*Review Article*

# Study of Policy of E-Governance in the State of Nagaland: Challenges, Opportunities, Standards, and Protocols

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## ABSTRACT

Nagaland has been the first state in North Eastern states of India to introduce E-Governance. This incorporates the use of ICT tools in order to translate the government services effectively to the citizens of the state. E-Governance is a very significant and innovative approach to transform the operations and services that are conducted by the government. This paper discussed the E-Governance in references to its development in the State of Nagaland. This state has a very long history of struggle and violence and required the effective efforts through, which it could be established again as a developing state in the country. The main target of this action plan in Nagaland was to emphasis on the effective and efficient delivery of the government services to the society, to improve the productivity, culture, IT sectors, financial management of the companies, as well as to focus on the web portals that are used for the departments, districts/directories. Therefore, this essay presents the study of the E-Governance policy in Nagaland and also discussed the challenges, opportunities, standards and protocols associated with E-governance. Some major challenges identified are the lack of strength of the IT department, resistance to change by employees, shortage of the staff, lack of capacity of stakeholders etc. However, the evidences from the comprehensive research also explained that E-governance displays many significant opportunities for the infrastructure development of the state, development of citizens of the state and for driving the economy of state. Paper discussed some important protocols and standards associated with E-Governance that further supported in understanding the implementation and outcomes of the policy.

*Keywords:* Nagaland, E-Governance, Policy E-Governance, Developments in Nagaland, E-Governance opportunities, E-Governance challenges, Nagaland E-Governance Policy

## INTRODUCTION

In this technology prone era, everything keeps on changing with a hope of bright future. Several tools and equipment have been introduced to the society for building up new services and products, which will be easily accessible to the customers and will have better potentiality, and that is possible due to the advancement in the technology and e-governance. In simplest terms, the e-governance is the electronic government, or usually defined as the digital technology, where the management and delivery of the public services are conducted through the application of the internet. [1] As explained in some details below, e-governance has greater potential at all the levels of the government to increase the efficiency of the public sectors functions, to develop it more personally, and customization of the relationship between the government and citizens. Furthermore, e-governance has the sole capacity to bring down the changes and increase the accessibility to more and more democratic government. [2] Nevertheless, the other form of electronic communication and internet, and the service delivery facility

have successfully penetrated the government at the state level, rather than at the local level in Nagaland. Approval of the new public services delivery facilities, transition in the financial matters and equitable access are some of the major challenges people are facing in the state called Nagaland, and this holds local governments back. Therefore, this paper present the in-depth study of the core challenges, opportunities, standards and protocols associated with Policy E-Governance.

**E-governance initiatives in Nagaland**

The idea of e-governance was established in the year 2003 in Nagaland, and since then, the sections of information technology has been changed to a great extent. In the last few years, the government has decided and placed some special attention on the e-governance, which has the sole responsibility to bring down the services and information through the information communication technology (ICT) to every nook and corner of the country. This concept was initially adopted to improve the decision of the government, for increasing the accessibility, transparency as well as for the reliability, and to promote the faster flow of data and information to the society. [3]

After the implementation of the e-governance, there was a healthy development in the internal control system, where certain IT projects were designed and e-governance services were established for better connectivity between the state secretariat with the district, within the block levels and at other departments along with secured VDBs for transmission of data, video, and voice. As per the sources, there are some delays in the implementation of the IT policy due to the shortage of the manpower at some levels, and the regular support of the staffs are generally low as compared with the other neighboring states. [4] Therefore, Nagaland has faced certain challenges in these areas, but, at the same time, they have some future opportunities, which are only possible through the e-

governance system. Despite the challenges, the government departments are trying their level best to improve their e-governance styles to support the e-governance initiatives.

**Challenges faced by the government in Nagaland**

Most of the challenges are faced in the case of the connectivity in Nagaland. There was a delay in the BSNL connectivity to CSC, which leads to several issues and has also put the citizens in the problem. Apart from this, there were certain in the IT sectors and culture, which was considered as the major failure in the state. As per the view of the commissioner & secretary for IT&C K.D. Vizo, the IT savvy society is trustable and efficient enough to drive the maximum economy for the state, and this will lead to achieving the target. But, due to some issues in the technologies, It policy failed to hit the goal in Nagaland, and the culture has also been affected in some departments. [5]

Therefore, Vizo said that it's high time for Nagaland to catch up the trend and to cope up with the other part of the countries to reach zenith levels. And for this, each and every department are supposed to pay more attention towards the IT sections without any negligence. As per the IT policy of the state, all the departments are earmarked 2-3% of the annual budget for the e-governance related activities, the certain IT-related task force will be established under the chairmanship, and a proper plan will be prepared for the IT projects in the upcoming years.

Furthermore, all the departments are advised to create their own websites as well as they need to upload the information on the respective sites, and all the government employees are given with the computer training. Moreover, the state government has decided to introduce the SMART ID card for all the government employees and that will be associated with the centralized personal information system. [6] Previously, these suggestions didn't work well due to the lack of control on the IT departments, so

this time, the commissioner & secretary said that they will strengthen the system more and will review how far the IT policy can be implemented in the IT teams and sections.

After doing extensive research on these issues, the reason for failure in the IT policy has been revealed. This has occurred due to some uncertain challenges, which was faced by the IT departments in terms of the shortage in the manpower levels, irregular surveys in the sections and even the staffs have also not supported the team and have worked abnormally as compared to the other states. Therefore, this state needs to have at least 60 regular staffs in order to carry forward the process and to establish a better version of the IT policy.

Further, despite having capability and strength to build own version of the policies, the IT departments of the Nagaland has always tried to copy the rules of the e-governance from countries like Israel and Singapore. So, Vizo has decided that all the departments will support the IT departments in terms of the e-governance initiatives. The capacity of the stakeholders was also one of the major problems, which has occurred in the state, and due to this, many downfalls were encountered by various departments. [7]

So, proper training and a change in the management is highly required for all the government employees in order to have a smooth transition from the manual to the automated process. The sensitizations of the citizens or end users are also required for optimum results and utilization of the services. The absence in the IT organization structure mainly in the district level has turned down the page and forces the state to face certain issues in the developments and growth of the economy. So, change of management and reforms are necessary to implement to have some effective change in Nagaland for a better future and by overcoming all the obstacles.

## Opportunities in Nagaland

In regards to e-governance policy, the primary target of the Nagaland is on the systematic enhancement and creation in the IT infrastructure in the state, which will open up new ways and opportunities for the citizens. Apart from this, the government is trying a lot to increase the efficiency as well as the effectiveness of the government services and policies for better delivery systems. Therefore, they are developing the internal capacity of the government in order to initiate, implement, and conceptualize and to sustain e-governance initiatives. The higher authorities of the state are planning to build up advanced business models with the help of the technology, and along with this, they will also make some changes in the policy and regulatory environments, which will have the capacity to facilitate and encourage effective and fast delivery of the public services. [8] As per the sources, the e-governance initiatives, which was taken by the department of information technology and communication of Nagaland was a great approach and forward-looking strategy and, recently, the state has won the award for top performer in the e-governance by the concerned computer society of India, and this is considered as a great approach towards the state's target. In future, e-governance will ensure cost-effective public services for the delivery systems to the citizens of Nagaland, and soon the state will witness a paradigm change in the governance level due to which all the information technology and spheres along with the electronic media will observe a major shift, which will lead to increase the economy level.

## Protocols

The action plan of e-governance has been structured considering the various aspects of community frameworks of administration at the grass root level. The policies, plans and projects or schemes are illustrated in the document of 10th Five Year plans of Government of Nagaland. The emphasis of the e-Governance policies in the State of Nagaland is on the integration of web portals for every Directorates, Departments, state , district , state level agencies that can function autonomously within the citizen charter. [4] Effective bad

efficient delivery of all kinds of government services to the citizens is focused. Through the implementation of e-Governance policies, better dissemination of various relevant information related t o the functions of the government, through the establishment of Integrated Citizen Service Centre and implementation of different channels of service delivery and authentic information such as IVRS, CICs, Web and Kiosk. With the *inclusion* of the e-governance in the State of Nagaland, transparency, increased productivity along with improved efficiency can be achieved. Enhancing the culture and IT literacy has been one of the major areas where the State of Nagaland has to develop. The protocols of the e-governance of the State of Nagaland would relate to achievement of improved financial management. The protocols for the purpose relate to the inclusion of the Wide Area Network which is known as Nagaland State Wide Area Network (Nagaland-Online). This initiative assists in connecting Directorate, State Secretariat, ADC/SDO , districts and block that will be extended to cover schools and villages in future. In this regard, the network is subjected for utilization for the establishment of enhanced connectivity between various department, multi server and multi user facilities. The establishment of such wide area network will assist in conducting video conferencing between various agencies and departments of governances for the purpose of meetings in a very effective and more convenient manner. The application processing over the online platform, emailing and queries; all can be effectively conducted through the e-governance initiatives. Nagaland – Online would also assist in establishing better sharing of information and conduction of communication for allowing various officers to conduct business operations in the most effective manner which would result in a better and cohesive administration. [5]

The protocol of the e-governance of the State of Nagaland shall be conducted in a phased manner which will result in strengthening of the future as well as existing intranet in the State of Nagaland. The integration of online platform would be incorporated on the links that would be including Leased Circuit, VSAT, OR Radio frequency. As Nagaland has hilly terrain, the network coverage of the RF shall be able to reach till the village without any kind of investments. This would result as a boon for the spread and IT literacy in the entire state. The Directorates and the departments of Government of Nagaland have been recognized for initiating the exercise of e-governance. [8] There has been a conduction of Needs Assessment survey within all the departments which has lead to the identification of priority assessments and functions of existing computerization status. The protocols documents also present the implementation of various information systems for the Block and district level offices along with the Village Development Board.

The protocols in the e-governance of the State of Nagaland further include various approaches which are based on the requirements of the participating departments about the governance. The requirements regarding e-governance of the State of Nagaland are categorized into requirements that are citizen facing, requirements of employee facing and enhanced internal control. [7] The design that is proposed for the IT infrastructure and e-governances relates to the establishment of the NAGALAND-ONLINE that has established a connection between the district and the state, SDO/ADC and CIC at various offices art Blocks level of the different departments. This would integrate the VDBs for establishing a secured connection for the transmission of data, video and voice. Different kinds of services that fall i*nto the category of government* to business and government to customer are included.

There are many major projects based on information technology that are to be

undertaken in regards to the e-governance of the State of Nagaland. These are:

1. **Citizen Relation Management Centre:** The management and regulation of the online portal of Nagaland will be conducted by Back End State level Operations Citizen Relation Management. This will Assist in the setting up of infrastructure for Nagaland –Online that will b available on a 24/7 basis. This will consist of Mail Server, database server, Web Server, IVRS system, storage devices with sufficient network security.

2. **School-Net:** The Nagaland State Wide Network will associate all the educational institutions coming under the government of the State of Nagaland till the intermediately level to facilitate e-learning and high standard educational content. Every educational institution will be facilitated with 2 network personal computer along with the accompanying accessories. Student enrollment deliverables , drop outs , inert-relation and teacher ratio with VDC and facilitating sharing of the educational content along with the teaching materials throughout the entire e-learning process.

3. **Naga-Smart Village Net:** network based on wireless connection is needed to be established so as to interconnect every village among 1200 villages coming under the Development Council or Board. Every center having VDC/VDB shall be equipped with one personal computer with wireless card and required accessories. Pilot testing and required feasibility for network will be executed before implementing the establishment for the network along with details of the equipments, architecture, duration of time, cost, etc, which would be encompassed in the network plan. Further, this could be subjected to alignment with PURA Scheme for optimization of the advantages of people staying in rural areas. [7] The deliverables in this regard would refer to the functions, assets and structure that will be available online through the portal of Nagaland-Online.

**Standards**

The integrated service delivery framework envisages a unique architecture in itself for every application of e-Governance. The hosting of the application software will be done in the state centre of data. Integration of the application software will be integrated across the entire state by enabling them in accordance to the standards of e-governance and enhanced specifications of technology apart from the use of SSDG. The framework shall be considered as an integrated part and shall be executed with the compliance of appropriate modifications that are required by the State of Nagaland. [2] The key aspects of the entire scheme refer to the Business Process Re-Engineering along with the formulation of database determined on the standards of e-Governance for the objective of ensuring interoperability. Business Process Re-engineering has objectives towards enabling simplification and value addition to the Nagaland citizens. The overall solution of technology shall be depended on the most appropriate and relevant architecture standards which would include the standards aimed for XML services, Service Oriented Architecture and required protocols for the applications on the internet , standards of Data Centre, etc.

The phase of the project implementation has to be conducted with adherence to the optimum standards. The Functional Requirements Specification ,which is the system design of the e-Governance has to be in accordance top the standards and specifications of functions facilitated by GoI, DeitY and the requirements of nodal Agency of the State. the part of preparation of the specifications regarding software requirements shall be prepared and submitted in accordance to the standards of IEEE or equivalent. This will assure the meeting of all the Functional, Technical and

Business requirements of the concerned department under e-Governance of the State of Nagaland. [4]

The database architecture, encompassing the data dictionary, data structure has to be i*n accordance* to the standards that are specified by DeitY, NSeGS/GoI. The application that is to be devised needs to be in compliance of standards for interring operation ability. This would facilitate readiness of cloud and multi-tenant application. The structure of the application form have been done by including the feature of "drag and drop" by utilizing various standards of Meta data. In other aspects, SSDG acts in the form of messaging switches theta re based on standards and facilitate seamless interoperability along with the exchange of various data across all the directorates and departments. [6] The integration of PKI shall be done by imbibing the latest standards of interoperability that are stated by Controller of Certifying Authorities under the Government of India. The solutions regarding interoperability have to be built based on the Open Standards. The requirement of this aspect is regarding the need of adherence of ISO/IEC 27034 that comes under the ISO/IEC 27001 of security.

## CONCLUSION

This essay dealt with the details of challenges the state has faced before the implementations of e-governance policy, the opportunities it has for the future days, the protocols and standards it follows to establish the better environment and to promote the e-governance policy to the remotest corner of the country. E-governance is an evolutionary phenomenon, and requires a change in the mindset of one and all - citizen, executives or the government. With the support of the Internet, the government processes defined by specializations can be made efficient, effective, and citizen friendly. However, there are many challenging issues like; lack of strength of the IT department, resistance to change by employees, shortage of the staff, lack of capacity of stakeholders etc. However, the evidences from the comprehensive research concluded that governance displays many significant opportunities for the infrastructure development of the state, development of citizens of the state and for driving the economy of state.

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