

REST API Overview

The CMS exposes a REST API that mirrors all major platform functions, allowing administrators, partners, and developers to automate operations.

API Design Principles

- **Standards-Based:** JSON over HTTPS, aligned with REST conventions.
- **Role-Aware:** All calls are scoped to the authenticated user's role (Platform, Distributor, Partner, Tenant).
- **Secure by Default:** Requires bearer tokens obtained through login or federation flows.
- **Consistent Resources:** Entities in the API (Distributors, Partners, Tenants, Subscriptions, Usage, Billing, Commissions) align directly with portal objects.

Authentication

- **Login Flow:** Obtain a token via the `/api/v1/auth/login` endpoint.
- **Federated Tokens:** Forward Microsoft Entra or Google tokens for verification at `/api/v1/auth/federated`.
- **Token Lifetime:** Tokens are time-bound; refresh before expiry to avoid failures.

Core Endpoints

- **Distributors & Partners**
 - `/api/v1/distributors` - create, list, and manage distributors
 - `/api/v1/partners` - create, list, and manage partners
- **Tenants & Subscriptions**
 - `/api/v1/tenants` - onboard tenants, assign admins
 - `/api/v1/subscriptions` - create and manage subscriptions
- **Plans & Pricing**
 - `/api/v1/plans` - publish and update plans
 - `/api/v1/pricing` - define SKUs, rates, and thresholds
- **Usage & Billing**
 - `/api/v1/usage` - ingest usage data
 - `/api/v1/billing/summary` - generate subscription and tenant billing summaries
- **Commissions**
 - `/api/v1/commissions/summary` - calculate and retrieve commissions for partners and distributors
- **System & Identity**
 - `/api/v1/settings` - update branding, licensing, and identity configs
 - `/api/v1/roles` - assign or update user roles

Typical Automation Scenarios

- **Tenant Onboarding**

Automate tenant creation, subscription assignment, and role setup via API.

- **Usage Ingestion**

Post usage records into `/api/v1/usage` on a scheduled job (e.g., nightly processing per region).

- **Billing Automation**

Trigger invoice generation and retrieve billing summaries at end-of-month.

- **Commission Reconciliation**

Automate pulling `/commissions/summary` for financial reporting and payouts.

- **Integration with External Systems**

- Connect billing output to finance/ERP systems.
- Forward alerts or health checks to monitoring solutions.
- Sync user identity with corporate directories.

Developer Notes

- Full Swagger documentation is bundled with the CMS at `/swagger`.
- API clients can be generated automatically from the provided `swagger.json`.
- Rate limits apply to protect system performance; batch operations where possible.

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