Reaching Storage Limit

Last updated by | Hamza Aqel | Jan 25, 2022 at 2:03 AM PST

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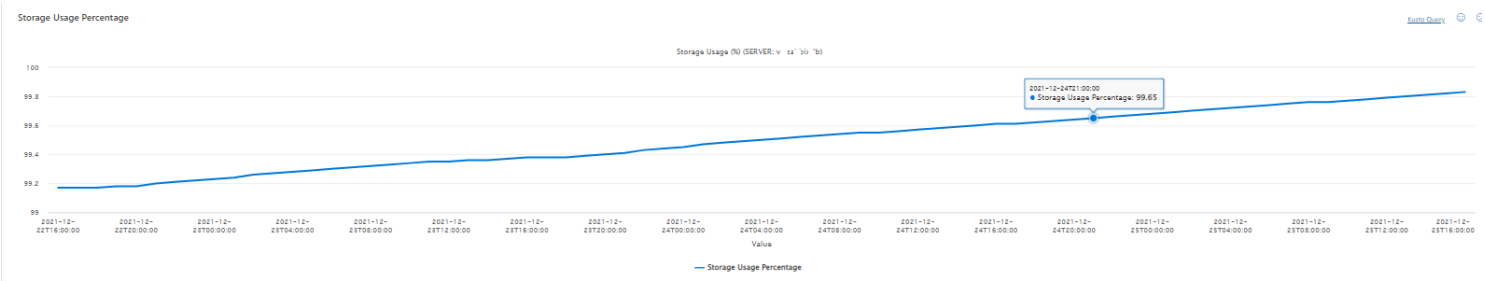
In Azure DB for PostgreSQL single server , the customer has the option to select the proper storage provisioned at creation time , and they can increase it based on their requirements , in some cases the customer is not paying attention and he might reach the storage limit , reaching the storage limit will set the customer server in read only mode and the server might crash with the same reason , for more details about this you can refer to our public documentation Pricing tiers in Azure Database for PostgreSQL - Single Server . It is expected when the customer report unexpected behaviors in their workload to check the customer resources, the storage is one of the resources you have to check , you can do that through our ASC (storage tab) :



or using Kusto :

```
//storage used percentage
MonRdmsServerMetrics
| where LogicalServerName == "{ServerName}"
| where metric_name in ('storage_percent','storage_limit','storage_used')
| project originalEventTimestamp, metric_value, metric_name
| summarize metric_value = max(metric_value) by bin(originalEventTimestamp, 5m), metric_name
| order by originalEventTimestamp asc
```

What we are going to advise the customer on this case, is to:

1- If the customer did not reach the maximum storage allowed (4TB for XIO and 16TB for PFS) , the customer can increase the storage from their side , and the server will be back to its normal state , and we can recommend the customer to turn on storage auto-grow or to set up an alert to notify him when his server storage is approaching the threshold so he can avoid getting into the read-only state. For more information, see the documentation on how to set up an alert

2- If the customer server was not available after the server reached the storage limit , you can file an ICM to recover the situation, and we can recommend the customer to do the same as we mentioned in Point 1

3- If the customer reached the maximum storage allowed for his service offering (4TB for XIO and 16TB for PFS), so the storage can't be increased on this case , you can try this procedure with the customer:

- Ask them from Azure Portal to attempt to switch off server parameter "default_transaction_read_only" . As soon as that is saved, attempt to open a new connection to free up space (backup a table using pgdump and then drop that backed up table). Note : You can set default_transaction_read_only at the session level, so when you open a new connection, you can run (set default_transaction_read_only=off) and continue freeing some space.

If the above did not help, you can file an ICM and the PG can help to mitigate the issue.