

BALANCEO DE CARGA DE BASES DE DATOS CON CON MYSQL Y SQL ROUTER



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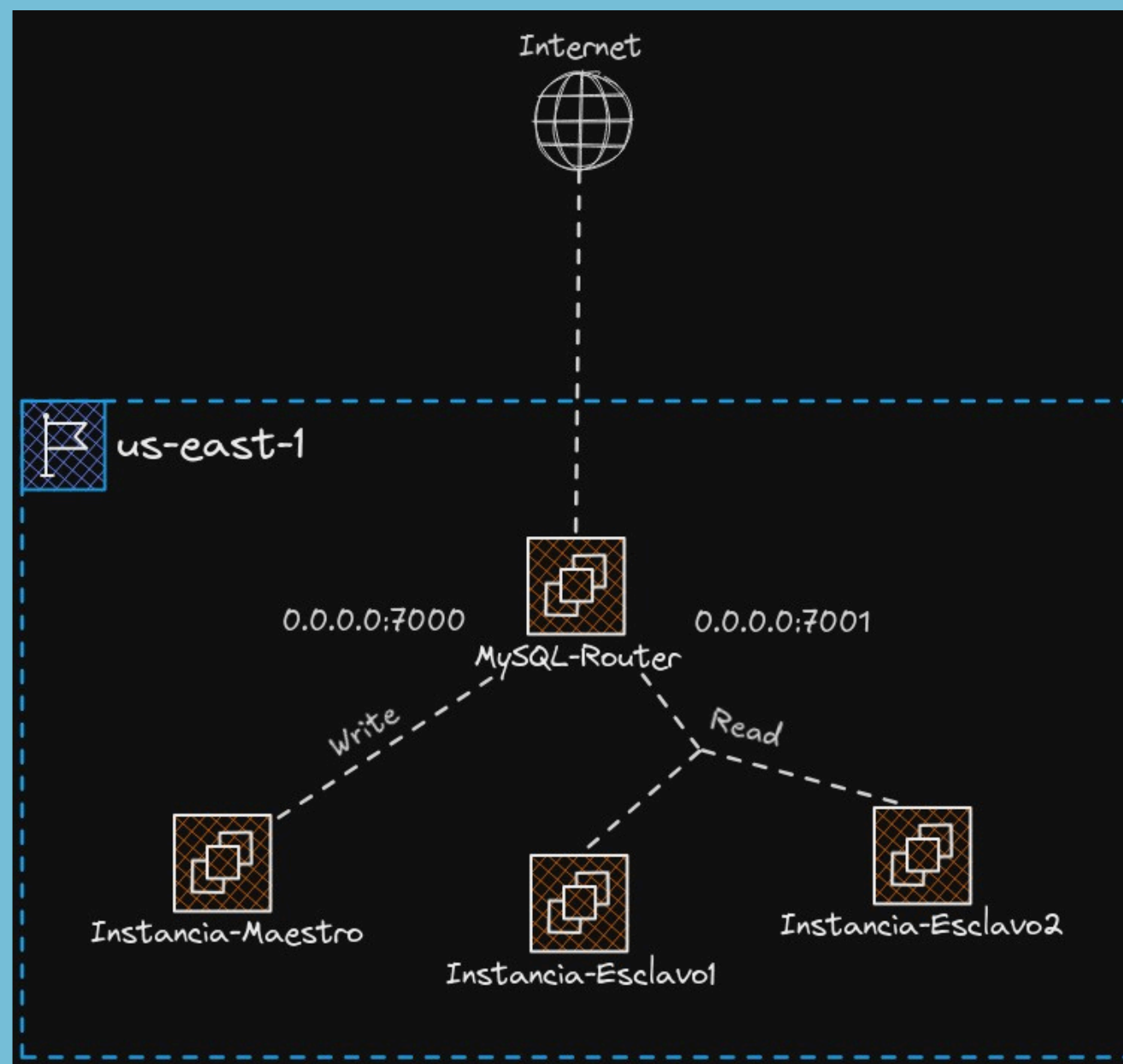
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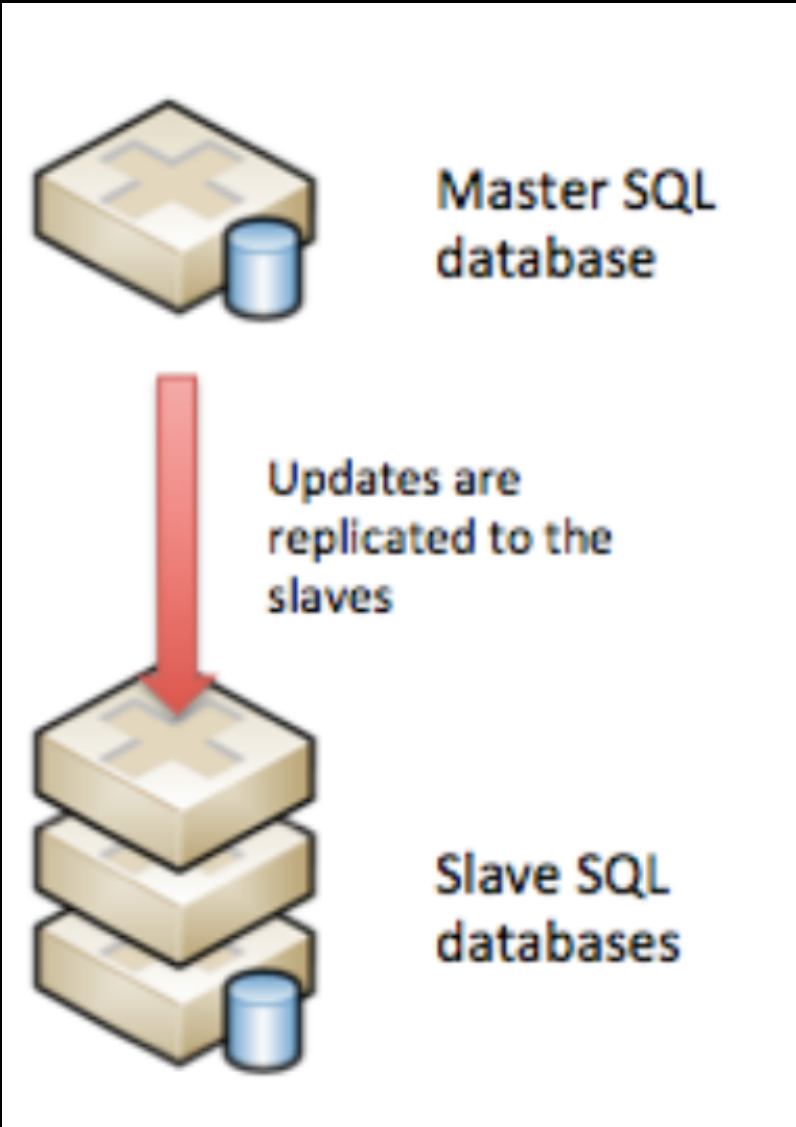


SINCRONIZACION DE INSTANCIAS

MAESTRO

ESCLAVO 1

ESCLAVO 1



```
ubuntu@ip-172-31-46-96 ~  
sudo mysql -u root -p  
Copyright (c) 2000, 2024, Oracle and/or its affiliates.  
  
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affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| api      |  
| information_schema |  
| mysql    |  
| performance_schema |  
| prueba_replica |  
| sbench   |  
| sys      |  
+-----+  
7 rows in set (0.01 sec)  
  
mysql> use api;  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A  
  
Database changed  
mysql> show tables;  
+-----+  
| Tables_in_api |  
+-----+  
| auth_group     |  
| auth_group_permissions |  
| auth_permission |  
| auth_user      |  
| auth_user_groups |  
| auth_user_user_permissions |  
| django_admin_log |  
| django_content_type |  
| django_migrations |  
| django_session  |  
| tasks_task      |  
+-----+  
11 rows in set (0.00 sec)
```

```
ubuntu@ip-172-31-37-117 ~  
sudo mysql -u root -p  
Copyright (c) 2000, 2024, Oracle and/or its affiliates.  
  
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affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| api      |  
| information_schema |  
| mysql    |  
| performance_schema |  
| prueba_replica |  
| sbench   |  
| sys      |  
+-----+  
7 rows in set (0.01 sec)  
  
mysql> use api;  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A  
  
Database changed  
mysql> show tables;  
+-----+  
| Tables_in_api |  
+-----+  
| auth_group     |  
| auth_group_permissions |  
| auth_permission |  
| auth_user      |  
| auth_user_groups |  
| auth_user_user_permissions |  
| django_admin_log |  
| django_content_type |  
| django_migrations |  
| django_session  |  
| tasks_task      |  
+-----+  
11 rows in set (0.00 sec)
```

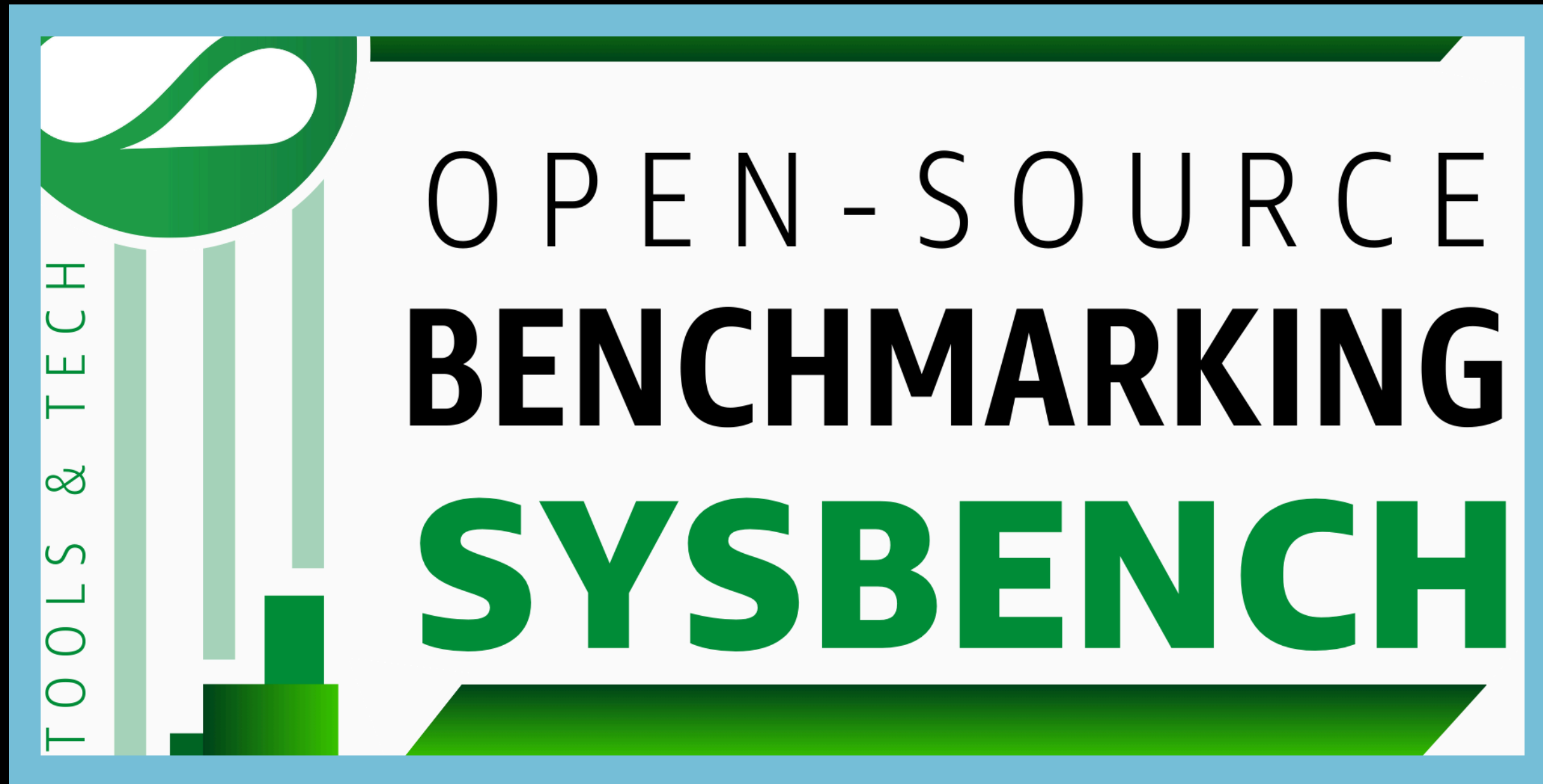
```
ubuntu@ip-172-31-38-216 ~  
sudo mysql -u root -p  
Copyright (c) 2000, 2024, Oracle and/or its affiliates.  
  
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affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| api      |  
| information_schema |  
| mysql    |  
| performance_schema |  
| sbench   |  
| sys      |  
+-----+  
6 rows in set (0.01 sec)  
  
mysql> use api;  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A  
  
Database changed  
mysql> show tables;  
+-----+  
| Tables_in_api |  
+-----+  
| auth_group     |  
| auth_group_permissions |  
| auth_permission |  
| auth_user      |  
| auth_user_groups |  
| auth_user_user_permissions |  
| django_admin_log |  
| django_content_type |  
| django_migrations |  
| django_session  |  
| tasks_task      |  
+-----+  
11 rows in set (0.00 sec)
```




SQL ROUTER

- ▶▶ LIGERO
- ▶▶ FLEXIBLE
- ▶▶ BALANCEA LA QUERIES
- ▶▶ TOLERANTE A FALLAS

PRUEBAS



PRUEBAS DE ESCRITURA

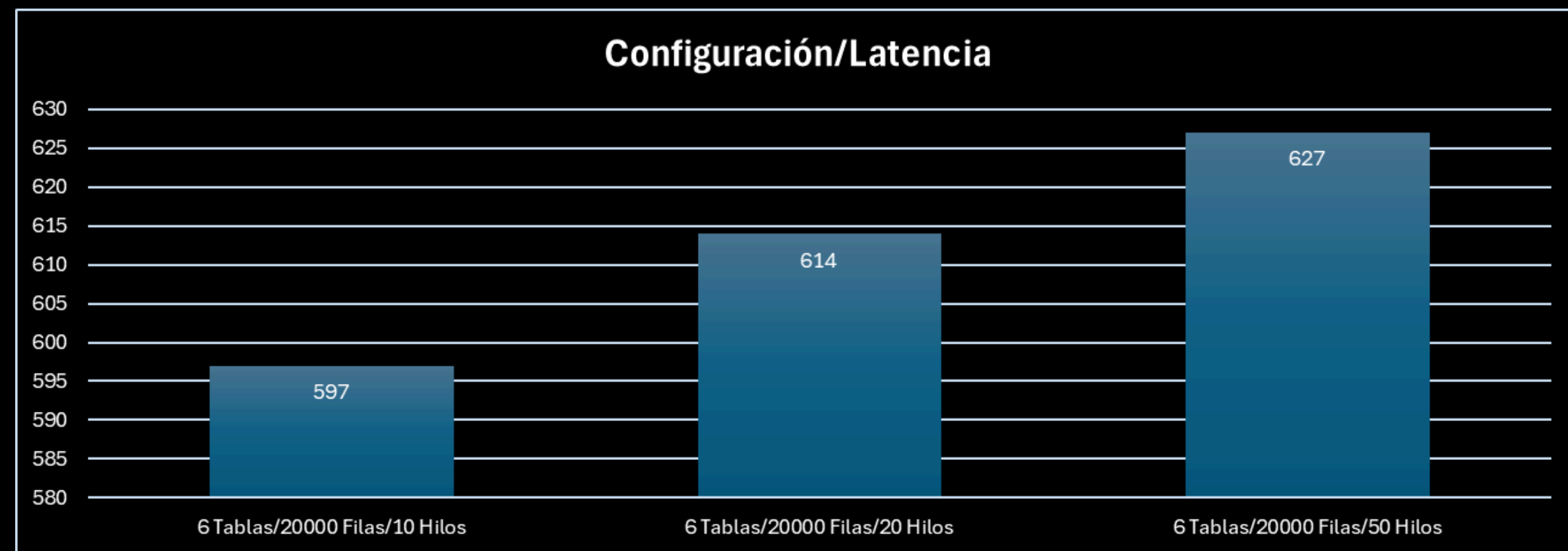
```
Initializing worker threads...
Threads started!

SQL statistics:
  queries performed:
    read:          0
    write:         6640
    other:         3320
    total:        9960
  transactions:    1660 (154.36 per sec.)
  queries:         9960 (926.17 per sec.)
  ignored errors:  0 (0.00 per sec.)
  reconnects:      0 (0.00 per sec.)

General statistics:
  total time:      10.7502s
  total number of events: 1660

Latency (ms):
  min:             549.16
  avg:             621.61
  max:             1048.35
  95th percentile: 682.06
  sum:            1031872.51

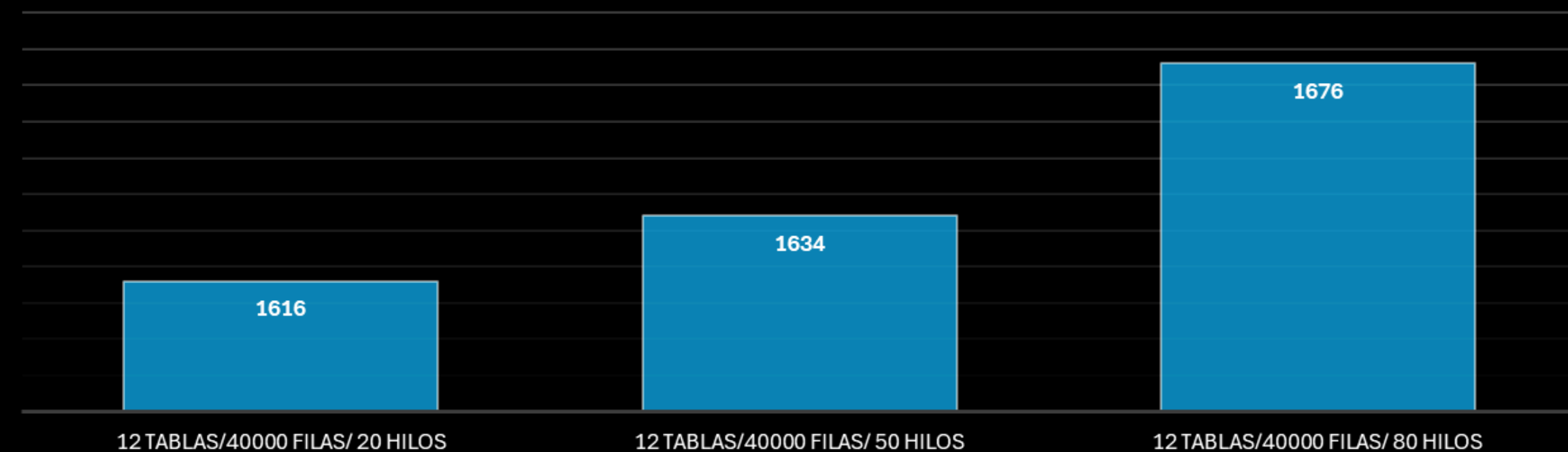
Threads fairness:
  events (avg/stddev): 16,6000/1.08
  execution time (avg/stddev): 10.3187/0.18
```



PRUEBAS DE LECTURA

Initializing worker threads...				[1] All nodes ▾	
Threads started!				[1] All nodes ▾	
SQL statistics:				[1] All nodes ▾	
queries performed:				[1] All nodes ▾	
read:				4578	
write:				0	
other:				654	
total:				5232	
transactions:				327	(29.81 per sec.)
queries:				5232	(476.99 per sec.)
ignored errors:				0	(0.00 per sec.)
reconnects:				0	(0.00 per sec.)
General statistics:					
total time:				10.9650s	
total number of events:				327	
Latency (ms):					
min:				1508.24	
avg:				1634.05	
max:				1805.01	
95th percentile:				1771.29	
sum:				534333.26	
Threads fairness:					
events (avg/stddev):				6.5400/0.50	
execution time (avg/stddev):				10.6867/0.23	

Configuración/Latencia





CONCLUSION

Este proyecto ofrece una solución confiable y escalable para gestionar bases de datos en un entorno de comercio electrónico en crecimiento. Mejoramos rendimiento, disponibilidad y seguridad mediante balanceo de carga, replicación maestro-esclavo y automatización en AWS. Esta implementación asegura un entorno robusto y preparado para futuras expansiones, optimizando el sistema para soportar el crecimiento continuo del negocio digital.



¡GRACIAS!

POR TOMARSE EL TIEMPO DE ESCUCCHAR
NUESTRA PRESENTACION