

What is claimed is ~~HAT IS CLAIMED IS:~~

1. A method for splitting a multi-tenant database that is still being accessed in an online service, comprising:

starting a splitting process of a database used in the online service to split a portion
5 of content of the database to a different database; wherein the database that is being split is a multi-tenant database used to store data from different tenants and that continues to receive and process requests from web servers for database operations during the splitting process; wherein the multi-tenant database comprises two or more tenants including data that is stored within the multi-tenant database;

10 determining split content to split from the database, wherein the split content is the portion of the content from the database that comprises content for a portion of the different~~one or more~~ tenants;

marking the split content as read only during a move operation of the split content to the different database;

15 while continuing to receive and process operations on the database, moving the split content to the different database; and

upon completion of moving the split content, automatically redirecting requests for the split content to the different database.

2. The method of Claim 1, wherein a size of the database is restricted to a size
20 that fits within a memory of a physical machine that is hosting the database.

3. The method of Claim 1, wherein the splitting process of the database occurs in response to ~~at least one of: a number of tenants being stored in the database and~~ a request to defragment the database.

4. The method of Claim 1, wherein the splitting process of the database occurs
25 in response to a number of tenants being stored in the database.

~~5~~4. The method of Claim 1, wherein the splitting process of the database occurs in response to a size of the content being stored within the database exceeding a predetermined size.

~~6~~5. The method of Claim 1, wherein determining the split content to move
30 from the database to the different database, comprises dividing the database into approximately equal portions based on the tenants' content that is stored in the database and moving a smaller of the portions to the different database.

76. The method of Claim 1, wherein the splitting process is started automatically in response to an upgrade operation of a farm in a network of the online service.

8. The method of Claim 1, further comprising moving all of the content of the database to at least two different databases.

9. The method of Claim 1, wherein the splitting process occurs during an upgrade of a SQL server.

107. A computer-readable storage medium, excluding signals, having computer-executable instructions for, comprising:

starting a splitting process of a SQL database used in the online service to split content of the database to a different database; wherein the database that is being split is a multi-tenant database used to store data from different tenants that continues to receive and process requests for database operations during the splitting process;

automatically determining split content to split from the database, wherein the split content is the portion of the content from the database that comprises content for a portion of the different~~one or more~~ tenants;

marking the split content as read only during a move operation of the split content to the different database;

while continuing to receive and process operations on the database, moving the split content to the different database; and

upon completion of moving the split content, automatically redirecting requests for the split content to the different database.

11. The computer-readable storage medium of Claim 10, wherein a size of the database is restricted to a size that fits within a memory of a physical machine that is hosting the database.

12. The computer-readable storage medium of Claim 10, wherein the splitting process is performed to defragment the database.

13. The computer-readable storage medium of Claim 10, wherein the splitting process of the database occurs in response to adding users to a tenant.

14. The computer-readable storage medium of Claim 10, wherein the splitting process of the database occurs in response to a size of the content being stored within the database exceeding a predetermined size.

15. The computer-readable storage medium of Claim 10, wherein determining the split content to move from the database to the different database, comprises dividing

the database into approximately equal portions that is stored in the database and moving a smaller of the portions to the different database.

16. The computer-readable storage medium of Claim 10, wherein the splitting process is started automatically in response to an upgrade operation of a farm in a network of the online service.

178. A system for splitting a multi-tenant database currently in use in an online service, comprising:

a network comprising web servers, back-end servers and databases

a processor and a computer-readable storage medium;

an operating environment stored on the computer-readable medium and executing on the processor; and

a cloud manager operative to:

start a splitting process of a database used in the online service to split content of the database to a different database on a same network as the database;

the split content is the portion of the content from the database that comprises content for a portion of~~one or more~~ tenants; wherein a size of the database fits within a memory of a web server that is hosting the database;

prevent write access the split content only during a move operation of the split content to the different database while allowing write access to the non-split content of the database;

while continuing to receive and process operations on the database, move the split content to the different database; and

upon completion of moving the split content, automatically redirect requests for the split content to the different database.

189. The system of Claim 178, wherein the splitting process is performed in response to at least one of: a request to defragment the database; a request to add more users to a tenant; a determination that a size of the content being stored within the database exceeds a predetermined size.

1910. The system of Claim 178, wherein determining the split content to move from the database to the different database, comprises dividing the database into approximately equal portions that is stored in the database and moving a smaller of the portions to the different database.

20. The system of Claim 17, wherein the splitting process is started automatically in response to an upgrade operation of a farm in a network of the online service.