



RCA Name IT Customer Complaints RCA
 Report Number 2012.67
 Report Date 4/2/2012
 RCA Owner Problem Manager

Root Cause Analysis Report

Problem Statement

Focal Point Customer Complaints

When

Start Date	3/5/2012	End Date	3/5/2012
Start Time	8:44am	End Time	2:31pm
Unique Timing	While database admin was on vacation		

Where

Location	Company website
System	Company IT infrastructure

Actual Impact

		Cost
Revenue	Estimated	1,500,000.00
Customer Service	Negative impact	
Other...	Negative publicity	
Actual Impact Total:		\$1,500,000.00

Frequency 2 times overall

Potential Impact

Revenue	Much more
Customer Service	Higher negative impact

Report Summaries

Cause and Effect Summary

On March 5, 2012 we received numerous complaints from customers about our website being down while they were attempting to use it. The website was down from approximately 8:44am to 2:31pm EST. The customers were unable to access the website because they were receiving "500" errors from our web server. "500" errors prevent users from accessing the website. The server was returning "500" errors because the application server which processes requests was timing out, and we had an unusually high amount of web traffic. The application server was timing out it was receiving requests, and the associated database was not working. The database was not working because the SQL database cluster was not processing queries. The SQL cluster could not process new queries due to the fact that the transaction log stopped growing. The log couldn't grow because the T:Drive was full and we were using only one database cluster. There was only one database cluster in use because the other cluster was being used for UAT testing. The drive was full because there is fixed capacity, the log file storage grew, the logs were not truncated, and truncating the logs reduces memory needs. The logs weren't truncated because the database administrator (DBA) manually truncates them, and was on vacation. The backup DBA was not aware the logs needed truncating because there was no process in place to inform the backup DBA of critical tasks.

Solutions

ID	Label	Description		
1	Solution	Implement process to notify backup DBA of critical tasks when taking over duties.		
	Cause	No process in place to inform backup DBA		
	Note	Barrier = 3 months until		
	Assigned	Jennifer Elderberry	Criteria	Fail
	Due		Status	Selected
	Term	Choose	Cost	\$0.00
2	Solution	Create document highlighting DBA duties in case of turnover or emergency backup DBA appointed		
	Cause			
	Note			
	Assigned	Jennifer Elderberry	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00
3	Solution	Explore automating log truncation		
	Cause	Logs are manually truncated by DBA		
	Note			
	Assigned	Dave Flynn	Criteria	Fail
	Due		Status	Selected
	Term	Choose	Cost	\$0.00
5	Solution	Use separate RD SQL clusters for UAT testing		
	Cause	Other SQL cluster being used for UAT testing		
	Note			
	Assigned	Ted Dezember	Criteria	Pass
	Due		Status	Identified
	Term	Choose	Cost	\$0.00
6	Solution	Use multiple databases for application servers		
	Cause	Only one database cluster in use		

Note			
Assigned	Jennifer Elderberry	Criteria	Pass
Due		Status	Selected
Term	Choose	Cost	\$0.00

7	Solution	Increase space on T:Drives		
	Cause	T:Drive at zero bytes free		
	Note			
	Assigned	Ted Dezember	Criteria	Pass
	Due		Status	Selected
	Term	Choose	Cost	\$0.00

Team

ID	Label	Description	Label	Description
1	First Name	Cory	Last Name	Boisoneau
	Phone (1)	425-225-5885	Phone (2)	
	Role	Facilitator	Group	
	Email	cory.boisoneau@sologic.com		
2	First Name	Jennifer	Last Name	Elderberry
	Phone (1)	206-985-4845	Phone (2)	
	Role	Database Admin	Group	
	Email	jelder@xyz.com		
3	First Name	Dave	Last Name	Flynn
	Phone (1)	206-254-8890	Phone (2)	
	Role	Backup DBA	Group	
	Email	dflynn@xyz.com		
4	First Name	Ted	Last Name	Dezember
	Phone (1)	206-795-4353	Phone (2)	
	Role	IT Infrastructure Manager	Group	
	Email	tdezem@xyz.com		
5	First Name	Hannah	Last Name	Zweikwinden
	Phone (1)	206-658-0098	Phone (2)	
	Role	IT Analyst	Group	
	Email	hzweik@xyz.com		

Evidence

ID	Label	Description
1	Evidence Cause(s)	Log file Requests made of application server The application server was timing out Transaction log was unable to grow T:Drive at zero bytes free Site was live People visiting website Logs were not truncated Customers attempted to access site Database not working
	Location	
	Link	
	Contributor	Jennifer Elderberry
	Type	Document
	Quality	★★★★★
2	Evidence Cause(s)	Statement from DBA Application server processes requests Only one database cluster in use Only one application server exists We only have two SQL clusters SQL trans. log needs to grow to process queries Storage required for log to grow Storage file size fixed Database Admin (DBA) was on vacation Logs are manually truncated by DBA No process in place to inform backup DBA Transaction log located on T:Drive Company only has one DBA
	Location	
	Link	
	Contributor	Jennifer Elderberry
	Type	Direct Statement
	Quality	★★★★☆

3	Evidence	Statement from backup DBA
	Cause(s)	SQL server was not processing queries Backup DBA not aware logs needed truncating Application server relies on working database
	Location	
	Link	
	Contributor	Dave Flynn
	Type	Direct Statement
	Quality	☆☆☆☆☆

4	Evidence	Statement from IT Infrastructure Manager
	Cause(s)	Other SQL cluster being used for UAT testing
	Location	
	Link	
	Contributor	Ted Dezember
	Type	Direct Statement
	Quality	☆☆☆☆☆

5	Evidence	Statement from IT Analyst
	Cause(s)	"500" errors prevent access to website Time outs result in "500" errors Functional database relies on working SQL server
	Location	
	Link	
	Contributor	Hannah Zweikwinden
	Type	Direct Statement
	Quality	☆☆☆☆☆

6	Evidence	Client complaint log
	Cause(s)	Customers not able to access our web site Web server returned error ("500"-type) Chose to contact web support with complaint
	Location	

Link**Contributor** Jennifer Elderberry**Type** Document**Quality** ★★★★★

7

Evidence Customer statement**Cause(s)** Customers need/want to access site**Location****Link****Contributor** Jennifer Elderberry**Type** Direct Statement**Quality** ★★★☆☆

Chart Type Legend

- ▶ Transitory
- Non-transitory
- ▶ Omission - Transitory
- Omission - Non-transitory
- ★ Focal Point
- ⊙ Solution Implemented

