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Michael Raposa, Senior Director of Infrastructure, iN DEMAND

## iN DEMAND Simplifies Storage Management, Adds Global Namespace with F5 ARX File Virtualization

iN DEMAND L.L.C. is the entertainment industry’s pioneer distributor of transactional and subscription content. As a content aggregator owned by a consortium of cable studios, iN DEMAND provides a comprehensive portfolio of digital video products and services, resulting in massive data storage requirements.

Using F5 ARX intelligent file virtualization, iN DEMAND leveraged its existing storage investments to create a virtual storage pool under a single global namespace. ARX enabled iN DEMAND to save time and resources in its video transcoding processes, reduce costs through storage tiering, and simplify storage management.

### Business Challenges

iN DEMAND creates and delivers digital content through cable pay-per-view (PPV), video-on-demand (VOD), and other digital platforms, in both standard definition (SD) and high definition (HD) formats. Content resides in a digital library, which requires massive amounts of storage capacity because each SD movie is about 3 gigabytes (GB) in size, HD is about 13 GB, and 3D can average 20 GB per movie. As more digital content is created, the demand for storage will only continue to grow.

The length of time that iN DEMAND stores data depends on contracts with different studios. For archiving, iN DEMAND spins

files to tape, but must be able to locate, restore, and deliver the data quickly when requested.

One of iN DEMAND’s studio owners wanted to dramatically increase the amount of digital content available on demand to its subscribers. The initial project scope was relatively small, with a requirement of 30 terabytes (TB) of storage.

Just a few months into the project, the studio decided it wanted a “game-changing solution,” explains Michael Raposa, Senior Director of Infrastructure for iN DEMAND. “It became clear that we needed much more

## Overview

### Industry

Media and Entertainment

### Challenges

- Difficulty scaling capacity to meet expanding storage demands
- Continuous interruptions to video transcoding processes
- Disruption from migrating data
- Increasing storage costs

### Solution

- F5® ARX® Series intelligent file virtualization

### Benefits

- Easily scalable storage environment
- Improved application workflow and productivity
- No disruption or downtime from migrating data
- Storage costs reduced 35% per GB

storage—at least 300 TB—and we had to find a solution quickly.”

iN DEMAND frequently needs to transcode video files from one format to another. This process requires several steps, each involving multiple servers accessing files stored in a dedicated workspace. Proceeding from one step to the next required migrating files between workspaces, a time-consuming operation that interrupted application workflow and created costly employee downtime.

“We have 40 to 50 people here dedicated to transcoding files for distribution,” Raposa explains. Every time we move a file, those 40 to 50 employees have to wait for up to an hour to move from one stage to another in the process.”

What iN DEMAND needed was a storage solution that could scale with business demands while accelerating application workflow and productivity. The consolidated digital repository had to support standard file access protocols used by a variety of operating platforms, without extensive customization.

## Solution

A longtime F5 customer, iN DEMAND selected ARX to simplify its storage environment, streamline application workflow, and reduce costs. ARX seamlessly integrates multiple storage systems and file shares into a single, easily scalable pool of storage, called a global namespace.

For iN DEMAND, the global namespace was able to create a 300 TB pool of storage to meet the demands of both the digital content library and video transcoding workflow. This allows iN DEMAND to easily support the entire video transcoding process through a single mount point. Files can be migrated non-disruptively between different steps in the transcoding process, saving valuable time and increasing productivity.

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In addition, ARX automatically tiers files to lower-cost disks, based on policies and criteria established by the IT team, to help iN DEMAND better manage its storage costs as data requirements grow.

“Like our other F5 solutions, ARX is easy to understand, with simple configuration and GUI,” Raposa says. “Another big driver was ARX support for Windows, Macintosh, Linux, and UNIX. In our diverse environment, a standard protocol is important.”

iN DEMAND required a solution that worked with existing storage equipment. By consolidating resources into a unified storage pool, ARX meets that requirement. “ARX knits together storage on the NetApp VFiles and lets us continue using what we have,” he adds.

The timeline for the project was about three months. F5 consultants were on board, and Raposa gives them high praise. “We had some implementation issues that had nothing to do with F5 components, but F5 helped us find a fix. They really went above and beyond.”

## Benefits

ARX helped iN DEMAND create a flexible storage environment that could easily scale to meet its growing demands. The global namespace provided a digital repository and application workspace that was significantly larger than what is supported by the underlying storage systems. In addition, iN DEMAND was able to dramatically improve productivity.

Raposa says the amount of work hours saved with F5 ARX is immeasurable. “For us, this is absolutely huge. With ARX, it now takes only seconds to migrate the files between steps in the transcoding process, rather than up to an hour for each file.”

Raposa continues, “With ARX, we can handle storage growth, keep track of files with metadata, and leverage a tiering strategy to make our systems more cost-effective.”

Using ARX, iN DEMAND was able to create a two-tiered storage environment. The ARX devices automatically move files from Tier 1 to Tier 2 as they age. So far, iN DEMAND has tiered 75 TB of data, which has reduced its overall cost of storage per gigabyte by 35 percent, and also allowed the company to reclaim valuable capacity on its primary storage.

Moving the data was problem-free. “We did the move over the weekend, and there was no impact on users or applications,” Raposa notes.

Across the namespace, iN DEMAND uses the ARX virtual snapshot capability as its primary on-disk backup. ARX coordinates the scheduling of physical snapshots for all underlying file systems in the global namespace. Then it presents a federated view of the physical snapshots to simplify the process of restoring either individual or entire sets of files.

When iN DEMAND does operating system and firmware updates, ARX requires very little work. “We haven’t needed a lot of tech support because ARX has been so simple to use,” says Raposa. “There are no worries. You really can just set it and forget it.”

F5 ARX provides iN DEMAND with a highly reliable, scalable, and cost-effective solution for storage management. Concludes Raposa, “Why choose ARX? It’s stable, easy to use, the tiering functionality is excellent—and it is the best product available to provide a true global namespace.”

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