

## Broadcast Interactive Media Uses IntelliFlash -Powered Virtualization Project Enabling “Aging Technology” To Live in the Modern Era



Broadcast Interactive Media is a broad range provider of ad optimization and data services to some of the country’s largest advertisers and broadcasters, including Comcast and DirecTV, and hundreds of TV stations and online media outlets.



### Challenges

- Legacy applications could not be migrated to modern virtualized infrastructure
- Performance and scalability becoming problematic on physical servers

### Solutions

- Consolidate applications that could be migrated to a virtualized environment on top of Tegile IntelliFlash Hybrid arrays

### Results

- Applications accelerated with flash performance without the cost premium of all-flash storage
- Operating costs through consolidation driving improved ROI

The company’s Cedar Rapids, IA, facility offers a variety of services, including its Media Star suite of program scheduling services and its TitanTV online program guide for over-the-air, cable and satellite listings used by more than 1,000 websites. If you’ve ever used an online program guide, there is a very good chance that it’s powered by TitanTV.

BIM’s proprietary applications are hosted on servers running versions of Windows that IT manager Tom Trujillo calls ‘aging technology.’ BIM, in many cases, is using servers running older operating systems, including Windows Server 2000 and 2003.

“I have physical servers that are running technology that needs to maintain itself, but I can’t go buy replacement servers for some of the stuff because new hardware doesn’t support some of the older technology,” said Trujillo. “We needed a way to keep the older tech alive since the OS and some applications aren’t supported on new tech.”

The solution for Trujillo was to virtualize its 51 physical servers with VMware, enabling BIM to upgrade to new technology when possible, while maintaining the older technology.

The switch to a virtualized server environment also necessitated the move from server storage to shared network storage via an iSCSI SAN. Trujillo looked at a variety of storage arrays and even the possibility of using the cloud with Amazon Web Services to meet his capacity requirements but discarded that option, preferring to have full control over local storage. During this evaluation phase, Trujillo discovered Tegile Systems and its IntelliFlash hybrid arrays. The more he read about the company, the more interested he became. After an on-site meeting with Tegile marketing vice president Rob Commins and reseller partner Networks Inc. and a demo, Trujillo was impressed with the performance, user interface and the simplicity and completeness of the information the Tegile solution provides. “If it worked and if I got good reviews on this company, then this was a no brainer to go with because it’s just easy to use and everything on the hybrid array makes sense.”

Before committing to purchase a Tegile array, Trujillo still had concerns about trusting his entire storage infrastructure to Tegile. But Trujillo liked what he heard from Tegile and in the course of his due diligence was impressed with Tegile’s existing client base and the number of municipalities that had bought into the Tegile’s technology.

“We rely on our data to make our money. If our data isn’t available, we don’t make money, but it isn’t necessarily the cause of massive issues and legal problems that a municipality experiences if it loses its data,” he said. “The fact that so many municipalities were trusting Tegile was more than enough for me.”

BIM purchased a Tegile IntelliFlash high-availability hybrid array with 25TB capacity

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connected in an iSCSI SAN connected to the servers and VMs via a Gigabit Ethernet switch. The IntelliFlash array is storing all of the VM data and the VMware host is replicating the servers so they can maintain availability with the primary storage array.

A Tegile technician installed the hybrid array and then spent an hour with Trujillo explaining the Tegile hardware and software functionality. In a validation of the simplicity and functionality of the IntelliFlash user interface, Trujillo said that after that single hour he felt fully confident on the Tegile array.

"I understood everything that this piece of hardware and the software does in under an hour, and it was an easy hour," said Trujillo. "I was like a kid at Christmas, it was incredible to me. When they say a user-friendly interface, this really a user-friendly interface."

Tegile IntelliFlash arrays are purpose built for server virtualization, making the process reliable, scalable and cost effective for BMI. One-click virtual machine optimized storage creation can deploy hundreds of virtual machines and desktops in minutes, not hours. Built-in backup and data replication via unlimited snapshots, cloning, and instantaneous restores keeps virtual machines and desktops protected.

By selecting the Tegile hybrid array, BIM solved multiple issues for its new virtualized environment with a single storage device:

- the unified storage capability to support multiple SAN and NAS protocols provided the shared network storage required for VMware, rather than a PCIe flash device which is captive to the physical server in which it's installed.
- the hybrid architecture enabled BIM to deliver flash-class performance without the cost and capacity penalties of all-flash storage arrays or the performance limitations and I/O blender impact when using hard disk arrays in virtualized environments.

Trujillo has completely virtualized 41 of his 51 servers and is aiming to complete the virtualization project as soon as possible. Trujillo said that the Tegile array has performed exactly as predicted with one exception: he wasn't prepared for the effectiveness of Tegile's in-line compression and data deduplication technology, shrinking his storage load for dozens of servers and hundreds of virtual machines down from 21TB down to less than 7TB.

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*"I'm surprised at the amount of space that it doesn't use. I would have thought for sure I would have filled this thing up with everything I have," said Trujillo. "I still have 60% of my Tegile array free. I'm trying to figure out how I can fill that space. I've still got terabytes upon terabytes of space available to me. I know that I would have filled those up by now with the other products I was looking at."*

