Sri Lanka Country Report

History of ICT Policy Formulation:

- The Government of Sri Lanka first recognized the need for the development of ICT through the National Computer Policy of 1983. (COMPOL). This first attempt was taken by the Natural Resources, Energy and Science Authority of Sri Lanka (NARESA) on the instructions of the then President. A committee appointed by NARESA produced the National Computer Policy Report (COMPOL).

The acceptance of the COMPOL report by the Government gave rise to the establishment of CINTEC by Act No. 10 of 1984 as the "Computer and Information Technology Council of Sri Lanka", to function directly under the then President. The Science and Technology Development Act No. 11 of 1994 changed the name to "Council for Information Technology" but retained the acronym CINTEC.

- Since the first policy initiative there have many draft ICT policy documents produced, but probably due to the absence of a powerful implementer these have remained with no noticeable progress in implementation.

- The “e-Sri Lanka”, project launched in November 2002 was tasked with development an ICT Roadmap for Sri Lanka.

- Major components of the e-Sri Lanka program are:
  - bridging of the digital divide, and;
  - dissemination of ICT to regions and
  - provinces away from Colombo, and to the rural areas.

- The e-Sri Lanka roadmap resulted in the implementation of the Information and Communication Technology Act, No. 27 of 2003, which ensued in the establishment of the Information and Communication Technology Agency of Sri Lanka, (ICTA), repealing the relevant section of the Science and Technology Act which established CINTEC. The ICTA has been operational since 1st July 2003. The mandate of the e-Sri Lanka policy is to build a national information infrastructure, create a framework for the promotion of software and ICT enabled industries, re-engineering Government and developing ICT human resources.

- In 2001 the Government of Sri Lanka also entered into a contract with the Swedish International Development Agency (Sida) and this initiative addresses the drafting an ICT Policy for the Government Sector together with the relevant Action Plans for deployment. This Policy is within the context and read in conjunction with the provisions of the e-Sri Lanka Policy.

Needs being addressed by the ICT Policy:

- To transform and rationalize public sector work enabled by judicious use of digital networking technology.

- Accelerate development through more convenient delivery of citizen services.
Achieve order-of-magnitude increases in efficiency, transparency, accountability and customer satisfaction for all public sector services.

Make Government an effective user of ICT to reduce transaction costs between government and business, and to provide cost effective, citizen-centered public services.

Leverage the Government’s own ICT requirements and buying power to promote the local software industry.

Main Policy components:

The Policy components of the e-Sri Lanka program is as follows:

- Re-engineering Government.
- Building the National Information Infrastructure
- Developing ICT Human Resources.
- ICT Investment and Private Sector Development

Component 1: ICT Investment and Private Sector Development

The objective of this component is to achieve major economic and employment growth in Sri Lanka by using ICT to re-engineer Government and the local industry. It also aims to improve Sri Lanka’s efficiency, to better compete in the global marketplace and to provide a user friendly business environment, ICT infrastructure and legal environment which promotes growth in the local industry as well as encouraging multinationals to invest in Sri Lanka.”

Component 2: Re-engineering Government

The objective of this component is to use ICT to automate and re-engineer government administration and service delivery mechanisms to the maximum extent possible; to enable implementation of a common infrastructure across government facilitating the merging of functions between agencies to achieve greater efficiency and better delivery of services to citizens; and to outsource automated government services and functions to the private sector.

Component 3: Building National Information Infrastructure

The main objective of this component is to provide a modern telecommunications infrastructure throughout Sri Lanka that provides access by all citizens to electronic services irrespective of location and at charges that are affordable to all sectors of society; to establish a legal infrastructure that is aligned internationally and enables the re-engineering of government and e-Commerce to be implemented.

Component 4: Developing Human Resources

The objective of this component is to use ICT to the maximum extent to develop ICT and ICT enabled industries and general education services at the school and tertiary level, to enhance the delivery of general education, to increase the numbers and quality of higher-
level ICT professionals and to develop a computer literate society in Sri Lanka that can take advantage of the benefits of e-Sri Lanka, reduce poverty and bridge the digital divide.

- **Component 5: ICT for Development (ICT4D)**

  To use the emerging ICT infrastructure to make available a range of information sources and services to diverse community groups throughout Sri Lanka, including rural, unemployed, poor; empower them to function more effectively and efficiently and to develop their knowledge, skills and capabilities thus improving their quality of life, increasing their employment potential and leading to increased wealth and a reduction in poverty.

**Policies in Developing ICT industries:**

The component ICT Investment and Private Sector Development specifically addresses the development of ICT industries with strategies such as the following:

1. Empowering the local industry to participate fully in e-Commerce and e-Governance (such as providing direct assistance in terms of equipment, training and systems) to improve access, transparency and efficiency in their day-to-day business or lives. This will lead to job creation within the local ICT industry as it strives to quench the demand of the newly empowered private sector.

2. Promotion of local ICT products and services to the global market (such as partnering with the private sector to provide assistance and funding to establish new export-orientated ICT enabled service industries (ITES) in Sri Lanka).

3. Promoting growth of the private sector, to the maximum extent possible, by outsourcing government services to private sector using ICT. Similarly, outsourcing the ICT functions of government to local industry.

**Decision making process for ICT policies:**

The decision making process is a Consultative process where the draft Policy is presented to all stake-holders, and their views are taken into account.

**Primary Government ICT body:**

The ICT Agency of Sri Lanka (ICTA) was established as a Government owned private company ICTA is tasked with providing leadership and facilitating implementation of the e-Sri Lanka Roadmap.

The mission of the ICTA is to “take dividends of ICT to every village, to every citizen, to every business and re-engineer the way the Government thinks and works and ultimately shape a technology lead future."
Government CIO program:

Chief Information Officers (CIOs) have now been appointed in all major government institutions and they will be the key to implementation of ICT initiatives in their respective organizations. They are being empowered through training and participation in all aspects of strategic planning.

e-Government Strategy:

The e-Government policy framework provides the basis for a framing policy for all e-government implementations in Sri Lanka. The objective of the framework is to provide guidelines at the macro level so that:

- There is coordination and synergy between applications when they are built and implemented.
- The coordination, and understanding of macro level goals exists among the many vendors, suppliers, governing bodies, and Government institutions who will have to come together to implement solutions.
- Provide the ability to successfully phase out implementation but still be able to build upon previous solutions.
- Form a high-level roadmap for e-government implementation.
- Provide a method for the ICT agency to coordinate work in the area of e-government.

The e-Government policy framework is subdivided into four key policy areas/frameworks as follows:

- Technology Framework:- Policies on technology platforms, standards, and methodologies to be adopted in the deployment of e-government solutions.
- Enabling Framework :- Policies for supporting technological implementations and to ensure user groups are ready to adopt new solutions when they are implemented.
- Funding and procurement:- Policies for the funding of the e-government area, to establish continuity and to establish procurement policies and operational procedures.
- Legal Framework:- Identification of the legal requirements to make e-government more functional and efficient, and to protect the rights of the institutions and personal sharing information.

Interoperability framework for e-government and e-business information:

Interoperability in the areas of interconnectivity, data integration, content management and access are to be established so that “Silos” of applications are not built that cannot communicate with each other.

- XML based messaging standards to be adopted for inter-application communication, as XML has emerged as a standard in order to solve the interoperability problems at a more general level, aiming at finding a common and vendor independent way of structuring Business logic execution as well as Information management to fit a fully distributed web-enabled environment.

- Metadata repositories need to be created where XML schema details are stored so that application builders and implementers can easily access schema details of other applications as well as publish connectivity schemas for their applications.
Application gateways need to be implemented so that current and legacy applications conform to the standard and are made accessible to the e-Government system. Gateways will convert between the different formats of legacy systems to the standardized format of the e-Government system.

ICT Infrastructure:

- **Deregulation:**
  
The monopoly of the incumbent operator in respect of international voice telephony ended in August 2002. This sector was liberalized and more licenses to operate external Gateway services have been issued recently. The new licenses have resulted in a reduction in tariffs for international calls.

- **Operators:**
  
  There are amongst others 03 Fixed Access Operators, 04 Mobile Operators and 32 Internet Service providers (ISP’s).

- **Status of the Domestic Interchange Exchange (IX):**
  
  The Domestic IX was formally launched by CINTEC and the Licensed Internet Service Providers Association (LISPA) in June 2001. Currently 11 ISPs are connected to the domestic IX.

- **.lk Country Code Top Level Domain**
  
  Registrations under the Sri Lanka Country Code Top Level Domain .lk and under second level domains are popular with businesses, educational institutions, non-governmental organizations etc. Organizations in Sri Lanka using the Internet, for email, hosting web portals and web servers, etc. are encouraged by CINTEC to register themselves with the .lk (Sri Lanka) Internet domain. Details are available at [www.nic.lk](http://www.nic.lk) Internet Service Providers (ISPs) in Sri Lanka can support subscribers who have their own domain names.

- **Mobile Cellular Services**
  
  Studies are currently underway to examine to move to a Calling Party Pays (CPP) regime in Sri Lanka. An international consultancy is in the process of making its final report on this proposal.

  The sale of 02 slots in the 1,800 MHz band of spectrum to 02 mobile operators who wish to expand their services is being effected at present. An international consultancy to recommend improvements to the Spectrum Management functions of the TRCSL has recently been concluded.

- **Universal Service Obligations - Telephones for rural Sub- Post Offices.**
  
  The Telecommunications Regulatory Commission (TRCSL) is currently taking action to provide telephone services to 595 rural Sub- Post Offices throughout the country that require such facilities urgently.
Telecommunication facilities for people with disabilities

The regulator has been a facilitator to provide telecommunication access to people with disabilities. Several payphones have been installed at Centers where people with disabilities, live, learn or work. At the request of the TRCSL, Braille bills will be provided by the three fixed access operators and special telephone equipment will be installed for hearing impaired at a school for hearing impaired children at an Institution in the Central Province of Sri Lanka.

Numbering

A 10-digit numbering plan is currently being implemented to accommodate the increasing demand for fixed, mobile and other services in line with regional and international standards.

Steps have been taken to educate the public and subscribers on the implementation of this plan through awareness campaigns. The Telecommunications Regulatory Commission of Sri Lanka (TRCSL) has guided the operators in this regards and the operators and the TRCSL are carrying out a coordinated campaign at present.

E-Legal environment:

Legislation on Intellectual Property Rights:


Computer Crime:

The Penal Laws of Sri Lanka are founded on principles, which are over a hundred years old and some reform of the law was deemed essential in the areas of computer related crime. A project was therefore initiated examine the Penal Code and to make proposals for substantive criminal law provisions to deal with computer crime, if such laws were not already dealt with under the existing laws. The Bill has now been passed.

Evidence (Special Provisions) Act No. 14 of 1995:

The Evidence Ordinance enacted in 1895 was inadequate to cope with issues that were likely to arise with modern transactions, which were either assisted by or totally dependent on computers and communications. The existing laws were inadequate to provide for the admissibility of information produced by the use of computers and other electronic and mechanical devices. The work carried out by CINTEC resulted in the Evidence (Special Provisions) Act No. 14 of 1995, which provides for the admissibility of audio-visual recordings and information contained in statements produced by computers, in civil and criminal proceedings.

Electronic transactions:

Sri Lanka has also agreed on the necessity for legislation to facilitate electronic commerce. The issues addressed include types of electronic transactions covered; legal recognition,
retention and attribution of data messages; the manner in which requirements for writing, the
placing of signatures and an original document can be satisfied in an electronic medium;
admissibility and evidential value of data messages; validity of contracts; and liability of
third parties, etc. The issue of drafting proposals for legislation is being addressed by the
ICTA and Ministry of Justice. The UNCITRAL model law on Electronic Commerce has
been taken into account in drafting these proposals.

odata Protection:

With the advent of the global information society there ha been growing concern about the
protection of individual privacy. The European Union has introduced Directive 95/46/EC,
adopted in October 1995, on the protection of individuals with regard to their personal data
and on the free movement of such data. Member States were required to have domestic
legislation giving effect to the Directive, and Sri Lanka is in the process of preparing concept
paper.

Developing Local languages:

o Standard Code for Sinhala and Tamil/Unicode compatible Sinhala fonts /keyboard

One of the major impediments to the development and use of the Internet in Sri Lanka,
especially into rural areas is the lack of local language content and also the fact that each
Sinhala/Tamil package uses its own proprietary standard. Therefore documents, etc. produced
using one application can only be accessed using that application.

On an initiative of CINTEC, the draft standard code submitted by the Sri Lanka standards
Institute was accepted by the ISO as the Sinhala code page for ISO 10646 and UNICODE.

o Availability of standard fonts, and keyboards:

The availability of a high quality, free, and standards-conformant Sinhala font would enable
content providers to create Sinhala language content. As a first measure, CINTEC formed a
Committee on Unicode Compatible Sinhala Fonts

The Committee was working on:

The representation of the Sinhala character in Unicode.
Keyboard layout and operations.
Printed and on-screen representation of characters

The ICT Agency of Sri Lanka (ICTA) took over this work from CINTEC and has been
promoting the use of ICT in Sinhala and Tamil, and addressing issues relating to standard fonts
and keyboards in Sinhala and Tamil, which are now available. ICTA set up a Language
Requirements Working Group in this regard and the following activities have been carried out;

The Working Group has worked on the second revision of the Sri Lanka standard Sinhala
character code for information interchange, in partnership with the Sri Lanka Standards
Institution (SLSI). This is now a Sri Lanka Standard. A Sinhala pack has been created
incorporating standard Sinhala fonts, keyboard driver and installation instructions, which is
available on www.fonts.lk.
Bi-lingual key boards are now available, based on the layout given in the above standard. A draft Sri Lanka Standard Tamil Character Code for Information Interchange has been drafted by the Tamil ICT Sub Group, which has to be looked into further, and sent to the SLSI.

**Human Resource Development in ICT:**

- **University Education:**
  
  Computing has been taught at the University of Colombo since 1967, The University of Peradeniya taught computing soon thereafter and The University of Moratuwa taught IT from its inception in 1972. Today, almost all universities offer some form of IT education. The private sector provides degree level education today to many students at reasonable cost.

- **Professional examinations:**
  
  As the formal sector was not able to meet the demand in providing IT education, some private sector institutions commenced offering training for Professional examinations conducted by the National Center in Computing UK - NCC, Australian Computer Society (ACS) and the British Computer Society (BCS).

  Problems encountered were that many found it a lucrative business and merely awarded their own certificate or diploma without any quality assurance and thus producing thousands carrying worthless certification.

- **Objectives of the ICTA Human Resources Development Program:**
  
  To ensure that Sri Lanka has the necessary human resources to achieve the e-Sri Lanka vision

  To build an IT-competent citizenry

  To make Sri Lanka globally known as a leader in ICT learning

**Conclusions:**

- **Lessons learned:**
  
  All ICT policy initiatives need both the full buy-in of the Government and of the relevant implementing agencies. Identification of “champions” within the relevant Government agencies is necessary for the successful implementation of the policies. Action should also taken in a coordinated manner in implanting these policies.

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