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A Framework to Implement Mobile Governance Visitors System at Rashtrapati Bhavan, India

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Abstract--- Mobile government or m-Government, is the extension of electronic government or eGovernment to mobile platforms. The various mobile platforms are laptop computers, personal digital assistants and wireless internet infrastructure. Mobile government can be a wide range of government services and applications, available via various mobile networks and designed for a broad range of devices and presentation layers. The various Benefits of m-Government are Cost reduction, Efficiency, Transformation/modernization of public sector organizations, Added convenience and flexibility , Better services to the citizens and Ability to reach a larger number of people through mobile devices than would be possible using wired internet only. These benefits identified into three categories: benefits to the government, citizens and the industry. The m-Governance framework of Government of India aims to utilize the massive reach of mobile phones and harness the potential of mobile applications to enable easy and

round the clock access to public services, especially in the rural areas. The framework aims to create unique infrastructure as well as application development ecosystem for m-Government maintenance of various visitors at Rashtrapati Bhavan.

*Keywords ---*India, M-Governanent, Framework

I. INTRODUCTION

Rashtrapati Bhavan is the residence of the President of the largest democracy in the world and it is a living heritage. Few official residential premises of the Head of the State in the world will match the Rashtrapati Bhavan in terms of its size, vastness and its magnificence. It is a historical monument with immense significance in Indian social and political

life. It is open for public viewing on selected days with a view to educating the public on various aspects of its archaeological, historical and social significance.

A mobile app, short for mobile application or just app, is application software designed to run on smartphones, tablet computers and other mobile devices. Apps are usually available through application distribution platforms, which began appearing in 2008 and are typically operated by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Store, and BlackBerry App World. Some apps are free, while others must be bought. Usually, they are downloaded from the platform to a target device, such as an iPhone, BlackBerry, Android phone or Windows Phone, but sometimes they can be downloaded to laptops or desktop computers. For apps with a price, generally a percentage, 20-30%, goes to the distribution provider (such as iTunes), and the rest goes to the producer of the app. The same app can therefore cost the average Smartphone user a different price depending on whether they use iPhone, Android, or BlackBerry 10 devices.

The term "app" is a shortening of the term "application software". It has become very popular and in 2010 was listed as "Word of the Year" by the American Dialect Society. In 2009, technology columnist David Pogue said that newer smartphones could be nicknamed "app phones" to distinguish them from earlier less-sophisticated smartphones.

The popularity of mobile apps has continued to rise, as their usage has become increasingly prevalent across mobile phone users. This increase in usage is paralleled by a trend in usage, in that - originally mobile apps were created to serve as tools for work or communication. As usage of apps and app creation became more mainstream the focus of apps became primarily gaming and social media, now the mobile app has undergone a third change in focus and we are seeing a rise in what is termed; 'life-invading-apps' for example: the 2014 app "it's time to breath" tells users when to take a breath of precious air to prevent oxygen starvation or the equally ridiculous: "How

many wipes?" where users tell the app when they have excreted, and the relative size and the app relays how many wipes the user should give their behind.



According to market research firm Gartner, 102bn apps will be downloaded in 2013 (91% of them will be free) but they will still generate US\$26billion, up 44.4% on 2012's US\$18bn. An analyst report estimates that the app economy creates revenues of more than 10 billion Euros per year within the European Union, while over 529 thousand jobs have been created in EU28 states due to the growth of the app market.

2.0 PRESENT SYSTEM

Earlier, Rashtrapati Bhavan was open to a limited number of people who used to send written requests for permission. Visits to Rashtrapati Bhavan were open on Mondays, Wednesdays, Fridays and Saturdays. The timings for the visits were from 0930 hrs to 1130 hrs and from 1430 hrs to 1600 hrs. This system was opaque, inefficient and out of bound for the common citizens. The President in his assumption speech mentioned our motto – 'All for knowledge and knowledge for all.'

Taking an inspiration from this philosophy, it was decided to make access to this institution transparent, easily accessible, and equitable for the citizens by using modern technology. The idea is to provide quality services to the citizens who want to visit the Rashtrapati Bhavan. With this ideal in mind, the E-Management of Visitors System (E-MVS) was launched. Rashtrapati Bhavan is probably the first Head of the State office to introduce online visitors' management system, which makes use of barcoded security systems for monitoring the visitors. The success of this initiative is inspired by the President's desire to bring this temple of democracy within the reach of common citizens and students.

The project was conceived to provide equitable access to the citizens with a unique experience for enhancing their knowledge about the Indian democratic system. The priorities of the project were to bring this living heritage to the younger generation. Date of launch of the system was 21st December, 2012. The first visit to Rashtrapati Bhavan through this system took place on 3rd January, 2013.



Fig : Honourable Sri Pranab Mukherjee , The President of India

According to the President of India “I believe that a multi-pronged strategy involving technology development, new marketing methods, precision in farm operations and innovative policy instruments is required to ensure agricultural sustainability and food and livelihood security and I would stress the importance of due attention to modernising food storage and its distribution”

3.0 RELATED WORK



Fig : Apps in Mobile Phone

Today, mobile devices have become the indispensable part of our lives. A wide variety of services and tasks including banking, advertising, online payments, shopping and much more is accomplished with the help of mobile. These devices have become the soul of number of businesses. With the more mobile device appearance in the market and new mobile OS' the scope of mobile app development is increasing. Now, the question arises about the profitability of this development. If we look at the facts and figures about the paid and free applications then we can have a glimpse on some reports.

Mobile application development is defined as the set of varied processes and procedures engaged in writing software for small, wireless computing devices including smart phones or tablets. The process of developing mobile applications is considered the tricky job as one has to go along with the certain Smartphone or OS for the development procedure. At the time of cross-platform formatting, the task of creating compatibility for multiple devices and OS' is becomes more difficult.

It is an undeniable thing that whether it is any industry, business or developer involved in paid or free application development everyone urges to make money. **Mobile app development** can prove to be gainful with the support of following factors:

Applications for Single and Cross-Platforms: In terms of handling, single platform applications are rated better but able to work certain platform like an iPhone application.

Formatting of apps for cross-platforms is complex one as selection of accurate platforms and their

implementation is really challenging. While, with the help of this method, you are sure to increase the access of your application among more and more users.

Evaluation of the Cost and Profit of Mobile App Development: Any standard pricing scheme has not been set for designing, development and implementation of a qualitative mobile application. The profit aspect also needs to be kept in mind as cost of development should be managed in such a manner that it is less than your profit.

Free App is Stated as a Good Option to be Used in Mobile Advertising: Mobile advertising is gaining its popularity day by day as it is very convenient to read ads as a text on a mobile phone. As per the predictions, mobile advertising is expected to hit \$5.4 billion by 2015. So, creating applications used in mobile advertising is an alluring deal for developers.

More Clicks Can be Generated with Games and Other Entertainment Apps: 300,000 iOS apps and the 200,000 Android applications fall under various categories including social, entertainment, games, etc have appeared with wonderful results. Thus, creating mobile applications for these areas is a deal of gain.

The USA.gov website, apps.usa.gov, is a good starting point for discovering more about mobile apps in government. The site currently lists 31 different apps, such as the FBI's Ten Most Wanted, FCC's Mobile Broadband Test, Find a Health Center (near you), UV Index (wherever you are), and Veteran's Affairs Mobile. These are just a small sampling, but give some indication of the range of interests, audiences, and features that government agencies provide via mobile devices.

This site only lists "mobile apps," which are applications designed for and deployed on specific mobile operating platforms and available (for free) through the app stores of these platforms. The other approach to mobile development is "mobile sites" that use standard code (HTML5, CSS3, JavaScript) and can "run" on nearly any mobile device just like a

website on a browser. There are pros and cons to each method. Many government agencies develop and deploy their mobile offerings via both methods—511NY is one good example of this dual approach.

MOBILE STRATEGY FOR GOVERNMENT: FIVE KEY ELEMENTS

- The benefits of mobile extend beyond apps that enhance citizen services to policies, practices, and applications that improve an agency's workforce performance.
- Accept that mobile is everywhere and it's here to stay. Do not dismiss or delay your adoption of mobile technologies because "it's just the latest trend."
- Recognize that mobile is more than another delivery mechanism. Mobile brings a new set of capabilities – such as GPS location services, cameras, remote control, and testing – that can be leveraged to redefine how, what, when and where services are delivered.
- Address security, compliance, and identity management. Do not take shortcuts around the very real and possibly new security and compliance issues that the adoption of mobile raises.
- Evaluate mobile apps versus the mobile Web. If device features are not so critical, a mobile Web approach may be better and vice versa. But apps can also take more time, money, and resources to develop and deploy. Identifying why you are developing and for whom can help you decide.

4.0 PROPOSED SYSTEM



Fig : Rapp in the Mobile Phone

As part of National e-governance plan, Indian government has announced m-Governance framework that aims to utilize the massive reach of mobile phones and harness the potential of mobile applications to enable easy and round-the-clock access to public services, especially in the rural areas.

To ensure the adoption and implementation of the framework in a time-bound manner, the government will develop Mobile Services Delivery Gateway (MSDG), i.e. the core infrastructure for enabling the availability of public services through mobile devices. This will be developed and maintained by an appropriate agency within DIT. MSDG is proposed to be used as a shared infrastructure by the Central and State Government Departments and Agencies at nominal costs for delivering public services through mobile devices

To ensure successful implementation of the platform with requisite levels of security and redundancy, following actions will be taken:

- **Content for Mobile Services:** Due to lower-bandwidth and smaller-screen characteristics of mobile devices, successful development and deployment of mGovernance will require development of separate mobile-ready content. Similarly, to meet the needs of all the potential users, the applications will need to be developed Framework for Mobile Governance in the

relevant local languages for the various channels of delivery. Open standards and open source software, to the extent possible, will be used to ensure interoperability and affordability of the content and applications developed.

- **End User Interface:** End-user devices include landline phones, mobile phones, smart phones, personal digital assistants (PDAs), tablets, and laptops with wireless infrastructure. Mobile applications developed shall take into consideration appropriately the wireless-device interface issues, such as bandwidth limitations, micro-browser and micro-screen restrictions, memory and storage capacities, usability, etc.
- **Mobile Applications (Apps) Store:** A mobile applications (m-apps) store will be created to facilitate the process of development and deployment of suitable applications for delivery of public services through mobile devices. The m-apps store shall be integrated with the MSDG and it shall use the MSDG infrastructure for deployment of such applications. It is proposed that the store will be based upon service oriented architecture and cloud based technologies using open standards as far as practicable. The open platform will be developed and deployed in conjunction with the MSDG for making the additional value added services available to the users irrespective of the device or network operator used by them.
- **Application Programming Interfaces (APIs) for Value-Added Services (VAS) providers:** MSDG shall offer suitable APIs to VAS providers with appropriate terms and conditions to ensure interoperability and compliance with standards for development of applications for delivery of public services.
- **Mobile-Based Electronic Authentication of Users:** For electronic authentication of users for mobile-based public services, MSDG shall incorporate suitable

mechanisms including Aadhaar-based authentication. This will also help in ensuring appropriate privacy and confidentiality of data and transactions.

- **Payment Gateway:** MSDG shall also incorporate an integrated mobile payment gateway to enable users to pay for the public services electronically.
- **Participation of Departments:** The Government Departments and Agencies both at the Central and State levels will be encouraged to offer their mobile-based public services through the MSDG to avoid duplication of infrastructure.

LIMITATIONS

Mobile devices get more and more powerful all the time, but they are still mobile devices that have limited capabilities in comparison to desktop or notebook computers. For instance, desktop developers generally don't worry about memory capacities; they're used to having both physical and virtual memory in copious quantities, whereas on mobile devices you can quickly consume all available memory just by loading a handful of high-quality pictures.

Additionally, processor-intensive applications such as games or text recognition can really tax the mobile CPU and adversely affect device performance.

Because of considerations like these, it's important to code smartly and to deploy early and often to actual devices in order to validate responsiveness.

How many Indians are carrying tables or smart phones is important to launch these applications on mobile phones. But the technology is growing faster and the cost of smart phones are coming down helps to implement these applications on the mobile phone.

CONCLUSION

Government services, staff, and development efforts will be increasingly mobile in coming years as devices and applications continue to proliferate at an astounding rate. Industry experts stress how quickly the change is coming. Within the next five years, "more users will connect to the Internet over mobile devices than desktop PCs." "By 2014," according to Gartner, "90 percent of organizations will support corporate applications on personal devices."

In the current mobile landscape over 1 billion people already own mobile devices. The iPhone App Store holds over 350,000 active apps and the downloads of those apps stands at over 10 billion (there are only 6.9 billion people currently alive on the planet). That's why Gartner put tablets and mobile apps on its list of top 10 technologies that enterprises should invest in for 2011.

The usual concerns that come with any technology innovation also accompany the mobile world: security, accessibility, privacy, development, deployment. As with any technology, mobile brings its own unique characteristics to these concerns. While critical for government, the single most important fact is that developments in the mobile world will directly impact nearly every aspect of government operations including delivery of services, citizen engagement, allocation of IT resources, staff support, and training.

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