Disaster Recovery for Oracle Database Applications

Oracle Database applications comprise the top-tier of business continuity plans as data loss and downtime are not tolerable for these mission-critical applications. While organizations agree that rapid recovery for Oracle Database applications is essential, they differ regarding how to achieve this.

Traditional methods for protecting Oracle Database require the duplication of infrastructure, operating systems, Oracle software, and other third-party applications, rendering it a highly expensive IT project — even prohibitively expensive for some organizations. Other, more affordable disaster recovery solutions are often unable to provide recovery for physical servers and may not support complex and busy applications such as Oracle Database.

CloudEndure’s Disaster Recovery Solution for Oracle Database

CloudEndure Disaster Recovery allows you to use your cloud environment as an enterprise-grade business continuity/disaster recovery (BC/DR) solution for your Oracle Database applications, commonly reducing total cost of ownership (TCO) by 80%+ compared to traditional Disaster Recovery as a Service (DRaaS) solutions, while improving recovery objectives.

CloudEndure maintains ongoing replication into a low-cost “staging area” located in a target region of choice, which reduces your compute, storage, and software licensing footprint to a minimum. In the event of a disaster, CloudEndure triggers an automated large-scale orchestration and system conversion process (physical-to-cloud/virtual-to-cloud/cloud-to-cloud), recovering your Oracle Database applications in minutes.

Reduces Total Cost of Ownership (TCO)

- **Hardware** — When using CloudEndure Disaster Recovery, there is no need to pay for duplicate hardware, compute, or networking for a target site. A continually replicating version of all your data is kept up-to-date in your preferred target cloud, utilizing low-cost storage and lightweight compute. The more expensive recovery environment, using high-performance storage and actual compute to run the application, is only utilized when launched during a disaster or drill.

  In comparison, database protection solutions such as Oracle Active Data Guard and Oracle GoldenGate require duplicate hardware, compute, high-performance storage, and networking, which means paying for double infrastructure.

- **OS & Third-Party Software Licenses** — In order for most disaster recovery solutions to provide robust protection and recovery of Oracle Database, you need to purchase duplicate operating system (OS), Oracle Database, and third-party software licenses to run your Oracle Database in your standby site.

  With CloudEndure Disaster Recovery, you don’t need to purchase duplicate OS or third-party software licenses. Your Oracle Database and all other server data are kept in real-time sync in a dormant “staging area” that is not running any licensed OS or application. In the event of a disaster or drill, your OS (such as Oracle Linux) will be launched on-demand in the target cloud, and you only pay for what you use during the disaster period. In other words, you get robust

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**FEATURES**

- Block-level continuous replication
- Support of geographically remote target sites
- Automated machine conversion and application stack orchestration
- Quick, non-disruptive installation
- Support for raw device mapping (RDM) disks
- Web-based control with centralized management
- Automated disaster recovery drills with no performance impact
- Support of Oracle Automatic Storage Management (ASM)

**BENEFITS**

- One disaster recovery solution for all Oracle Database applications, third-party software, and OSs
- 80% lower total cost of ownership (no duplicate costs)
- Near-zero Recovery Time Objective (RTO) & Recovery Point Objective (RPO)
- Increased reliability & high tolerance for network instability
- No vendor lock-in due to support of all source infrastructures
- Enterprise-grade security
resilience with Recovery Point Objectives (RPO) of sub-seconds and Recovery Time Objectives (RTO) of minutes at the cost of a cold standby solution.

- **Native Oracle Replication Software Licenses** — Native Oracle replication software such as Oracle Active Data Guard and Oracle GoldenGate are prohibitively expensive for most companies. CloudEndure Disaster Recovery software licenses are dramatically less expensive, while also providing recovery for the entire OS including all of its applications, not just Oracle Database.

**Increases Reliability**

- **Geographic Redundancy** — Best practice for disaster recovery stipulates the use of a target site that is located in a different geographic region than the source environment. In fact, short distances between source and target sites can be problematic from a regulatory perspective. CloudEndure Disaster Recovery enables the use of a target site in a remote geographic location while still providing continuous data protection with near-zero RPO and RTO.

- **High Tolerance for Network Instability** — CloudEndure Disaster Recovery is designed to keep data in sync, asynchronously over long distances, regardless of the database write rates or network conditions. In contrast, native database replication products are designed to be used within a data center with low network latencies and are not a disaster recovery product designated to protect data across long distances. If you have a write-intensive system, your tolerance for network interruptions is very low.

**Protects Any Application**

- **Universal Application Support** — CloudEndure Disaster Recovery replicates and recovers all Oracle Database applications. In addition, CloudEndure’s data replication engine natively supports other applications including third-party software, legacy applications, homegrown applications, OSs, and common applications such as SQL servers, Exchange servers, SharePoint, etc. Disaster recovery solutions such as Oracle Active Data Guard and Oracle GoldenGate only protect Oracle Database applications. In order to protect the rest of your applications, you have to use a separate replication solution.

- **Block-Level Replication** — CloudEndure Disaster Recovery utilizes block-level replication rather than taking snapshots or writing data to disk. This is what enables 100% data integrity for Oracle Database as well as its OS and surrounding applications.

**Provides Automated Disaster Recovery Testing**

- **Easy Implementation** — Any strong disaster recovery strategy must include the capability for frequent testing. However, many companies avoid launching frequent drills due to the significant overhead needed to do so and the fear that a failed drill will cause both temporary and permanent damage to the entire organization. CloudEndure Disaster Recovery provides automated disaster recovery testing for all Oracle Database applications, eliminating the time-intensive manual processes, such as log shipping, that can take days. Oracle Active Data Guard and Oracle GoldenGate do not provide automated testing.

- **Non-Disruptive** — CloudEndure Disaster Recovery enables non-disruptive drills that launch Oracle Database and all workloads in your target site without impacting your source environment. All changes that take place in your source environment during the tests are saved and replicated.
Discover how CloudEndure can help your organization achieve affordable, enterprise-grade disaster recovery for Oracle Database applications using the cloud.