



# ExaGrid-Veeam Solution Provides CARB with 'Rock-Solid' Backups

CUSTOMER SUCCESS STORY



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**Ali**  
IT Staff Member

## Customer Overview

The California Air Resources Board (CARB) is a part of the California Environmental Protection Agency, an organization which reports directly to the Governor's Office in the Executive Branch of California State Government. CARB's mission is to promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state.

## Veeam Recommends ExaGrid to Resolve Capacity Issues

The California Air Resources Board (CARB) had tried several backup solutions before finding one that is reliable and efficient. "After testing and using a multitude of backup platforms to back up our data to ad-hoc storage targets, we finally settled on something – Veeam and ExaGrid. The combined solution works well for us," said Ali, IT staff member at CARB. "First, we replaced our other backup applications and software with Veeam, which was a major improvement. We were still running into storage issues, so we asked Veeam about how to improve and increase capacity, and they recommended switching to ExaGrid for our backup storage."

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.

ExaGrid fully leverages Veeam's built-in backup-to-disk capabilities, and ExaGrid's adaptive data deduplication provides additional data 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 Adaptive Deduplication to further shrink backups.



## 'Rock-Solid' Backups

CARB installed an ExaGrid system at its primary site that replicates to an offsite location for disaster recovery (DR). The organization backs up terabytes of data, ranging from file servers to databases. IT staff back up the data on a daily basis, in addition to staggered weekly backups.

Backup admins have found that backups are faster and more reliable since switching to the ExaGrid-Veeam solution. "We used to have backup jobs that took over a day, and we don't have that issue anymore. We start our backups in the evening and they are always finished by morning," Ali said. "In the past, some of our backups were hit or miss, but now that we use ExaGrid and Veeam our backups are rock solid."

ExaGrid writes backups directly to a disk-cache Landing Zone, avoiding inline processing and ensuring the highest possible backup performance, which results in the shortest backup window.

## Key Benefits:

- CARB wanted to increase storage capacity, so Veeam recommended ExaGrid
- ExaGrid-Veeam dedupe allows for increased retention
- Backups no longer exceed window and are 'rock solid'
- CARB easily scales out ExaGrid system with additional appliances when data grows



Adaptive Deduplication performs deduplication and replication in parallel with backups while providing full system resources to the backups for the shortest backup window. Available system cycles are utilized to perform deduplication and offsite replication for an optimal recovery point at the disaster recovery site. Once complete, the onsite data is protected and immediately available in its full undeduplicated form.

## Deduplication Allows For Increased Retention

CARB backup admins have been impressed with the storage savings that the combined ExaGrid-Veeam deduplication provides. "Since we've added deduplication to our backup environment, we haven't had to worry about running out of space. We used to keep a couple of weeks' worth of backed up data, but since switching to ExaGrid, we've been able to increase our retention to a year's worth," said Ali.

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 up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of upwards to 10:1, which greatly reduces the amount of disk storage required.

## System Easily Scales with ExaGrid Support

As CARB's data has grown, the organization has easily scaled out its ExaGrid system with additional ExaGrid appliances. "The process is very simple. We installed the new appliance and our ExaGrid support engineer worked with us remotely to make sure everything went smoothly." The ExaGrid system can easily scale to accommodate data growth. ExaGrid's computing software makes the system highly scalable, and when plugged

into a switch, appliances of any size or age can be mixed and matched in a single system with capacities of up to a 2PB full backup plus retention and an ingest rate of up to 432TB per hour. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

"It's been great to work with the same support engineer each time we call, who knows our environment well. He also keeps an eye on our ExaGrid system and alerts us if there is ever an issue, such as a drive failure. Other backup products offer okay support but ExaGrid takes it to another level. Not only has my ExaGrid support engineer been helpful with our hardware, but he is also knowledgeable about Veeam and has helped us get the most out of the integration between the two products. He's really helpful with the overall fine-tuning of our backups," Ali said. "Since switching to ExaGrid, there have been less headaches with our backups. I used to have to be much more involved with backup management, but now that we're using ExaGrid, we can set it and forget it, which is great."

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 level 2 engineers who are assigned to individual accounts. The system is fully supported, and was designed and manufactured for maximum uptime with redundant, hot-swappable components.

## About ExaGrid

ExaGrid provides tiered backup storage with a unique disk-cache Landing Zone, long-term retention repository and scale-out architecture. ExaGrid's Landing Zone enables the fastest backups, restores, and instant VM recoveries. The retention repository offers the lowest cost for long-term retention. ExaGrid's scale-out architecture includes full appliances in a scalable system.

Learn more at [www.exagrid.com](http://www.exagrid.com).

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