

Adding DB to pool with enough used space fails due to valid MaxSize mismatch

Last updated by | Charlene Wang | Mar 28, 2023 at 7:55 PM PDT

Issue:

Error when trying to add a standalone GeneralPurpose Database with max size 1000GB into a Standard Elastic Pool with max size 2.5TB

Error:

```
[{'code':'CurrentDatabaseSizeExceedsDbMaxSize','message':'MODIFY MAXSIZE failed. The requested database size is smaller than the amount of data storage used.'}]
```

Resolution Steps:

Increase the MaxSize of General Purpose DB to 1024GB and then move to Standard elastic pool. This is because 1000Gb is not a valid MaxSize for Standard edition. As a result, it automatically tries to update the MaxSize to default for Standard edition which is 250 GB. And 250GB is not high enough for the database's current allocated space.

TSQL Queries to check size details:

1. Customer can check the Database MaxSize from Portal or SSMS using below query

```
SELECT 'database_name' = DB_NAME(),
       'snapshot_time' = getdate(),
       'max_data_space_GB' = cast(DATABASEPROPERTYEX(DB_NAME(), 'MaxSizeInBytes') as bigint) / (1024*1024*1024),
       'allocated_disk_space_GB' = SUM(size/128.0) / 1024.0,
       'allocated_used_data_space_GB' = SUM(CAST(FILEPROPERTY(name, 'SpaceUsed') AS int)/128.0) / 1024.0,
       'allocated_unused_data_space_GB' = SUM(size/128.0 - CAST(FILEPROPERTY(name, 'SpaceUsed') AS int)/128.0) /
FROM sys.database_files
GROUP BY type_desc
HAVING type_desc = ` 'ROWS';
```

2. Customer can check the Elastic Pool MaxSize and Used Space details using below TSQL

```
SELECT elastic_pool_name,  
       'time' = max(end_time),  
       'avg_storage_used_percent' = max(avg_storage_percent),  
       'avg_storage_free_percent' = (100.0 - max(avg_storage_percent)),  
       'elastic_pool_storage_limit_GB' = max(elastic_pool_storage_limit_mb) / 1024.0,  
       'elastic_pool_data_storage_used_GB' = (max(avg_storage_percent) / 100.0) * (max(elastic_pool_storage_limit_mb) / 1024.0),  
       'elastic_pool_data_storage_free_GB' = (100.0 - max(avg_storage_percent)) * (max(elastic_pool_storage_limit_mb) / 1024.0)  
FROM sys.elastic_pool_resource_stats  
WHERE end_time > dateadd(minute, -15, getdate())  
GROUP BY elastic_pool_name;
```

Mitigation:

At this time, Portal doesn't allow specifying MaxSize when adding database to Pool. Customer needs to work around this by first changing the database MaxSize to 1024GB which is a valid size for Standard edition and then add database to Pool.

Note:

PG tested and confirmed this needs a repair item with Portal.