

# Query timeout due to service tier upgrade error 40549

Last updated by | Vitor Tomaz | Feb 24, 2023 at 3:28 AM PST

## Contents

- [Issue](#)
- [Investigation/Analysis](#)
- [RCA Template](#)
- [Internal reference](#)

## Issue

Customer reported that the following error has occurred few minutes after his job started:

### Error:

[Microsoft][ODBC Driver 17 for SQL Server][SQL Server]The service has encountered an error processing your request. Please try again. Error code 40549.

## Investigation/Analysis

Error 40549 is reported when a session is terminated because you have a long-running transaction. this can be confirmed using:

```
select * from sys.messages where message_id = 40549;
```

Results		Messages			
	message_id	language_id	severity	is_event_logged	text
1	40549	1033	16	0	Session is terminated because you have a long running transaction. Try shortening your transaction.

In rare cases, this error will be reported, but the transaction would be running for just a few minutes, the kill reason in these such rare cases might be a service tier upgrade that interrupted the query and disconnected the session. although it's not entirely accurate but it still would be reported, which may cause a confusion for the customers.

The product team has identified this behavior, a repair item has been created for making the required changes to raise a more accurate error, indicating that a session was terminated because of an SLO change.

You can confirm if the session was killed because of an SLO upgrade by the time that the session/batch took before it was killed using the query below. Also, please pay attention to the kill reason, it would be **'SqlWatchdogTooManyRequests'**:

```

let servername= "srv";
let databasename= "DB";
let starttime= datetime(2023-02-12 00:00:00);
let endtime= datetime(2023-02-12 16:00:00);
MonLogin
| filter LogicalServerName=~ servername or logical_server_name == servername
| filter database_name=~ databasename
| filter originalEventTimestamp>= starttime and originalEventTimestamp <= endtime
//| where event == "process_login_finish"
| where error == "40549"
| project AppName,connection_id,session_id,originalEventTimestamp, lookup_error_code, lookup_error_state,
| order by originalEventTimestamp asc

```

peer_address	error	state	killed	kill_reason	session_elapsed_time_ms	batch_state
92.253.29.x	40549	1		SqlWatchdogTooManyRequests	368712	Running

You then can confirm if there was a planned upgrade using this query:

```

let TimeCheckStart = datetime('2023-01-05 06:12:00');
let TimeCheckEnd = datetime('2023-02-15 06:12:00');
let servername= "srv";
let databasename= "DB";
SqlFailovers
| where FailoverStartTime >= TimeCheckStart and FailoverEndTime <= TimeCheckEnd
| where logical_server_name =~ servername
| where logical_database_name =~ databasename
| project FailoverStartTime, FailoverEndTime, durationSeconds = round((FailoverEndTime - FailoverStartTim
| order by FailoverStartTime asc

```

NewPrimary	OldPrimary	ReconfigurationType	CRMAction
_DB_32	_DB_19	SwapPrimary	Upgrade

This behavior can reproduced easily by running a long transaction and upgrading the SLO at the same time, the following error will be reported:

Messages
Msg 40197, Level 20, State 1, Line 4 The service has encountered an error processing your request. Please try again. Error code 40549.
Msg 0, Level 20, State 0, Line 3 A severe error occurred on the current command. The results, if any, should be discarded.
Completion time: 2023-02-12T19:04:04.7728974+03:00

## RCA Template

When NodeAgent performs an SLO upgrade, it kills sessions with active transactions that have been running longer than a threshold, and provides a kill reason. The currently provided kill reason ultimately leads to a 40549 error being raised, with a message indicating that a session was killed because it had a long-running transaction.

The product team will be making the required changes to raise a more accurate error, indicating that a session was terminated because of an SLO change.

## Internal reference

ICM: [344341818](#) 

Work Item: [Create new ESessionKillReason for use during SLO change by NodeAgent](#) 

## How good have you found this content?



-