Associated British Ports Installs ExaGrid, Backup Windows Reduced by 92%

ASSOCIATED BRITISH PORTS

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Andy Haley
Infrastructure Analyst

Key Benefits:

- Backup window reduced from 48 hours to 4 hours
- Adaptive deduplication allows for increased retention of 90+ days, restore points of up to 400
- ABP saves time with built-in data migration tools between ExaGrid and Veeam
- Restores no longer take hours, are 'instantaneous' with ExaGrid

Customer Overview

Associated British Ports is the UK's leading port operator, with a unique network of 21 ports across England, Scotland, and Wales. Each port offers a well-established community of port service providers. ABP's other activities include rail terminal operations, ship's agency, dredging, and marine consultancy.

ExaGrid Saves Days Lost to Backups with Tape

Associated British Ports (ABP) had been using Arcserve to back up directly to LT0-3 tapes, which was a painstaking and lengthy process. Andy Haley, is the company's infrastructure analyst. "We were having to increase the amount of tape that we were using, we were getting read errors, and our tapes libraries were unreliable. It was causing us massive amounts of problems, and the whole process was just painful. We were spending days and days trying to get good backups written to tape."

ABP began looking into disk-based solutions and chose ExaGrid. "Originally, we installed ExaGrid appliances and were using them with Arcserve, but when we moved to a new virtual environment, we decided to use Veeam instead, and it's been a very good match," Andy said.

Short Backup Windows and 'Instantaneous' Restores

Prior to ExaGrid, it had taken 48 hours to complete a full weekly backup. Now, Andy uses synthetic full backups to ExaGrid with Veeam, and the largest backups take just four hours.

In addition to the shorter backup windows, Andy has been impressed by how fast the restore process has become. With tape, restores had taken up to an hour and were quite a process, requiring Andy to find the correct tape, mount and index the tape, and then complete the restore. Since installing ExaGrid, he has found that restores are much easier. "Restores with Veeam and ExaGrid are pretty much instantaneous," commented Andy.

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

'Massive' Deduplication Leads to Higher Retention

With the large amount of data that ABP stores, deduplication was an important factor considered while choosing a backup solution, and ExaGrid has not disappointed. Andy has seen growth in the number of restore points and retention available. According to Andy, "[Because of the deduplication], we've been able to increase the number of restore points that we keep – up to 400 restore points on some of our file servers. We're now able to keep in excess of 90 days, even for our largest file servers.

"We have over half a petabyte of backup data, and that's consuming 62TB of disk space. So, from our point of view, deduplication is a really good thing. The full-site ratio of our primary data center is 9:1 but we're getting upwards of 16:1 on some of the repositories.

EXAGRID®

The deduplication that we are getting is absolutely massive," Andy said.

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.

Scalability Keeps Up with Growth

"As people want to retain more data for various reasons, we keep installing more devices. We've just placed an order for another device to expand our primary site," said Andy.

ExaGrid uses a GRID-based configuration, where each appliance contains not just disk but also processing power, memory, and bandwidth. When the system needs to expand, additional appliances are simply attached to the GRID. This type of configuration allows the system to maintain all the aspects of performance as the amount of data grows, with customers paying for what they need when they need it. 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.

Integration Makes for 'Easy Deduplication'

Andy appreciates how well ExaGrid and Veeam work together. "The heavy integration with Veeam is very important to us. The deduplication is really impressive, and that's the thing that we value the most. The data migration tools that are built in save us vast amounts of time as well, particularly when we need to move data around between the various ExaGrid devices. I'm very happy with the combination of ExaGrid and Veeam. I don't want to use anything else."

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-Veeam Combined Deduplication

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.

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**.