What is claimed is:

1. A storage device, comprising:

a memory; and

a memory controller which includes a vendor unique command (VUC) authentication module and which is configured to control operations of the memory,

wherein the VUC authentication module is configured to:

transmit first memory information about the memory to a host device,

receive from the host device a one-time password generated by the first memory information,

verify the one-time password, and

receive a vendor unique command from the host device when the one-time password is correct,

wherein the first memory information comprises run time information of the memory.

2. The storage device of claim 1, wherein the first memory information comprises at least one of a write count, a remap count and a used block count for the memory.

3. The storage device of claim 2, wherein the first memory information comprises information on a number of one-time password trials which have been performed.

4. The storage device of claim 2 or claim 3, wherein the first memory

information comprises a worldwidename (WWN) ID.

5. The storage device of any one of claims 1 to 4, wherein the VUC authentication module comprises:

an information extraction module which is configured to extract the first memory information;

a verification one-time password generation module which is configured to generate a verification one-time password, using the first memory information;

a comparator which is configured to compare the one-time password and the verification one-time password with each other, and to output an acknowledgement signal when the one-time password and the verification one-time password are the same as each other; and

a VUC processing module which receives the vendor unique command when receiving the acknowledgement signal.

6. The storage device of claim 5, wherein the verification one-time password generation module comprises a hash function.

7. The storage device of claim 5 or claim 6, wherein the comparator transmits the acknowledgement signal to the host device and the VUC processing module.

8. The storage device of any one of claims 1 to 4, wherein the VUC authentication module comprises:

an information extraction module which is configured to extract the first memory information;

a decryption module which is configured to decrypt the one-time password to generate second memory information;

an information comparator which is configured to compare the first and second memory information with each other, and to output an acknowledge signal when the first and second memory information are the same as each other; and

a VUC processing module which is configured to receive the vendor unique command when receiving the acknowledgement signal.

9. A host device, comprising:

a one-time password generation module which is configured to receive memory information from a storage device, and to generate a one-time password, using the memory information;

a vendor unique command (VUC) generation module which is configured to receive an acknowledgement signal of the one-time password, and to generate a vendor unique command when the acknowledgement signal is received; and

an interface which is configured to receive the memory information and the acknowledgement signal from the storage device, and to transmit the one-time password and the vendor unique command to the storage device,

wherein the memory information comprises run time information of the memory.

10. The host device of claim 9, further comprising:

an authentication request module which is configured to generate an authentication request for requesting the memory information from the storage device.

11. The host device of claim 10, further comprising:

a user authentication module which is configured to receive user information from a user to authenticate the user,

wherein the authentication request module is configured to generate the authentication request for the user.

12. The host device of claim 10 or claim 11, wherein the interface is configured to transmit the authentication request to the storage device.

13. The host device of any one of claims 9 to 11, wherein the interface is configured to transmit and receive a command, an address and data to and from the storage device.

14. The host device of any one of claims 9 to 13, wherein the one-time password generation module comprises a hash function operator.

15. A VUC authentication system, comprising:

a host device which is configured to receive first memory information, to generate a one-time password through the first memory information, and to transmit a vendor unique command in accordance with an acknowledgement signal; and

a storage device which includes a memory, and which is configured to generate a first memory information of the memory, to transmit the first memory information to the host device, to verify the one-time password to transfer the acknowledgement signal to the host device, and to receive the vendor unique command,

wherein the first memory information includes runtime information of the memory.

16. The VUC authentication system of claim 15, wherein the storage device comprises a memory controller which includes a VUC authentication module and is configured to control the memory, and

wherein the VUC authentication module comprises:

an information extraction module which is configured to extract the first memory information,

a verification one-time password generation module which is configured to generate a verification one-time password, using the memory information;

a comparator which is configured to compare the one-time password with the verification one-time password with each other, and to output the acknowledgement signal when the one-time password and the verification one-time password are the same as each other, and

a VUC processing module which is configured to receive the vendor unique command when the acknowledgement signal is received.

17. The VUC authentication system of claim 15, wherein the storage device comprises a memory controller which includes a VUC authentication module and is configured to control the memory, and

wherein the VUC authentication module comprises:

an information extraction module which is configured to extract the first memory information,

a decryption module which is configured to decrypt the one-time password to generate second memory information,

an information comparator which is configured to compare the first and second memory information with each other and to output the acknowledge signal when the first

and second memory information are the same as each other, and

a VUC processing module which is configured to receive the vendor unique command when the acknowledgement signal is received.

18. The VUC authentication system of any one of claims 15 to 17, wherein the host device comprises:

a one-time password generation module which is configured to receive the first memory information from the storage device and to generate the one-time password, using the first memory information,

a VUC generation module which is configured to receive the acknowledgement signal of the one-time password and to generate the vendor unique command when the acknowledgement signal is received, and

an interface which is configured to receive the first memory information and the acknowledgement signal from the storage device and to transmit the one-time password and the vendor unique command to the storage device.

19. The VUC authentication system of any one of claims 15 to 18, wherein the first memory information comprises at least one of a write count, a remap count and a used block count.