ExaGrid and Oracle RMAN
Tiered Backup Storage

Oracle DBAs Can Add ExaGrid to Improve the Storage Economics of their Backup Environments

Oracle Recovery Manager (RMAN) users can efficiently protect and recover databases with a lower cost up front and a lower cost over time using ExaGrid Tiered Backup Storage. Customers can simply send Oracle backups via the RMAN utility directly to ExaGrid.
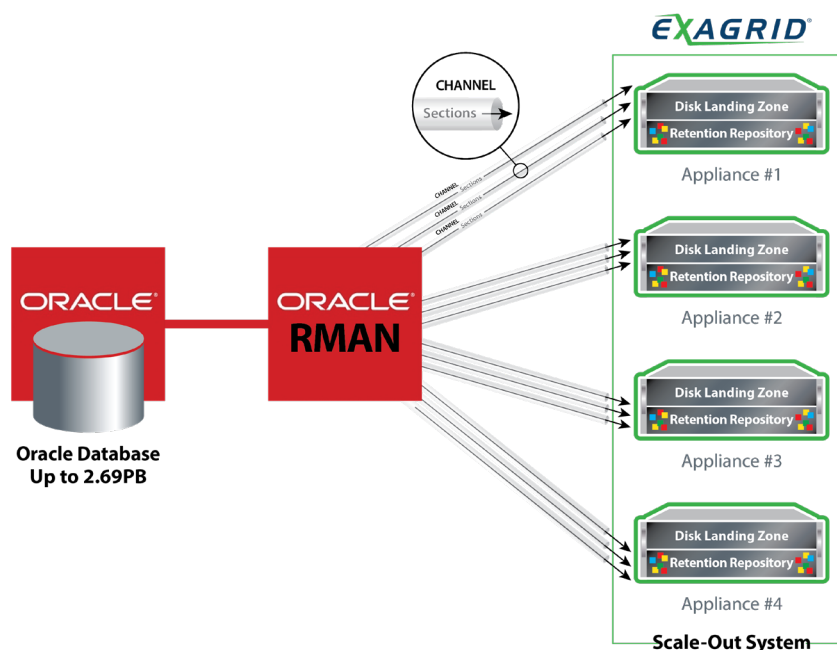
ExaGrid delivers a 10:1 to 50:1 deduplication ratio for low-cost, long-term retention and stores the most recent backup in native RMAN format for the fastest restores. In addition, ExaGrid supports Oracle RMAN Channels for databases up to 2.69PB in size with the fastest backup, fastest restore performance, performance load balancing, and global deduplication across all systems. An RMAN channel sends sections of data to each appliance and will automatically send the next section to whatever appliance is available providing performance load balancing. ExaGrid can globally deduplicate all data across all appliance regardless of which appliance RMAN sends the section of data to.

ExaGrid is the Fastest Oracle RMAN Storage Solution

When using alternative solutions that have fixed-compute media servers or front-end controllers, as Oracle data grows, the backup window expands because it takes increasingly longer to perform deduplication. ExaGrid solves this problem with a scale-out storage architecture. Each ExaGrid appliance has Landing Zone storage, repository storage, processor, memory, and network ports. As data grows, ExaGrid appliances are added into the scale-out system. With the combination of Oracle RMAN integration, all resources expand and are utilized linearly. The result is high-performance backups and a fixed-length backup window regardless of data growth.

How the ExaGrid Landing Zone Works with Oracle RMAN Backups

Each ExaGrid appliance includes a disk-cache Landing Zone. Oracle RMAN data is written directly to the Landing Zone versus being deduplicated on the way to the disk. This avoids inserting the compute-intensive process into the backup, eliminating a performance bottleneck. As a result, ExaGrid achieves backup performance of 488TB per hour for a 2.69PB full backup, including Oracle databases. This is 3x faster than any traditional inline data deduplication solution, including deduplication performed in backup applications or using target-side deduplication appliances.

ExaGrid Is the Fastest Oracle RMAN Recovery Solution

ExaGrid provides the fastest recoveries for Oracle RMAN backups because it maintains the most recent backups in its landing zone in RMAN's native format, undeduplicated. By keeping the most recent backup in undeduplicated form, Oracle customers avoid the lengthy data rehydration process that occurs if only deduplicated data is stored. The result is that data restores take minutes versus hours. In most cases, ExaGrid is at least 20x faster than any other solution, including deduplication performed in backup applications or using target-side deduplication appliances.

Oracle RMAN Customers Experience Unparalleled Scale with ExaGrid's Intelligent Repository

When an ExaGrid system needs to be expanded, appliances are added to the existing scale-out system. To ensure the most efficient use of resources, ExaGrid employs global deduplication to ensure that all data in the entire system is deduplicated across all appliances. ExaGrid automatically load balances across the repositories in all ExaGrid appliances to ensure that no repository is full while others are underutilized. This allows for optimal storage use of the deduplicated data repository in each appliance.

ExaGrid takes only a few minutes to configure and is often fully operational in under three hours.