

Allianz Insurance  
Valiant Towers  
Level 3A/B, 46/7,  
Nawam Mawatha,  
Colombo 02.



## ***Progress DB Diagnosis and the Report***

**Prepared For:** Allianz Insurance

**Prepared By:** ModularFour Solutions

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# Progress DB and the Application Point of View

We have done an analysis on Following Item on the Progress DB and the Application

## DB Point Of View

1. DB Hit Ratio
2. DB Buffer Ratio
3. Number of Lock Tables (SHARE LOCKS, DEAD LOCKS)

Event	Commits	Total	Per Sec	Event	Undos	Total	Per Sec
		1434389	4.5			33446	0.1
Record Updates		337290	1.0	Record Reads		2717137421	8433.5
Record Creates		142416	0.4	Record Deletes		37860	0.1
DB Writes		447253	1.4	DB Reads		43735873	135.7
BI Writes		87614	0.3	BI Reads		112918	0.4
AI Writes		0	0.0				
Record Locks		121326683	376.6	Record Waits		8	0.0
Checkpoints		769	0.0	Bufs Flushed		3994	0.0
Rec Lock Waits	0 %	BI Buf Waits	0 %	AI Buf Waits	0 %		
Writes by APW	98 %	Writes by BIW	55 %	Writes by AIW	0 %		
Buffer Hits	99 %	Primary Hits	99 %	Alternate Hits	0 %		
DB Size	79 GB	BI Size	5859 MB	AI Size	0 K		
FR chain		4243 blocks	RM chain		8 blocks		
Shared Memory	4238M	Segments	1				

Locking and Waiting:				
Type	Usr Name	Record	Trans	Schema
Lock	18 SYSTEM	0	0	0
Wait	18 SYSTEM	0	0	0
Lock	19 SYSTEM	0	0	0
Wait	19 SYSTEM	0	0	0
Lock	20 SYSTEM	0	0	0
Wait	20 SYSTEM	0	0	0
Lock	21 SYSTEM	0	0	0
Wait	21 SYSTEM	0	0	0
Lock	22 SYSTEM	0	0	0
Wait	22 SYSTEM	0	0	0
Lock	23 SYSTEM	0	0	0
Wait	23 SYSTEM	0	0	0
Lock	24 SYSTEM	0	0	0
Wait	24 SYSTEM	0	0	0
Lock	25 SYSTEM	0	0	0
Wait	25 SYSTEM	0	0	0
Lock	26 SYSTEM	0	0	0
Wait	26 SYSTEM	0	0	0
Lock	27 SYSTEM	0	0	0

Enter your selection: 1							
Record Locking Table:							
Usr Name	Chain #	Rowid	Table	Lock	Flags	Tran State	Tran ID
366 indrajit	REC 696	1829187	329 SHR			Dead	0
412 samadhia	REC 960	1738010	329 SHR			Dead	0
362 Punudud	REC 1217	13076816	464 EXCL			Active	186439018
392 hansikad	REC 1236	13116148	340 SHR			Dead	186437817
392 hansikad	REC 1284	13116196	340 EXCL	L		Active	186439761
177 annedi	REC 1513	31378589	250 SHR	L		Active	186387642
177 annedi	REC 1554	31378630	250 SHR	L		Active	186387642
362 Punudud	REC 1968	13703013	420 EXCL			Active	186439018
362 Punudud	REC 2036	7317067	249 EXCL			Active	186439018
362 Punudud	REC 2112	877074	259 EXCL	L		Active	186439018
503 hasthika	REC 2206	1451870	329 SHR			Begin	186436140
362 Punudud	REC 2263	877225	259 EXCL	L		Active	186439018
185 harshad	REC 2332	328691	216 SHR			Dead	0
330 praneeth	REC 2348	328707	216 SHR			Dead	0
281 Delshiya	REC 2348	328707	216 SHR			Dead	0
416 lakshila	REC 2360	328719	216 SHR			Dead	0
325 krishant	REC 2365	328724	216 SHR			Dead	0
314 Ayanthit	REC 2471	1817899	329 SHR			Dead	186386686
177 annedi	REC 2484	2523393	250 SHR	L		Active	186387642

```

Activity - Sampled at 07/22/16 10:59 for 0:00:33.

Event                Total    Per Sec    Event                Total    Per Sec
-----
Record Commits       523      15.8      Record Undos         4        0.1
Record Updates      201       6.1      Record Reads       260999    7909.1
Record Creates       66       2.0      Record Deletes      17       0.5
DB Writes           219       6.6      DB Reads            56       1.7
BI Writes            34       1.0      BI Reads             2        0.1
AI Writes            0         0.0      Record Waits         0         0.0
Record Locks        2038     61.8      Buffs Flushed        0         0.0
Checkpoints          0         0.0

Rec Lock Waits      0 %      BI Buf Waits         0 %      AI Buf Waits         0 %
Writes by APW      100 %      Writes by BIW        79 %      Writes by AIW        0 %
Buffer Hits        100 %      Primary Hits         100 %      Alternate Hits       0 %
DB Size            79 GB      BI Size              5859 MB      AI Size              0 K
FR chain           4243 blocks  RM chain             8 blocks
Shared Memory      4238M      Segments             1

42 Servers, 324 Users (0 Local, 324 Remote, 3 Batch), 3 Apws

```

```

User Control:
User Name    Type    Wait    Table    Dbkey    Trans    PID Sen Srv Login Time    IP# Remote Address
-----
487 admin    REMC/ABL --- 0
488 malitha  REMC/ABL --- 0
489 dilanigu REMC/ABL --- 0
490 nirosam  REMC/ABL --- 0
491 PrasadC  REMC/ABL --- 0
492 mokshyac REMC/ABL --- 0
493 allianzc REMC/ABL --- 0
494 dilruvan REMC/ABL --- 0
495 lahirud  REMC/ABL --- 0
496 Fayaza  REMC/ABL --- 0
497 OnlinePO REMC/AFSU --- 0
498 Prabal  REMC/ABL --- 0
499 annedi   REMC/ABL --- 0
500 lakshani REMC/ABL --- 0
501 glennyh  REMC/ABL --- 0
502 allianzc REMC/ABL --- 0
503 callqual REMC/ABL --- 0
504 prabathd REMC/ABL --- 0
505 tharanga REMC/ABL --- 0

```

## Application Point of View

1. WHOLE INDEX
2. DB Reads
3. INDEX USAGE

Other than few places rest of the application stat cannot be retrieved due to the Source Code Not Available but, we found that fairly slowness on some part of the application i.e.

[16/07/28@14:25:02.064+2300] P-003324 T-001044 3 4GL 4GLTRACE Return from DisplayPremium [insur\PolCancl.r]

[16/07/28@14:27:27.567+2300] P-003324 T-001044 2 4GL 4GLTRACE Run DisplayPremium [USER-INTERFACE-TRIGGER - insur\PolCancl.r @ 2117]

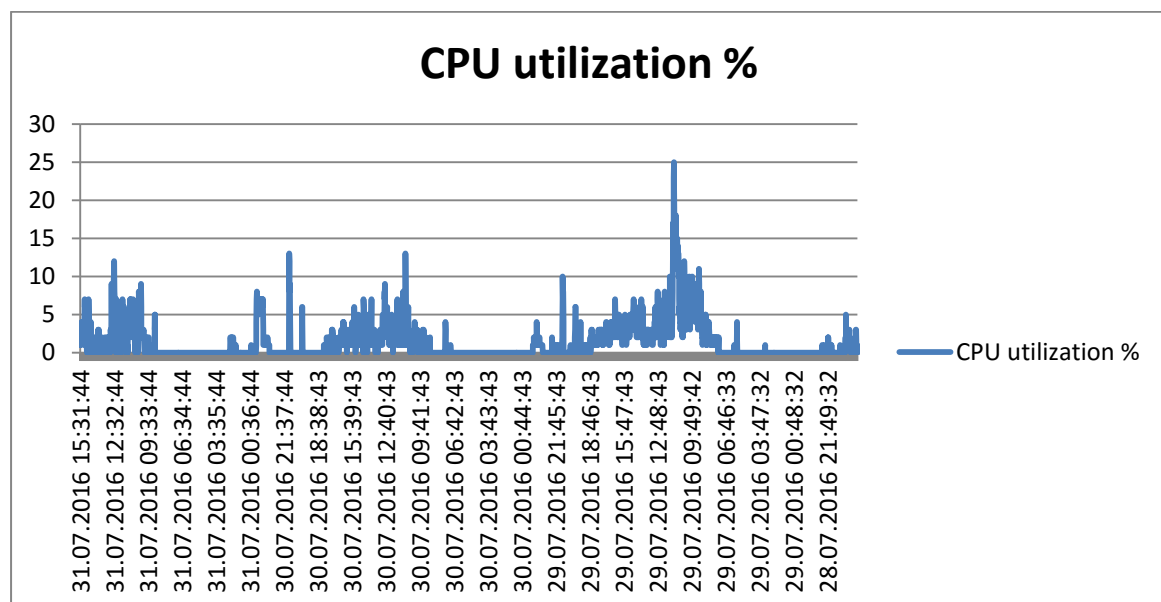
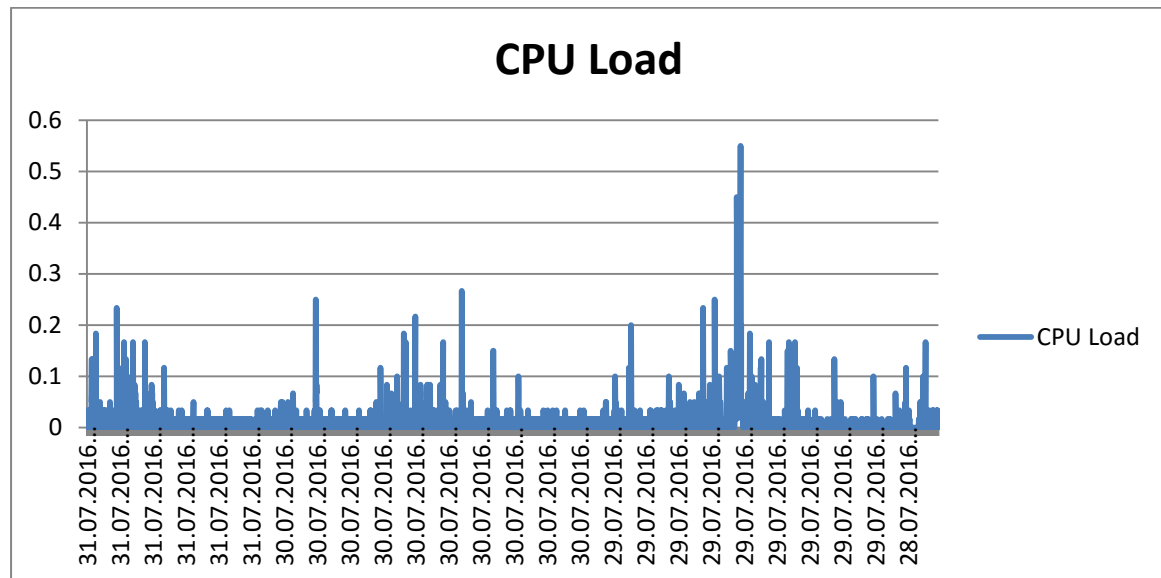
[16/07/28@14:35:57.116+2300] P-003324 T-001044 3 4GL 4GLTRACE Return from OnQueryChange [insur\PolCom.r]

[16/07/28@14:54:10.691+2300] P-003324 T-001044 2 4GL 4GLTRACE Run OnShowChange [USER-INTERFACE-TRIGGER - insur\PolCom.r @ 3751]

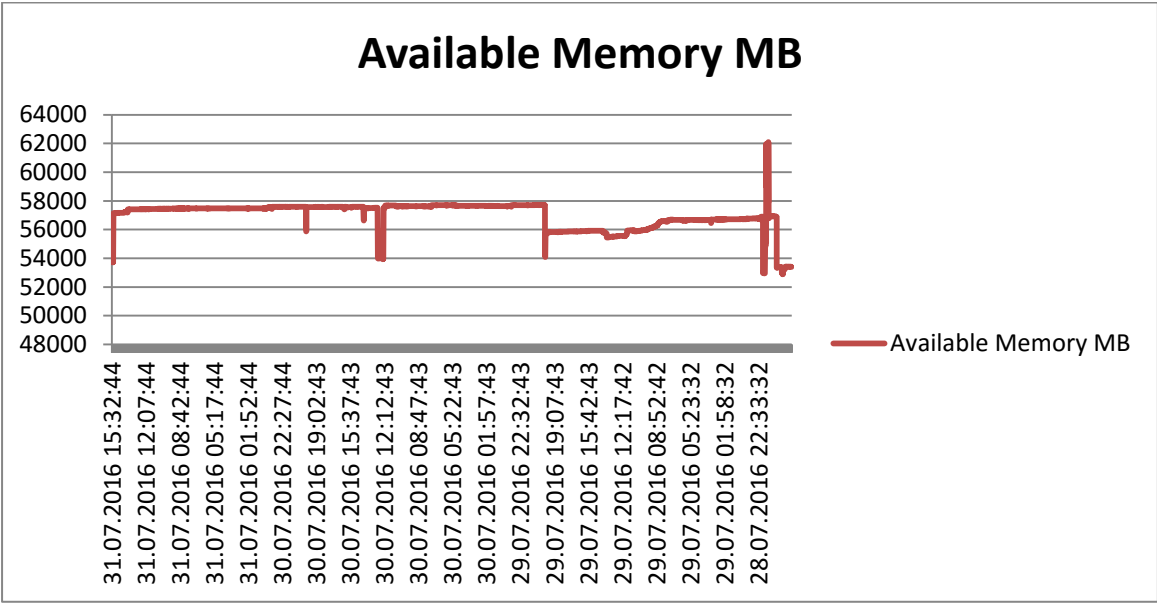
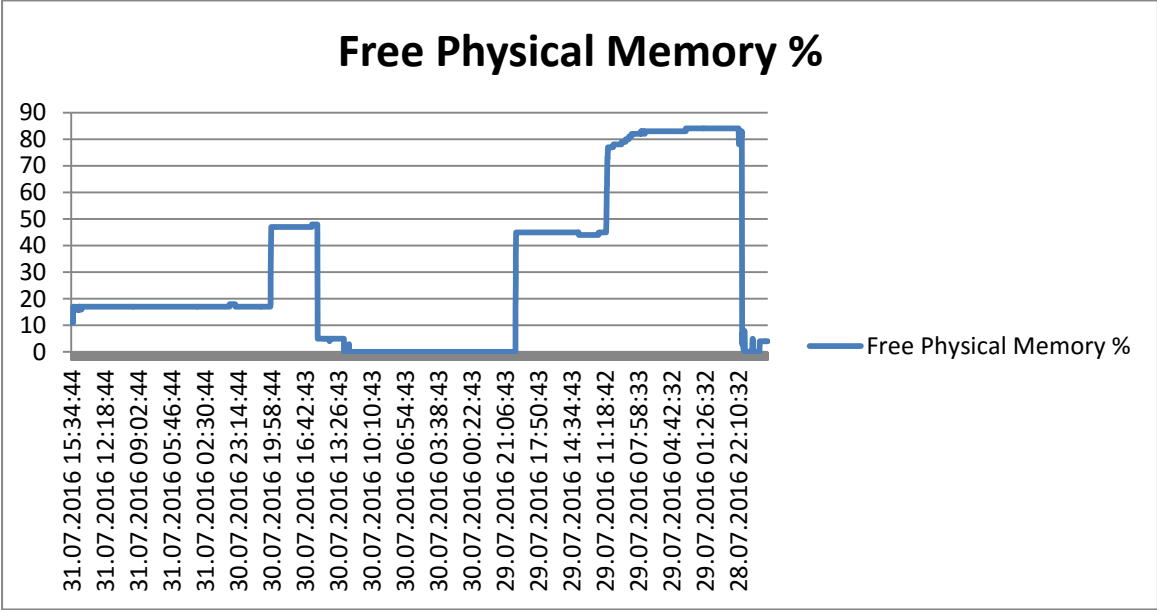
## DB Server Point of View

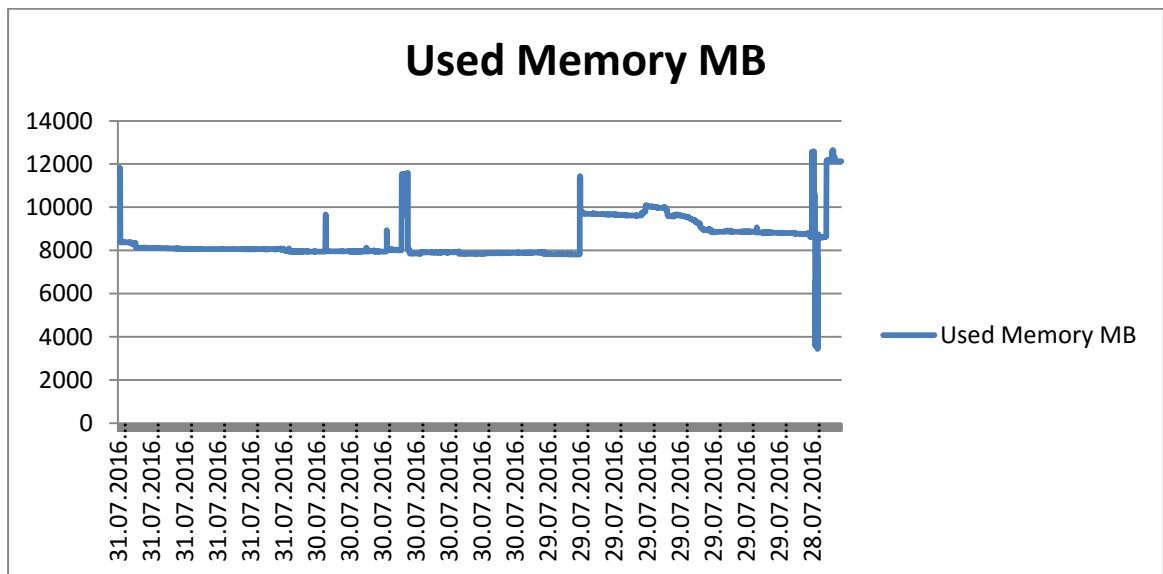
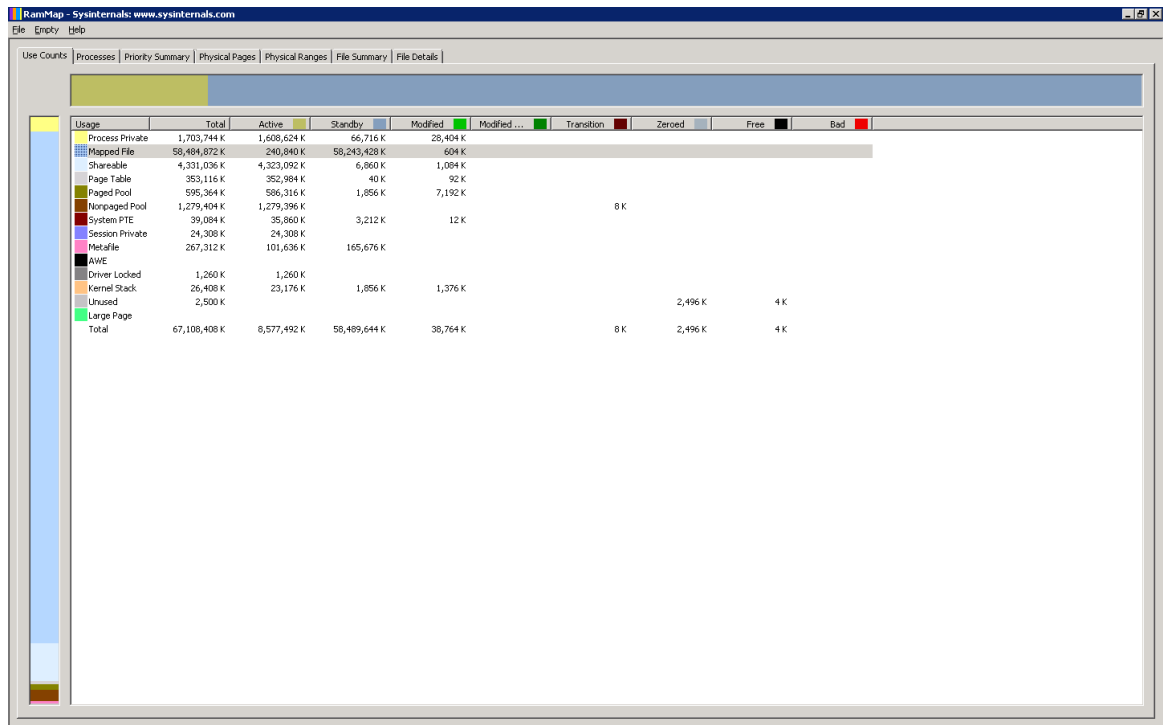
1. CPU Usage
2. Memory Usage
3. Network Usage

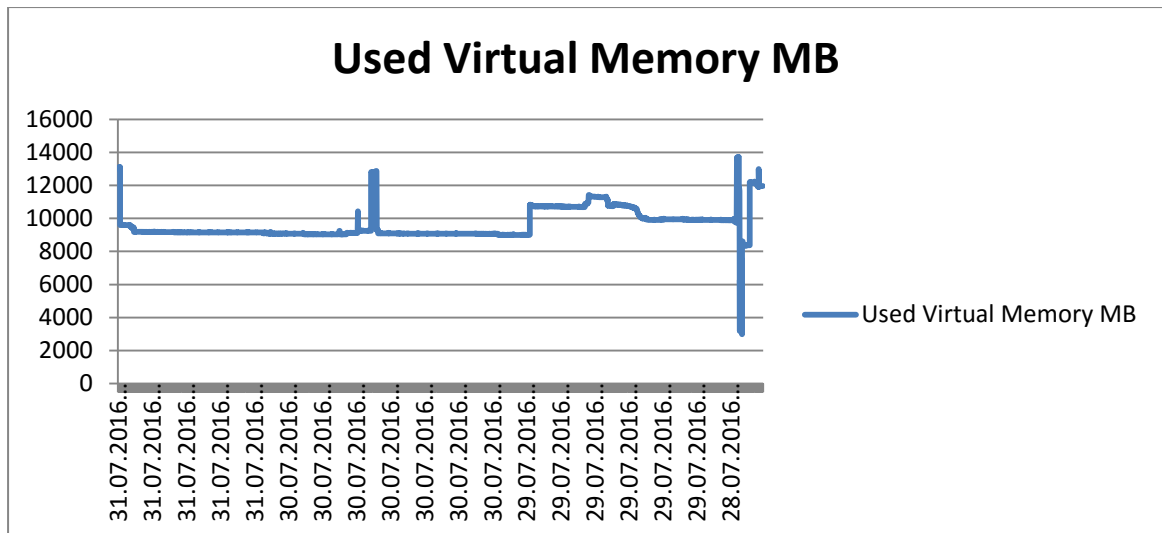
### CPU Usage



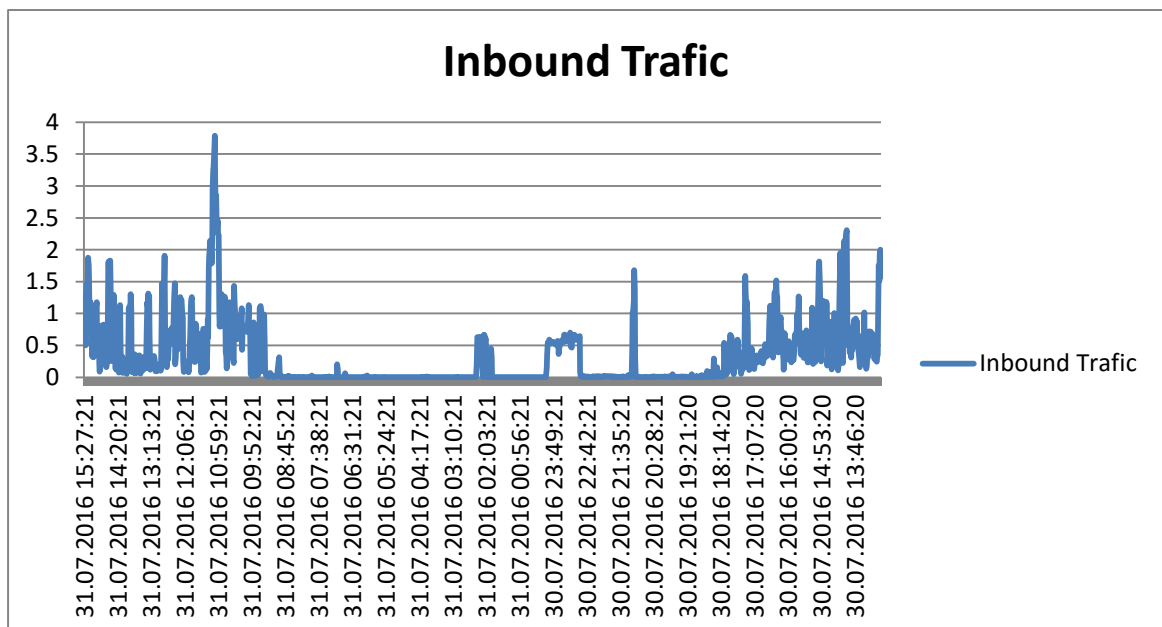
Memory Usage



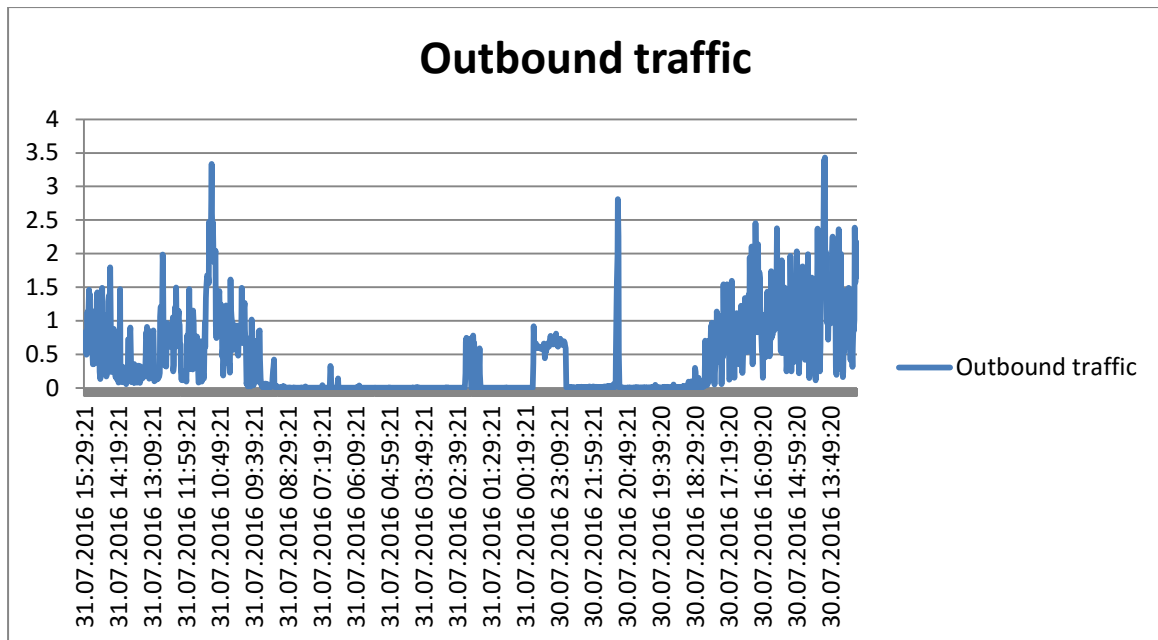




### Network Traffic







## Conclusion

Based on our 360 Analysis on the DB, Application and the Network, we found few aspects that we can re-look at and fix to improve performance on the DB and the Application

1. Every time after the Schedule online Pro Backup runs, the system seems to be experiencing a slowness and latency on response.
2. There were one instance that application server was pointed to low memory server and may be due to that Application could be late response.

3. We found that there is a compatibility issue with Windows 2008 R2 Server and the Progress 10.2B SP 5.

## Reference

<http://knowledgebase.progress.com/articles/Article/000014375>

<http://knowledgebase.progress.com/articles/Article/P167048?popup=true>

<http://www.microsoft.com/en-us/download/details.aspx?id=9258>

## Workaround

As a resolution for above mention drawbacks, we recommend following steps to be taken to improve the performance on the application.

1. Stop Online Schedule Probackup and Switch to Manual Offline Backup for a period of one month
2. Re-Start the DB Server Every Day Night
3. Re-Start the DB Server Before Month End

Further to improve Application Level and the DB Level Performance we need to get the DB Password and See some of the Key aspect as mention below.

1. DB Reads
2. Profiler etc...

## Contact Us

Mahinda Jayakody

072317666 / 0716825707

[mahinda@modular4.com](mailto:mahinda@modular4.com)

Web Site : [www.modular4.com](http://www.modular4.com)