Workshop Day-2

e-Governance

Initiatives & Practices

Speaker

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In a Nutshell

Governance	Government	e-Governance
Establishes rules that control decision-making.	Refers to the range of government activity	Uses ICTs to transform the structure and functions of government.

Types of e-Governance?

- **G2G** (Government to Government)
- **G2C** (Government to Citizen)
- **G2B** (Government to Business)
- **G2E** (Government to Employees)

E-Governance Framework and Architecture

E-Governance Framework defines **how technology, processes, applications, and data** should work together to deliver government services.

Technical Architecture

ICT Infrastructure (Networks, Data Centres, Cloud):
The essential digital backbone that provides connectivity, storage, and computing power for delivering e-governance services.

National Knowledge Network (NKN):
A high-speed nationwide network connecting universities, research institutions, and government organizations for knowledge sharing.

State Data Centres (SDC):
Centralized facilities in each state that store, manage, and secure government data and applications.

Common Service Centres (CSCs):
Physical digital access points in rural and remote areas that deliver government services directly to citizens.

Application Architecture

- Standardized software across departments
- Modular and reusable software
- APIs for integration
- Service delivery layers such as G2C, G2B, G2G, etc.

Data Architecture

Centralized/Distributed Databases:
Databases that either store all government data in one central location or distribute it across multiple connected locations.

Data Standards (Metadata, Formats):
Uniform rules that define how data is labeled, structured, and stored to ensure consistency and interoperability.

Data Sharing Policies:
Guidelines that control how government departments exchange data safely, legally, and efficiently.

Cybersecurity & Privacy:
Measures that protect government data from unauthorized access while ensuring citizens' personal information remains confidential.

Security Architecture

Role-based Access:
Allowing system access based on a user's job role and responsibilities.

Encryption:
Converting data into a secure coded form to prevent unauthorized access.

Authentication (e.g., Aadhaar-based):
Verifying a user's identity using trusted methods like Aadhaar verification.

Cybersecurity Norms:
Standard rules and practices that ensure protection against digital threats and cyberattacks.

Governance Architecture

Administrative Roles:
Clearly defined responsibilities for government authorities to manage and operate e-governance systems.

Legal Frameworks:
Laws and regulations that guide how digital governance services must be used and managed.

Policies and Standards (e.g., NeGP, Digital India):
Government guidelines that ensure uniform, efficient, and scalable implementation of e-governance across the country.

Architecture Modes in E-Governance

Centralized Architecture

Here, all data and applications are stored in a single central system.

Advantages

- Easy to control
- Uniform standards
- Simple maintenance
- Strong security

Disadvantages

- If the central system fails → entire service stops
- Heavy load on single server

Examples

- Aadhaar database (UIDAI)
- Income Tax Central Processing System

Decentralized Architecture

Here, each department or region has its own system and database.

Advantages

- Local autonomy: The freedom given to local government bodies or departments to make their own decisions and manage their own systems independently.
- If one system fails, others work
- Faster performance in local areas

Disadvantages

- Integration becomes difficult
- Data duplication
- Higher cost

Examples

- District-level land record systems
- Municipal corporation systems functioning separately

Integrated Model

All systems work together in a single coordinated platform.
Data exchange happens smoothly across departments.

Advantages

- One-time data entry
- Smooth services
- High transparency
- User-friendly for citizens

Examples

- DigiLocker
- UMANG App
- e-Office

Federated Model

Similar to integration but each department keeps control of its own data.
Data is shared only when required through standardized APIs.

Advantages

- Departmental independence
- Secure data sharing
- Scalable
- Ensures privacy

Examples

- API Setu
- National Health Stack (Health ID, e-Hospital, etc.)

SMART Governance

- **SMART Governance means using technology in a Smart, Modern, Accountable, Responsive, and Transparent way to give better services to people.**
- It makes government work faster, easier, and more honest.

SMART – Full Form in Governance

S – Simple & Seamless
Government work becomes easy and smooth for common people.
Example:
UMANG App – One app for many government services like PAN, Aadhaar, PF, Digilocker.

M – Moral & Mobile-Based
Work is done honestly with rules, and services come on mobile phones.
Example:
Digital Payments (UPI/BHIM) – Transparent, cashless, corruption-free transactions.

SMART – Full Form in Governance

A – Accountable & Automated
Government officers and departments are responsible for their work; many tasks become automatic.
Example:
RTI Online Portal – Citizens can easily check the status of information requests.

R – Responsive
Government responds quickly to people's needs.
Example:
CPGRAMS – Online system to quickly solve public complaints.

SMART – Full Form in Governance

T – Transparent & Time-Saving

People can clearly see how work is happening; less waiting time.

Example:

DigiLocker – Documents are stored online; no need to carry physical papers.

Public–Private Partnership (PPP) in E-Governance

Public–Private Partnership (PPP) in e-governance means that the **government joins hands with private companies** to design, build, operate, and maintain digital services for citizens.

The government provides the **vision, authority, and policies**, while the private sector provides **technology, expertise, innovation, and efficiency**.

Why PPP Is Needed in E-Governance

•Government alone cannot handle large and complex IT projects easily.

•Private companies bring **latest technology**, faster implementation, and skilled manpower.

•Government ensures **public welfare, transparency, and legal compliance**.

•Together, they improve service delivery and reduce costs.

Key Features of PPP in E-Governance

- **Shared Responsibilities:** Government + private company share roles and risks.

- **Better Technology:** Private companies use modern tools, software, and infrastructure.

- **Efficient Service Delivery:** Faster and more convenient services for citizens.

- **Long-term Sustainability:** Private companies maintain and upgrade systems.

- **Innovation and Quality:** Higher-quality digital platforms and continuous improvements

Common PPP Models in Digital Governance

1. BOT (Build–Operate–Transfer)

Private company builds the system, runs it for a period, then hands it over to the government.

2. BOO (Build–Own–Operate)

Private company builds, owns, and operates the system permanently.

3. BOOT (Build–Own–Operate–Transfer)

Company builds, owns, operates for some years, and then transfers ownership to the government.

4. BLT (Build–Lease–Transfer)

Private company builds the system, leases it to government, then transfers ownership after a period.

Benefits of PPP in E-Governance

1. Faster Implementation

Private companies can implement projects quickly due to higher expertise and resources.

2. Reduced Burden on Government

Investment, manpower, and maintenance are partly handled by private partners.

3. Better Service Quality

High uptime, user-friendly design, professional management, and technical support.

4. Innovation and Modernization

Private sector brings new technologies like AI, cloud computing, analytics, cybersecurity, etc.

5. Wider Reach to Citizens

Through CSCs, e-Seva centres, and digital platforms, services reach even remote villages.

Examples

1. Passport Seva Kendra (TCS + MEA)

TCS manages the IT system; MEA manages verification and approval.

2. CSC (Common Service Centres)

Run by private VLEs under government guidelines to deliver services in rural areas.

3. FASTag System

NHAI works with banks and private tech firms to implement cashless tolling.

4. Aadhaar Enrolment Agencies

Private agencies perform enrolment and biometric collection under UIDAI rules.

5. GSTN (earlier PPP)

GST Network was initially a private-government partnership to manage taxation data.

e-Governance Initiatives

Aadhaar Update – G2C: An e-governance service that lets citizens update or correct their Aadhaar details online.

GST Portal – G2B: A digital platform that helps businesses file GST returns and manage tax compliance electronically.

Passport Seva – G2C: An online system where citizens apply for passports, book appointments, and track application status.

Income Tax e-Filing – G2C / G2B: A digital portal for individuals and businesses to file income tax returns and view tax records.

e-Governance Initiatives

Teacher HRMS Portal – G2E: An employee-management portal where teachers access salary slips, leave, and service details online.

e-Court Case Status – G2C/G2G: A judiciary e-service that allows citizens to check case status, orders, and hearing dates online.

DigiLocker – G2C: A secure digital locker that provides citizens access to verified government documents anytime.

e-Governance Initiatives

RTI Online Portal – G2C: An e-governance platform enabling citizens to file RTI applications and receive information digitally.

e-Tendering System – G2B: An online procurement system where businesses submit tenders and compete for government contracts.

UPI/BHIM Digital Payments – G2C: A government-supported digital payment system enabling fast and cashless transactions for citizens.

Thanks!