

**WHAT IS CLAIMED IS:**

1. A computer-implemented method, comprising:
  - determining, by a first node included in a plurality of nodes and before all other nodes included in the plurality of nodes, that a first anti-entropy repair procedure has ended;
  - 5 determining, by the first node, that a second anti-entropy repair procedure is ready to begin;
  - generating a schedule for executing one or more operations associated with the second anti-entropy repair procedure; and
  - 10 writing the schedule to a shared repair schedule data structure to initiate the second anti-entropy repair procedure across multiple nodes included in the plurality of nodes.
2. The computer-implemented method of claim 1, wherein determining that the second anti-entropy repair procedure is ready to begin comprises determining that a current time is within a specified range of time designated for repair operations.
3. The computer-implemented method of claim 1, further comprising:
  - determining, by a second node included in the plurality of nodes, that a third anti-entropy repair procedure is ready to begin;
  - 20 generating a schedule for executing one or more operations associated with the third anti-entropy repair procedure; and
  - writing the schedule to a second shared repair schedule data structure to initiate the third anti-entropy repair procedure across multiple nodes included in the plurality of nodes.
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4. The computer-implemented method of claim 3, wherein:
  - the second anti-entropy repair procedure comprises a full anti-entropy repair procedure,
  - 30 the third anti-entropy repair procedure comprises an incremental anti-entropy repair procedure, and
  - determining that the third anti-entropy repair procedure is ready to begin comprises determining that a fourth anti-entropy repair procedure that comprises an incremental repair has ended.

5. The computer-implemented method of claim 1, further comprising:  
determining, by a second node included in the plurality of nodes, that the  
second anti-entropy repair procedure is in progress;  
5 determining that the second node is next in sequence to be repaired; and  
repairing at least one inconsistent data partition that resides on the second  
node.
6. The computer-implemented method of claim 1, further comprising:  
10 determining, by a second node included in the plurality of nodes, that the  
second anti-entropy repair procedure is in progress;  
determining that the second node is independent from all other nodes included  
in the plurality of nodes that are currently performing a repair associated  
with the second anti-entropy repair procedure; and  
15 repairing at least one inconsistent data partition that resides on the second  
node.
7. The computer-implemented method of claim 1, further comprising:  
determining, by a second node included in the plurality of nodes, that the  
20 second anti-entropy repair procedure is in progress;  
determining that the second node has performed a repair associated with the  
second anti-entropy repair procedure;  
determining that all other nodes included in the plurality of nodes that are  
interdependent with the second node have performed a repair  
25 associated with the second anti-entropy repair procedure; and  
performing, by the second node, a post-repair procedure associated with the  
second anti-entropy repair procedure.
8. The computer-implemented method of claim 7, wherein performing the post-repair  
30 procedure comprises deleting a partition that is no longer needed after the second  
anti-entropy repair procedure is complete.
9. The computer-implemented method of claim 7, wherein performing the post-repair  
procedure comprises performing a compaction operation on one or more partitions

associated with the second node to reduce latency when accessing the one or more partitions.

10. The computer-implemented method of claim 7, wherein performing the post-repair procedure comprises transmitting a message to a monitoring application indicating that the second node has performed the repair associated with the second anti-entropy repair procedure.
11. The computer-implemented method of claim 1, further comprising:
- 10       determining that a number of partitions associated with the second anti-entropy repair procedure exceeds a threshold level; and
- dividing work associated with the second anti-entropy repair procedure into a plurality of subranges.
12. The computer-implemented method of claim 1, further comprising:
- 15       determining that a size of one or more partitions associated with the second anti-entropy repair procedure exceeds a threshold level; and
- dividing work associated with the second anti-entropy repair procedure into a plurality of subranges.
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13. The computer-implemented method of claim 1, further comprising:
- determining that a completion time for the second anti-entropy repair procedure exceeds a threshold level; and
- dividing work associated with the second anti-entropy repair procedure into a plurality of subranges based on the completion time.
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14. One or more non-transitory computer-readable storage media including instructions that, when executed by one or more processors, cause the one or more processors to perform the steps of:
- 30       determining that a first anti-entropy repair procedure has ended;
- determining, by a first node included in a plurality of nodes and before all other nodes included in the plurality of nodes, that a second anti-entropy repair procedure is ready to begin;

generating a schedule for executing operations associated with the second anti-entropy repair procedure; and  
writing the schedule to a shared repair schedule data structure to initiate the second anti-entropy repair procedure across multiple nodes included in the plurality of nodes.

15. The one or more non-transitory computer-readable storage media of claim 14, wherein determining that the second anti-entropy repair procedure is ready to begin comprises determining that a current time is within a specified range of time designated for repair operations.

16. The one or more non-transitory computer-readable storage media of claim 14, wherein each node included in the plurality of nodes sequentially performs a repair associated with the second anti-entropy repair procedure.

17. The one or more non-transitory computer-readable storage media of claim 14, wherein:  
each node included a first subset of nodes included in the plurality of nodes performs a repair associated with the second anti-entropy repair procedure in parallel with each other;  
each node included in a second subset of nodes included in the plurality of nodes performs a repair associated with the second anti-entropy repair procedure in parallel with each other; and  
the nodes included in the first subset of nodes perform the repair associated with the second anti-entropy repair procedure sequentially to the nodes included in the second subset of nodes.

18. The one or more non-transitory computer-readable storage media of claim 14, wherein each node included in the plurality of nodes performs a repair associated with the second anti-entropy repair procedure in parallel with each other.

19. A computing device, comprising:  
a memory that includes instructions; and

a processor that is coupled to the memory and, when executing the instructions, is configured to:

- 5                   determine that a first anti-entropy repair procedure has ended;
- determine, by a first node included in a plurality of nodes and  
                  before all other nodes included in the plurality of nodes,  
                  that a second anti-entropy repair procedure is ready to  
                  begin;
- generate a repair schedule associated with the second anti-  
                  entropy repair procedure; and
- 10               write the repair schedule to a data store to initiate the second  
                  anti-entropy repair procedure across multiple nodes  
                  included in the plurality of nodes.

20. The computing device of claim 19, wherein the processor, when executing the
- 15   instructions, is further configured to assign, at a second node included in the plurality  
of nodes, a number of processing cores to perform a repair associated with the  
second anti-entropy repair procedure, wherein the number of processing cores is a  
maximum of one-half a number of available processor cores within the second node.