1679938 - DiskFullEvent on Log Volume

Version	11	**Type**	SAP Note
Language	English	**Master Language**	English
Priority	Recommendations / Additional Info	**Category**	Consulting
Release Status	Released for Customer	**Released On**	16.08.2020
Component	HAN-DB (SAP HANA Database)		

Please find the original document at **https://launchpad.support.sap.com/#/notes/ 1679938**

Symptom

You notice, that the log volume is full and the database does not accept any new requests.

Additionally, the trace of the service with the full log volume contains DiskFullEvent messages:

LoggerImpl.cpp(00095) : Logger notified of new DiskFull: DiskFullEvent[id= XXX, path= /hana/log/<SID>/mntXXXXX/hdbXXXXX/, state= NEW]

Other Terms

HANA, in-Memory, logvolume, full, no requests, DISKFULL event

Reason and Prerequisites

The log volume is full and the database does not respond or start anymore.

Solution

1. Make sure that you are logged in as <SID>adm user on the host on which you experience the log volume full situation.
2. Stop the database:
   /usr/sap/hostctrl/exe/sapcontrol -nr <instance_number> -function StopSystem HDB

3. Wait that the database on all hosts is stopped completely.
4. Change directory into folder mnt00001 of the log volume (Default: /hana/log/<SID>/), e.g.:
   cd /hana/log/<SID>/mnt00001

5. You have to move one of the log volumes temporarily to another volume where enough space is available.
   You should free at least 2 GB of space to ensure that the database has enough space to start. To find out the space consumption of each volume execute:
   du -sh *

6. Move a volume which consumes at least 2 GB of space (e.g. hdb00003) to a volume with sufficient free space, e.g. to the data volume (Default: /hana/data/<SID>), e.g.:
   mkdir /hana/data/<SID>/logs_temporary

   mv hdb00003 /hana/data/<SID>/logs_temporary

7. Create a symbolic link to the new folder in the old location:
   ln -s /hana/data/<SID>/logs_temporary/hdb00003 /hana/log/<SID>/mnt00001/hdb00003

8. Start the database:
   /usr/sap/hostctrl/exe/sapcontrol -nr <instance_number> -function StartSystem HDB

9. Wait until log backups are performed.
10. Use the following SQL-Statement to clean up the logvolume:
    ALTER SYSTEM RECLAIM LOG;

11. Stop the database again:
    /usr/sap/hostctrl/exe/sapcontrol -nr <instance_number> -function StopSystem
    HDB

12. Wait that the database on all hosts is stopped completely.

13. Remove the symbolic link:

    rm -f /hana/log/<SID>/mnt00001/hdb00003

14. Move the log volume back to its original location:
    mv /hana/data/<SID>/logs_temporary/hdb00003 /hana/log/<SID>/mnt00001

15. Remove the temporary log folder:

    rmdir /hana/data/<SID>/logs_temporary

16. Start the database
    /usr/sap/hostctrl/exe/sapcontrol -nr <instance_number> -function StartSystem HDB

Remarks:

If you have not noticed a DiskFullEvent, but your service is unresponsive, you
might encounter a limit of the number of log segments per log partition. For
further details please see SAP Note 2072410.

Software Components

Software Component	Release
HDB	1.00 - 1.00
HDB	2.00 - 2.00

This document refers to

SAP Note/KBA	Title

2380229	SAP HANA Platform 2.0 - Central Note
2072410	Enlarge limitation of log segment number of LogSegment Directory
1523337	SAP HANA Database 1.00 - Central Note
1514967	SAP HANA: Central Note

This document is referenced by

SAP Note/KBA	Title
2409471	SAP HANA Log Volume Full on Secondary or Tertiary Site with System Replication
2984163	HANA Data volume's persistence is rapidly consumed by the GRACSODREPDATA table
2818618	RECOVER DATA fails because of missing log directory: No such file or directory
2514407	Recovery fails with "clear log volume because of recovery with clearlog"
2723171	[447] backup could not be completed, [3000116] Could not acquire savepoint lock
1946592	The number of log backup grows very fast
2083715	Analyzing log volume full situations
1523337	SAP HANA Database 1.00 - Central Note
1514967	SAP HANA: Central Note

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