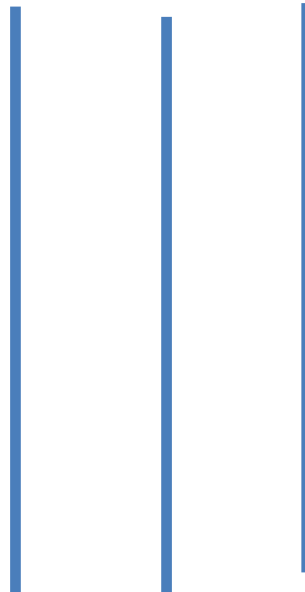# Asian school of Management & Technology

(Affiliated to Tribhuvan University)

Gongabu, Kathmandu

A Case study
on
"General Information services of National Informatics"

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Abstract: -

The National Information Technology Center (NITC) in Nepal is a government agency responsible for developing and implementing IT policies and strategies across all government agencies in the country. NITC has played a significant role in the development and implementation of IT systems and services that have improved the efficiency and effectiveness of government operations in Nepal. NITC has been instrumental in promoting the development and use of IT in Nepal, and has facilitated citizen engagement and participation in governance.

Introduction: -

National informatics is a term that refers to the use of information technology (IT) in the governance of a country. National informatics services, therefore, are the various IT services and systems that are deployed and managed by the government to support its various functions. The spread and advancement of the use of information technology is deepening the governments reliance on information systems. The use of information and communication technology has led to the establishment of national information technology to address policy as well as institutional challenges with appropriate opportunities through continuous development and dynamism.

The National Information Technology Center acts as a data bank of information and assist in computerization of records at governmental offices and in developing and expanding the contents.

Some general informatics services of national informatics include:

1. **E-government services:** These are online services that enable citizens to interact with government agencies and access government services online, such as applying for passports, licenses, and permits.

2. **Electronic payment systems**: These are online payment platforms that enable citizens to pay for government services and taxes online, without having to visit government offices.

3. **Data management systems**: These are software systems that are used to manage and store government data, such as citizen data, budget data, and demographic data.

4. **Information security systems**: These are systems and procedures that are used to protect government information and data from unauthorized access, theft, or corruption.

5. **Networking and communication systems**: These are systems and infrastructure that enable government agencies to communicate and share information with each other.

6. **IT infrastructure management**: This involves the planning, deployment, and management of the hardware, software, and network infrastructure that supports government operations

Objective: -

- **Developing and implementing national IT policies and strategies:** NITC is responsible for developing and implementing national IT policies and strategies, which aim to promote the development and use of IT across all sectors of the economy. These policies and strategies provide a framework for the adoption of IT in Nepal and guide the development of IT systems and services.

- **Promoting the adoption of IT in government operations:** NITC aims to promote the adoption of IT in government operations, with the goal of improving the efficiency and effectiveness of government services. NITC develops and implements various IT systems and services for government agencies and provides technical support to ensure their effective use.

- **Developing and implementing IT systems and services for citizens:** NITC also develops and implements various IT systems and services for citizens, with the goal of improving access to government services and promoting citizen engagement in governance. These systems and services include the National Portal of Nepal, mobile applications, and other e-governance initiatives.

- **Building IT capacity and skills:** NITC aims to build IT capacity and skills across all sectors of the economy, by providing training and technical assistance to government agencies and private sector organizations. This helps to ensure that there is a sufficient pool of skilled IT professionals in Nepal to support the development and use of IT.

- **Facilitating international cooperation and collaboration:** NITC also aims to facilitate international cooperation and collaboration in the development and use of IT, by working with international organizations and participating in international conferences and forums. This helps to promote the exchange of knowledge and best practices in IT development and use, and supports the development of a global IT ecosystem.

Focused Area

National Information Technology Center (NITC) also focus for critical components and their special security requirements.

- Physical Security of DC

- Restricting Access

- Securing your Data

- Network security

- Server security

- Cyber Security

History: -

Pre internet era

The National Information Technology Center (NITC) in Nepal was established in 1988, well before the widespread adoption of the internet. During this pre-internet era, NITC primarily focused on developing and implementing IT systems and services that were based on traditional networking technologies, such as local area networks (LANs) and wide area networks (WANs).

One of the major initiatives of NITC during this era was the development and implementation of the National Census Information System (NCIS), which was designed to automate the census data collection and processing process. NCIS involved the use of optical character recognition (OCR) technology to scan and digitize census forms, which were then processed and analyzed using computer algorithms. This system significantly reduced the time and effort required for census data processing and enabled more accurate and reliable data analysis.

NITC also developed various other IT systems and services during this era, such as the National Data Center (NDC), which was a centralized data center that provided hosting and storage services to various government agencies. The NDC enabled government agencies to share data and collaborate more effectively, leading to more efficient service delivery and decision-making.

NITC developed various LAN and WAN-based networking solutions for government agencies, enabling them to connect and share information more easily. These solutions included the development of a government-wide email system, which facilitated communication and collaboration among government officials.

Internet era

In the internet era, the National Information Technology Center (NITC) in Nepal has adapted and expanded its services to leverage the power of the internet and digital technologies. During this period, NITC has focused on several key areas:

- **Connectivity and Infrastructure:** NITC has worked on improving internet connectivity and infrastructure across the country. It has collaborated with internet service providers and telecommunication companies to expand the reach of broadband internet services, especially in rural areas. This has facilitated increased access to the internet for government offices, citizens, and businesses.

- **E-Government Services**: NITC has played a vital role in the development and implementation of various e-governance initiatives. This includes the digitization of government services, enabling citizens to access and avail government services online. NITC has worked on projects such as online tax filing, digital birth and death registration, online passport applications, and other citizen-centric services, making government processes more efficient and convenient.

- **Data Management and Security**: With the proliferation of digital data, NITC has placed emphasis on robust data management and security systems. It has developed secure data centers and implemented data protection measures to ensure the confidentiality, integrity, and availability of government data. This includes the establishment of secure cloud infrastructure and data backup systems.

- **Digital Literacy and Skill Development:** Recognizing the importance of digital literacy, NITC has initiated programs to enhance digital skills and knowledge among government officials, citizens, and the workforce in general. It has conducted training programs and workshops to improve IT literacy, promote digital inclusion, and empower individuals to effectively utilize digital technologies.

- **Collaboration and Partnerships:** NITC has actively collaborated with various stakeholders, including government agencies, private sector organizations, and international bodies, to foster innovation and share best practices in the field of IT. It

has participated in international conferences, signed agreements with foreign entities, and promoted knowledge exchange to keep pace with global advancements.

- **Cybersecurity and Incident Response:** In the face of increasing cyber threats, NITC has focused on strengthening cybersecurity measures. It has developed frameworks, policies, and guidelines for cybersecurity practices within the government. NITC has also established an incident response mechanism to handle cybersecurity incidents and ensure the protection of critical information infrastructure.

Conclusion: -

Overall, the various IT systems and services developed and implemented by NITC have significantly improved the efficiency and effectiveness of government operations in Nepal, and have facilitated citizen engagement and participation in governance.

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