

DigiCaster-R

Redundant STL Switching for ATSC 3.0



DATASHEET



The DigiCaster-R from DigiCAP is a software-based redundancy switch purpose-built for Studio-to-Transmitter Link (STLTP) delivery in ATSC 3.0 / TV 3.0 environments. It ensures continuous broadcast operations by monitoring STL streams in real time and switching seamlessly to backup signals when issues occur.

For broadcasters like Broadcaster, DigiCaster-R provides a resilient safety layer that guarantees high availability across a nationwide rollout — protecting both uptime and viewer experience.

Key Features

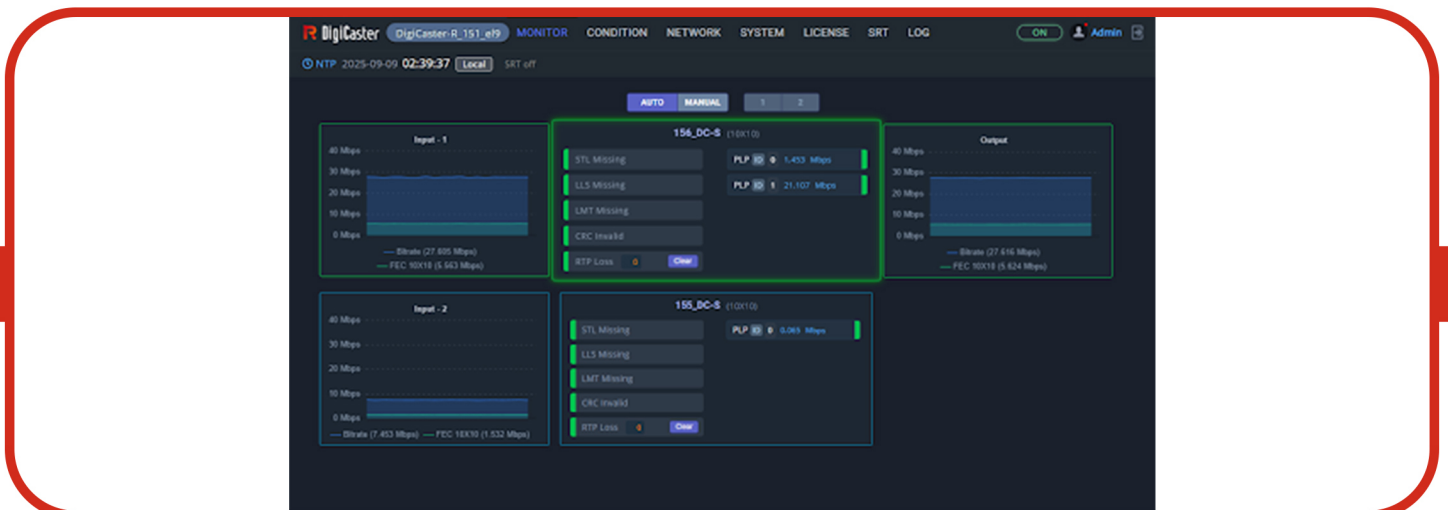
- **Automatic and manual redundancy switching:** Seamless failover between main and backup STLTP streams.
- **Standards-compliant:** Full support for ATSC A/324 STLTP switching.
- **Multiple switching conditions:** Monitors STL signal, LLS, LMT, RTP errors, CRC integrity.
- **Flexible deployment:** 100% software solution, runs on bare metal, VMware ESXi, or Docker.
- **Web-based UI:** Intuitive interface for configuration, monitoring, and switching history.
- **Central monitoring integration:** API and agent support for Enterprise Monitoring and automation.

Why DigiCaster-R Matters

Broadcasters cannot afford **signal outages** during live events, especially in large-scale rollouts like Brazil's TV 3.0. Traditional hardware redundancy adds complexity and cost, while manual intervention delays recovery.

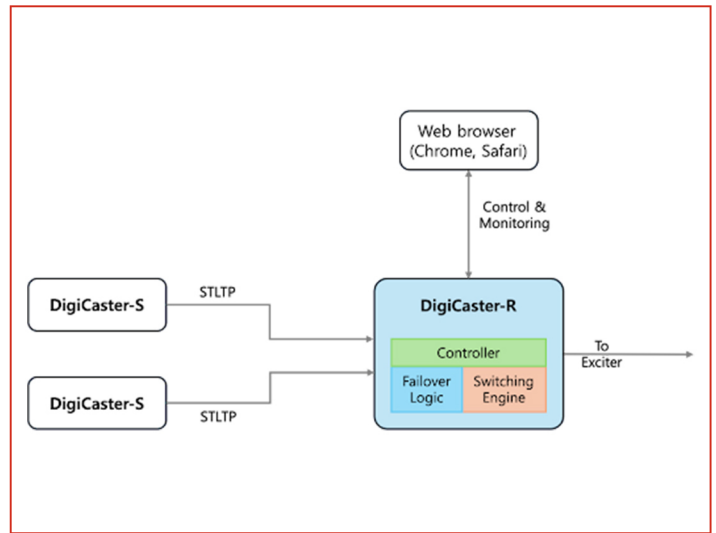
DigiCaster-R solves this by delivering:

- **Real-time protection** instant failover on signal loss or errors.
- **Reduced downtime** ensures uninterrupted broadcasts even during failures.
- **Operational efficiency** simplifies redundancy policies with intuitive tools.
- **Cost-effectiveness** software-only model avoids hardware lock-in.



Architecture

- ✓ **Ingress:** Receives STLTP streams from DigiCaster headends.
- ✓ **Switching engine:** Evaluates stream health, errors, and continuity in real time.
- ✓ **Failover logic:** Automatically switches to backup inputs based on conditions, with manual override if needed.
- ✓ **Control layer:** Web UI and APIs for operators, plus integration with Enterprise Monitoring.



What This Means for Broadcaster

By deploying DigiCaster-R, Broadcaster gains:

- **High availability:** Ensures STL continuity for affiliates and nationwide coverage.
- **Automated redundancy:** Eliminates downtime caused by manual intervention.
- **Scalable resilience:** Easily deployable across multiple stations in Brazil's TV 3.0 network.
- **Operational simplicity:** Intuitive UI for engineers and central monitoring integration.

This enables Globo to **guarantee uninterrupted broadcasts**, even in the event of STLTP failures, which is critical for **live sports and the 2026 World Cup**.

Specifications

- **Standards support:** ATSC 3.0 A/324 STLTP.
- **Deployment:** Software-based (bare metal, VMware ESXi, Docker).
- **Switching modes:** Automatic, manual, priority-based.
- **Monitoring integration:** Swagger API + agent-based metric reporting.
- **Time sync:** Supports NTP/PTP synchronization.

Support

DigiCaster-R is supported by DigiCAP's **24/7 global engineering team**, ensuring broadcasters have expert assistance and updates for evolving TV 3.0 redundancy needs.

Inputs & Outputs

- **Inputs:** Multiple STLTP streams (Active + Standby).
- **Outputs:** Redundant STLTP stream delivered to transmitter.
- **Switching conditions:** No signal, missing LLS, missing LMT, RTP continuity errors, CRC failures.

Security

- **API access control** for centralized operations.
- **Agent-based monitoring** for secure integration with enterprise monitoring tools.
- Logged switching history for audit and compliance.



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