

ELFAHAM SOFTWARE SOLUTIONS CLOUD SUITE

Elfaham Gym Cloud SaaS Platform

Enterprise Multi-Branch Gym Management System

Enterprise Cloud SaaS Architecture Highlights:

- Centralized multi-branch operations managing up to 5 branches under a unified tenant.
- 4 synchronized surfaces: Desktop Workstation, Web Console, Mobile Scanner, and Telegram Bot.
- Commercial digital license quotas: 5 Desktop Seats, 5 Web Sessions, 10 Mobile Devices & Bot.
- Real-time WebSocket event synchronization with robust offline buffering for gate check-ins.
- Turnstile electronic hardware integration, barcode pass generation, and instant receipt printing.
- Consolidated financial auditing: shift handovers, drawer balances, and multi-branch cash flows.

☐☐ Desktop Reception Station

☐ Web Management Console

☐ Mobile QR Scanner App

☐ Telegram Smart Bot

1. Architecture & The 4 Connected Surfaces

The Elfaham Gym Cloud SaaS ecosystem operates across four dedicated clients connected to the Cloud Core:

❑ **Desktop Workstation (Turnstile & Reception Client)**

- High-performance desktop client for front-desk PCs, turnstile controllers, and barcode readers.
- Hardware pulse signals for motorized turnstiles, optical sensors, and access barrier relays.
- Offline-tolerant check-in buffer: continues processing memberships even if the internet is down.

❑ **Web Management Console (Multi-Branch Browser Hub)**

- Central SaaS console accessible by gym owners, general managers, and branch accountants.
- Instant branch switcher to view live attendance, cash receipts, and member rosters across branches.
- Full subscription lifecycle management: plan creation, instant freeze, renewals, and discount policies.

❑ **Mobile Scanner & Coach PWA (Android APK & Mobile Web)**

- Rapid QR scanner designed for fitness coaches, gate security staff, and personal trainers on the floor.
- Instant camera barcode scanning validating member status, active plan duration, and remaining visits.
- Real-time access feedback banner with member profile snapshot and membership expiry warnings.

❑ **Telegram Management Bot (@Elfaham_Cloud_GMS_bot)**

- Real-time push alerts sent to gym owners upon shift closure, cash drawer handovers, and large sales.
- One-click status queries: request daily revenue summaries, active attendance counts, and alert digests.
- Secure single-use pairing code linking authorized managers directly to their gym cloud tenant.

2. Digital Commercial License Quotas & Seat Enforcements

Channel Surface	Seat Quota	Enforcement Mechanism
Desktop Reception Stations	5 Workstation Seats	Machine ID (DESK-XXXX) hardware-locked
Web Management Sessions	5 Concurrent Sessions	Authenticated user roles & token leases
Mobile Scanner Devices	10 Android Devices	Device ID (MOB-XXXX) registration
Telegram Bot Alerts	Enabled per Tenant	Secure HMAC-validated pairing code
Branch Capacity	Up to 5 Branches	Tenant-scoped database branch partitions

3. Daily Operational Workflows & Shift Cash Reconciliation

A unified workflow prevents revenue leakage and keeps multi-branch records audit-ready:

1. Shift Opening & Cash Drawer Float

The front-desk receptionist opens a new shift before processing transactions, entering the starting cash float. All sales and subscriptions

2. Member Onboarding & Subscription Plans

Enter member identity, upload photo, and select a membership plan (monthly, multi-month, VIP). Multiple payment methods (cash, card,

3. Rapid Turnstile Check-in & Barcode Scan

Scanning member barcode validates active subscription status in <500ms. An automated trigger pulse is fired to the turnstile relay while

4. Shift Closure & Telegram Handover Alert

At shift end, the employee tallies the cash drawer and submits closure. The system calculates variance and immediately pings the owner

4. Upgrading from the Local Single-Branch System

Existing installations running the local offline edition can migrate seamlessly without downtime:

One-Click Data Migration Steps:

1. Open the Web Console and navigate to (☐ Local Data Migration) in the sidebar.
2. Select your local database file (gym.db) or the latest automated backup zip.
3. Choose the target destination branch to associate imported members and subscriptions.
4. Click (Start Cloud Migration) — the system imports active members, subscriptions, and financial records.

5. Security, Backups & Dedicated Support

☐ Multi-Tenant Database Isolation

Every gym tenant is strictly isolated by a unique cryptographic Tenant ID. Queries and event broadcasts are strictly partitioned to ensure

☐ Encrypted TLS & SHA-256 JWT Authentication

All communications between desktop stations, mobile scanners, and web consoles use high-grade TLS encryption and signed JSON Web

☐ Automated 6-Hour Cloud Snapshots

Continuous database backups are captured every 6 hours, allowing point-in-time restoration without risk of data loss.

☐ 24/7 Dedicated Technical Support

Official Cloud Endpoints & Resources

Web Management Console: <https://www.elfaham-solutions.com/gym-cloud/web>

Mobile Scanner Web: <https://www.elfaham-solutions.com/gym-cloud/mobile>

Telegram Bot: @Elfaham_Cloud_GMS_bot (https://t.me/Elfaham_Cloud_GMS_bot)