

CLAIMS

1. A network-based, block-based storage service, comprising:
one or more storage nodes, configured to store a plurality of data volumes for a plurality of clients of the block-based storage service, wherein at least one of the plurality of data volumes is stored on a same storage node as another one of the plurality of data volumes;
a configuration manager for the storage system, configured to:
for a given data volume of the data volumes:
track client utilization of the data volume;
determine one or more configuration recommendations to reconfigure the data volume according to one or more data volume offerings of the block-based storage service based, at least in part, on the client utilization of the data volume;
provide the one or more configuration recommendations to the client;
receive client authorization to perform one of the configuration recommendations indicated by the client; and
direct configuration of the data volume according to the authorized configuration recommendation such that subsequent utilization of the data volume is provided according to the reconfigured data volume.
2. The storage service of claim 1, wherein, to determine the one or more configuration recommendations to reconfigure the data volume, the configuration manager is configured to:
identify one or more optimization goals for the data volume, wherein the optimization goals comprise at least one of:
a performance optimization goal; or
a cost optimization goal; and

determine the one or more data volume offerings that improve the data volume with respect to the optimization goals to provide as the configuration recommendations.

3. The storage service of claim 1, wherein to direct configuration of the data volume according to the authorized configuration recommendation, the configuration manager is configured to initiate one or more migration operations to relocate the data volume to one or more different resource hosts capable of providing the authorized configuration recommendation.

4. The storage service of claim 1,
wherein the one or more configuration recommendations are provided to the client via a graphical user interface; and
wherein to detect the client authorization to perform the one configuration recommendation, the configuration manager receives the indication of the one configuration recommendation from the client via the graphical user interface.

5. A method, comprising:
performing, by one or more computing devices:
determining one or more configuration recommendations to reconfigure a data volume hosted for a client in a block-based storage service according to one or more data volume offerings of the block-based storage service based, at least in part, on historical client utilization of the data volume;
providing the one or more configuration recommendations to the client;
detecting client authorization to perform one of the configuration recommendations, wherein detecting client authorization to perform the one configuration recommendation comprises receiving an indication of the one configuration recommendation from the client; and
configuring the data volume according to the authorized configuration recommendation such that subsequent utilization of the data volume is provided according to the reconfigured data volume.

6. The method of claim 5,
wherein the one or more configuration recommendations are provided via a graphical user interface to the client, and wherein the indication received is of a selection of a user interface element of the graphical user interface; and
wherein configuring the data volume according to the authorized configuration recommendation is performed in response to the selection of the user interface element of the graphical user interface.
7. The method of claim 5, further comprising:
detecting a recommendation event for the data volume; and
wherein determining the configuration recommendations is performed in response to detecting the recommendation event.
8. The method of claim 5, wherein determining the one or more configuration recommendations to reconfigure the data volume comprises:
identifying one or more optimization goals for the data volume, wherein at least one of the optimization goals is a performance optimization goal; and
determining the one or more data volume offerings that improve the data volume with respect to the optimization goals.
9. The method of claim 5, wherein the authorized configuration recommendation comprises changing the data volume to a different data volume type.
10. The method of claim 5, wherein the authorized configuration recommendation comprises changing one or more resource allocations for the data volume.
11. The method of claim 5, wherein configuring the data volume according to the authorized configuration recommendation comprises performing one or more migration operations to relocate the data volume to one or more different resource hosts capable of providing the authorized configuration recommendation.

12. The method of claim 5, wherein the block-based storage service is implemented as part of a provider network, wherein configuring the data volume according to the authorized configuration recommendation comprises migrating the data volume to another storage service implemented as part of the provider network.

13. A non-transitory, computer-readable storage medium, storing program instructions that when executed by one or more computing devices cause the one or more computing devices to implement:

- monitoring client utilization of a data volume hosted for a client in a block-based storage service;
- determining one or more configuration recommendations to reconfigure the data volume according to one or more data volume offerings of the block-based storage service based, at least in part, on the client utilization of the data volume;
- providing the one or more configuration recommendations to the client;
- detecting client authorization to perform one of the configuration recommendations, wherein detecting client authorization to perform the one configuration recommendation comprises receiving an indication of the one configuration recommendation from the client; and
- configuring the data volume according to the authorized configuration recommendation such that subsequent utilization of the data volume is provided according to the reconfigured data volume.

14. The non-transitory, computer-readable storage medium of claim 13, wherein, in determining the one or more configuration recommendations to reconfigure the data volume, the program instructions cause the one or more computing devices to implement:

- identifying one or more optimization goals for the data volume, wherein at least one of the optimization goals is a cost optimization goal; and
- determining the one or more data volume offerings that improve the data volume with respect to the optimization goals.

15. The non-transitory, computer-readable storage medium of claim 13, wherein the program instructions cause the one or more computing devices to further implement:

detecting a recommendation event for the data volume; and

wherein determining the configuration recommendations is performed in response to detecting the recommendation event.

16. The non-transitory, computer-readable storage medium of claim 13, wherein, in configuring the data volume according to the authorized configuration recommendation, the program instructions cause the one or more computing devices to implement updating one or more hosts of the data volume to provide the reconfigured data volume.

17. The non-transitory, computer-readable storage medium of claim 13, wherein the program instructions cause the one or more computing devices to further implement:

upon completion of the configuration of the data volume, providing a notification to the client indicating that configuration of the data volume is complete.

18. The non-transitory, computer-readable storage medium of claim 13, wherein the program instructions cause the one or more computing devices to further implement providing the one or more configuration recommendations to the client via a graphical user interface; and

wherein, in detecting the client authorization to perform the one configuration recommendation, the program instructions cause the one or more computing devices to implement receiving an indication of the one configuration recommendation from the client via the graphical user interface.