Presentation

MiRTA PBX is a cloud PBX platform built on Asterisk for VoIP providers, hosted PBX operators, call centers, and enterprises that need centralized voice services, tenant separation, and scalable operations.

This manual is the operational entry point for administrators, tenant managers, support teams, and integrators working with MiRTA PBX in production environments.

What MiRTA PBX Provides

- **Cloud PBX delivery:** run hosted PBX services from a centralized platform designed for provider and enterprise voice operations.
- **Multitenant management:** keep customer environments logically separated while sharing a common service platform.
- **Realtime configuration:** store configuration and tenant state in the database so Asterisk can retrieve data dynamically where supported.
- **HA-ready architecture:** operate Asterisk nodes as a pool and scale capacity by adding nodes around shared database-backed configuration.
- **Call flow and routing tools:** manage DIDs, extensions, routing profiles, IVRs, conditions, feature codes, queues, and custom destinations.
- **Provisioning and endpoint operations:** automate phone configuration with generic templates and provisioning workflows.
- **Contact center features:** build queue strategies, callbacks, reporting, monitoring, switchboard workflows, and agent-facing operations.
- **Media, AI, and collaboration integrations:** manage recordings and prompts, use TTS/STT services, support WebRTC softphone workflows, and integrate with modern voice experiences where configured.
- **Security and abuse prevention:** use operational controls such as call limits, fraud mitigation, GeoIP filtering, User-Agent validation, and Fail2ban integration patterns.

Who This Manual Is For

- **Platform administrators** who install, upgrade, monitor, secure, and scale MiRTA PBX.
- **Tenant administrators** who configure extensions, DIDs, call routing, IVRs, queues, voicemail, and user-facing features.

- **Support engineers** who troubleshoot registrations, call failures, media issues, queues, provisioning, and tenant configuration.
- **Integrators** who connect MiRTA PBX to billing, CRM, storage, monitoring, APIs, TTS/STT, Microsoft Teams, WebRTC, or AI-assisted workflows.

Core Concepts

Concept	Meaning
Tenant	A logically separated customer or organization environment with its own PBX configuration and operational behavior.
Asterisk node	A call-processing server that participates in a single-node or clustered MiRTA PBX deployment.
Realtime configuration	A database-backed model where configuration can be read dynamically by Asterisk instead of relying only on static flat files and reloads.
Routing profile	A set of outbound routing rules, restrictions, provider choices, and number transformations.
Destination	A target in the call flow, such as an extension, IVR, queue, voicemail, hunt list, custom destination, or external route.
Provisioning template	A reusable template used to generate phone configuration files for supported endpoint workflows.
Switchboard	A real-time operator panel for monitoring calls and queues and performing assisted call actions where enabled.

Manual Roadmap

The manual should grow around the way operators actually use MiRTA PBX:

1. **Architecture and deployment:** platform topology, web layer, database, Asterisk nodes, clustering, DNS/SIP/RTP design, and HA considerations.
2. **Administration:** licensing, nodes, system settings, users, permissions, defaults, monitoring, backups, upgrades, and maintenance.
3. **Tenant setup:** tenants, extensions, DIDs, voicemail, media files, phone books, provisioning, feature codes, and tenant defaults.
4. **Call flow design:** destinations, conditions, calendars, IVRs, hunt lists, queues, routing profiles, caller ID manipulation, and custom logic.
5. **Contact center operations:** queues, agent behavior, callbacks, switchboard, wallboards, recordings, reports, and statistics.

6. **Security and fraud control:** registration hardening, call limits, GeoIP, Fail2ban, TLS, network exposure, and abuse response.
7. **Integrations:** APIs, database integrations, billing, CRM, storage backends, TTS/STT, WebRTC, Microsoft Teams, SMS, fax, and AI workflows.
8. **Troubleshooting:** SIP registration, one-way audio, failed calls, logs, Asterisk diagnostics, provisioning failures, queues, fax, voicemail, and performance.

First Steps for New Administrators

1. Understand the deployment topology: single node or clustered, database location, SIP/RTP routing, and tenant boundaries.
2. Review global settings before creating tenants, especially security, language, media, recording, provisioning, and WebRTC-related defaults.
3. Create or verify the tenant, then configure extensions, DIDs, outbound routing, voicemail, media files, and required feature codes.
4. Test inbound calls, outbound calls, internal calls, voicemail, failover behavior, and emergency or restricted dialing paths before production use.
5. Enable monitoring, backups, log review, and fraud controls before exposing services broadly on the public Internet.

Source Material

- MiRTA PBX home page
- MiRTA PBX architecture overview
- MiRTA PBX feature overview
- MiRTA PBX licensing overview
- Legacy public documentation is being migrated into these BookStack manuals.

Created: 2026-06-02. Source review: public website plus local codebase location `/var/www/html/mirtapbx`.

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