irdeto

Protect. Renew. Empower.

Five signs your business is ready to outsource broadcast and streaming technology

Should your business offload technical functions to outside experts so you can focus on what matters most – content and consumers? Take our five-point test to find out.

Predictions of broadcast's imminent death have proven premature. It's true that IP and broadcast technologies are converging. Most pay-TV operators now have hybrid offerings of broadcast and OTT content. But it's likely to be at least a decade before consumers in the majority of markets are ready to make a complete switch to streaming. Operators will have a continued need to support their broadcast offering for a number of years, meaning cable, satellite and DTT are here to stay. Nevertheless, growing competitive pressure from global and local direct-to-consumer OTT services means operators are under relentless pressure to maximize their operational efficiency.

Keeping price points low to compete with streaming rivals is no small challenge. Unlike OTT-only services, operators must maintain their own networks. They're also typically operating in only one or two territories which means they can't spread their infrastructure costs over a global customer base in the way that companies such as Netflix or Disney+ are able to do.

The operator technology stack also requires more hosting, support and maintenance effort than the cloud-native, agile infrastructures typically used by OTT services. Choosing multi-tenant SaaS-based solutions gives OTT services high scalability while they offload the hosting and support to a third party.

How can pay-TV operators streamline their operations further to get the same kind of benefits as their OTT rivals currently enjoy?

The case for outsourcing specialist skills

Over the past 20+ years, many operators have followed the same trends as other big businesses around the globe and outsourced non-core functions such as customer contact centers, IT support, back-office finance and human resources. However, the majority have remained reluctant to outsource what are seen as "core" functions such as broadcast engineering. They have kept these specialist services in-house but have often performed significant streamlining to reduce costs.

The unfortunate consequence is a lack of in-house engineering capacity to manage anything beyond straightforward day-to-day operations. Examples might include the specification and fit-out of a new broadcast center (perhaps to accommodate that convergence of broadcast and IP) or ensuring full quality of service during high profile live events.

Rethinking your core strengths

Some forward-thinking operators have begun looking for ways to redefine what they consider "core" functions, seeking new ways to achieve cost savings and reduce operational headaches but **without** impacting performance.

This e-book lays out five key questions that operators should ask themselves to determine whether they're likely to benefit from outsourcing specialist broadcast operations or – what's the alternative? It also provides examples of successful implementations, illustrating how operators from all parts of the world are thriving by outsourcing competencies such as such as conditional access, video compression, VOD workflows or live event support to Irdeto's specialist team.

Are you on the path to modernization?

Broadcast and IP-delivered content are converging in the customer experience. A new generation of Android TV, RDK and Linux STBs are being rolled-out to offer convenience-hungry consumers their choice of on-demand streamed content and network PVR facilities alongside the operator's broadcast offering. Too often, though, the convergence is not matched in the backend, where broadcast and IP infrastructure remains quite separate.

If your hybrid operations lack efficiency, or your first generation of OTT infrastructure is ready for an upgrade, it's a perfect time to consider outsourcing the specification, integration and day-to-day management of your streaming backend.

Success Story: Managed streaming workflows
The Irdeto Broadcast Managed Services (IBMS) team has been running the full streaming backend for a leading African pay-TV operator for several years. From ingest, transcoding, and DRM encryption to content storage and distribution, the IBMS team designed and deployed the necessary hardware and software on the operator's premises according to their specific requirements. Integrations to cloud-based solutions for DRM and rights-management were also managed by the Irdeto team. Today, they provide 24/7 monitoring and management of the infrastructure and complex workflows that power streaming services on all consumer devices including web browsers, mobile phones and tablets as well as a push VOD service on Linux set-top boxes (STBs).

Are you impacted by the global labor shortage to hire or replace specialist staff?

As the quality of both, broadcast and streamed content, has grown from SD to HD and now 4K and even 8K, the impact of streaming piracy has been felt increasingly keenly by rights holders such as Hollywood studios and sports leagues. Conditional Access (CA) remains the gold standard for protecting broadcast content and operators still need to demonstrate their content security is up to scratch if they want to win the rights. But maintaining and configuring a CA system to meet the shifting requirements of rights holders is a heavy burden for operators. It's closely linked to other functions like video compression and all of them require specialist technical staff on hand 24/7 to deal with any issues that arise. Even a small error can result in disruption for millions of viewers.

Staff with the correct skills are increasingly hard to find; the shortage in qualified and skilled workforce has hit the broadcast industry too. Experienced engineers are retiring, and younger staff can be less willing to specialize in what are perceived to be "legacy" technologies, despite their central role in the operator's success. In many countries, the difficulty is exacerbated by the impact of highly-skilled staff emigrating to countries that provide.

If recruiting, training and retaining suitable expertise in-house is becoming a challenge that distracts from your core business of entertaining viewers, it's time to consider outsourcing this specialist work to a ready-made team of experts. Options include remote management of your on-site systems by an external team, or a fully managed service that includes hosting of the systems in the service provider's own shared data center.

Success Story: Managed Conditional Access
A leading operator in Eastern Europe chose to reduce technology costs and eliminate the need to hire its own skilled local engineering staff by fully outsourcing the management of its CA system to Irdeto's experts. The primary Conditional Access system is hosted and maintained by Irdeto at our shared data center facility, working remotely to serve the subscriber base in the operator's territory. With this work outsourced, the operator can focus its resources on their customers and content instead of technical configuration and maintenance.
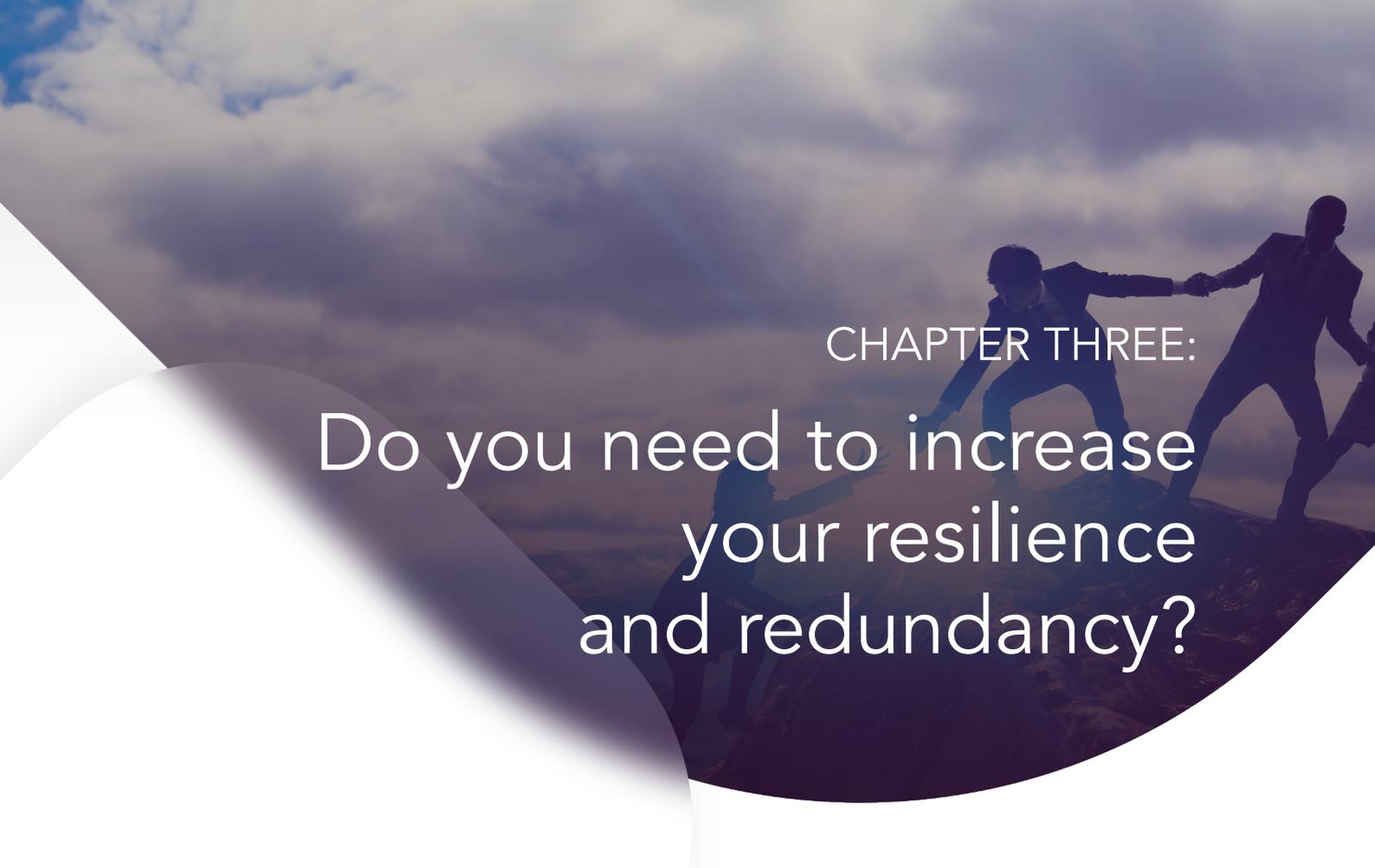
Do you need to increase your resilience and redundancy?

In the face of fierce competition from OTT and rival pay-TV services, pay-TV operators cannot afford to give viewers any reason to consider churning to an alternative provider. To ensure uninterrupted service for subscribers, many operators have implemented high levels of resilience, redundancy, and disaster recovery (DR) in their broadcast engineering systems to increase peace of mind. Others still lack full provision of this kind.

If your business needs to add a geographically separate Conditional Access to be on standby in the event of any disturbance to the operations of your primary headend, it's important to consider outsourcing as a cost-effective route to achieving this goal. Significant savings can be made by offloading this burden to an expert third party that hosts and maintains the active standby system in a multi-tenant data center.

Success Story: Conditional Access Disaster Recovery Facilities
One leading operator in the Middle East which chose to install a local CA headend is nevertheless benefitting from Irdeto's facilities and skills to enable its disaster recovery (DR) provision. Irdeto's team manages and maintains a full duplicate of the operator's CA system at our provisioning facilities. If an exceptional event impacts the operator's primary data center, CA provision will fail over to the Irdeto facility to minimize disruption for subscribers. Use of Irdeto's multi-tenant data center and existing engineering team gives the operator a high level of resilience to a worst-case scenario event, at a fraction of the investment that would be required to run their own DR site either in-region or elsewhere.

Are you expanding or replacing your broadcast facilities?

Pay-TV operators can no longer afford the luxury of employing teams of engineers to manage "special projects". In most cases, multiple rounds of operational cuts have resulted in organizations that run on the bare minimum number of skilled experts to maintain the day-to-day quality of service expected by subscribers. This is good for operating expenses, but leaves such companies exposed when the need arises to tackle a major engineering task such as specifying, designing, building and testing a new broadcast facility.

If your business is preparing to undertake a project of this kind - perhaps to take advantage of convergence between broadcast and IP technologies, or to benefit from lower land prices in a new location - it's likely you'll be comparing proposals from a range of systems integrators. It's worth looking for a service provider who has not only the skills to effectively manage the initial project on your behalf, but also the capability to run the facility as a fully managed service in the long term.

Success Story: Broadcast Center Migration Project
A large satellite pay-TV operator in the Asia Pacific region engaged Irdeto's experts to support with the planning and implementation of a major project to upgrade and relocate its broadcast facilities. Having undergone a recent internal reorganization and losing several key broadcast engineering staff, Irdeto was already working with the operator to manage their Conditional Access system on their behalf and did not have the skilled personnel required to manage or implement such a large additional project on top of their normal operations.

Outsourcing the broadcast center migration project to Irdeto enabled them to avoid the cost and effort of hiring their own expert team to carry out this intensive but short-term work. Following a period of assessing the operator's precise needs, Irdeto's team designed and implemented the infrastructure to support Conditional Access, Video Compression and generation of Service Information. Irdeto was also responsible for all the interconnecting networking between the various systems specified. Today, Irdeto performs day-to-day management of many elements of the broadcast workflow on the operator's behalf as a managed service.

Do you struggle to ensure full Quality of Service for high profile events?

We live in an era of binge-watching, but not all video viewing is time-shifted. Major events still bring viewers together in a collective, primetime viewing experience. Whether we're viewing live sports, concerts or the premiere of a must-watch TV series, high profile events can draw huge simultaneous viewing audiences. Operators invest heavily in this kind of content to satisfy their subscribers, but nothing angers consumers more than technical glitches at the crucial moment – from failed pay-per-view authentication to stream buffering, poor picture quality or audio drop-out.

As we've already described, many operators have cut back their in-house broadcast engineering capacity in recent years. This leaves them under-staffed to perform preparatory checks of broadcast and streaming infrastructure ahead of each major event. Not only are they failing to identify system weaknesses that might crumble under high demand, but they're also lacking the personnel to respond in a timely manner when an issue does arise at the worst possible moment.

If your business has insufficient skilled staff to prepare for major broadcast events, or to fix problems when they occur, it's beneficial to bring in external help that boosts your technical capacity just for these times of particular peaks in viewing.

Success story: High Profile Event Management

Having bought a wealth of attractive content rights, a leading pay-TV operator in the Asia Pacific Region wanted assurance that all parts of their broadcast and streaming infrastructure, including their content protection systems, was fully scaled to deal with the predicted level of demand. Irdeto's team now provides an infrastructure audit before each high-profile event, performing stress-tests on key systems including their Conditional Access and DRM provision for both broadcast and OTT services. The tests simulate a higher load than any previously recorded peak of traffic to identify any shortcomings that need to be rectified prior to the event. Tests are then re-run, following any necessary remedial action, for benchmarking purposes.

When an event begins, Irdeto's central control facility acts as the operations nerve center, staffed by a team of technical subject matter experts that each monitor system health indicators that are specific to the operator. Potential issues are identified, isolated and addressed by the team before they can impact viewing. An Irdeto incident manager is on hand to implement well-rehearsed procedures for corrective action if any problems arise. Irdeto's team publishes rapid performance reports after every event, including analysis of any actions that need to be taken prior to subsequent high-profile events.

CONCLUSION

Many of the functions currently carried out by in-house broadcast engineering teams are strong candidates for outsourcing, but they cannot be performed by just anybody. They all depend on specialized skills that are in short supply as experienced engineers retire or move on. Recruiting or training staff to support these "legacy" technologies on a 24/7 basis is already costly and challenging.

Many operators begin their outsourcing journey by employing an expert third party to specify, procure and/or build a new broadcast technology or facility. It's then a logical next step to hand longer-term management of the new technology or facility to the experts who helped bring it to life.

Switching to broadcast technology that is physically located off-site in a service provider's multi-tenant data center already gives many operators a cost-effective route to geographic redundancy and disaster recovery. We expect more operators to adopt this approach for their primary broadcast systems as they gradually appreciate the benefits in terms of costs, efficiency and quality of service.

About Irdeto Broadcast Managed Services

As competition intensifies, broadcasters and pay-TV operators need to focus more than ever on their core activity: entertaining viewers with great content and an exceptional customer experience. Consumers don't really care who delivers their content or how, but they care deeply about getting their favorite content anytime, anywhere, and on any device.

Improvements in technology bring a corresponding growth in behind-the-scenes complexity for operators. Specialist hardware and skills are required to optimize video compression, content security and video distribution for both linear and on-demand viewing. For broadcasters and pay-TV operators, this means investing in an array of expensive technology and expert staff, plus adequate disaster recovery arrangements.

Outsourcing take away the burden of maintaining the infrastructure underpinning broadcast and online content delivery. Whether you need to optimize and support existing systems or design and deploy a new platform, Irdeto's experts take care of the technology, leaving operators free to focus on attracting and engaging viewers.

The Irdeto Broadcast Managed Services team aren't just a vendor or a systems integrator, we are an operator with more than 30 years of experience running broadcast networks. Our heritage is firmly rooted in the technology division of MultiChoice, the largest pan-African pay-TV broadcast operator.

If you want to get more information for what Irdeto can do for you, click here and we will reach out to you to schedule a meeting.

Irdeto is the world leader in digital platform cybersecurity, empowering businesses to innovate for a secure, connected future. Building on over 50 years of expertise in security, Irdeto's services and solutions protect revenue, enable growth and fight cybercrime in video entertainment, video games, and connected industries including transport, health and infrastructure. With teams around the world, Irdeto's greatest asset is its people and diversity is celebrated through an inclusive workplace, where everyone has an equal opportunity to drive innovation and support Irdeto's success. Irdeto is the preferred security partner to empower a secure world where people can connect with confidence.