



“F5 ARX reduced the size of our backups by 98 percent, which lowered our media costs by 90 percent. . . . Backups now take just 50 minutes and require only 4 tapes.”

James Sample, Director of IT Infrastructure

## John Wiley & Sons Optimizes Backup, Manages Rapid Data Growth with F5 ARX

**John Wiley & Sons, Inc.** is a leading publisher for scientific, technical, and medical communities. The company produces both electronic and print versions of books and subscription products and publishes a wide array of educational materials. Backing up its large—and growing—amounts of book content was time-consuming and costly.

Wiley installed F5® ARX® file virtualization devices for automated storage tiering and can now efficiently manage its constantly expanding volumes of book content (unstructured data) without incurring major infrastructure changes. At the same time, Wiley has significantly reduced the cost of storage and is using the ARX devices to improve operations in other areas too, including disaster recovery.

### Business Challenges

For 200 years, John Wiley & Sons has been a valued source of information and understanding for people around the world. Its many well-known products include the For Dummies® reference series, Frommer's® travel guides, Betty Crocker® cookbooks, and the Webster New World™ dictionary series.

Wiley's rapidly growing repository of book content is managed by the Indianapolis data center. This content translates into approximately 25 terabytes (TB) of unstructured data, which is stored on Windows®-based servers. The task of

backing up this much data each week had become increasingly difficult and costly. Backing up just one 10-TB server required 36 hours and consumed 40 tapes. In addition, performing a 36-hour backup within a 48-hour window left no time to resume the job in the event of a failure.

“Because book content is all unstructured data, we didn't have any of the efficiencies that you get when backing up database files,” explained James Sample, Director of IT Infrastructure. “We had to do backup the slow hard way.”

### Overview

#### Industry

Publishing

#### Challenges

- Decrease time to back up large volumes of unstructured data
- Provide IT with enough time to restart backup if a failure occurred
- Lower storage costs

#### Solution

- Clustered F5 ARX500 devices

#### Benefits

- Reduced backup time by 97%
- Reduced media costs by 90% each week
- Eliminated the need for new storage capacity
- Improved recovery capabilities
- Improved backup success rates

The company's business success was resulting in 100 percent data growth each year, exacerbating the backup problem for the IT department. Rather than undergo a major infrastructure change, the IT organization knew huge improvements in backup speed and storage expenses could be realized if they could identify only those files that had been modified over the course of the week, rather than perform a full backup each week.

## Solution

Wiley installed a highly available pair of F5 ARX500 devices into its Windows server environment and established a tiering policy based on file modification dates. Only files that have been modified within the past month are included in the weekly backup. Files that have not been modified within this timeframe have not changed, and therefore do not need to be backed up again. These files are then automatically moved to a new location on the file server where they remain instantly accessible to users, but are being backed up just once a month rather than every week.

"We don't need to back up every file, every Friday, if that file hasn't been modified. But, the minute a file is changed, it automatically is moved back to its original location and gets backed up that night," Sample said.

Sample is also using the ARX device's other capabilities to attain further operational efficiencies. For instance, the device enables the IT team to generate reports for users that highlight files that have not been accessed in two years. Users are given the option of deleting those files, or having them moved to an optical storage device for long-term preservation.

"ARX easily paid for itself just in tapes saved. We get a lot more bang for the buck by using ARX . . ."

Next, Wiley plans to leverage its investment in ARX500 even further by using the device to bolster its disaster recovery capabilities.

"Our primary Windows-based server manages everything at this data center, so if the servers go down, the business grinds to a halt," Sample said. "Using ARX, we can make a volume shadow copy, move it to a cold spare, and within 20 minutes everyone is up and running again. Then, we can take a couple of days to fix the problem if we need to, and I haven't spent any money on it."

## Benefits

With ARX, Wiley saves costs and time. Sample explained, "F5 ARX reduced the size of our backups by 98 percent, which lowered our media costs by 90 percent. Instead of taking 36 hours and using 40 tapes, backups now take just 50 minutes and require only 4 tapes." In addition, ARX provides Wiley with disaster recovery capabilities that are cost-effective and keep the business up and running.

### Reduced backup time

Since deploying the ARX solution, Wiley has seen the size of its regular backups shrink to less than 5 percent of their former size, causing backup times to plummet by 97 percent to just 50 minutes.

### Reduced media costs

Tape consumption has gone from 40 tapes per backup to just 4 tapes, resulting in measurable, out-of-pocket savings. "ARX easily paid for itself just in tapes saved," Sample said. "We get a lot more bang for the buck by using ARX to identify data that can be moved off of the server, which saves me from buying more storage." Sample expects to see further reductions as the tiering strategy is expanded to identify files that have been inactive for long periods of time.

### Automated storage tiering

By implementing automated storage tiering policies that enable older data to be moved to long-term storage, Wiley has eliminated the need to purchase new storage capacity.

### Improved recovery capabilities

With ARX, Wiley can implement an efficient disaster recovery process that gives the IT department the ability to fix problems without shutting down the business.

### Improved backup success rates

The ARX implementation also improved Wiley's backup success rate. Unlike a 36-hour job, a 50-minute backup process can be easily restarted in event of a failure, ensuring all data is safely copied.

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