

# Configure active geo-replication for Azure SQL Database in the Azure portal and initiate failover

This article shows you how to configure active geo-replication for SQL Database in the [Azure portal](#) and to initiate failover.

To initiate failover with the Azure portal, see [Initiate a planned or unplanned failover for Azure SQL Database with the Azure portal](#).

To configure active geo-replication by using the Azure portal, you need the following resource:

- An Azure SQL database: The primary database that you want to replicate to a different geographical region.

## Note

Active geo-replication must be between databases in the same subscription.

## Add a secondary database

The following steps create a new secondary database in a geo-replication partnership.

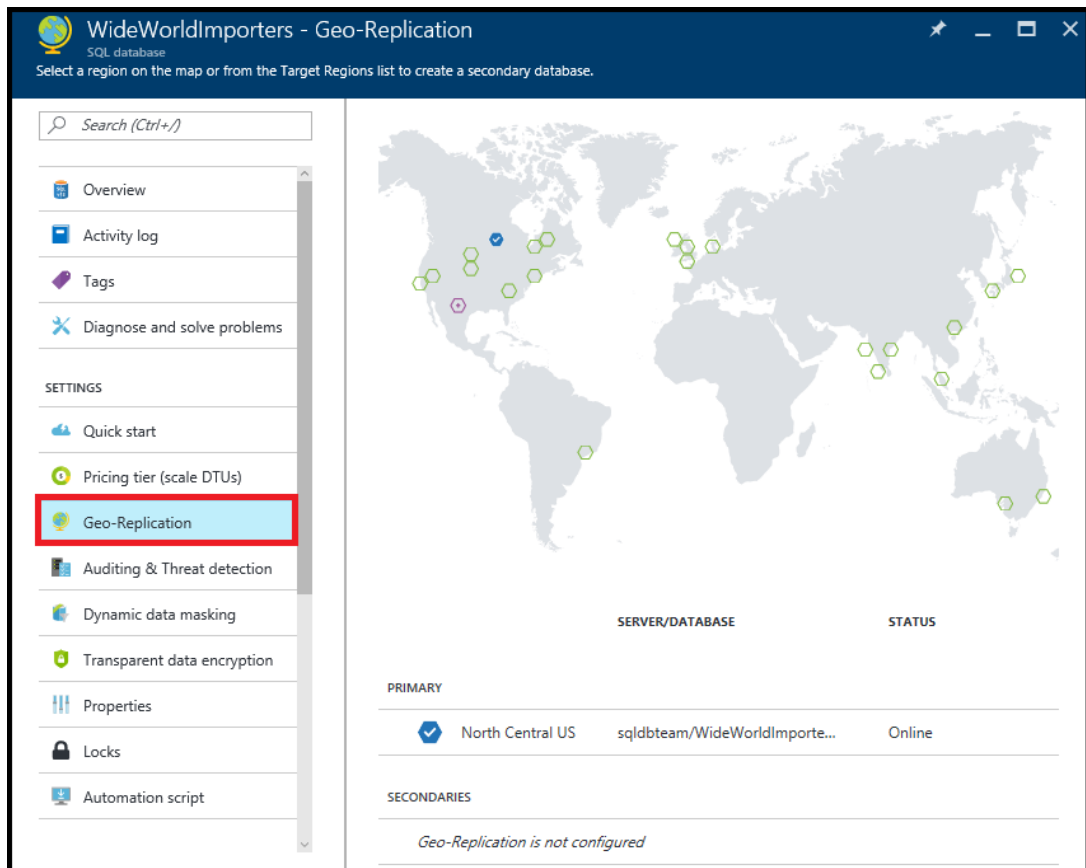
To add a secondary database, you must be the subscription owner or co-owner.

The secondary database has the same name as the primary database and has, by default, the same service level. The secondary database can be a single database or a database in an elastic pool. For more information, see [Service tiers](#). After the secondary is created and seeded, data begins replicating from the primary database to the new secondary database.<sup>1</sup>

## Note

If the partner database already exists (for example, as a result of terminating a previous geo-replication relationship) the command fails.

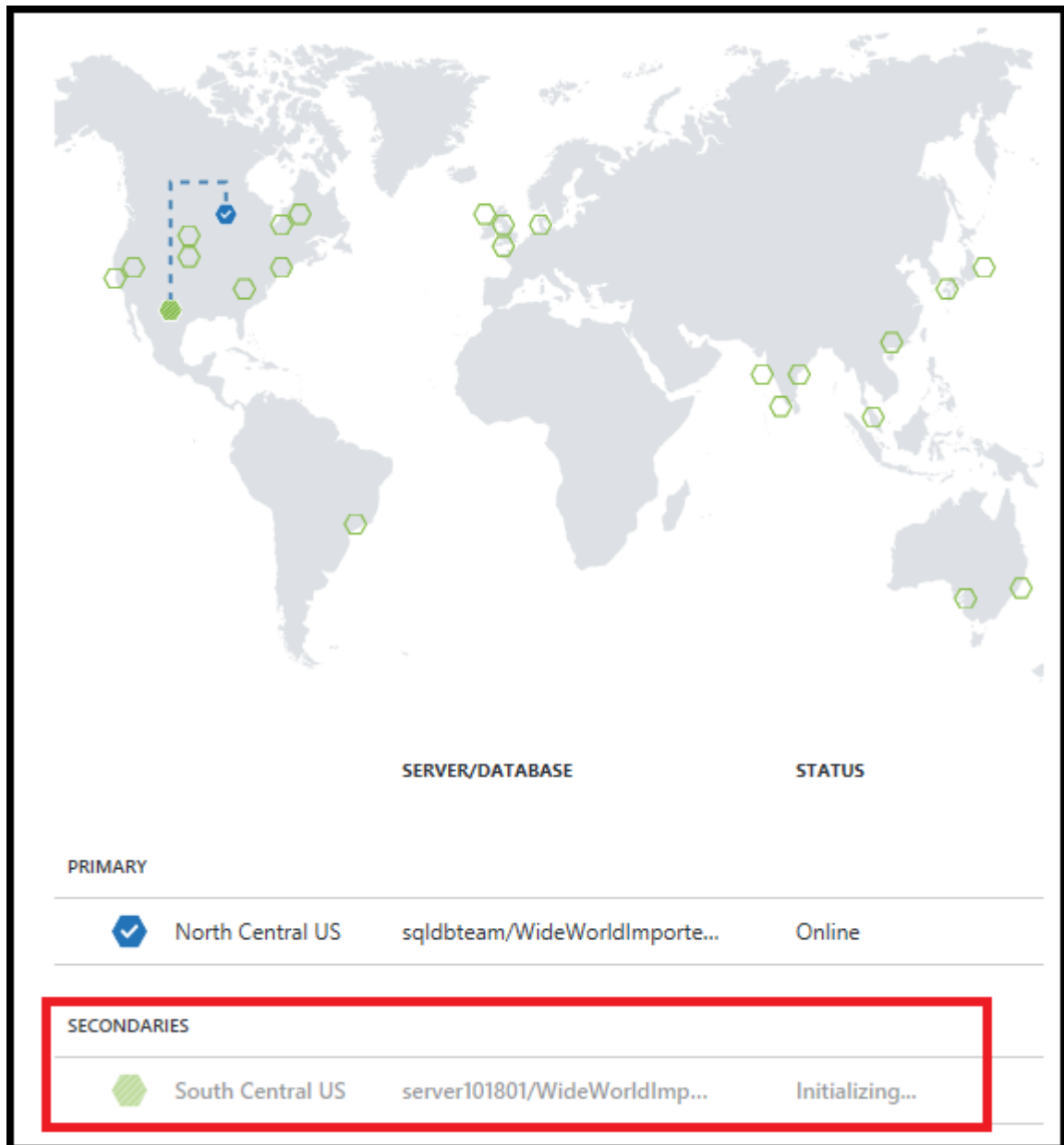
1. In the [Azure portal](#), browse to the database that you want to set up for geo-replication.
2. On the SQL database page, select geo-replication, and then select the region to create the secondary database. You can select any region other than the region hosting the primary database, but we recommend the [paired region](#).





3. Select or configure the server and pricing tier for the secondary database.

The 'Create secondary' dialog box is shown. It has a title bar and a subtitle 'Create geo-replicated secondaries to protect against prolonged datacenter'. Below this is a 'Region' dropdown menu set to 'South Central US'. A 'Database name' field contains 'WideWorldImporters'. There are three rows of settings, each with a right-pointing chevron: 'Pricing tier' set to 'S2 Standard', '\* Secondary type' set to 'Readable', and '\* Target server' set to 'Configure required settings'. An 'Elastic database pool' field is also present with a chevron. At the bottom, there is a 'Pin to dashboard' checkbox and an 'OK' button.

4. Optionally, you can add a secondary database to an elastic pool. To create the secondary database in a pool, click `elastic pool` and select a pool on the target server. A pool must already exist on the target server. This workflow does not create a pool.
5. Click `Create` to add the secondary.
6. The secondary database is created and the seeding process begins.



7. When the seeding process is complete, the secondary database displays its status.

PRIMARY			
	North Central US	sqldbteam/WideWorldImporte...	Online
SECONDARIES			
	South Central US	server101801/WideWorldImp...	Readable ...

## Initiate a failover


The secondary database can be switched to become the primary.

1. In the [Azure portal](#), browse to the primary database in the geo-replication partnership.
2. On the SQL Database blade, select All settings > geo-replication.
3. In the SECONDARIES list, select the database you want to become the new primary and click Failover.

### Geo-Replication



sqlserver421/adventureworks

Select a region on the map or from the Target Regions list to create a secondary database.



#### Japan East

Secondary database

 Failover
  Stop Replication...

REGION

Japan East

DATABASE NAME

adventureworks

SERVER



ssserver421

PRICING TIER

S0 Standard (10 DTUs)

STATUS

Readable

	SERVER/DATABASE	STATUS
PRIMARY	 Japan West    sqlserver421/adventureworks	Online
SECONDARIES	 Japan East    ssserver421/adventureworks	Readable ...

4. Click **Yes** to begin the failover.

The command immediately switches the secondary database into the primary role.

There is a short period during which both databases are unavailable (on the order of 0 to 25 seconds) while the roles are switched. If the primary database has multiple secondary databases, the command automatically reconfigures the other secondaries to connect to the new primary. The entire operation should take less than a minute to complete under normal circumstances.

#### Note

This command is designed for quick recovery of the database in case of an outage. It triggers failover without data synchronization (forced failover). If the primary is online and committing transactions when the command is issued some data loss may occur.

## Remove secondary database


This operation permanently terminates the replication to the secondary database, and changes the role of the secondary to a regular read-write database. If the connectivity to the secondary database is broken, the command succeeds but the secondary does not become read-write until after connectivity is restored.

1. In the [Azure portal](#), browse to the primary database in the geo-replication partnership.
2. On the SQL database page, select geo-replication.
3. In the **SECONDARIES** list, select the database you want to remove from the geo-replication partnership.
4. Click **Stop Replication**.

**Geo-Replication**  
sqldbteam/WideWorldImporters  
Select a region on the map or from the Target Regions list to create a secondary database.

**South Central US**  
Secondary database

[Failover](#) **Stop Replication**



	SERVER/DATABASE	STATUS
PRIMARY		
	North Central US sqldbteam/WideWorldImporte...	Online
SECONDARIES		
	South Central US server101801/WideWorldImp...	Readable ...

REGION  
South Central US

DATABASE NAME  
WideWorldImporters

SERVER  
server101801

PRICING TIER  
S2 Standard (50 DTUs)

STATUS  
Readable

5. A confirmation window opens. Click Yes to remove the database from the geo-replication partnership. (Set it to a read-write database not part of any replication.)