

Resetting the economics of media disaster recovery

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A PLANETCAST INTERNATIONAL SOLUTION PAPER



Every day, billions of consumers watch video content delivered through playout platforms across DTV, cable, satellite and, increasingly, over-the-top (OTT). Modern playout systems have evolved considerably over the last three decades due to the growing sophistication of broadcaster and audience demands. Today, playout is a multi-staged process linking a number of systems, including media asset management (MAM) for storing and preparing content, playout core and distribution platforms.

These connected systems handle various stages, including compression, format conversion and layering of dynamic overlay content, to deliver engaging viewer experiences with the expectation of unparalleled reliability. They are the bedrock on which modern broadcast and linear over-the-top (OTT) channels have built their ability to reach and maintain their audiences.

Disruption happens

The trouble is, despite high levels of resiliency, playout systems do fail. Disasters such as fire, flood, or the accidental cutting of power or critical cabling can and do cause outages. For instance, in October 2021, multiple UK channels suffered major disruptions in playout services due to a fire-related incident at a central data centre. The outages ranged from relatively minor issues – such as loss of voiceover and graphics on certain segments – to complete loss of programming, advertising and related digital content. The duration of the outages depended on the disaster recovery (DR) capabilities of the various services. This down time ranged from a few minutes to around four hours in the worse cases. However, even 10 days after the outage, several channels were unable to restore access services such as subtitling – and still experienced issues with video and audio quality. And outages are not just restricted to DTV. For example, in December 2021, one of the UK’s largest pay-TV operators experienced a loss of all of its TV channels, impacting viewers for hours.

The problem is that even with the extreme levels of resiliency that broadcasters use for playout, disasters – whether natural, accidental or technical in origin – can simply overwhelm a playout facility. The reality is that even near-perfect 99.99% (“four nines”) playout reliability means a statistical average of about an hour of downtime a year. Even where there is a disaster recovery plan in place, often DR services aren’t tested regularly, so when they are needed, they sometimes don’t work as expected – if at all.

In addition, the sheer cost of creating a fully redundant playout infrastructure is prohibitive for many broadcasters, many of which operate in a highly cost competitive environment. However, when the worst-case scenario occurs, the cost in direct revenue loss through advertising, severe reputational and brand damage, plus failure to meet public service obligations – required by government

regulation in some cases – can be devastating. The unfortunate truth is that no matter how skilled TV staff are, without truly independent, ready-to-activate disaster recovery in place, occasional TV broadcast outages are inevitable. It is not a case of if but when...

The Planetcast International solution

So how can media companies protect themselves in way that makes business sense? The Planetcast International Disaster Recovery solution is simple: deploy DR for playout and test it frequently across a number of likely failure scenarios to ensure it works.

As discussed, the inhibitor to this option has always been cost. But drill down to the details and it becomes clear that finding a DR solution is more important than ever. In the past, a cost-benefit assessment could rationalise that losing a projected one hour a year of DTV to local TV audiences could be deemed acceptable. However, the increasing complexity of playout plus the growth of linked services such as OTT and international distribution agreements means that the impact and cost of such events has grown exponentially.

At the same time, over the last decade, advances in technology and virtualisation mean that, today, it is possible to deliver playout directly from the cloud. More innovatively, it is also feasible to create a complete playout solution in the cloud – with full content replication – ready to spring into action in the event of a primary playout failure.

Planetcast International is the first large media industry service provider to offer a broadcast-grade DR solution that is able to do exactly that – and, crucially, do it with minimal recurring costs when the service is not activated. In simple terms, a complete Playout DR solution deployed and managed for a negligible fee until it is activated.

How does Planetcast Playout Disaster Recovery work?

Planetcast International Playout DR solution includes three core elements. The first is MAM.C, an always-on media asset manager that resides within the cloud that receives programme schedules and content. This element is linked to the second, Cloud.X, a full-featured cloud-based playout platform. When activated, this playout sends content to the third element, Recaster, a Secure Internet Stream Delivery service, as well as a broadcaster's distribution provider – or redirects content to an alternate distribution provider if needed.

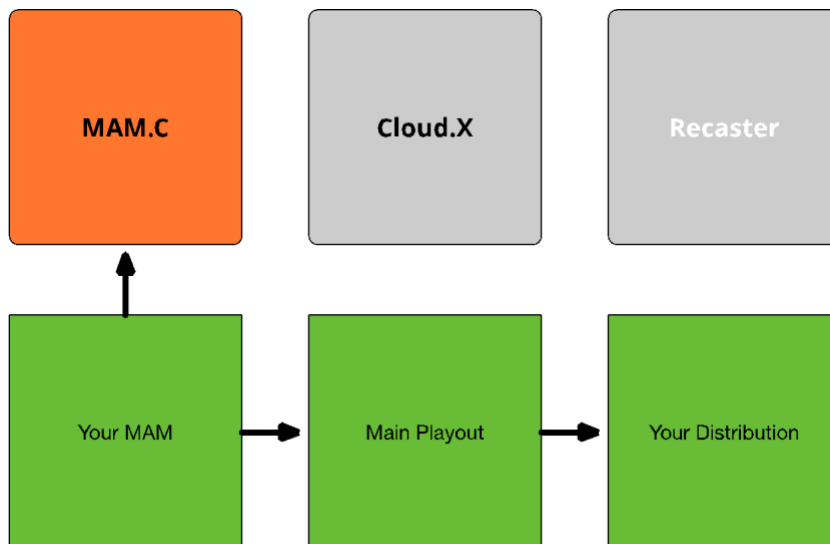
The Planetcast Playout disaster recovery solution is a complete and highly resilient service. Its core elements, including MAM.C, Cloud.X and Recaster, are already in use at some of the largest media companies operating in Asia, including Disney, Viacom, Sony, Amazon Prime and Star TV.

Perhaps, most crucially, Planetcast’s “pay-as-you-use” DR approach has virtually no running cost when not in its playout mode. The full cost of cloud playout only kicks in when it is activated. In addition, all the integration work and ongoing operational management are provided for a minimal fee by Planetcast as part of an ‘out-of-line’ deployment that requires no changes to existing playout systems or workflow. This approach is crucial to streamlining deployment and also means that the system is truly independent of the existing playout chain – making the Planetcast feed more resilient to related failures.

The DR service is also built around open industry standards and has proven compatible with industry-leading platforms with support for DTV, cable, satellite, and OTT playout. All services can be hosted within Europe (EU), Europe (non-EU) or North America – and even at a national level where local authorities require it and suitable cloud hosting is available. The service can include up to 200TB of scheduled content storage, enough for about 8,000 hours of playout without refresh and has a tested failover speed of around eight minutes.

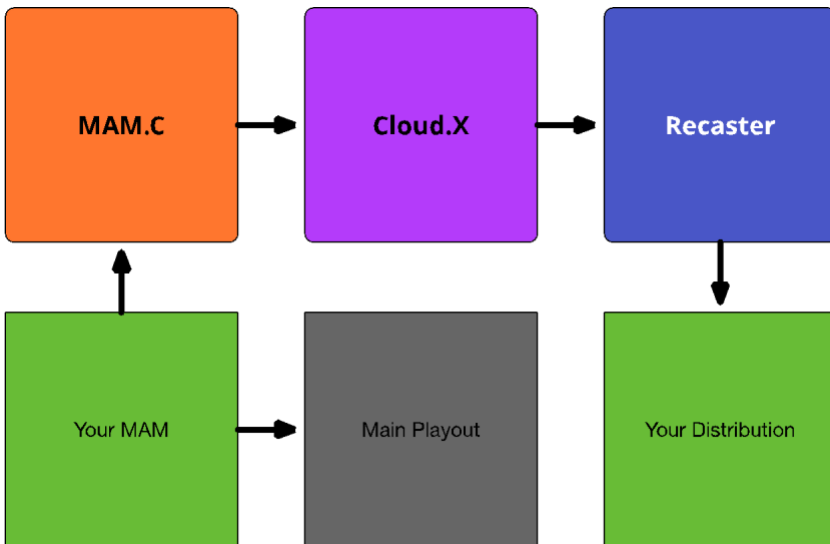
Finally, the solution can be spun up monthly to do an active playout resiliency test to ensure it is able to deliver services as expected.

Steady-State Operations



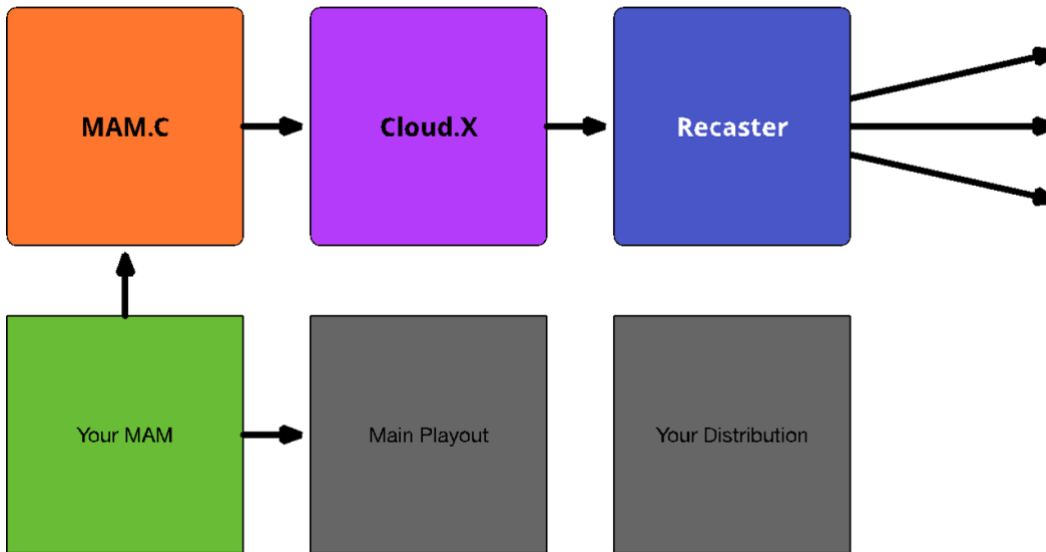
- *During Normal Operation you send content and playlists to our cloud*
- *The system doesn't mind how frequent or infrequently this happens*
- *You can use the MAM UI/API to check what has been sent*
- *Our system 'listens' for a pre-agreed trigger to determine your main system's health*

Disaster – Payout



- When you trigger a 'go', our support team and your support team are sent notification that the DR system is initiating
- The DR Payout server loads the last playlist sent, and caches the content related to it
- The DR payout server emits the replacement channel stream
- Your MUX collects the replacement stream

Disaster – Distribution



- If your MUX / Distribution is also impacted by the DR event, Recaster can distribute direct to your customers and partner platforms

What is the implementation process?

By using a cloud-based architecture that has already been field-proven for millions of hours of content storage, preparation and playout, Planetcast is typically able to deploy its DR service in around 10 weeks from the start of the project. We execute the process in four phases:

1 - MAM Integration

Planetcast deploys a secure cloud repository and gives your teams access to test content upload. Our teams then prepare the platform based on the agreed playout requirements.

2 - Playout Integration

Planetcast takes your current schedule format and integrates it to work with all necessary third-party providers. Our engineering teams gain technical requirements and conduct development work with minimal client input required for testing.

3 - Trigger Integration

We work with you to define when and how the Playout DR service will activate based on certain events. Planetcast will then integrate and test against these scenarios.

4 - Rehearsals

Once the service is up and running, our operations team will conduct a monthly rehearsal at a mutually convenient time to ensure the service failover is working as expected and to address any service changes.

How Planetcast International is positioned to change the game

Planetcast International is resetting the economics of media disaster recovery with its cloud-based playout disaster recovery service, which provides an affordable, effective, flexible and fool-proof alternative to an expensive active/active on-premise set-up. There is a desperate need in the market for economical DR, and we have the expertise, technology and resources to deliver an industry-leading solution that will help our clients to better serve their audiences.

The offering comes from a position of strength. Our parent company, Planetcast Media Services, is an established player with a 25-year track record of market-leading service and innovation that touches a billion lives in India and Southeast Asia. We manage content distribution for over 500 channels spanning 150 countries across TV, cable, OTT and our own satellite teleports. Planetcast delivers over six billion ad inserts and impressions, and our cloud-based MAM manages more than a million hours of content.

Planetcast Media Services is owned by Apollo Global Management, a focused and visionary media investor whose other holdings include Yahoo, Cox Media Group and Sirius Satellite Radio. Planetcast supports playout of some of Asia's biggest broadcasting assets, from Indian Premier League cricket to MTV music videos to premium

English entertainment channels from India's Times Network.

The core elements of our DR service, once deployed, provide an untapped and ready resource that we believe will offer our clients additional value. Whether a media company is looking to launch instant pop-up channels, to support content archiving, to enable remote productions, or for hundreds of other use cases, Planetcast's cloud platforms offer a compelling and instantly accessible range of proven services to clients.

All of the components of our DR solution can be repurposed, scaled and utilised without the typical hurdles of having to scope, specify and deploy new systems. What's more, we believe that our cloud-based DR solution will set the industry benchmark for protecting playout and highlight our potential to the global media industry.

Taking action – it's not if, but when

At its core, Planetcast's DR solution is a relatively low-cost insurance policy for channels without disaster recovery in place that takes away the existential threat of being off-air for hours or even days. To reiterate: it offers minimal set-up costs and, critically, virtually no running costs when not in use – customers only pay when disaster strikes.

Furthermore, it is important to recognise that, although our approach to playout and disaster recovery uses proven cloud-based platforms, each deployment is delivered based on each client's unique requirements. Whether we are protecting an onsite playout environment or supplementing an existing managed playout service, our DR service is a separate, secure and independent platform that will keep broadcasters on-air if the worst-case scenario should occur. Moreover, we have the confidence to continually test its effectiveness to ensure that it always delivers continuity of service no matter how your requirements adapt.

Our international team are all experienced industry experts, and we are ready to have the discussion today about how our DR service can better protect your playout – and ultimately, how you can meet the needs of viewers, concerns of advertisers and potential regulators to ensure that your broadcasts never unexpectedly leave the air. Playout outages happen – it's not a case of if but when... so we would love to hear from you today!

For more information, please contact Planetcast at info@planetcastinternational.com or visit our website at www.planetcastinternational.com.