INTERNATIONAL JOURNAL
FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

A Research on Accidents and First Aid – Project InfoH Aid

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Abstract: The traditional response a person who met with an accident get is firstly he is taken to the hospital and then different tests are conducted on him regarding his internal problems and in most of the cases by the time the report comes the patient had gone to a serious condition. This has to be stopped, hence I collected data about all those problems when the patients condition should be known anytime and come up with a solution i.e Project InfoH that has immense future.
General Terms: Accidents , First Aid , App
Keywords" Service Models, Challenges, Risks.

I. INTRODUCTION

This survey shows some shocking results and when I dig a little deeper into the problems the person who just met with an accident faces, I was literally amazed to see the results. Many people have to face serious consequences just because of the delay they had for the real treatment to start.

In the present situation, We need to think for a way so that this problem can be solved in an efficient and sustainable way . Hence I come up with this idea to correct this loop hole in our First Aid system.

"The idea is to build a web portal or an app that is authorized by the government of India"

This paper aims to select the security and building of the network and to investigate common solutions used to overcome the potential life threats. The research questions that are handled in this study:

A. What are the challenges related to building the portal that contain such confidential and personal data?
B. What are the existing solutions to deal with this first aid problem that many person who faces an accident had to deal with?
C. How does an organization deal with the data and what is the best thing that could act as a primary key for such vast data ?l

The structure of this study is organized as follows. The overview is explained in the next section. Section III provides an overview of the security challenges and risks in the InfoH model. Section IV discusses the outcomes. Finally, section V concludes the thesis with the output of this thesis with its future directions.

II. BACKGROUND

In 2015, there were about five lakh road accidents in India, which killed about 1.5 lakh people and injured about five lakh people. India, as a signatory to the Brasilia declaration, intends to reduce road accidents and traffic fatalities by 50% by 2022. The Motor Vehicles (Amendment) Bill, 2016 has been listed for consideration and passage in the current Budget Session of Parliament. It seeks to address issues related to road accidents, third party insurance and road safety measures.

A. InfoH Model

The concept of InfoH model is to provide real-time assistance to doctors to access a network and avail several data of the patient through a protected environment. InfoH characteristics are real-time on-

Demand services where a doctor needs to see all the previous reports, internal body issues, blood group information and other information of the person that had been met with an accident and is admitted to their hospital so that the doctor can act as fast as possible and the chances of the patients recovery can be increased.

B. Security

The implementation of security of such confidential data would be a very difficult task. But to secure the data certain measures can be taken that can safeguard the data of literally every citizen of our country. Those measures are mentioned further in this section.

1) *Data Security:* Data protection or security is the primary service to be applied in the cloud to protect user authorization and authentication. The term confidentiality refers to the process of protecting data stored in a third-party location or outside the organization boundary. Some measures should be taken to protect data from any threats.

The process of archiving data in a remote location or server raises some issues related to data privacy and confidentiality. Some of these challenges are discussed below [13]:

a) The primary challenge of InfoH is data privacy. Users' personal information have to be secured at any cost.

b) The service level agreement should be established between the organization and Cloud SP to maintain the privacy of users' data. It will support organizations to minimize data loss and risk-oriented to data confidentiality.

c) The rights such as obligations, status, privacy, and confidentiality can be modified or changed by a user through cloud SP. The user can make a request to SP based on type and category of users' information

d) An unauthenticated usage of remote storage can lead to access the important files such as the legal status information of personal and business. It may cause damage to the reputation of an organization.

e) Disclosing the information on the storage location of information about privacy and confidentiality may cause adverse effects to cloud data protection. A false obligation to process or store data into a remote location can cause damage to data privacy.

f) Information can be stored in multiple legal locations, however, the legal consequences will differ for each location.

2) *Data Integrity:* The constraints and transactions of a database can support an isolated system to maintain data integrity. However, it is not easy to maintain it for a distributed database, where data is stored in multiple locations. Therefore, the Cloud environment should apply an effective mechanism to maintain data integrity for cloud storage. The lack of controls or methods for data integrity can impose many problems/issues in the cloud environment. Developers and management staff should handle data integrity carefully and not compromise for any kind of cloud-based application. An improper data integrity control can lead to data manipulation or even loss of data. In some rare cases, the SP can remove rarely used data and failed to inform users about the data removal [15]. There is a lack of universal policy for exchanging data in a cloud environment. It will give restricted access to users and allow users to access limited resources.

3) *Data Availability:* Data availability is one of the prime issues in a cloud environment. Users can experience downtime errors while accessing important data or information [16]. Therefore, a service level agreement should mention the downtime of the server, so that the client will not face any problems and adjust their timings for accessing data.
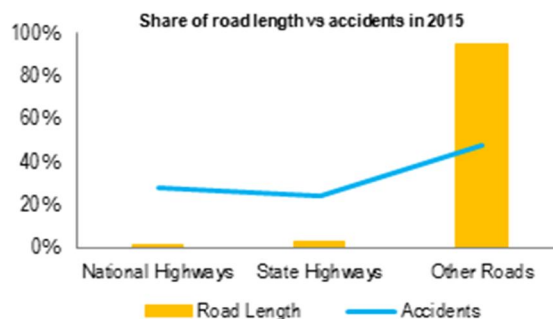
III. SECURITY CHALLENGES

Security is the primary issue for an organization during the transition from a traditional networking system to a cloud environment. The transaction of data from one to another place is too hard in cloud systems due to security threats. The consumer should be vigilant during the transaction of data and understand the risk of data threats in CC environment.

IV. RESEARCH

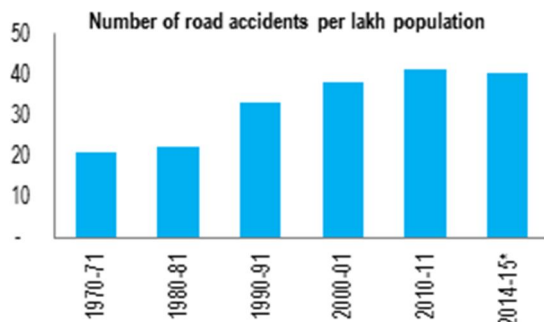The research about the accidents that took place in India every year depicted the below points.

National Highways comprise 2% of the total road network, but witness 28% of the road accidents

1) While highways (both national and state) comprise about 5% of the total road network, they witness 52% of the accidents. More accidents on highways may be attributed to higher vehicle speeds and higher volume of traffic on these roads.
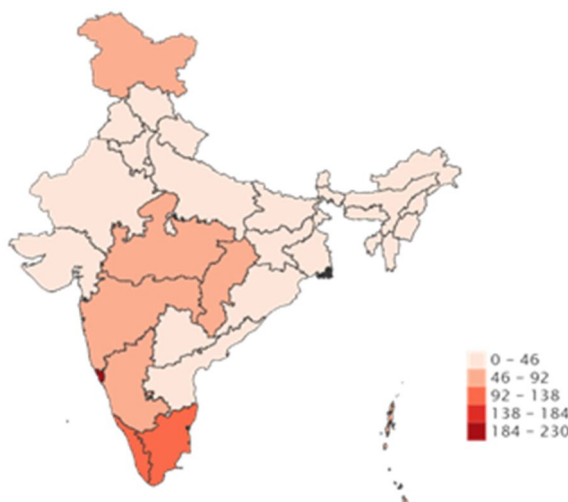
2) Road standards, construction, and maintenance is determined by the authority under whose jurisdiction the road falls. Various expert committees have noted that the responsibility for road safety is diffused across various bodies, and there is no effective coordination mechanism between these bodies.

National Highways comprise 2% of the total road network, but witness 28% of the road accidents.

Number of persons killed in road accidents/ lakh population

V.   FUTURE OF InfoH

This proposal could be taken by government of India to safeguard the lives of citizen of India. The best tgat government could do is to link the data of every citizen with their adhaar card number as it is a unique number that ever citizen of India has and this will solve the problem of having a primary key to identify each citizen.

VI.   CONCLUSION

The InfoH model is the best way to save thousand of lives as it is very helpful in providing essential details of the person who met with an accident or suddenly had a medical issue to the doctors and allow the doctors to take necessary initial aids to save the lives of the patients.

This is a revolutionary model that has never been introduced anywhere and this could be a great help to millions in the future.

This project only needs to be secured and authorized by the government.

REFERENCES

[1] Websites like txdot.gov helped me getting the data about accidents that took place in India.
[2] Dot.ga.gov is also one of the website that helped me collecting the data.

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