

Protect your Oracle database

HPE Recovery Manager Central for Oracle

Enable fast and affordable end-to-end protection for Oracle databases

The impact of application downtime is costly and damaging

- Unplanned downtime costs an average \$5,600 USD per minute¹
- 83 percent of organizations have a downtime tolerance of three hours or less—49 percent have applications that can only tolerate downtime of 15 minutes or less²

Federating primary and secondary systems for the next-generation of data protection

By 2018, 50 percent of applications with high change rates will be backed up directly to deduplication target appliances.³

The database protection challenge

Protecting and recovering database environments is proving ever more challenging in the face of large and increasing data volumes, rising business demands, cost efficiency, and sustainable growth.

Traditional Oracle backup and recovery management can visibly affect service levels or cause unnecessary IT cost and complexity. Typically, backups require production Oracle application resources for extended time and may be disruptive to users.

Array-based snapshots offer fast, non-disruptive point-in-time copies of data. However, snapshots alone cannot deliver comprehensive backup. They have retention limitations, corruption vulnerabilities, and dependence on the underlying storage system. Make no mistake—snapshots are at risk if the storage system fails.

A more effective approach is to combine the benefits of backups and snapshots in an application-managed, storage-integrated data protection solution.

Hewlett Packard Enterprise can help.

primary storage with HPE StoreOnce Systems to provide a converged availability and backup service for Oracle environments running Red Hat® Enterprise Linux® (RHEL) or Oracle Enterprise Linux (OEL) that augments traditional backup approaches.

Combining the performance of local and remote snapshots with the protection of backups, RMC for Oracle enables fast, efficient, reliable, and simple protection of Oracle databases and instances. It is included with every HPE 3PAR StoreServ and no additional licenses need to be purchased.

RMC for Oracle allows Oracle database administrators to create, schedule, and manage Oracle-application consistent snapshots on an HPE 3PAR StoreServ array. Additionally, the RMC Express Protect feature enables automatic backup of Oracle data volumes from HPE 3PAR StoreServ to StoreOnce Systems, independent of backup server software. The backups are self-contained volumes that can be restored back to the original or different HPE 3PAR StoreServ array in the event of a disaster.

As shown in the figure 1, RMC for Oracle backup allows Oracle snapshot data to be automatically backed up directly from HPE 3PAR StoreServ to StoreOnce Systems.

The HPE solution

HPE Recovery Manager Central (RMC) for Oracle integrates HPE 3PAR StoreServ

¹ Ensure Cost Balances Out With Risk in High-Availability Data Centers, Gartner Inc., February 2013

² Trends for Protecting Highly Virtualized and Private Cloud Environments, Enterprise Strategy Group (ESG), July 2013

³ Magic Quadrant for Deduplication Backup Target Appliances, Gartner Inc., July 2014

Solution brief

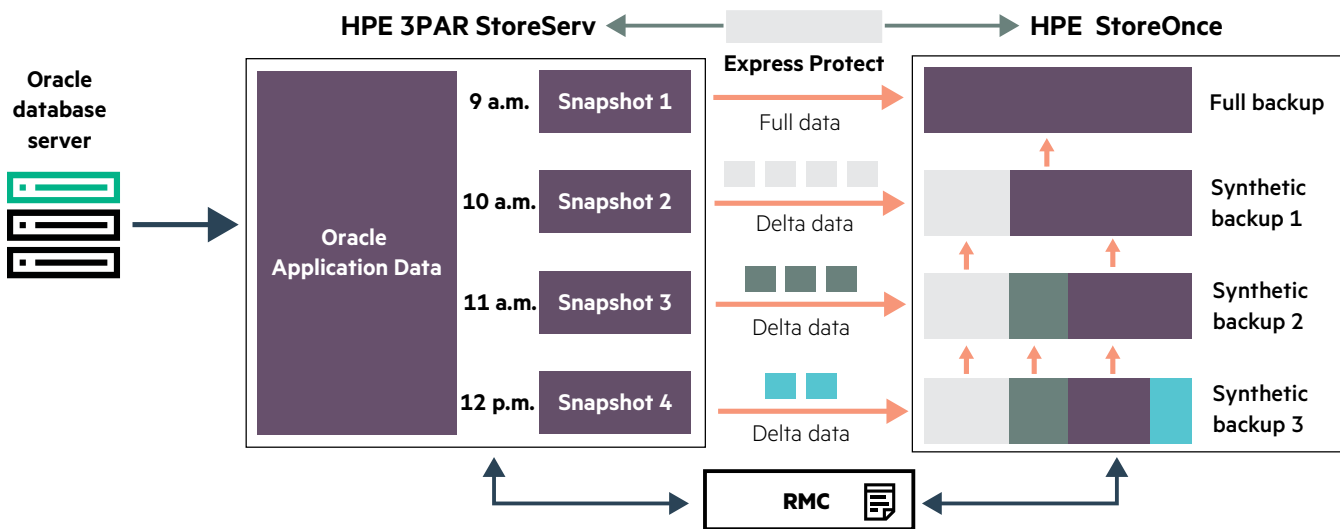


Figure 1. Fast and affordable end-to-end protection for Oracle database server

Offering the features and functions you need

Reduce backup windows and enable fast recovery

- HPE 3PAR StoreServ Virtual Copy Software creates consistent, non-disruptive time- and space-efficient Oracle-aware snapshots.
- Restore database files and log files at a database or instance level from snapshots or mount the snapshot on the host directly and instantaneously, enabling DBAs to deliver on aggressive recovery-time objective (RTO) service-level agreements (SLAs). An Oracle instance-level restore can include a volume restore (database files and log files associated with an instance, which may have multiple databases) and a file-level restore (selected databases within a specific instance).
- Only changed data blocks are sent to the HPE StoreOnce Backup System. Every multi-stream database backup completes at the speed of an incremental but is stored as a synthetic full backup, which makes database recovery faster and more efficient.

Reduce cost and complexity

RMC Express Protect feature enables the backup of Oracle snapshot data volumes directly from HPE 3PAR StoreServ to StoreOnce Systems.

- Oracle backups stored on StoreOnce Systems are deduplicated, thus reducing backup storage requirements. This deduplicated data can be economically stored on StoreOnce Systems for extended periods.

Reduce risk exposure

- Scalable, non-duplicative local and remote snapshots help reduce data loss and downtime with frequent recovery points, offering DBAs flexibility when committing to tight recovery-point objective (RPO) SLAs.
- Oracle backups can be restored back to the original or a different HPE 3PAR StoreServ array in the event of a disaster or physical problems with the production storage environment. Backups can be copied from one StoreOnce Systems appliance to one or more remote StoreOnce Systems for disaster recovery purposes.
- This level of data protection cannot be achieved with snapshots alone.

Application-managed data protection

- RMC runs in a VMware®-based or Hyper-V-based virtual machine and has its own dedicated user interface. DBAs can monitor and manage snapshots, backup, and recovery from within the RMC user interface.
- RMC for Oracle scheduler feature provides automated snapshot creation on HPE 3PAR StoreServ and automated snapshot backup direct to HPE StoreOnce Systems.

Summary

HPE Recovery Manager Central for Oracle seamlessly integrates robust, flash-optimized HPE 3PAR StoreServ primary storage and the fast, scalable, and highly resilient HPE StoreOnce Backup System.

The result is a converged data protection solution that simply and efficiently delivers the end-to-end availability and backup that your Oracle RHEL or OEL environment demands.

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