Error 40613, State 4

Last updated by | Vitor Pombeiro | Feb 17, 2022 at 3:42 AM PST

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Issue

This indicates customer experiencing unavailability due to one or more reasons depending on the lookup state and lookup error code.

State 4 Lookup Code and States

LookupError Code	Lookup State	Potential Cause and Next Steps
E_PATH_NOT_FOUND (2147942403)	SERVICE_ENDPOINT	- This error indicates that WinFab stopped advertising where the PRIMARY is to the CR. 1) Check state of the replica in the backend using [Database Replicas.xts] view. 2) If the view indicates that the database has issues, please engage SQL HA & Networking (High Pri) On-Call. 3) Look for additional Error Anomaly Detection alerts. 4) Potential causes of this issue are SQL Error 9004. 5) Provide the physical_database_id in the alert email
FABRIC_E_SERVICE_DOES_NOT_EXIST	INSTANCE_ALIAS	1) This error indicates that the target database does not exist in this cluster, winfab does not have knowledge of this database. 2) This is not an availability issue - most likely indicates that the customer intentionally has dropped its database and kept login-in by mistake. Please wait until login stops and resolve this incident as No Repro.
FABRIC_E_TIMEOUT Or FABRIC_E_SERVICE_OFFLINE	DATABASE_ALIAS	This error usually comes accompanied with several: 1) 2147500036 (E_ABORT) - LOGICAL_MASTER_ALIAS 2) 2147500036 (E_ABORT) - DATABASE_ALIAS **Update**:*If SqlAliasCache improvement has been completed in the cluster, this might be an issue with the SqlAlias DB. Please check SqlAliasCache XTS.* **Cause** : This error indicates that potentially the Windows Fabric Naming Service is not resolving the requests timely. Please check the

LookupError Code	Lookup State	Potential Cause and Next Steps
		health of Naming Service on Winfab Explorer. If it is unhealthy, engage WinFab on-call to unblock it
E_ABORT (2147500036)	SERVICE_ENDPOINT	This is a transient error that may be getting cached unnecessarily. Commonly accompanied by flaky (but not completely failing) login telemetry since the cache gets filled with these transient errors. Recycling the gateway node should fix the caching issue. (fixed in changeset 663711)
FABRIC_E_SERVICE_OFFLINE Or FABRIC_E_REPLICA_DOES_NOT_EXIST	Instance Alias	This error indicates that there is no Primary endpoint for the given database in the BE. Check BE health, might be a LRR. Engage HA for further steps.
E_PATH_NOT_FOUND (E2147942413)	Activate Database	Database is in Disabled State ***Note : This is not Availability Issue***

Using Kusto

```
MonLogin
| where logical_server_name =~ '{ServerName}'
| where event == 'process_login_finish'
| where error <> 0
| project originalEventTimestamp , database_name , AppName , MachineName , package , event, error , state, is_
```

Sample Result

originalEventTimestamp database_name AppName MachineName package event error state is_user_error peer_address login_time_ms connection_id peer_activity_id lookup_error_code lookup_state

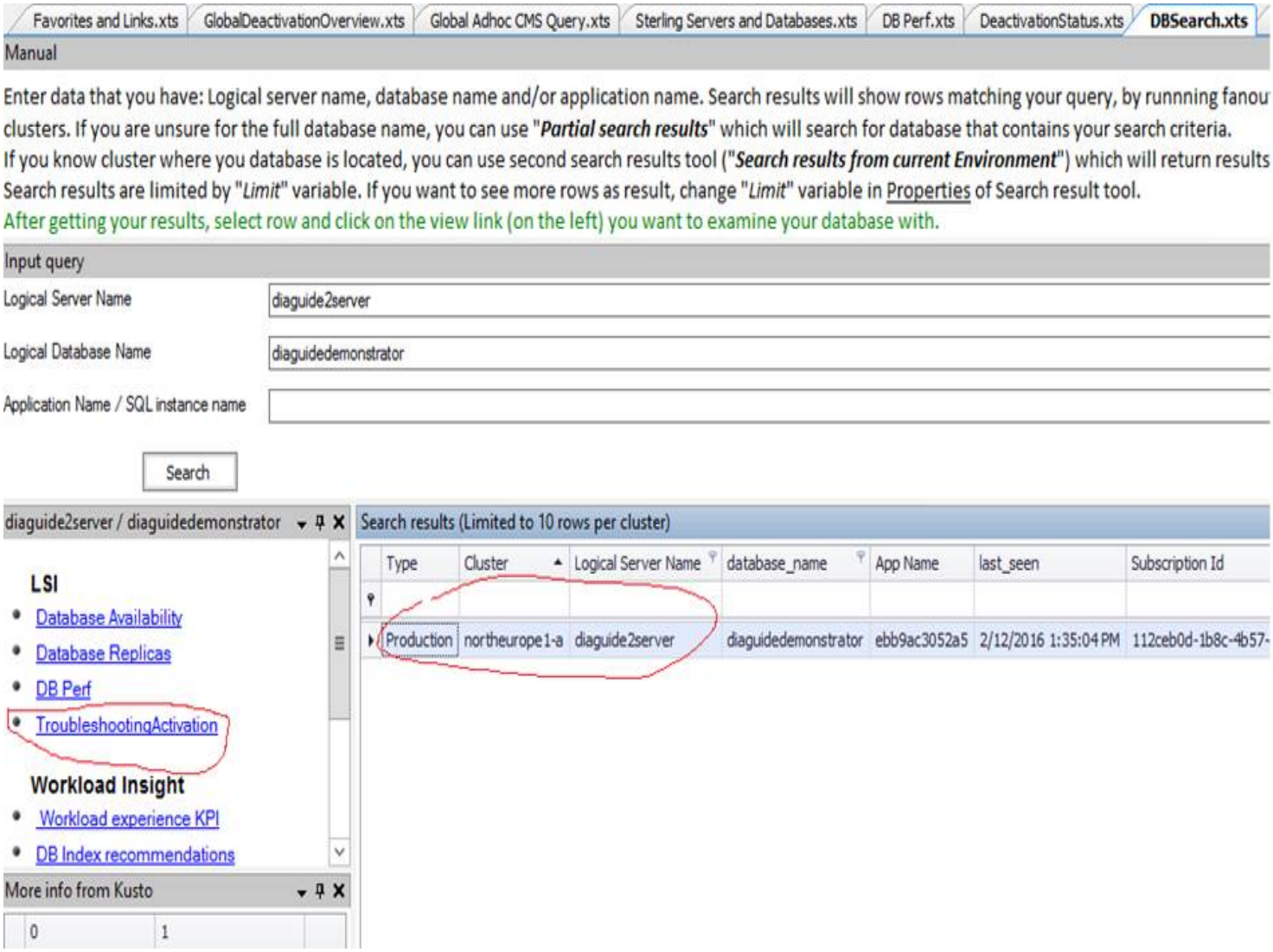
2016-01-20 13:56:39.6182013 LearnStyle.MISA.granderie Gateway GW33 xdbgateway process_login_finish 40613 4 0 104.45.154.xxx 0 046432B3-81C7-4FE2-868C-22EFBCDF7A5A B2411386-73DA-456E-AF09-3469C31860EB 2147942413 ACTIVATE_DATABASE

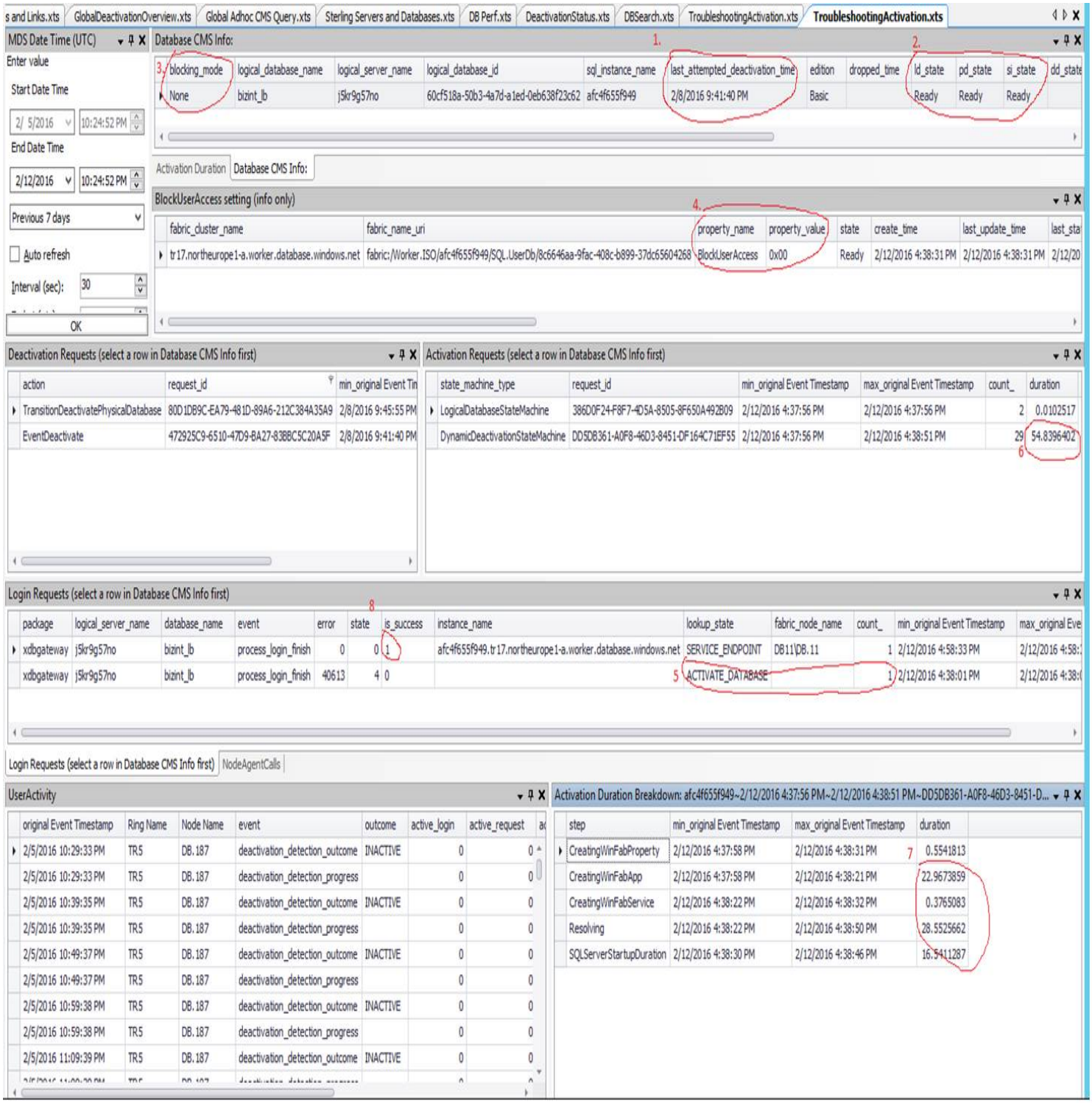
In this case, it was due to the performance team disabling databases (unmounting the mdf) that are idle and have no activity for 7 days. If the connection fails with this error, it is because the database is being activated after the first login attempt is made which fires up the instance of the database. This can take upwards of a minute at times and **should be treated as a standard reconfiguration** and thus retry logic is still applicable.

Another error code that was seen for this same state is 2147943860

How to look at details of activation

Start with **DbSearch.xts** and click on Troubleshooting Activation

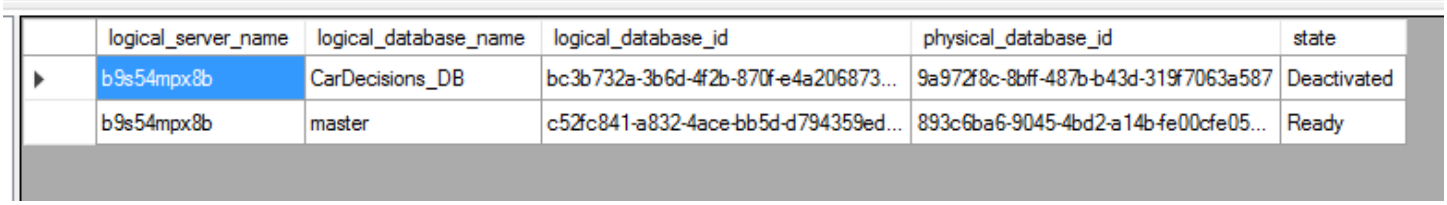




Using CMS Query to confirm (requires XTS access)

From XTS, select customer server cluster and right click to access httpquery tool and change to CMS database and run below query to get physical_database_Id,

select ld.logical_server_name, ld.logical_database_name, ld.logical_database_id, pd.physical_database_id, pd.state from (select * from logical_databases where logical_server_name = 'b9s54mpx8b') ld inner join (select * from sql_physical_databases where logical_server_name = 'b9s54mpx8b') pd on pd.logical_database_id = ld.logical_database_id



	logical_server_name	logical_database_name	logical_database_id	physical_database_id	state
▶	b9s54mpx8b	CarDecisions_DB	bc3b732a-3b6d-4f2b-870f-e4a206873...	9a972f8c-8bff-487b-b43d-319f7063a587	Deactivated
	b9s54mpx8b	master	c52fc841-a832-4ace-bb5d-d794359ed...	893c6ba6-9045-4bd2-a14b-fe00cfe05...	Ready

Screen clipping taken: 5/31/2016 2:16 PM

Using physical_database_Id - 9a972f8c-8bff-487b-b43d-319f7063a587 with that ID you can check details on deactivation with below kusto query

MonDmUserActivityDetection | where physical_database_guid == "9a972f8c-8bff-487b-b43d-319f7063a587" | project originalEventTimestamp , event , duration_min , outcome

RCA Template

Summary of Impact - Between <*Starttime*> and <*EndTime*> Database <*Database Name*> on Server <Server name> was not reachable, and this unavailability errors (40613) you reported were caused by our load balancing mechanism.

Root cause - The load balancer tracks workload resource usage and optimizes for frequently accesses databases. As a result, less frequent access DBs (inactive database) are moved more often, which can result in occasional brief unavailability. It implies that gateway is trying to perform lookup as part of login process to a database that's being activated.

Mitigation And in general refreshing the database node in SSMS and Retry Logic in application will make this as transparent.

Recommendations While we work hard on reducing the unavailability, we recommend you implement retry logic in your application to resolve the issue

Classification

Root Cause tree : Azure SQL DB v2\Availability\Unplanned Failovers\Other
SAP ID - 278a9b19-4bb9-af84-f8b6-ec40601d9a5e

How good have you found this content?