

CompletePBX AI Virtual Agents Data Sheet

Intelligent, AI-Powered Voice Automation for Modern Business Telephony

The new Virtual Agents module allows organizations to configure AI-powered voice agents to automate call handling, significantly improve customer experience, and increase operational efficiency. Designed for seamless integration into your telephony infrastructure, our Virtual Agents act as your frontline responders, advanced automated receptionists, and 24/7 knowledge-base attendants.

Available Agent Profiles

Virtual Receptionist

Automates call routing by interacting intelligently with callers. Seamlessly connects users to specific Departments, Queues, Ring Groups, Extensions, or individual Agents based on natural language requests. Capable of intelligent transfer confirmations and listing department directories.

Informative Agent

Perfect for FAQ and frontline support. Utilizes uploaded Knowledge Base documents to answer caller queries accurately. Can intelligently route the call to a fallback/exit destination if human intervention is required or the max call duration is reached.

Custom Agent

A highly programmable AI agent driven by custom system prompts. Executes complex conversation flows, utilizes external tools (like sending emails or triggering custom scripts), handles reasoning, and triggers system hooks upon specific events.

Agent Types Comparison Table

Feature	Virtual Receptionist	Informative Agent	Custom Agent
Intelligent call routing	✓	—	✓
Knowledge Base Q&A	—	✓	✓
Custom instructions	✓	✓	✓
Custom AI prompt & persona	—	—	✓
Third-party integrations (Tools)	—	—	✓
Automated event hooks	—	—	✓
Customizable greetings & messages	✓	✓	✓
Call recording & transcription	✓	✓	✓
Max call duration control	—	✓	✓
Multi-language support	✓	✓	✓
Behavior based on Time Groups	✓	✓	-

Core Capabilities

- **Advanced Speech Detection:** Built-in and Local Voice Activity Detection (VAD) with customizable "barge-in", allowing callers to naturally interrupt the bot.
- **Knowledge Base Integration (RAG):** Upload DOCX, PDF, TXT, and MD files. The agent automatically parses these documents to answer queries accurately, providing custom "filler" audio while searching.
- **Robust Language Support:** Configurable default languages with Extension Language Override to dynamically serve callers in their preferred language.

Advanced Programmability

- **Customizable Tools & Scripts:** Custom agents can invoke dynamic scripts during conversations (e.g., Get Current Time, Send Email). Tools exchange JSON data and maintain per-call state directories.
- **Event-Driven Hooks:** Trigger scripts automatically on Session Start, Session End, or Session Redirect. Perfect for post-call processing, analytics, and data logging.
- **LLM Tuning & Reasoning:** Fine-tune AI responses by adjusting temperature, top-p, and top-k parameters. Configure dynamic "thinking budgets" for complex logic resolution.
- **Integration & CRM:** Call recording, AI-generated transcription, and post-call sentiment analysis.
- **CRM & system integration:** Push call summaries, transcripts, and metadata to any CRM or business system at call end, via native integration or custom hooks.

Knowledge Base (Custom and Informative Agent)

Supported file formats	DOCX, PDF, TXT, MD
Retrieval method	Retrieval-Augmented Generation (RAG): Searches and cites relevant content in real time
Number of documents	Unlimited; multiple files per agent
Agent types	Custom Agent and Informative Agent

Tools & Third-Party Integrations (Custom Agent)

Custom scripts extend the agent's capabilities during a live call. The AI decides when to call a tool based on the caller's input and the instructions in the prompt.

Script languages	PHP, Python (.py), Shell (.sh)
Input / Output	Single JSON argument in; JSON response to stdout
Per-call session storage	Temporary session directory shared between tools and hooks within the same call
Built-in system tools	Get Current Time (get_current_time), Send Email (send_email)
Custom tool parameters	Configurable name, data type, and description per parameter; AI understands context automatically

Automated Event Hooks (Custom Agent)

Hooks are scripts executed automatically by the system, not by the AI, when specific call events occur. They are ideal for post-call processing, CRM updates, analytics, and notifications.

Trigger events	Session Start, Session End, Session Redirect (one or more per hook)
Hook input payload	Trigger event, caller ID, agent, start/end time, duration, call recording file, transcript file, call summary, session directory
Typical use cases	Push call summary to CRM, log transcripts, send notifications, update databases
Configuration	Upload script file, assign name, select trigger events — no prompt configuration required

Call Flow & Conversation Management

Exit destination	Configurable route when a caller requests a human agent, or the virtual agent cannot help
Failure destination	Automatic fallback routing if the virtual agent service becomes unreachable
Max call duration	Limit call length and route to the exit destination automatically (Informative Agent)
Multi-language support	Language configured per agent; can be overridden dynamically from PBX extension settings to serve callers in their preferred language

Recording, Transcription & Analytics

Call recording	Optional per-agent recording of all calls
Live transcription	Full transcript of the caller and agent dialogue saved per call
Call summary	AI-generated summary of the conversation outcome
Call sentiment	AI-detected sentiment analysis of the call (positive, neutral, negative)
Independent summary generation	Summary and sentiment generated in a dedicated LLM call after the conversation, separate from the in-call model, for higher accuracy

Platform Integration & Administration

PBX integration	Native module in CompletePBX 5.3.+, no separate installation or third-party accounts required
Dialplan routing	Agents are dialable destinations (extension codes) within the PBX, assignable to any incoming call flow
Departments & org structure	Assign departments to agents to improve routing accuracy and context
Multiple agents	Configure and run multiple agents simultaneously, one per use case or per department
Advanced settings	Expert parameter overrides are available via the ADVANCED tab for voice, speech, and model tuning

System Requirements

Software	Xorcom CompletePBX v5.3.x
Internet access	Required for AI model API calls (Gemini / OpenRouter)
Platform compatibility	Supported on all Xorcom CompletePBX hardware appliances and software installations (VM or cloud) running Debian OS (CentOS based systems are not supported).