

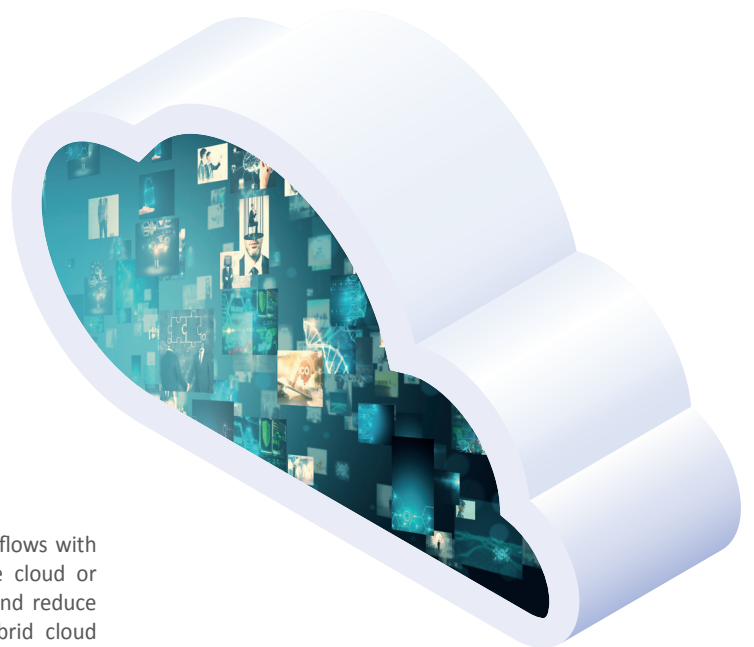
How to Maximise Business Objectives Using Hybrid Cloud Architecture



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Combine best of both worlds!



Introduction

The cloud has had a major impact on broadcast workflows with media companies moving their infrastructure to the cloud or private data centres, in a bid to simplify workflows and reduce costs. Many broadcasters are now looking to a hybrid cloud approach, which leverages a mixed computing storage and services environment that combines on-premises infrastructure (and/or private cloud services) and a public cloud - such as Amazon Web Services (AWS) or Microsoft Azure - with orchestration among these various platforms.

In the IABM's executive keynote speech at last year's IBC, the organisation said that over 47 per cent of media companies are deploying public cloud services, up from 39 per cent in 2018. The question to ask now is: How can your media facility benefit from a hybrid cloud environment?

Maximise storage opportunities, reduce costs and increase value

The hybrid cloud offers broadcasters the ability to meet business objectives quickly while maintaining full control of media archives and costs. It also ensures a low-risk transition into the cloud by moving the operation in-line with business needs. Sensitive data and valuable content can be secured on-premises under company control in a safe IT environment with multiple security layers.

Hybrid cloud architecture also reduces the total cost of ownership. CAPEX is lower as the upfront investment is calculated based on nominal usage and not on peaks, which allows the broadcaster to keep the investment at the desired level. In 2020, on-premises costs of deep archive management (tape libraries) will continue to be lower than the public cloud as the download costs from the public cloud are still a key factor when production teams require constant download (full or partial) from the archive. This is especially true when UHD content is considered.

By using computing storage and services architecture that combines the privacy and security of a private cloud with the scalability of a public cloud, users benefit from orchestration among various platforms and multiple sites. They can store sensitive data and high-value, high-resolution content on-premises inside a secure IT environment that's not accessible outside their facility, fully under the control of their IT team. While less critical operations can be deployed and run in the cloud. This provides flexibility as burst or peak demands in business operations can be quickly deployed and run in the cloud. This means that media companies pay only for the period of time required by the additional business operations. High cost services such as storage for archiving can benefit from the ability to tailor operations to the business cost criteria.

Using hybrid cloud architecture also means that optimization and control of bandwidth and latency is improved as is the prioritization of ingest and delivery workflows. Low-res data can be accessed from the public cloud from anywhere in the world at any time, providing the same quality-of-service for end users thanks to public cloud geographical deployments. Media companies can

move business processes to the cloud at their own pace, as their business grows. Their business is future proofed as cloud technology will evolve faster than the technology used on-premises or in a private data centre.

In addition, because cloud costs evolve over time, the split between the on-premises versus cloud business operations can be reviewed frequently to keep costs under control.

Hybrid cloud allows the transition of certain processes into the cloud with minimum risk as workflows can move seamlessly without affecting normal operation. This assists the customer with the change management process.

Another key benefit is the capability to test new ideas and deploy new workflows or solutions outside of the current primary workflows, without affecting normal operation, using the latest cutting-edge cloud technology and only for the duration of the test. If the test is successful, then it can be integrated as part of regular operations. If the test is unsuccessful the project is simply discarded, and the facility has only incurred the cost associated with the time and infrastructure used to carry out the test.

The hybrid cloud allows the integration of updated cloud AI tools for automatic content enrichment. AI tools will improve considerably in the incoming years and executing them from the cloud will guarantee the most up-to-date version is always available.



Meeting technology demands now and in the future

To take advantage of hybrid cloud architecture media companies need a dynamic content management solution that transparently manages various tiers across departments, locations, or in the cloud. This includes on-premises live storage, nearline storage, deep archive tape libraries, or public cloud storage such as AWS S3, AWS S3 Glacier Deep Archive or Microsoft Azure Blob storage. This technology should enable media companies to efficiently operate using their chosen current architecture with the capability to evolve as future operational and commercial factors change.

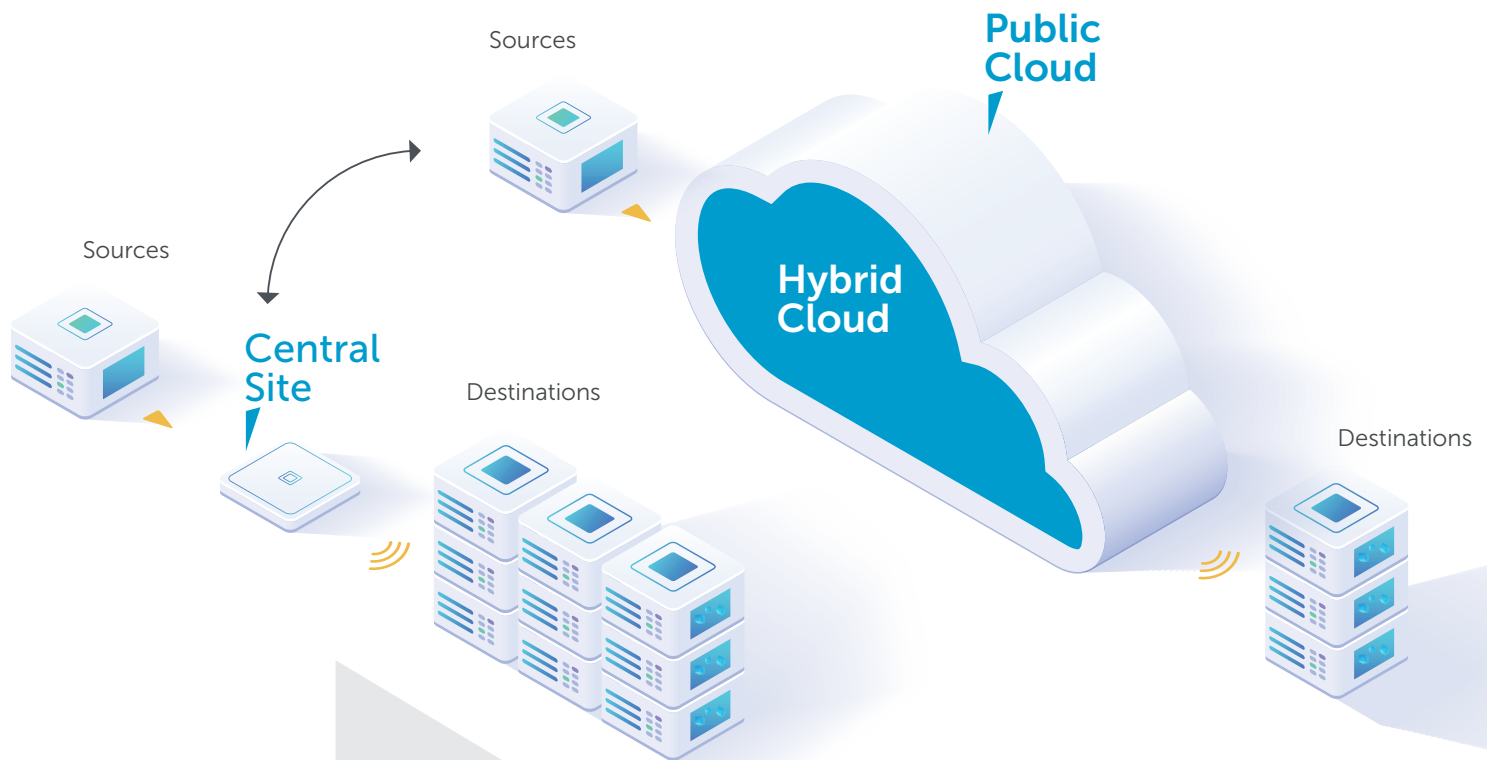
Tedial's Evolution MAM is built with Evolution aSTORM, a dynamic content management solution that is agnostic to storage tiers (on-premises live storage, nearline storage, deep archive tape libraries, or public cloud storage). aSTORM provides the 'link' between various storage and hosting scenarios available today and in the future.

Using logical storage groups and rules defined within each group, the technology seamlessly moves, backs up and restores content when and where required. Live content can be kept in online storage for a period of time depending on its genre. The content management solution can immediately archive content to tape whilst storing it online for a certain duration depending on the logical storage group. News content can be kept online for 48 hours while live sport, which might need to be kept for editing throughout a whole week, can be kept in online storage for seven days, for example. Similar rules can be set using a public cloud.

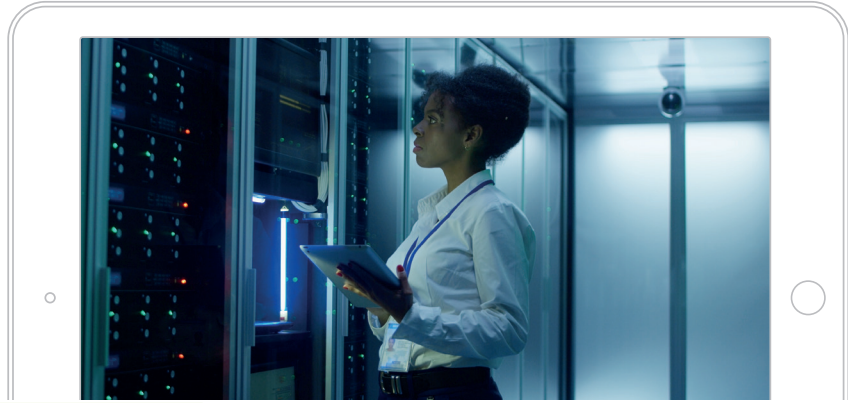
The cloud can also be used to host AI processes. Although operational workflows can be deployed on-premises or in the cloud, non-critical workflows such as automating metadata tagging with AI would typically be deployed in the cloud, while critical workflows would be deployed on-premises. The advantage of this hybrid cloud integration is that customers retain full control of their critical workflows and operations while benefiting from the latest cutting-edge cloud features, technologies and infrastructures, providing increased value to the production team.

Using Tedial's HTML5 web-based Evolution MAM, operators from all departments as well as external partners can access content from anywhere, anytime. Teams are able to find more content, browse proxies, download or edit files from wherever they are enabling remote operations and at-home productions.





- **Agility:** Meet business objectives quickly while maintaining full control of media archives and costs
- **Flexibility:** New services can easily be tested with affordable and predictable costs when using the cloud
- **Security:** Full control of critical workflows and operations on-premises, protecting valuable content against attacks and media leaks
- **Simplicity:** Abstraction of the physical media location, making the workflows really simple
- **Cost efficiency:** Content is served from the most suitable location minimizing transfer costs
- **Scalability:** Media companies can grow at their own pace: Business processes can be moved to the cloud when needed



Conclusion

In a typical hybrid cloud solution, users should deploy all workflows needed for normal operations on-premises and deploy additional workflows in the cloud during peak operations. Low-resolution content and metadata would be kept in the cloud, and high-resolution content would be kept on-premises in online storage and in a tape library to avoid high costs related to downloading content from the cloud. High-resolution content can be managed by on-premises delivery workflows, which can ensure QoS delivery is met. Users can also implement delivery workflows in the cloud to maximise performance and efficiency. Using Tedral's Evolution MAM with aSTORM, media companies can achieve a secure and successful hybrid cloud approach.



*behind
the play*



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