPR implications)
- Each party represents personal information being captured/shared
- Responsibility extends beyond security boundaries

### Privacy Enablement Features

- Data minimization practices
- Consent validation mechanisms
- Integrity protection
- Granular redaction capabilities
- Right to know compliance
- Support for data subject rights (deletion, correction)

**Regulatory Compliance: GDPR, CCPA, HIPAA supportive**



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# Real-World Use Cases

## Contact Center Implementation

- Multi-channel customer interactions (voice, chat, email, SMS, video)
- Unified customer journey tracking
- Cross-channel analytics and quality assurance
- Consistent privacy management

## Healthcare Messaging

- Patient communication across multiple platforms
- HIPAA-compliant conversation records
- Integration with Electronic Health Records (EHR)
- Enhanced care coordination

## Emergency Services (ECRIT)

- Real-time crisis response coordination
- Multi-agency information sharing
- Complete situational awareness
- Tamper-evident record keeping



# Technical Architecture: JSON-Based Structure

## Modern software lingua franca

- Frictionless integration with existing applications
- RESTful interfaces and backend platforms
- Compatible with existing media analysis services

## Three Security Forms

- *Unsigned* - Internal/trusted environments
- *Signed (JWS)* - Data integrity verification
- *Encrypted (JWE)* - Confidentiality protection

## File Handling

- Inline content for smaller files
- External references for large media files
- Content hash verification for tampering detection

# vCon Relationships and Evolution

## Conversation Lifecycle Management

### Relationship Types

- Grouping - General interrelationships between vCons
- Redaction - Data minimization while maintaining accuracy
- Appending - Adding information over time

### Version Control

- Immutable once signed
- New versions reference previous states
- Historical snapshots preserved
- Two approaches: "Deep copy" vs. "Incremental changes"

### Multi-entity Collaboration

- Different platforms contribute components
- Cross trust-boundary content sharing
- Multiple signature support for attestation



# Key Benefits for Organizations

## • Operational

- Unified conversation management across all channels
- Enhanced analytics through standardized data formats
- Simplified regulatory compliance and audit trails
- Improved quality assurance processes

## • Technical

- Reduced integration complexity
- Common input format for AI/ML tools
- Better conversation analytics capabilities
- Standardized privacy controls

## • Business Value

- Complete customer journey visibility
- Enhanced decision-making through comprehensive data
- Reduced compliance costs and risks
- Future-proof conversation data management

