

# AMAZON AURORA

(Motor de Base de Datos)

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# ¿Que es?



Amazon Aurora es un motor de base de datos relacional completamente administrado y compatible con MySQL y PostgreSQL. Como MySQL y PostgreSQL combinan la velocidad y la fiabilidad de las bases de datos comerciales de gama alta con la sencillez y la rentabilidad de las bases de datos de código abierto.



# Características y Clientes

## Características

- \* Alto Rendimiento y escalabilidad
- \* Alta Disponibilidad y durabilidad
- \* Alto nivel de seguridad
- \* Completamente administrado
- \* Compatibilidad con migraciones: CRM - ERP
- \* Rentabilidad
- \* Productividad para los desarrolladores

## Clientes

- \* Samsung: migro mil millones de cuentas de usuario
- \* Halliburton: rendimiento de SAS hasta un 30
- \* Nintendo: respaldar Mario Kart Tour
- \* A+E Networks: crea aplicaciones nativas en la nube

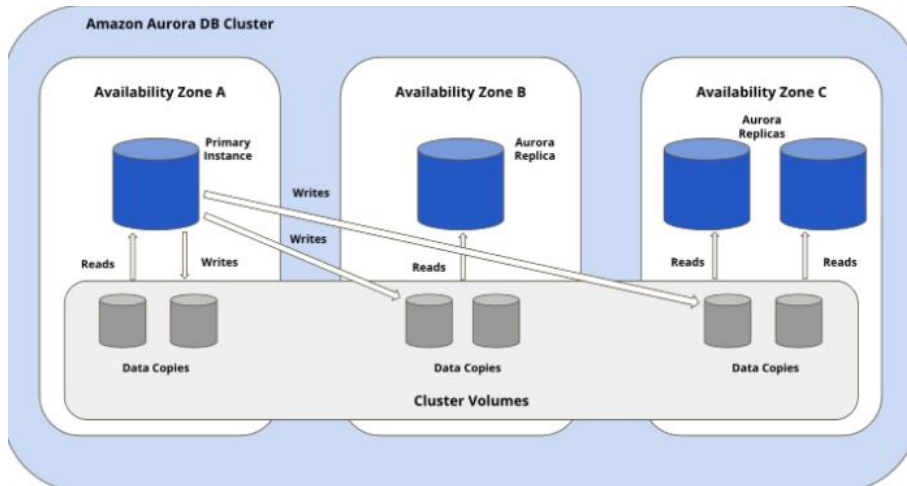
**SAMSUNG**

**HALLIBURTON**



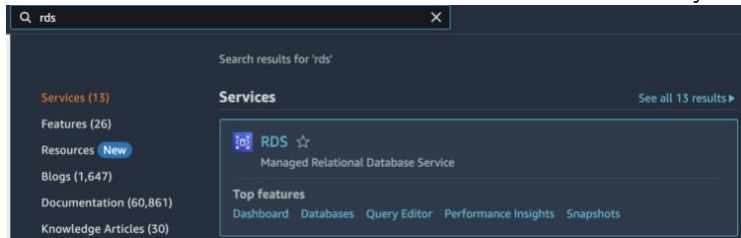
**A+E**  
NETWORKS™

# Arquitectura de base de datos de Aurora

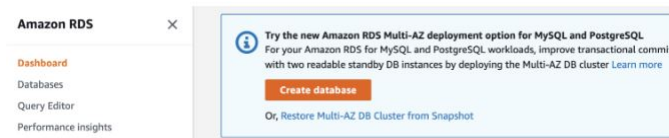


# Configuración

1. Inicie sesión en la consola de administración de AWS y abra RDS.



2. Haga clic en crear base de datos.



## 3. Seleccione Opción de motor as Amazona Aurora.

RDS > Create database

### Create database

**Choose a database creation method** [Info](#)

☒ **Standard create**  
You set all of the configuration options, including ones for availability, security, backups, and maintenance.

☐ **Easy create**  
Use recommended best-practice configurations. Some configuration options can be changed after the database is created.

**Engine options**

Engine type [Info](#)

☒ **Amazon Aurora**

☐ MySQL

☐ MariaDB

☐ PostgreSQL

☐ Oracle

☐ Microsoft SQL Server

**Edition**

☒ Amazon Aurora MySQL-Compatible Edition

☐ Amazon Aurora PostgreSQL-Compatible Edition



## 4. Seleccione la pestaña aurora mysql versión que necesita.

Engine version [Info](#)  
View the engine versions that support the following database features.

▼ Hide filters

- ☒ Show versions that support the global database feature  
Allows a single Amazon Aurora database to span multiple AWS Regions.
- ☐ Show versions that support the parallel query feature  
Improves the performance of analytic queries by pushing processing down to the Aurora storage layer.
- ☐ Show versions that support Serverless v2  
Offers instance scaling for even the most demanding workloads.

Available versions (40/60) [Info](#)

Aurora (MySQL 5.7) 2.10.2 ▼

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### Templates

Choose a sample template to meet your use case.

☒ **Production**  
Use defaults for high availability and fast, consistent performance.

☐ **Dev/Test**  
This instance is intended for development use outside of a production environment.





## 5. Cree un identificador de clúster de base de datos y establezca el nombre de usuario y la contraseña de configuración de credenciales.

**Settings**

**DB cluster identifier** [Info](#)  
Enter a name for your DB cluster. The name must be unique across all DB clusters owned by your AWS account in the current AWS Region.  
  
The DB cluster identifier is case-insensitive, but is stored as all lowercase (as in "mydbcluster"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

**▼ Credentials Settings**

**Master username** [Info](#)  
Type a login ID for the master user of your DB instance.  
  
1 to 32 alphanumeric characters. First character must be a letter.  
☐ **Auto generate a password**  
Amazon RDS can generate a password for you, or you can specify your own password.

**Master password** [Info](#)  
  
Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), ' (single quote), " (double quote) and @ (at sign).

**Confirm master password** [Info](#)



6. Seleccione la pestaña configuración de la instancia de la opción desplegable y elija una opción para crear una réplica o no.

## Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

DB instance class [Info](#)

- ☐ Memory optimized classes (includes r classes)
- ☒ Burstable classes (includes t classes)

db.t3.small

2 vCPUs 2 GiB RAM Network: 2,085 Mbps

☒ Include previous generation classes

## Availability & durability

Multi-AZ deployment [Info](#)

- ☒ Create an Aurora Replica or Reader node in a different AZ (recommended for scaled availability)  
Creates an Aurora Replica for fast failover and high availability.
- ☐ Don't create an Aurora Replica



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## 7. Seleccione la pestaña opciones de conectividad como se muestra a continuación.

### Compute resource

Choose whether to set up a connection to a compute resource for this database. Setting up a connection will automatically change connectivity settings so that the compute resource can connect to this database.

- ☒ **Don't connect to an EC2 compute resource**  
Don't set up a connection to a compute resource for this database. You can manually set up a connection to a compute resource later.
- ☐ **Connect to an EC2 compute resource**  
Set up a connection to an EC2 compute resource for this database.

### Virtual private cloud (VPC) [Info](#)

Choose the VPC. The VPC defines the virtual networking environment for this DB cluster.

Default VPC (vpc-1a123456789012345678901234567890)

Only VPCs with a corresponding DB subnet group are listed.

**After a database is created, you can't change its VPC.**

### DB Subnet group [Info](#)

Choose the DB subnet group. The DB subnet group defines which subnets and IP ranges the DB cluster can use in the VPC that you selected.

default

### Public access [Info](#)

- ☒ **Yes**  
RDS assigns a public IP address to the cluster. Amazon EC2 instances and other resources outside of the VPC can connect to your cluster. Resources inside the VPC can also connect to the cluster. Choose one or more VPC security groups that specify which resources can connect to the cluster.
- ☐ **No**  
RDS doesn't assign a public IP address to the cluster. Only Amazon EC2 instances and other resources inside the VPC can connect to your cluster. Choose one or more VPC security groups that specify which resources can connect to the cluster.



## 8. Elija entre grupo de seguridad de VPC existente o crea uno nuevo.

### VPC security group (firewall) [Info](#)

Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the appropriate incoming traffic.

☒ **Choose existing**

Choose existing VPC security groups

☐ **Create new**

Create new VPC security group

### Existing VPC security groups

Choose one or more options ▼

default ✕

### RDS Proxy

RDS Proxy is a fully managed, highly available database proxy that improves application scalability, resiliency, and security.

☐ **Create an RDS Proxy** [Info](#)

RDS automatically creates an IAM role and a Secrets Manager secret for the proxy. RDS Proxy has additional costs. For more information, see [Amazon RDS Proxy pricing](#).

### ► Additional configuration

## Database authentication

### Database authentication options [Info](#)

☒ **Password authentication**

Authenticates using database passwords.

☐ **Password and IAM database authentication**

Authenticates using the database password and user credentials through AWS IAM users and roles.



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9. Permitir monitoreo mejorado, Haga click en el botón granularidad y monitoreo opción de rol.

10. Finalmente, haga clic en crear base de datos.

**Monitoring**

**Monitoring**  
☒ **Enable Enhanced monitoring**  
Enabling Enhanced monitoring metrics are useful when you want to see how different processes or threads use the CPU.

**Granularity**  
60 seconds ▼

**Monitoring Role**  
default ▼  
Clicking "Create database" will authorize RDS to create the IAM role rds-monitoring-role

**► Additional configuration**  
Database options, encryption turned on, failover, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned on.

ⓘ You are responsible for ensuring that you have all of the necessary rights for any third-party products or services that you use with AWS services.

Cancel Create database



## 11. Ha creado correctamente la base de datos de Amazon Aurora.

RDS > Databases

Databases Group resources Refresh Modify Actions Restore from S3 Create database

Filter by databases

	DB identifier	Role	Engine	Region & AZ	Size	Status	CPU	Current activity
<input type="radio"/>	demo1	Regional cluster	Aurora MySQL	ap-south-1	2 instances	Available	-	
<input type="radio"/>	demo1-instance-1	Writer instance	Aurora MySQL	ap-south-1c	db.t5.small	Creating	-	
<input type="radio"/>	demo1-instance-1-ap-south-1a	Reader instance	Aurora MySQL	ap-south-1a	db.t5.small	Creating	-	

- \* **Modernización de las aplicaciones para empresa:** Opera aplicaciones empresariales CRM - ERP
- \* **Crear aplicaciones SaaS**
- \* **Implemente aplicaciones distribuidas globalmente:** se puede desarrollar aplicaciones para internet como videojuegos, aplicaciones de redes social y servicios en línea
- \* **Trabajo sin servidores:** delegar la administración y solo se paga la capacidad consumida.



# Bibliografia

- \* Aurora <https://aws.amazon.com/es/rds/aurora/>
- \* Todo sobre Aurora <https://geekflare.com/es/amazon-aurora/>
- \* Arquitectura Aurora  
<https://aws.amazon.com/es/solutions/implementations/aurora-postgresql>

