

## SQL SERVER TROUBLESHOOTING CHECKLIST

Instance Name: \_\_\_\_\_

Performed by: \_\_\_\_\_

Date: \_\_\_\_\_

### 1. Can You Connect?

Connect to the SQL Server and run:

```
SELECT * FROM sys.Databases
```

Check returned columns for expected values, especially user\_access\_desc, state\_desc, and log\_reuse\_wait.

- Connected successfully?
- Anything notable in returned columns? \_\_\_\_\_

Connect with the dedicated admin connection if necessary: <http://BrentOzar.com/go/DAC>

### 2. Who is active?

Don't stop to figure everything out, first gather a few key pieces of information using Adam Machanic's sp\_whoisactive stored procedure:

```
EXEC master.dbo.sp_whoisactive
```

- Did you run this successfully?
- How many rows did it return? \_\_\_\_\_
- Was blocking present? (See the blocking\_session\_id column) \_\_\_\_\_

More info: <http://BrentOzar.com/go/active>

### 3. What's in the SQL Server Error Log?

Check with SQL Server Management Studio using 'Management' → 'SQL Server Logs'.

Alternately, query the log with this command:

```
EXEC xp_readerrorlog @p1=1 /*Error Log Number*/,  
@p2=1 /*Error Log Type- 1= SQL Server*/
```

Check all logs since at least the last startup and just prior. (Use @p1=2, @p1=3, etc to access prior logs.)

- Are there any recent errors/login failures recorded? \_\_\_\_\_
- When was the last startup date and time? \_\_\_\_\_
- Was the last restart part of planned maintenance? \_\_\_\_\_



## 4. What's your Quick Assessment?

Check all which appear to be involved:

• Access failure (security related):

• Availability loss (multiple reboots):

• Performance problem:

• Notes: \_\_\_\_\_

Is this an access failure? Verify if this is a security issue, a network issue, an application tier problem, etc.

*Otherwise keep on goin'.*

## 5. What's the Windows Event Log Got to Say?

Are there events in the windows logs at the same time or just before the problem periods?

• System log: \_\_\_\_\_

• Application log: \_\_\_\_\_

• Security log: \_\_\_\_\_

Remember, particularly in the system log, informational events may help explain errors you're seeing. Don't filter for errors *all* the time.

*This step can be time consuming. If you have someone who can help, divide and conquer: ask them to look through the event logs and summarize them.*

## 6. Capture SQL Server Activity to a Table

Run sp\_whoisactive in a loop to log activity to a table. This gathers data while you keep looking.

• Activity is being captured to the database and table named: \_\_\_\_\_

More info: <http://BrentOzar.com/go/activehistory>

## 7. SQL Server Overall Waits

Run a query to find the top three SQL Server waits in sys.dm\_os\_wait\_stats by percent since the last restart:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Other waits of interest are:

- \_\_\_\_\_

Many waits reported are ignorable. How do you know which you can skip? Get a solid query for sys.dm\_os\_wait\_stats for your version of SQL from Glenn Berry: <http://BrentOzar.com/go/glenn>

Once you open the file search for 'os\_wait'.

## 8. Review Performance Counters

Look at performance counters (and, ideally, their history) to identify system performance patterns and problems.

- Performance counters checked?
- Notable counter info : \_\_\_\_\_

More info: <http://BrentOzar.com/go/perfmon>

## 9. Make Notes by Major Areas

- CPU: \_\_\_\_\_
- Memory: \_\_\_\_\_
- Network: \_\_\_\_\_
- Disk: \_\_\_\_\_

## 10. Identify Recent changes

Have there been recent changes in these areas?

- Query Changes
  - Application Tier: \_\_\_\_\_
  - Stored procedures: \_\_\_\_\_
- Schema changes: \_\_\_\_\_
- Index changes: \_\_\_\_\_
- Major data changes: \_\_\_\_\_
- Infrastructure changes
  - Maintenance changes: \_\_\_\_\_
  - SQL Configuration changes: \_\_\_\_\_
  - Windows Configuration changes: \_\_\_\_\_

## Notes

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## References:

- Adam Machanic ([blog](#) | [twitter](#)) created sp\_whoisactive. We think it's great and like to help you use it.
- Glenn Berry ([blog](#) | [twitter](#)) publishes great queries for DMVs. We like to help you get to them [here](#).