Optimizing Cloud Resources is the Key to Digital Agency Profitability

Post-Production Profitability is All About the Cloud

In today's rapidly evolving post-production industry, digital studios find themselves at the forefront of a new era. Gone are the days when 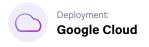physical studios dictated the boundaries of creativity. Today, global collaboration and cloud-based data management have become essential pillars of success. Post-production teams, dispersed across continents, now seamlessly pool their talents.

The cloud, with its unrivaled potential for real-time collaboration, streamlined workflows, and limitless scalability, is part of making this new paradigm work. Nevertheless, merely embracing cloud resources is not enough. A true competitive edge flows from optimization. Today's new operating models call for robust, efficient, and centralized compute and data management solutions.

AT-A-GLANCE

Faster Time to Market — Scale the Business — Reduce Infrastructure Costs

Use Case:
VFX Rendering

Deployment:
Google Cloud

Applications:
Autodesk Flame

The Rise of the Global Post-Production Studio

One company that has successfully navigated this new landscape is House of Parliament, an independent visual effects and creative studio that has reimagined the concept of a traditional studio. Parliament specializes in providing cutting-edge visual effects and innovative solutions for the film, television, and advertising industries. They have worked on numerous high-profile projects, including nine commercials for the most recent Super Bowl and music videos for Taylor Swift's latest album launch.

Parliament's journey toward a new level of cloud optimization began at a critical juncture. The company, co-founded by Phil Crowe, former executive creative director at The Mill and a renowned name in the industry, landed four Super Bowl commercials within two weeks of its inception. With no physical space, no investors, and the onset of a global pandemic, Parliament faced the daunting task of operating not as an emerging boutique, but as a medium- to large-sized VFX company from day one.

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Parliament maintains studios in both Los Angeles and New York to facilitate client meetings. Nevertheless nearly all members of Parliament work remotely. This model allows Parliament to be flexible and agile, enabling the company to hire freelancers globally based on project requirements. Today, Parliament boasts a full-time staff of 77, which expands to 120-140 around the time of the Super Bowl.

The Cloud Operating Model for Post-Production

The shift towards a global workforce has its challenges. Tom Taylor, owner of Gunpowder LLC, a solutions provider supporting the House of Parliament, explains, "Spending millions to open a data center in Australia is unaffordable unless your business strategy consists of hiring only Australian talent. Our cloud-based approach means we can cherry-pick talent worldwide, quickly spin up infrastructure, get them working efficiently, and then turn it off."

Parliament initially set up a virtual facility on Google Cloud Platform (GCP), including a render farm, VFX workstations, and storage. Says Taylor "The cloud-first strategy was a no-brainer for them. It allowed them to move faster than they could on-premises and collaborate with more artists than they ever could otherwise."

The team found the economics of content creation in the cloud was a completely new game. Taylor points out, "Previously, Parliament's margins hinged on negotiating a good deal with freelance artists. Now, the deciding factor is whether they can keep their cloud infrastructure bill within reasonable limits."

With the changing focus on controlling costs in the cloud, they quickly discovered a new set of financial pitfalls in the available data storage solutions. According to Taylor: "...Parliament quickly ran into a significant roadblock

with the available cloud storage options. The cost to achieve the performance they required was just astronomical. It was a catch-22; pay through the nose to get the performance needed and risk being unprofitable, or save money but compromise on quality. Neither was an acceptable option."

As the Parliament team dug in, they quickly discovered several unexpected challenges with the available cloud storage solutions including data duplication, high data transfer costs, and the premium charges for high-performance storage. The operational complexity of managing storage across different regions required additional resources, further escalating costs.

At the same time, "The demand for real-time access to data, regardless of location, remains a constant," says Taylor. "If you're at your workstation in Korea and hit play, you need an immediate response. However, it's crucial to balance this need with cost-effectiveness. You want to store everything else as economically as possible."

Charting a New Way Forward

That's when Taylor discovered WEKA at a recent National Association of Broadcasters Show. The WEKA Data Platform simplifies and speeds up the way data is handled. It manages data storage, regardless of whether it is in a local data center, the cloud, or any combination. Its unique strength lies in efficiently dealing with large volumes of data, ensuring it's organized and accessible no matter where it's stored. This makes it a reliable and efficient choice for any organization that needs to manage and process data quickly and effectively.

"The cost comparisons are honestly ridiculous when you compare WEKA to other storage strategies," says Taylor. Impressed, Parliament planned its migration to WEKA. Since then, WEKA has been a cornerstone of Parliament's data management strategy, enabling them to maximize their efficiency and adapt to their dynamic needs. Taylor sums up, "The first thing that happened after we migrated them to WEKA was their CFO hugged me. They quartered their cloud storage cost and maintained higher performance than they were getting previously."

Today, WEKA is critical to Parliament's ability to spin up project specific studios in various regions worldwide. "If a producer wants to hire a certain person or get a certain look, we run some code, spin up an environment, they work on the project for the day or however long their booking is, and then we shut that infrastructure down," Taylor shares.

> "It was a catch-22; pay through the nose to get the performance needed and risk being unprofitable, or save money but compromise on quality. Neither was an acceptable option."

However, the micro-studios approach in the cloud is only economically viable for Parliament because of WEKA's unique capability to optimize storage usage. "Even though our data resides in what is considered the object store - the most affordable archive tier - the way WEKA interacts with it allows us to maintain high performance." By managing data tiering efficiently and simplifying operations, WEKA prevents unnecessary costs, enabling Parliament to work effectively in the cloud while focusing on delivering high-quality post-production services.

The Importance of Automated Data Management

Intelligent, automated data management lies at the heart of Parliament's efficiency and cost-effectiveness. "Their strength lies in their creative capabilities, not in managing cloud resources," Taylor emphasizes. "They need systems that can handle the complexities of data management, allowing them to focus on what they do best."

"When they were running on a tiered storage setup, everything just sat in the pricey hot storage," Taylor shares. "Technically, they could have manually shuffled data among the storage tiers, but that was time-consuming and not cost-effective."

> "Thanks to its performance, WEKA acts like local storage for Flame and other systems."

The introduction of WEKA marked a dramatic change in this process. "With WEKA, I never worry about where files are stored. WEKA automatically manages the data, intelligently moving it between tiers based on usage and need. And here's where WEKA stands out - it provides the high performance that applications like Autodesk Flame require, without the need to retain huge quantities of data in an expensive hot tier," Taylor explains.

"Thanks to its performance, WEKA acts like local storage for Flame and other systems," Taylor explains. "But it's the economics of the thing that's the game changer. If Parliament has 30 people working on a Flame job, they reduce their data footprint from 30 copies to one, and that's not just saving them on storage space, it's saving them big time on costs."

Taylor adds, "In the past, they also had to duplicate data across multiple systems. For example, each

Flame station required a local copy of project data, resulting in data islands. This was not only inefficient but costly. With WEKA, we've been able to reduce their data footprint significantly."

Taylor underscores the real-world significance of this change by referring to Parliament's work on high-profile projects, such as Super Bowl commercials and Taylor Swift's music videos. "These projects required managing huge amounts of data. Intelligent, automated data management isn't just a convenience in such scenarios; it's a necessity. It empowers them to deliver high-quality work within time and budget consistently," Taylor concludes.

"The post-production industry is a tough business," Taylor elaborates. "I've seen brilliant studios deliver top-notch content, win awards, and then go out of business because their infrastructure costs were just too high. It's a brutal paradox: to stay competitive, you need to produce high-quality work and collaborate with the best talent worldwide. But to do that, you need high-performance storage that won't break the bank."

"That's where WEKA comes in," Taylor concludes. "WEKA eliminated the trade-off between performance and cost. It delivered the high-speed data storage performance we required for VFX rendering without the hefty price tag. It's not just the technical operation WEKA enables - it's the entire business. And that, in a nutshell, is why WEKA is such a game-changer."

Understanding the Storage Challenge and WEKA's Solution

Traditional storage solutions often present a challenge in terms of performance, management, and costs. A workstation typically requests data through a single i/o node, which controls data storage and access. Scaling capacity means adding more disks behind the storage i/o node. However, scaling throughput performance

means additional i/o nodes, which adds significant management complexity, and drives unnecessary costs. In the cloud, cost challenges are further complicated because performance storage options are priced at a significant premium. This leads many companies to adopt tiered storage consisting of a slow, cheap tier and a fast, expensive tier and manually move data between these tiers, which can be inefficient and time-consuming. As a result, most organizations are forced to choose to either overprovision storage at significant costs, manually manage complex storage and data tiering, or work with lower performance.

WEKA's solution takes a different approach by implementing a clustered approach. Instead of relying on a single storage head, WEKA distributes data across a cluster of high-performance nodes that leverage flash storage and extends to a huge pool of less expensive object storage. WEKA software manages the movement of data between flash and object automatically. During data operations, WEKA pulls data from multiple nodes simultaneously, resulting in faster throughput than traditional single-node storage solutions. So while the majority of the data resides on the slower, cheaper tier, the innovative data retrieval process ensures high performance without the massive cost penalty of all-flash systems..

Taylor explains the benefits of this approach: "When you request a file, WEKA pulls a little bit from across all the nodes. That throughput is very fast, even faster in benchmarks than pulling data from a single node attached to the storage."

This approach also offers scalability. If faster performance or more storage is needed, additional nodes can be added to the cluster in a linear fashion. In contrast, traditional storage solutions would require the purchase of another expensive storage head and more costly disk space. This helps Parliament

overcome the challenges of managing large volumes of data. Taylor explains, "Nowadays, cameras shoot at 8K, 9K, and 10K resolutions. Because it's digital, the directors keep that camera rolling. Instead of three takes for a scene, there are 20+. The amount of data Parliament has had to deal with has grown exponentially over the last ten years, and it's continuing."

He continues, "You always want two things from your storage, affordability and you want speed. With the cloud, you're paying per microsecond that that stuff is turned on, so every efficiency you gain is dollars in your pocket."

> "Parliament's never hit the ceiling of the storage or had artists complain that something is slow."

WEKA's state-of-the-art distributed file system ensures that data is readily available when needed, enabling Parliament to carry out its operations with exceptional efficiency. The system's ability to handle large volumes of data at high speeds has been particularly beneficial. Taylor said, "The speed and reliability of WEKA's solution have been game-changers. We've seen a significant reduction in data processing times, which has directly contributed to their ability to deliver services more effectively."

Flexibility Meets the Bottom Line

The shift to WEKA's solution has profoundly impacted Parliament's operations. Taylor elaborates, "My 'aha' moment with WEKA was realizing that we could put 95% of Parliament's data in the cheap tier and still have the performance for what they need, rather than 80% fast and 20% slow."

The ability to scale resources up or down based on project requirements is crucial for efficiency and cost-effectiveness, and WEKA's storage solution is designed with such flexibility in mind. It allows Parliament to adapt storage resources in real-time, aligning with the ebb and flow of their project demands and ensuring it can meet the demands of any project, regardless of size or complexity. Taylor concluded, "Parliament's never hit the ceiling of the storage or had artists complain that something is slow. WEKA does exactly what it says on the tin."

Learn more at weka.io/customers/parliament-vfx/

Create Without Limits and Drive Results Faster

The WEKA® Data Platform removes the barriers to data-driven innovation through its advanced software architecture optimized to solve complex data challenges and streamline the data pipelines that fuel AI, ML, and other modern performance-intensive workloads.

The design philosophy behind the WEKA® Data Platform was to create a single architecture that runs on-premises or in the public cloud with the performance of all-flash arrays, the simplicity and feature set of network-attached storage (NAS), and the scalability and economics of the cloud.

Whether it's on-premises, in the cloud, at the edge, or bursting between platforms, WEKA accelerates every step of the enterprise AI data pipeline – from data ingestion, cleansing and modeling, to training validation or inference.

Mind-bendingly fast. Seductively simple. Infinitely scalable. Spanning edge, core, hybrid, and multicloud. The WEKA Data Platform helps to overcome complex data challenges and accelerate next-generation workloads to unleash your organization's imagination, creativity, and potential.

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