TrameFix

Smart audio recovery
for strategic transmissions

powered by

CandyVoice
GLOBAL VOICE SOLUTIONS

Protect your communications against voice deception

CandyVoice

- Expertise in digital voice processing
- Innovative Voice Technologies provider

Envisioned Modes of Collaboration

- Provider of innovative voice-technology components
- Specialized subcontracting
- Collaboration with operational units
- Partnership within the ecosystem

Military Credentials

- TRT: development of a military digital radio modem with frequency hopping
- Thales: integration of the TETRA vocoder
- Past clearances: *Secret Défense* and NATO security clearance

Common features of the technological building blocks

- Proprietary technologies with high TRL (Technology Readiness Level)
- Operate locally (no cloud dependency)
- Real-time performance
- Low computational requirements
- Can operate independently or in synergy
- Simple and intuitive interfaces
- Technologies adaptable to specific needs or use cases (customization options available)
- ITAR-free technology
- Technology demonstrations available upon request

Integration options

- Locally or on a server
- In a Docker container
- Cross-platform support (all major operating systems)
- Compatible with ARM processors (easily integrable into any hardware, e.g., digital radios)
- Runs on embedded processors (no need for GPU cards)

Definition

Compensation mechanism for voice transmissions that reconstructs missing audio frames caused by interference, jamming, or poor network quality. This process relies on a vocoder and an algorithm that restores the missing signal, ensuring smooth and intelligible communication.

Value Proposition

Our advanced lost-frame recovery technology ensures clear, fluid, and secure communication—even under extreme conditions of radio, electromagnetic, or jamming disturbances.

Innovation / Competitive Advantages

- Recovers up to 12 consecutive audio packets (10 ms each) lost during transmission
- Enhanced resilience against RF/EM interference and electromagnetic jamming
- Maintains optimal voice intelligibility with up to 50% packet loss
- Real-time reconstruction with 140 ms latency
- Easily integrates into existing systems with minimal impact
- Ensures continuity of communications in degraded or tactical environments
- Ideal for unstable networks, low-coverage areas, or critical-use scenarios
- Improves ASR system performance

Technical Specifications

- Sampling frequency from 8 to 48 kHz
- Integrable into a DSP, Intel processor, or ARM processor
- Halves the WER (word error rate) when 50% of frames are lost

TRL (Technology Readiness Level) : 7

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