

Cyber Security
Bangladesh Perspectives

by

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Introduction

This paper is expected to provide the activists and global leaders of cyber security & policy makers to assess how best Bangladesh is applying the initiated measures for a secured, accessible cyber world for the information society.

In today's world information system and network security has become a rights issue for the reason that rights to information has become more and more important to everyone as information protects and develops human life everyday. Understanding the essential need of security all developed countries have taken steps to address the problem on the other hand developing countries are far away from being able to guarantee this rights. Threats to the Information Society were emerging on the content level as well as on the network level and on the physical level. Information security could however not be achieved by technology alone. In order to respond to network threats and create a secure information society, both comprehensive *prevention* measures and *enforcement* measures are necessary.

Background Information

Bangladesh, with a population of 140 million on a land of only about 55 thousand square miles and not with many natural resources under the soil, has been aspiring to achieve economic development through the application of science and versatile Information and Communication Technology (ICT). It may be noted here that while the advanced countries of the world have exploited the potential of science and technology in national development and social welfare, developing countries have fallen behind primarily because of their inadequate appreciation of the power of science and technology. The revolutionary development in the field of ICT has opened up new opportunities for developing countries to move forward in the path of progress by rationally exploiting its potential.

The Bangladesh Ministry of Science, Information, and Communication Technology (MoSICT) have focused on its attention to contributing to the reduction of poverty by strengthening education through applying ICT in rural areas among the poor people. It is also planning to improve efficiency, productivity, and quality of education by introducing a culture of healthy competition and transparency through which the common mass will thrive and effectively contribute to the nation building. Rural people will be given access to necessary information for better cultivation and marketing of their products. Citizens at large will be empowered with necessary information for efficiently performing their tasks.

In recent years, the Government of Bangladesh has taken some policy initiatives to strengthen scientific and technological research and ICT activities. The services required more partnership with the international code and systems for which Bangladesh is trying to attain with sincere, utmost commitment.

The Government has been patronizing science and ICT and shown its commitment through forming high-powered National Taskforce on ICT, Biotechnology, and National Council for Science and Technology for harmonious growth and expansion of scientific and technological development throughout the country.

The Government has already shown its commitment to ICT through sending high powered delegation headed by the Honb'le Prime Minister to World Summit on the Information Society (WSIS) and sharing the common vision of developing an Information Society, harnessing potential of ICT to promote development goals of the Millennium Declaration, which include eradication of extreme poverty and hunger, achievement of universal primary education and development of global partnerships for the attainment of more peaceful, just and prosperous world. Along with other countries, Bangladesh Government has recognized the central role of science in the development of Information Society, the indispensable role of education, knowledge, information and communication in human progress, endeavor and welfare. Government has expressed its determination to empower the poor, particularly those who are living in remote, rural and marginalized urban areas, to access information and to use ICTs as a tool to support their efforts to lift themselves out of poverty.

Bangladesh realizes that science and technology has unprecedented impact on economic growth and social development. Knowledge has become a source of economic might and power, and therefore, has caused increased restrictions on sharing of knowledge, new norms of intellectual property rights. The ongoing globalization and the intensely competitive environment have a significant impact on the production and services sectors. Because of all this, Bangladesh science and technology system has to be infused with new vitality if it is to play a decisive and beneficial role in advancing the welfare of all sections of the population, in particular of the poor people.

Keeping the aims and objectives of the Government in view, MoSICT has formulated some policies on protection of its growing cyber world from the unsolicited consequences. The National ICT Policy, Cyber Law, Electronic Transaction Act are already adopted by the highest authority. Appropriate education on Computer Alert and Emergency Responses are underway by the different agencies including government, civil society/NGOs and private sector.

Bangladesh is a country with tremendous potential for development through science and technology. Our limited land and high population density implies application of modern scientific methods and technology for cultivation and give thrust to development of industries. Historically this land has been proved very fertile in giving birth to and nourishing the litterateurs, engineers and scientists, minds that kept their marks on the development of human civilization.

The average age of almost 50 percent of the population is below 25 years. This is a very positive aspect for our country, because the youths are able to acquire and assimilate science, ICT education and technological skill and training very easily and very fast. Many of them have already demonstrated extraordinary capability and embraced success in the field of science and ICT. Not only has that publication of research findings of our undergraduate students in internationally renowned journals also pointed to the commendable innovative capability of our young students.

The policy regulations are considering here as a part of its national goal; Bangladesh is new in the cyber world only by accessing and using the cyber resources with immense interest by the society where technology development and growth is merely in progress although in highest attention.

Status of Bangladesh ICT Policies & Security Challenges

In order to improve the living standard of the common mass through expansion of development activities in science and technology and its application, the Government of Bangladesh has formed National Council for Science and Technology (NCST). The Executive Committee for NCST has also been formed to implement policies formulated by the Council.

Recently formulated *National Information and Communication Technology Policy (2002)* has also given enormous importance to the development of ICT for capturing our share in the multi-billion dollar software export market, for ensuring good governance, for enacting ICT related policies, special allocation of funds for software projects, development of world class ICT professionals and creation of a world class ICT institution for promoting excellence in the field.

The Vision of this Policy aims to building an ICT-driven nation comprising knowledge-based society by the year 2006. To achieve this objective, a country-wide ICT-infrastructure will be developed to ensure access to information by every citizen to facilitate empowerment of people and enhance democratic values and norms for sustainable economic development by using the infrastructure of human resources development, good governance, e-commerce, banking, public utility services and all sorts of on-line ICT-enabled services.

National ICT Policy includes issues of human resource development, creation of ICT infrastructure, facilitating research and development on ICT, development of ICT industries on a priority basis. It has also highlighted importance of hardware industries, e-Commerce, e-Governance, legal issues related to ICT, application of ICT in health care, application of ICT in agriculture to exploit the potential for development of rural economy and agro-business. Application of ICT in other areas like social welfare, transportation and the judiciary system is also highlighted.

In 1996, the United Nations Commission on International Trade Law (UNCITRAL) has adopted a Model Law on Electronic Commerce. This is known as UNCITRAL Model Law of e-commerce. In

conformity with UNCITRAL Model Law, Bangladesh has drafted an *ICT Law*, which has been approved by the highest authority in February 2005 to facilitate electronic commerce and to encourage growth and development of information technology.

The ICT Law establishes rules and norms that validate and recognize contracts, forms through electronic means, sets default rules for contract formation and governance of electronic contract performances, defines the characteristics of a valid electronic writing and an original document, provides for the acceptability of electronic signatures for legal and commercial purposes and supports the admission of computer evidence in courts and arbitration proceedings. In addition, the Copy Right Law 2000 has been amended to include computer software.

The Government is committed to mounting a direct and sustainable effort on the reduction of poverty, enhancing livelihood security, removal of hunger and malnutrition and generation of employment. This will call for generation and screening of all relevant technologies, their widespread dissemination through networking and support for the vast unorganized sectors of our economy.

Realizing the importance of ICT and the enormous impact it can create in our everyday life, the name of the Ministry has been changed from *Ministry of Science and Technology* to the *Ministry of Science and Information & Communication Technology*. The Ministry of Science and ICT have been entrusted with the responsibility of harmonious growth of this sector in Bangladesh. Bangladesh Computer Council (BCC), the apex body having the responsibility for promotion of all sorts of ICT activities in the country, is also governed by the Ministry of Science and ICT.

Development of Science and ICT depends on the expansion of telecommunication sector. This sector is still under developed due to lack of deregulation and open competition. In 2002, independent telecom regulatory authority, Bangladesh Telecommunication Regulatory Commission (BTRC) has been created.

Conclusion: Security Realization in Bangladesh

Most of the developing countries like Bangladesh have limitations in access to information and the available access is not affordable because of the inadequacy of the existing infrastructure as well as the non-availability of appropriate education. The challenges are posed by the lack of an integrated computer security system and education about computer security. Therefore, there is a need for co-operation; collaboration and investment for security, which also develop the culture of security needs for assuring the security issue. As in business or any dealings, trust is important and trust can be achieved when the practitioners feel that the transaction is secured. Security from a business perspective must therefore be seen as a business enabler not as cost.

Our challenges are posed by the lack of an integrated computer security system and education about

computer security is therefore one of the most important issues. Bangladesh is planning, as important next steps for awareness raising and the provision of appropriate knowledge, as well as the development of security guidelines. Further exploration activities are needed on standards for the security of information systems. In order to realise these objectives, global partnership is indispensable.

We also realize that Research and Development is more important for Information Security Framework Program at the same time for successful program we need to have advisory functions, that contribute to awareness rising and co-operation, promote risk assessment methods and best practices and follow standardisation efforts, thus contributing to the development of a global approach to information security.

Bangladesh become conscious that Information security is an important business enabler and for further co-operation between countries and across sectors is essential and there is a need to find ways to ensure effective public-private partnerships. There is an urgent need to develop a cyber crime legislation that will protect cyber security. There is also a need to have more projects on cyber crime legislation and enforcement capacity building and training courses through out the country. Policies of the country should also include privacy policies, trust marks and other self-regulatory measures for the development of products and provision of services and the implementation of the necessary measures for establishing consumer confidence.