

Case Study

# Data's Fast Break to the Cloud with Lyve Mobile

Bridge Digital deployed Lyve Mobile to store a major sports team's large video data files and quickly upload them to AWS. Lyve Mobile enabled Bridge Digital to overcome solution incompatibility that had made AWS migration an impossibility.





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### Introduction

A pro sports team needed large video data files migrated to AWS, but their existing solutions were too slow (if they could perform the task at all).

Professional sporting events generate an enormous amount of video data, which the teams want to keep for training and publicity purposes. Capturing, managing, and storing all that data can be a daunting process. A major league sports team approached Bridge Digital, a provider of managed and professional video services, with the challenge of capturing game video data and migrating it to the Amazon Web Services (AWS) cloud. This was easier said than done because the team's existing data storage solutions, including the use of linear tape-open (LTO) tapes, were extremely slow. Integration issues also made AWS uploads essentially impossible. Using Seagate Lyve<sup>™</sup> Mobile Arrays, Bridge Digital could easily manage the video data and quickly upload the files to AWS.

## **Their Story**

Bridge Digital provides managed and professional services—along with technology solutions—to sports, events, and entertainment clients worldwide.

Since 2002, Nashville-based Bridge Digital has provided managed and professional services—along with technology solutions—to clients worldwide in sports, events, and entertainment. The firm delivers deep expertise in digital video workflows, as well as the technologies that make them run optimally. They build systems that feature solutions from production and media asset management vendors, such as AVID.



## **Their Goal**

The team wants to have all game videos stored on AWS for easy access. This requires rapid, easy uploading of large data files from game sites.

Bridge Digital engaged with a major league sports team that generates a large amount of video data during each of its games. The team, which had been struggling with cumbersome LTO tapes and portable hard drives, wanted to store all game videos on AWS. Though this seems like a simple matter, the processes of ingesting, managing, and migrating this data to the cloud turned out to be quite complex. The video formats were not uniform. The risk of data loss was a real issue. And the data volume made any file management a time-consuming chore...often taking days to complete.



## Their Challenge

Migrating video data to AWS turned out to be a challenge. Slow equipment and compatibility issues made it nearly impossible to upload the files to the cloud.

Getting video data from TV trucks and stadium media rooms to AWS proved to be a very serious challenge. For one thing, the team relied on two different video solutions: an archive tool and a NetBackup application. The archive tool was supposed to connect to AWS through an Amazon Snowball device, but according to Richie Murray, founder and president of Bridge Digital, "The problem was that the Snowball implementation on-premises was very slow, and the middleware application did not understand how to write to (the Snowball transport solution) in S3." The integration simply didn't work. With NetBackup, the client was using an older version of the software running on a Windows environment that was several years out of date and had no ability to write data to S3 or NFS. The team faced a problematic video migration bottleneck, which was made worse during away games when they had little time to complete cloud uploads using guest video facilities.



## **Their Solution**

Lyve Mobile by Seagate enabled Bridge Digital to solve the compatibility problem and fulfill its mission of easily and quickly uploading video data to AWS.

Bridge Digital was trying to solve what can be called an edge data collection problem. They needed a way to migrate numerous, large video files generated by cameras in sports arenas to AWS. The client's existing storage and data management setup was deficient for this task. To establish a fast, reliable process for uploading video data to AWS, Bridge Digital implemented Lyve Mobile Array by Seagate. This full suite of integrated, high-capacity, data transfer solutions makes edge-to-cloud workflows possible. Comprised of rugged data storage devices and accompanying software, Lyve Mobile allows users to aggregate, store, process, and move massive volumes of data quickly and easily. The system is available on an 'asa-service' basis, which gave Bridge Digital the ability to rent the hardware rather than acquire it as a capital expense (CapEx). With Seagate being a trusted brand in storage, Murray felt confident that his client would accept the recommendation to use Lyve Mobile. "We went from zero to 100 with our relationship," he said. "It was easy to get people to buy in on the concept of working with Seagate."

The Bridge Digital team found Lyve Mobile to be relatively simple to set up. "We brought in the Lyve devices and connected them via SAS (serial-attached SCSI)," explained Murray. "At that point, the devices showed up on our systems as drive letters in the NetBackup environment." A separate Lyve Mobile device was required to connect to the team's archive and media asset management system. They also rented the Lyve Mobile Receiver, which augments the Arrays' capabilities to create a data storage system with redundant power and versatile interfaces. Once connected, the Arrays quickly ingested all the video data produced at each game. Then Bridge Digital had the choice of uploading the files to AWS from the field or transporting the Lyve Mobile equipment back to a site with a fast network connection. Bridge Digital opted to send the Arrays to Seagate to utilize the company's Cloud Import service, which helps customers quickly and easily transfer their data from any endpoint, edge, or core location to the cloud of their choice, including multicloud platforms. In this instance, Bridge Digital leveraged Cloud Import as a service to access the data from the Arrays and upload it to AWS, but it could have been to any S3-compatible cloud service. The new approach suited Murray, who said, "So, we solved both an incompatibility problem and a speed problem for two different applications. Both the throughput level and the incompatibility issues were solved by one solution—and we're good." Lyve Mobile's speed was another big plus for Bridge Digital. Murray said, "We could have pushed the data out to the cloud directly as fast as it was going to the Snowball." Murray's team also addressed data security, an issue that is sometimes overlooked in live event video production. "There's a belief that because everyone's just backstage with the equipment, you don't need security. We do not take this position. If you're responsible for handling the client's data, you have to do what's necessary to protect it. The trick is to implement security in a way that doesn't make it hard to use the equipment, which sometimes happens in our world."

Avoiding the common mistake of creating simple, widely shared passwords for data storage equipment, Bridge Digital set up an encrypted token file on a USB thumb drive. "Basically, it plugs into the Ethernet control port on the back of the rack mount receiver," Murray explained. "You plug it in the back of the Padlock, and it unlocks the mobile array. No software or laptop is required to secure the data. This way, the data can't be read by anyone, which is a risk when you're shipping hard drives to another location."



### **Their Success**

Lyve Mobile allows Bridge Digital to conduct video migration in two days...a process that used to take two weeks.

Bridge Digital is experiencing a range of benefits from its deployment of Lyve Mobile for its sports team client. The speed of video upload is significantly higher with Lyve Mobile than it was with Snowball and other legacy solutions. What had been a twoweek process now takes two days. According to Murray, Lyve Mobile also helped rescue Bridge Digital from what would have been a month-long operation of tuning the environment.

Plus, they have resolved the compatibility problem that made Snowball a non-viable option in the first place.



"(With Lyve Mobile by Seagate), both the throughput level and incompatibility issues were solved by one solution."

**Richie Murray** Character count Founder and President Bridge Digital

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For More Info > Lyve Mobile – Data Transfer as a Service

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