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(54) **CARD IDENTIFICATION SYSTEM WITH SCRAMBLE CODING ABILITY**

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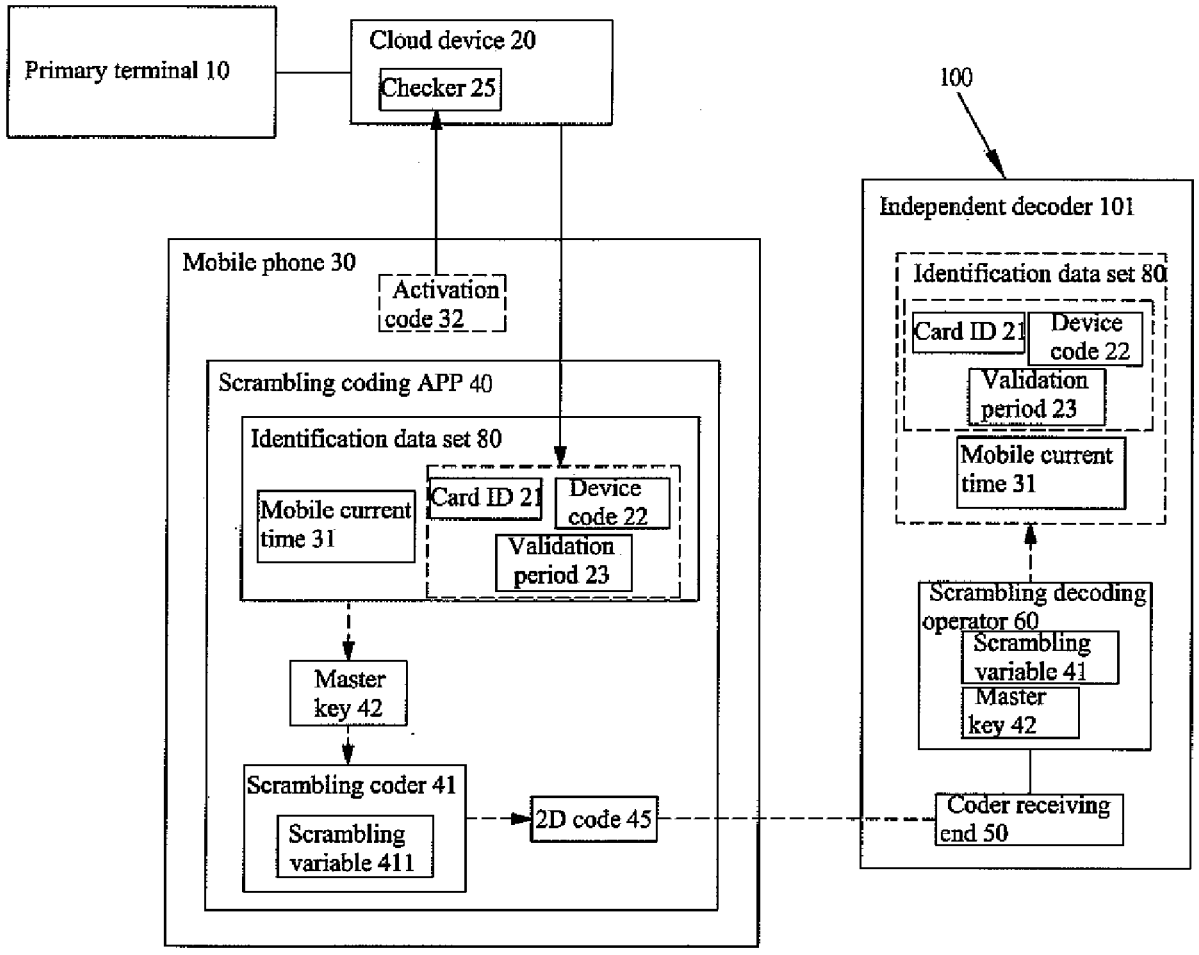
(57) **ABSTRACT**

A card identification system with scramble coding ability is proposed, in that the card ID, device code and validation period and mobile current time are encrypted and encoded by using a master key and a scrambling variable to form a 2D code. The 2D code is time varied. As a result, the coder receiving end of a decoder must decode and decrypt the 2D code based on the master key and the scrambling variable in a validation period. If the time is over the validation period, a new 2D code is generated at a sending end. If one 2D code is copied, the copied 2D code is only effective in the validation period. Therefore, the system can assure the safety of the identification of a person. The 2D code are usable in various status, such as an employee card, a visitor card, an attendance card.



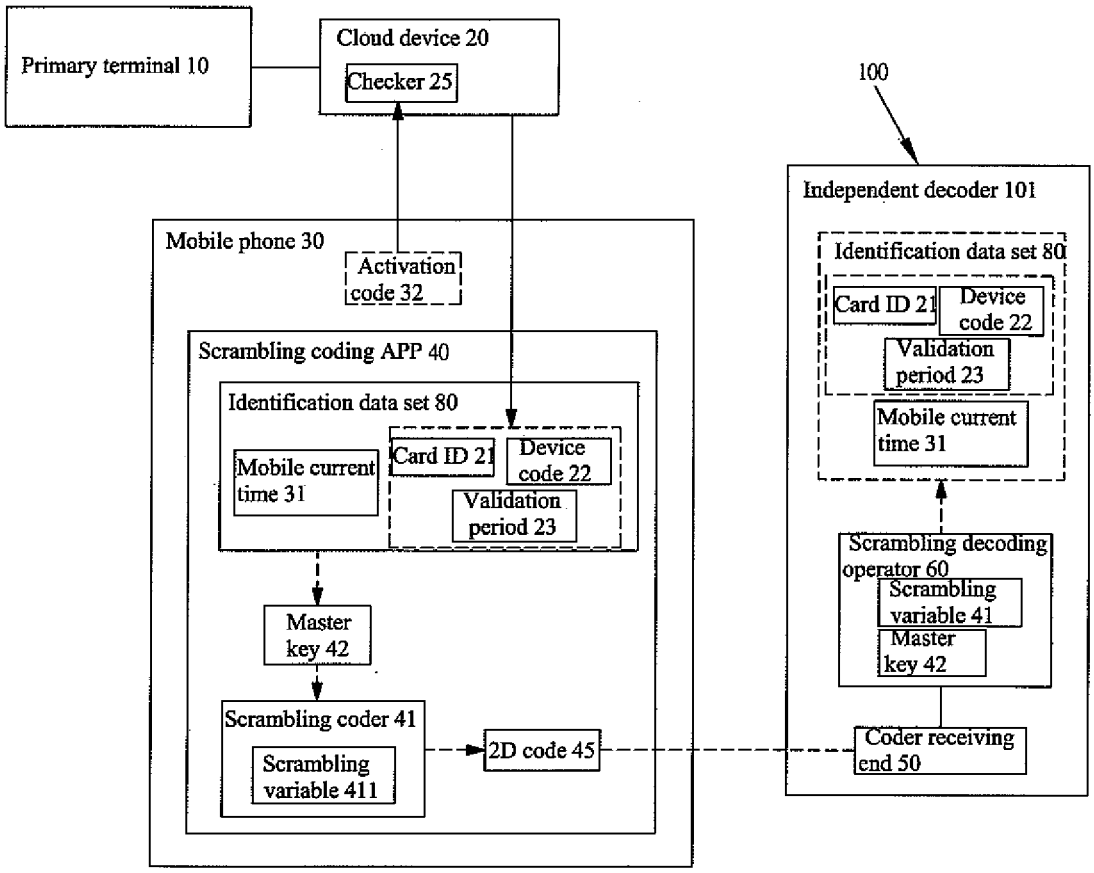

Primary terminal 10
Cloud device 20
Checker 25
100
Independent decoder 101
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Scrambling decoding operator 60
Scrambling variable 41
Master key 42
Coder receiving end 50
Mobile phone 30
Activation code 32
Scrambling coding APP 40
Identification data set 80
Mobile current time 31
Card ID 21
Device code 22
Validation period 23
Master key 42
Scrambling coder 41
Scrambling variable 411
2D code 45

Fig. 1

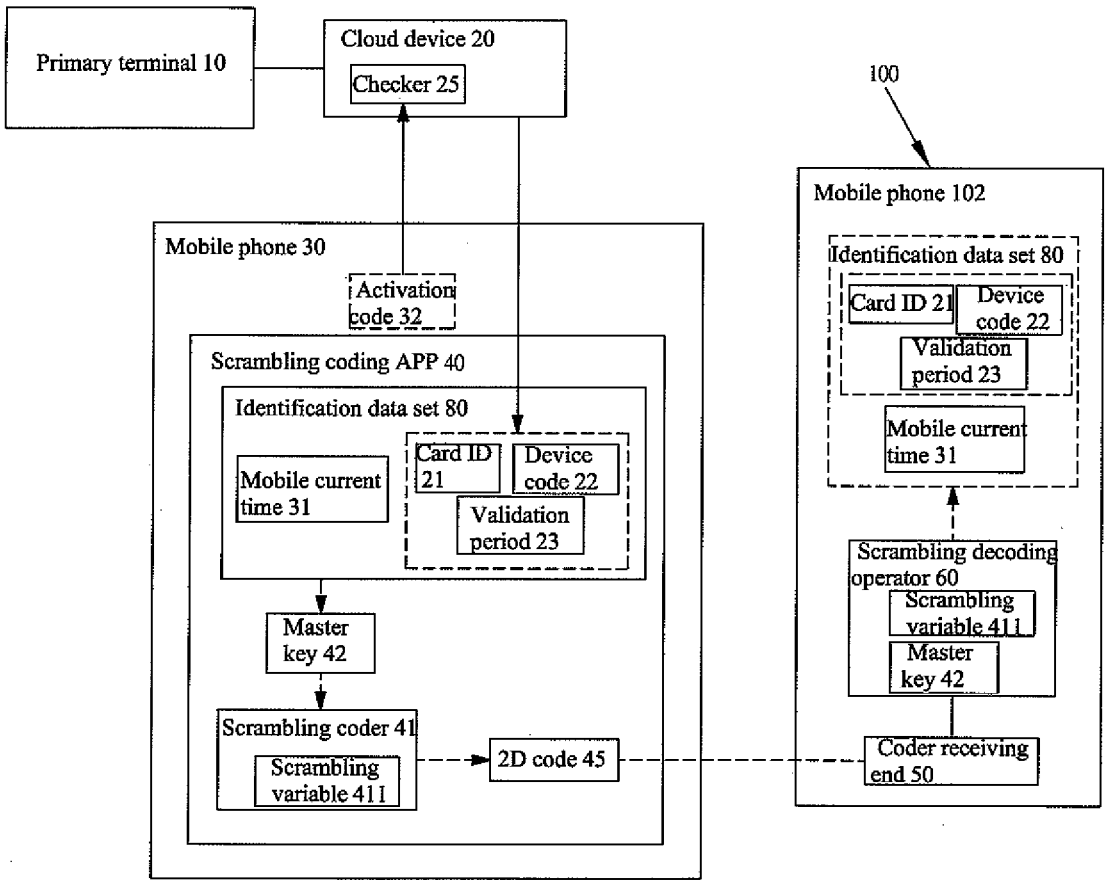

Primary terminal 10
Cloud device 20
Checker 25
100
Mobile phone 102
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Scrambling decoding operator 60
Scrambling variable 411
Master key 42
Coder receiving end 50
Mobile phone 30
Activation code 32
Scrambling coding APP 40
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Master key 42
Scrambling coder 41
Scrambling variable 411
2D code 45

Fig. 2

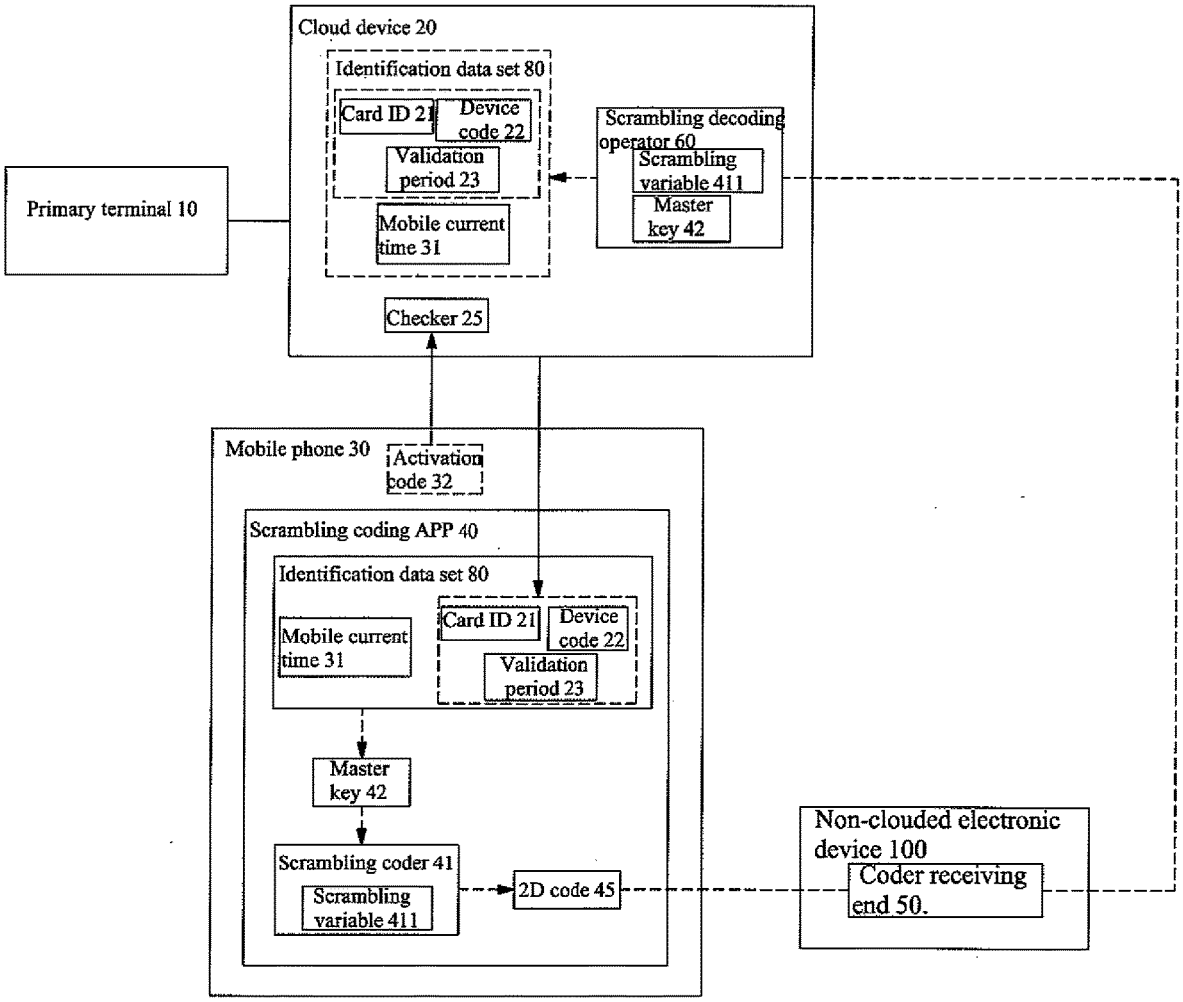

Cloud device 20
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Scrambling decoding operator 60
Scrambling variable 411
Master key 42
Primary terminal 10
Checker 25
Mobile phone 30
Activation code 32
Scrambling coding APP 40
Identification data set 80
Mobile current time 31
Card ID 21
Device code 22
Validation period 23
Master key 42
Scrambling coder 41
Scrambling variable 411
2D code 45
Non-clouded electronic device 100
Coder receiving end 50.

Fig. 3

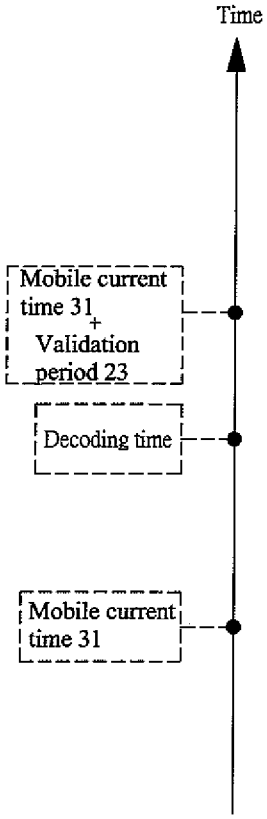

Time
Mobile current time 31 + Validation period 23
Decoding time
Mobile current time 31

Fig. 4

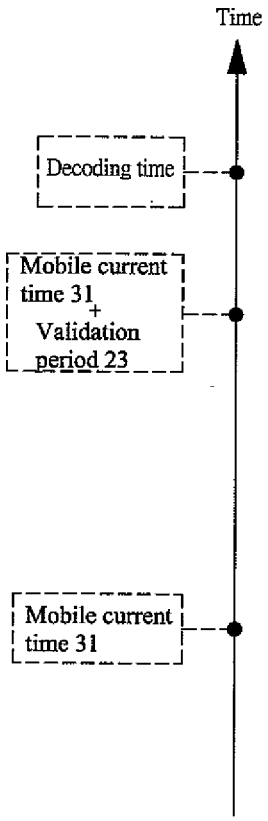

Time
Decoding time
Mobile current time 31 + Validation period 23
Mobile current time 31

Fig. 5

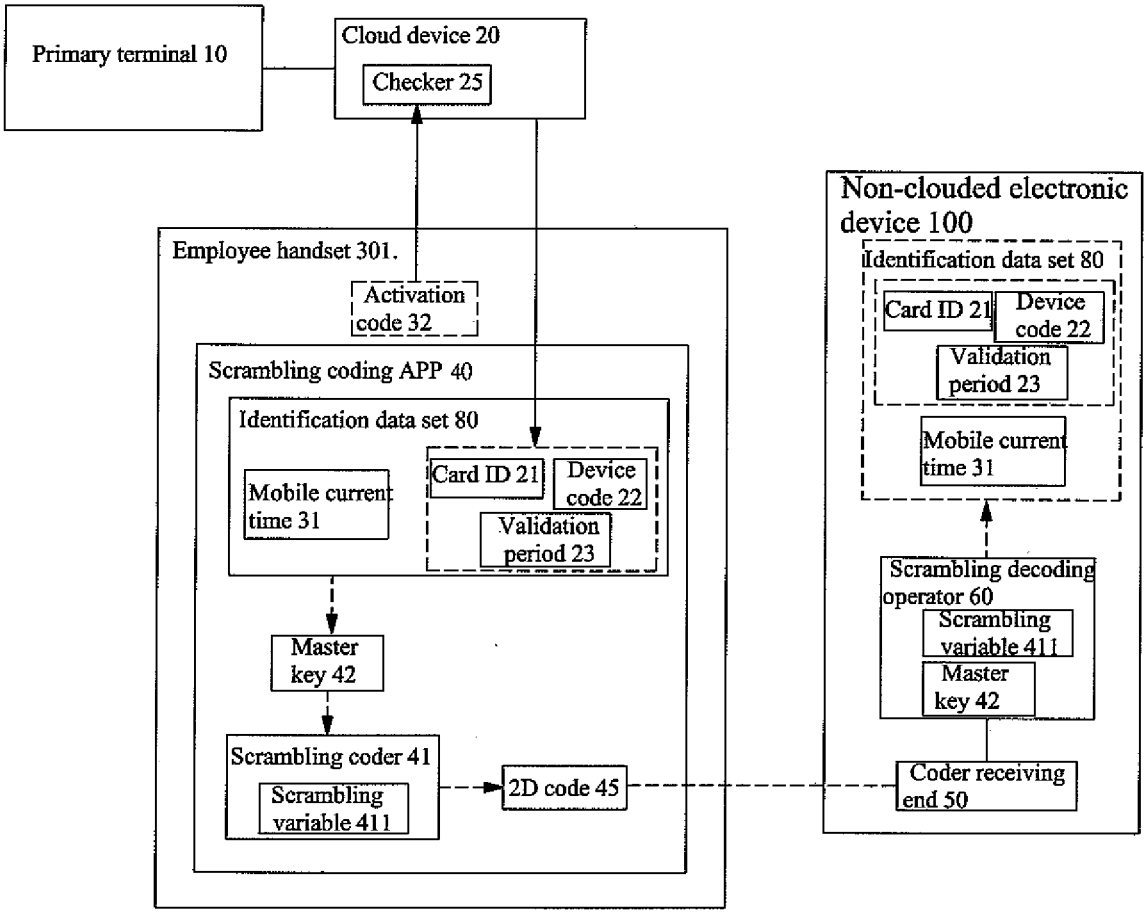

Primary terminal 10
Cloud device 20
Checker 25
Employee handset 301.
Activation code 32
Scrambling coding APP 40
Identification data set 80
Mobile current time 31
Card ID 21
Device code 22
Validation period 23
Master key 42
Scrambling coder 41
Scrambling variable 411
2D code 45
Non-clouded electronic device 100
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Scrambling decoding operator 60
Scrambling variable 411
Master key 42
Coder receiving end 50

Fig. 6

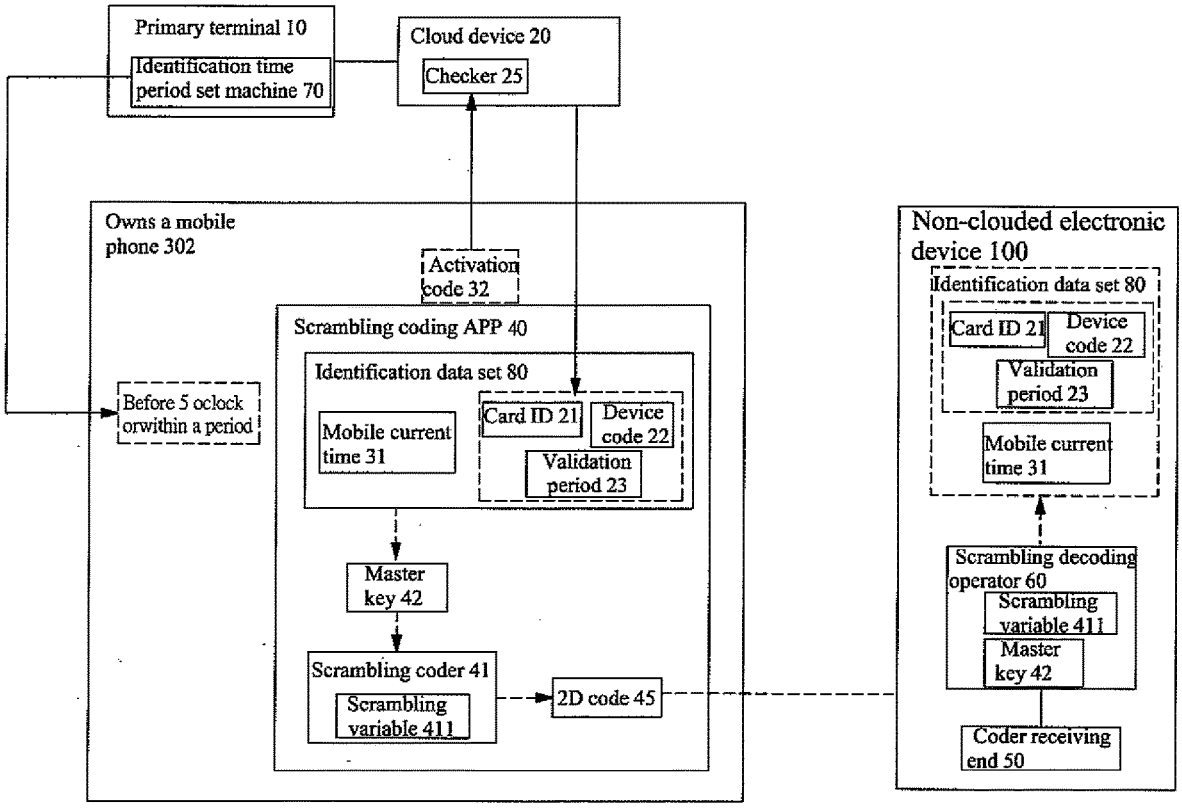

Primary terminal 10
Identification time period set machine 70
Cloud device 20
Checker 25
Owns a mobile phone 302
Activation code 32
Scrambling coding APP 40
Identification data set 80
Mobile current time 31
Card ID 21
Device code 22
Validation period 23
Before 5 oclock orwithin a period
Master key 42
Scrambling coder 41
Scrambling variable 411
2D code 45
Non-clouded electronic device 100
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Scrambling decoding operator 60
Scrambling variable 411
Master key 42
Coder receiving end 50

Fig. 7

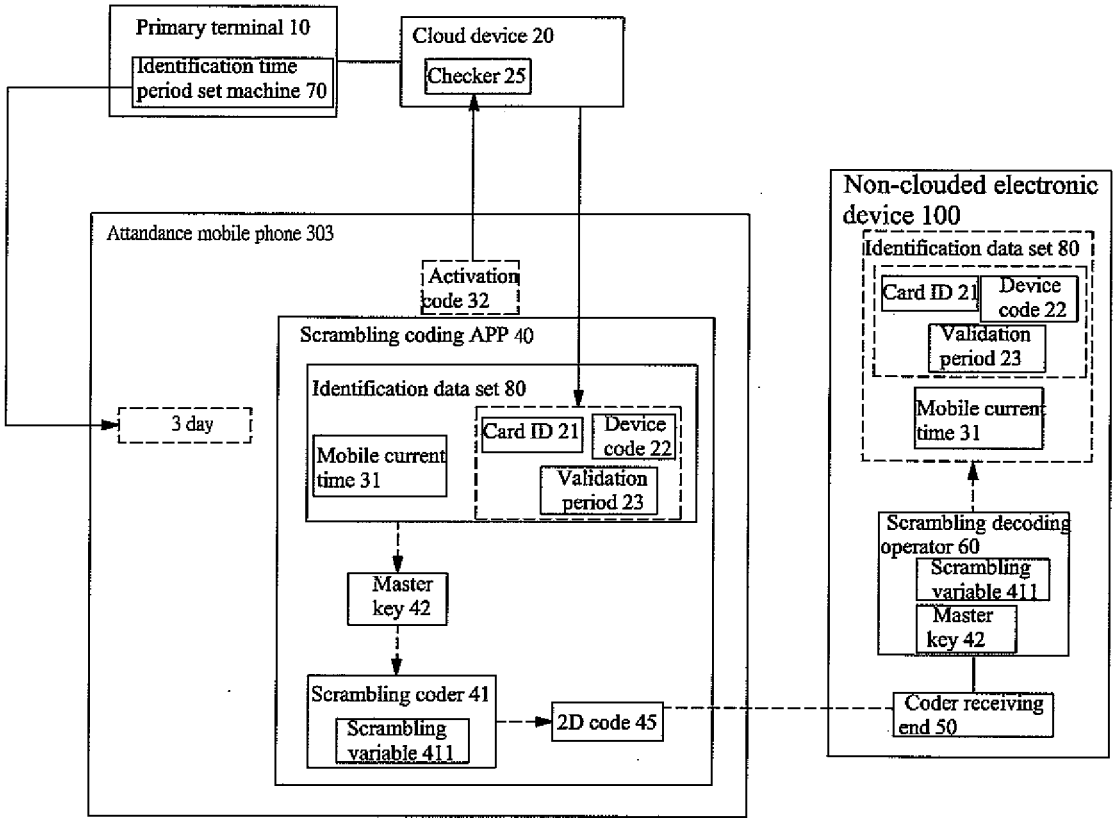

Primary terminal 10
Identification time period set machine 70
Cloud device 20
Checker 25
Attandance mobile phone 303
Activation code 32
Scrambling coding APP 40
Identification data set 80
3 day
Mobile current time 31
Card ID 21
Device code 22
Validation period 23
Master key 42
Scrambling coder 41
Scrambling variable 411
2D code 45
Non-clouded electronic device 100
Identification data set 80
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
Scrambling decoding operator 60
Scrambling variable 411
Master key 42
Coder receiving end 50

Fig. 8

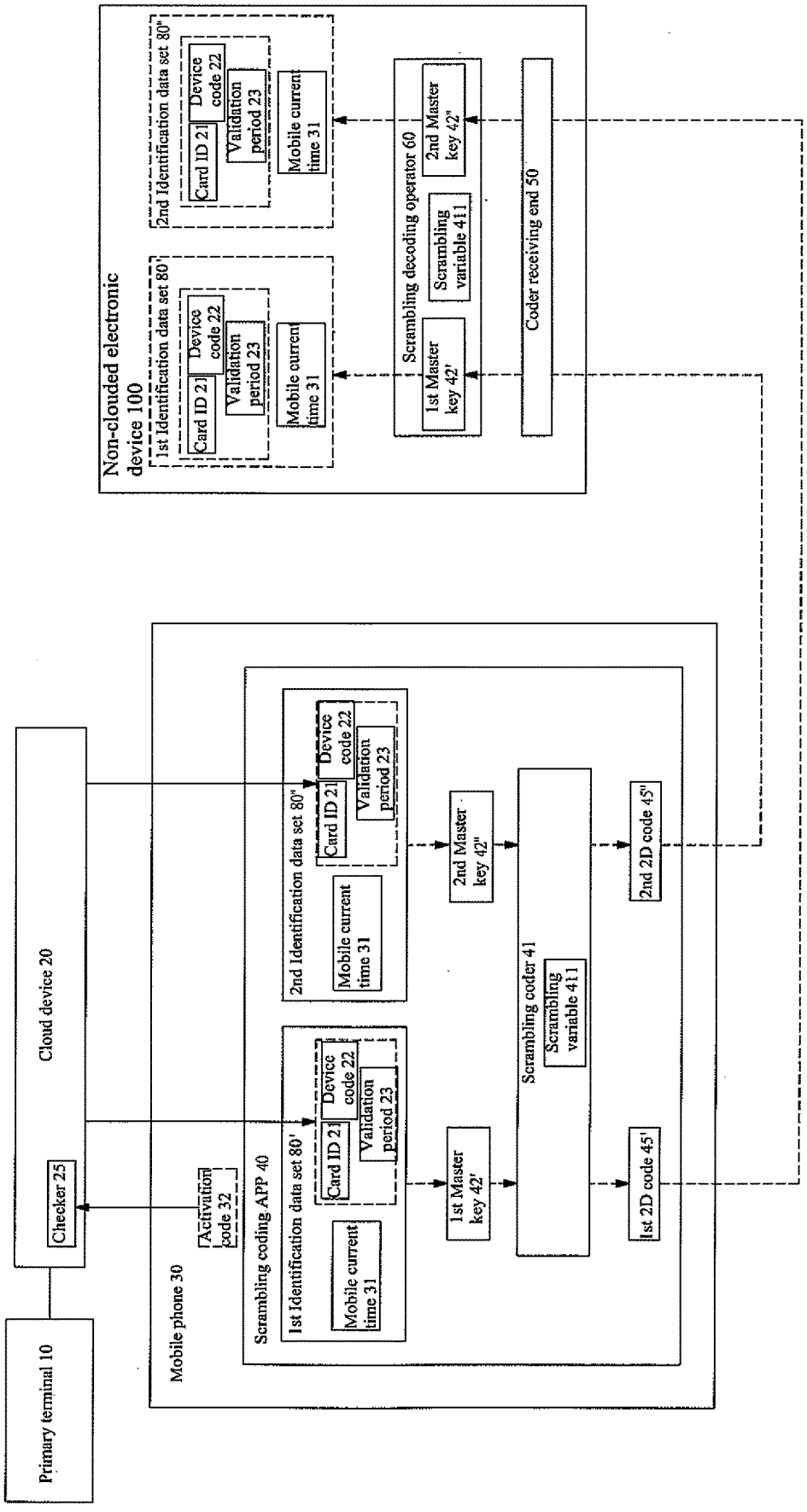

Primary terminal 10
Cloud device 20
Checker 25
Mobile phone 30
Activation code 32
Scrambling coding APP 40
1st Identification data set 80'
Card ID 21
Device code 22
Validation period 23
Mobile current time 31
1st Master key 42'
Scrambling coder 41
Scrambling variable 411
1st 2D code 45'
2nd Identification data set 80"
2nd Master key 42"
2nd 2D code 45"
Non-clouded electronic device 100
Scrambling decoding operator 60
Coder receiving end 50

Fig. 9

CARD IDENTIFICATION SYSTEM WITH SCRAMBLE CODING ABILITY

FIELD OF THE INVENTION

[0001] The present invention is related to identification of an identity of a person by using electronic devices, and in particular to a card identification system with scramble coding ability.

BACKGROUND OF THE INVENTION

[0002] 2D codes (such as QR code) serve to store specific information. The QR codes are attached to some objects for identification. Currently, 2D codes are widely used in identification of specific persons, such as using a mobile phone APP to generate a specific 2D code which represent a message about an identify of a user. If the 2D code is scanned by an electronic device, the user may be identified.

[0003] In identification of a person, the conventional 2D code has a specific form for a specific person for identification of a person. If this 2D code is copied undesired by another person. Then this person can pass through the identification of this code so that the identification system considers that the another person copied the 2D code **45** is that one which are lawfully authorized. This is not beneficial for control of persons and it is a threatening to the safety of the system.

[0004] Therefore, the object of the present invention is to provide a novel card identification system with scramble coding ability so as to resolve the problems of the prior art.

SUMMARY OF THE INVENTION

[0005] Accordingly, for improving above mentioned defects in the prior art, the object of the present invention is to provide a card identification system with scramble coding ability, wherein the present invention provides scrambling 2D codes which are varied with time, that is, it is not unique. If one 2D code **45** is copied, the copied 2D code is only effective in a very short time, such as 10 seconds. Therefore, it can assure the safety of the identification of a person. The 2D code **45** based on the present invention can be used in various status, such as an employee card, a visitor card, an attendance card, etc. The present invention also provides the function of mobile phone identification. The function of decoding can be equipped in a mobile phone so as to prevent that no network is connected.

[0006] To achieve above object, the present invention provides a card identification system with scramble coding ability, comprising: a primary terminal for providing data to a mobile phone, the data being about a person to be identified; the primary terminal being owned by an entity; a cloud device connected to the primary terminal for receiving instructions from the primary terminal for transferring at least one identification data set; each identification data set including a card ID, a device code, and a validation period; a mobile phone wirelessly connected to the cloud device; the mobile phone downloading a scrambling coding APP from the cloud device; the scrambling coding APP serving to receive the at least one identification data set transferred from the cloud device and adding a mobile current time from the mobile phone; wherein the scrambling coding APP is built with a scrambling coder and stored at least one master key; each master key being corresponding to a respective identification data set; different identification data set having its own master key; and wherein the scrambling coder is stored with a scrambling variable; the scrambling coding APP encrypts the card ID, the device code, the validation period of the identification data set and the mobile current time based on the master key of the identification data set so as to get an encryption data; then the encryption data is encoded by the scrambling coder by using the scrambling variable to become a 2 dimensional code; due to the action of the scrambling variable, the 2D code is time-varied; that is, the 2D code is only retained for a predetermined time period; after the period, the scrambling coder will generate another 2D code.

[0007] The card identification system with scramble coding ability further comprises a coder receiving end for receiving the 2D code from the scrambling coding APP; and a scrambling decoding operator connected to the coder receiving end; the scrambling decoding operator including the scrambling variable or other variables related to the scrambling variable and the at least one master key; wherein for a specific identification data set, the master key of the scrambling decoding operator is identical to the master key of the specific identification data set in the scrambling coding APP; the scrambling decoding operator receives the 2D code from the coder receiving end and decodes the 2D code as a decoded 2D code and then decrypts the decoded 2D code by using the master key so as to get the card ID, the device code, the validation period and the mobile current time corresponding to the identification data set; then the scrambling decoding operator determines whether the current time is in an effective time interval between the mobile current time and the mobile current time plus the validation period; if the current time of decoding is not between the effective time interval, the scrambling decoding operator considers that the time that the coder receiving end scans the mobile phone is over the effective time interval; that is to say, the 2D code is ineffective and then no succeeding operation is performed; if the current time of decoding falls into the effective time interval, then the device code is identified; and if the device code is effective, the card ID is transferred to the cloud device or the primary terminal to inform related members of the entity or to be recorded.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. **1** is a block diagram about the element arrangement in one embodiment of the present invention.

[0009] FIG. **2** is a block diagram about the element arrangement in another embodiment of the present invention.

[0010] FIG. **3** is a block diagram about the element arrangement in a further embodiment of the present invention.

[0011] FIG. **4** shows that the current time in decoding is within the period of effective time according to the present invention.

[0012] FIG. **5** shows that the current time in decoding is not within the period of effective time according to the present invention.

[0013] FIG. **6** shows a first application about the 2D code of the present invention.

[0014] FIG. **7** shows a second application about the 2D code of the present invention.

[0015] FIG. **8** shows a third application about the 2D code of the present invention.

[0016] FIG. **9** shows a fourth application about the 2D code of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] In order that those skilled in the art can further understand the present invention, a description will be provided in the following in details. However, these descriptions and the appended drawings are only used to cause those skilled in the art to understand the objects, features, and characteristics of the present invention, but not to be used to confine the scope and spirit of the present invention defined in the appended claims.

[0018] With reference to FIGS. **1** to **9**, the system of the present invention is illustrated. The system of the present invention is suitable for various kinds of communication systems, such as 2G, 3G, 4G, 5G, WiFi, blue tooth, NFC, etc. The present invention includes the following elements.

[0019] A primary terminal **10** serves to provide data about a person to be identified. The primary terminal **10** is owned by an entity, such as a business entity, a corporation, a school, etc.

[0020] A cloud device **20** is connected to the primary terminal **20**. The cloud device **20** serves to receive instructions from the primary terminal **10** for transferring at least one identification data set **80**. Each identification data set **80** includes a card ID **21**, a device code **22**, and a validation period **23**.

[0021] A mobile phone **30** is wirelessly connected to the cloud device **20**. The mobile phone **30** could download a scrambling coding APP **40** from the cloud device **20**. The scrambling coding APP **40** serves to receive the at least one identification data set **80** (including the card ID **21**, the device code **22** and the validation period **23**) transferred from the cloud device **20** and adds a mobile current time **31** from the mobile phone **30**.

[0022] The scrambling coding APP **40** is built with a scrambling coder **41** and at least one master key **42**. Each master key **42** is corresponding to a respective identification data set **80**. different identification data set **80** has its own master key **42**.

[0023] The scrambling coder **41** is stored with a scrambling variable **411**. The scrambling coding APP **40** encrypts the card ID **21**, the device code **22**, the validation period **23** of the identification data set **80** and the mobile current time **31** based on the master key **42** of the identification data set **80** so as to get an encryption data. Then encryption data is encoded by the scrambling coder **41** and by using the scrambling variable **411** to become a 2 dimensional code (2D code) **45**, such as a QR code. Due to the action of the scrambling variable **411**, the 2D code **45** is time-varied. That is, the 2D code **45** is only retained for a predetermined time period. After the period, the scrambling coder **41** will generate another 2D code **45**. The predetermined time period is the validation period **23**. For example, if the card ID **21** of the identification data set **80** is 01458, the device code **22** is ABC, the validation period **23** is 10 seconds, and the mobile current time **31** of the mobile phone **30** is 120315 (3 minutes and 15 seconds at 12 O'clock). The master key **42** is A01C78; and the scrambling variable **411** is the 120315 (sequential combination of number of hours, minutes and seconds).

[0024] The scrambling coding APP **40** encrypts the 01458, ABC, 10 second, and 120315 by using the master key **42** (A01C78). The scrambling coder **41** codes the encrypted data. The coding operation is performed every 10 seconds. The coding is effected by the scrambling variable **411**.

[0025] A coder receiving end **50** serves to receive the 2D code **45** from the scrambling coding APP **40**. The coder receiving end **50** may be installed in an independent non-clouded electronic device **100**, such as an independent decoder **101** (see FIG. **1**), another mobile phone **102** (referring to FIG. **2**), or other computers of various types,

[0026] A scrambling decoding operator **60** is connected to the coder receiving end **50**. The scrambling decoding operator **60** includes the scrambling variable **411** or other variables related to the scrambling variable **411** and at least one master key **42**. For a specific identification data set **80**, the master key **42** of the scrambling decoding operator **60** is identical to the master key **42** of the specific identification data set **80** in the scrambling coding APP **40**. The scrambling decoding operator **60** receives the 2D code **45** from the coder receiving end **50** and decodes the 2D code **45** as a decoded 2D code **45** and then decrypts the decoded 2D code **45** by using the master key **42** so as to get the card ID **21**, the device code **22**, the validation period **23** and the mobile current time **31** corresponding to the identification data set **80**.

[0027] Then the scrambling decoding operator **60** determines whether the current time is in the effective time interval between the mobile current time **31** and the mobile current time **31** plus the validation period **23**. For example, if the validation period **23** is 10 seconds, and the mobile current time **31** is 3 minutes and 15 second of 12 o'clock, that is 120315. Then the scrambling decoding operator **60** determines whether the current time is between 3 minutes and 15 second of 12 o'clock (12:3:15) and 3 minutes and 25 second of 12 o'clock (12:3:25)

[0028] With reference to FIG. **5**, if the current time of decoding is not between the effective time interval, the scrambling decoding operator **60** considers that the time that the coder receiving end **50** scans the mobile phone **30** is over the effective time interval. That is to say, the 2D code **45** is ineffective and then no succeeding operation is performed.

[0029] With reference to FIG. **4**, if the current time of decoding falls into the effective time interval, then the device code **22** is identified. If the device code **22** is effective, the card ID **21** is transferred to the cloud device **20** or the primary terminal **10** to inform related members of the entity or to be recorded.

[0030] In above description, the time of the mobile phone **30** must be synchronous with the time of the coder receiving end **50**. This can be achieved easily. It is preferred that the mobile phone **30** and the coder receiving end **50** are connected to a same network system.

[0031] The scrambling variable **411** or other variables related to the scrambling variable **411** are variables which are interrelated between the scrambling coder **41** and the scrambling decoding operator **60**. That is, the scrambling decoding operator **60** knows the scrambling variable **411** by which the scrambling coder **41** generates the 2D code **45**. The scrambling variable **411** may be hour, minutes and seconds or other variables related to time, or variables of other forms.

[0032] With reference to FIG. **3**, the scrambling decoding operator **60** of the present invention may be installed in the cloud device **20** so that it is separated from the coder receiving end **50**. The 2D code **45** is transferred to the cloud

device **20** through the coder receiving end **50**. Next, the scrambling decoding operator **60** decodes the 2D code **45**.

[0033] Or the scrambling decoding operator **60** is installed in a non-clouded electronic device **100** and is combined with the coder receiving end **50**. The non-clouded electronic device **100** is for example, an independent decoder, another mobile phone, or computers of various forms. Under the condition that the scrambling decoding operator **60** is combined with the coder receiving end **50**, the non-clouded electronic device **100** may identify the 2D code **45** directly. The objective of this installation is that when no network is used, the non-clouded electronic device **100** can decode and identify directly. Under this condition, the non-clouded electronic device **100** may be connected to the mobile phone **30** through a Bluetooth device. For example, the non-clouded electronic device **100** is another mobile phone (referring to FIG. **2**), such as a mobile phone owned by a member of the entity having the primary terminal **10**. The member may identify whether the person having the mobile phone **30** is a permissible person by the entity.

[0034] The cloud device **20** further includes a checker **25**. Before identify, the mobile phone **30** transfers an activation code **32** to the checker **25** of the cloud device **20**, the checker **25** will check whether the activation code is an acceptable code by the cloud device **20**.

[0035] Using a scrambling 2D code as a way for identifying a person according to the present invention may be used in the following applications. With reference to FIG. **6**, a first application of the present invention is used to identify an employee identification card. It includes the following processes.

[0036] The mobile phone **30** downloads the scrambling coding APP **40**. The mobile phone **30** is an employee handset **301**.

[0037] The primary terminal **10** sends a set of identification data set **80** (including the card ID **21**, device code **22** and validation period **23**) to the employee handset **301**.

[0038] The scrambling coding APP **40** adds a mobile current time **31** of the employee handset **301** to the identification data set **80**. Then with respect to the master key **42**, the scrambling coding APP **40** encrypts the card ID **21**, the device code **22** and the validation period **23** of the identification data set **80** and the mobile current time **31** of the employee handset **301** as an encrypted data. Then the encrypted data is coded into a time varied 2D code **45** by the scrambling coder **41** and using the scrambling variable **411**. When the employee needs to be identified, the coder receiving end **50** scans the 2D code **45** generated by the scrambling coding APP **40**. After the coder receiving end **50** reads the 2D code **45**, the scrambling decoding operator **60** decrypts and decodes the 2D code **45** by using the master key **42** and the scrambling variable **411** or other variables related to the scrambling variable **411** into the original card ID **21**, device code **22**, validation period **23** of the identification data set **80** and the mobile current time **31**. Then the scrambling decoding operator **60** determines whether the current time is a time between the "mobile current time **31**" and the "mobile current time **31**+mobile current time **31**". If yes, the device code **22** is identified to determine whether the device code **22** is a code acceptable by the entity. If yes, the card ID **21** is transferred to the cloud device **20** and the primary terminal **10** so as to make the members of the entity know or recode that the person owning the identification data set **80** is a permissible person.

[0039] The present invention further includes an identification time period set machine **70** which is located in the primary terminal **10** or the cloud device **20** for providing a time period which allows the scrambling coding APP **40** to generate the 2D code **45**. If the time period is out of the identification time period, the scrambling coding APP **40** does not generate 2D code **45**. That is to say, after the identification time period or the identification time, the person owning the mobile phone **30** is not permitted to enter into the entity.

[0040] In the following, two examples are provided for description of the identification time period set machine **70**.

[0041] FIG. **7** shows another application of the present invention. A visitor **30** owns a mobile phone **302**. The identification time period set machine **70** sets a time period of 2 hours or an due time of 5 o'clock. Therefore, the scrambling coding APP **40** in the mobile phone **302** generates 2D code **45** only at a time period of 2 hours, or before 5 o'clock. If over the time setting, the visitor is not permitted to enter into the entity.

[0042] FIG. **8** shows a third application of the present invention. It is shown that the present invention is used to an attendance card for a meeting. In this example, the identification time period set machine **70** can set a time period of 3 days. Therefore, the scrambling coding APP **40** in the mobile phone **302** generates 2D code **45** only at a time period of 3 days. If over the time setting, the scrambling coding APP **40** does not generate the 2D code **45** based on the identification data set **80** and the attendance is not permitted to enter into the entity.

[0043] FIG. **9** shows an example that the present invention is used in a case of multiple identification data sets **80**. In this application, elements with numerals identical to the above applications mean that they have the same functions. Therefore, the details of these elements are not further described herein. In the following, an example of two identification data sets **80** is used as an example for description.

[0044] The identification data sets **80** includes a first identification data set **80'** and a second identification data set **80"**. The first identification data set **80'** has a respective master key **42'** and the second identification data set **80"** has a respective master key **42"**. The first master key **42'** is not identical to the second master key **42"**. After scrambling coding, a first 2D code **45'** and a second 2D code **45"** are generated. In the scrambling decoding operator **60**, it uses the first master key **42'** and the master key **42** to decrypt and decode the first 2D code **45'** and uses the second master key **42"** and the master key **42** to decrypt and decode the second 2D code **45"** so as to get the first identification data set **80'** and the second identification data set **80"**. Then the scrambling decoding operator **60** determines whether the current time is in the effective times, respectively as the above mentioned way and then the scrambling decoding operator **60** determines whether the device codes of the first identification data set **80'** and the second identification data set **80"** are effective, respectively. The process is identical to the first embodiment, while each identification data set **80** has its master key **42**.

[0045] When there are a plurality of identification data sets **80**, there may be a plurality of coder receiving ends **50**. Each coder receiving end **50** has a respective identification data set **80**. For example, an entity has a plurality of departments, and each department has its own coder receiving end **50**. Each coder receiving end **50** can identify one of the 2D

codes **45** so as to determine whether the person having the 2D codes **45** can enter into the department.

[0046] Advantages of the present invention are that the present invention provides scrambling 2D codes which are varied with time, that is, it is not unique. If one 2D code **45** is copied, the copied 2D code is only effective in a very short time, such as 10 seconds. Therefore, it can assure the safety of the identification of a person. The 2D code **45** based on the present invention can be used in various status, such as an employee card, a visitor card, an attendance card, etc. The present invention also provides the function of mobile phone identification. The function of decoding can be equipped in a mobile phone so as to prevent that no network is connected.

[0047] The present invention is thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the present invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.

What is claimed is:

1. A card identification system with scramble coding ability, comprising:

a primary terminal for providing data to a mobile phone, the data being about a person to be identified; the primary terminal being owned by an entity;

a cloud device connected to the primary terminal for receiving instructions from the primary terminal for transferring at least one identification data set; each identification data set including a card ID, a device code, and a validation period;

a mobile phone wirelessly connected to the cloud device; the mobile phone downloading a scrambling coding APP from the cloud device; the scrambling coding APP serving to receive the at least one identification data set transferred from the cloud device and adding a mobile current time from the mobile phone;

wherein the scrambling coding APP is built with a scrambling coder and stored at least one master key; each master key being corresponding to a respective identification data set; different identification data set having its own master key; and

wherein the scrambling coder is stored with a scrambling variable; the scrambling coding APP encrypts the card ID, the device code, the validation period of the identification data set and the mobile current time based on the master key of the identification data set so as to get an encryption data; then the encryption data is encoded by the scrambling coder by using the scrambling variable to become a 2 dimensional code; due to the action of the scrambling variable, the 2D code is time-varied; that is, the 2D code is only retained for a predetermined time period; after the period, the scrambling coder will generate another 2D code.

2. The card identification system with scramble coding ability as claimed in claim **1**, further comprising

a coder receiving end for receiving the 2D code from the scrambling coding APP; and

a scrambling decoding operator connected to the coder receiving end; the scrambling decoding operator including the scrambling variable or other variables related to the scrambling variable and the at least one master key;

wherein for a specific identification data set, the master key of the scrambling decoding operator is identical to the master key of the specific identification data set in the scrambling coding APP; the scrambling decoding operator receives the 2D code from the coder receiving end and decodes the 2D code as a decoded 2D code and then decrypts the decoded 2D code by using the master key so as to get the card ID, the device code, the validation period and the mobile current time corresponding to the identification data set;

then the scrambling decoding operator determines whether the current time is in an effective time interval between the mobile current time and the mobile current time plus the validation period; if the current time of decoding is not between the effective time interval, the scrambling decoding operator considers that the time that the coder receiving end scans the mobile phone is over the effective time interval; that is to say, the 2D code is ineffective and then no succeeding operation is performed; if the current time of decoding falls into the effective time interval, then the device code is identified; and if the device code is effective, the card ID is transferred to the cloud device or the primary terminal to inform related members of the entity or to be recorded.

3. The card identification system with scramble coding ability as claimed in claim **2**, wherein the time of the mobile phone is synchronous with the time of the coder receiving end.

4. The card identification system with scramble coding ability as claimed in claim **2**, wherein the scrambling variable or other variables related to the scrambling variable are variables which are interrelated between the scrambling coder and the scrambling decoding operator; that is, the scrambling decoding operator knows the scrambling variable by which the scrambling coder generates the 2D code.

5. The card identification system with scramble coding ability as claimed in claim **2**, wherein the scrambling variable is hour, minutes and seconds.

6. The card identification system with scramble coding ability as claimed in claim **2**, wherein the scrambling variable is related to time.

7. The card identification system with scramble coding ability as claimed in claim **2**, wherein the predetermined time period is the validation period.

8. The card identification system with scramble coding ability as claimed in claim **2**, further comprising an identification time period set machine which is located in the primary terminal or the cloud device for providing a time period or a time which allows the scrambling coding APP to generate the 2D code; if the time period is out of the identification time period or the time, the scrambling coding APP does not generate 2D code.

9. The card identification system with scramble coding ability as claimed in claim **2**, wherein the scrambling decoding operator is installed in a non-clouded electronic device.

10. The card identification system with scramble coding ability as claimed in claim **8**, wherein the non-clouded electronic device is an independent decoder or another mobile phone, so that the non-clouded electronic device can identify the 2D code directly.

11. The card identification system with scramble coding ability as claimed in claim **8**, wherein the scrambling decoding operator is installed in the cloud device so that it is

separated from the coder receiving end; the 2D code is transferred to the cloud device through the coder receiving end; then the scrambling decoding operator decodes the 2D code.

12. The card identification system with scramble coding ability as claimed in claim **8**, wherein the scrambling decoding operator is installed in a non-cloud device so s to be combined with the coder receiving end.

13. The card identification system with scramble coding ability as claimed in claim **1**, wherein the system is applied to one of communication systems of 2G, 3G, 4G, 5G, WiFi, blue tooth and NFC.

14. The card identification system with scramble coding ability as claimed in claim **2**, wherein the 2D code is QR code.

15. The card identification system with scramble coding ability as claimed in claim **2**, wherein the cloud device includes a checker; before transferring the identification data set, the mobile phone transfers an activation code to the checker of the cloud device, the checker will check whether the activation code is an acceptable code by the system.

16. The card identification system with scramble coding ability as claimed in claim **2**, wherein the at least one identification data sets are a plurality of identification data sets; each identification data set has its own related master key; and the scrambling coding APP encrypts and encode each identification data set by using the master key which is related to the identification data set and the scrambling variable; and the scrambling decoding operator decoding and decrypting the 2D code by using the scrambling variable or other variable related to the scrambling variable and the master key related to the identification data set.

17. The card identification system with scramble coding ability as claimed in claim **15**, wherein when there are a plurality of identification data sets, there are a plurality of coder receiving ends; and each coder receiving end has a respective identification data set.

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