

# Performance Monitor for Oracle

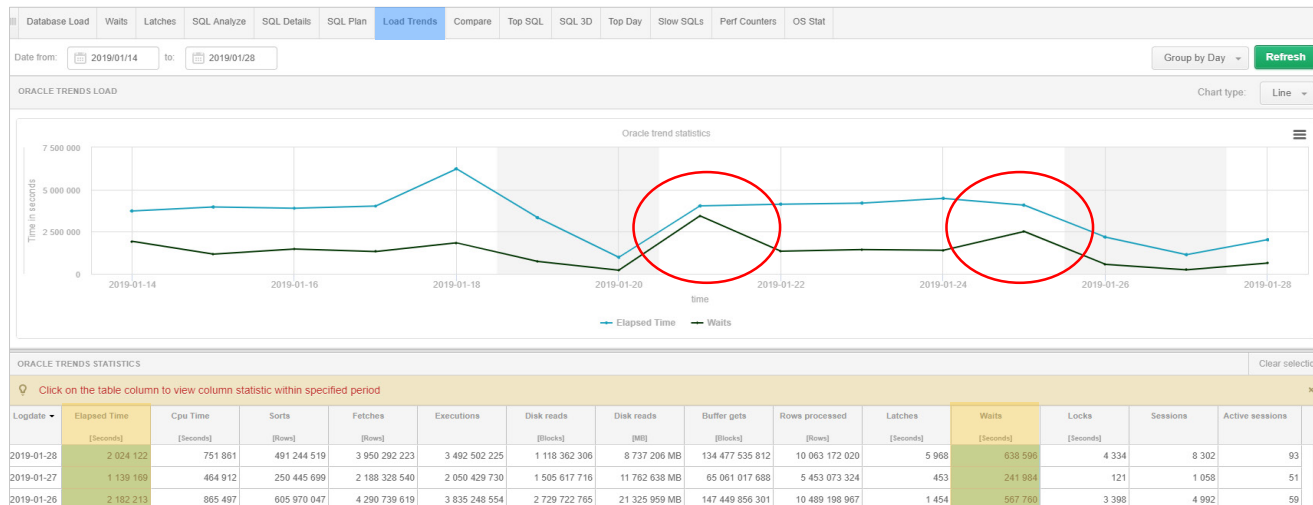
## Wait – TCP Socket KGAS

# Identification of the problem

Checking the problem of a high Waits level in the database starts in the **Load Trends** tab.

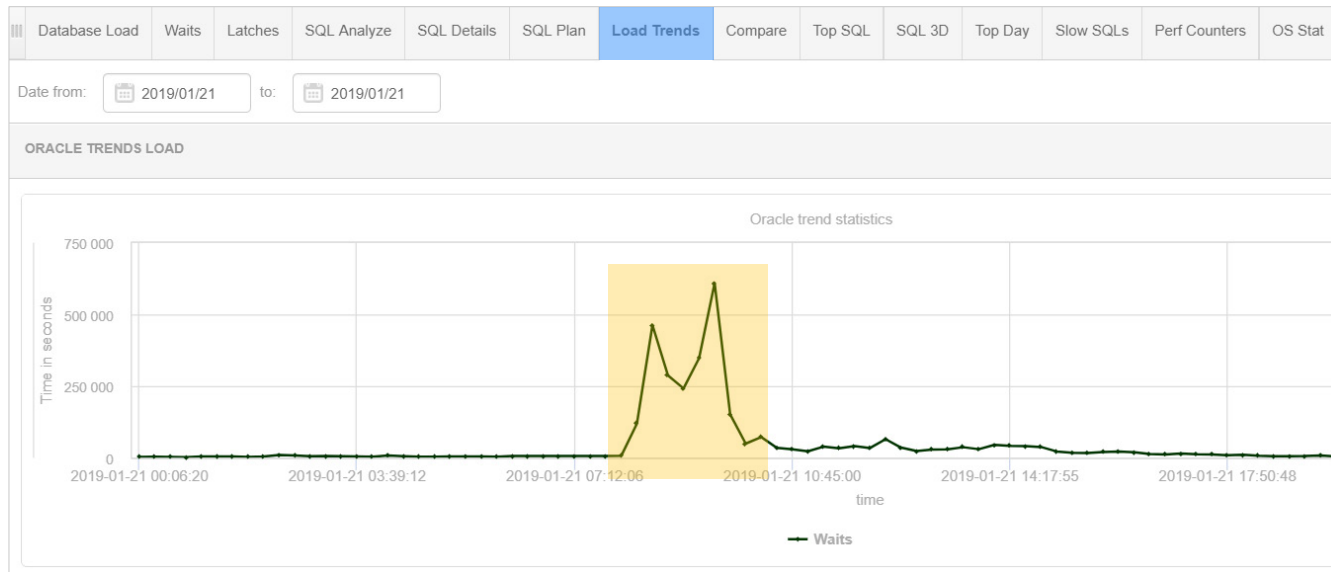
In order to analyse it, choose the performance statistics of **Elapsed Time** and **Waits**.

Search for a period with a high level of **Waits**.



# Identification of the problem

Verify in detail the period in which a high wait level occurred (**samples every 15 minutes**) (2019.01.21 7:57 - 9:28)

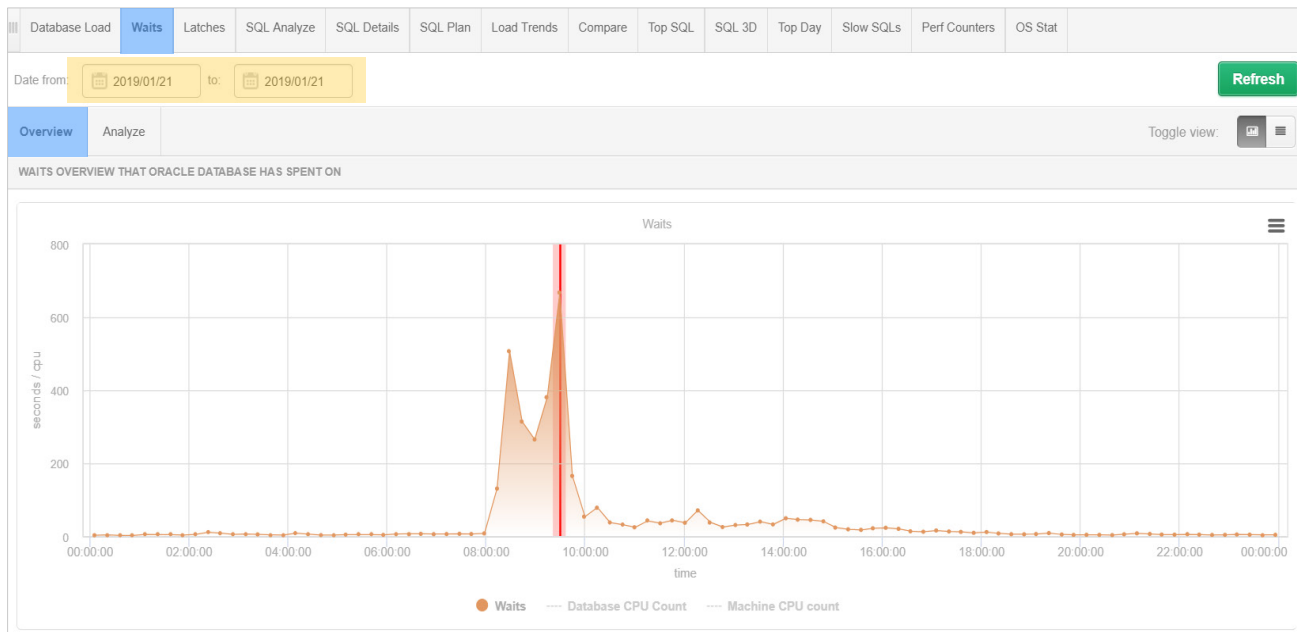


# Waits

For further analysis, go to the **Waits** tab.

Choose the **period** (2019.01.21) for which the problem was diagnosed.

By indicating a point on the graph with a high **wait** level, we get information about the type of wait in a given **snaps**.



# Waits

The table on the left shows the level of waits for the **entire period** visible on the chart.

The table on the right shows the wait level for the **indicated point** on the chart.

In the example in question, the main problem is the Wait of the following type: **TCP Socket (KGAS)**



# Sessions history

For further analysis, go to the session history screen: **Sessions / Sort / Undo history**.

Choose the period in which a high level of **TCP Socket (KGAS)** waits occurred.

Limit the search for sessions for which the requested wait occurred.

Session / Sort / Undo history

From: 2019/01/21 08:00 to: 2019/01/21 09:40 Using Hash Value/Sql Id: Enter hash value or sql id Username: Enter username Sid: Refresh

Hide additional filters

Performance Waits

Search by name ...

Streams AQ: qmn coordinator waiting for sl  
undo segment extension  
utl\_file I/O  
wait for EMON to spawn  
wait list latch free  
write complete waits

Waits selected to filtering

TCP Socket (KGAS)

Machine: Enter machine name  
Module: Enter module name

SESSION / SORT / UNDO HISTORY

Toggle view: [Table icon] [List icon]

Logdate	Active Sessions	Sessions using Sort	Sort Space Used [MB]	Sessions using Undo	Record Count in Undo	Undo Space Used [MB]	
2019-01-28 00:00:08	59	310	523 MB	35	3098705	327 MB	
2019-01-28 00:01:20	62	313	554 MB	38	1856457	198 MB	
2019-01-28 00:02:21	53	310	650 MB	33	2763848	293 MB	
2019-01-28 00:03:23	56	313	829 MB	34	1139576	124 MB	
2019-01-28 00:04:25	58	309	1 228 MB	38	4884367	515 MB	
2019-01-28 00:05:29	58	309	1 732 MB	40	3341386	355 MB	
2019-01-28 00:06:34	55	309	2 155 MB	37	1553114	169 MB	
2019-01-28 00:07:36	47	316	2 622 MB	32	1373060	149 MB	

# Sessions history

As a result of the search, we receive a **list of sessions** in which the waiting occurred.

Using the **[+] Add to query hash value list** button, add queries to the **clipboard** for further analysis.

Sessions	Sort	Undo										
Logdate	Sid	Serial#	Hash Value ▼	User	Active Time [Seconds]	Schema	OS User	Machine	Program	Module	Wait	Blocking session
2019-01-21 09:38:20	14507	1137	1173391614	ENTER	2	ENTER	oracle	u3gaja	oracle@u3gaja (.	Safo->OeBS	TCP Socket (KG	0
2019-01-21 09:38:20	36620	589	1173391614	ENTER	10	ENTER	oracle	u3gaja	oracle@u3gaja (.	Safo->OeBS	TCP Socket (KG	0
2019-01-21 09:38:20	41530	7315	1173391614	ENTER	2	ENTER	oracle	u3gaja	oracle@u3gaja (.	Safo->OeBS	TCP Socket (KG	0
2019-01-21 09:38:20	43917	1883	1173391614	ENTER	11	ENTER	oracle	u3gaja	oracle@u3gaja (.	Safo->OeBS	TCP Socket (KG	0
2019-01-21 09:38:20	44703	3175	1173391614	ENTER	4	ENTER	oracle	u3gaja	oracle@u3gaja (.	Safo->OeBS	TCP Socket (KG	0
2019-01-21 09:39:28	26223	2331	1173391614	+	1	ENTER	oracle	u3gaja	oracle@u3gaja (.	Safo->OeBS	TCP Socket (KG	0
2019-01-21 09:32:25	27140	2217	1002464200	Query: 1173391614	3	ENTER	oracle	u3gaja	w3wp.exe	w3wp.exe	TCP Socket (KG	0
2019-01-21 08:30:40	1405	857	962532483	View sql details	7	ENTER	oracle	u3gaja		SAFO2000	TCP Socket (KG	0
2019-01-21 08:36:11	1405	857	962532483	Add to query hash value list	7	ENTER	oracle	u3gaja		SAFO2000	TCP Socket (KG	0
2019-01-21 09:01:17	1405	857	962532483	ENTER	86	ENTER	oracle	u3gaja		SAFO2000	TCP Socket (KG	0
2019-01-21 09:02:24	1405	857	962532483	ENTER	144	ENTER	oracle	u3gaja		SAFO2000	TCP Socket (KG	0
2019-01-21 09:22:07	41622	323	962532483	ENTER	66	ENTER	oracle	u3gaja		SAFO2000	TCP Socket (KG	0
2019-01-21 09:33:48	27415	835	962532483	ENTER	6	ENTER	oracle	u3gaja		SAFO2000	TCP Socket (KG	0
2019-01-21 08:23:44	28610	633	730694278	ENTER	6	ENTER	oracle	u3gaja	w3wp.exe	w3wp.exe	TCP Socket (KG	0

# SQL Details

Using the clipboard, proceed to the analysis of queries on the **SQL Details** screen.

In the example in question, each query contained a **call of a function** performed in **another** database, which **caused a** high waits level.

The screenshot displays the DBPLUS SQL Details interface. The top navigation bar includes tabs for Database Load, Waits, Latches, SQL Analyze, SQL Details (selected), SQL Plan, Load Trends, Compare, Top SQL, SQL 3D, Top Day, Slow SQLs, Perf Counters, and OS Stat. The main content area shows query details for hash 3196853440, including the statement text and SQL statistics. The statistics table shows four executions with varying elapsed times and CPU times. The execution plan at the bottom details the query structure, including table accesses and index scans.

Database Load Waits Latches SQL Analyze **SQL Details** SQL Plan Load Trends Compare Top SQL SQL 3D Top Day Slow SQLs Perf Counters OS Stat

3196853440 From: 2019/01/21 00:00 to: 2019/01/21 23:59 ☒ Group by plan hash  ☐ Online values

STATEMENT TEXT

```
select id, sp_lim.daj_ofe_pro(id) opi, sp_lim.daj_lim_ofe_pro_num(1,2,3,4,5,6,7,id,lim_id) war_lim, dat_w from ofe_d where id in (:SYS_B_0) order by dat_w desc
```

SQL STATISTICS (SQL ID: cye973kzs760) ☐ Show values per 1 executions

Date	Plan hash	Elapsed Time	Cpu Time	Rows processed	Fetches	Executions	Parse Calls	Disk Reads	Disk Reads	Buffers Get	Buffer Quality	Module	Outline category	Elapsed Time per 1 Exec
		[Seconds]	[Seconds]	[Rows]	[Rows]			[Blocks]	[MB]	[Blocks]	[%]			[Seconds]
2019-01-21 04:55:13	3021559751	3.9	0.3	1	1	1	1	5 175	40 MB	24 894	82.8	SAFO2000		3.8945
2019-01-21 07:12:06	3021559751	2.5	0.1	3	3	3	3	96	1 MB	6 151	98.5	SAFO2000		0.8416
2019-01-21 07:27:19	3021559751	7.9	0.6	2	2	2	2	234	2 MB	54 929	99.6	SAFO2000		3.9614
2019-01-21 07:42:31	3021559751	2.9	0.1	3	3	3	3	80	1 MB	5 906	98.7	SAFO2000		0.9647

Explain plan  3021559751

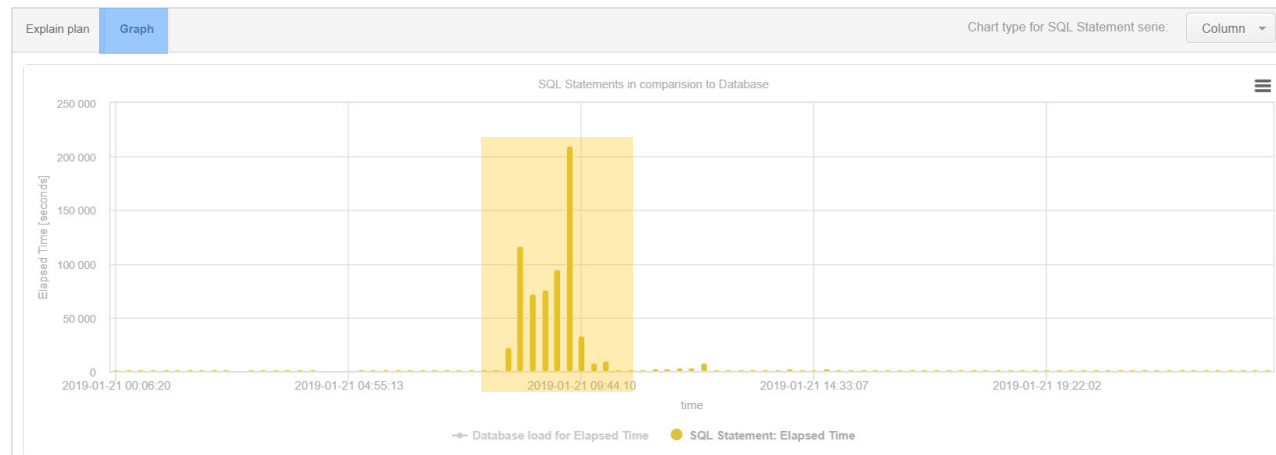
Show plan objects for 3021559751

```
SELECT STATEMENT ( Cost = 2, Bytes = 0, Cardinality = 0, Search Columns = 0 )
  TABLE ACCESS (BY INDEX ROWID) OFE_D ( Cost = 2, Bytes = 20, Cardinality = 1, Search Columns = 0 )
    INDEX (UNIQUE SCAN) OFE_D_PK ( Cost = 1, Bytes = 0, Cardinality = 1, Search Columns = 1 )
```



# SQL Details - Graph

During the occurrence of the problem, the duration of queries for a given snap increased from an average of **8 seconds** to over **200,000 seconds**.



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Thank you

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