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All-IP Content Distribution

Deliver personalised live TV content to hundreds of broadcasters with broadcast-grade reliability



Massive Scale

Distribute to 100s or 1000s of takers simultaneously



IP-Native Delivery

SRT protocols for reliable internet delivery



Broadcast Quality

Satellite-grade reliability for live event production

THE EVOLUTION

Content Distribution is Evolving

The forces and innovations driving the transition from satellite to IP

Forces Pushing Change

-  **Satellite Decline**
Up to 80% reduction in C-band bandwidth in some regions
-  **Efficiency Demand**
Broadcasters seeking operational efficiencies and cost optimisation
-  **Tailored Content**
Affiliates desire personalised services and localised content

Innovations Pulling Change

-  **Ubiquitous Internet**
Low-cost connectivity everywhere - LEO satellites expanding global reach
-  **IP at Scale**
Robust protocols and observability to reliably deliver content at scale
-  **Software Processing**
Process services in cloud or on-prem to deliver elastic scalability and manage transitory events

78% of broadcasters have adopted SRT protocol for IP video delivery

Source: Haivision Broadcast Transformation Reports

83% of broadcasters using public cloud for Acquisition and Production

Source: DPP Cloud Native Live Production Survey

THE CHALLENGE

The Challenge of Modern Content Distribution

Key challenges facing owners in the transition to IP-based distribution

Delivering Personalised Content

Providing customised feeds to individual affiliates and groups with seamless content switching, regional blackouts, and tailored programming

Matching Video Format to Platforms

Adapting frame rates, interlaced/progressive formats, resolution, and compression to meet diverse regional and platform requirements

Regional Content Monetisation

Enabling localised ad insertion and SCTE-35/224 trigger manipulation for maximum revenue across different markets and affiliates

Protecting Content Value

Securing high-value live content with encryption, watermarking, traceability services to prevent piracy and unauthorised distribution

Delivery Over Unmanaged Internet

Ensuring broadcast grade reliability over the public internet with mass observability and redundancy switching

Scalable Platform Delivery

Distributing to hundreds or thousands of takers simultaneously with comprehensive observability and end-to-end monitoring at scale

THE SOLUTION

tx darwin: IP Distribution Capabilities

Comprehensive tools for reliable, scalable content distribution at broadcast quality

Seamless Content Switching



IDR-frame aligned switching for personalised delivery

- ✓ Slates and branding
- ✓ Regional blackouts

Format Conversion



Adapt content to platform requirements

- ✓ Frame rate adaptation
- ✓ De-interlacing

Reliable IP Transport



SRT protocols for internet delivery

- ✓ SMPTE ST 2022-7 failover
- ✓ Robust at scale

Content Protection



Encryption and watermarking integration

- ✓ AES and BISS2 Mode 1 encryption
- ✓ Forensic watermarking

Ad Insertion



SCTE-35/224 manipulation for monetisation

- ✓ Regional targeting
- ✓ Precise timing

Stream Conformance



Quality validation and monitoring

- ✓ ETSI TR 101 290 monitoring
- ✓ Standards compliance

Quality Compression



4:2:2 10-bit mezzanine quality

- ✓ AVC and HEVC encoding
- ✓ Quality and preservation

Audio Manipulation



Multi-channel, multi-language audio

- ✓ PID remapping
- ✓ Multi-format audio

Massive Scalability



Distribution to thousands of takers

- ✓ End-to-end observability
- ✓ Cloud-native architecture

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100+ Modules = Endless Possibilities



Modular Framework

Connect modules to provide flexible custom workflows



Observability at Scale

Real-time clarity across hundreds of services



API-Driven Automation

Channel activation at speeds manual processes can't match

Compressed Domain First

Processing efficiency that minimises compute costs while maintaining 4:2:2 10-bit quality and reducing bandwidth requirements

Automate Everything

Logic-driven failover and API orchestration eliminate manual risk, ensure consistency, and deliver speed at scale with full availability

Key Benefits

- ✓ **Massive Scalability**
Distribute to thousands of takers simultaneously
- ✓ **Rapid Deployment**
Version-controlled, repeatable workflows
- ✓ **Cost Efficiency**
Pay only for what you use, when you use it
- ✓ **Broadcast Quality**
Satellite-grade reliability delivered entirely in software

Use Cases

- ✎ **Live Sports Distribution**
Distribute major live events to hundreds of broadcasters worldwide
- ✎ **Affiliate Syndication**
Format conversion and personalised delivery to regional affiliates
- ✎ **News Feed Distribution**
Reliable 24x7 delivery with automated failover protection
- ✎ **Regional Monetisation**
Localised ad insertion and blackout management at scale

Ready to Transform your Content Distribution?

Discover how **tx darwin** can deliver broadcast-grade IP distribution with massive scalability and automation

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