Customer Overview
Hamilton is one of the nation’s oldest and most highly regarded liberal arts colleges. It is comprised of 1,850 students from nearly all 50 states and approximately 45 countries. The College is distinguished by a rigorous open curriculum, a need-blind admission policy, a deeply committed faculty who welcome close collaboration with students, and a focus on preparing students for lives of meaning, purpose and active citizenship. Fundamental to a Hamilton education is the faculty’s expectation that students develop the ability to read, observe and listen with critical perception, and to think, write and speak with clarity, understanding and precision.

Slow Backup Jobs, Failures, and Wasted Time Force Upgrade to ExaGrid
When Hamilton College virtualized its environment, the IT staff decided the time was right to upgrade its backup infrastructure in hopes of improving speed and eliminating tape. With its data constantly growing – upwards of 60TB – Hamilton was unable to finish nightly backup jobs, and restoring files had become quite time consuming.

Historically, Hamilton used Veritas Backup Exec in addition to a combination of a disk-based virtualized tape library and a traditional LTO tape library. As the number of servers along with the amount of data grew, the number of problems also increased.

“It got to the point where we spent the majority of our week just monitoring the jobs, looking for failures and errors, and then manually re-running things to make sure that we were getting reliable backups. It seemed as though the on-call person, who was responsible for watching the backups, would often spend the majority of their time focused just on that activity,” said Jesse Thomas, Network and Systems Administrator for Hamilton College.

Hamilton purchased a two-site ExaGrid solution and installed systems in its main datacenter as well as offsite for disaster recovery.

“I think the biggest thing that we’ve noticed here is the massive time savings. There’s an ever-increasing demand on our time, and being able to get back the time spent managing and monitoring backups is huge – the difference is dramatic and remarkable! Now, we have more time to invest elsewhere in moving the organization forward;” said Thomas.

17:1 Dedupe Ratio and 100% Time Savings
“We have a self-imposed six-month retention period for most of our data. One thing that was different with tape was that in order to achieve that retention period, we would have to cycle tapes out of our library weekly and move them into different offsite storage – still on-campus but in a different building. With the ExaGrid system, we now have a replication unit – and since that is managed by the software automatically, it’s a 100% time savings,” said Thomas.

ExaGrid combines last backup compression along with data deduplication, which stores changes from backup to backup instead of storing full file copies.

ExaGrid has a unique landing zone where backups can land straight to disk without any inline processing. Backups are fast and the backup window is short. Deduplication and offsite replication occur in parallel. When a second site is used, the cost savings are even greater because ExaGrid’s byte-level data deduplication technology moves only changes, requiring minimal WAN bandwidth.
Hamilton College is currently getting data deduplication ratios as high as 17:1, which helps to maximize the amount of data the college can store on the system. The technology also helps to make transmission between sites more efficient. “We’re using a fraction of the amount of disk capacity,” said Thomas.

**Flexibility with Popular Backup Apps Offers Modern Approach**

Hamilton College continues to use Veritas Backup Exec for its physical servers, but the college has become 90+% virtualized, taking advantage of Veeam for maximum backup performance. Hamilton installed an ExaGrid system in its main datacenter and uses the system in conjunction with Backup Exec for its physical servers and Veeam Backup & Replication for virtual machines.

“We’re very happy with Veeam and how well it works together with ExaGrid. We’ve learned that the combination of ExaGrid and Veeam delivers the fast restores, data deduplication, and backup reliability we were looking for. What makes a big difference for us is having a system that’s architected for modern backups,” said Thomas.

**Unique Customer Support Model That Delivers**

“We like having an assigned ExaGrid customer support engineer so that we don’t have to go through the often laborious process of opening a case on the web or making a phone call and then waiting to be assigned to someone. Having a support engineer assigned to our account means they know our site well, they’ve gained experience with it, and they’re very quickly able to get right to the root of the question and resolve it,” said Thomas.

The ExaGrid system was designed to be easy to set up and maintain, and ExaGrid’s industry-leading customer support team is staffed by trained, in-house engineers who are assigned to individual accounts.

**ExaGrid and Veeam**

The combination of ExaGrid’s and Veeam’s industry-leading virtual server data protection solutions allows customers to utilize Veeam Backup & Replication in VMware, vSphere, and Microsoft Hyper-V virtual environments on ExaGrid’s disk-based backup system. This combination provides fast backups and efficient data storage as well as replication to an offsite location for disaster recovery.

The ExaGrid system fully leverages Veeam Backup & Replication’s built-in backup-to-disk capabilities and ExaGrid’s zone-level data deduplication for additional data reduction (and cost reduction) over standard disk solutions. Customers can use Veeam Backup & Replication’s built-in source-side deduplication in concert with ExaGrid’s disk-based backup system with zone-level deduplication to further shrink backups.

**ExaGrid and Veritas Backup Exec**

Veritas Backup Exec is the gold standard in Windows data recovery, providing cost-effective, high-performance, and certified disk-to-disk-to-tape backup and recovery—including continuous data protection for Microsoft Exchange, SQL, file servers, and workstations. It also supports single-drive libraries, encryption, and disaster recovery. High-performance agents and options provide fast, flexible, granular protection and recovery, and scalable management of local and remote server backups.

**GRID Architecture Provides Superior Scalability**

ExaGrid’s scalable GRID architecture will enable Hamilton College to continue to expand its two-site solution.

“Reliability is another key difference with ExaGrid. Backup is not something we need to spend a lot of time on anymore. ExaGrid just does its job in the background as it’s supposed to. It really works flawlessly for the most part. Plus, it’s scalable and will easily grow with us over time,” said Thomas.

ExaGrid uses a GRID-based configuration, so when the system needs to expand, additional appliances are attached to the GRID, bringing with them not only additional disk but also processing power, memory, and bandwidth. This type of configuration allows the system to maintain all the aspects of performance as the amount of data grows. In addition, as new ExaGrid appliances are added to the GRID, the ExaGrid system automatically load balances available capacity, maintaining a virtual pool of storage that is shared across the GRID.

**About ExaGrid**

ExaGrid provides backup storage with a unique landing zone and scale-out architecture. The landing zone provides for the fastest backups, restores and instant VM recoveries. The scale-out architecture includes full appliances in a scalable GRID and provides for a fixed-length backup window as data grows, eliminating expensive forklift upgrades. Learn more at [www.exagrid.com](http://www.exagrid.com).