WHAT IS CLAIMED IS:

1. A storage device comprising:

a non-volatile memory including a first memory area and a second memory area; and

a memory controller configured to receive a request from a first client device to upload a first multimedia file, generate a second multimedia file including a base layer and at least one enhancement layer by transcoding the first multimedia file from an original format to a scalable format, and control the non-volatile memory to store the second multimedia file in the non-volatile memory;

wherein the first memory area has a first storage reliability level and stores first data corresponding to the base layer, and the second memory area has a second storage reliability level lower than the first storage reliability level and stores second data corresponding to the at least one enhancement layer.

2. The storage device of claim 1, wherein the first memory area comprises single level cells (SLCs) and the second memory area comprises multi level cells (MLCs).

3. The storage device of claim 1 or claim 2, wherein a program/erase cycle count of the first memory area is less than a reference count, and a program/erase cycle count of the second memory area is greater than or equal to the reference count.

4. The storage device of any one of claims 1 to 3, wherein a number of error bits in the first memory area is less than a reference number, and a number of error bits in the second memory area is greater than or equal to the reference number.

5. The storage device of any one of claims 1 to 4, wherein the memory controller is configured to read the second multimedia file from the non-volatile memory in response to receipt of a retrieve request from the first client device or a second client device, and generate a third multimedia file by transcoding the read second multimedia file according to the retrieve request.

6. The storage device of claim 5, wherein the memory controller is configured to transcode data corresponding to the base layer to generate the third multimedia file upon detecting an error in data corresponding to the at least one enhancement layer.

7. The storage device of claim 6, wherein the memory controller checks an importance degree of the at least one enhancement layer upon detecting an error in data corresponding to the at least one enhancement layer and determines whether to retry reading of the at least one enhancement layer according to a check result of the check.

8. The storage device of any one of claims 1 to 7, wherein the first client device or a second client device is capable of reproducing a file of the scalable format,

wherein the memory controller is further configured to receive a retrieve request from the first or second client device, read, from the non-volatile memory, data corresponding to the retrieve request in the second multimedia file, and provide the read data to the first or second client device.

9. The storage device of claim 8, wherein the memory controller is further configured to read, from the non-volatile memory in response to the retrieve request, data corresponding to the base layer or data corresponding to the base layer and the at least one enhancement layer.

10. The storage device of claim 9, wherein the at least one enhancement layer comprises a first enhancement layer and a second enhancement layer,

wherein the memory controller is further configured to provide, to the first or second client device, data corresponding to the base layer and the first enhancement layer upon detecting an error in data corresponding to the second enhancement layer.

11. The storage device of claim 9, wherein the at least one enhancement layer comprises a first enhancement layer and a second enhancement layer,

wherein the memory controller is further configured to provide, to the first or second client device, data corresponding to the base layer and the first enhancement layer and an error message upon detecting an error in data corresponding to the second enhancement layer.

12. The storage device of any one of claims 1 to 11, wherein the memory controller comprises:

an object mapper configured to determine a physical address for storing the second multimedia file in the non-volatile memory; and

a mapping table configured to map the physical address to an object identifier associated with the second multimedia file.

13. The storage device of claim 12, wherein the object mapper determines the physical address based on at least one of an importance degree and a bit rate of data in the second multimedia file.

14. The storage device of any one of claims 1 to 4, wherein the memory controller is further configured to transcode a file having a non-scalable format stored in the non-volatile memory into a third multimedia file having the scalable format and control the non-volatile memory to store the third multimedia file in the non-volatile memory.

15. A storage server comprising the storage device of claim 1.

16. A server capable of communicating with a client device, the server comprising:

a first storage device including a transcoder configured to transcode a multimedia file received from the client device from an original format to a scalable format and including a non-volatile memory including a first memory area and a second memory area;

a second storage device storing a non-scalable format file of a non-scalable format; and

a processor configured to control communication between the first storage device and the second storage device,

wherein the transcoder is further configured to receive the non-scalable format file from the second storage device and transcode the received non-scalable format file into a scalable format file, including a base layer and at least one enhancement layer, of the scalable format;

wherein the first memory area has a first storage reliability level and stores first data corresponding to the base layer, and the second memory area has a second storage reliability level lower than the first storage reliability level and stores second data corresponding to the at least one enhancement layer.

17. The server of claim 16, wherein the first storage device is configured to receive a first object identifier ID of the non-scalable format file in addition to the non-scalable format file and output a second object ID of the scalable format file.

18. A server capable of communicating with a client device, the server comprising:

a transcoding module configured to transcode a multimedia file received from the client device from an original format to a scalable format;

a non-volatile memory including a first memory area and a second memory area;

a storage device storing a non-scalable format file of a non-scalable format; and

a processor configured to control communication between the transcoding module and the storage device,

wherein the transcoding module is further configured to receive the non-scalable format file from the storage device and transcode the received non-scalable format file into a scalable format file, including a base layer and at least one enhancement layer, of the scalable format;

wherein the first memory area has a first storage reliability level and stores first data corresponding to the base layer, and the second memory area has a second storage reliability level lower than the first storage reliability level and stores second data corresponding to the at least one enhancement layer.