

# Greenchoice Gains 20 Hours Per Week After Switching to ExaGrid

CUSTOMER SUCCESS STORY

**GREEN  
CHOICE**

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**Carlo Kleinloog**  
System Administrator

## Key Benefits:

- Staff regains 20 hours each week that used to be spent on resolving backup issues
- Deduplication ratios doubled the amount of time until additional storage will be needed
- Short backup windows and quick restores give staff time for other projects

## Customer Overview

Greenchoice is a Netherlands-based renewable energy company. Its mission is to provide 100% green energy for a cleaner world by sourcing energy generated from the sun, wind, water, and biomass. In addition to proving customers with renewable energy, Greenchoice offers its customers the opportunity to generate their own energy by investing in ownership of solar panels and windmills, as well as helping customers to create energy cooperatives.

## 20 Hours Spent Weekly to Resolve Backup Issues Takes a Toll

Prior to switching to ExaGrid, Greenchoice was backing up to server attached storage. The backups were not going smoothly, leading Carlo Kleinloog, Greenchoice's system administrator, to look for a better solution.

Kleinloog described some of the issues he experienced, "[The prior system] didn't really offer us what we needed. I had to spend up to 20 hours a week resolving issues with backup. The backups were running, but sometimes the server had issues, then replication went wrong, and to check on the backups we had to reboot the server. When the server was rebooted, it took four hours just to scan the store that I was putting the backup on. One job wouldn't finish, and then another one was running again. Performance issues were really, really bad."

Not only were backups causing a strain on the workweek, but restores were also proving difficult. "We did one full server restore that actually crashed. When I had to restore individual files, it took me half an hour just to set up the server and mount the data that I was supposed to restore, and sometimes it worked, sometimes it didn't," said Kleinloog.

## ExaGrid-Veeam Combo Chosen as New Solution

Greenchoice looked into other options, such as local storage using Microsoft for deduplication, but Kleinloog was not comfortable with heading in that direction while needing to back up large terabyte-sized files.



A local company specializing in storage solutions recommended ExaGrid to Kleinloog, who had already been looking into using Veeam as a backup application. Kleinloog was impressed by the Veeam demo he had downloaded, and looked into ExaGrid's seamless integration with Veeam. After reading ExaGrid's customer success stories on its website and conducting other online research, he decided to install both Veeam and ExaGrid together as Greenchoice's new backup storage solution. Kleinloog set up two ExaGrid appliances at separate sites that cross-replicate, allowing for redundancy.

## Scalability Offers Flexibility to Only Buy What Is Needed

While initially looking at the different ExaGrid models to purchase, Kleinloog was concerned about running out of storage as Greenchoice has been experiencing growth at a dynamic rate. He figured that he would need to purchase additional appliances just a few years down the line but was impressed to learn that the combined ExaGrid-Veeam deduplication ratios maximized storage and doubled the amount of time it would take before additional storage is needed.

**EXAGRID**

When architecting its appliances, ExaGrid thought through the implementation of data deduplication as it relates specifically to backup and designed an optimized architecture that provides for the fastest backups, restores, recoveries, and tape copies; permanently fixes the backup window length, even as data volumes grow; and eliminates forklift upgrades and product obsolescence, all while allowing IT staff the flexibility to buy what they need as they need it. ExaGrid's appliances deliver three times the backup performance, five to ten times the restore and VM boot performance, and backup windows that stay fixed in length as data grows.

## Better Performance in a Shorter Time

It used to take Kleinloog half an hour just to set up the server for a restore, and now the entire restore process has been reduced to minutes. "We can actually start restores right from the ExaGrid. After a virus attack, we've had to restore files, and it took just ten minutes, at most," Kleinloog noted.

Kleinloog is impressed with how quick the backup process is, now that he uses the combination of ExaGrid and Veeam. He commented, "Our largest backup takes three and a half hours; that's nothing compared to what it was before. Backup is easily five to six times faster."

With shorter backup windows and quicker restores, as well as not needing to spend 20 hours a week resolving backup issues, Kleinloog has more time to accomplish other projects. Kleinloog commented, "If you look at dedupe ratios and the performance of the backup, it's unbelievable. The performance is so good that I don't need to check on it every day. We don't have outages anymore; it's just running -- it's up on arrival. We have a really dynamic environment, we're growing and doing new things, so we actually needed this extra time."

## 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.

## 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).

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-Veeam Combined Dedupe

Veeam uses the information from VMware and Hyper-V and provides deduplication on a "per-job" basis, finding the matching areas of all the virtual disks within a backup job and using metadata to reduce the overall footprint of the backup data. Veeam also has a "dedupe friendly" compression setting which further reduces the size of the Veeam backups in a way that allows the ExaGrid system to achieve further deduplication. This approach typically achieves a 2:1 deduplication ratio.

ExaGrid is architected from the ground up to protect virtualized environments and provide deduplication as backups are taken. ExaGrid will achieve a 3:1 up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of 6:1 upwards to 10:1, which greatly reduces the amount of disk storage required.

## Unique Architecture

ExaGrid's award-winning scale-out architecture provides customers with a consistent backup window regardless of data growth. Its unique zone-level approach to data deduplication retains the most recent backup in its full undeduplicated form, enabling the fastest restores, offsite tape copies, and instant recoveries.

ExaGrid's multiple appliance models can be combined into a "GRID" configuration of up to 2.4PB raw capacity, allowing full backups of up to 1PB with a combined ingest rate of 200TB/hr. The appliances virtualize into one another when plugged into a switch so that multiple appliance models can be mixed and matched into a single configuration. Each appliance includes the appropriate amount of processor, memory, disk, and bandwidth for the data size, so as each appliance is virtualized into the GRID, performance is maintained and backup times do not increase as data is added. Once virtualized, they appear as a single pool of long-term capacity. Capacity load balancing of all data across servers is automatic, and multiple GRID systems can be combined for additional capacity. Even though data is load balanced, deduplication occurs across the systems so that data migration does not cause a loss of effectiveness in deduplication.

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