

UNIT 1

Introduction to E-Governance

(6 Hours) — E-Governance (CACS409)

⚠ Please Note — May Contain Errors

These notes were prepared with AI assistance and **may contain errors, omissions or outdated information** (names, dates, figures, acronyms and project details in particular). Please take care: cross-check everything against your prescribed textbook, class notes and official sources before relying on it for exams or assignments.

1.1 E-Governance — An Overview

Governance is the process by which a government or institution makes decisions, exercises authority and delivers services to its people. **E-Governance** (electronic governance) is the application of Information and Communication Technology (ICT) — computers, networks, the Internet and mobile devices — to the processes of government so that information and services reach citizens, businesses and other government bodies in a faster, cheaper, more transparent and more accountable way.

E-Governance is wider than **E-Government**. E-Government mainly concerns the delivery of services and information through electronic means, whereas E-Governance also covers citizen participation, policy-making, accountability and the reform of the way institutions work.

Basis	E-Government	E-Governance
Focus	Delivery of services online	Overall process of governing, including participation
Direction	Mostly one-way (government → people)	Two-way and multi-way interaction
Scope	Government departments and their websites	Government, citizens, business, civil society, politics
Aim	Efficiency of service delivery	Good governance, transparency, empowerment

Objectives of E-Governance

- Make government services available to all citizens at any time, from any place (24×7).

- Reduce corruption and increase transparency and accountability.
- Cut cost, time and paperwork for citizens, businesses and the government itself.
- Improve coordination between departments through information sharing.
- Empower citizens by giving them access to information and a voice in decisions.

1.2 Why E-Governance?

Traditional, paper-based administration suffers from long delays, repeated visits to offices, lack of transparency, red-tapism, and discretionary power in the hands of officials. E-Governance addresses these weaknesses. The main reasons for adopting it are listed below.

Reason	Explanation
Efficiency and speed	Automation of routine work reduces processing time from days to minutes.
Transparency	Online status tracking and published records limit scope for hidden decisions.
Reduced corruption	Less face-to-face contact and discretion means fewer opportunities for bribes.
Cost saving	Less paper, fewer staff hours and fewer travel costs for citizens.
Better service	Single-window and anytime access; services reach remote areas.
Citizen participation	Online feedback, grievance systems and consultation improve democracy.
Data-driven decisions	Digital records support planning, monitoring and evaluation.

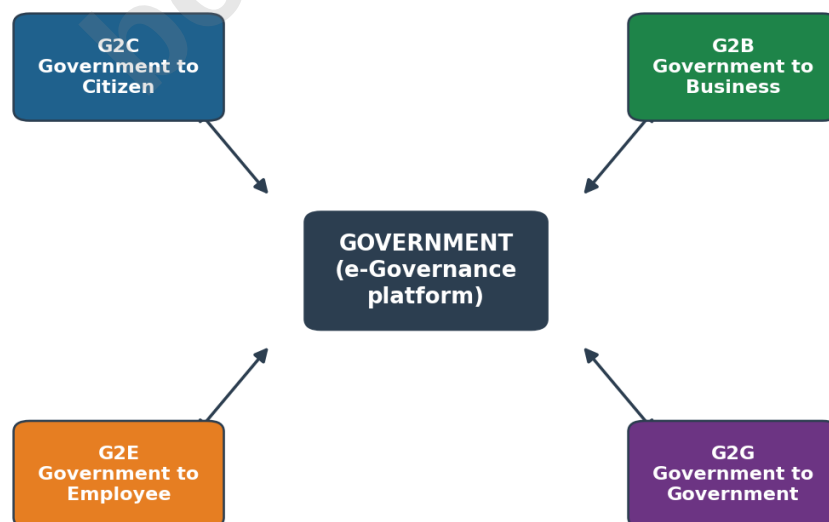


Figure 1.1 — Main interaction domains of E-Governance (G2C, G2B, G2E, G2G)

Types of Interaction

- **G2C (Government to Citizen)** — services such as bill payment, certificates, e-passport, tax filing, grievance portals.
- **G2B (Government to Business)** — company registration, e-procurement, customs, licences, tax filing by firms.
- **G2G (Government to Government)** — data and file exchange between ministries, departments and levels (federal, provincial, local).
- **G2E (Government to Employee)** — payroll, leave, training and HR systems for public servants.

1.3 Issues in E-Governance Applications and the Digital Divide

Common Issues and Challenges

Category	Issues
Technical	Poor connectivity and power supply, lack of interoperability and standards, legacy systems, scalability.
Security and privacy	Hacking, data leakage, identity theft, misuse of personal data, weak authentication.
Legal and policy	Absence or weakness of laws on e-transactions, digital signatures, cyber crime and data protection.
Financial	High initial investment, maintenance costs, dependence on donor funding.
Human and cultural	Low computer literacy, resistance to change by staff, fear of losing power or jobs, language barriers.
Organisational	Lack of business-process re-engineering (BPR), poor coordination between departments, weak leadership.
Sustainability	Projects stop after the pilot or donor period; no ownership; rapid technology change.

The Digital Divide

The **digital divide** is the gap between those who have access to ICT and the skills to use it, and those who do not. If e-governance services are designed without considering this gap, they may *exclude* the poor, women, the elderly, people with disabilities and rural communities — the very groups that need public services most.

- **Access divide** — unequal availability of devices, electricity and Internet (urban vs rural).
- **Skills divide** — differences in digital and functional literacy.

- **Economic divide** — cost of devices and data plans.
- **Language and content divide** — most content is not in local languages.
- **Gender and social divide** — differences by gender, caste, age, disability.

Example 1.1 — Digital divide in service delivery

A municipality launches an online-only system for birth registration. Many villagers in a remote ward have no smartphone or Internet. Explain the problem and suggest remedies.

Solution

Problem: The online-only design excludes people on the wrong side of the digital divide; the service is available in theory but not in practice.

Remedies: (1) set up community information centres / ward-level help desks with trained operators; (2) provide mobile and offline-capable options; (3) offer services in the local language; (4) run digital literacy programmes; (5) keep an assisted manual channel until coverage improves.

1.4 Evolution of E-Governance, its Scope and Content

Evolution

Period	Development
1960s–70s	Mainframe computers used for census, defence, payroll and accounting in government.
1980s	Spread of personal computers; departmental automation; networks such as NICNET (India).
1990s	Internet and the World Wide Web; first government websites; the “e-government” idea emerges.
2000s	Online transactions, portals, e-procurement, national e-government master plans, single-window services.
2010s	Mobile governance (m-governance), cloud, social media, open data, national ID systems.
2020s	Integrated digital platforms, mobile apps, AI/analytics, digital identity, emphasis on citizen-centric “smart” governance.

Scope and Content

The scope of E-Governance covers the whole range of government activity. It includes **e-administration** (improving internal processes), **e-services** (delivering services to citizens and business), **e-participation / e-democracy** (consultation, voting, feedback) and **e-society** (partnerships between government, private sector and civil society). Its content includes information, forms, databases, transactions, payments and communication channels.

Note: Exam tip: remember the three stages of the e-governance view — automation of internal work, citizen-facing service delivery, and participation/transformation.

1.5 Present Global Trends of Growth in E-Governance

- **Mobile first** — most citizens connect by phone; m-governance and government apps (SMS alerts, wallets) are expanding.
- **Digital identity** — national ID and e-KYC underpin online services (e.g. Estonia's e-ID, India's Aadhaar).
- **Cloud and shared platforms** — governments adopt cloud and government data centres to save cost.
- **Open data and transparency** — publication of datasets for public use and accountability.
- **Artificial intelligence and analytics** — chatbots, predictive planning, fraud detection.
- **Social media engagement** — governments use social platforms for feedback and communication.
- **Cyber security and data protection** — rising investment and new privacy laws.
- **Whole-of-government / one-stop services** — integrated portals instead of department-wise sites.
- **Digital inclusion** — focus on bridging the divide and on accessibility.

The United Nations E-Government Survey ranks countries using the **E-Government Development Index (EGDI)**, which combines the Online Service Index, Telecommunication Infrastructure Index and Human Capital Index. Leaders have typically included Denmark, South Korea, Estonia, Singapore and others.

1.6 E-Governance Applications

Domain	Typical applications
Citizen services	Birth/death/marriage registration, certificates, e-passport, driving licence, utility bills, grievance redressal.
Taxation and finance	Online tax filing, customs clearance, treasury and budget systems, e-payments.

Domain	Typical applications
Procurement	e-Tendering and e-bidding; public contract monitoring.
Land and property	Land records, mutation, property registration, cadastral maps.
Health	Hospital information systems, tele-medicine, vaccination records.
Education	Result publication, online admission, e-learning, scholarship portals.
Agriculture	Market price information, weather advisories, subsidy delivery.
Judiciary and police	Case-management, e-courts, online FIR, crime and criminal tracking.
Democracy	Voter lists, e-voting, online petitions, consultation portals.

1.7 E-Governance Initiatives in Nepal

Nepal began its ICT journey in the early 1970s with the National Computer Centre (set up in 1974) and has since developed policy, legal and infrastructure foundations. Important milestones are summarised below.

Initiative / Document	Brief description
IT Policy 2000 (2057 BS)	First major IT policy; set the vision “to place Nepal on the global map of IT”.
Electronic Transactions Act 2063 (2008)	Legal recognition of electronic records, digital signatures and cyber offences.
National ICT Policy 2015	Updated ICT policy emphasising e-government and digital inclusion.
e-Government Master Plan (2006)	Roadmap prepared for e-government implementation in Nepal.
Digital Nepal Framework (2019)	Strategic framework covering sectors such as digital foundation, agriculture, health, education, energy, finance, tourism and urban infrastructure.
Government Integrated Data Centre (GIDC)	Central data centre hosting government applications and data.
Department of Information Technology	Government body (established 2018) for ICT implementation, including the Nagarik App.
Hello Sarkar / grievance system	Citizen complaint handling through the Prime Minister’s office.
e-Procurement (Bolpatra)	Public Procurement Monitoring Office’s online bidding system.
Online services	Company registration, tax filing, customs (ASYCUDA), transport/driving licence, e-passport, National ID.
Nagarik App	Mobile app giving access to government services and digital documents (see Unit 5).

- **Challenges in Nepal:** limited rural connectivity, digital literacy gap, weak coordination between agencies, cyber security capacity, sustainability of projects, and the need for interoperable systems across federal, provincial and local governments.

Example 1.2 — Short answer question

Differentiate between G2C and G2B with one Nepali example for each.

Solution

G2C is the interaction between government and individual citizens, e.g. applying for services through the Nagarik App or the online driving-licence system. **G2B** is the interaction between government and businesses, e.g. online company registration or e-procurement (Bolpatra), and customs declarations.

Key Takeaways — Unit 1

- ✓ E-Governance = use of ICT to improve governance, service delivery, transparency and participation; it is broader than e-government.
- ✓ Main interaction types: G2C, G2B, G2G, G2E.
- ✓ Key issues: infrastructure, security, legal gaps, skills, cost, resistance to change, sustainability, and the digital divide.
- ✓ Evolution moved from mainframes to the web, mobile, cloud and AI-supported integrated services.
- ✓ Nepal's progress is shaped by IT Policy 2000, ETA 2063, e-GMP 2006, ICT Policy 2015, Digital Nepal Framework and the Nagarik App.

— End of Unit 1 —

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