CLAIMS

1. A computer-implemented method for generating a two-dimensional code, the method comprising:

receiving, by a first server, registration information from a second server for authenticating and registering the second server;

registering, by the first server, the second server if the registration information is authenticated;

saving, by the first server, the registration information;

receiving, by the first server, a request from the second server for generating a two-dimensional (2D) code, the request comprising information to be encoded to the 2D code;

in response to receiving, by the first server, the request from the second server for generating the 2D code:

determining, by the first server, that the second server has registered at the first server;

digitally signing, by the first server, the information to be encoded to the 2D code by generating a digital signature using asymmetrical encryption; and

sending, by the first server, the digitally signed information to the second server to be encoded to the 2D code by the second server;

decrypting the 2D code after the 2D code is scanned by a user computing device; and

saving a record that the 2D code is scanned, wherein the record comprises identity information of the second server that encodes the 2D code.

2. The method of claim 1, wherein the 2D code is scanned by using an application or software authorized by a server that generates the digital signature.

3. The method of claim 1, wherein before the step of digitally signing the information to be encoded to the 2D code, the method further comprises:

determining whether the second server is registered.

4. The method of claim 3, wherein the digital signature is generated on the basis of the asymmetric encryption using a private key.

5. The method of claim 4, wherein the asymmetric encryption is performed using a Rivest-Shamir-Adleman (RSA) algorithm.

6. The method of claim 4, wherein according to different information to be encoded to the 2D code, different respective private keys are used to generate different digital signatures.

7. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform the computer-implemented method of any one of claims 1 to 6.

8. A computer-implemented system, comprising:

one or more computers; and

one or more computer memory devices interoperably coupled with the one or more computers and having tangible, non-transitory, machine-readable media storing one or more instructions that, when executed by the one or more computers, perform the computer-implemented method of any one of claims 1 to 6.