



# From crisis to continuity: Disaster recovery strategies for broadcasting

# Introduction

The broadcast industry is often more under the public eye within the M&E sector, as it continues to be one of the most trusted sources of entertainment, news, live sports, and more. With five 9s availability or five minutes of downtime a year considered the gold standard for critical systems like broadcasting, ensuring uninterrupted operations during disasters is crucial. Disasters are generally categorized into three main types:

1. Natural disasters like floods, fires, or earthquakes. An example of a natural disaster is the most recent [Los Angeles-area wildfires](#) impacting KABC-TV's broadcast signals.
2. Technical disasters like power outages or network failures. The [CrowdStrike Outage](#), causing several broadcast interruptions (apart from impacting the airlines, retail, and other industries), is an example of a technical disaster.
3. Human-made disasters like unauthorized access by third parties, accidental misconfigurations etc. The [hacker attack](#) disrupting Russian state media and the cyberattack on [1+1 Media Group](#) jamming broadcast signals are two recent examples of human-made disasters.

For TV stations and broadcast companies, maintaining business continuity is non-negotiable, as any channel downtime can lead to substantial revenue losses and reputational damage — think disrupted viewing experience for the audience, lost ad slots that negatively impact content partners and advertisers, and failure to meet statutory obligations. With broadcasters now delivering content globally across Pay TV, FAST, OTT, and more being off-air, even for a brief duration, can have severe repercussions. This makes robust disaster recovery (DR) systems an indispensable part of [broadcast](#) infrastructure and a critical component of Business Continuity Planning.

Traditional broadcast companies often replicate their facilities to create mirror setups for resiliency. These setups are typically limited to Tier-1 channels, leaving Tier-2 and lower-tier channels, as well as smaller broadcasters, vulnerable to outages during extreme situations. Also, conventional hardware-based redundant systems have other limitations pertaining to location, utilization, turnaround time, etc.

The emergence of cloud technology offers a transformative solution to these challenges, providing cost-effective, scalable, and automated DR systems.



# Challenges with traditional disaster recovery systems

Despite the critical role of disaster recovery (DR), many broadcasters are reluctant to implement robust DR systems for all channels because of challenges such as:

1

**Higher costs:** Building and managing duplicate infrastructures for every channel can be financially burdensome. The infrastructure setup is mostly on-premises or within dedicated data centers, which involve high upfront costs of purchasing hardware, software, and investments in an offsite location. In addition, maintaining these parallel systems also introduces substantial operational overhead.

2

**Low resource utilization:** DR setups remain idle most of the time and are activated only during disasters. Recurrent costs associated with these systems are a cost overhead that broadcasters want to be wary of.

3

**Cumbersome scalability:** As a broadcaster's offering grows, scaling traditional DR systems becomes complex. This translates to additional hardware and space, leading to cost overheads.

4

**Complex maintenance:** Traditional DR systems require significant ongoing maintenance. They also require considerable manual intervention, which can turn effective staff management into a critical bottleneck during a disaster. Regular testing of the recovery system can be resource-intensive.

5

**Lack of awareness:** Some broadcasters overlook the importance of DR and its impact on user experience during outages. Trying to juggle with an unfamiliar system during a crisis may impact Recovery Time Objective (RTO), a metric that determines the maximum amount of time required to fully restore operations after a disaster.

# What defines an ideal disaster recovery system

An ideal DR system is more than just a backup plan — it is a strategic safeguard that ensures business continuity with minimal disruption. An effective DR system should:



**Cloud empowers broadcast DR systems with all of these capabilities, ensuring your team is equipped to handle any unforeseen circumstances.**





## Cloud-based disaster recovery: A game changer

Cloud technology also offers multiple layers of redundancy to ensure business continuity, helping get the channel on air in the shortest possible time. Its remote accessibility allows operations from any location and requires minimal engineering support to launch. With cloud infrastructures distributed across multiple regions and time zones, broadcasters can leverage true disaster management capabilities.

Amagi CLOUDPORT is a cloud-native, automation and playout platform for broadcast and streaming that streamlines the entire media workflow—from content ingestion to distribution. It provides scalable, cost-efficient, and agile media solutions through state-of-the-art cloud technology and flexible service models. Amagi CLOUDPORT's disaster recovery solution helps firm up your entire broadcast workflow for disasters and ensure high content availability.

## Operational flexibilities with Amagi DR

Amagi's disaster recovery solutions provide the flexibility to define backup readiness while optimizing recovery speed and cost. Amagi offers multiple DR configurations tailored to different operational needs:

- **Hot DR:** Both automation (media management and playlist management) and playout of primary and secondary setups run actively in synchronization 24/7, allowing instant switching between the two. Since the playout happens simultaneously and redundantly from two different sources, it ensures near-zero downtime.
- **Warm DR:** In this case, the cloud-based content is continuously synchronized with automation and is ready for delivery. The playout server is activated only during a disaster, enabling rapid recovery within minutes at a reduced cost.
- **Cold DR:** This cost-effective model operates with minimal rescue content and can restart playout and full automation during failover. This process may take up to an hour as fetching assets, playlists, and other necessary components may take some time, followed by playing out the channel.
- **On-prem survivability:** For broadcasters requiring an additional layer of redundancy, Amagi offers an on-prem disaster recovery solution that ensures up to 48 hours of uninterrupted playout during cloud or network outages. Acting as a localized fallback, it stays continuously synchronised with cloud automation and provides business continuity without the high costs of traditional hardware-based playout.



## Configuration that works best for your channel

Selecting the right DR solution requires a thorough analysis of operational needs, cost considerations, and resiliency factors. With a variety of DR solutions available, broadcasters must evaluate their options carefully to ensure seamless integration with existing workflows. Beyond cost, RTO and resiliency, it is crucial to consider infrastructure compatibility. For instance, broadcasters relying on SDI-based infrastructure must transition to an IP-based workflow to leverage cloud-based DR effectively.

## DR solutions for on-prem hardware-based playout

For broadcasters operating on-prem hardware for playout, the DR strategy depends on [channel](#) priority:

- **Tier-1 channels:** For high-priority channels, uninterrupted availability is paramount. A Hot DR in the cloud combined with on-prem survivability offers the highest level of resilience and the lowest RTO, ensuring business continuity with minimal disruption.
- **Tier-2 channels:** A balance between cost and recovery performance is essential. A Warm DR in the cloud, where automation remains active but playout is only spun up when required, provides a cost-effective yet reliable solution.
- **Tier-3 and lower channels:** For lower-priority channels, DR is often a value-add rather than a necessity. Cold DR in the cloud, where both automation and playout are activated only during an outage, offers an economical pay-as-you-use model.

## DR solutions for cloud-based playout workflows

For broadcasters already operating in the cloud, DR strategies vary based on their existing cloud resiliency model:

- **Tier-1 channels:** A multi-region cloud setup ensures the highest resilience. Some broadcasters may also deploy on-prem survivability as an added layer of redundancy.
- **Tier-2 channels:** A multi-AZ architecture with a warm DR in another region strikes a balance between performance and cost.
- **Tier-3 and lower channels:** A cold DR in the cloud provides a low-cost option for business continuity with minimal overhead.

Cloud-based workflows empower broadcasters to tailor their DR strategies to individual channel requirements without incurring blanket investments. With the flexibility to experiment and refine DR configurations, broadcasters can optimize business continuity while maintaining cost efficiency. Choosing the right vendor with deep expertise in cloud-based broadcast workflows and disaster recovery is essential.



## Importance of regular DR testing

Regular testing and updates are essential to keeping your DR systems effective. This ensures your team stays well-trained and the plan remains aligned with your evolving business needs. Testing also helps identify potential gaps, allowing you to proactively refine and strengthen the plan. Amagi's CLOUDPORT platform equips you with:

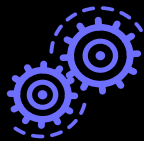
- Test endpoints for simulating failover scenarios
- Scheduled DR drills to validate configurations
- Performance monitoring to identify areas for improvement

Periodic testing not only ensures system reliability but also helps customize DR setups based on audience needs and business impact.



# How Amagi's cloud-based DR uniquely helps you weather the storm

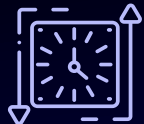
A robust disaster recovery system should ensure business continuity while minimizing downtime and operational costs. Amagi CLOUDPORT enables the same with a set of unique capabilities



**Self-healing architecture:** Amagi's Kubernetes-based platform ensures automated recovery and isolates issues to individual modules, preventing system-wide disruptions.



**Cost optimization:** Flexible configurations allow broadcasters to balance cost and performance.



**Automated failover:** Seamless switching between primary and secondary workflows minimizes downtime, with sub-one-minute recovery in Multi-AZ setups and 10-minute recovery in Multi-Region setups.



**Periodic testing:** Regular DR drills and testing ensure systems remain resilient and ready for real-world failures.



# Comparative analysis

## Hardware-based vs. cloud-based DR solutions

Feature	Hardware-based DR	Cloud-based DR
Cost	High (duplicate infrastructure)	Cost-efficient with flexible options
Resource utilization	Low (idle most of the time)	Optimized with on-demand scaling
Maintenance	High with manual intervention	Low with automated processes
Scalability	Limited by physical hardware	Highly scalable across regions
Recovery Time Objective (RTO)	Minutes to hours	Sub-one minute to 10 minutes
Redundancy options	Limited	Multi-AZ, Multi-Region, hybrid
Geographical coverage	Restricted to physical locations	Global, across multiple time zones
Testing flexibility	High control, but operationally complex and disruptive	Seamless with test endpoints



# Redefine the now and next of disaster recovery with us

Cloud-based disaster recovery solutions are transforming how broadcasters prepare for unexpected disruptions. Amagi CLOUDPORT is catering to disaster recovery by empowering broadcasters to balance resilience, cost, and operational efficiency with multiple deployment options tailored to specific channel needs. Whether it is Tier-1 live channels requiring instant failover or cost-conscious Tier-3 setups, Amagi's cloud-backed DR ensures maximum uptime with minimal resource overhead — all while delivering a seamless viewing experience.

# Thrive with us!

Reach out to us at [cloudandme@amagi.com](mailto:cloudandme@amagi.com) or [visit our website](#) to build or bolster your presence across the broadcast and streaming industry.

Learn more	
<b>Webinar:</b> <a href="#">Transform your broadcast operations with the power of the cloud</a>	<b>Insights:</b> <a href="#">The state of cloud modernization in M&amp;E</a>
<b>Whitepaper:</b> <a href="#">Transform modern broadcasting with advanced graphics</a>	<b>Webinar:</b> <a href="#">Media in the cloud era: Balancing ROI, innovation &amp; growth</a>

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