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**Introduction**

The National Informatics Centre (NIC), established in 1976 by the Government of India, serves as a leading institution for delivering e-Government/e-Governance Solutions. Initially supported by the United Nations Development Program (UNDP), NIC aimed to develop information systems and implement computer-based decision support systems across government ministries and departments. NICNET, the nationwide data network, was established utilizing satellite-based technology for efficient and cost-effective connectivity. Adopting Code Division Multiple Access (CDMA) with Very Small Aperture Terminals (VSATs) in C-band ensured scalable and affordable two-way communication for program implementation. The advantages of the CDMA. VSAT option chosen were specifically

▪ Small size (1.2 dia)

▪ Low cost

▪ Ease of installation and deployment

▪ Easy scalability

The VSAT had a 1200 bps uplink and 19.2 kbps downlink, with some having an uplink of 9600bps, but this low speed was a limitation. NICNET utilized VSATs for various government applications:

1. NICNET provided electronic mail services to state secretariats, ministries, and district collect orates.

2. Users accessed databases like GISTNIC and MEDLARS remotely.

3. NICNET facilitated remote login to systems nationwide.

4. File Transfer Protocol (FTP) enabled file transfers between states and districts, commonly used for tasks like budget transmission and election result analysis.

**History**

Established in 1976 under the Ministry of Electronics and Information Technology, the National Informatics Centre (NIC) played a crucial role in India's IT adoption in the 1990s and in promoting e-governance. With an annual budget of ₹11.5 billion for 2018–19, it has been instrumental in these endeavours. However, in May 2019, the government initiated the Centre for Smart Governance (CSG), suggesting a shift in consultation preference for IT projects from NIC and private firms to CSG. Some officials claim that NIC struggles with scalability, and the CSG is poised to serve as an equivalent to NIC.

**Achievements**

Over the span of more than 25 years, NIC has played a vital role as a key developer of e-government applications and a facilitator of digital opportunities for sustainable growth. Through its extensive ICT network "NICNET," it maintains connections with various levels of government across India, enabling the implementation of e-Government solutions in ministries, departments, and districts. This has led to enhanced government services, increased transparency, decentralized planning, and improved efficiency and accountability.

**NIC has been involved implementing “e-Governance agenda” of the Central Government with respect to**:

▪ Internet/Intranet Infrastructure (PCs, Office productivity tools, Portals on Business allocation) up to Section officers levels;

▪ IT empowerment of Officers/Officials & Capacity Building

▪ ICT Enabled Services (G2G, G2E, G2C and G2B)

▪ ICT Plans for Sectorial Informatics Development;

▪ Business Process Re-Engineering

▪ Services profiles, among the others, include:

▪ Network services (WAN, MAN, LAN)

▪ Capacity Building through Human Resources Development of Government Employees;

▪ Data mining and data warehousing

▪ Total ICT Solutions

▪ Video Conferencing & web services

▪ Certification Authority and PKI Services

▪ Domain (gov.in) Registrar

**Strengths of NIC**

▪ Domain expertise in various sectors of Government Business Allocation (Social Sectors, Economic Sectors, and Accounting and Treasuries, etc.).

▪ Development Expertise & Experience in Systems Development Life Cycle (SDLC).

▪ Expertise & Experience in Networking, Software Technology and Hardware technology.

▪ Web sites development and hosting with expertise in developing dynamic sites.

▪ Email and Internet services using NICNET.

▪ Imparting training in ‘standard tools’, computer awareness and application systems.

▪ Handholding support during implementation.

▪ District Centres providing state-wide and nation-wide support for application systems.

▪ “NIC is, perhaps, the only S&T organization which has the infrastructures to perform the functions of four different service providers envisaged in the Convergence Communication Bill 2000, namely:

• Network Infrastructure Facility Provider (NIFP)

• Network Services Provider (NSP)

• Application Service Provider (ASP)

• Content ASP.

**Conclusion**

In this case study we have studied about history of NICNET and how VSAT was established and its application. NICNET was upgraded to meet the present day requirements of the governmental various levels. Also we studied about achievement and strength of NICNET.