



## Oracle Autonomous Database

# Auto Scaling

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SENIOR PRODUCT MANAGER, DATABASE  
ORACLE

0:06 / 4:39

1x



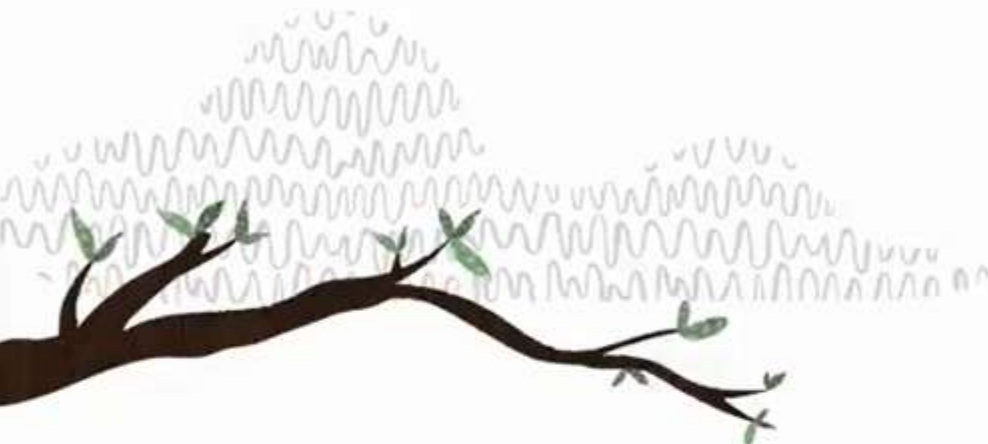
# Objectives

## Scaling the Autonomous Database






# Autonomous Database Serverless: **Auto Scaling**



**ADB autonomously and continuously monitors the overall system performance.**



ADB scales CPU and IO resources.

Scaling up **3x**

Auto scaling can be enabled when provisioning an ADB instance or any time using **Scale Up/Down** on the Oracle Cloud Infrastructure Console.

Enabling auto scaling does not change the concurrency and parallelism settings for the predefined services.



# Auto Scaling

Enabled by default\*

Can be disabled at any time

3x base number of active ECPUs

ECPUs auto scale back down to the base number.

Changing the setting does not require database downtime.

## Note

If you are provisioning an always-free database, auto scaling is not enabled by default.



## Auto scaling

Allows system to use up to three times the provisioned number of cores as the workload increases. [Learn more.](#)

Oracle Cloud Infrastructure

cloud.oracle.com/db/adw/create?region=us-ashburn-1

US East (Ashburn)

Create Autonomous Database

Provide basic information for the Autonomous Database

Compartment

vinsonk211 (root)

Display name

ATPDEMO

A user-friendly name to help you easily identify the resource.

Database name

ATPDEMO

The name must contain only letters and numbers, starting with a letter. Maximum of 30 characters.

Choose a workload type

Data Warehouse

Built for decision support and data warehouse workloads. Fast queries over large volumes of data.

✓

Transaction Processing

Built for transactional workloads. High concurrency for short-running queries and transactions.

JSON

Built for JSON-centric application development. Developer-friendly document APIs and native JSON storage.

APEX

Built for Oracle APEX application development. Creation and deployment of low-code applications, with database included.

Choose a deployment type

Serverless

Run Autonomous Database on serverless architecture.

✓

Dedicated infrastructure

Run Autonomous Database on Dedicated Exadata Infrastructure.

Configure the database

Always Free ⓘ

Show only Always Free configuration options.

Create Autonomous Database

Save as stack

Cancel

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# Setting Up Auto Scaling: When Provisioning



Oracle Cloud Infrastructure x +

cloud.oracle.com/db/adw/create?region=us-ashburn-1

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US East (Ashburn) [icon] [icon] [icon] [icon]

## Create Autonomous Database

Choose a workload type

**Data Warehouse**  
Built for decision support and data warehouse workloads. Fast queries over large volumes of data.

**Transaction Processing**  
Built for transactional workloads. High concurrency for short-running queries and transactions. ✓

**JSON**  
Built for JSON-centric application development. Developer-friendly document APIs and native JSON storage.

**APEX**  
Built for Oracle APEX application development. Creation and deployment of low-code applications, with database included.

Choose a deployment type

**Serverless**  
Run Autonomous Database on serverless architecture. ✓

**Dedicated infrastructure**  
Run Autonomous Database on Dedicated Exadata Infrastructure.

### Configure the database

Always Free ⓘ  
☐ Show only Always Free configuration options

Choose database version  
19c

ECPU count ⓘ  
2  
Select an ECPU count. ECPU counts are multiples of 2.

Storage (TB)  
1  
The amount of storage to allocate. Max storage allowed is 384 TB.

☒ **Compute auto scaling**  
Allows system to expand up to three times the specified ECPU count as demand increases. [Learn more about auto scaling.](#)

☐ **Storage auto scaling**  
Allows system to expand up to three times the reserved storage.

[Show advanced options](#)

Create Autonomous Database Save as stack Cancel

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# Setting Up Auto Scaling: When Provisioning

# Setting Up Auto Scaling: Any Time

# ATP

AVAILABLE ⓘ

ATPDEMO ● Primary

Database actions ▾

Database connection

Performance hub

Manage resource allocation

More actions ▾

Autonomous Database information

Tool configuration

Tags

## General information

**Database name:** ATPDEMO

**Workload type:** Transaction Processing

**Compartment:** vinsonk211 (root)

**OCID:** ...dpgmhq [Show](#) [Copy](#)

**Created:** Fri, Aug 18, 2023, 20:02:04 UTC

**License type:** License included

**Database version:** 19c

**Lifecycle state:** Available [Check database availability](#)

**Instance type:** Paid

**Character set:** AL32UTF8

**National character set:** AL16UTF16

**Auto start/stop schedule:** Disabled [Schedule](#)

**Mode:** Read/write [Edit](#)

## Resource allocation

**ECPU count:** 2

**Compute auto scaling:** Enabled ⓘ

**Storage:** 1 TB

**Storage auto scaling:** Disabled ⓘ

## Disaster recovery ⓘ

**Role:** Primary

**Local:** Backup-based [Upgrade to Autonomous Data Guard](#) [Switchover](#)

**Cross-region:** Not enabled

## Backup

**Automatic backup retention period:** 60 days [Edit](#)

**Total backup storage:** -

**Last automatic backup:** No active backups exist for this database.

**Next long-term backup:** -

**Long-term backup schedule:** [Schedule](#)

## Network

**Access type:** Allow secure access from everywhere

**Access control list:** Disabled [Edit](#)

**Mutual TLS (mTLS) authentication:** Required [Edit](#) ⓘ

## Maintenance ⓘ

**Patch level:** Regular ⓘ



# Setting Up Auto Scaling: Any Time

ORACLE Cloud

Search resources, services, documentation, and Marketplace

US East (Ashburn) ▼

ATP

AVAILABLE ⓘ

ATPDEMO • Primary

Database actions ▼

Data

Autonomous Database instance

General information

Database name: ATPDEMO

Workload type: Transactional

Compartment: vinsonk211 ( )

OCID: ...dpghmq [Show](#) [Copy](#)

Created: Fri, Aug 18, 2023, 2:49 PM

License type: License included

Database version: 19c

Lifecycle state: Available ⓘ

Instance type: Paid

Character set: AL32UTF8

National character set: AL16UTF16

Auto start/stop schedule: Disabled

Mode: Read/write [Edit](#)

Resource allocation

ECPUs: 2

Compute auto scaling: Enabled

Storage: 1 TB

Storage auto scaling: Disabled

## Manage scaling

ECPUs ⓘ

6

Select an ECPUs count. ECPUs counts are multiples of 2.

☒ Compute auto scaling

Allows system to expand up to three times the specified ECPUs count as demand increases. [Learn more](#) about auto scaling.

Storage (TB)

1

The amount of storage to allocate. Max storage allowed is 384 TB.

☐ Storage auto scaling

Allows system to expand up to three times the reserved storage.

Allocated storage: -

Shrink

Shrink storage manually. Use after deletion of a significant amount of data. [Learn more](#).

Apply

[Cancel](#)



# Setting Up Auto Scaling: Any Time

# ATP

SCALING IN PROGRESS

ATPDEMO ● Primary

Database actions ▼

Database connection

Performance hub

Manage resource allocation

More actions ▼

Autonomous Database information

Tool configuration

Tags

## General information

**Database name:** ATPDEMO

**Workload type:** Transaction Processing

**Compartment:** vinsonk211 (root)

**OCID:** ...dpgmhq [Show](#) [Copy](#)

**Created:** Fri, Aug 18, 2023, 20:02:04 UTC

**License type:** License included

**Database version:** 19c

**Lifecycle state:** Scaling In Progress [Check database availability](#)

**Instance type:** Paid

**Character set:** AL32UTF8

**National character set:** AL16UTF16

**Auto start/stop schedule:** Disabled [Schedule](#)

**Mode:** Read/write [Edit](#)

## Resource allocation

**ECPU count:** 2

**Compute auto scaling:** Enabled ⓘ

**Storage:** 1 TB

**Storage auto scaling:** Disabled ⓘ

## Disaster recovery ⓘ

**Role:** Primary

**Local:** Backup-based [Upgrade to Autonomous Data Guard](#) [Switchover](#)

**Cross-region:** Not enabled

## Backup

**Automatic backup retention period:** 60 days [Edit](#)

**Total backup storage:** -

**Last automatic backup:** No active backups exist for this database.

**Next long-term backup:** -

**Long-term backup schedule:** [Schedule](#)

## Network

**Access type:** Allow secure access from everywhere

**Access control list:** Disabled [Edit](#)

**Mutual TLS (mTLS) authentication:** Required [Edit](#) ⓘ

## Maintenance ⓘ

**Patch level:** Regular ⓘ



# Setting Up Auto Scaling: Any Time

# ATP

AVAILABLE ⓘ

ATPDEMO ● Primary

Database actions ▼

Database connection

Performance hub

Manage resource allocation

More actions ▼

Autonomous Database information

Tool configuration

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**Database name:** ATPDEMO

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**Compartment:** vinsonk211 (root)

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**Lifecycle state:** Available [Check database availability](#)

**Instance type:** Paid

**Character set:** AL32UTF8

**National character set:** AL16UTF16

**Auto start/stop schedule:** Disabled [Schedule](#)

**Mode:** Read/write [Edit](#)

## Resource allocation

**ECPU count:** 6

**Compute auto scaling:** Enabled ⓘ

**Storage:** 1 TB

**Storage auto scaling:** Disabled ⓘ

## Disaster recovery ⓘ

**Role:** Primary

**Local:** Backup-based [Upgrade to Autonomous Data Guard](#) [Switchover](#)

**Cross-region:** Not enabled

## Backup

**Automatic backup retention period:** 60 days [Edit](#)

**Total backup storage:** -

**Last automatic backup:** No active backups exist for this database.

**Next long-term backup:** -

**Long-term backup schedule:** [Schedule](#)

## Network

**Access type:** Allow secure access from everywhere

**Access control list:** Disabled [Edit](#)

**Mutual TLS (mTLS) authentication:** Required [Edit](#) ⓘ

## Maintenance ⓘ

**Patch level:** Regular ⓘ





To wrap up...