Error 40613, State 127

Last updated by | Amie Coleman | Mar 8, 2023 at 5:26 AM PST

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Issue

Error 40613 state 127 occurs when a login attempt to a user database fails when the actual database was not found locally, however, logical master database knows of it's existence. Typically, this should mean that the database is in a transient state where it is still being created on the SQL Server instance, but this has not yet completed. The main troubleshooting effort will focus on reviewing availability issues/downtime for the resource.

Error text
Error: 40613, Severity: 17, State: 127. [Filtered Args] Database '%1' on server '%2' is not currently available. Please retry the connection later. If the problem persists, contact customer support, and provide them the session tracing ID of '%3'.

Troubleshooting

Start by checking if there are any on-going Availability issues.

Check Database Availability

A quick and easy way to check if the availability issue is still occurring, is to attempt to login to the failing server and database with any random credentials from a NON-SAW machine. (SAW machine firewalls cause pre-login errors if database is forced to redirection).
If the resource is healthy and available, you should **not** get any database unavailable or login timeout errors.

For example, in the below test we observed a login failed for user '' error, which confirmed that the resource is available to requests.

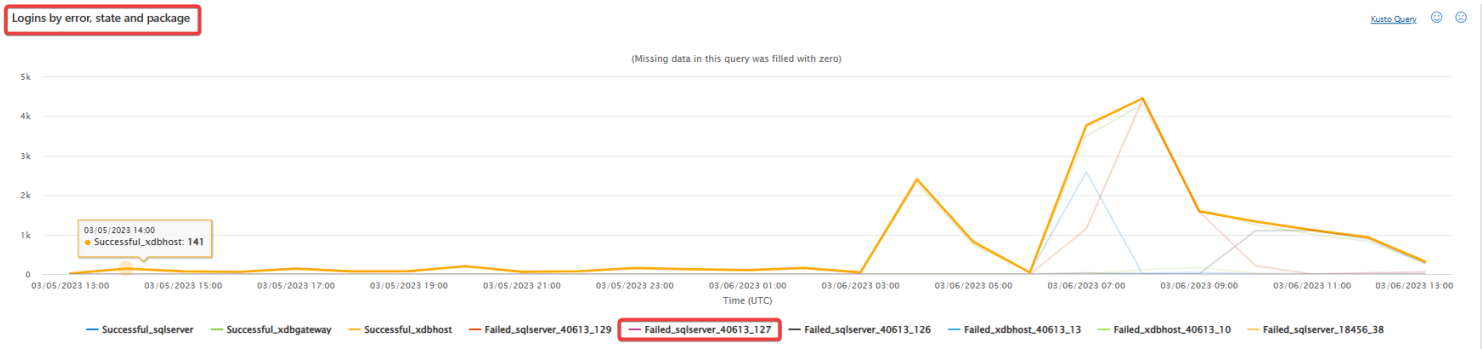
```
C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\170\Tools\Binn>sqlcmd -S                    .database.windows.net
 -U test -P test -d AdentureWorksDB
Sqlcmd: Error: Microsoft ODBC Driver 17 for SQL Server : Login failed for user 'test'..

C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\170\Tools\Binn>
```

Use the following TSG for example sqlcmd commands and expected results for both healthy and unhealthy states [Check database unavailability]

ASC

1. Create a Troubleshooter report for the resource
2. Review the Connectivity information for an overview of login failure events (Connectivity > Overview)



3. Review the Downtime information for any unplanned events that may have impacted database availability ["sqlserver/40613/127 (LoginSessDb_DbUnavailable)"

Kusto

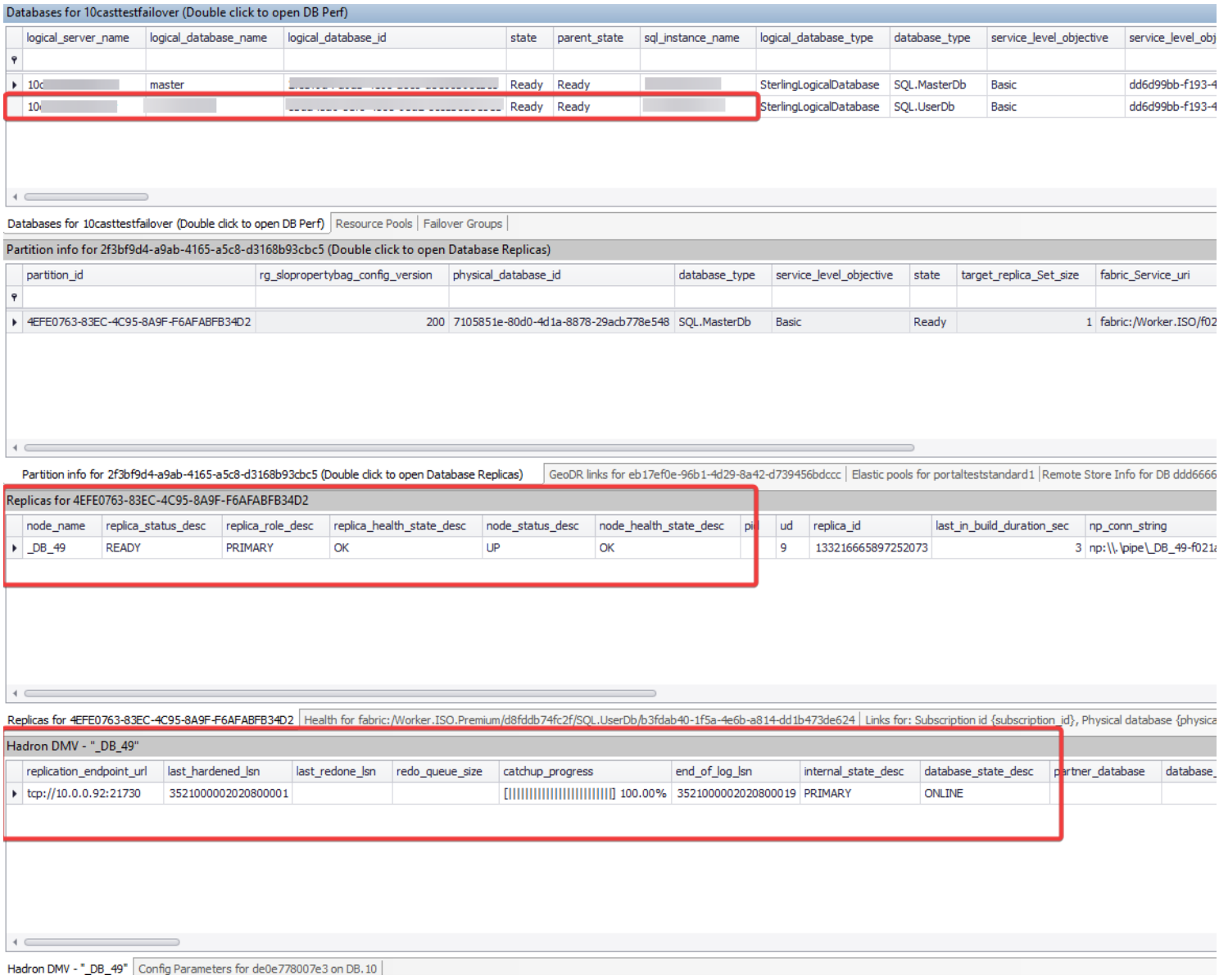
MonLogin Query
Check for login failures and error states to see when the issue started occurring and when the most recent error occurred (note that the telemetry in Kusto will have a small delay of around 15 minutes, so whilst this can help with recent failures it may not neccessarily tell you if the issue is still present)

```
let servername = "";
let databasename = "";
MonLogin
//| where TIMESTAMP >= datetime(2023-01-24 00:00:35Z)
//| where TIMESTAMP <= datetime(2023-01-25 12:15:59Z)
| where TIMESTAMP >=ago (1h)
| filter logical_server_name == servername
| filter database_name == databasename
| filter is_success == false
| order by TIMESTAMP desc
| project PreciseTimeStamp, error, state, peer_address, logical_server_name, database_name, application_name,
```

PreciseTimeStamp	error	state	peer_address	logical_server_name	database_name	application_name	connection_id	ClusterName	MachineName	package	event
2023-03-08 10:46:49.1502120	40613	127					F915B06A-0846-485E-83B1-D229514D30CF	tr111.switzerlandwest1-a.worker.database.windows.net	DB00000O	sqlserver	process_login_finish
2023-03-08 10:46:49.1502120	40613	127					C1F73EE8-7821-4720-BD56-93F53EA36953	tr111.switzerlandwest1-a.worker.database.windows.net	DB00000O	sqlserver	process_login_finish
2023-03-08 08:54:54.8724571	40613	127					B859B097-5234-4AC0-805C-20C53B43FDB4	tr770.switzerlandnorth1-a.worker.database.windows.net	DB00000F	sqlserver	process_login_finish
2023-03-08 08:54:54.8724571	40613	127					B859B097-5234-4AC0-805C-20C53B43FDB4	tr770.switzerlandnorth1-a.worker.database.windows.net	DB00000F	sqlserver	process_login_finish
2023-03-08 08:46:33.9510835	40613	127					993DCDBF-3EF6-4D53-AC6D-30A78984F4B4	tr543.switzerlandnorth1-a.worker.database.windows.net	DB9	sqlserver	process_login_finish
2023-03-08 07:54:56.9012418	40613	127					F3B05940-61F4-4499-B134-941241A0024D	tr543.switzerlandnorth1-a.worker.database.windows.net	DB3	sqlserver	process_login_finish
2023-03-08 07:53:54.9022436	40613	127					6B15B5F4-2197-4687-A500-FB884F68B3C0	tr770.switzerlandnorth1-a.worker.database.windows.net	DB00000F	sqlserver	process_login_finish
2023-03-08 07:13:34.1865730	40613	127					2F4192D6-198A-442E-90C9-587DDE0566A2	tr744.switzerlandnorth1-a.worker.database.windows.net	DB00000U	sqlserver	process_login_finish
2023-03-08 07:10:55.8754794	40613	127					1E07671A-3C42-412C-A42A-DFDEDD3A76CF	tr744.switzerlandnorth1-a.worker.database.windows.net	DB000019	sqlserver	process_login_finish
2023-03-08 06:46:18.4377978	40613	127					5CC010FA-9C9D-47B3-B4CB-855DF4D32542	tr111.switzerlandwest1-a.worker.database.windows.net	DB00000O	sqlserver	process_login_finish

XTS

Utilise XTS to check resource state and Replica health (Sterling servers and databases.xts view or Database replicas.xts view specifically for replica information)



IcM

For many Availability related cases, we can often utilise IcM by searching with the Server Name, Database Name or Subscription ID and find Live Site Incidents (LSI) related to it. If you later need to raise a CRI, any LSI can be referenced in the incident.

Mitigation

Depending on the outcome of your investigation, Availability related cases typically progress in one of two ways;

1. The Availability issues have self-resolved/are no long impacting and the customer requests an RCA. For transient issues where the downtime was what we consider 'reasonable' (~60 seconds or less), we have the below RCA Template that can be shared with the customer. **Note** use your own judgement or consult with

a xEE/TA when considering sharing the pre-canned RCA. Whilst this can be acceptable for some customers (for example, if the downtime was a single occurrence and lasted a few seconds), it may not be suitable for other scenarios where there has been multiple events causing prolonged downtime.
For the latter scenario, please raise an IcM to the Availability PG team, requesting an RCA.

2. The Availability issue is on-going and requires further investigation by opening an IcM to Availability PG team for manual mitigation.

RCA Template

USE THIS TEMPLATE IN ACCORDANCE WITH THE CUSTOMER SITUATION/EXPERIENCE. CONSULT WITH xEE or TA BEFOREHAND IF NEEDED

Summary of Impact Between <Starttime> and <EndTime*> Database <Database Name> on Server <Servername> was not reachable, and this unavailability errors (40613) you reported were due to an <Planned/Unplanned> failover.

Root cause The Azure infrastructure has the ability to dynamically reconfigure servers for planned operations (such as load balancing and updates), or unplanned occurrences (such as recoveries from software or hardware issues). In this instance, the reconfiguration was due to unplanned operation(s). Most reconfiguration events take less than 60 seconds to complete. This relates to long recovery of transactions that were running on the database at the time of the reconfiguration.

Mitigation Most of the reconfigurations are transient in nature and can be seamlessly handled by applying retry logics to your application. Azure SQL Databases need to maintain transactional consistency, transactions that are in flight during this operation will need to roll back and, if large in size, can take a longer time to complete. Implementing best practices such as batching transactions to smaller sizes will result in less recovery time when these reconfiguration operations occur.

Recommended next steps Building resiliency into your application to account for these situations can help create transparency to the end user when these transient scenarios occur. For information about connectivity in Azure SQL DB, how to implement retry logic, and to understand common errors in Azure SQL DB, please refer to this article on Database connection errors .

Our product team is continually working to minimize these situations and their impact to your database availability.

Classification

Root Cause: Azure SQL DB v2\Availability\Unplanned Failovers

How good have you found this content?