TV360: Prospering Through an Era of Disruptive Change

A CxO's Guide to navigating broadcast modernization, the transition to cloud-based architectures and preparing for omni-channel distribution.

August 2025

Table of Contents

1. Introduction

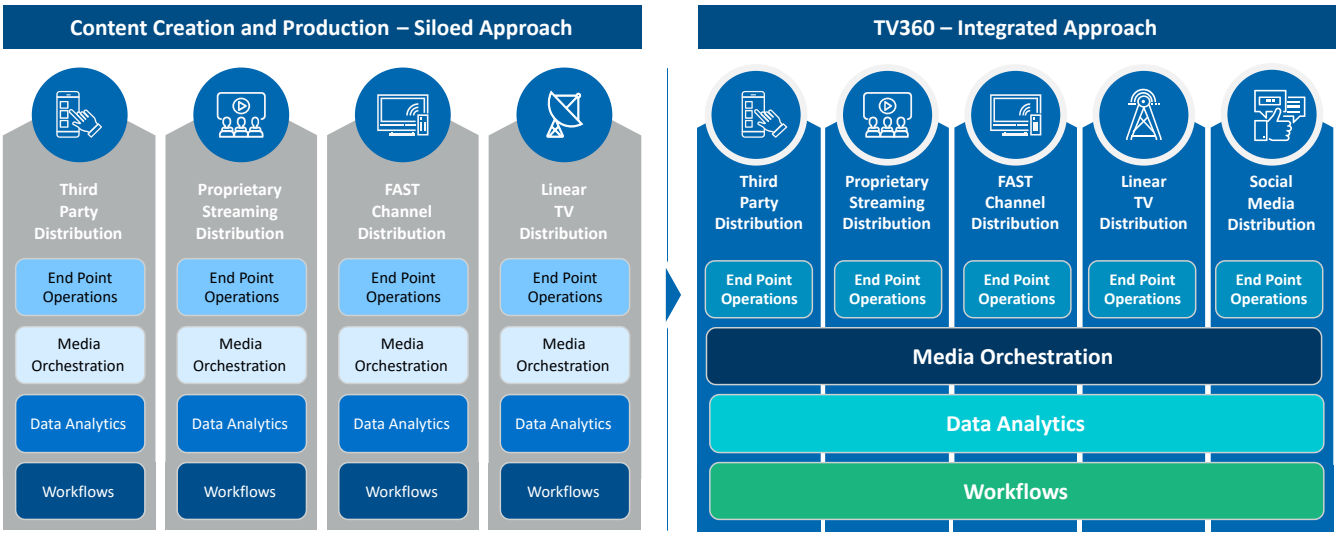
Linear television viewership is declining as consumers shift towards streaming and digital platforms. Despite this, linear TV remains an essential medium for timely, high-value content, prompting broadcasters to adopt hybrid distribution models that support traditional broadcast offerings and digital streaming on a common platform.

Today, consumers expect to have their content when they want it, where they want it, and on which device they want it. In the face of these disruptions, operators seek scalable digital workflows, ideally incorporating IP-based streaming and linear cloud playout solutions to create a highly integrated media supply chain. This new paradigm, which we have dubbed "TV360", is an accepted ideal for broadcasters, but few have achieved it. As depicted below in Figure 1, TV360 represents shifts toward a unified platform approach to the content supply chain to efficiently enable omnichannel content delivery. Operators of all sizes are wading into these waters as linear ad revenue and operating budgets decline and there is increasing pressure to do more with less. In the face of these pressures, cloud migration emerges as a vital lever to drive value.

This report is designed to bring the key elements of achieving TV360 into focus. It is intended for executives in charge of broadcast technology modernization (typically broadcast engineering and operations leaders) and their CFOs focused on cost reduction and achievable investment ROIs. Sections 2 and 3 of our report include technology paradigms involved in achieving TV360, including the risks and benefits. Section 4 focuses on the costs of the new TV360 paradigm and how to develop a total cost of operations (TCO) and an ROI for a transformation program. Finally, Section 5 describes a transformation rollout strategy to achieve TV360.

With increasing pressure on media companies to do more with less, cloud migration emerges as a vital lever for broadcast technology leaders to consider, but only if they can build a robust ROI case and create a thorough plan to ensure organizational readiness. The final section provides a high-level way forward for both.

Figure 1 - TV360 Vision: Depicts independent platforms for each distribution channel. TV360 shows single platforms across distribution channels



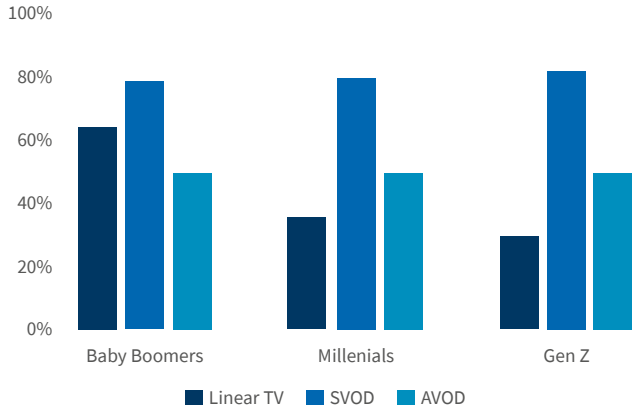
2. Key Market Trends

The television industry continues to undergo a seismic transformation as linear TV grapples with persistent audience fragmentation and streaming platforms cement their dominance. In 2025, linear television remains a critical but declining force yet still accounts for 72.6% of global TV ad spend ($122 billion) despite a 3.4% annual revenue contraction[1]. Meanwhile, the growth of ad-supported streaming services, growing at a 19.3% annual rate, presents exciting new opportunities in the industry[2]. This growth is driven by platform democratization, reduced ad costs, and shifting viewer habits.

Demographic Shifts

As shown in Figure 2[3], linear television viewership is declining as consumers shift towards streaming and digital platforms. While Baby boomer's devotion to linear television is still high, their streaming viewership now outweighs their linear viewing.

Figure 2 – Generational Viewing Preferences by Platform



There is also a significant decline in linear TV viewing among Millennials and Gen Xers. In additions, the "Alpha" generation (not shown),

currently between ages one and fifteen, is expected to be streaming devotees, consuming 97% of their TV viewing through streaming services.*

However, linear TV maintains a paradoxical position in 2025: while 92% of U.S. households still consume linear programming, daily viewing time has fallen to 2 hours 49 minutes, down from 4+ hours in the early 2010s[4]. This engagement remains higher than social video (53 minutes) and YouTube (37 minutes), but the demographic profile reveals systemic vulnerabilities[5]. Gen Z viewers allocate just 12% of their video consumption to linear TV, compared to 84% for streaming platforms[6]. At the same time, the share of those who pay for linear TV services via cable or satellite declined 14%[7].

Global Markets

Figure 3 shows key global market linear declines as SVOD and AVOD engagement grow[8].

Region	SVOD Penetration	AVOD Growth (2025)	Linear TV Ad Decline (2025)
Western Europe	58% households	+10% YoY	-4.2% YoY
Asia Pacific	30% households	+20% YoY	-2.2% YoY
US	50% households	+18% YoY	-5.9% YoY

Western Europe shows a linear ad revenue decline of 4.2% overall. This is the result of declining viewership. Some specifics by country include viewers in France, Germany, and Italy watched 45 minutes less linear TV per day in 2024 than five years ago, a decline of 21% in daily viewing time (CAGR of 4.71%). The decline is even steeper in UK, with viewers watching 55 minutes less linear TV per day between 2019 and 2024 , representing a decline of 29% (CAGR of 6.61%).[9]

In APAC, linear TV viewership declined at 2% each year over 2024-2029, with the exception of India, which remains resilient[10].

Despite this, linear TV remains essential for timely, high-value content such as live sports and news.

Effects on Advertising

The economics of linear advertising are significantly affected by the trends above. National television advertising is forecasted to decline by 8.9% in 2025 due to secular weakness and the absence of the Olympics[11]. However, linear retains advantages in upper-funnel branding, delivering 12 ad minutes per hour compared to streaming's 4-5 minutes[12]. This higher ad load, while potentially irritating viewers, enables cost efficiencies: prime-time cable CPMs dropped 6.8% to $20.60, narrowing the gap with streaming's $29.50[13].

Live Events and Sports

Live programming remains linear TV's lifeline. Live sport games accounted for 75 of the 100 most-watched primetime telecasts in 2024[14]. However, streaming platforms are aggressively bidding for exclusive rights, as seen in Netflix's $5 billion WWE deal and Amazon's Thursday Night Football package[15]. This bifurcation creates hybrid viewing patterns: 61% of sports fans now use both linear and streaming platforms during major events, often engaging in second-screen shopping—a behavior 37.3% of viewers adopt during ads[16].

The 2025 NFL Super Bowl can be seen as a bellwether of sports engagement across platforms, with 127.7 million people viewing the Super Bowl across all platforms[17]. Streaming services accounted for 40 million viewers (31%), with Tubi garnering the largest share.

The rise of Connected TV (CTV), along with FAST technologies, are fundamentally changing the content landscape as it enables the direct distribution of content and allows a wider selection of programming, including niche and international sports[18].

* Age range of generations as of 2025: Baby boomers-61-79; Millennials – 29-44, Gen Z – 13-28, and Gen Alpha – 1-15 years old

The Rise of AVOD

In Q3 2024, the U.S. video streaming market reached near-universal penetration, with 96% of households accessing streaming services, but overall growth stagnated at just 0.2% quarter-over-quarter. During this period, the decline of paid, ad-free streaming (SVOD) accelerated, with the category losing a net 1.6 million subscribers, a steeper drop compared to the previous quarter. In contrast, ad-supported video on demand (AVOD) and free ad-supported streaming (FAST) platforms drove market growth, with AVOD offerings from major streamers increasing their subscriber bases by more than 5%[19]. This trend has pushed platforms toward hybrid monetization:

— **Netflix** has slashed its ad prices from $60 CPM in 2022 to $29 in 2024. Its ad-supported tier accounts for 45% of new sign-ups, up from 40% in April 2024[20].

— **Disney+** strategically raised its SVOD plans to encourage more users to shift to the AVOD option. By late 2024, 30% of Disney+ subscribers are on its AVOD tier[21].

— **Prime Video** introduced ads to its platform in January 2024, automatically including them in standard Prime subscriptions unless users paid an extra fee for an ad-free experience. This move quickly positioned Prime Video as one of the largest ad-supported streaming platforms in the U.S., with 130 million monthly active ad-supported users by May 2025[22].

What it All Means

Despite irreversible trends, the linear television market will remain a significant niche, and a potent channel through the next decade. This is particularly true for live events, local advertising, and audiences resistant to tech adoption. Global linear television ad revenue is projected to be $122 billion in 2025, and with an annual decline rate of 3.4%, the projected ad revenue in 2035 is approximately $86 billion[23]. Streaming, meanwhile, will evolve into the digital twin of analog television. FAST channels, with its in-progress viewing, scheduled episode drops, ad-supported free TV, and appointment viewing are a recasting of linear TV for digital natives.

Television isn't dying— it is simply transforming, and it will retain its title as the most potent and most-watched global medium.

The key question now, while TV is in this transition, is how should broadcast operators transition toward this new TV360 paradigm? Most have investments in legacy hardware, most operate within network businesses that are under significant cost pressure, and there are few operators who have entirely shifted to the centralized, cloud-first paradigm who can lead the way for others.

The rest of this report attempts to address these transformational issues.

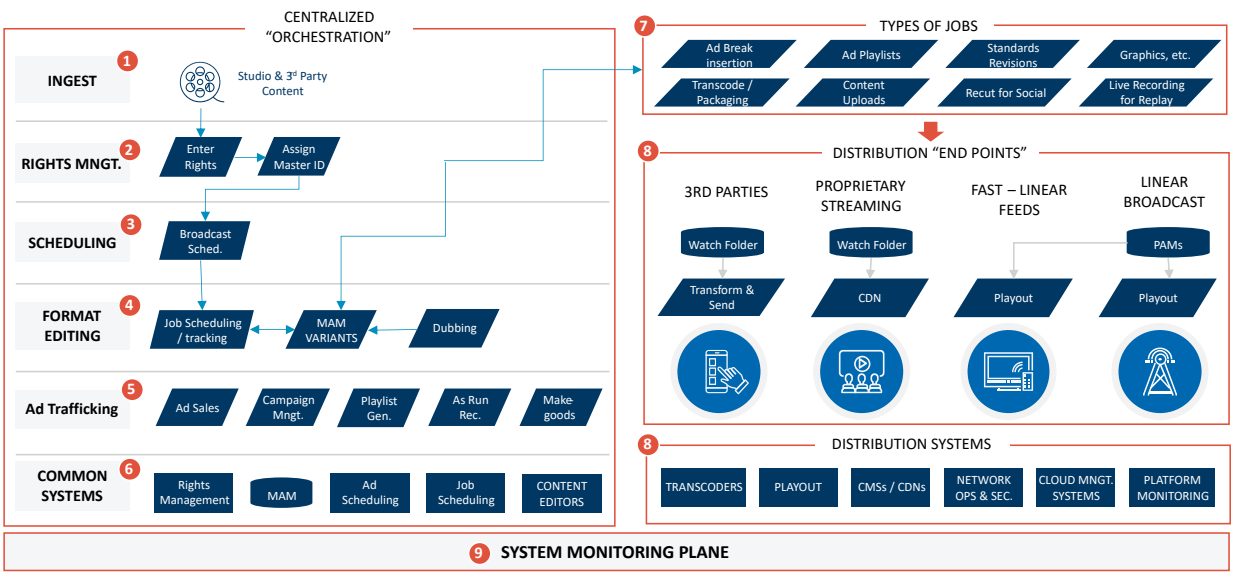
3. An Architectural Paradigm for TV360

This section focuses on three aspects of a TV360 paradigm: it describes an idealized media supply chain, an idealized TV360 architecture, and the set of vendors who now support components of this architecture. There is no requirement for companies to implement a paradigm like what we propose perfectly, of course. And, since our paradigm will be cloud-focused, we also understand that on-premise solutions are an important consideration.

Let's begin with the media supply chain workflow itself.

Figure 4 - A Media Supply Chain Paradigm

Digital Workflows & System Paradigm
(Assumes a Unified Cloud-Based Architecture)



Components of the Media Supply Chain

Figure 4 shows an idealized view of this supply chain. Ingest (1) is the process by which new content comes into the operation. This can be supplied either by internal studios or third parties. The rights associated with these assets (2) are encoded in a rights management system for use throughout the operation. Typically, an asset ID, or "house ID", is assigned at this point. Often, the first use of these new assets is to schedule their broadcast transmission dates using a broadcast scheduling system (3).

Once this is done, format editing (4) is kicked off for the various uses of this content. A job scheduling system is used to manage a set of editorial jobs assigned to editors who perform formatting work. In our paradigm, a centralized group performs these editing functions. Jobs are given to editors (7) to format content for broadcast, including bumpers and ad markers, etc. Content is reviewed for policy violations based on its broadcast destinations. Content can also be reformatted to be sent to 3rd parties such as Apple, Google, or Netflix.

The formatted content is made available to various downstream systems that are performing actual content distribution. We call these "distribution end points." We use this term because the paradigm being pursued here posits that all of the formatting of content and associated activities is done by a central group using common integrated systems, making it available to these endpoints for final distribution. These endpoints are cloud-based in our paradigm. Some end points are quite complex and technical in nature, like linear broadcasting, and some, like handing off content to Netflix, are straightforward. Of course, while cloud-based in our target end-state, these endpoints can be on-premise during the transition phase.

Independent of content ingest, scheduling, and formatting, advertising operations (5) involves trafficking sold advertisement campaigns through the system to generate the playlists that will feed broadcast playout and FAST channels. A typical ad management system supports this process.

The key orchestration systems (6) are shown in Figure 4 at the bottom left of the diagram. From our perspective, leading organizations should orchestrate these systems in a common and centralized way.

Similarly, key end-point distribution systems are shown on the right side of the diagram (8). These may or may not be common or centralized, depending on the technology strategies and the operation's current state at a given time.

Element (9) refers to a monitoring "plane", which allows the company to monitor the health of the automation and networks in various ways. There are 3rd party applications which support this function, although integration can take considerable effort to connect the source components into the monitoring plane .

Let's now take a closer look at the end points mentioned in (8). These different end points each have their own architectures and technology. And as mentioned earlier, they can be complex or fairly basic. Briefly,

- Linear Broadcasting is, of course, the systems that manage linear TV playout from the broadcast center to various receiving entities, whether by geosynchronous satellites or terrestrial internet protocol to head ends or affiliate stations. These are complex systems, and we've itemized their components later in Figure 5.
- FAST, stands for Free Ad-supported Streaming Television. These are digital versions of traditional linear tv channels. Pluto TV, Tubi and Samsung TV plus carry multiple fast channels. Unlike linear TV, ads can be targeted to specific viewers.
- Streaming, or OTT streaming sends content over the internet to consumers through a dedicated application such as Disney+, MAX or Paramount+. These applications can reside on phones, tablets and smart TVs. They can be ad-supported or paid subscriptions. These services are hosted by a parent company who maintains the rights to the content available on their platforms, and like FAST, ads can be targeted to different consumers. These operations also have complex infrastructures. Their main components are shown in Figure 6.
- 3rd Party Platforms: These are independent companies who host streaming content from a variety of content owners. For the most part, content like the next weekly episode of "Yellowstone," for example, is sent to these independents on a scheduled basis. The content owner, such as Paramount in the case of "Yellowstone," formats and transmits this content to, say, Amazon Prime Video based on an agreed-upon format. The underlying technologies used by these 3rd parties is the same as streaming, also as shown in Figure 6.

So far, we've just named the components of this idealized workflow. Here are the key inferences from this paradigm:

- The media supply chain for broadcasters has all of the same components from the largest networks to the smallest TV stations. What differs is the scale of these operations.
- There is a single set of systems (across channels) which are integrated into a common whole. They are all cloud-based with full redundancy.
- There is a common MAM storage infrastructure in the cloud. It holds the mezzanine file of the original content and all of the variants that are developed, which are children of this main parent. This MAM also contains all of the metadata for the content, as well as electronic program guides and other assets relevant

to the content. This metadata is indexed to a common metadata taxonomy which is standard across an organization's operational domains.

— Where possible, an automated orchestration layer exists that moves content accurately and seamlessly from ingest through formatting and through to localized storage for endpoint distribution.

— This paradigm assumes an end-to-end cloud implementation for several reasons: first, cloud-based systems can be cheaper than on-premises systems, and they can be scaled up or down depending on demand. This prevents buying the maximum expected hardware when it may only be used in peak seasons. Second, content storage can be shared across the infrastructure, with content only existing once in each required format rather than being moved from one proprietary system to another. Third, major cloud providers like AWS and Google have developed proprietary capabilities for the media industry that are continually improving. Finally, many vendors in the on-premise world have digital twins that operate effectively in the cloud.

— We have made the point that the endpoints in the media supply chain such as linear distribution or OTT streaming can have their own simple or complex architecture which are not shown in the diagram above. In the next two subsections we show examples of these architectural components.

Components of a Cloud-Based Linear Broadcast Architecture

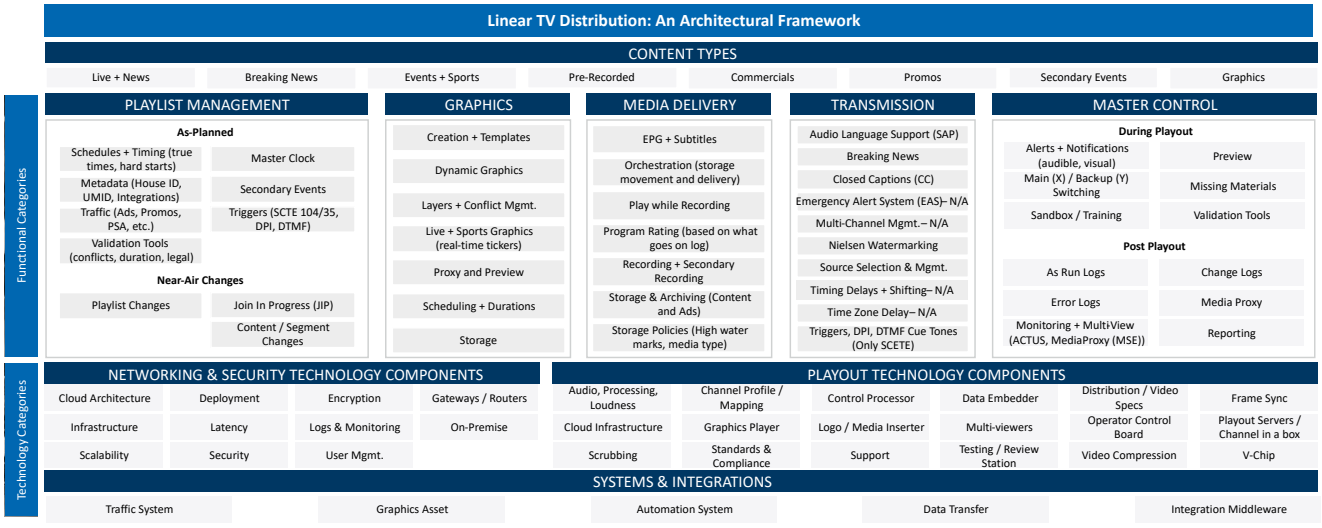
Figure 5 shows FTI's architectural framework for linear distribution. It draws from work we've done with broadcasting clients over the last several years. The framework works well in all environments including network broadcasting, MVPDs, satellite distribution, and station groups.

While we are focusing on cloud-based architectures, this framework also supports various hybrid operations as well. Later sections of this white paper address the process of a transformation from pure on-premise environments to full cloud environments over a company's investment horizon.

Figure 5 illustrates the complexity of linear TV, and executives should be mindful that any transformation journey must account for all these indicated capabilities . Delivering these capabilities in an on-premise environment requires a complex composition of hardware appliances and networking infrastructure. This can be further complicated by individual channels requiring individual server racks for main and back-up feeds. Below is an illustrative list of hardware appliances associated with the Linear TV Architectural framework:

1. Playlist Management: Playout automation, media asset storage, traffic logs and playlists,
2. Graphics: Graphics server, Graphics asset management, storage
3. Media Delivery: Frame synchronization, closed captions and V-Chip, data embedders, storage
4. Transmission: Nielsen encoders, audio processors, storage
5. Master Control: Switchers, routers, multi-viewers

Figure 5 - Linear TV: Architectural Framework



Components of an OTT Architecture

Just as linear TV distribution can be complex, so too can streaming architectures, as seen in the FTI Consulting over-the-top ("OTT") distribution architectural framework (see Figure 6).

While space does not allow us to dive into this OTT architecture in detail, we can make some broad observations around the key differences from linear.

1. Streaming is a two-way medium between the content streamer and the end consumer. This enables tailored advertising to each consumer, with higher ad rates, but it also allows for an enormous amount of data collection to understand the preferences of consumers which can be used to inform expensive content decisions. Streaming architecture needs to include robust data lakes to contain consumer behavioral data, and the data scientists required to use this data effectively.
2. For most content streamed to consumers and devices, some latency is tolerable. This is not true for linear TV where a "spinning wheel" would be a disaster for the reputation of the network, especially during live events.
3. In general, while there are still many components in an end-to-end streaming architecture, the costs are much less than in broadcast.
4. There is a large ecosystem of third-party vendors with mature (and immature) products that support OTT streaming. This is because the barriers to entry for streaming products are much lower vs. the extraordinary sophistication of linear TV production.
5. The R&D costs for OTT vendors are also lower because OTT uses all the conventional paradigms of digital and internet product development. Hence product engineers are more abundant, as are open-source libraries and other formalisms that are well proven in the internet ecosystem.

Figure 6 - OTT Component Framework

OTT and Digital Supply Chain: An Architecture Framework

Content Processing and Ingestion	Ad / Promo Mgt. and Insertion	Services		Content Distribution		
				To Third Parties	Owned Services	Content Management
Key Features	**Key Features**	**Key Features**	**Key Features**	**Key Features**	**Key Features**	**Key Features**
Live Content encoding	Ad management	Rights-in & entitlements	Concurrency & session management	3p Transcoding & packaging	Transcoding / bit laddering	Cloud storage
VOD encoding	Ad Decisioning	Download Management	Device Mngt.	Job Scheduling	Job Scheduling	Content management
Metadata management & EPGs	Ad Insertion	Digital rights management	Geo-fencing	Monitoring	Monitoring	Metadata management & EPGs
Content Scheduling	Ad measurement	User authentication	Ad measurement	Monitoring / Event Mngt	Edge serving	Content Scheduling
Workflow Orchestration	Tracking and analytics	TVE Authentication	Tracking and analytics	Origin Serving	Watermarking	

Digital Asset Management	Media Services	Marketing	Business Services	Operator Control and Management	Content Dist. Network (CDN)	Front-End / Consumer Side
Key Features	**Key Features**	**Key Features**	**Key Features**	**Key Features**	**Key Features**	**Key Features**
Mezzanine Ingest	Versioning & Mastering	Promotions Campaign Mngt	Accounting & Billing	Content Promotion	Origin servers	App-store release Mngt
Studio Area Network (SAN)	QC	Campaign targeting	Payment processing	Scheduling	DRM	Apps for key devices
Media Asset Management	Localization & Closed Caption	EPGs Management	Multiple account management	User segmentation & Promo targeting	Edge caching	Support of Key Device Types
Edit capability	Physical Distribution	Pricing / content promos.	Payment processing	Monitoring	Geo-Fencing	Monitoring
	Recording Live for Replay		User support	Event Management	Event capture	Event Tracking
					Monitoring	

4. Cloud Playout: Benefits and Challenges

Efficient omnichannel delivery is essential in today's market, but to achieve this is complex (particularly when migrating broadcast technology to the cloud) due to the level of operational risk, scale of the initiative, technical complexity and intricate business case.

Linear television continues to be a significant revenue driver for many media companies and is expected to remain a vital income stream for the foreseeable future[24]. The technology infrastructure that supports TV operations is the lifeblood of the linear TV business. These systems underpin day-to-day revenue delivery and carry a level of operational complexity that makes them the 'long pole in the tent' for any broadcast modernization effort.

Modernizing broadcast operations and playout infrastructure is therefore not just a technical upgrade — it is a strategic priority and a foundational input to any end-to-end transformation roadmap. This section focuses specifically on the opportunities and challenges of migrating broadcast systems — particularly playout — to the cloud, where the potential for agility, scalability, and efficiency can be fully realized.

Cloud playout solutions have existed for years; however, from our experience we have observed that many media companies are still struggling to successfully migrate broadcast technologies to the cloud or to realize the anticipated business benefits. For those companies who have not yet started on this journey, they are increasingly considering cloud alternatives due to the promise of scalability, enhanced operator experience, agility, and potential cost efficiencies. Yet, achieving these benefits requires holistic planning and a robust business case that accurately depicts the created value over the investment horizon.

The vendor landscape for broadcast technology is fairly fragmented, spanning a mix of on-premise, hybrid, and cloud-based solutions and includes several providers of managed services solutions. This vendor ecosystem includes legacy incumbents, adjacent market entrants, and emerging start-ups, each with varying approaches such as cloud-native or virtual machine-based deployments, which carry distinct cost and performance implications. Interoperability is not guaranteed, making it critical to assess vendor cloud partnerships (e.g., marketplace availability) to ensure seamless integration across systems.

Based on FTI Consulting's experience, existing "good enough" sunk-cost investments in on-premises infrastructure and reluctance to adopt new technologies has inhibited cloud migration until now. Every dollar saved on technology costs can be used to acquire additional content delivering business value. With increasing pressure on media companies to "do more with less," cloud migration emerges as a vital lever for broadcast technology leaders to consider.

Benefits of Cloud Playout

Cloud playout infrastructure may deliver significant operational, financial, and strategic benefits for broadcasters by transforming traditional content delivery and management workflows. Below is a set of specific advantages we have seen in with our clients and partners:

— One of the key advantages is the automation of playout operations, which streamlines content distribution and dramatically reduces manual editing and scheduling tasks.

— Cloud playout enables testing and development of new revenue streams at a low cost. This allows companies to validate audience interest and monetize emerging content trends more quickly with less risk.

— Transitioning to the cloud may deliver new capabilities (e.g., back-up facilities or smoother switching between main and back-up. Advanced main and backup feed mechanisms ensure uninterrupted broadcasting, preserving both viewer satisfaction and advertising revenue streams.

— Additionally, cloud solutions offer substantial operational agility by dynamically scaling resources to match fluctuating workloads, reducing or eliminating upfront capital expenditure traditionally associated with server hardware investments. Cloud can more efficiently enable new monetization strategies such as single live event streaming and FAST channels. It also reduces cost of facility and support personnel.

— Cloud-based disaster recovery (DR) strategies allow broadcasters immediate access to cloud benefits and mitigate risks associated with future large-scale transitions. A hybrid cloud approach further optimizes the management of heavy computational workloads, combining cloud scalability with the low latency and high performance of on-premises systems. This hybrid deployment approach is particularly advantageous for tasks sensitive to latency and performance, enabling broadcasters to efficiently manage diverse operational demands.

— Additionally, broadcasters increasingly seek unified software solutions that seamlessly integrate broadcast and digital workflows. A unified control system ensures consistent, uninterrupted operations across linear and connected TV channels. Many cloud playout vendors offer comprehensive management

of hybrid on-premises and cloud environments, supporting multisite and multimodal channel origination. The integrated platform supports multi-purpose distribution, enabling seamless delivery across multiple platforms from a single workflow.

— Finally, the growing adoption of artificial intelligence (AI) and machine learning (ML) technologies further amplifies these benefits. AI-driven systems enhance workflow efficiency, accuracy, and agility, notably improving closed captioning accuracy, even for challenging pronunciations and dynamic content. AI and ML advancements not only improve operational effectiveness but also significantly enhance audience engagement and broadcasters' competitiveness in a rapidly evolving market landscape.

Challenges of Cloud Playout

Transitioning from on-premise to cloud infrastructure includes navigating unique challenges. Efficiently delivering reliability, low latency, and redundancy requirements can be challenging, requiring thoughtful cloud design and planning.

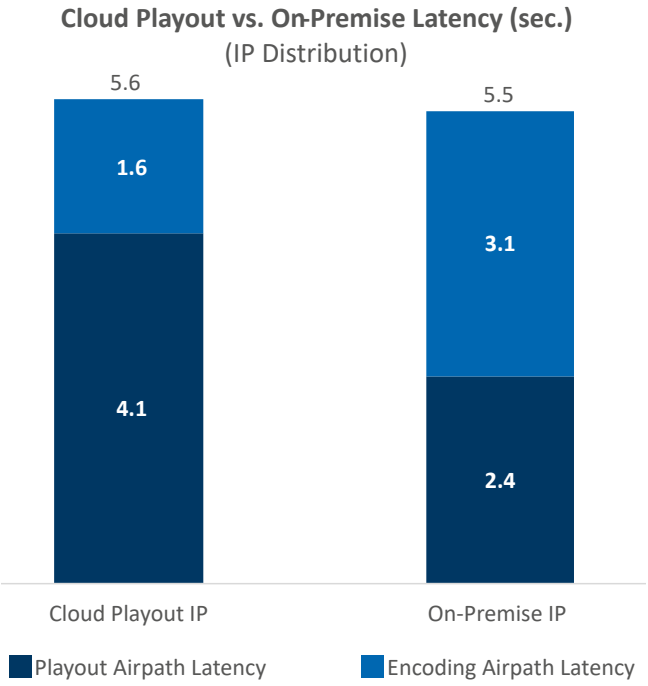
Despite its many benefits, transitioning to cloud-based playout and automation presents several notable challenges for broadcasters. Media companies display varying degrees of propensity toward transitioning their playout infrastructures to the cloud, influenced significantly by operational priorities, existing investments, and technical considerations.

Leading Broadcasters also require 99.999% reliability from their Playout platforms. They achieve this through maintaining "main" and "back-up" feeds with seamless switching that minimizes impacts to the viewership experience or delivery of ads.

Achieving high reliability standards (such as 99.999%) typically necessitates redundant cloud infrastructure deployments across multiple geographic regions and cloud "availability zones", which increases both technical complexity and cost. Furthermore, Broadcasters with these stringent deterministic frame-accurate switching requirements may find cloud migration challenging.

Maintaining low latency comparable to traditional cable or satellite services continues to be a challenging technical requirement for cloud playout systems that use IP-based distribution. As shown in Figure 7, Broadcasters typically encounter four to six seconds of latency for Cloud Playout systems with IP distribution. Cloud playout infrastructure is more efficient in handling encoding workflows, but specialized on-premise hardware appliances are more efficient in processing AirPath components. Thus latency is typically driven by changes in distribution technology (e.g., terrestrial vs IP) rather than by cloud processing.

Figure 7 – Cloud vs On-Premise Latency



In certain markets such as LATAM and APAC, another critical challenge is network connectivity; inadequate or unreliable connections severely hinder the seamless transmission of media content, impairing playout automation effectiveness. High bandwidth requirements imposed by advanced playout systems can strain existing network infrastructure, causing latency issues and degrading content delivery quality.

Moreover, managing cloud deployments involves intricate technical considerations such as automatic detection of network congestion, multiple packet routing pathways, forward error correction methods, and advanced network packet bonding to ensure redundancy and reliability. Vendors navigating these complex and variable broadcaster requirements often face challenges maintaining sufficient levels of research and development, further complicating the adoption landscape.

Collectively, these challenges highlight the necessity of careful planning, investment and technology strategies to ensure a smooth and successful transition to cloud-based playout and automation solutions.

5. Financial Considerations of TV360 Migrations

This section focuses on three aspects of a TV360 paradigm: it describes an idealized media supply chain, an idealized TV360 architecture, and the set of vendors who now support components of this architecture. There is no requirement for companies to implement a paradigm like what we propose perfectly, of course. And, since our paradigm will be cloud-focused, we also understand that on-premise solutions are an important consideration.

Comprehensive TCO Framework and ROI Calculation

The following key dimensions are critical for developing a CFO worth financial model:

— **Operating Model Assessment:** Evaluating human capital costs, workflow efficiencies, and the ratio of channels managed by operators.

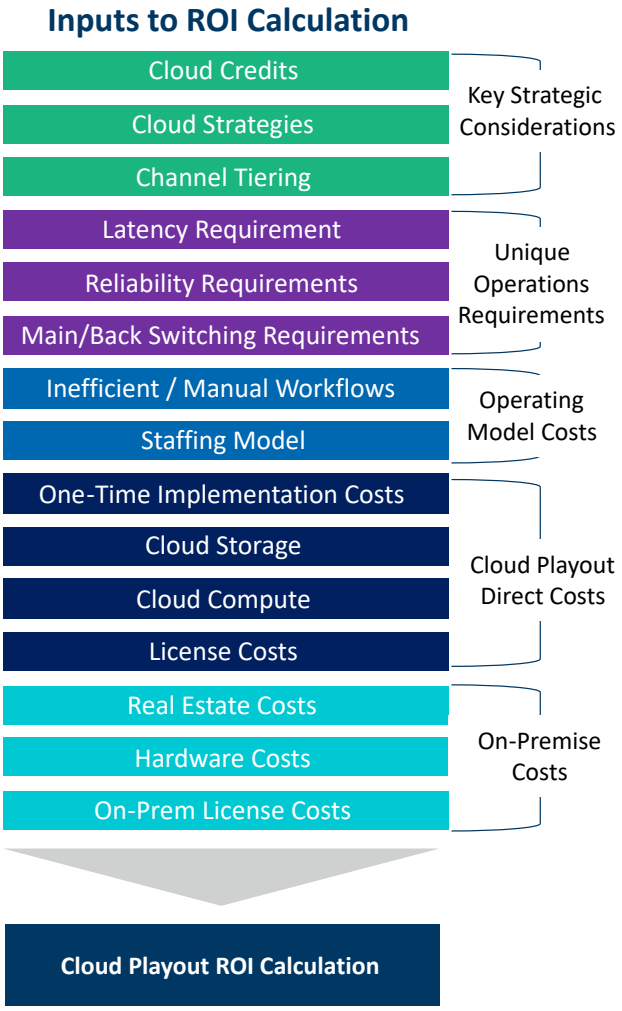
— **Distribution and Operations Requirements:** Considering unique requirements such as latency sensitivity, deterministic switching between primary and backup feeds, and achieving high reliability across geographic availability zones.

— **External Market Factors:** Recognizing broader industry shifts towards OpEx models, timing migrations strategically around technology refresh cycles or significant corporate transactions (e.g., mergers, carve-outs).

— **Detailed ROI Inputs:** Including cloud credits, strategic considerations, channel tiering, staffing models, manual workflow inefficiencies, one-time implementation costs, cloud compute and storage expenses, licensing fees, and associated on-premise costs such as hardware, real estate, software licensing, and support.

— **Implementation and Rollout Costs:** Including costs associated with external program management, system integrator(s), infrastructure set-up, data migration, and managing new and legacy infrastructures during the rollout. This includes the rollout calendar.

A detailed comparison of these comprehensive costs between cloud-based and on-premises scenarios provides clarity, mitigates surprises during execution, and ensures informed, value-driven decision-making.



Building the Business Case for Cloud Playout

Broadcast transformation programs typically span multiple teams, cost centers, architecture approaches (i.e., cloud, hybrid etc.), and cost models (i.e., fixed, variable and consumption-based). This creates a complex business case that evolves with every corporate transaction, technology refresh cycle, and business model update.

It's important to partner with the finance team early to help develop the complete financial picture and help them to understand the benefits of the transformation program. Support from the Finance team is critical to developing a complete picture of current state costs, since many costs likely sit in cost centers that are outside of the broadcast technology purview. The current state costs will serve as the baseline for assessing cloud playout solutions against on-premise alternatives and drive the overall program strategy.

Cloud migrations can help enhance the company's liquidity position by transitioning from large upfront capital expenditures (CapEx) to smaller operating expenditures (OpEx) based on cloud driven architectures. Subscription-based cloud models avoid upfront investments in physical hardware and enable broadcasters to better manage financial resources in an environment marked by tight budgets and constrained capital availability.

Moving to cloud-based solutions also reduces infrastructure-related expenses, including real estate costs, power consumption, cooling systems, and ongoing physical maintenance. Additionally, adopting advanced architectural standards and improved IP transport technologies, further lowers the total cost of ownership (TCO) through reduced operational complexity and enhanced scalability.

Strategic Financial Considerations

Cloud playout enables faster market entry for new channels, services, and content formats, accelerating monetization and generating revenue sooner. Its inherent flexibility also encourages low-risk experimentation, facilitating innovation and allowing broadcasters to differentiate themselves in a competitive market. Rapid deployment capabilities and scalable infrastructures help broadcasters respond dynamically to changing market conditions, audience behaviors, and business opportunities without incurring prohibitive costs.

Additionally, it's critically important to consider the timing of when to complete a Cloud Playout transformation. Companies can maximize the value from Cloud playout transitions, by considering the asset refresh cycle and performing migrations when existing infrastructure is nearing end-of-life (EOL). Further opportunities may exist following a strategic transaction (e.g., post-M&A infrastructure consolidation, carve-outs requiring new infrastructure, or launching new FAST channels).

6. Designing Your Transformation Program: A Readiness Checklist

Modernizing broadcast infrastructure is no longer a question of if — it's a matter of how quickly and how effectively. As broadcasters pursue greater agility, cost efficiency, and new monetization opportunities, the underlying technology architecture becomes a critical enabler of business transformation.

FTI's Cloud Playout Reference Architecture provides a strategic framework that spans the entire playout value chain, from traffic ingestion to transmission. Designed to support multiple deployment models (cloud-native, hybrid, or transitional), this architecture helps organizations balance flexibility with performance, while minimizing unnecessary data movement and optimizing cost structures.

Equally important is ensuring organizational readiness. The accompanying Migration Readiness Checklist offers a clear, actionable lens through which to evaluate strategic alignment, operational capability, vendor fit, and technical preparedness. Whether the goal is to streamline legacy systems, launch new digital offerings, or future-proof post-transaction infrastructure, this blueprint provides a structured path to execution — with business outcomes at the core.

The Reference Architecture

The Cloud Playout reference architecture (Figure 8) represents a set of functional and technical capabilities that can be deployed differently across cloud, hybrid, and on-premise environments. The reference architecture design should be holistic, encompassing the full playout value chain. Beginning with building the playlist and ingesting the traffic logs, through defining the graphics templates, and ending with transmission and monitoring in the master control room. Across this value chain, there's a variety of technology and business process elements that need to be considered.

There are different approaches to building the Cloud Playout reference architecture, however one of the key design considerations is to minimize instances where files need to be sent to and from the cloud as they move through the playout value chain. Some broadcasters are taking the approach of transitioning only core Playout functionality to the cloud. Whereby ancillary playout systems such the traffic system or graphics asset management may remain on-premise.

Migration Readiness Checklist

Strategic Alignment and Vision

Successful cloud migration begins with clearly defined strategic objectives and alignment across the organization. Executive sponsorship, shared vision, and measurable goals ensure clarity in decision-making and resource allocation throughout the migration journey.

Assessment and Roadmap

Conduct a comprehensive assessment of current broadcast infrastructure, workflows, and operations. Identify cloud-ready workflows, legacy dependencies, and potential migration risks. Develop a phased roadmap that sequences migration activities strategically to minimize operational disruption and optimize financial efficiency.

Technology Evaluation and Vendor Selection

Evaluate the vendor landscape, including hyperscalers, specialized media cloud providers, and hybrid solution vendors. Consider critical criteria such as performance requirements, redundancy capabilities, scalability, latency, integration complexity, and overall costs. Selecting the right vendor partnerships is crucial to achieving successful outcomes.

Operational Readiness

Assess workforce readiness and skills gaps. Develop targeted training and upskilling plans to ensure teams can effectively manage cloud-based workflows and platforms. Engage stakeholders proactively to manage change, secure buy-in, and facilitate adoption throughout the organization.

Migration Strategy Options

- **Lower Tier Channel Approach:** Transition lower tier channels (Tier 2/3/4) to the cloud first to de-risk transitions for higher tier channels.
- **Backup Infrastructure First:** Prioritize migrating backup infrastructure initially to establish technology baselines and refine workflows without disrupting primary operations.
- **Reverse Migration Approach:** Start by migrating downstream components, such as distribution, followed by playout, and finally media asset management. This approach minimizes ingress/egress costs and reduces potential latency impacts during migration.
- **Optimal Cloud Workflows:** Uplink live signals and files directly into the public cloud for playout processing to avoid the high costs associated with downlinking playout outputs for on-premises encoding and delivery. Running encoding and delivery entirely within the public cloud is typically the most cost-effective strategy.
- **Unified Cloud Infrastructure:** Maintaining the playout system in the cloud separately from encoding and delivery systems is possible but often incurs significant additional costs. A unified approach offers greater efficiency and cost savings.

Pilot and Phased Implementation

Adopt a phased approach, starting with pilot programs to test selected workflows in cloud environments. Use pilot outcomes to refine implementation strategies, address technical challenges, and validate the business case. Gradually scale successful solutions to additional workflows, business units, or markets, maintaining ongoing monitoring and performance assessment.

Governance, Optimization, and Continuous Improvement

Establish robust governance mechanisms, including clearly defined roles and responsibilities, performance monitoring systems, and continuous feedback loops. Regularly assess cloud migration outcomes against strategic objectives, adjusting strategies to optimize performance, manage costs, and adapt to evolving business and market conditions.

7. Concluding Thoughts

Television has gone through significant technology changes for decades. Yet, ultimately, nothing has weakened its power as a medium or as a revenue engine in the long-term. While the shift to streaming has been painful, television is adapting. In fact there is a back-to-the-future sense of the economic underpinnings of television. Streaming is beginning to mimic the business models of its predecessors. Schedule viewing, advertising-based or subscription-based subsidization, and the consolidation into a few oligopolist players as weaker companies merge into stronger ones.

However, the shift to streaming while still supporting linear TV operations is a difficult and costly one. Broadcasters and their parent companies must cut costs in broadcasting to subsidize the journey to streaming. One important way of cutting-broadcast operations costs is by shifting away from data centers and on-premise hardware toward cloud-based operating models.

In the architectural paradigm we advanced earlier, the entire media supply chain should be moved to the cloud. Orchestration would be consolidated onto a single cloud platform, and the various distribution channels, such as streaming, linear TV, FAST, etc., merely digital end-points, each supported by its own 3rd party software.

To understand the costs to shift to the cloud, we have provided the elements of a CFO-worthy financial model and return-on-investment calculation. It's important that executives consider the complete financial picture to drive the design of their broadcast modernization program. Properly executed, broadcast modernization programs can enable organizations to reduce costs, enable new monetization opportunities, and provide enhanced analytics.

We encourage readers to reach out to the authors at FTI Consulting if they would like support in crafting their own journeys.

8. About the Authors

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Leader of FTI Consulting's Technology Transformation Practice and co-leader of its Entertainment and Media practice. Skills range from business strategy, digital transformation, organizational design, and large-scale operational transformation design, and implementation management. Mr. Benson is a subject matter expert in media and entertainment, including trade and education publishing, newspapers, local and national television, newsroom modernization, digital content supply chains and post-production operations. He has been chief architect for several OTT streaming platforms and a large range of other digital initiatives. He has held Chairman and Board roles at various companies and is called upon as an expert witness on a range of subjects including intellectual property rights, Amazon merchant ecosystems, digital music pricing, and advertising.

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9. Appendices

As mentioned in Section 2, we have included this appendix to outline the actual systems flows in the linear broadcast architecture. This can support more technical discussions with CTOs and their engineers.

Sample Cloud-Based Broadcast Architecture

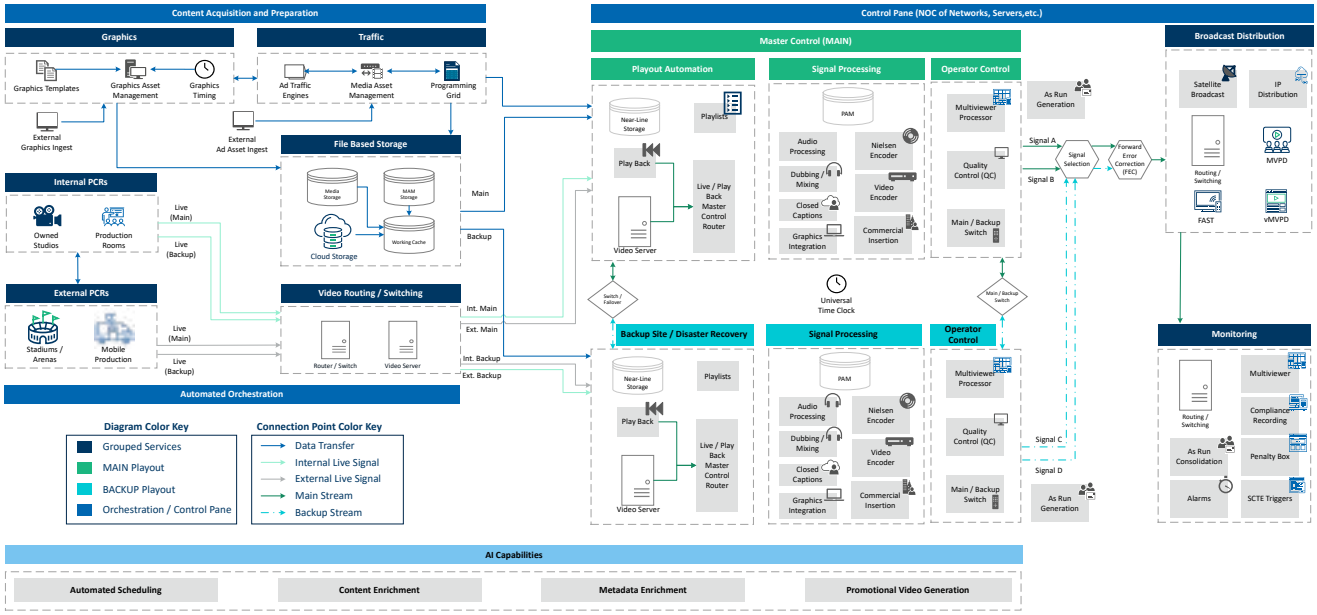
The left side of Figure 8 shows the technical underpinnings required to support the content preparation that we showed in the workflows in Figure 4. Some highlights include (1) Sports and Live production, shown on the bottom left, ultimately creating a signal that flows into broadcast operations.

At the top of the box on the left (2), we can see ad management, together with the content prepared for broadcast, which is married together to create the playlists that go into the broadcast center. These actions are governed by automated orchestration when possible (3). The playlist with its embedded ad timings flows into the main master control (4). Simultaneously, a second playlist is sent to the backup region running in real time (5). Both the primary and backup produce signals that are ready to air. Two signals from the primary, and two duplicate signals generate four possible signals (6). The best of these is sent to air (7).

Modern media-over-IP specifications such as TR-07 and SMPTE ST 2110 (including ST 2110-8) are driving efficiency across the media supply chain. These standards enable content streams to be ingested directly from production studios—either in compressed (e.g., JPEG XS) or uncompressed formats—and facilitate the streamlined delivery of multiple file versions, such as alternate audio feeds for home and away broadcasts.

Leading media supply chain vendors have developed solutions to enable this Cloud-Based Broadcast architecture (including the associated cloud to ground, and ground to cloud networking) to efficiently meet clients where they are in their cloud journeys.

Figure 8 – Sample Cloud-Based Broadcast Architecture



Cloud Playout Vendors

The Cloud Playout vendor landscape is complex and fragmented, shaped by a mix of legacy incumbents, and innovative market entrants. Years of decentralized technology stacks within large media companies have inhibited market consolidation and created opportunities for a diverse range of players. As a result, the market lacks clear leaders and is marked by significant variation in vendor capabilities and maturity.

Vendors must navigate a wide spectrum of customer requirements, as broadcasters transition to the cloud at different speeds. This forces them to support on-premise, hybrid, and cloud-native deployments simultaneously. There is no one-size-fits-all Cloud Playout solution. Vendors are taking different approaches to cloud—some re-architecting their platforms to be truly cloud-native, while others are attempting to "lift and shift" existing on-premise solutions to the cloud. These differences are further compounded by vendor-specific roadmaps, often influenced by the needs of Tier 1 broadcasters.

Given this complexity, a rigorous vendor evaluation process is critical. Organizations must clearly define and prioritize their functional and technical requirements—especially those unique to their workflows or business strategy. A structured vendor scorecard should assess each provider's business strength, functional depth, technical architecture, cloud strategy, and financial viability. A disciplined selection process—backed by a cross-functional review panel, defined timeline, and vendor demos or proofs of concept—will help reduce risk and ensure alignment with long-term objectives.

Letter To The CFO

Dear CFO,

Media executives today are under immense pressure — navigating shifts in consumer viewing behavior, managing the operational and financial complexity of running both linear and digital businesses, and contending with aging infrastructure and evolving technology stacks amid labor and skills shortages.

In turbulent markets, some companies will thrive while others falter. Those best positioned to succeed will be the ones that unify their financial, operational, and technology strategies — enabling fast, data-driven decision-making and long-term resilience.

Broadcast technology modernization, when architected strategically, can serve as a powerful catalyst for this unification. But realizing its full value requires active CFO leadership. You are uniquely positioned to (1) shape the financial strategy behind the transformation and (2) ensure accountability for delivering the operational and financial outcomes. Discovery claims it achieved 61% cost savings by shifting its playout infrastructure to the cloud, which proves the business broadcast technology modernization[25].

Three critical responsibilities can help CFOs maximize value:

Develop a Complete Financial Picture.

Look beyond siloed budgets to assess the full cost-benefit landscape across cost centers. Evaluate human capital efficiency, workflow optimization (e.g., channels per operator), and infrastructure strategy (cloud, hybrid, on-prem), including real estate, power, and cloud credits from hyperscalers.

Consider the Company's Timing and Context.

Maximize ROI by aligning cloud playout migrations with key moments — such as infrastructure nearing end-of-life, M&A-driven consolidation, carve-outs, or the launch of new FAST or digital channels.

Define Clear Business Imperatives.

Transformation creates levers for value: shifting from CAPEX to OPEX to improve liquidity, consolidating analytics to support content ROI decision-making, and enabling faster go-to-market for new revenue streams and distribution endpoints.

This isn't just about modernizing technology — it's about enabling business transformation. And your leadership is essential.

Let's lead this together.

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