Republic of the Sudan
National Telecom Corporation

Country case study Incident management capability

Introduction

Due to the ever-increasing role of ICT and their services in the development of nations and the awareness of the Government of their role in the socio-economic development, the ICT sector in Sudan witnessed, since the nineties of last century, a process of sector reform that lead to a liberalized market which yielded remarkable achievements as detailed below:

1972   **Separation of Posts from Telecommunications.**

1978   **Transformation of Telecommunications Department into semi-commercial corporation.**

1990   **The 3-year economic salvation program (1990 – 1993) that stipulated the privatization of the Sector.**

1991   **Formation of National Information Center**

1993   **Establishment of Sudan Telecommunications Company (SUDATEL).**

1996   **Establishment of Telecom. Regulatory Authority, National Telecom. Council.**

1997   **Introduction of mobile telephone service (MOBITEL). and Internet service (SUDANET).**

2001   **Issuance of Telecom Act, 2001 and establishment of National Telecommunication Corporation.**

2003   **Issuance of the Public Corporations Law, 2003.**

2003   **Licensing of a second mobile operator, AREEBA.**

2004   **Licensing of a second fixed service operator, CANAR.**

2004   **Cabinet decree of formation of Informatics Fund.**

2005   **Liberalization of the International Gateways to main operators.**

2006   **Licensing of a third mobile operator, SUDANI.**

The structure of the ICT Sector consists of:

- **Council of Ministers/Ministry of Information & Communications:**

  Policies & Legislations.

- **The National Telecommunications Corporation:**

  Regulation & Licensing.

- **The National Information Center:**

  e-Government & Informatics.

- **The Sudanese Broadcasting and TV Corporation:**

  Regulation of Broadcasting content.

- **Operators & Service Providers :**

  Infrastructure & service provision

Telecommunications Infrastructure in Sudan

Optic Fiber National Backbone : covering most of Sudan (11000 kms). Extends to Egyptian, Ethiopian, Eritrean and Chadian borders. Connected to submarine cable link to Saudi Arabia across Red Sea, interconnected thereafter to international cable systems. The optical system is designed with protective geographical redundancy.

Digital switching system TDM technology and packet-based technology (MPLS).

Customers access network underground copper cables, (DSL), wireless (GSM, CDMA).

Internet in Sudan:

Internet service capacity *"speed"* is developing in Sudan, service is now available via:

- ✓ DIAL UP

- ✓ FRAME RELAY

- ✓ DSL

- ✓ EVDO and GPRS

After liberalizing the international gateways, there are more than one Point of Presence , each of them can supply ISP's.

Combat the cyber crime in Sudan

The characteristics of crimes informatics:

cyber crimes are distinguished by   many characteristics , the most prominent ones are as following:

1- It is not - too often - reporting on the Internet crimes either for lack of victim discovery and fear of defamation.

2- These crimes do not leave any evidence.

3- These crimes depend on the intelligence to be carried out, so it is difficult for the traditional investigator to deal with these crimes. It is difficult to follow them up, detection and demonstrate them.

4- To access fact that requires the experience of high technical level.

Challenges:

- **Local Challenges against Cyber Crime Combat:**

  1- The rapid development of communication speed which helps to speedup the electronic crime.

  2- Many of local internet providers do not have log files for internet utilize for their customers.

  3- Using unlicensed programs.

  4. Lack of sufficient awareness about the electronic crimes.

  5. The spread of Internet cafes , without making laws for their work.

- **International Challenges against Cyber Crime Combat.**

Efforts exerted by the Sudanese Government in the field of cyber crime combat:

1- Efforts made to strengthen protection techniques to keep up with international techniques.

2- Providing protection devices of all the new local networks at the government level

3- work to raise the awareness of the Internet dangers.

4- work to raise awareness of workers and the legal area by examining some of the global electronic crimes.

5- Raise the awareness about cyber security among key decision makers in the country .

<u>Organizational efforts against electronic crimes</u>

- **Compel all Internet service providers to design a program to making the log file of Internet users from inside Sudan.**
- **Organize the work of internet cafés**

Legislation efforts against cyber crimes

- **laws and procedures applied :**
    - **Electronic Transactions law** - 2007 contains:
        Electronic contracting.
        Transactions-decadal.
        Digital signature.
        Electronic instruments.

Legislation efforts against cyber crimes

- **Informatics Crimes law** 2007 **contains:**
  - **Crimes on money , data , communications and the threat or blackmail.**
  - **Access to sites and information systems owned by the non.**
  - **Crimes of public order and morals.**
  - **Intellectual property crimes.**

- **Was created especially Behalf for crimes of informatics.**

Proposed laws and procedures:

- Information access right law.

- Electronic signature law.

- Establish a competent court of crimes informatics.
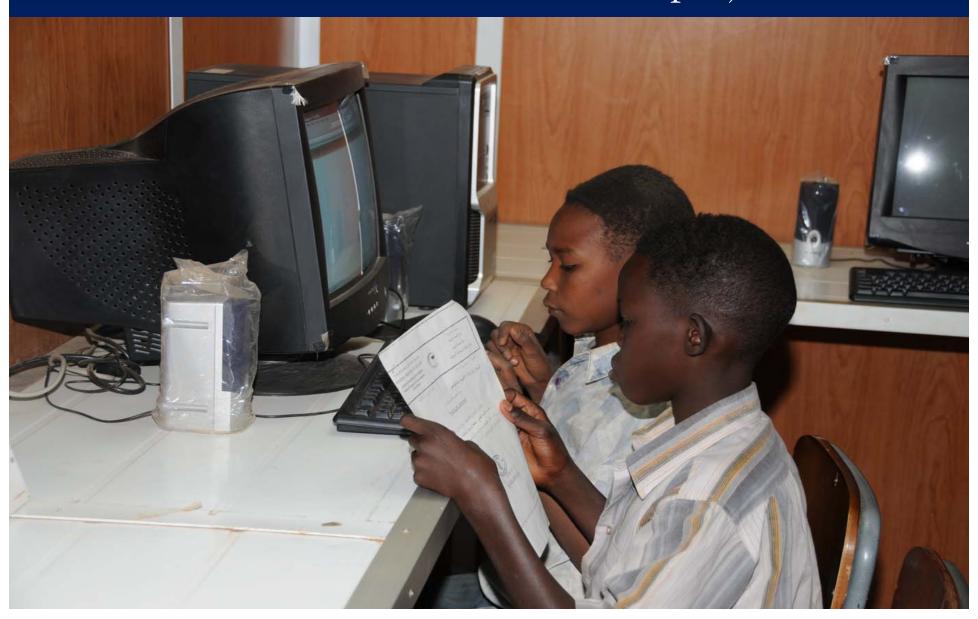
- National Committee to electronic validate.

Sudan web side filtering system:

- **Pages are divided direction candidacy to several categories,**

- **The most important category of pornographic pages,**

- **Which represent more than 95% of the total volume of Pornographic material & the side that generated viruses .**

- **The other categories include pages related to drugs, bombs, alcohol,**

- **Abuse the true Islamic religion and gambling.**

Sudan Hosting Center:

- **The Sudan hosting center is government project** that to hosted the government web side in Sudan to be managed by Sudanese peoples.

Tele-center Universal Service projects

NTC TOWER

- ❖ **Project started 7 September 2005 , duration 32 months.**

- ❖ **27-storey building, 2 storey at sub terrain level.**

- ❖ **Total area 3700 sq. m.**

- ❖ **First   "*Smart Building*" in Sudan.**

- ❖ **Self-powered with solar energy.**

- ❖ **Kernel to aggregate the refined & promising youth plus other constituents of the future "*Smart City*".**

- ❖ *A platform to set out towards the information society.*

- ❖ **shall include all informatics-related institutions.**

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