Twilio Unveils Voice AI Capabilities for Businesses to Deploy Natural-Sounding AI Voice Agents at Scale

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New capabilities help teams connect their preferred AI models, speech providers, and agent environments to live calls with real-time configuration controls, production resilience, and no vendor lock-in

Major enhancements for smooth, natural, and interruption-free phone conversations include smart turn detection and HD Audio in Conversation Relay and new Agent Connect integrations

SAN FRANCISCO--(BUSINESS WIRE)--Nov. 17, 2026-- Twilio (NYSE: TWLO), the infrastructure for customer engagement in the AI era, today announced new voice AI infrastructure capabilities across Conversation Relay and Agent Connect designed to eliminate technical hurdles that break voice AI conversations in the real world. Conversation Relay and Agent Connect are part of the Twilio Conversations layer, which gives organizations the context, coordination, and control to run AI-powered conversations across any mix of channels, agents, and systems.

Building a voice AI proof-of-concept is simple, but moving it into production at enterprise scale exposes critical operational friction. Off-the-shelf setups frequently fail in the real world, with most real-time voice AI setups breaking down due to three reasons: rigid silence timers that cut callers off mid-thought, speech vendor outages that drop live calls, and locked agent platforms with restrictive architectural limitations.

Twilio's latest Conversation Relay capabilities address these challenges directly by delivering production resilience, natural real-time conversations, and the flexibility to integrate best-of-breed AI models and voice providers. Additional improvements to Agent Connect include SDK partner packages, product capabilities, and developer tooling, making it easier for teams to integrate Twilio services into AI-powered customer engagement workflows.

"Twilio's open Voice AI infrastructure prevents lock-in by allowing teams to connect any LLM, agent framework, or speech engine to live telephony," said Omar Paul, Vice President of Product, Twilio. "With built-in smart turn detection, automated speech to text failover, dynamic mid-call session configuration controls, and prior conversational context, engineering teams can deploy ultra-reliable, human-like voice agents at global scale."

Production-ready Voice AI for real-world reliability

Twilio solves production hurdles directly at the communications layer by giving engineering teams the reliability, natural conversation quality, and operational control required to run voice AI at scale. Conversation Relay and Agent Connect simplify the deployment of real-time voice AI in production by connecting live customer phone calls to any AI model, speech provider, or agent runtime while managing underlying media complexity automatically.

Conversation Relay updates include:

- **Smart Turn Detection** (General Availability this month)**:** Helps create natural, human-like voice AI experiences by reducing awkward pauses, premature responses, and mid-sentence interruptions. By evaluating live speech audio cues instead of relying on simple silence timers, Conversation Relay accurately recognizes when a caller is naturally finishing a thought versus just pausing or hesitating.
- **HD Audio** (General Availability this month)**:** Delivers higher-fidelity, more natural voice interactions for real-time AI agent conversations. By using wideband audio, Conversation Relay can capture a broader range of speech frequencies, improving the clarity and quality of audio passed between callers and AI systems.
- **Advanced Conversational Voice** (Generally Available)**:** Brings ElevenLabs' latest low-latency v4 Turbo conversational voice model, enabling more natural, expressive, and multilingual voice experiences across 90+ languages.
- **Dynamic Configuration Parameters** (General Availability this month)**:** Expands real-time WebSocket controls to support dynamic updates to additional session parameters, reducing latency and customer workarounds.
- **Speech-to-Text (STT) Failover** (General Availability this month)**:** Automatically switches between STT providers during outages, latency spikes, or stream errors to preserve call continuity with no customer code required.

These new Conversation Relay capabilities combine to create more natural, higher-quality voice AI interactions for consumers with less overhead and engineering for teams so they can focus on building differentiated consumer experiences that can scale to new use cases, languages, and geographies.

Additional voice AI infrastructure capabilities generally available today and in the coming weeks include Agent Connect SDK partner packages and tooling enhancements, expanded language coverage, and enhanced recording and transcription configuration options.

To help strengthen deployment confidence in AI agents, Twilio also introduced new Conversation Intelligence capabilities designed to supervise AI-powered customer interactions with native transcript analysis. Organizations can evaluate real customer conversations for quality and policy compliance, and receive actionable signals on accuracy, task completion, loop detection, and hallucinations — pinpointing exactly when to escalate to human agents and how to improve agent performance.

"Businesses are becoming much more focused on investments that can scale and deliver measurable improvements to customer service. Voice AI presents a significant opportunity to ease some of the operational pressures that come with supporting customers at scale," said Adam Holtby, Principal Analyst at Omdia. *"Being able to connect voice AI with the AI models and business systems organizations are already investing in will be important in accelerating time to value. Solutions that make customer interactions feel easier and more natural, while recognizing when a human needs to step in, will be well positioned for success."*

“Our investment in Voice AI has always been about making vehicle subscription simpler and more flexible for our customers, where responsiveness is everything. Integrating Twilio’s voice infrastructure directly into our platform has helped us move away from clunky automated phone trees to interactions that actually feel natural and don’t cut people off when they speak,” said Sam Zammit, Chief Product Officer and Co-Founder, Karmo. *“Having that foundation embedded in our systems, backed by a strong collaboration with Twilio, gives us the confidence to keep investing and actively test new use cases across the entire Karmo experience”.*

About Twilio

Twilio (NYSE: TWLO) is the infrastructure for customer engagement in the AI era. By combining global communications, memory, and AI orchestration with identity, governance, and observability, Twilio enables businesses to deliver continuous, contextual, personal, and secure conversations across every channel and participant—human or AI.

Across 180+ countries, hundreds of thousands of the most innovative companies—from the Fortune 500 to startups—and millions of developers, rely on Twilio’s global platform across messaging, voice, email, and beyond, to power trusted customer experiences that drive real results. For more information about Twilio visit www.twilio.com

Forward-Looking Statements

This press release contains forward-looking statements, including, but not limited to, statements regarding Twilio’s expectations for new product offerings and capabilities, platform expansion, and future product availability.

You should not rely upon forward-looking statements as predictions of future events, the outcome of which are subject to known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to differ materially from those described in the forward-looking statements, including those more fully described in our most recent filings with the Securities and Exchange Commission.

Forward-looking statements represent our beliefs and assumptions only as of the date such statements are made and we undertake no obligation to update any forward-looking statements, except as required by law.

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