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Playout Protection Solution

Seamless Switching for Uninterrupted Live TV Events



Cost-effective and scalable

Software-based solution that scales effortlessly to large channel counts with lower TCO



Compressed Domain Switching

No decode-re-encode required, preserving pristine video quality while reducing complexity and latency



Broadcast-Grade Resilience

Automated seamless switching ensures uninterrupted playout even during signal path failures

Why Seamless Switching Matters More Than Ever

Modern broadcast dynamics demand uninterrupted channel delivery



Explosive Channel Growth

- Streaming expansion has driven unprecedented channel proliferation
- SVoD services growing at **13% annually** (*2023-2025)
- FAST channels surging at **39% annually** (*2023-2025)
- Traditional infrastructure is a poor match for today's dynamic software-based environments

*Source: Caretta Research

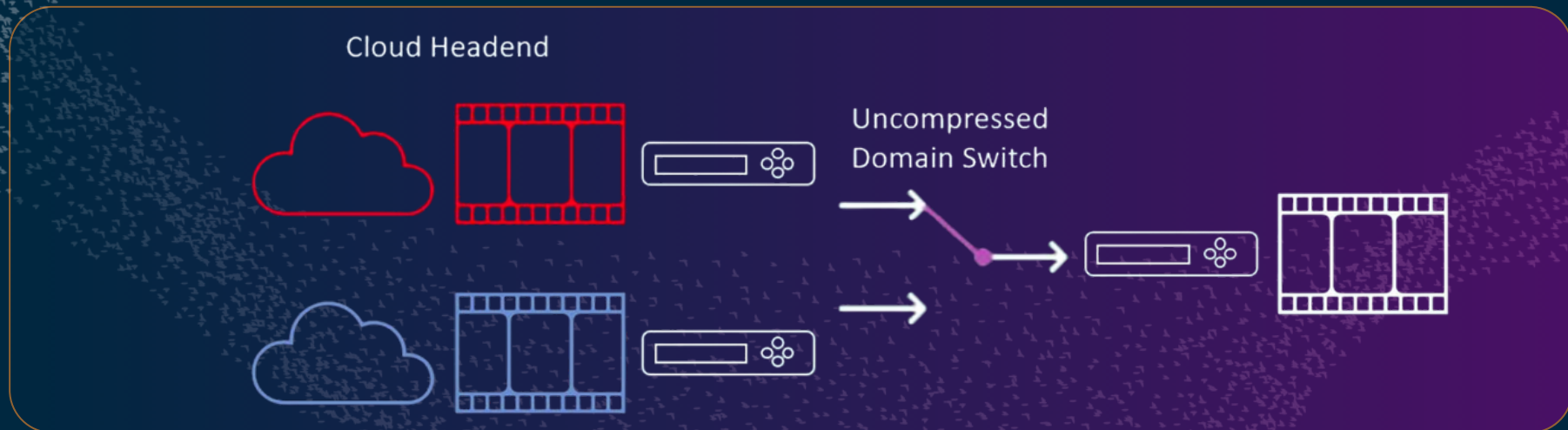


Zero Tolerance for Failures

- Viewers expect continuous, uninterrupted content delivery
- Live events and premium content demand broadcast-grade reliability
- Signal path failures can disrupt viewer experience and erode trust
- Revenue streams at risk from any interruption in service
- Cloud-native CI/CD practices require seamless failover during updates

The Challenge of **techex.** Achieving a Seamless Switch

Classical Implementation



Reduced Video Quality

Each decode-re-encode cycle introduces generation loss and artefacts, degrading the final output



Increased Complexity

Multiple processing stages require specialised hardware and complex integration, limiting flexibility



Higher Implementation Cost

Expensive encoding hardware and increased infrastructure drive up capital and operational expenses

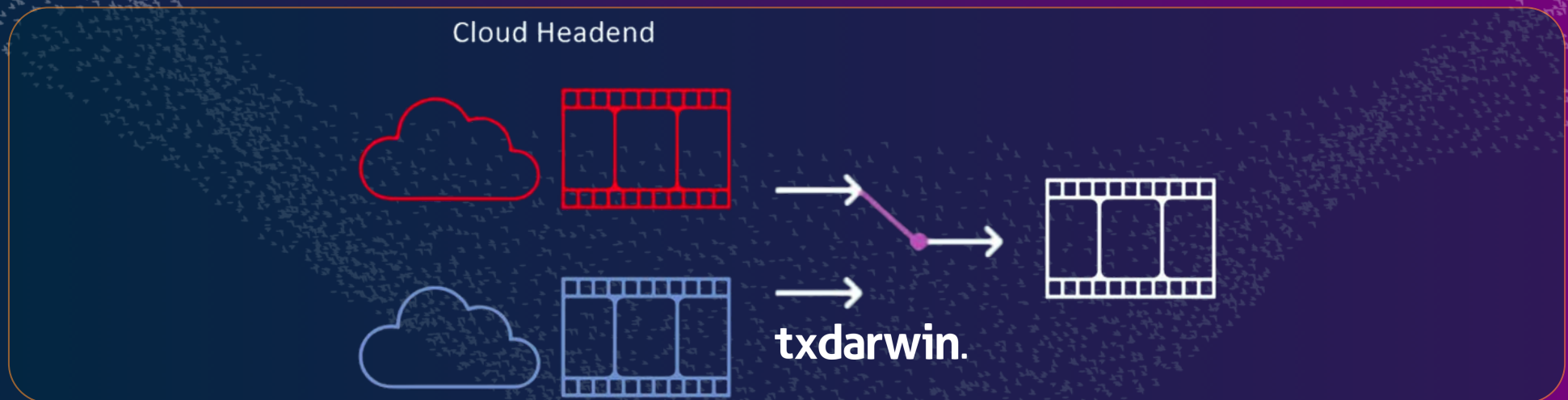
THE SOLUTION

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tx darwin: Seamless Switch Solution

Compressed domain switching for elegant, cost-effective playout protection

tx darwin Implementation



Transport Stream Native

Works directly in compressed domain



Elegant Implementation

Software-centric, no decode-re-encode stages



Zero Quality Loss

Preserves original video quality completely



Cost-Effective

Reduces infrastructure and operational costs

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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

Key Benefits

- ✓ **Reduced Complexity**
Eliminate decode-re-encode stages, for simpler, software-based architecture
- ✓ **Reduced Cost**
Lower infrastructure investment and operational expenses with software approach
- ✓ **Reduced Latency**
Compressed domain processing minimises delay in signal path
- ✓ **No Video Quality Loss**
Pristine 4:2:2 10-bit quality maintained throughout switching
- ✓ **Scalable to Large Channel Counts**
Deployable as a blueprint that scales effortlessly across channels

Use Cases

- ✎ **Live Event Broadcasting**
Ensure uninterrupted delivery of premium live content including sports, concerts, and breaking news
- ✎ **24/7 Channel Operations**
Maintain continuous playout with automated failover for always-on channels
- ✎ **Cloud Migration Protection**
Seamlessly switch during CI/CD updates and cloud infrastructure changes
- ✎ **Multi-Path Redundancy**
Switch between multiple non-coherent transport streams from diverse sources
- ✎ **FAST Channel Protection**
Scale protection across rapidly growing FAST channel portfolios cost-effectively

Ready to Protect Your Playout Operations?

Discover how **tx darwin** can deliver seamless switching with broadcast-grade reliability and zero quality loss

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