

CLAIMS

1. A private data management method, comprising the steps of:
 - a) receiving, by a private data management application installed in a user terminal, a driving signal;
 - b) determining, by the private data management application, whether a data distribution selection signal is applied;
 - c) determining, by the private data management application, whether a specific data is selected;
 - d) requesting, by the private data management application, data transmission target information to a data management server;
 - e) randomly extracting, by the data management server, a predetermined number of the data transmission target information from an identification information pool of storage target terminals and providing the data transmission target information to the private data management application;
 - f) partitioning, by the private data management application, data into a predetermined number of data and processing the partitioned data; and
 - g) transmitting the respective partitioned data while arbitrarily matching the partitioned data to a data transmission target terminal and transmitting, by the private data management application, partitioned backup data to a separate data backup target terminal;
 - h) transmitting, by the private data management application, the information on the data transmission target terminal to the data management server;
 - i) determining, by the private data management application, whether a data recovery mode is selected;
 - j) extracting, by the private data management application, information on a target terminal distributing and storing the partitioned data of data when a specific data recovery signal is received;
 - k) receiving, by the private data management application, data by performing a data transmission request to a data storage target terminal; and
 - l) recovering, by the private data management application, the data when the reception of the data is completed;

wherein step l) further includes the steps of: extracting, by the private data management application, information on a data backup storage target terminal from some terminals if the data is not received until a predetermined time elapses; and performing, by the private data management application, a data transmission request to the backup storage target terminal.

2. The private data management method of claim 1, wherein the step f) further includes randomly extracting, by the private data management application, some of the data transmission target terminals provided from the data management server to determine a final transmission target terminal.

3. The private data management method of claim 1, further comprising the steps of: between the step i) and the step j),

m) transmitting, by the private data management application, data information to be recovered to the data management server and requesting authentication user information of the data;

n) transmitting, by the data management server, the authentication user information of the data to the private data management application;

o) requesting, by the private data management application, an input of private authentication information to the user terminal of an authentication user; and

p) transmitting, by the user terminal of the authentication user, an authentication acknowledge signal to the private data management application when private authentication succeeds in the user terminal of the authentication user.

4. The private data management method of claim 3, wherein in the step n), the data management server transmits the authentication user information to the private data management application through a short message or e-mail.

5. The private data management method of claim 3, further comprising the steps of: when an authentication failure signal is received from the user terminal of the

authentication user during the step p), transmitting, by the private data management application, authentication failure information to the data management server;
transmitting, by the private data management application, a request signal of new authentication user information to the data management server when the authentication signal is not received until a predetermined time exceeds; and
transmitting, by the data management server, the new authentication user information to the private data management application.

6. The private data management method of claim 1, the step l) further includes:
determining whether specific partitioned data are not received until a predetermined time elapses;
extracting user terminal information storing backup data when the specific partitioned data are not received; and
requesting, by the private data management application, a data transmission to the user terminal storing the backup data.

7. The private data management method of claim 1, further comprising the step of:
when a transmission user terminal partitioning and transmitting data and a reception user terminal attempting to recover the partitioned and stored data are different from each other, transmitting, by a transmission user terminal, data partitioned and stored by the transmission user terminal, received authentication information, and information on a terminal storing the remaining partitioned data to the reception user terminal.

8. A private data management system, comprising: a plurality of user terminals having a private data management application installed therein, which is driven by user authentication, and is configured to automatically partition specific data selected by the user into a plurality of data so as to distribute and transmit the data to the plurality of user terminals of a specific identification number transmitted from a data management server, and collect and recover the distributed data according to a user recovery command;
the data management server configured to store identification information on the user terminal in which the private data management application is installed, and receive a data

distribution signal from the user terminal so as to extract identification information on a specific user terminal to be a target in which data are distributed and stored, and transmit the extracted identification information of the terminal to the user terminal;

the private data management application includes a communication module configured to communicate with a plurality of user terminals for distributing and storing data and the data management server; a user authentication unit configured to authenticate a user by private identification information authentication; a storage target information request unit configured to automatically request storage target information for distributing and storing data to the data management server; a data partition processing unit configured to partition and process specific data selected by the user; an encryption/decryption processing unit configured to encrypt and decrypt data to be communicated; a data storage unit configured to store some of the partitioned data, and store information on a storage target in which each of the partitioned data is stored; a control unit configured to communicate with the data management server to receive the information on the data storage target, partition the specific data and store some of the specific data, transmit other data to a plurality of data storage target terminals and distribute and store the other data, and transmit a transmission request signal of the specific data to the storage target terminal during recovery of the data; and a storage target random extraction unit configured to randomly extract some of storage target information received from the data management server;

the private data management application further includes a storage target random matching unit configured to randomly match the partitioned data with a target in which the data are stored, and is configured to transmit the partitioned data to a plurality of data transmission target terminals, and transmit the same partitioned data to another user terminal that is a backup target to back the same partitioned data up, and perform the recovery processing using the backup data if the specific partitioned data are not recovered within a predetermined time during recovery of the data;

the data management server registers single authentication user information, which is required for the authentication during recovery of the specific data, at the time of the distribution and storage of the data, and provides the authentication user information to the private data management application when the private data management application requests the data recovery.

9. The private data management system of claim 8, wherein the data management server is configured to randomly extract a predetermined number of identification information from an identification information pool of storage target terminals when extracting identification information on a specific user terminal.

10. The private data management system of claim 8, wherein the private data management application is configured to randomly extract a predetermined number of identification information among the identification information on the user terminal provided from the data management server.

11. The private data management system of claim 8, wherein data transmitted between the user terminal distributing and storing the data and the data management server are encrypted data.

12. The private data management method of claim 8, wherein the private data management application is configured to store any one of the plurality of partitioned data in the user terminal, and distribute and store other data in the plurality of user terminals of a specific identification number.

13. The private data management system of claim 8, wherein the private data management application is configured to request the input of the private authentication information to the user terminal of the authentication user when receiving the authentication user information from the data management server, and the user terminal of the authentication user transmits an authentication acknowledge signal to the private data management application when private authentication succeeds.

14. The private data management system of claim 8, wherein the authentication user information which is transmitted to the private data management application by the data management server is transmitted through a text message and email.

15. The private data management system of claim 8, wherein the private data management application is configured to request new authentication user information to the data management server, if authentication acknowledge information of the authentication user is not received until a predetermined time elapses.
16. The private data management system of claim 8, wherein, when a transmission user terminal partitioning original data and a reception user terminal recovering the original data are different from each other, the user terminal is configured to transmit data partitioned and stored by the transmission user terminal, received authentication information, and information on a terminal storing the remaining partitioned data to the reception user terminal.
17. The private data management system of claim 8, wherein the plurality of user terminals storing distributed data are any one of a server, a PC, and a wireless terminal.