

# StoneFly Networks Success Story

## Ecker Enterprises Constructs Centralized Storage Framework for Advanced Data Protection with StoneFly Backup Advantage™

*Leading Specialty Subcontractor Dramatically Increases Speed and Reliability of Critical Data Backup and Recovery*

Ecker Enterprises, Inc., one of the largest specialty subcontractors in the country, embraces continuous innovation and a best-practices philosophy to deliver the highest levels of quality multi-trade services. Started by Morris Ecker more than 80 years ago in Chicago, the employee-owned enterprise now operates offices in four states and has built a stellar reputation for streamlining the planning and management of commercial and residential construction projects, including homes, office buildings, hotels, schools and retail centers.

Over the decades, Ecker has repeatedly proven that the ability to consolidate multiple trades under one contract significantly improves the coordination of different trade specialties including drywall, painting, stucco, plastering, carpentry, insulation, windows, stone veneer, and acoustical tile. With employees dispersed across various field locations and job sites, the company had taken a much more decentralized approach to managing its burgeoning IT operation.

### **Challenge:**

When Bill Polymenakos, Director of Technology, joined the organization, he was concerned that all the different types of hardware and software platforms were creating major compatibility and performance problems. "Our technology environment resembled an IT museum with outdated technology that couldn't support the latest versions of critical business applications," notes Polymenakos. "Our direct attached storage was crawling along and backups were flat-out unreliable." Furthermore, there had been no storage standardization across the different locations, which caused continual problems for the IT team. "Our Phoenix office kept running out of storage," he adds.

As the field locations began relying more heavily on estimating, scheduling and other core business applications, Polymenakos grew increasingly worried about the efficiency and consistency of field backups. Still, his two-person IT team was constrained in its ability to support the field offices and so they trained local staff to perform nightly backups to tape. This process, which took approximately

## *Ecker Enterprises*

### **Industry/Market:**

- Construction

### **Challenges:**

- Direct-attached storage was slow and created performance bottlenecks
- Lack of standard storage hardware and software made it difficult to manage increasing storage requirements
- Backup and recovery operations were completely unreliable

### **Solution:**

StoneFly Backup Advantage™

### **Benefits:**

- Integrated IP SAN-based backup and recovery increased speed and reliability of D2D2T backups while reducing costs
- Full backups went from full-day processes to less than one-hour operations; restores can be completed in about a minute
- Mass storage consolidation eased provisioning and management significantly
- Push-button automation eliminates manual intervention from resource-constrained IT staff
- Mirroring software replicates data to remote IP SAN for improved disaster recovery



seven hours at each location, frequently failed. "My biggest worry was our ineffective backups," recalls Polymenakos. "At least one backup nightly bombed and managing the entire process was a nightmare." The method of restoring files was equally troublesome. Often, the local teams inserted tape after tape before the IT team was able to find one that contained the file they were seeking.

It was clear to Polymenakos that Ecker's IT infrastructure needed a substantial upgrade and the ever-worsening backup problems had to be fixed fast. To that end, he set out in June 2002 to build an IT foundation that would provide the regional staff with all the tools needed to do their jobs from the field while providing advanced data protection for all mission-critical applications. With an extensive evaluation of different technology platforms underway, an online data backup and recovery service was chosen to provide immediate backup and recovery relief.

Over the next two years, the IT team researched, tested and budgeted different solutions that would provide the optimal mix of leading-edge technology and easy-to-use productivity tools. In February 2004, Ecker embarked on a major IT upgrade to Microsoft Windows Server 2003 for its server and desktop platforms while deploying Citrix MetaFrame Presentation Server for on-demand, remote access to business information and desktop applications. On the storage front, the decision was made to consolidate mass storage on a Storage Area Network (SAN), but the exact deployment scenario required a further cost and benefit analysis.

### **Solution:**

Ecker evaluated different SAN platforms to support the increasing migration of paper-based forms and processes to an automated system, which put additional pressure on finding a highly reliable, available and scalable storage solution. Initially, a Fibre Channel SAN was considered ideal, until the costs for additional hardware, software, consulting and training were tallied. "The FC SAN solutions we evaluated came in around \$150K for the storage alone, which was cost prohibitive," explains Polymenakos. "We had looked at IP SANs several years back and decided now to take a closer look."

Polymenakos had watched StoneFly demonstrate an IP SAN several years earlier at a Windows Decisions conference and had been impressed with the ease and speed with which storage volumes could be served. At that same conference, he also saw a demo of CommVault Systems' backup and

### **System Configuration:**

Clients/Servers: 120 Microsoft Windows® clients; a total of nine Windows 2003 servers to date with more servers anticipated when complete IT upgrade is completed, plus Unix servers  
Network Set-up: StoneFly Networks™ StoneFly Backup Advantage with 4.2 TB of raw storage; Nexsan ATAbay2 RAID Array; 24-port Cisco Catalyst 3750 Gigabit Ethernet Switch; and Microsoft iSCSI initiators

### **Quotes:**

*"With StoneFly Backup Advantage, we achieved our goal of increasing the speed and resiliency of our backups while also taking advantage of moving to a centralized, affordable SAN environment."*

*"StoneFly Backup Advantage will grow with us, safeguarding our business and providing an integrated, stable storage foundation. SBA streamlines our evolving backup and recovery operations for the most efficient resource utilization possible."*

**Bill Polymenakos,  
Director of Technology  
Ecker Enterprises, Inc**

recovery software. He recalls liking the fact that their handling of incremental and disk-to-disk backups was similar to the online service Ecker already had in place.

The one-stop shop approach with SBA appealed to the resource-constrained IT department, as did the promise of greatly simplifying routine backup and recovery processes. The addition of StoneFly Replicator™ mirroring software, to increase performance and near-term data availability by replicating backups to a remote IP SAN, was another competitive advantage. Furthermore, Polymenakos wanted a straightforward disk-to-disk-to-tape (D2D2T) solution without having to deal with software virtualization.

“StoneFly Backup Advantage edged out LeftHand on several fronts,” explained Polymenakos. “We really liked the combined StoneFly and CommVault approach, which gave us a single point of contact or ‘one throat to choke,’ if any problems arose.” While comparably priced, SBA offered twice the storage of the LeftHand configuration, giving Ecker 4.2 TB of raw storage, which provided a three-to-four year growth path. Moreover, the LeftHand solution didn’t come with equivalent backup and recovery software, which would have required buying and installing additional software. “When we factored in the additional \$30K to purchase the backup and recovery software with the LeftHand solution, not to mention the challenge of integrating it ourselves, we determined that StoneFly’s turnkey approach delivered much more value overall,” says Polymenakos. “With SBA, we achieved our goal of increasing the speed and resiliency of our backups while also taking advantage of moving to a centralized, affordable SAN environment.”

### **Benefits:**

Within an hour of installing SBA at Ecker’s Chicago data center, the team was able to provision storage volumes. “The entire process took much less time than we anticipated,” noted Polymenakos. Initially, a technical problem was discovered where shared volumes for file services would drop off, but StoneFly took ownership and quickly resolved the issue with HP and Microsoft.

Almost immediately, Ecker began reaping the benefits from its SBA implementation. The ability to offload backup and restore operations from the company local-area network onto a dedicated Ethernet IP SAN made the entire process completely transparent to the company’s end users. This LAN-free approach eliminated the previous performance problems that used to affect the network on a regular basis when backup bottlenecks slowed overall performance.

Full D2D backups can be performed now in less than an hour, a vast improvement over the full-day backups Ecker used to encounter. D2D2T backups are now completed seamlessly and without any intervention from field-office staff. Restores, once so problematic, are now initiated quickly and easily. “Restores, which used to be completely cumbersome, time consuming and unreliable are now easy and fast, taking less than a minute to complete,” notes Polymenakos.

Another plus is SBA’s “push button automation,” which reduces manual intervention and alleviates pressure on Ecker’s restricted IT resources. “Even though we’re only a two-person IT department, we need to be very responsive to the field operation,” says Polymenakos. “SBA lets us change, add or delete storage allocations on-demand, making it easy to keep up with rapidly increasing storage requirements.”

While the major IT upgrade is still in process, storage for network and desktop applications for nine servers will be consolidated onto SBA. With substantial room for expansion, storage of imaged documents, including contracts, estimates, schedules and take-off drawings, will be added to the IP SAN as the company continues to move toward more paperless operations. “With SBA in place, we have the confidence to store more important data online, knowing that we have maximum protection for our vital files and applications.”

An expanding business continuity effort also gets additional support from SBA. Once the technology upgrade to Windows and Citrix is complete company wide, Ecker will undertake a full disaster recovery initiative to replicate all files and applications housed in Chicago to a secondary IT facility at the company's Las Vegas office. To support this project, Polymenakos will use SBA's asynchronous mirroring function to replicate critical information over the company WAN to the Las Vegas location.

Plans to backup Ecker's Unix-based Enterprise Resource Planning (ERP) system on SBA are in the works as well. Eventually, the company will eliminate the recurring cost of its online recovery service by transitioning all backup and recovery requirements to StoneFly Backup Advantage. In the long run, SBA provides a solid storage structure that can support Ecker's business growth and further adoption of automated tools and applications to boost project productivity and profitability. "StoneFly Backup Advantage will grow with us, safeguarding our business and providing an integrated, stable storage foundation," concludes Polymenakos. "SBA streamlines our evolving backup and recovery operations for the most efficient resource utilization possible."

