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MCR in the Cloud Solution

Software-defined infrastructure for modern broadcast operations



Elastic & Scalable

Spin up and down on demand to match elastic channel requirements



Automated Operations

Logic-driven failover and API-orchestrated management at scale



Broadcast-Grade Reliability

Proven MCR capabilities delivered entirely in software

The Broadcast Landscape is Changing

Traditional infrastructure cannot keep pace with modern viewing dynamics



Fragmentation of Viewing

Live TV viewing and traditional platforms are in decline

- ~ The number of video services are rapidly growing
- ~ Video sharing platforms and SVoD/AVoD growing rapidly
- ~ Traditional viewing skews to older demographics

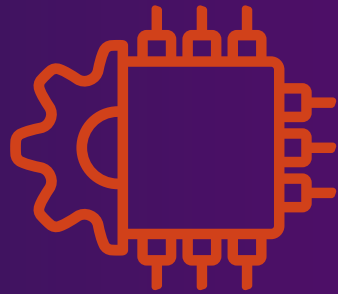


Event-Driven Demands

Channels need to spin up and down rapidly

- ~ Event-based channels may exist only for limited periods
- ~ Regional variants for rights compliance add complexity
- ~ Multi-format, multi-platform delivery requirements

The Mismatch



**Fixed Hardware
Infrastructure**



**Dynamic
Demand**

Fixed CAPEX hardware cannot flex to match elastic demand,
leading to over-provisioning or capacity constraints

tx darwin: Cloud MCR Capabilities

All critical MCR functions reliably and robustly in the cloud



Stream Conformance

Quality guarantor ensuring standards compliance

- ✓ ETR 101 290 monitoring
- ✓ SMPTE 2022-7 resilience



Ground-to-Cloud Transport

Reliable connectivity across networks

- ✓ SRT & RIST protocols
- ✓ Robust at scale



Automated Failover

Pro-active detection and recover

- ✓ Logic-driven actions
- ✓ Seamless switching



Compressed Domain Switching

Visually seamless feed transitions

- ✓ IDR frame alignment
- ✓ Cloud efficient



Content Localisation

Tailored output formats

- ✓ Format conversion
- ✓ Frame rate adaption



High-Quality Compression

Optimal domain transitions

- ✓ 4:2:2 10-bit mezzanine
- ✓ Quality preservation



Audio Manipulation

Format conversion and sync

- ✓ PID remapping
- ✓ A/V alignment



Targeted Ad Insertion

SCTE-35 signalling for monetisation

- ✓ Precise timing
- ✓ Revenue maximisation

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Over 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

Two Key Principles

The foundation of broadcast-grade reliability in software

1. Compressed Domain First



Processing Efficiency

Minimise compute costs



Network Simplicity

Reduced bandwidth needs



Cost Discipline

Scale without waste



Quality Preservation

4:2:2 10-bit fidelity

2. Automate Everything



Eliminate Manual Risk

Automated processes ensure consistency and reduce risk



Logic-Driven Failover

Consistent recovery actions



API Orchestration

Speed at scale



Auditable Operations

Full transparency

THE OUTCOME

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Software-Defined MCR is Ready for Prime-Time

Compressed-domain processing + full automation =
broadcast-grade reliability, delivered entirely in **software**

100 +

Modular Components

Flexible workflow
building blocks

8

**Major MCR operations
implemented**

Comprehensive MCR
Capability



Elastic Scalability

Match demand without
constraints

Key Benefits

- ✓ **Elastic Operations**
Infrastructure that flexes with demand
- ✓ **Rapid Deployment**
Version-controlled, repeatable workflows
- ✓ **Cost Efficiency**
Pay only for what you use, when you use it
- ✓ **Broadcast Quality**
Hardware-grade standards in software

Use Cases

- 🐦 **Event Based Channels**
Pop-up services for tournaments & special events
- 🐦 **World Feed Distribution**
Format conversion and localisation
- 🐦 **Playout Protection**
Automated seamless switching between paths
- 🐦 **SCTE Transformation**
Ad insertion and monetisation optimisation

Ready to Transform your MCR Operations?

Discover how **tx darwin** can deliver broadcast-grade MCR capabilities with cloud elasticity and automation

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