IPTV System

Professional Stream Distribution & Channel Management Platform

DATASHEET

100+	Multi-Protocol	Web UI	REST API	1 RU
CHANNELS	DISTRIBUTION	MANAGEMENT	INTEGRATION	FORM FACTOR

The Hornets Tech IPTV System is a professional stream distribution and channel management platform that receives **MPEG-TS/UDP streams** from broadcast encoders and redistributes them to clients via multiple protocols including **UDP, HLS, and WebRTC**. With a web-based admin dashboard, real-time health monitoring, automatic stream detection, and a full REST API, it serves as the central headend for enterprise IPTV deployments.

SIGNAL FLOW

KEY FEATURES

- 100+ simultaneous channel capacity
- MPEG-TS/UDP ingest (multicast & unicast)
- Multi-protocol output: UDP, HTTP-TS, HLS, WebRTC
- Web-based admin dashboard with live preview
- Channel grouping & category management
- Real-time channel status monitoring
- Per-channel viewer count tracking
- Automatic active stream detection
- Live stream preview playback in browser
- System health monitoring (CPU, RAM, temp)
- Real-time bandwidth monitoring per interface
- System alerts with configurable thresholds
- Full REST API for automation & integration
- STB auto-provisioning via channel API
- Always-on auto-reconnect on encoder restart

PRODUCT

INGEST SPECIFICATIONS

Protocol	MPEG-TS / UDP (multicast & unicast)
Video Codec	H.264
Audio Codec	AAC, Opus
Max Channels	100+ concurrent streams
Port Mapping	Configurable per channel
Auto-Reconnect	Always-on (survives encoder restart)

DISTRIBUTION SPECIFICATIONS

MPEG-TS / UDP	Multicast & unicast redistribution
MPEG-TS / HTTP	HTTP streaming for non-UDP clients
HLS	Adaptive streaming for mobile & web
WebRTC	Ultra-low-latency browser playback
Network	10 GbE recommended (separate NICs)
Bandwidth	Real-time per-interface monitoring

TYPICAL APPLICATIONS

- Hotel & hospitality IPTV headend
- Broadcast facility stream distribution
- Corporate campus-wide TV distribution
- Sports venue multi-screen distribution
- Hospital & healthcare patient TV systems
- Digital signage content distribution
- Multi-site enterprise IPTV infrastructure

MANAGEMENT & MONITORING

Web Dashboard	Browser-based admin interface
Channel Management	Add, edit, delete, group channels
Live Preview	In-browser stream playback
Stream Detection	Auto-scan for active MPEG-TS streams
Health Alerts	CPU, RAM, network, time sync alerts
Viewer Metrics	Real-time per-channel viewer count
API	RESTful JSON (channels, status, alerts)
STB Integration	Auto-provisioning via channel API

PHYSICAL & ENVIRONMENTAL

Form Factor	19″ rack-mount, 1 RU
Network	Up to 10 GbE
Operating Temp	0 °C to +40 °C
Humidity	10–90 % RH, non-condensing
Compliance	CE, FCC Class A

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info@hornets-tech.com