

THOR

Voice AI

From voice connectivity to voice services operators can sell

Two layers, one platform: call control and conversational business logic

WHAT IS THOR VOICE AI

THOR Voice AI is one platform with two layers.

Call control layer

Handles SIP signalling, media and call flow logic, embedded into IMS. This layer is not new: THOR is a product in daily production use at European operators, carrying live voice traffic for their subscribers, with horizontal scaling, session recovery and full monitoring, built for carrier-grade load and availability.

Business logic layer

Handles the conversation: which information the agent collects, which systems it uses, which rules apply, and what is handed back to the network at the end of the call. It is the newer part, and it runs on a platform operators already trust with production traffic.

The current pilot with a European operator is validating this business logic layer's integration into live IMS infrastructure without disrupting existing voice traffic.

» Everyone can build a voice agent. The question is whether it reaches the phone network. We have been in that network for years, and that is what we bring to AI. «

Martin Rückert,
Chief AI Officer, Tallence AG

ARCHITECTURE AT A GLANCE

- // Embedded into IMS / SIP Application Server
- // AI Gateway for real-time speech processing and reasoning
- // Telco Agent Layer for controlled, multi-step workflows
- // Full operator control over routing, policies, analytics and compliance

SOVEREIGNTY AND DEPLOYMENT

- // Runs in the operator data center, in a private cloud, or hosted by Tallence
- // Voice and customer data remain in the EU by default
- // Open-weight models by default, with no dependency on a single AI provider
- // Models can be replaced without reconfiguring the services built on top
- // Option to operate as a managed service, with capacity scaled to concurrent calls rather than billed per spoken word
- // Configuration, rules and connectors belong to the operator and can be exported

KEY CAPABILITIES

Data & consent

- // Which data the agent has to collect, and which of it is read back to the caller for confirmation — for example a contract or customer number

TECHNICAL DEEP-DIVE

Control & compliance

- // Protected actions that stay locked until the caller is identified, enforced outside the language model
- // A record for every call showing which data was collected, where it came from, and which action was blocked

Reasoning & routing

- // Business rules based on data from the call, from connected systems and from the network

- // Network information inside the dialog — for example the waiting position — available to the agent and to the rules

- // Intent-based routing, with intent, collected data and status handed back into the call flow

Integration

- // Connections to existing systems, including any HTTP interface with its own authentication

ILLUSTRATIVE SERVICE BLUEPRINTS

The same portfolio logic from an implementation angle: each blueprint is a configuration of the capabilities above, not a separate build.

Personal Phone Assistant (B2C)	Voice Concierge (SMB)	Service Line (Enterprise)	Services Around the Call
Screens incoming calls, captures intent, summarizes conversations and automates follow-ups on the subscriber's existing number.	Qualifies incoming calls for small businesses, captures relevant information and triggers workflows such as bookings, callbacks or ticket creation.	Identifies the caller, collects required information, queries the customer's own systems, and transfers the call with everything already known.	Post-call summaries and follow-up actions, live transcription and translation (EN, DE, FR, ES, PT, more on the roadmap), and fraud-pattern analysis of the live audio stream as a next step.
Built on: intent-based routing + protected actions for identity confirmation.	Built on: business rules engine + connectors to booking/ticketing systems.	Built on: network-aware routing (e.g. queue position) + connections to enterprise systems via authenticated HTTP interfaces.	Built on: real-time audio stream processing, separate from the call-control layer.

GETTING STARTED: TECHNICAL PROOF OF CONCEPT

A scoped pilot validates the integration into the operator's live IMS infrastructure, the data and deployment model chosen, and one initial service blueprint end to end — before committing to the full portfolio build. It is designed to run alongside existing voice traffic, without requiring changes to subscriber-facing numbers or behavior.

CONCLUSION

THOR Voice AI gives operators a repeatable, scalable model for launching AI-powered voice services: embedded directly into the network, with full operator control over routing, policies, data residency and compliance.

ABOUT TALLANCE

Tallance is a consulting and technology partner with proven expertise in business-critical telco environments. For over 25 years, the company has supported leading network operators in designing, building, and operating platforms across core network, BSS, and OSS domains. With a strong focus on execution and deep domain knowledge, Tallance enables operators to modernize complex system landscapes and accelerate innovation. This foundation makes Tallance a trusted partner for next-generation solutions such as THOR Voice AI.

Tallance AG // Office Hamburg
 Neue Gröningerstraße 13
 20457 Hamburg

info@tallance.com
 www.tallance.com