

## ZenMaster Command and Control Streaming Infrastructure

### GLOBAL COMMAND AND CONTROL STREAMING INFRASTRUCTURE

ORCHESTRATE, MANAGE AND MONITOR SIMPLE TO COMPLEX DEPLOYMENTS WITH ZEN MASTER MANAGES ZIXI, SRT, RIST, RTP, RTMP, HLS & MORE

Zixi's Software-Defined Video Platform (SDVP) enables global media organizations of all sizes and complexities to deliver and manage live, broadcast-quality video across any IP, any protocol, any cloud and any edge device with low latency and proven reliability.

To manage simple to large-scale configuration and monitoring of the Zixi Enabled Network from one central interface, customers rely on the **ZEN Master** live video orchestration and telemetry control plane.

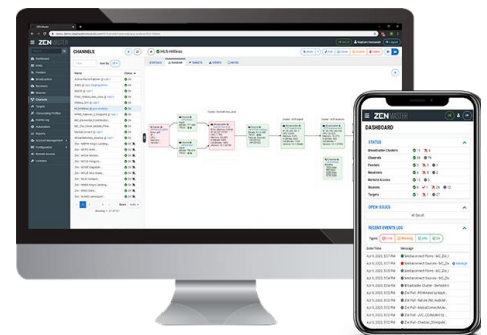
#### ONBOARD & MANAGE LIVE STREAMS FROM ANY BROWSER

With Zixi's ZEN Master cloud-based control plane, users can cost-effectively manage and monitor complex deployments at scale and configure and orchestrate live broadcast channels across protocols and the Zixi Enabled Network of integrated devices and applications.

ZEN Master allows for control of edge, network, and cloud devices with full telemetry and visualization of network streams by offering essential tools like workflow visualization, alerting, history, automation, scheduling, reporting, and root cause analysis across complex media supply chains.

#### MONITOR & ACCESS ZIXI INSTANCES AND INTEGRATED DEVICES

- **Comprehensive & Consolidated Dashboard** – Provides a centralized, permission-based view of Zixi applications, sources, channels and targets and their status, in addition to open Issues, and Recent Events
- **Manage Zixi Feeders, Broadcasters and Receivers** – Complete control and visualization of the Zixi applications used to push and pull video across the supply chain
- **Inputs** – Easily setup, view and monitor inputs and content in addition to automatic alerting for SCTE markers silent audio, blank picture, frozen video, audio clippings, TR101 analytics
- **Monitor Workflows** – Transport and visualize a Source using Zixi or another integrated protocol, with the ability to transcode source down to a lower bitrate or to OTT, HLS or DASH Delivery
- **Deliver to Any Endpoint** – Deliver content to 95% of existing broadcast devices including CDNs, Smart TVs and OTTs around the world with the ability to multicast
- **Access Edge Devices** – Full access GUI of encoders, decoders, and other devices on any remote network.



#### ZEN MASTER PROVIDES:

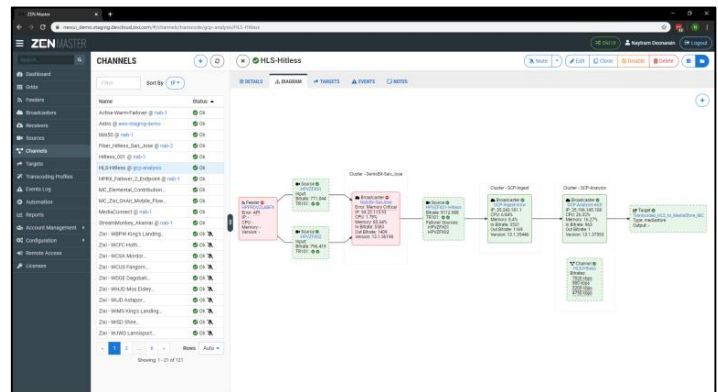
- **Onboarding** – ZEN Master permission-based access and control for user administration with SSO capabilities
- **Orchestration** – Ability for users to remotely access and administer encoders and IRDs on ZEN Master networks
- **Analytics** – System health with infrastructure views and alerts, TR101 and Content Quality Analytics and granular stream health status and graphics
- **Monitoring** – Centralized remote access for managing local, remote, cloud-based devices, systems and stream components at scale to support multi-partner supply chains
- **Reporting** – Configurable reports uptime, Event Logs, Inventory, Historical Views of all channels or specific sources, QoS, QoE, outage, assets and version control
- **Operations** – Best-In-Class Zixi technical support to customize your solution and keep you up and running

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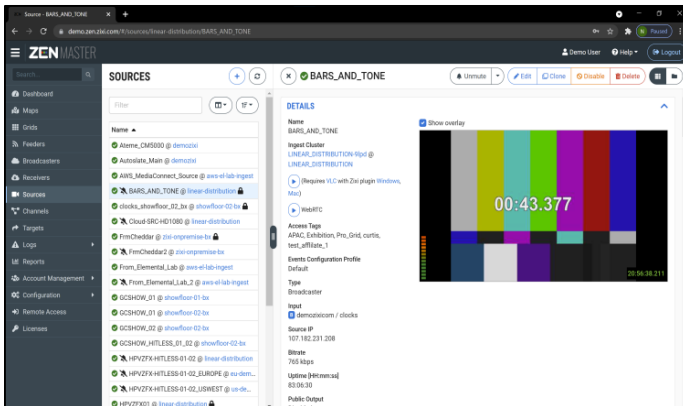
## MANAGING UNIVERSAL CONTENT AGGREGATION AND DISTRIBUTION

### CENTRALIZED MANAGEMENT

- Access and manage local, remote and cloud-based devices from a single screen, globally
- Supports multi-partner solutions and the ability to remotely access and administer encoders and IRDs on ZEN Master connected networks
- Enable scheduling and automation
- SSO integration with customer's OAUTH2-based authentication system



CHANNEL DIAGRAM



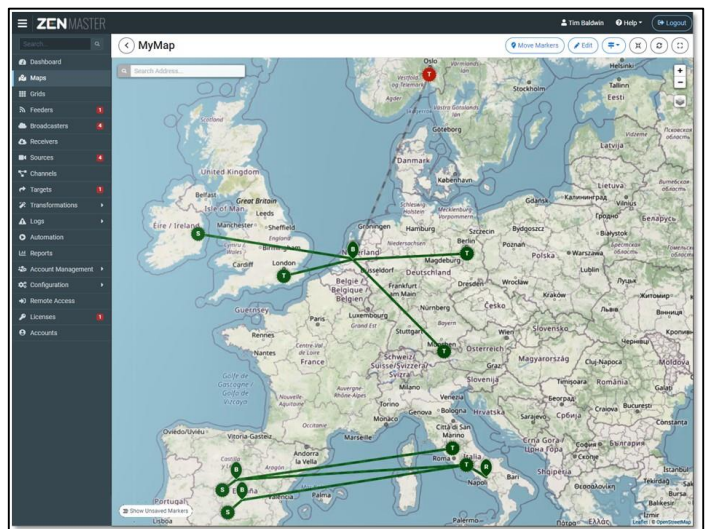
LIVE SOURCE ANALYSIS AND GRAPHICS

### ENHANCED MONITORING & REPORTING

- Broadcast-specific grids for system monitoring of Feeders, Broadcasters, Receivers at scale
- Low latency stream preview and monitoring with WebRTC, VLC and iOS App
- Generate configurable reports at varying levels of complexity such as uptime, QoS, QoE, and more
- Customizable alerting with adjustable thresholds to lower data overload and maximize time to resolution

### GLOBAL OPERATIONAL VISIBILITY & ANALYTICS

- Geographic system mapping provides complete workflow and geographic visualization of deployments
- Network Analytics Transport Analytics (TR-101) visualization and history
- Content Quality Analytics visualization and history such as blank/frozen video and audio issues
- Business Impact Analytics, visualization and history covering SCTE monitoring
- Allows user to view stream content in addition to status of each Source



GEOGRAPHICAL SYSTEM MAPPING