CLAIMS

What is claimed is:

1. A method of facilitating authentication of a person for accessing a gated property to perform a task therein, using at least one processor of an authentication facilitating system, the method comprising:

generating a first private-public key pair of the authentication facilitating system, the first private-public key pair being associated with the task;

obtaining first personal data associated with said person;

sending first task information associated with the task to an access control system of the gated property, the first task information comprising task identification information associated with the task, person identification information associated with said person, and a first public key of the first private-public key pair;

receiving, in response to said sending the first task information to the access control system, a second public key of a second private-public key pair of the access control system of the gated property from the access control system, the second private-public key pair being associated with the task; and

generating an authentication code associated with the task based on the second public key for said person to utilize for accessing the gated property to perform the task,

wherein the method further comprises:

receiving an authentication request from the access control system, the authentication request comprising the task identification information associated with the task and second personal data associated with said person, the second personal data being encrypted based on the first public key;

decrypting the second personal data based on a first private key of the first private-public key pair associated with the task;

determining whether the second personal data and the first personal data associated with the task satisfy one or more predetermined authentication conditions; and

sending an authentication response to the access control system, and

wherein the authentication response indicates authentication successful if the second personal data and the first personal data associated with the task satisfy the one or more predetermined authentication conditions, and indicates authentication

unsuccessful if the second personal data and the first personal data associated with the task do not satisfy the one or more predetermined authentication conditions.

2. The method according to claim 1, wherein said generating the authentication code associated with the task based on the second public key comprises:

encrypting the task identification information associated with the task and the person identification information associated with said person based on the second public key to produce first encrypted data associated with the task; and

encoding the first encrypted data and the task identification information associated with the task to generate the authentication code associated with the task.

3. The method according to claim 2, wherein the authentication code is a graphical barcode.

4. The method according to claim 3, wherein the authentication code is a two-dimensional (2D) barcode.

5. The method according to any one of claims 2 to 4, further comprising receiving second task information associated with the task from a task management system for registering the task with the authentication facilitating system, the second task information comprising the person identification information associated with said person and task location information associated with the task,

wherein said generating the first private-public key pair associated with the task is in response to the second task information associated with the task received from the task management system.

6. The method according to claim 5, wherein the first task information is sent to the access control system based on the task location information associated with the task.

7. The method according to claim 5 or 6, further comprising sending the authentication code associated with the task to the task management system for said person to utilize for accessing the gated property to perform the task.

8. The method according to any one of claims 5 to 7, further comprising:

sending a personal data request relating to said person to a third party personal data provider, the personal data request comprising the person identification information associated with said person,

wherein said obtaining the first personal data associated with said person is obtained from the third party personal data provider in response to the personal data request sent to the third party personal data provider.

9. The method according to claim 8, wherein

the personal data request further comprises the first public key, and

the first personal data is encrypted based on the first public key.

10. The method according to any one of claims 5 to 7, wherein

the second task information received from the task management system further comprises the first personal data associated with said person, and

said obtaining the first personal data associated with said person is obtained from the task management system.

11. The method according to any one of claims 5 to 10, further comprising extracting features from the first personal data associated with said person, wherein

said encrypting the task identification information and the person identification information further comprises encrypting said features based on the second public key to produce the first encrypted data associated with the task.

12. The method according to any one of claims 5 to 11, wherein the one or more predetermined authentication conditions comprises a predetermined matching condition that the second personal data and the first personal data are determined to match each other.

13. The method according to any one of claims 5 to 12, further comprising:

receiving task performance information in relation to the task performed at the gated property from the access control system;

generating a service quality report based on the task performance information;

sending the service quality report to the task management system.

14. The method according to any one of claims 5 to 13, wherein

the task is a delivery task; and

the task management system is associated with a company which provides a delivery service.

15. The method according to any one of claims 1 to 14, wherein the first personal data associated with said person comprises a face image of said person.

16. The method according to claim 15, wherein the first personal data associated with said person further comprises a health-related status of said person.

17. An authentication facilitating system for facilitating authentication of a person for accessing a gated property to perform a task therein, the authentication facilitating system comprising:

a memory; and

at least one processor communicatively coupled to the memory and configured to perform the method of facilitating authentication of the person for accessing the gated property according to any one of claims 1 to 16.

18. A computer program product, embodied in one or more non-transitory computer-readable storage mediums, comprising instructions executable by at least one processor to perform the method of facilitating authentication of the person for accessing the gated property according to any one of claims 1 to 16.