Webitel Architecture

Gliffy Macro Error

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- **Name:** Webitel Architecture

- [Webitel installation and licensing on one server](#) - up to 50 thousand calls per day
- [Basic Architecture of the Industrial Environment](#) - about 400 thousand calls per day
- [Extended Architecture of the Industrial Environment](#) - more than 500 thousand calls per day

Name	Description
Debian Linux 11	The operating system under which Webitel application suite is being developed
PostgreSQL 15	A critical piece of architecture. The main database for storing configuration and user data. All applications (except RTP, FreeSWITCH, and Nginx) are connected to the database. The database files are physically stored in /var/lib/postgresql unless otherwise specified during installation. The basic package includes additional modules: • TimescaleDB • Webitel Extension
Consul	A critical piece of architecture. Decentralized fault-tolerant discovery service from HashiCorp. Every application (except PostgreSQL, RTP, OpenSIPS, and Nginx) registers with this service.
rabbitmq	A critical architectural element. Messaging bus between services: • OpenSIPS - publishing device registration statuses and dialogs • FreeSWITCH - publishing statuses of dialogs and execution of voice applications • Webitel - publishing, and reading user statuses and voice channels • Messages - publishing text applications • Engine - publishing and reading user statuses • CallCenter - publishing and reading agent statuses. Publication and reading of work statuses of dialers • Flow - publishing and reading the execution statuses of voice and text applications • Storage - read dialog statuses
OpenSIPS	SIP Proxy - provides signaling protocol (SIP/WebRTC)
RTP	rtpengine - provides multimedia protocols
FreeSWITCH	Voice media server. Allows to create an IVR menu and combine voice channels. The basic package includes additional modules: • Webitel GRPC • AMD - work with autoresponders • AMQP - work with rabbitmq • Transcribe - asynchronous work module with STT • PUSH - support for PUSH messages for registrations on mobile devices (iOS/Android)
nginx	Application Web Server. Provides HTTP REST API and WebSocket proxying.
Grafana	Service for building reports and dashboards from a database of calls, chats and users
Webitel API Gateway	Gateway between public HTTP REST API and internal GRPC protocol
Webitel Applications	License and user status manager
Webitel UAC	Support for SIP connections with registration (PSTN)

Messages Bot	Public service for registration and interaction with chatbots
Messages Worker	Internal text message processing service
Engine Worker	Internal service for working with the WebSocket protocol and API
CallCenter Worker	Internal service for working with the queue manager, dialers, and CC agents
Flow Manager	An internal service for interpreting JSON schemas for routing calls, bots, voice menus, and more. Interacts with external HTTP web services, invokes Web hooks, and can execute queries against external SQL databases.
Storage	Service for processing and storing media files. Provides TTS/STT services. If S3 storage is not used, then the conversation recording files are stored in /opt/storage , unless otherwise specified during installation.