Globally Distributed Autonomous Database

Oracle Globally Distributed Autonomous Database is a fully automated distributed cloud database that helps customers meet data residency requirements, provide survivability for business-critical applications, and deliver cloud-scale database performance.

Juan Loaiza announces Globally Distributed Autonomous Database (19:37)

Support a global user base with a fully automated distributed database

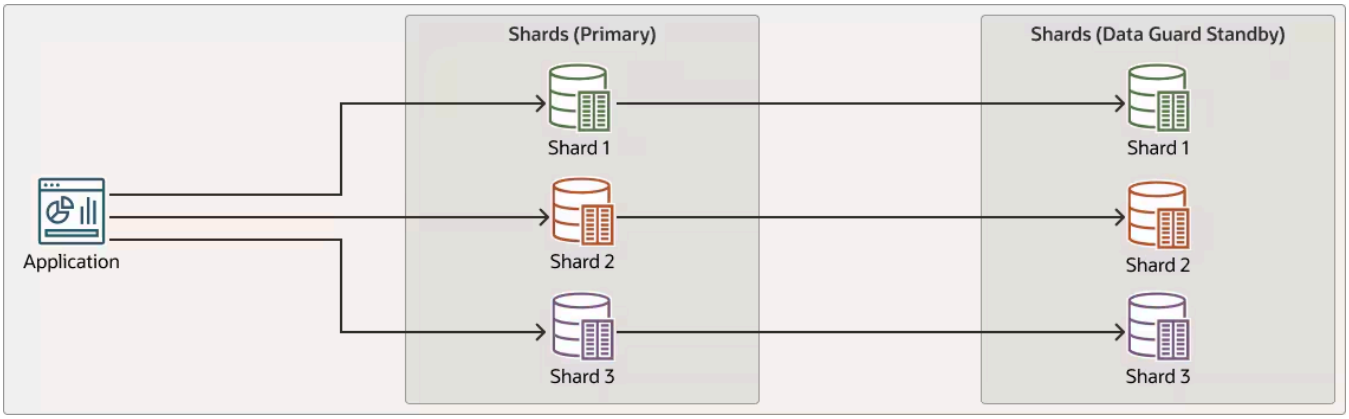
See how Globally Distributed Autonomous Database can help you succeed.

- Address data residency requirements by controlling where data resides.
- Provide high availability by distributing shards across OCI availability domains and regions.
- Enable cloud scale and performance by automatically scaling the number of shards and their individual performance.
- Develop distributed database applications and efficiently manage them as a single logical database with no changes required.
- Automatically distribute and redistribute data based on performance needs and location.
- Use Oracle Autonomous Database Select AI to query distributed data using natural language without knowing where it is or how it's structured.

How it works

Globally Distributed Autonomous Database is a single logical Oracle Database that is distributed as a set of Oracle Database shards. Each shard is an independent Oracle Database instance that hosts a subset of the logical database's data. Multiple shards can run in one OCI availability domain to maximize performance, in multiple OCI availability domains or regions to provide the highest possible availability, and in OCI regions across different geographies to help meet data residency requirements.

A common shard catalog supports automated shard deployment, centralized manag
database, and multi-shard queries using the automated query coordinator. Shard dir
performance connection routing over networks to access data in a distributed databa
application request is routed directly to a shard using the Oracle drivers and provides
with the request.



Globally Distributed Autonomous Database in the media

Forbes

Oracle Launches Globally Distributed Autonomous Database

Read on forbes.com

SiliconANGLE

Oracle's Autonomous Database Goes Distributed and Global

Read on siliconangle.com

ORACLE

Oracle Helps Organizations Achieve the Highest Levels of Scalability and Availability, and Address Data Sovereignty Requirements

Read the press release

Autonomous Database customer successes

Learn how Oracle customers are using Oracle Autonomous Database to transform their businesses by redefining database management through machine learning and automation.

See customer

Globally Distributed Autonomous Database use cases

Address data residency requirements for distributed data warehousing and data lakes

Combine user control of data distribution policies and built-in automation to keep the storage and processing of growing data sets in required geographical locations while providing centralized administration.

Cloud-scale transaction processing

Improve customer experiences by enabling the database performance needed by cloud-scale applications and locating data close to distributed users—all with automated data distribution and management.

Maximum availability for mission-critical applications

Run applications that require extremely high availability using Globally Distributed Autonomous Database's shared-nothing architecture and fault-tolerant local Oracle Exadata Cloud Infrastructure.

Distributed data pipelines and analytics

Rapidly load, process, and analyze massive data sets in a distributed cloud while addressing data residency requirements. Get unified insights with massively parallel processing across many compute instances.

Query global distributed data using natural language

Easily gain insights from your data without knowing where it's located or how it's structured. Simply ask questions in natural language and let Oracle Autonomous Database Select AI build your queries and present results.

Build cloud native, scalable mission-critical applications

Build scalable, secure, distributed applications using multiple data types and models across a single logical database without the need for additional code or skills.

See what top industry analysts say about Globally Distributed Autonomous Database

"**Oracle's approach to sharding [makes] application interaction with databases transparent and reliable**…[Its] data distribution models, replication methods, and shard deployment options…enable Oracle Database to meet unique customer requirements."

Carl Olofson
Research Vice President, Data Management Software, IDC

"**Data sovereignty**…can only be efficiently addressed with a universal distributed
sophisticated sharding capabilities. **Oracle was able to deliver a full-featured d
relational database because of its decades-long expertise**."

Alexei Balaganski
CTO and Lead Analyst, KuppingerCole Analysts

"This industry-first combination of autonomous database management and centralized data regulation adherence should be a significant cost and time saver for IT organizations."

Matt Kimball
Vice President and Principal Analyst, Data Center, Moor Insights & Strategy

"**Oracle Globally Distributed Autonomous Database** uses sharding to enable enterprises to manage data globally but literally act locally. And it does so with the **benefits of a database that runs itself**."

Tony Baer
Principal, dbinsight

Globally Distributed Autonomous Database resources

Announcements and Blogs

Press Release: Oracle Helps Organizations Achieve the Highest Levels of Scalability and Availability, and Address Data Sovereignty Requirements

Blog Post: Announcing General Availability of Oracle Globally Distributed Autonomous Database

Blog Post: Leading Industry Analyst Perspectives on Oracle Globally Distributed Autonomous Database

Resources

Documentation

Oracle Sharding LiveLabs

Learn how to use Oracle Sharding for mission-critical, internet-scale apps

Hyperscaling data management platform with petabytes of data (43:48)

Meeting data residency requirements with a globally distributed database (PDF)

Analyst Report: Meeting the new reality for data sovereignty by db Insight (PDF)

Get started with Globally Distributed Autonomous Database

Try Autonomous Database for free

Attend an event

Cont

Explore with $300 in free credits and Always Free instances of Autonomous Database.

Try it for free

Attend webcasts or live hands-on weekly workshops conducted by our product experts.

Join us

Interested in learning more? Contact one of our experts.

Get in touch