



Scaling AI model accuracy with high-fidelity multispeaker datasets

CLIENT PROFILE

Strengthening AI performance in enterprise collaboration

A global technology leader focused on AI-powered collaboration tools sought to improve meeting intelligence capabilities within its virtual meeting platform. To support this objective, the client partnered with TP to design and deliver high-quality, realistic multispeaker meeting datasets aligned to AI training and model refinement goals.

BUSINESS CHALLENGES

AI performance depends on structured, real-world training data

Enterprise Artificial Intelligence (AI) systems depend on structured, real-world conversational data to perform accurately. The client needed to strengthen model performance across complex, multilingual enterprise interactions.

To achieve enterprise-grade AI performance, the client required structured, high-quality, production-ready datasets designed specifically for model training. However, three major challenges limited progress:

Limited availability of domain-specific meeting datasets

Existing data sources lacked realistic business conversations with defined participant roles, structured commercial inquiries, and authentic enterprise dynamics.

Multimodal model complexity

Enterprise conversations involve synchronized audio, video cues, turn-taking behavior, and platform interactions. Capturing this complexity accurately is critical for training reliable AI models.

Need for speed and quality control

The dataset had to meet strict quality and interaction standards within a compressed timeline, without building permanent internal data generation infrastructure.

SOLUTIONS IMPLEMENTED

Capability-led data production model

TP deployed a capability-led, end-to-end data production model combining scenario design, multimodal capture, and human-in-the-loop validation.

Structured multimodal data collection

We designed realistic enterprise meeting simulations aligned to actual business use cases. Each scenario included defined participant roles, structured objectives, and natural conversational flows to reflect real enterprise dynamics rather than artificial scripts.

Multimodal dataset preparation

Data was captured across synchronized audio and video channels to reflect authentic enterprise interactions. This included:

- Conversational turn-taking
- Interaction tracking
- Real-time response dynamics
- Cross-language communication patterns

The dataset was structured specifically for AI training, ensuring it could be directly integrated into model development workflows.

Human-in-the-loop quality governance

Every recording underwent structured human validation. Quality teams ensured:

- Natural conversational flow
- Accurate role adherence
- Clear interaction signals
- Consistency across languages

This governance framework guaranteed training-grade data integrity and protected downstream model performance.

REAL RESULTS

Scaled, production-ready data delivery

The outcome was a scalable, production-ready dataset designed to improve:

- Multispeaker attribution
- Conversational context tracking
- Real-time interaction interpretation
- Overall enterprise AI performance

By transforming fragmented or synthetic conversation data into structured, validated enterprise simulations, TP enabled faster model optimization and measurable accuracy gains across multilingual AI systems.

25

STRUCTURED SCENARIOS COMPLETED*

100%

OF MULTIMODAL MINUTES DELIVERED ACROSS ALL DEFINED SCENARIOS*

DEPLOYMENT COMPLETED IN

3 days

* The defined client KPIs were achieved.

TP.ai Dataservices establishes a strong foundation for effective and scalable enterprise AI end-to-end data services designed and operated to improve AI performance through quality data, human expertise, and AI orchestration.

Talk to an expert today

to discover more about our TP.ai Dataservices

