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Automated driving licence using NFC

Shreyas Singh, Vishal Singh, Ansari Zaid, Jai Sorathia

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Abstract *— French drivers are now being issued with new multi-application driving licenses based on contactless smart cards that contain both a public and a private data area. The private area can only be accessed and verified by police and other authorities while the public area can be read by an NFC phone and used by third parties to, for instance. The polycarbonate driving licenses house an ISO 14443 compliant microprocessor that includes two storage areas, one for public and one for private data. The private space will be used to store driving license data so that it can be verified by police officers in cases involving suspected fraud or other criminality. The space provisioned for public usage will be offered to a variety of service providers and will be able to be read by an NFC phone.*

Keywords- *NFC, ISO, RTO, ID, RIM.*

I. INTRODUCTION

The need for manual RTO based systems is completely reduced in this method and the RTO system works through NFC. A complete NFC system consists of a transponder (tag), reader/writer and computer host. the transponder, better known as the tag. The microchip contains memory to store a unique data and to receive and send data back to the reader. These tags are powered by the electromagnetic signal received from a reader. Development in technology bring digital world to be border-less. It's proven through a developed technology, when trade and transaction can be done not only using real money but also virtual one Shopping process using virtual money has even more supported by existed Near Field Communication (NFC) device. This particular device works using radio frequency. In the year of 2011, Google was integrating this device into a Android-based cell phone, which made transactions using virtual money gradually developed.The NFC tag is used as a unique identity for account of a particular user. When a vehicle driver caught by a traffic police, its driver is prompted to scan his NFC tag. If the identity (serial number of the tag) is matched with the one already stored in the system, the historical records of that driver get fetch on a mobile phone. Traffic police can also placed a new complaint about that driver. If police placed a new complaint then the fine amount will get deducted from his total balance. After this, the vehicle gets immediate access to drive through. This NFC based RTO system also has some additional features. A new user can register him with the system. Also an old user can recharge his account balance. The amount for recharge can be entered in the system. In beginning, the user is prompted to scan his tag or ID. The serial code of the tags identified by the reader module and is sent for comparison with stored data. If the ID is matched by the microcontroller, the fine amount is deducted from user's balance and user gets to drive through the area.

II. HIGHLIGHTS

- Simple operation: the app is simple and intuitive. All necessary actions are displayed graphically.
- The latest technologies: the checks are performed using NFC (near field communication) technology. The license must have embedded NFC chips that can be read by the smartphone app.
- Maximum security: the embedded NFC chips can be provided with a predetermined breaking point. An attempt to detach the chip from the licence would irrevocably destroy the chip.
- Data protection: no personal information would be stored on the licence's NFC chip.
- Legality: this automated licence check system has been developed on the basis of German law.

III. PROPOSED SYSTEM

Various phones and tablets now comes with integrated scanner that can detect NFC chips. All you have to do for driver's licence checks is you will have to attach a single low-cost NFC chip to the driver's licence. This NFC chip stores a unique identity numbers. This ID will be read by the smartphone containing NFC to web app with the underlying NFC technology and uniquely associated with the driver's master data in the web application. Now the drivers can perform the automated checks with NFC to web application. They just need to hold their driver's licences attached to the

smartphones. The phone scans the chip and will retrive the unique id from the chip. The data connection can be established via mobile data connection or by a local wireless network.

IV. NFC (near field communication)

NFC, or near field communication, is an emerging technology that will power mobile payment systems and mobile wallet solutions, like those in development by Apple, Google, RIM, mobile operators, banks and others. But NFC itself is just a way to send data wirelessly between devices, meaning it can be used for far more than mobile payments alone. One way to take advantage of a phone's NFC capabilities is to make your own NFC tags. These tags, when read by your phone, can perform a number of actions, like open a map, launch a website, change your phone's settings and configurations, plus dozens of other tasks. Wouldn't it be fun to make tags like that? Well, now you can. Here's how. One of the most popular phones to have NFC built in is Google's flagship device, the Samsung Nexus S. However, it's not the only one. There are many phones you can buy today that have NFC built in, and there are several more than are coming soon, like the Nokia Astound (C7) or Samsung's Galaxy S II, which will include NFC in some models. This level of support is designed for organisations in the early concept or planning stages of a migration to smart card, smart device or Near Field Communication (NFC) technology. FIME drives the transition from initial business development to rollout.

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VI. CONCLUSION

Automation of Road Transport Department through Cellular Network can be used to introduce a facility for the R.T.O department to perform various activities such as verification of the License and Vehicle documents digitally. It will also provide support to officials to maintain porfoliosmanagerily and reduces a buredenof paper work and manual efforts. We also have evaluated some basic requirements of such system and had attempted to meet those requirements as much as possible in the design and implementation of our system. for future enhance, as per the user's requirement our whole Program was implemented. It provides a better way of document verification. Our system is an integration of several systems that in present act as a separate system. The future system Maintains detail information of Driving License, Vehicle Registration, Emission and Insurance information of related vehicle. It will also reduce a lot of clerical works and provides better accountability.

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