

Module Feature Document

1. Auth & Identity Module

Purpose: Secure access, identity verification, and permission-based session management.

- **Requirements:**
 - OAuth2 / Social Login (Google, GitHub, Apple).
 - Multi-Factor Authentication (MFA) for creators.
 - Role-Based Access Control (RBAC): Admin vs. Creator vs. Viewer.
 - Session persistence and JWT management.
 - **Pages:**
 - `/auth/signin` : Single Sign-On (SSO) and traditional email/password login.
 - `/auth/signup` : Multi-step onboarding (role selection: Viewer or Creator).
 - `/auth/forgot-password` : Email-based recovery flow.
 - `/auth/reset-password` : Token-validated password reset.
 - `/auth/verify-email` : Post-signup verification landing.
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2. Viewer & Discovery Module

Purpose: The consumer-facing "TV" experience where users browse, watch, and subscribe.

- **Requirements:**
 - **EPG Engine:** Fetch and display real-time "What's Playing" data across 100+ stations.
 - **DRM-protected Player:** HLS/DASH streaming with tier-validation before every chunk request.
 - **Search/Filter:** Fuzzy search across creators, categories, and video tags.
- **Pages:**
 - `/` : Global Home (Featured Bundles, Live Now, "Continue Watching").
 - `/browse` : The Marketplace (Filtering by "Indie Stations" vs. "Mega Packs").
 - `/guide` : The Electronic Programming Guide (Grid layout of schedules).
 - `/station/:slug` : Public Station Profile (Bio, Tiers, Preview Videos).
 - `/watch/:videoId` : VOD Player Page (with "Up Next" sidebar and tier-locked comments).
 - `/live/:stationId` : Live Player Page (with persistent WebSockets Chat).

- `/packs/:packId` : Bundle Landing Page (Detailing every station included in a "Collection").
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3. Creator Studio Module

Purpose: The complex management suite where creators operate their business.

- **Requirements:**
 - **Asset Ingestion:** Chunked file uploads with progress tracking and server-side processing.
 - **Logic Engine:** UI to map "Level 3" to "Forum Access" + "Exclusive VODs."
 - **Scheduling:** Time-slot collision detection (preventing two videos from being scheduled at the same time).
 - **Pages:**
 - `/studio/dashboard` : Metrics overview (Revenue, Watch time, Subscriber churn).
 - `/studio/content` : Video Library (Search, Bulk Edit, Status: Draft/Published/Scheduled).
 - `/studio/content/upload` : Drag-and-drop uploader with metadata forms.
 - `/studio/schedule` : Calendar view to set the "Program Guide" for the station.
 - `/studio/tiers` : The "Cable Pack" builder (Pricing, Perk definition, Level names).
 - `/studio/community` : Forum moderation and "Pinned Posts" management.
 - `/studio/payouts` : Financial wallet (Transaction history, tax forms, withdrawal).
 - `/studio/settings` : Station branding (Logos, Custom CSS/Themes, SEO).
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4. Community & Perks Module

Purpose: The social layer where subscription value is realized through engagement.

- **Requirements:**
 - **Tier-Gating:** Middleware to prevent URL-guessing for private forum threads.
 - **Real-time notifications:** Toast/Push notifications for mentions or reward drops.
 - **User Reputation:** Automated badge assignment based on subscription length.
- **Pages:**
 - `/community` : Global Social Hub (Feed of all creators the user is subscribed to).
 - `/community/:stationId` : Specific Station Forum (The "Subreddit" for that creator).
 - `/community/:stationId/threads/:id` : Deep-dive thread view (Nested comments).
 - `/community/perks` : Redemption Center (Claiming digital keys, wallpapers, or merch).

- `/profile/:userId` : Public social profile (Showing badges and "Top Supporter" status).

5. Account & Billing Module

Purpose: Self-service portal for managing financial commitments.

- **Requirements:**
 - **Stripe/PayPal Integration:** Secure payment methods and automated invoice generation.
 - **Proration Logic:** Logic to handle "Switching from Pack A to Pack B" mid-cycle.
- **Pages:**
 - `/account/settings` : Basic profile (Avatar, Display Name, Password).
 - `/account/subscriptions` : List of active/canceled stations and bundles.
 - `/account/billing` : Payment method management and transaction history.
 - `/account/notifications` : Granular toggle for email/push alerts.

6. Global Admin Module

Purpose: Platform-wide governance and curation.

- **Requirements:**
 - **Global Moderation:** Ability to ban creators or take down violating content.
 - **Curator Tools:** Drag-and-drop tool to create "Official Site Bundles."
- **Pages:**
 - `/admin/dashboard` : Platform-wide health (Server load, Total MRR, New Signups).
 - `/admin/creators` : Approval queue for new station applications.
 - `/admin/bundles` : Management of site-wide "Cable Packs."
 - `/admin/safety` : Centralized reports queue (Videos/Comments flagged by users).

Quick Summary Table

Category	Total Pages	Critical Requirement
Auth	5	MFA for Creator Security
Viewer	7	Low-latency 4K streaming & EPG
Studio	8	Automated Tier-Access logic

Category	Total Pages	Critical Requirement
Community	5	WebSocket-based Tier-gated forums
Billing	4	Prorated Bundle Calculations
Admin	4	Global Revenue & Safety tracking