

FlashNAS™ Speeds the Printing Process for World's Leading Commercial Printer, R.R. Donnelley

Founded in 1864, R.R. Donnelley is today one of the world's largest printers, with over 100 printing plants and 33,000 employees worldwide. Many of the magazines printed at R.R. Donnelley are considered household names. Take, for example, *Sports Illustrated*, *Weight Watchers*, *TV Guide*, *Vanity Fair*, *Runner's World*, *Traveler*, *Men's Health*, to name a few. But R.R. Donnelley is more than a printer that caters to well-known publishing houses. It's also in the business of leveraging state-of-the-art technology to ensure that its 600 or more customers receive the highest quality printing production with the shortest turnaround time, all at a competitive cost. In fact, *Information Week* recently ranked R.R. Donnelley "number one" among printers and publishers in technology innovation.

One of the methods the company adopted to stay on the technology forefront is the use of computer-to-plate (CTP) technology. CTP is a transforming pre-press technology that produces printing plates directly from digital data files, thereby eliminating the use of film as an intermediary step. The elimination of film speeds up the process, reduces costs, and limits environmental waste. However, because the digital representations of magazine pages result

in very large files, the successful implementation of CTP requires extremely large and fast data storage and network access capability.

Danville Plant Demonstrates Capability of FlashNAS

The R.R. Donnelley plant in Danville, Kentucky, is one of the most sophisticated printing plants in the world. It showcases how R.R. Donnelley uses FlashNAS and FlashDisk to implement the fast access of data that is required using CTP. According to Tony Wallace, the prepress systems administrator responsible for prepress technology at the Danville plant, "Our job is to create the plates that go onto the presses. We receive high-resolution files directly from our various customers in a number of different high-resolution formats, such as high-resolution pdf files, con tone and line-work files, and high-resolution DCS (Desktop Color Separation) files. These high-resolution files are necessary because we print with a resolution of 2400 dpi (dots per inch) on the page. We put eight to 12 pages on a single plate, and we require four different plates for each set of pages, one for each of the CMYK colors. That means we need to have four plates for every



FlashNAS plays a major role in R.R. Donnelley's computer-to-print capability, providing them with fast access to large amounts of data with network accessibility.

eight or 12-page group. By the time we run eight to 12 pages through our system, with all four colors accounted for, we are talking about a gigabyte worth of data. All told, we produce approximately 100,000 plates a year here at the Danville plant."

Winchester Systems Has a Reputation for High Performance

When Wallace was assigned the task of upgrading the prepress technology process at the Danville facility, he said that Winchester Systems immediately came to mind based on his previous positive experience using FlashDisk RAID disk arrays while he was working in another division within R.R. Donnelley. "I was impressed with FlashDisk's perform-

ance, price and reliability,” commented Wallace. Understanding that network speed and reliability had to be matched by every component within the system, Wallace chose to configure a system based on FlashDisk arrays accessed by FlashNAS to provide the highest possible access speed.

The Configuration from Winchester Systems

The Danville plant uses 2.2 terabytes of FlashDisk storage that is directly connected to the FlashNAS. In turn, FlashNAS is then connected to the LAN with GbE Switches to access an extensive server farm that uses Windows and Macintosh servers. Wallace describes the advantages of this system. “The beauty of FlashNAS is that the files are accessible by Mac or Windows as if they were native files, but we only need to store them once in a standard format. This is ideal for our particular application since different portions of a page may be prepared on different platforms. The FlashDisk gives us very fast disk drives and has the ability to cache large amounts of data. Used in conjunction with FlashNAS, the whole system

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Tony Wallace, Prepress
Systems Administrator
Danville Plant

becomes extremely fast. We move in the neighborhood of 120 megabytes a second. With this configuration, our processes move at a minimum 20 megabytes per second faster than when we were using a system from another major storage vendor. That is a lot whenever I am trying to push plate files that are 1 gigabyte in size; every megabyte advantage in speed I have, the faster the plate gets to its output device.”

Durability and Reliability

Wallace continued, “We needed the speed, but we also needed the durability. Since we've installed FlashNAS, we have experienced 100% uptime. I have spare hard drives on the shelf, but I haven't used them, and I don't think that I will ever have to use them. We also maintain an on-board spare that

rebuilds automatically if I did lose a drive, but that hasn't happened either.”

What R.R. Donnelley Sees for the Future

R.R. Donnelley does “best practice” meetings on a regular basis to communicate with its equivalents in other R.R. Donnelley plants. While Winchester Systems is not the only storage provider on the preferred provider list, Wallace describes his favorable experience with FlashNAS in terms of ease of use, speed, and reliability. He knows several other plants that are now adopting the CTP methodology. “Winchester Systems is gaining ground within R.R. Donnelley, no doubt about that,” says Wallace.

For more information on FlashDisk
and
Winchester Systems go to:

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